

1 JAMES F. KING, SBN 41219  
STEPHEN F. JOHNSON, SBN 205244  
2 MICHAELYN P. WIPF, SBN 300428  
ZACHARY STEPHENS, SBN 274371  
3 MANNON, KING, JOHNSON & WIPF, LLP  
200 North School Street, Suite 304  
4 Post Office Box 419  
Ukiah, California 95482  
5 Telephone: (707) 468-9151  
Facsimile: (707) 468-0284  
6

By:  
Taylor Ramirez  
Deputy Clerk



7 Attorneys for Defendant John Meyer  
8

9 **SUPERIOR COURT OF THE STATE OF CALIFORNIA,**  
10 **COUNTY OF MENDOCINO**

11 MENDOCINO RAILWAY,  
12 Plaintiff,

13 vs.

14 JOHN MEYER; REDWOOD EMPIRE  
TITLE COMPANY OF MENDOCINO  
15 COUNTY; SHEPPARD INVESTMENTS;  
MARYELLEN SHEPPARD;  
16 MENDOCINO COUNTY TREASURER-  
TAX COLLECTOR; all other persons  
17 unknown claiming an interest in the  
property; and DOES 1 through 100,  
18 inclusive

19 Defendants.  
20

Case No.: SCUK-CVED-20-74939

DEFENDANT JOHN MEYER'S TRIAL  
EXHIBITS WITH ATTACHMENTS

21 I, Stephen F. Johnson, am the attorney for Defendant John Meyer. I herein submit trial  
22 exhibits with attachments as requested by the court.

23 1. Attached as Exhibit 1 is a letter from attorney William A. Mullins that is dated May  
24 31, 2022, and it is addressed to Cynthia T. Brown of the Surface and Transportation Board.


25 2. Attached as Exhibit 2 is a document filed on September 15, 2022, with the Surface  
26 Transportation Board by the North Coast Railroad Authority in the Abandonment Exemption  
27 In Mendocino, Trinity and Humboldt Counties AB 1305X.

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DATED November 4, 2022.

MANNON, KING, JOHNSON & WIPF, LLP

  
\_\_\_\_\_  
Stephen F. Johnson  
Attorney for Defendant John Meyer

# **EXHIBIT 1**

# **EXHIBIT 1**

# BAKER & MILLER PLLC

ATTORNEYS and COUNSELLORS  
2401 PENNSYLVANIA AVENUE, NW  
SUITE 300  
WASHINGTON, DC 20037  
TELEPHONE: (202) 663-7820  
FACSIMILE: (202) 663-7849

William A. Mullins

Direct Dial: (202) 663-7823  
E-Mail: [wmullins@bakerandmiller.com](mailto:wmullins@bakerandmiller.com)

May 31, 2022

## VIA E-FILING

Cynthia T. Brown  
Chief of the Section of Administration  
Office of Proceedings  
Surface Transportation Board  
395 E Street, SW  
Washington DC 20423-0001

Re: North Coast Railroad Authority – Abandonment Exemption – In Mendocino, Trinity, and Humboldt Counties, Cal., AB-1305X.  
*Notice of Intent to File Offer of Financial Assistance*

Dear Ms. Brown:

Pursuant to the Board's decision served May 20, 2022, and the requirements of 49 CFR § 1152.27, I am hereby submitting this letter on behalf of the Mendocino Railway ("MR") as a formal expression of MR's intent to file an offer of financial assistance ("OFA") to purchase a segment of the rail line that is the subject of this abandonment proceeding (the "Line").<sup>1</sup> The segment of the Line that MR intends to file an OFA is from milepost 139.5 to milepost 152.5, including all appurtenances, signals, communications equipment, real property interests, all other track materials, and any other real property necessary to conduct common carrier service over the segment (the "OFA Segment"). Pursuant to 49 CFR §1152.27, this letter also includes the information necessary to demonstrate that MR is preliminary financially responsible as described in the Board's regulations.

MR is a Class III common carrier, which has been operating in California for approximately 18 years. It is a wholly owned subsidiary of Sierra Railroad Company ("SRC"). MR is interested in expanding into new markets and has a legitimate interest in the OFA

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<sup>1</sup> The Line that is subject to the abandonment is described in the abandonment proceeding as being 175.84 miles, between milepost 139.5, near Willits, and milepost 284.1, near Eureka, including appurtenant branch lines extending to milepost 267.72 near Carlotta, milepost 295.57 near Korblex, milepost 300.5 near Samoa, and milepost 301.8 near Korbel, in Mendocino, Trinity and Humboldt Counties, CA.

Segment. MR believes that there is a continued need for rail service on the OFA Segment and would operate the OFA Segment directly.

Under the rules set forth in 49 § 1152.27(c)(1)(iv)(B), in order to demonstrate its preliminary financial responsibility, MR must show that it is financially responsible in accordance with the calculated preliminary financial responsibility formulas set forth in the regulation. An offeror is financially responsible if the offeror “has or within a reasonable time will have the financial resources to fulfill its proposed contractual obligations.”

In accordance with the regulations, to show its preliminary financial responsibility, MR submits the following information:

- (1) The preliminary financial responsibility amount is \$1,133,600.00, as shown by the calculations set forth on the enclosed Exhibit A.
- (2) Exhibit A is based on a scrap steel quote enclosed as Exhibit B.
- (3) MR has the financial resources to cover the preliminary financial responsibility amount. See April 29, 2022 bank statement from JP Morgan Chase Bank as Exhibit C.
- (4) MR has cash available in excess of the preliminary financial responsibility amount to pay the purchase price as set forth in the letter of support from JP Morgan Chase Bank enclosed as Exhibit D.
- (5) The Liability Insurance of MR enclosed as Exhibit E.

Based upon the attached exhibits, MR respectfully requests that it be found to be financially able on a preliminary basis to purchase the OFA Segment of the Line. If you have any questions, please contact me by phone at (202) 663-7823, or by email at [WMullins@bakerandmiller.com](mailto:WMullins@bakerandmiller.com).

Sincerely,

/s/ William A. Mullins

William A. Mullins

cc: Parties of Record

**EXHIBIT A**

**PRELIMINARY FINANCIAL RESPONSIBILITY**

Scrap rates at \$300 per ton at Willits (See Exhibit B)

Based on this scrap price per ton times 132 short tons per track, this means a scrap value of \$39,600 per mile. This scrap value per mile times 13 miles is \$514,800. The scrap value per mile at \$39,600 plus the additional sum of \$4,000 pursuant to 49 C.F.R. Section 1152 (c)(1)(ii) is \$43,600 per mile. This amount of \$43,600 per mile doubled is \$87,200 per mile. Pursuant to 49 C.F.R. Section 1152 (c)(1)(ii), the sum of \$87,200 per mile times 13 miles makes the total preliminary financial responsibility \$1,133,600.

**EXHIBIT B**

**SCRAP STEEL PRICE QUOTE**



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**From:** Stathi Pappas <Stathi@skunktrain.com>  
**Sent:** Tuesday, May 31, 2022 10:33 AM  
**To:** Robert Jason Pinoli <RJP@skunktrain.com>  
**Subject:** Fwd: rail price schnitzer steel

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**From:** Dyllon Louis <dlouis@schl.com>  
**Sent:** Tuesday, May 31, 2022 10:31:17 AM  
**To:** Stathi Pappas <Stathi@skunktrain.com>  
**Subject:**

Good morning this is Dyllon Louis from Schnitzer Steel, we have spoken earlier on the phone about a quote for your rail scrap. As discussed earlier this quote is only active for the near future and price can change at moment notice. As of today, the market for rail is at 305 a NT. Please if you have any questions do not hesitate to contact me.

**EXHIBIT C**

**MENDOCINO RAILWAY BANK STATEMENT**



JPMorgan Chase Bank, N.A.  
 P O Box 182051  
 Columbus, OH 43218 - 2051

April 01, 2022 through April 29, 2022

Account Number: [REDACTED]

**CUSTOMER SERVICE INFORMATION**

If you have any questions about your statement, please contact your Customer Service Professional.

00001544 DDA 703 212 12022 NNNNNNNNNNN 1 000000000 61 0000

SIERRA RAILROAD COMPANY  
 1222 RESEARCH PARK DRIVE  
 DAVIS CA 95618



**SAVINGS SUMMARY**

Premium Commercial Money Market

	INSTANCES	AMOUNT
Beginning Balance		\$12,347,155.54
Deposits and Additions	1	98.39
Electronic Withdrawals	1	- 500,000.00
Ending Balance	2	\$11,847,253.93
Interest Paid This Period		\$98.39
Interest Paid Year-to-Date		\$432.70

**TRANSACTION DETAIL**

DATE	DESCRIPTION	AMOUNT	BALANCE
	Beginning Balance		\$12,347,155.54
04/19	Online Transfer To [REDACTED] Transaction#:	- 500,000.00	11,847,155.54
04/29	Interest Payment	98.39	11,847,253.93
	Ending Balance		\$11,847,253.93

**INTEREST RATE ON COLLECTED BALANCE**

INTEREST RATE(S) 04/01 TO 04/30 AT 0.01%

**EXHIBIT D**

**JP MORGAN CHASE BANK LETTER OF SUPPORT**



May 31, 2022

Surface Transportation Board  
395 E St SW  
Washington, DC 20423  
CC: Parties of Record

Re: Bank Confirmation Letter: Sierra Railroad /Mendocino Railway ("Company") Current Intent to File OFA

To whom it may concern:

This letter is being delivered on behalf of the Company to provide information on its banking relationship with JPMorgan Chase Bank, N.A. (the "Bank"), for use in connection with your request. We can hereby confirm that the Company has cash well in excess of the calculated preliminary financial responsibility of \$1.2 million in the above referenced proceeding.

Please be advised that the Bank shall have no duty or obligation to inform the addressee hereof of any future changes. This letter is solely for the benefit of the addressee hereof for the referenced purpose and may not be relied on by any other person or for any other purpose.

Sincerely,

A handwritten signature in black ink that reads "Zachary Erickson". The signature is written in a cursive, flowing style.

Zachary Erickson  
Vice President  
JPMorgan Chase Bank, N.A.

The information in this letter is provided as an accommodation to the inquirer. This letter and any information provided in connection therewith are furnished on the condition that they are strictly confidential, that no liability or responsibility whatsoever in connection therewith shall attach to the Bank or any of its officers, employees, or agents, that this letter makes no representations regarding the general condition of the companies named herein, their management, or their future ability to meet their obligations, and that information provided in this letter or in connection therewith is subject to change without notice.

© 2017 JPMorgan Chase & Co. All rights reserved. Chase, J.P. Morgan and JPMorgan Chase are marketing names for certain businesses of JPMorgan Chase & Co. and its subsidiaries worldwide (collectively, "JPMC"). Products and services may be provided by commercial bank affiliates, securities affiliates or other JPMC affiliates or entities. 11851

**EXHIBIT E**  
**PROOF OF INSURANCE**

# LIBERTY SURPLUS INSURANCE CORPORATION

(A New Hampshire Stock Insurance Company, hereinafter the "Company")  
175 Berkeley Street, Boston, MA 02116  
Toll-Free number: 1-800-677-9163

**THIS IS A CLAIMS MADE AND REPORTED POLICY. THIS POLICY IS LIMITED TO THOSE CLAIMS WHICH ARE MADE AND REPORTED TO US IN WRITING IN ACCOURDANCE WITH THE POLICY PROVISIONS.**

The Insurer is a surplus lines insurer, is not licensed by the State and is subject to limited regulation. In the event of insolvency of the Insurer, the insurance is not covered by the State's guaranty fund. This policy may be subject to surplus lines taxes, stamping fees, surcharges, and certain surplus lines reporting requirements mandated by state regulations. The Surplus Lines Broker is responsible for the disclosure of all related taxes, surcharges, and fees. The Surplus Lines Broker is also responsible for the applicable surplus lines reporting requirements including but not limited to the submission of diligent search forms.

Policy Number:	Broker Name and Address	Renewal of	1st Yr. Liab. Pol.
TRHV290955-10	United Shortline Insurance Services 8265 N. Van Dyke Rd Port Austin, MI 48467	TRHV290955-9	2012

**Item 1. Named Insured:** Sierra Railroad Co & Mendocino Railway

**Mailing Address:** 1222 Research Park Drive  
Davis, California 95618

**Named Insured Classified as:**

Individual       Partnership       LLC       An organization other than a Partnership, Joint Venture or LLC

**Item 2. Effective Date:** 8/31/ 2021

**Expiration Date:** 8/31/2022

**Retroactive Date:** 5/1/1991

12:01 A.M., standard time at the address of the Named Insured as stated herein

**Item 3.** In return for the payment of the premium, and subject to all the terms of this policy, we agree with you to provide the insurance as stated in this policy.

## LIMITS OF INSURANCE

**Each Occurrence Limit:** \$5,000,000  
**Policy Aggregate Limit:** \$10,000,000  
**Medical Expense Limit – Any One Person:** \$5,000

**Item 4. Deductible**

\$10,000 Each occurrence.

**Item 5. Premium**

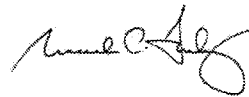
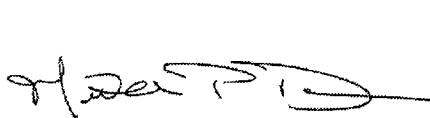
Classifications or Locations	Premium Basis Ticket Sales	Rate	Certified TRIA Premium	Premium
Tourist/Excursion Railroad	\$5,500,000	Flat Rated	Excluded	\$196,550

**MINIMUM PREMIUM \$196,550****DEPOSIT PREMIUM \$196,550**

This policy is issued by a surplus lines insurer. In the event of insolvency of the insurer, this insurance is not Covered by the Guaranty Fund or Guarantee Association.

In consideration of the payment of premium and in reliance upon statements made in the application, this policy including all endorsements issued herewith shall constitute the contract between the Company and the Named Insured. This policy is valid only if signed below by a duly authorized representative of the company.

This policy, including all endorsements issued herewith, is hereby countersigned by:



PRESIDENT VICE PRESIDENT and SECRETARY Matthew P.  
Dolan Mark C. Touhey

September 9, 2021

\_\_\_\_\_  
**Date**



# BAKER & MILLER PLLC

ATTORNEYS and COUNSELLORS  
2401 PENNSYLVANIA AVENUE, NW  
SUITE 300  
WASHINGTON, DC 20037  
TELEPHONE: (202) 663-7820  
FACSIMILE: (202) 663-7849

William A. Mullins

Direct Dial: (202) 663-7823  
E-Mail: [wmullins@bakerandmiller.com](mailto:wmullins@bakerandmiller.com)

May 31, 2022

Mr. Charles H. Montange, Esq.  
426 NW 162ND Street  
Seattle, WA 98177

Re: North Coast Railroad Authority – Abandonment Exemption – In Mendocino, Trinity, and Humboldt Counties, Cal., AB-1305X.  
*Request for Information for OFA*

Dear Charles:

Please be advised that Mendocino Railway (“MR”) is considering making an offer of financial assistance (“OFA”) to acquire a segment of the line described in the above referenced proceeding.

Pursuant to 49 § 1152.27(a), NCRA is promptly requested to provide the undersigned with the following information:

- (1) Minimum purchase price.
- (2) Most recent reports on the physical condition of the involved line.
- (3) A description of any rail, crossings or crossing structures that have been removed, and any estimates of the cost of rebuilding or reinstalling such rail or structure(s).
- (4) Traffic, revenue, and other data, including estimate of the net liquidation value of its interest in the line and supporting data reflecting available real estate appraisals, assessments as to the quality and quantity of track materials in the line, and removal cost estimates (including the cost of transporting removed materials to point of sale or point of storage for relay use). Such data should also include a description of the nature of the title to the real estate involved, including disclosure of all revisionary interests.
- (5) Copies of any and all environmental audits of the real estate involved, and a description of (a) all sites under investigation by, or being remediated under the supervision of the U.S. Environmental Protection Agency or the California Department of Environmental

Quality, (b) all known potential environmental liabilities arising out of conditions on the property, (c) all releases of hazardous materials on or about the property, and (d) a history of all customers and industrial users along the line.

- (6) Offeror and its advisors may wish to inspect the line and property. Please let us know who we should contact to arrange for access to the property.

MR appreciates your prompt attention. If you have any questions, please contact me by phone at (202) 663-7823, or by email at [WMullins@bakerandmiller.com](mailto:WMullins@bakerandmiller.com).

Sincerely,

*/s/ William A. Mullins*

William A. Mullins

cc: Parties of Record

# **EXHIBIT 2**

# **EXHIBIT 2**

BEFORE THE SURFACE TRANSPORTATION BOARD

North Coast Railroad Authority – )  
Abandonment Exemption – ) AB 1305X  
In Mendocino, Trinity and Humboldt Counties, CA )

Great Redwood Trail Agency’s  
Certification of Filing and Service  
of Information Required Pursuant to 49 C.F.R. 1152.27(a)

Mendocino Railway (“MR”) filed a “notice of intent to file an offer of financial assistance” for Milepost (M.P.) 139.5 (Commercial Street in Willits) to M.P. 152.5 a location in “Longvale”<sup>1</sup> in the above-captioned two-year out-of-service abandonment proceeding, and requested the Surface Transportation Board to stay the due date for MR’s projected “offer of financial assistance” (“OFA”) until thirty (30) days after Great Redwood Trail Agency (“GRTA”), formerly named North Coast Railroad Authority (“NCRA”), certifies service of information specified in 49 C.F.R. 1152.27(a) upon MR. The Board so ordered. Decision in AB 1305X, served June 24, 2022. GRTA duly retained consultants to compile the section 1152.27(a) information for the small segment of the much larger line at issue in

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<sup>1</sup> Longvale is an unincorporated community along Outlet Creek (a tributary of the Eel River) in Mendocino County which no longer exists. Its post office closed in 1958 and there are no dwellings or structures on the site.

this proceeding. The line has been out of service for a quarter century, without shippers or maintenance, and information required for OFA purposes has necessarily been time-consuming and costly to assemble.

GRTA herewith provides the information specified in section 1152.27(a) and attests that a copy was supplied to MR on or before September 15 per the certificate of service. MR's "OFA," should MR elect to file one, is therefore due in thirty days from September 15.

#### I. Overview of Financial Issues

Background. The Surface Transportation Board ("STB" or "Board") found that MR has demonstrated "preliminary financial responsibility" for purposes of acceptance of MR's "notice of intent to file an OFA." Applying STB's minimal formula applicable for such notices of intent, MR calculated that the purchase price of MP 152.5 to MP 139.5 would be \$ 1,133,600 (Letter, Mr. Mullins for MR to Ms. Brown for STB, filed May 31, 2022 in AB 1305X, at p. 2), and supplied an April 29, 2022 Chase Bank statement representing that Sierra Railroad Company had a balance of \$ 11,847,253.93 (id. Exhibit C).

Actual financial responsibility. Notwithstanding the Board's acceptance of MR's preliminary financial responsibility, in the event MR makes an OFA, it must show actual financial responsibility to provide freight rail service. In order to meet that burden, MR must show, among other things, financial responsibility to

acquire and to operate the line in question as a railroad for at least two years. E.g., UP – Ab. Exemption – in Rio Grande, et al Counties, CO, AB 33 (Sub-no. 132X), served May 24, 2000, slip at 4 (financial responsibility includes two years of operation and maintenance, citing 49 USC 10904(f)(4)). Because the railroad line in question (MP 152.5 at Longvale to MP 139.5 at Willits) needs substantial and costly rehabilitation in order to be operational as a railroad, MR’s showing of financial responsibility must encompass not only acquisition costs but also rehabilitation costs and initial operational and maintenance costs post rehabilitation for two years.

As shown in the attached section 1152.27(a) information, actual financial responsibility will require MR to demonstrate that it has available funds to cover acquisition, rehabilitation and maintenance/operations in the amount of at least \$39,041,313 relating to MP 152.5 to MP 139.5 alone, but because a larger system is almost certainly posited by MR, a sum more likely totaling \$70,341,313. Either the \$39 million figure or the \$70 million figure is more than an order of magnitude greater than the “preliminary financial responsibility” constructed by MR, and dramatically exceeds Sierra Railroad’s bank balance as put in evidence by MR before this Board.

The relevance of Willits to Fort Bragg. Because operation of MP 152.5 to MP 139.5 as a stand-alone freight operation makes no economic sense, GRTA

anticipates that MR – if it makes an OFA – will assert that it intends to convert its tourist excursion line between Willits and Fort Bragg into a bona fide freight rail operation. This renders MR’s financial responsibility problem much worse.

MR’s tourist excursion operation from Willits to Fort Bragg is NOT a through service. MR sustained a tunnel collapse in 2015 which severed the tourist excursion line about three miles outside Fort Bragg. MR currently operates a tourist excursion train (1) from Willits to Crowley (about four miles due east of Willits), and (2) from Fort Bragg to the collapsed tunnel. [MR also operates electric rail bike excursions from (a) Fort Bragg to the collapsed tunnel and (b) from the east side of the collapsed tunnel as far as Camp Noyo (an RV and drive-in campground on the Noyo River).]

Combined system financial responsibility. If MR bases its case on through freight service from MP 152.5 through Willits to Fort Bragg, then it must show the financial responsibility to rehabilitate the Fort Bragg to Willits line in addition to the MP 152.5 to 139.5 segment. MR’s most recent estimate (2022) for rehabilitation of Fort Bragg to Willits is \$31,300,000.<sup>2</sup> The overall financial responsibility which MR must show, if it depends on any freight to or from Fort Bragg, is thus in excess of \$70 million dollars.

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<sup>2</sup> See attachment A (table summarizing MR’s four most recent subsidy requests for rehabilitation/repair for its line from Fort Bragg to Willits).

Tourism/excursion train use does not justify eminent domain. Although the line from Longvale to Willits passes through some lovely terrain for tourism, OFA's are supposed to be for continued freight rail operations, not for tourist excursion operations or railbikes.<sup>3</sup> Although MR frequently intimates otherwise, it has never operated the Willits to Fort Bragg line for freight.<sup>4</sup> When MR sought to acquire the assets of the bankrupt California Western in 2004, it stressed to this Board that it sought prompt action in order to secure tourist revenues.<sup>5</sup> Consistent therewith, MR represented to the Railroad Retirement Board (RRB) that it had no freight traffic and was a purely tourist excursion operation, and therefore was entitled to an exemption from rail labor retirement taxation. RRB granted MR an exemption on the basis of its representations.<sup>6</sup> In short, by MR's own admission to RRB, it is

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<sup>3</sup> S.R. Investors, Ltd. d/b/a Sierra Railroad Company – Abandonment in Tuolumne County, CA, AB 239X (ICC, served Jan. 26, 1998); Atchison, T & SF Rwy – Ab. Exemption – in Atchison County, Ks, AB 52 (Sub-no. 79X) (1995 ICC Lexis 76, April 6, 1995).

<sup>4</sup> MR is understood to be a subsidiary of Sierra Railroad Company, believed to be a non-carrier holding company. Another Sierra Railroad Company subsidiary d/b/a Sierra Northern Railway may apparently provide freight rail services, but not in Mendocino County (although it professes to do so on its website).

<sup>5</sup> MR explained that reopening by May 1, 2004, was essential because that was the beginning of tourist season and California Western “relied almost exclusively on tourism to support its continued operation.” MR Verified Notice in Finance Docket 34465, filed March 12, 2004.

<sup>6</sup> Attachment A (Sept. 28, 2006 RRB determination 06-42 at p. 2 &4: “Mendocino’s ability to perform common carrier service is ... limited to the movement of goods between points on its own line, a service it does not perform. ... Since Mendocino reportedly does not and cannot now operate in interstate commerce, the Board finds that it is not currently an employer under [the Railroad



not an actual freight railroad. If it were an actual freight railroad, then it has made a misrepresentation to the federal government on the basis of which it is avoiding taxes. In any event, MR cannot currently provide freight rail services. MR's Tunnel One (approximately three miles east of Fort Bragg) collapsed on or about April 11, 2013, sending MR into crisis (at the time, MR had no equipment stationed in Fort Bragg). MR's efforts to obtain donations to fix the tunnel were unsuccessful until a non-profit environmental entity (Save the Redwood League) agreed to fund repairs in return for a conservation easement over MR's line. After that repair, MR managed to position some tourist equipment in Fort Bragg, but the 2015-16 El Nino resulted in another collapse of Tunnel One in 2015, and that failure has not been repaired to date. Another non-profit environmental entity (Trout Unlimited) has organized grants to improve certain culverts on the MR trackage in order to encourage passage of salmon and to decrease siltation in the Noyo River watershed. Consistent with its tourist excursion use of the line, MR has publicized plans to develop additional tourist facilities/attractions (trails, luxury camping, movies, musical events) while saving fish along its line.<sup>7</sup>

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Retirement Act and the Railroad Unemployment Insurance Act]”). If MR is seriously claiming it provides common carrier operations at any time since it acquired the assets of California Western in 2004, then it will presumably owe substantial back taxes. See RRB 06-42 at p. 4 (final sentence).

<sup>7</sup> See, e.g., “The Little Stinker.” Fall 2021, Vol. 1, issue 1 [tabloid style newspaper of Skunk Train”] (discusses tourist plans and saving fish). Transport of ballast or track and bridge materials for maintenance activities on a line is a work

MR has also sought to use eminent domain associated with its (tourist) railroad status and its STB license to add to its tourism and recreation holdings. MR, claiming to be a public utility railroad with eminent domain power, threatened eminent domain procedures against Georgia Pacific (owner of the lumber mill in Fort Bragg that closed in 2001), ostensibly to compel Georgia Pacific to sell its former mill site in Fort Bragg to MR rather than to the City of Fort Bragg. MR promptly indicated that it intended to create a several hundred-acre development encompassing an ocean front hotel, vacation condominiums, and apparently some sort of railroad- themed ocean front park.<sup>8</sup> It has recently claimed in state and federal courts that the City of Fort Bragg and the California Coastal Commission cannot impose local and state regulation of land use in connection with MR's proposed hotel, condo and tourist development (or with its tourist excursion rail ideas) in the City of Fort Bragg and along the California Coast because MR says it is immune from land use regulation as a public utility railroad at state law, and because of its status as an STB-licensee at federal law.<sup>9</sup>

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train activity, not a freight train activity. Tourist operations are not transformed into freight via occasional work train use of tracks to repair culverts for fish.

<sup>8</sup> See, e.g., id.

<sup>9</sup> E.g., City of Fort Bragg v. Mendocino Railway, Superior Court of California, County of Mendocino, Ten Mile Branch, Case 21 CV 00850 (MR seeks wholesale preemption of local land use regulation under state and federal law), Ruling on Motion to Strike, filed 4/28/2022 (demurrer denied); Mendocino Railway v. Ainsworth and City of Fort Bragg, USDC for ND Cal, case 1:22-cv-04597, filed 8/9/22, seeking wholesale preemption of state and local land use regulation of land

Perhaps fueled by its successful threat of eminent domain in Fort Bragg, MR recently initiated eminent domain proceedings to secure a tourist site along highway 20 at Willits (it evidently belatedly added a freight transload as an additional reason for the proceeding in order to combat claims it was using eminent domain purely for tourism).<sup>10</sup> It is hard to understand how a transload at Willits on highway 20 makes any economic sense if MR intends to pursue an OFA from Willits (where it would acquire the Willits Yard roughly a mile away from its proposed highway 20 facility) all the way to Longvale at MP 152.5, where yet another transload would presumably be necessary if MR intends to maintain the pretense of actual freight rail service. A fact-based and consistent explanation for why a tourist operation now finds it necessary to rely on state and federal eminent domain remedies to acquire three transload sites (and a line between two of them) over a distance of roughly 15 miles for currently non-existent freight operations on currently dilapidated lines which have no functioning connection to the interstate

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acquired by Mendocino Railway for tourist development on ground it is inexplicably rail related.

<sup>10</sup> Mendocino Railway v. Meyer, et al., Superior Court of the State of California for the County of Mendocino, SCUK-CVED-2020-74939 (see Mendocino Railway trial brief served Aug 19, 2022, at 4 showing new tourist terminal and park area with transload tacked on). Michael Hart, apparent owner of MR, is on record recommending that entrepreneurs buy railroads because (he felt) railroads not only could use eminent domain but also claim exemption from land use regulations, and thus acquire a kind of “monopoly power.”

<https://www.youtube.com/watch?v=t45Cskl3B2o&list=RDCMUCh0MFGNx1BT CYNMO-L4mHYQ&index=1> (at approximately 5:50).

rail network (or even to any town in California other than Willits, population 4998 at the 2020 census), has yet to be delivered by MR.

Whatever MR's pretensions in connection with its employment of California eminent domain remedies, MR in its use of the federal OFA eminent domain remedy must show actual financial responsibility not simply to acquire but also actually to operate a freight line on the OFA property for two years. It has to do more than simply maintain its two little tourist train excursion runs and its peloton of rail bikes while it indefinitely seeks government subsidies to fix its line on which those amusements occur, which it apparently lacks the ability to do on its own.

In addition, pursuant to 49 C.F.R. 1152.27(c)(2)(iii), which requires compliance with 1152.27(c)(1)(iv)(E), MR must show a continued freight rail need. This entails showings, inter alia, that there is a "demonstrable need for rail service" and that "continued service is operationally feasible." MR may not simply rely on a pretense or fiction of imaginary freight in order to foster another tourist hotel, RV campground, tourist site, condominium complex, or other real estate opportunity.

It is very hard to see how MR can show the required freight rail need. This line has had no shippers since the United States government embargoed it in 1998, only

two years after NCRA completed acquiring it. No party has approached NCRA/GRTA for relevant service. MR also confronts the inherent “problem” faced by all rail lines along or serving the northern California coast: any such line must traverse difficult mountainous terrain. To save money in construction, all these coastal lines were located by and large along, or parallel to, rivers in the coastal mountains, and such locations inherently result in repetitive erosion, mudslide, flood, and geological stability issues. This in turn leads to high annual operational and maintenance costs, including repeated and chronic needs for major rehabilitation of tunnels and roadbed. Since World War II, these lines have all faced formidable competition from the more flexible trucking industry, which enjoys vastly improved (and publicly subsidized) highways for all the commodities previously dependent on rail transport pre-World War II. As a result, Southern Pacific pulled out; Eureka Southern and California Western went bankrupt; and NCRA’s former operator Rail-Ways (owned by John Darling) went bankrupt. The costs are currently simply too great to provide rail service at a price rail consumers are prepared to pay. The problem is especially acute for short distance freight haulage, which MR is proposing.

Request for voluntary withdrawal of notice of intent to OFA. Prior to the filing of AB 1305X, MR had informed the California Transportation Commission that it did not have an interest in rail service north of Willits because the line was “in too

great of disrepair.”<sup>11</sup> Based on the information provided herewith, rail service north of Willits, even if only to Longvale at MP 152.5, makes no sense at this time, due not only to the reason cited by MR, but also to the geological conditions that confound efficient maintenance and operation of a railroad and render disrepair chronic. GRTA therefore calls on MR to reconsider its notice of intent to offer financial assistance and upon reconsideration to withdraw it. GRTA of course reserves the right to file a motion to dismiss any OFA filed by MR, should MR nonetheless persist in making one. GRTA reserves the right to respond to all showings and contentions made by MR in support of any OFA it files, and GRTA also reserves the right to supply additional evidence on relevant issues, or on MR’s claims and contentions.

## II. Information

Estimated minimum purchase price: For OFA purposes only and not as an offer to sell, GRTA assesses the minimum purchase price under STB’s methodologies to be no less than \$10,375,000. This estimate is derived in

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<sup>11</sup> Letter, Pinoli (Vice President of MR) to California Transportation Commission, Nov. 30, 2020, at p. 4 (“Mendocino Railway agrees that the portion of [NCRA’s line] north of Willits is in too great of disrepair to allow for economic railroad operation at this time and should thus be railbanked to preserve such an opportunity for all the future should it again become economic to operate over that portion of the line.”) This position was consistent with other communications to NCRA by MR until MR’s inconsistent filing of the notice of intent to file an OFA.

conformity to relevant STB methodologies, and is the combination of the appraised value for the fee-owned real estate plus the net liquidation value of the rail.

Appraisal. Attachment C (real estate value = \$6,725,000). Supporting deeds showing conveyances to GRTA/NCRA: Attachment D (SP to NCRA, 1996; Eureka Southern trustee in bankruptcy to NCRA, 1992, referencing NWP to ES, 1984; and UP to GRTA, 2022).

NLV rail. Attachment E (value less removal = 3,650,000).

Line Condition Report. Attachment F, ARE Corporation, dated Sept. 12, 2022. Note: Attachment F also includes a Geotechnical and Tunnels Assessment Report by Shannon and Wilson, dated Sept. 7, 2022.

Rehabilitation cost estimate for MP 152.5 to 139.5. Contained in Attachment F (rehabilitation to Class I status = \$22,496,781).

Rehabilitation cost estimate for Willits to Fort Bragg. Attachment B (MR estimate of \$31,300,000 supplied to the US Department of Transportation).

Maintenance and Operation cost estimate (annual basis, if rehabilitation is to FRA Class I Safety Status). Annual maintenance (assuming rehabilitation to Class I status completed) is contained in Attachment F (annual maintenance = \$366,250). Annual operating costs (assuming rehabilitation to Class I status of both Willits to Fort Bragg and Longvale to Willits) is contained in Attachment G

(ARE Corporation and subcontractor estimate of annual operating costs under four scenarios, finding a range from \$2,142.38/car to \$4,152.50/car, or \$3,616,337 per year for high volume low per car scenario to \$2,718,516 per year for low volume high per car scenario.

Minimum total financial responsibility required (minimum purchase price plus rehabilitation MP 139.5 to MP 152.5 plus maintenance for two years plus operation for two years): \$10,375,000 plus \$22,496,781 plus \$366,250 times 2, plus cheapest operating scenario \$2,718,516 times 2 = \$39,041,313.<sup>12</sup> To this must be added the rehabilitation cost for MR's Fort Bragg to Willits line, which MR apparently estimates at \$31,300,000. The grand total actual financial responsibility which Mendocino railway as a minimum must show is therefore \$70,341,313. If MR claims more traffic hauled than in Attachment G minimum scenario, the actual financial responsibility MR must show will be greater. GRTA does not believe MR can achieve any carloadings and of course reserves the right to contest any claims by MR in an OFA, if it makes one.

Verifications. See Attachment H (Caryl Hart as Chair of GRTA) and Attachment I (David Anderson as rail civil engineering expert).

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<sup>12</sup> There is no operating scenario under which this line is viable for freight. The cheapest analyzed scenario for operations purposes was selected for presentation without admission that it is likely or economically rational and possible. None is.



Mendocino Railway's status as only a tourist railroad: Attachment A (RRB determination based on evidence submitted by, and admissions of, Mendocino Railway).

Mendocino Railway thus far has produced no evidence that it has a meaningful bank balance or other available assets to cover purchase, rehabilitation, and maintenance/operation costs for MP 139.5 to MP 152.5. Assuming arguendo Sierra Railroad's bank balance (on which MR relied for its "notice of intent") is relevant, it is dwarfed by the purchase, rehabilitation and maintenance/operation costs for MP 139.5 to MP 152.5, even if MR's tunnel-challenged tourist train line from Willits to Fort Bragg is never repaired to support actual freight service.

### III. Conclusion

Mendocino Railway should revert to its prior agreement with the California Transportation Commission "that the portion of [NCRA's line] north of Willits is in too great of disrepair to allow for economic railroad operation at this time and should thus be railbanked to preserve such an opportunity for all the future should it again become economic to operate over that portion of the line." See note 11 supra. That position is the only one consistent with the relevant facts, as demonstrated in the section 1152.27(a) information furnished herewith. Mendocino should stick to its word.

Certificate of Service. I hereby certify service of the foregoing and attachments by email attachment on or before September 15, 2022 on MR and all parties of record in AB 1305X per the STB website service list as of said date.

Respectfully submitted,

*s/Charles H. Montange*

Of counsel: Elizabeth Coleman, Esq.  
Deputy County Counsel  
Office of the County Counsel  
Sonoma County  
County Administration Center  
575 Administration Drive, Room 105A  
Santa Rosa, CA 95403  
707-565-2421  
Fax --2624  
Of counsel for NCRA/GRTA

Charles H. Montange  
Law Offices of Charles H. Montange  
426 NW 162<sup>nd</sup> St.  
Seattle, WA 98177  
(206) 546-1936  
fax --3739  
Rail counsel for NCRA/GRTA

Attachments

- A – RRB tourist rail determination
- B – MR rehab cost estimates Willits to Fort Bragg
- C -- Appraisal
- D – Deeds to NCRA/GRTA
- E -- NLV Rail
- F -- Line Condition, Rehab cost estimates for Longvale to Willits, maintenance estimates Longvale to Willits, geotechnical report
- G – Operations estimate (assumes rehab to FRA Class I status)
- H – Verification of Minimum Purchase Price by Caryl Hart (Chair, GRTA)
- I – Verification of Engineering-Related Analyses by David Anderson, PE

For filing: 15 September 2022

## Attachment A

SEP 28 2006

**EMPLOYER STATUS DETERMINATION**

**Sierra Entertainment  
Mendocino Railway**

This is the determination of the Railroad Retirement Board concerning the status of Sierra Entertainment and Mendocino Railway, as employers under the Railroad Retirement Act (45 U.S.C. § 231 et seq.) and the Railroad Unemployment Insurance Act (45 U.S.C. § 351 et seq.).

Sierra Entertainment and Mendocino Railway are owned and controlled by Sierra Railroad Company, an employer under the Acts (B.A. No. 2774) and are affiliated with Midland Railroad Enterprises Corporation, also an employer under the Acts (B.A. No. 9750).<sup>1</sup>

Information regarding these companies was provided by Thomas Lawrence III, Weiner Brodsky Sidman Kider PC, outside counsel for Sierra Railroad Company. Sierra Entertainment was created and began operations on January 1, 2003. It operates dinner and brunch trains and excursion trains over the lines of its common carrier affiliates within California pursuant to an operating agreement. It also provides trains for use in movies, television, and commercials. Its excursion trains include (1) the Skunk Train which operates a round-trip excursion train from Fort Bragg to Northspur, and from Willits to Crowley (Northspur and Crowley are turning points); (2) the Sacramento RiverTrain which operates a round-trip excursion train from Woodland, California, to a turning point; and (3) the Oakdale Dinner Train which operates a round-trip dinner/excursion train from Oakdale, California, to a turning point 14 miles out. Sierra Entertainment owns its own equipment and employs its own staff, but does not own any rail lines.

Mendocino was created in 2004 to acquire the assets of the former California Western Railroad (a covered employer under the Acts; B.A. No. 2782), a 40-mile rail line in Mendocino County<sup>2</sup>. The acquisition was authorized by the Surface Transportation Board in a decision dated April 8, 2004 (Finance Docket No. 34465). Mendocino's line runs between Fort Bragg and Willits, California, and connects to another railway line over which there has been no service for approximately ten years. Structural problems and bridge problems on the line will prevent service for some time to come. Since Mendocino Railway's only access to the railroad system is over this line, that access is currently unusable.

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<sup>1</sup> Midland is a subsidiary of Sierra Railroad Company.

<sup>2</sup> CWRR, Inc., d/b/a California Western Railroad, was terminated as an employer effective September 30, 2003 (B.C.D. 04-40).

Mendocino's ability to perform common carrier service is thus limited to the movement of goods between points on its own line, a service it does not perform.

Section 1(a)(1) of the Railroad Retirement Act defines the term "employer," to include

- (i) any carrier by railroad subject to the jurisdiction of the Surface Transportation Board under Part A of subtitle IV of title 49, United States Code \* \* \*.

A virtually identical definition is found in sections 1(a) and (b) of the Railroad Unemployment Insurance Act (45 U.S.C. §§ 351(a) & (b)).

Section 10501 of Title 49 of the United States Code provides in pertinent part that the Surface Transportation Board has jurisdiction over rail carrier:

\* \* \* transportation in the United States between a place in -

- (A) a State and a place in the same or another State as part of the interstate rail network. [49 U.S.C. § 10501(a)(2)(A).]

The rail service provided by Sierra Entertainment may be characterized as a tourist or excursion railroad operated solely for recreational and amusement purposes. Since passengers are transported solely within one state, under section 10501(a)(2)(A), above, Sierra Entertainment would not be subject to Surface Transportation Board jurisdiction and would therefore also not fall within the definition of "employer" set out in section 1(a)(1)(i) of the Railroad Retirement Act. Therefore Sierra Entertainment is not a carrier by railroad.

The Railroad Retirement Act and the Railroad Unemployment Insurance Act also define the term "employer" to include:

- (ii) any company which is directly or indirectly owned or controlled by, or under common control with, one or more employers as defined in paragraph (i) of this subdivision, and which operates any equipment or facility or performs any service (except trucking service, casual service, and the casual operation of equipment or facilities) in connection with the transportation of passengers or property by railroad, or the receipt, delivery, elevation, transfer in transit, refrigeration or icing, storage, or handling of property transported by railroad \* \* \*.

A virtually identical definition is found in sections 1(a) and (b) of the Railroad Unemployment Insurance Act (45 U.S.C. § 351(a) & (b)).

Section 202.4 of the Board's regulations (20 CFR 202.4) defines "control" as follows:

A company or person is controlled by one or more carriers, whenever there exists in one or more such carriers the right or power by any means, method or circumstance, irrespective of stock ownership to direct, either directly or indirectly, the policies and business of such a company or person and in any case in which a carrier is in fact exercising direction of the policies and business of such a company or person.

Section 202.5 of the Board's regulations (20 CFR 202.5) defines "common control" as follows:

A company or person is under common control with a carrier, whenever the control (as the term is used in § 202.4) of such company or person is in the same person, persons, or company as that by which such carrier is controlled.

Sierra Entertainment is under common control with a railroad employer by reason of its being owned by Sierra Railroad, which also owns Midland Railroad Enterprises Corporation, a covered employer under the Acts. Therefore, if Sierra Entertainment provides a service in connection with the transportation of passengers or property by railroad it is an employer under the Acts. Section 202.7 of the regulations (20 CFR 202.7) defines a service as being in connection with railroad transportation if it is reasonably directly related, functionally or economically, to the performance of rail carrier obligations.

There is no evidence that Sierra Entertainment provides any service to Midland. Rather, the evidence shows that Sierra Entertainment operates solely to provide public passenger excursion tours within one state. Because Sierra Entertainment does not perform a service in connection with rail transportation, the Board finds that it is not a covered employer under the Railroad Retirement and Railroad Unemployment Insurance Acts.

Since Mendocino reportedly does not and cannot now operate in interstate commerce, the Board finds that it is not currently an employer under the Acts. If Mendocino commences operations, the Board will revisit this decision.

Original signed by:

Michael S. Schwartz

V. M. Speakman, Jr.

Jerome F. Kever

Attachment B



**Mendocino Railroad Grant Applications 2018-2022**

Grant Name	Grant Title	Funding Agency	Year of Application	Funding Request	Project Cost	Award Status	Reconstruct		Match Description
							Collapsed Tunnel	Unavailable	
FY18 BUILD GRANT	City of Fort Bragg California's BUILD 2018 Grant Application To Repair the Mendocino Railway's ("MR") Tunnel and Rehabilitate Its Track	US Department of Transportation: FY 2018 National Infrastructure Investments	2018	\$ 8,510,222	\$ 16,893,231	Denied	Replace 30,000 chromated copper arsenate railroad ties and some worn rail	\$ 7,635,000	(1) Use annual maintenance of way ("MOW") budget for 5.5 years to provide a \$3 million in cash match; (2) \$6 per passenger ticket BUILD assessment to generate a match of \$2,160,000.00; (3) in-kind contribution of \$3,233,009.00 for carrying supplies and crew to the tunnel and administrative costs associated to the Project.
FY19 BUILD GRANT; DTOS59-19-RA-BUILD	City of Fort Bragg California's BUILD 2018 Grant Application To Repair the Mendocino Railway's ("MR") Tunnel and Rehabilitate Its Track	US Department of Transportation: FY 2019 National Infrastructure Investments	2019	\$ 12,265,655	\$ 24,849,950	Denied		\$ 9,349,064	(1) use annual maintenance of way ("MOW") budget for 6 years to provide a \$3,000,000.00 in cash match; (2) \$6 per passenger ticket BUILD assessment to generate a match of \$2,160,000.00; (3) in-kind work train wages, work train fuel, and administrative wages in the amount of \$3,171,895.00; (4) \$3,140,000.00 in cash; and (4) in-kind contribution of \$1,112,400 (Work Train usage) to carry supplies and crew to Tunnel #1 and other work sites.
FY20 BUILD GRANT	City of Fort Bragg, California's 2020 BUILD Grant Application To Rebuild Mendocino Railway's ("MR") Tunnel, Rehabilitate and Improve Safety Over Its Rural Rail Line, and Reinventorize the Economy.	US Department of Transportation: FY 2020 National Infrastructure Investments	2020	\$ 9,274,307	\$ 18,779,790	Denied		\$ -	(1) use annual maintenance of way ("MOW") budget for 6 years to provide a \$3,000,000.00 in cash match; (2) \$6 per passenger ticket BUILD assessment to generate a match of \$1,800,000.00; (3) work train wages, work train fuel, and administrative wages in the amount of \$2,542,024.00; (4) \$1,250,000.00 in cash; and (4) in-kind contribution of \$913,459 (Work Train usage) to carry supplies and crew to Tunnel #1 and other work sites.
Railroad Rehabilitation & Improvement Financing (RRIF)	Mendocino Railway Project to Revitalize the California Western Railroad/Skunk	US Department of Transportation	2022	\$ 31,300,000		Pending Credit Check		Unavailable	Unavailable

Source: MLC, 2022; Listed Grant Applications, 2018, 2019, 2020, 2022

## Attachment C

# APPRAISAL REPORT

Great Redwood Trail Agency  
Mile Post 139.5 to Mile Post 152.5 along the former  
Northwestern Pacific Railroad  
Willits, California

Date of Value: September 6, 2022

Date of Report: September 14, 2022

BRI 22-147

**BRI** BENDER  
ROSENTHAL  
INCORPORATED

2825 Watt Avenue, Suite 200 Sacramento, California 95821 | [www.benderrosenthal.com](http://www.benderrosenthal.com) | 916.978.4900



September 14, 2022

Ms. Karyn Gear  
Executive Director  
Great Redwood Trail Agency  
419 Talmage Road, #M  
Ukiah, California 92522

Re: Appraisal Services for a 13-mile segment of a corridor of the former Northwestern Pacific Railroad Company Line. The 13-mile segment runs from Mile Post 139.5 to Mile Post 152.5 Willits, California

Dear Ms. Gear,

As you requested, we have appraised the above identified property. The purpose of the appraisal assignment is to provide an opinion of the market value of the corridor using the segment based approach and will be using the across the fence method (ATF) for the appraisal. The client and intended user of this appraisal report is the Great Redwood Trail Agency (GRTA). The intended use is for internal analyses in connection with Surface Transportation Board Proceedings.

This is a narrative Appraisal Report as defined by USPAP. As such, it fully presents the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. The depth of discussion contained in this report is specific to the needs of the client and of the intended use stated in this report. The following report sets forth the descriptive and factual data, the assumptions and conditions affecting the appraisal, and the findings and analyses that lead to and support our value opinion. The appraiser is not responsible for unauthorized use of this report. Every effort has been made to conform to the Standards of Professional Practice of the Appraisal Institute, which fully incorporate the Uniform Standards of Professional Appraisal Practice (USPAP). In addition, we have intended to comply with applicable laws. The undersigned conducted the appraisal and prepared the report.

We are pleased to have this opportunity to provide you with professional appraisal services.

BENDER ROSENTHAL, INC.

A handwritten signature in black ink, appearing to read 'David C. Houghton', is written over a horizontal line.

David C. Houghton, MAI  
Certified General Real Estate Appraiser  
California Certificate No. AG039402

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- Appraisers' Certifications
- Assessment Valuation Report of the NCRA Railroad
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## PROPERTY IDENTIFICATION AND SUMMARY OF SALIENT FACTS

<b>Appraisal Assignment</b>	To develop an opinion of the market value of the 13-Mile segment of a corridor of the former Northwestern Pacific Railroad.
<b>Property Location</b>	Mile Post 139.5 to Mile Post 152.5 along the former Northwestern Pacific Railroad
<b>PROPERTY DATA</b>	
<b>Legal Description</b>	The property described herein is in the County of Mendocino, California. A preliminary title report, which would include a legal description, was not provided to the appraiser for review.
<b>Owner of Record</b>	Great Redwood Trail Agency
<b>Subject property Area</b>	13 mile stretch of corridor 221.39± acres <i>Source: Northwestern Pacific Railroad Records</i>
<b>Site Description</b>	The subject property consists of an irregular shaped corridor that generally bends and turns along the entire length of the corridor. The property is improved with a railroad line.
<b>Access/Frontage</b>	Portions of the Subject Property have no direct road access, while other portions have direct access along frontage streets.
<b>Zoning</b>	Due the length of the corridor there are multiple zonings that the subject property resides in. Listed below are the individual zonings.  AG 40 - Agricultural FL - Forestland I2 – Inland General Industrial MH – Industrial General OS – Open Space RL - Rangeland TP – Timberland Production UR 20 - Upland Residential UR 40 - Upland Residential

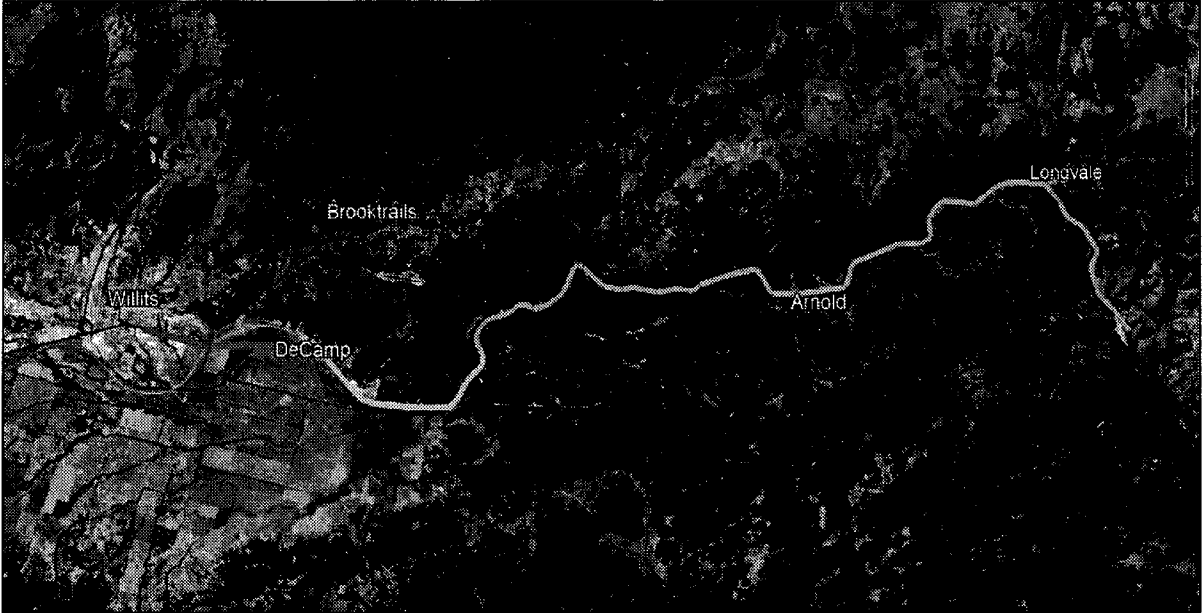
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<b>General Plan Designation</b>	Only the City of Willits provide a general plan designation which is M-G – Industrial General.
<b>Flood Information</b>	The Main Line corridor is located generally in Flood Zone X and portions are in Flood Zone AE, according to FEMA Flood Insurance Rate Maps 06045C-0900F 06045C-1100F 06045C-1111F, 06045C-1125F. All of which are dated June 2, 2011.
<b>Seismic Information</b>	All areas of California experience seismic activity. According to the State of California Geological Survey Regulatory Maps online application, the subject property is not within a known fault zone.
<b>Toxic Hazards Information</b>	We are aware that the rail yard had past contamination on the site, specifically within “Willits Yard” (Segment A). The contamination was due to discharges associated with railroad maintenance operations. Due to remaining contamination, a soil and groundwater management plan and an environmental land use covenant (LUC) were prepared for the site. The California Water Board noted that no further action is required. The Land Use Covenant restricts development to Industrial, commercial and or office space uses. These uses are consistent with the highest and best use of the land within this segment and therefore do not negatively impact the value within this segment of the corridor.
<b>Sales History</b>	There have been no sales of the Subject property within the past 5 years. To the best of our knowledge the subject property is not listed for sale.
<b>Rounded Opinion of Market Value</b>	\$6,725,000
<b>Date of Inspection</b>	September 6, 2022
<b>Date of Value</b>	September 6, 2022
<b>Date of Report</b>	September 14, 2022



The map on the following page identifies the portion of the 13 mile segment of the former Northwestern Pacific Railroad which is the focus of this appraisal. This portion of the railroad corridor has been further segmented by the appraiser into essentially seven different zones of value. These four different zones of value were determined based on an evaluation of the surrounding land uses for each particular segment. Based on the use of ATF valuation methodology, the adjacent / nearby land uses influence the applicable corridor value in the various corridor segments. An aerial map followed by detailed examples of each segment depicts the various segments which are labeled A through D. Also included is a description of the adjacent / nearby land uses of the various segments.

AERIAL MAP



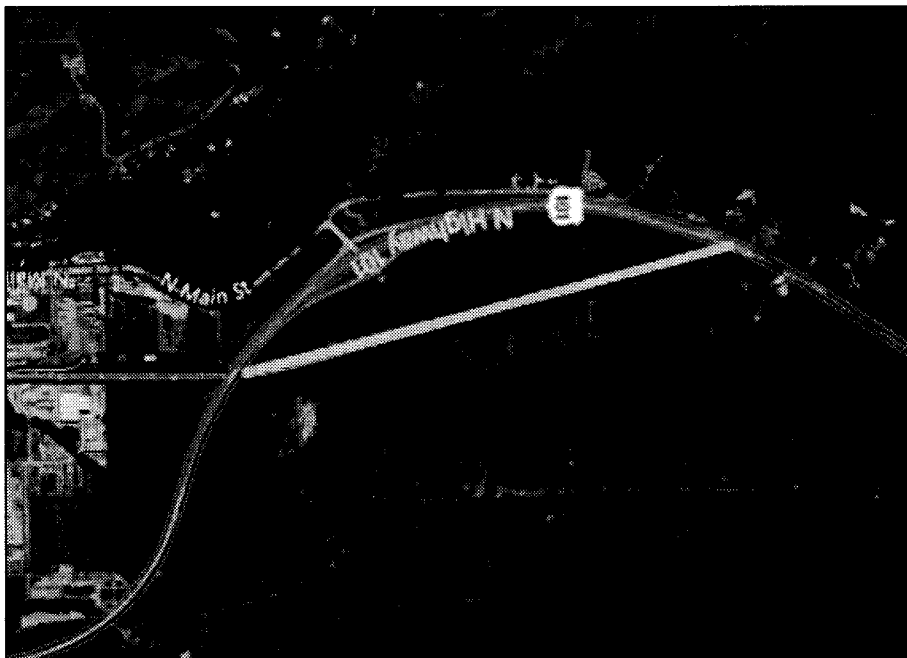
Segment	Typical Zoning	Description
A	MH	Industrial General
B	AG 40	Agricultural
C	UR 20, UR 40, RL, TP	Rural Residential
D	UR 20, UR 40, RL, TP	Rural Residential

**Segment 1 (Mile Post 139.5 to Mile Post 140.5±)**



The segment includes the corridor as well as the entire yard area which totals 36.90 acres.

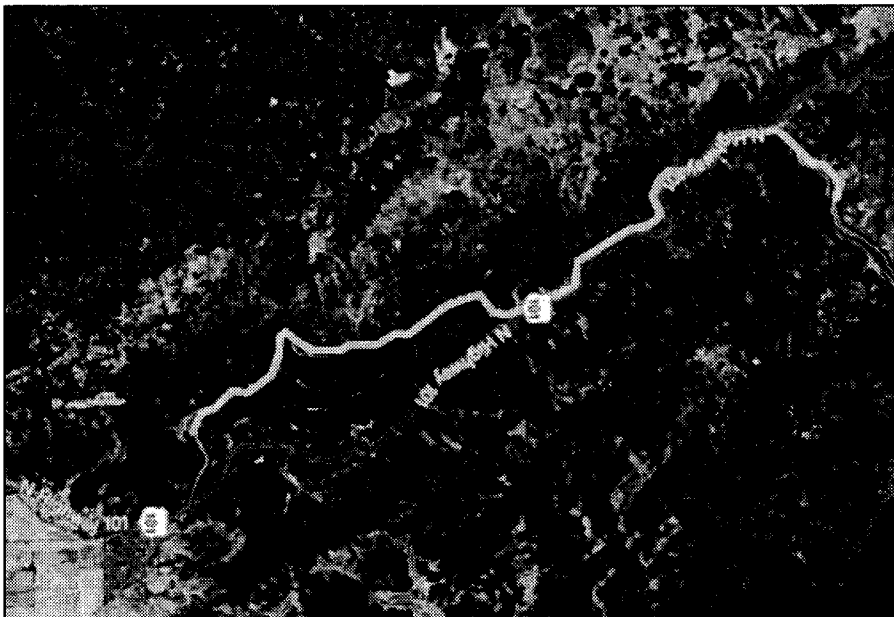
**Segment 2 (Mile Post 140.5± to Mile Post 141.5±)**



**Segment 3 (Mile Post 141.5± to Mile Post 144.5±)**



**Segment 4 (Mile Post 144.5± to Mile Post 152.5)**



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## INTRODUCTION

### PURPOSE OF THE APPRAISAL

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The appraisal assignment is to develop an opinion of the market value of the 13-Mile segment of a corridor of the former Northwestern Pacific Railroad.

### CLIENT, INTENDED USE, INTENDED USER OF THE APPRAISAL

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The client and intended user is the Great Redwood Trail Agency (GRTA). The intended use is for internal analyses in connection with Surface Transportation Board Proceedings.

### SCOPE OF WORK

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The Great Redwood Trail Agency (GRTA) will utilize the determination of market value for internal analyses in connection with Surface Transportation Board Proceedings. This appraisal provides an opinion of the fair market value for the "As-Is" value. The date of value is based on the inspection date, unless noted otherwise in the appraisal. The date of the report is the date the appraisal is transmitted to the client. The value estimates are stated in terms of cash, or terms equivalent to cash.

### VALUATION / RESEARCH OVERVIEW

The following is an overview of the valuation process and research involved for the subject property and comparable sales. The valuation of the property involved an investigation and analysis of the neighborhood, as well as the entire regional area, for social, economic, governmental, and environmental forces and trends that affect or could influence property values.

- The property was inspected on September 6, 2022, by David C. Houghton from Bender Rosenthal, Inc.
- Research the area, community, and neighborhood to determine market influences/conditions.
- Research of public records to verify information about the subject property and comparable sales to ensure they are factually accurate and that there are no terms or additional influences that affect price or value.
- Research zoning and general plan information obtained from the Sonoma County Planning Department and other department websites, and research of the real estate markets.
- Review of applicable soil surveys, flood and seismic hazard areas from appropriate source data.
- Review public records obtained from the various county governmental agencies including the Planning Department, Assessor's Office, and Tax Collector's Office.
- A search of specific property transfers occurring during the past five years was conducted for the subject property.

- Research and analysis of the subject property
- Determine highest and best use of the property.
- Research comparable property sales, listings, and offers to purchase or sales involving properties similar to the subject property and within the subject's or competing market areas.
- Interview comparable property owners and/or brokers.

## VALUATION APPROACHES

The appraisal process includes the investigation and analysis of the subject, market, and other relevant data for the purpose of providing an opinion of the defined value for the subject property. All economic forces and factors are considered in arriving at the highest and best use and valuation of the subject property.

There are typically three approaches to value that may be used in the real property valuation process. They are the Sales Comparison Approach, Income Approach, and Cost Approach. Each approach provides an indicated value that is reconciled into a final estimate of value for the subject based on the interests appraised the defined objective of the valuation and the stated definition of value. An appraisal may include one, two or all three approaches to value based on the data available, the type of property and appraisal valuation problem.

### SALES COMPARISON APPROACH

A value indication is derived by comparing the property being appraised to similar properties that have sold recently; making qualitative or quantitative comparisons to the subject; then applying units of comparisons to indicate a value for the subject property or remainder parcel. The sales comparison approach may be used to value improved properties, vacant land, or land being considered as though vacant; it is the most common and preferred method of valuation when an adequate supply of comparable sales is available. Sales, listings, and current escrows of comparable sales were considered in this analysis. Primary reliance has been placed on closed sales transactions.

### INCOME APPROACH

A value indication is derived for income-producing property by converting its anticipated benefits (cash flows and reversion) into a value for real property interests. Typically, the annual net income is capitalized at a market-derived capitalization rate to estimate the desired value. The income approach is most often used for income producing properties or real estate acquired as an investment.

## COST APPROACH

A value indication is derived for a property by estimating the current cost to construct a replacement/reproduction of the existing structure(s); deducting depreciation from all sources; and adding the estimated land value. The cost approach is most often used when valuing properties with new or relatively new improvements and also special use properties.

## RAIL CORRIDOR – SPECIAL PURPOSE

Given that the Subject Property is a railroad corridor, which is considered a special purpose property, there are specific methodologies which are considered appropriate for valuing a corridor as described below.

As a railroad corridor, the Subject Property is a “special purpose” property, defined as “a limited-market property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built; also called a special design property.”<sup>1</sup> Historically, various methods have been developed in order to appraise special purpose properties, with one or more of the following methodologies considered appropriate for the valuation of corridor properties:

1. Net Liquidation Value (NVL) – deemed not applicable
2. Replacement Cost New (RCN) – deemed not applicable
3. Going Concern Value (GCV) – deemed not applicable
4. Across the Fence Value (ATF) - applicable
5. Corridor Value (ATF x Corridor Factor) - deemed not applicable
6. Sales Comparison Approach - applicable

The highest and best use concluded for the Subject Property being appraised will determine the appropriate methodology(s) for valuing that corridor. Based on our conclusion of the highest and best use of the railroad corridor for future development for recreational use, the Corridor Value methodology, which employs Across the Fence (ATF) Methodology and includes consideration of a corridor factor, is considered the most appropriate method for the valuation of the fee simple unit value of the various stretches of the corridor. The other methodologies mentioned above for special purpose properties were not considered applicable or necessary for this valuation. The ATF methodology is described in detail below.

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<sup>1</sup> Dictionary of Real Estate Appraisal (Fifth Edition), Appraisal Institute, Chicago, Illinois, 2022, P. 184

## ACROSS THE FENCE (ATF) VALUE METHODOLOGY.

The ATF method is defined as, “A land valuation method often used in the appraisal of corridors. The across the fence method is used to develop a value opinion based on comparison to abutting land”.<sup>2</sup> When the highest and best use of the land is for continued corridor operation, then Across the Fence (ATF) valuation provides an appropriate method of analysis. Additionally, courts recognize this methodology, and most corridor properties are valued based on ATF.

The first step in determining the ATF value is to separate the subject right of way (railroad corridor) segments based on physical boundaries and based on the highest and best use of the adjacent land. The next step is to collect and verify land sales considered to be as similar as possible to the adjoining land segments of the portion or portions of the corridor being valued. This step employs the sales comparison approach (as previously described as one of the three accepted approaches to value). The appropriate unit (i.e., price per lot, price per square foot, etc.) sale price is then computed. The comparable sales are then compared to the adjoining corridor parcels, adjusted for differences in market conditions, location and other factors and then reconciled to conclude a per-unit value for each property use type within the segment of the corridor being valued. The appraiser then summarizes the ATF values for each of the applicable segments to provide an indication of the ATF value for those specific portions of the corridor property. Areas encumbered by public streets and existing easements (if applicable) are then discounted to reflect their restricted use.

## CORRIDOR FACTOR

The corridor factor is derived from market data (ratio of the market value, or price of the corridor, to the ATF value) and is typically but not always greater than 1.0. This concept is unique to valuation of transportation or utility corridor valuation. The corridor factor reflects the inherent physical and economic characteristics that are unique to the corridor and the fact that value can be generated when two or more parcels are assembled to provide greater utility. This factor reflects the alternative cost and time/risk of acquiring, clearing, and assembling individual parcels to create a corridor.

## REPORT TYPE

The appraisal is reported in an Appraisal Report format as defined by USPAP.

## SPECIAL ASSIGNMENT CONDITIONS

The client has instructed that this appraisal will be used at the Surface Transportation Board (STB) and that STB does not allow corridor value or corridor enhancement factors as part of a valuation. Thus, we will appraise the corridor under STB guidelines and will not use an enhancement factor.

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<sup>2</sup> Dictionary of Real Estate Appraisal (Fifth Edition), Appraisal Institute, Chicago, Illinois, 2022, P. 3



## DEFINITIONS USED IN THE REPORT

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### **Definition of an Appraisal**

*Source: The Dictionary of Real Estate Appraisal, Appraisal Institute, 7th Edition P. 10*

The act or process of developing an opinion of value, an opinion of value.

### **Market Value**

*Source: The Appraisal of Real Estate (Fifteenth Edition), Appraisal Institute, Chicago, Illinois, 2020, P. 48*

The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.

### **Extraordinary Assumption**

*Source: Uniform Standards of Professional Appraisal Practice 2020-2021 Edition, P. 4*

An assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions.

### **Hypothetical Condition**

*Source: Uniform Standards of Professional Appraisal Practice 2020-2021 Edition, P. 4*

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

### **Fee Simple Estate**

*Source: The Dictionary of Real Estate Appraisal, Appraisal Institute, 6th Edition, P. 90*

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.

## GENERAL ASSUMPTIONS AND LIMITING CONDITIONS

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This appraisal report and the value estimates it contains are expressly subject to the following assumptions and/or limiting conditions.

1. Title to the property is marketable.
2. No survey of the property has been made by the appraisers and property lines as they appear on the ground are assumed to be correct.
3. Data, maps, and descriptive data furnished by the client or his/her representatives are accurate and correct.
4. No responsibility is assumed for matters of law or legal interpretation.

5. No conditions exist that would affect the use and value of the property, which are not discoverable through normal, diligent investigation.
6. The valuation is based on information from sources believed reliable, and that such information is correct and accurately reported.
7. The value estimate is made subject to the purpose, date, and definition of value.
8. The report is to be considered in its entirety and use of only a portion will invalidate the appraisal.
9. This appraisal was made on the premise that there are no encumbrances prohibiting utilization of the property under the appraiser's estimate of highest and best use.
10. Possession of this report or a copy does not carry with it the right of publication nor may it be used for any purpose by anyone other than the client without the previous written consent of Bender Rosenthal, Inc., and then only with proper qualifications.
11. Disclosure of the contents of this appraisal report is governed by the By-Laws and Regulations of the Appraisal Institute. No part of this narrative report may be reproduced by any means nor disseminated to the public in any way without the prior written consent of Bender Rosenthal, Inc.
12. Any person or entity who obtains or reads this report, or a copy, other than the client specified in this report, expressly assumes all risk of damages to himself or third persons arising out of reliance on this report and waives the right to bring any action based on the appraisal, and neither the appraisers nor the appraisal firm shall have any liability to any such person or entity.
13. The appraiser shall not be required to give testimony or appear in court by reason of this appraisal with reference to the property described in this report unless prior arrangements have been made.
14. No responsibility is assumed for building permits, zone changes, engineering or any other services or duty connected with legally utilizing the subject property.
15. The property appraised may or may not be subject to the Americans with Disabilities Act of 1990 (ADA). Title III of this act provides for penalties for discrimination in failing ". . . to remove architectural barriers . . .in existing facilities [unless] an entity can demonstrate that the removal. . . is not readily achievable. . ." Unless otherwise noted in this appraisal, it is assumed that the property appraised is not substantially impacted by this law.
16. We are aware that the rail yard had past contamination on the site, specifically within "Willits Yard" (Segment A). The contamination was due to discharges associated with railroad maintenance operations. Due to remaining contamination, a soil and groundwater management plan and an environmental land use covenant (LUC) were prepared for the site. The California Water Board noted that no further action is required.

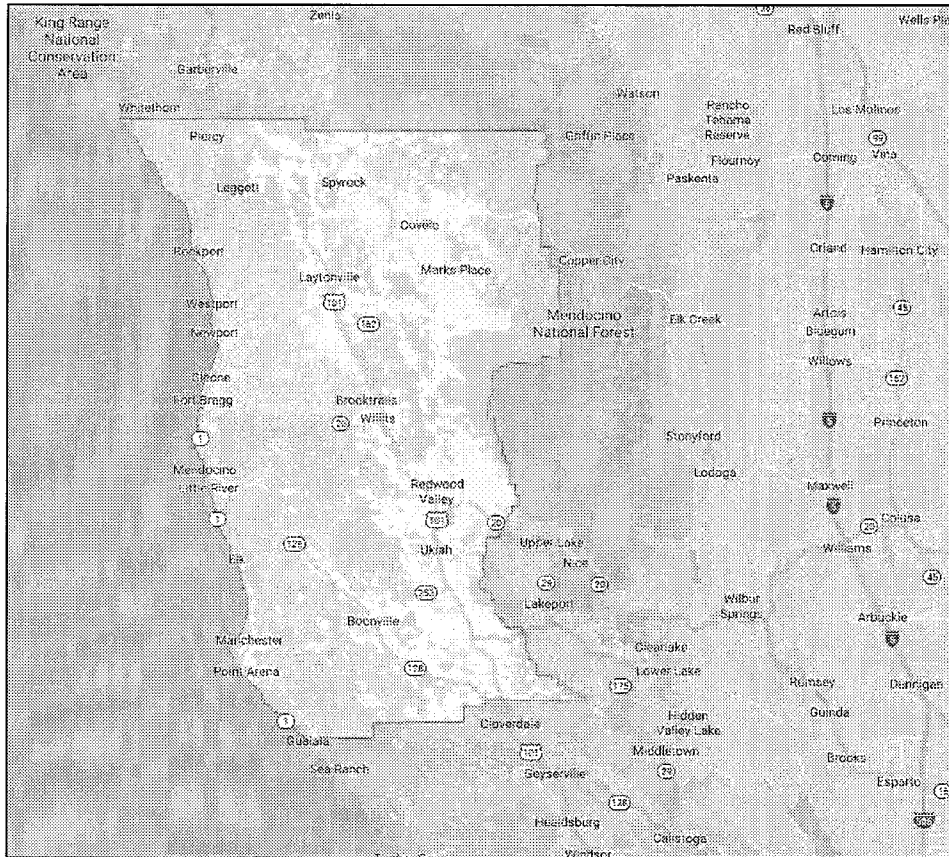
## MENDOCINO COUNTY REGIONAL OVERVIEW

### INTRODUCTION

Mendocino County is located on the north coast of California, north of the San Francisco Bay Area and to the west of the Central Valley. Mendocino is bordered by Humboldt and Trinity County to the north, Tehama, Glenn and Lake County to the east and Sonoma County to the south.

The county is noted for its distinctive Pacific Ocean coastline, redwood forests, and wine production. The county benefits from some tourism due to its coastal atmosphere, and is popular for the historic Skunk Train, which connects Fort Bragg with Willits via a steam engine. The county has a total land area of over 3,800 square miles and boasts several lakes, rivers, and state parks. One of the largest lakes within the region is Mendocino Lake, which is fed by the eastern fork of the Russian River.

### REGIONAL MAP



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## ACCESS AND TRANSPORTATION

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Most Mendocino County commuters travel by automobile, which is typical of California as a whole. Public transportation use is significantly lower than the statewide percentage. However, bicycling, walking, and working at home percentages are higher in the region than those for the remainder of the state. The county's small population, rural nature, and distances between population centers often limit the availability and efficiency of transportation modes other than the automobile, outside of the county's urban areas.

The county is serviced by two major routes: Highway 101, which travels north and south along the coastal region of the state; and Highway 20, which enters the county from the east in Lake County and joins with Highway 101 near Redwood Valley and continues to the west as Fort Bragg Willits Road. Other Major routes include Highway 128 and Highway 1, which begins at the 101 in Leggett and travels the California coastline south to the Los Angeles area.

## PUBLIC TRANSPORTATION

The Mendocino Transit Authority (MTA) provides public transportation services to residents of Mendocino County and its incorporated cities. The MTA offers fixed route and demand responsive service to residents of the county. As of August 2007, MTA operated 12 fixed routes, serving areas along SR 128 from SR 1 to Ukiah, the Ukiah Valley area, the Highway 101 corridor between Hopland and Laytonville, and along SR 1 between SR 128 and Fort Bragg, as well as limited connections on the South Coast from SR 128 to Gualala. Other routes extend from SR 1 and Highway 101 to Bodega Bay and Santa Rosa in Sonoma County. Demand responsive service is available in the Willits, Fort Bragg, and Ukiah areas. The MTA has consistently made efforts to coordinate with private transportation in Mendocino County. Through this arrangement, service is provided between the North Coast and inland areas. A contract with Sonoma County Transit provides a transit link between the South Coast area and Santa Rosa.

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## POPULATION

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According to the California Department of Finance, the population estimates for the 2021 year was 86,669 for Mendocino County. Mendocino County's population is generally stagnant and changes nominally year to year. The chart on the following page presents the population demographics for the State and Mendocino County for the past eleven years.

Population	Historical Population							Percentage Increase 2015-2021
	2010	2015	2017	2018	2019	2020	2021	
<b>California</b>	37,253,956	38,865,532	39,352,398	39,519,535	39,605,361	39,648,938	39,466,855	1.5%
<b>Mendocino County</b>								
Fort Bragg	7,273	7,379	7,457	7,540	7,494	7,451	7,409	0.4%
Point Arena	449	438	442	438	430	438	435	-0.7%
Ukiah	16,075	15,899	15,937	16,081	15,942	15,951	15,526	-2.3%
Willits	4,888	4,966	5,057	5,133	5,107	5,065	5,040	1.5%
Balance Of County	59,156	59,420	59,753	59,350	59,232	58,803	58,259	-2.0%
Incorporated	28,685	28,682	28,893	29,192	28,973	28,905	28,410	-0.9%
County Total	87,841	88,102	88,646	88,542	88,205	87,708	86,669	-1.6%

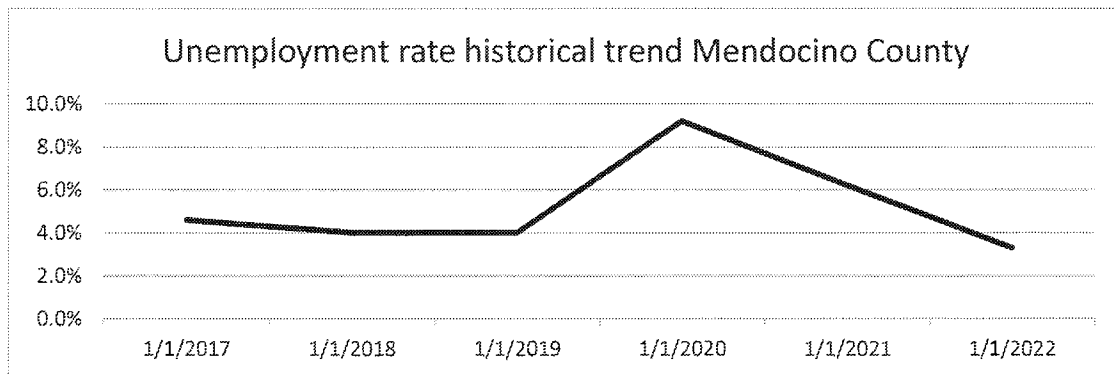
Source: Department of finance.

Mendocino County’s population is generally stagnant and changes nominally year to year. This compares to the state population which sees a steady increase from year to year. It is noted that the negative population growth of the state from 2020-2021 is primarily due to people leaving the state due to Covid-19 restrictions and work at home initiatives.

## ECONOMIC PROFILE

### UNEMPLOYMENT

The graph below displays the region’s unemployment trends over the past five years. The current unemployment rate is 3.3%. This compares with an unadjusted unemployment rate of 4.2% for California and 3.5% for the nation. The spike in unemployment in March and April of 2020 is directly due to the spread of the Covid-19 and statewide lockdown restrictions. Unemployment in Mendocino County hit a peak of 9.2% in April of 2020. The unemployment rate has dropped since then due to the rollback of restrictions. However, the current unemployment rate is still higher than before the pandemic due to some jobs which will not return.

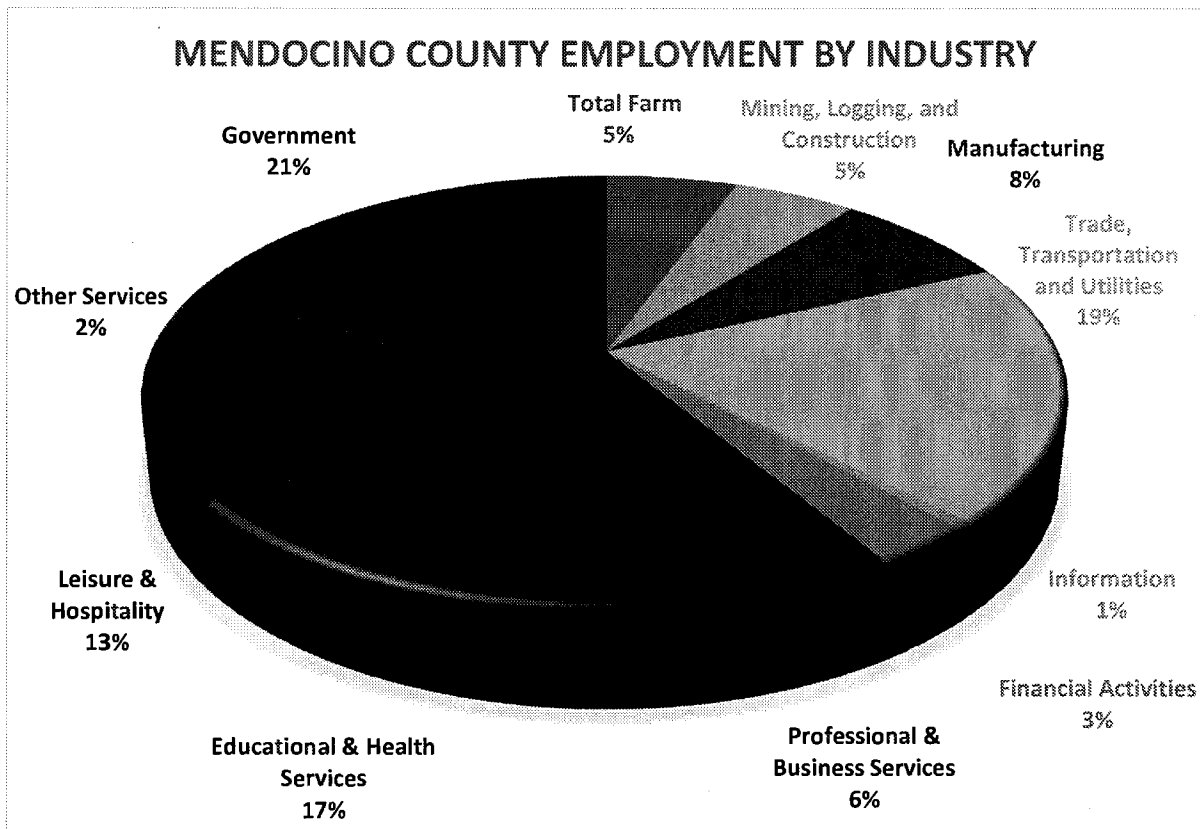


Source: State of California EDD dated July 2022.

Although unemployment rates have dropped significantly since the peak in April of 2020, a full recovery is expected to take years. Food services, retail, and leisure and hospitality have been hit the hardest, substantial layoffs have been reported across most all employment sectors.

### INDUSTRY EMPLOYMENT

The economy of Mendocino County does not provide a wide variety of jobs or economic opportunities. The highest concentration of jobs in Mendocino County are in Ukiah. These jobs primarily consist of government and health services, however most jobs in the county are scattered around its small cities and tourist areas. Employment is mostly static due to the population size and there being no expectation of economic or population growth for the region.



Source: Employment Development Department, Mendocino County Employment by industry.

The top industry employers for the Mendocino County are Government and Trade, Transportation & Utilities, at 21% and 19% of the total employment, respectively, followed by Education & Health Services, at 17% and Leisure & Hospitality at 13%.

## MAJOR EMPLOYERS

Shown below are the major employers in the region as well as the specific location and industry.

Employer Name	Location	Industry
Adventist Health Ukiah Vly	Ukiah	Outpatient Services
California Department-Forestry	Willits	Government-Forestry Services
Costco Wholesale	Ukiah	Wholesale Clubs
Coyote Valley Casino	Redwood Valley	Casinos
Dharma Realm Buddhist Assn	Ukiah	Associations
Fetzer Vineyards	Hopland	Wineries (mfrs)
Frank R Howard Memorial Hosp	Willits	Hospitals
Howard Memorial Hosp Med Imgng	Willits	Diagnostic Imaging Centers
Mendocino Coast District Hosp	Fort Bragg	Hospitals
Mendocino Community Health	Ukiah	Clinics
Mendocino County Food Stamps	Ukiah	Government Offices-County
Mendocino County Office of Edu	Ukiah	Boards of Education
Mendocino County Sheriff	Point Arena	Government Offices-County
Mendocino County Social Svc	Ukiah	Government Offices-County
Mendocino Redwood Co LLC	Calpella	Restaurants
Metalfx Inc	Willits	Sheet Metal Fabricators (mfrs)
Oak Point Ranch	Potter Valley	Vineyards
Pacific Coast Farm Credit	Ukiah	Loans-Agricultural
Safeway	Fort Bragg	Grocers-Retail
Sawmill	Ukiah	Sawmills & Planing Mills-General (mfrs)
Toyota Sales & Svc	Ukiah	Automobile Parts & Supplies-Retail-New
Ukiah City Civic Ctr	Ukiah	Government Offices-City/Village & Twp
Ukiah High School	Ukiah	Schools
Ukiah Valley Medical Ctr	Ukiah	Hospitals
Walmart	Ukiah	Department Stores
Adventist Health Ukiah Vly	Ukiah	Outpatient Services
California Department-Forestry	Willits	Government-Forestry Services
Costco Wholesale	Ukiah	Wholesale Clubs
Coyote Valley Casino	Redwood Valley	Casinos
Dharma Realm Buddhist Assn	Ukiah	Associations
Fetzer Vineyards	Hopland	Wineries (mfrs)
Frank R Howard Memorial Hosp	Willits	Hospitals
Howard Memorial Hosp Med Imgng	Willits	Diagnostic Imaging Centers

Notable employers on the list above are the medical field as well as the military. There are multiple hospitals or medical related services on the table. These types of employers include the Adventist Health Ukiah Valley outpatient care center and the Ukiah Valley Medical Center hospital. The majority of the jobs are located in the city of Ukiah, the largest city in Mendocino.

In order to further describe the region, statistical information was obtained from the online Site to Do Business (STDB). A demographic survey was performed of the Mendocino MSA. The following table summarizes population, housing, and income trends within the Mendocino MSA. It is noted the population data differs slightly from what was gathered from the Department of Finance.

<b>Mendocino County Demographics</b>			
<b>Population</b>		<b>Income</b>	
2026 Total Projection	86,694	2021 Per Capita Income	\$28,819
2021 Total Population	87,443	2021 Median Household Income	\$52,093
2010 Total Population	87,841	2021 Average Household Income	\$72,039
% Population Change 2021-2026	(0.9) %		
<b>Households</b>		<b>Households by Income (2021)</b>	
2026 Total Households	34,661	<\$15,000	11.6%
2021 Total Households	34,993	\$15,000-\$24,999	11.6%
2010 Total Households	34,945	\$25,000-\$34,999	9.3%
% Household Change 2021-2026	(0.9) %	\$35,000-\$49,999	15.2%
		\$50,000-\$74,999	18.7%
		\$75,000-\$99,999	10.4%
		\$100,000-\$149,999	14.4%
<b>Housing Tenure 2021</b>		\$150,000-\$199,999	4.8%
% of Renters	30.8%	\$200,000+	4.1%
% of Homeowners	54.7%		

Source: STDB. (Most current data available, June 2022).

The population in the County is almost stagnant due to poor economic opportunities and very few people moving into the county. Mendocino County has a significantly lower ratio homeowners to renters compared with California as a whole, the percentages being 30.8% and 54.7% respectively. The percentage of household income for the region that make more than \$75,000 is 33.4%. In 2021, the average household income was \$72,039. This is relatively close to the average income for the state of \$75,235. However, the number of homeowners is much lower than the state average of 54.8%

## CONCLUSION

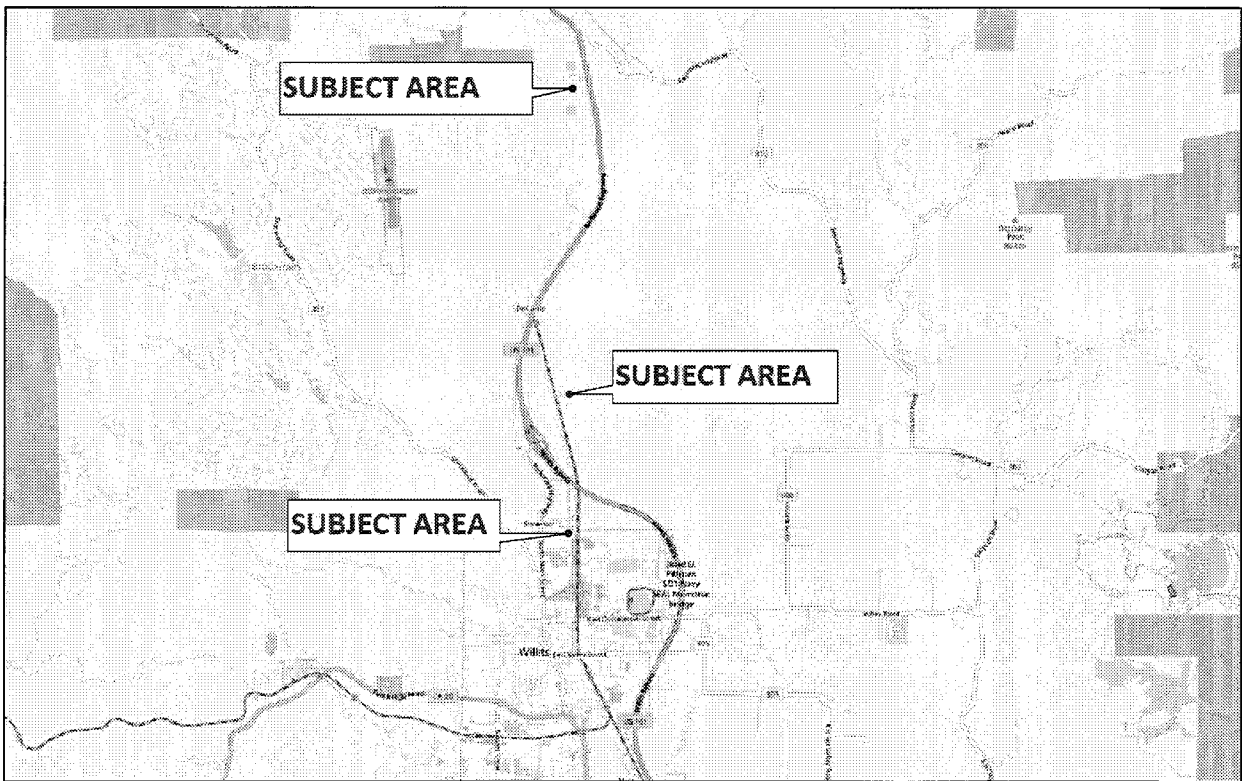
The population of Mendocino is small and is not expected to change much in the future. Although the unemployment rate is currently higher than the California average this is due to the economic effects of the corona virus as well as fewer employment opportunities. The regional economy has not changed dramatically over the last decade and is not expected to change in the coming decade. There is not a wide array of employment opportunities in the county, most jobs in the region are in government and healthcare.



## NEIGHBORHOOD DESCRIPTION / IMMEDIATE ENVIRONS

The subject property is located in Willits, California, and an unincorporated area north of Willits, California in Mendocino County. The city of Willits is located approximately 20 miles north of Ukiah. near any other city, metropolitan area, or transportation hub. The immediate neighborhood is primarily rural residential or native land. Willits also has a small number of stores, businesses and public facilities that support the area. A map of the neighborhood is presented blow.

### NEIGHBORHOOD MAP



### TRANSPORTATION AND ACCESS

Willits has access via Highway 101. Highway 101 travers north to south through Willits and connects to State Route 20 to the south and State Route 162 to the north. Interstate 1 and interstate 5 provide north/south access to connecting cities. Interstate 1 is approximately one hour away by car while interstate 5 is approximately two hours. Willits has a small public airport only used for general aviation. There is no quick access to and from Willits to neighboring cities or transportation hubs.

## DEMOGRAPHIC ANALYSIS

In order to further describe the subject’s immediate neighborhood, statistical information was obtained from the online Site to Do Business (STDB). A demographic survey was performed of the City of Willits and the surrounding unincorporated area specifically. The following table summarizes population, housing, and income trends within the city.

Demographics Within the City of Willits			
<b>Population</b>		<b>Income</b>	
2027 Projection	5,004	2022 Median Household Income	\$38,655
2022 Estimate	4,996	2022 Average Household Income	\$54,000
2010 Population	4,860	Per Capita Income	\$21,762
% Population Change 2022-2027	0.03%		
<b>Households</b>		<b>Households By Income (2022)</b>	
2027 Total Households	2,171	<\$15,000	19.9%
2022 Total Households	2,168	\$15,000-\$24,999	18.4%
2010 Total Households	2,075	\$25,000-\$34,999	7.0%
% Households Change 2022-2027	0.14%	\$35,000-\$49,999	15.0%
		\$50,000-\$74,999	15.9%
		\$75,000-\$99,999	11.6%
		\$100,000-\$149,999	8.5%
		\$150,000-\$199,999	2.8%
		\$200,000+	0.8%
<b>Housing Tenure (2022)</b>			
% of Renters	52.5%		
% of Homeowners	41.1%		

Source: STDB.

The neighborhood area has not experienced any population growth over the last ten years and does not expect to see any population growth in the near future, this is typical of the trends in Mendocino County as a whole. According to STDB, the percentage of households with an income more than \$75,000 is estimated at 24% which is below the County average of 33.4%. In addition, 45.3% of the population make under \$35,000 a year, this is very low compared to the state as a whole.

## LAND USES

The town of Willits is generally centered around Interstate 101 which runs north/south. Land uses in Willits are primarily residential and commercial. The California Western Railroad (aka “Sunk Train”) traversing north to south through the middle of town, which is surrounded by various industrial uses. Some notable land uses include the Adventist Health Howard Memorial Hospital, Willits High School, and Willits Redwood Co. The vast majority of commercial and light industrial uses along Redwood Highway in the middle of town area which includes several restaurants and a couple of motels. The most common land uses surrounding the town are rural residential and agricultural.

## CONCLUSION

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The subject property is located within the city of Willits and in an unincorporated area in Mendocino County. Willits is an isolated area of Mendocino County which is known as the Gateway to the Redwoods. Willits is a small town that has seen little growth the past decade, which is much lower than the state average. The largest employers in the area are Adventist Health Hospital and the California Department of Forestry. Household income in the area is much lower than the state average. The subject's area is primarily single-family residences most of these residences are rural in nature.

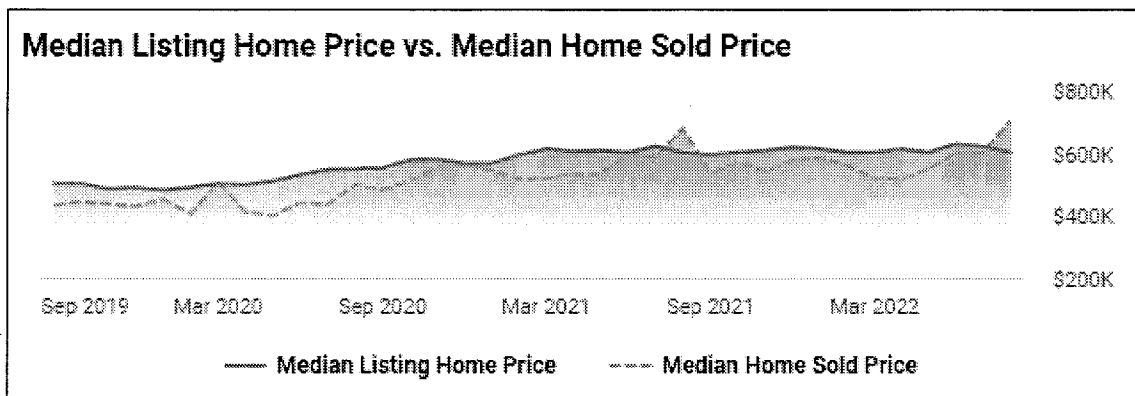
## REGIONAL RESIDENTIAL MARKET OVERVIEW

### SINGLE-FAMILY HOUSING MARKET OVERVIEW

Given that the property appraised is residential, a discussion of the residential market is merited.

#### SINGLE FAMILY HOME PRICES

In order to determine the median price for a single-family detached home, we consulted the California Association of Realtors. The following table shows the historical prices since 2019 for Mendocino County.



Source: California Association of Realtor.

Despite showing a dip in March 2020, the median prices for the last 2 years have steadily climbed for Mendocino County. This is primarily due to the COVID-19 pandemic and many people beginning to work from home and moving to more rural communities in addition to low interest rates. The median home price for California and Mendocino County for 2022 are \$898,980 and \$599,000, respectively.

#### MARKET CONCLUSION

Overall, due to many people working from home and low interest rates the value of single-family homes has exploded since mid-2020. Demand for single family homes remains high, however, the future is unclear as wages have not seen a similar increase and many people are being priced out of the market. Home prices will likely drop as interest rates begin to rise.

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## IDENTIFICATION OF SUBJECT PROPERTY / PROPERTY DESCRIPTION

The Subject Property being analyzed is a portion of the former Northwestern Pacific Railroad corridor with portions owned in fee and portions in which the project sponsor has a permanent easement interest. The segment of the railroad corridor which is the focus of the appraisal is the fee owned areas within the corridor only. The corridor is a 13± mile portion of the railroad Corridor, located at Mile Post 139.5 to Mile Post 152.5, in the county of Mendocino, California.

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### IDENTIFICATION OF SUBJECT PROPERTY

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<b>Property Address</b>	No site address
<b>Property Location</b>	Mile Post 139.5 to Mile Post 152.5 along the former Northwestern Pacific Railroad.
<b>Owner</b>	Great Redwood Trail Agency
<b>Owner Title of Interest</b>	Fee Simple, All parcels analyzed herein are warranted by counsel for GRTA to the appraiser as being held in fee title by GRTA; no parcels over which GRTA holds easement or other interest less than fee ownership have been included in the valuation analysis conducted herein.
<b>Ownership History</b>	There have been no sales of the Subject property within the past 5 years. To the best of our knowledge the subject property is not listed for sale.
<b>Date of Inspection</b>	September 6, 2022
<b>Date of Value</b>	September 6, 2022
<b>Date of Report</b>	September 14, 2022

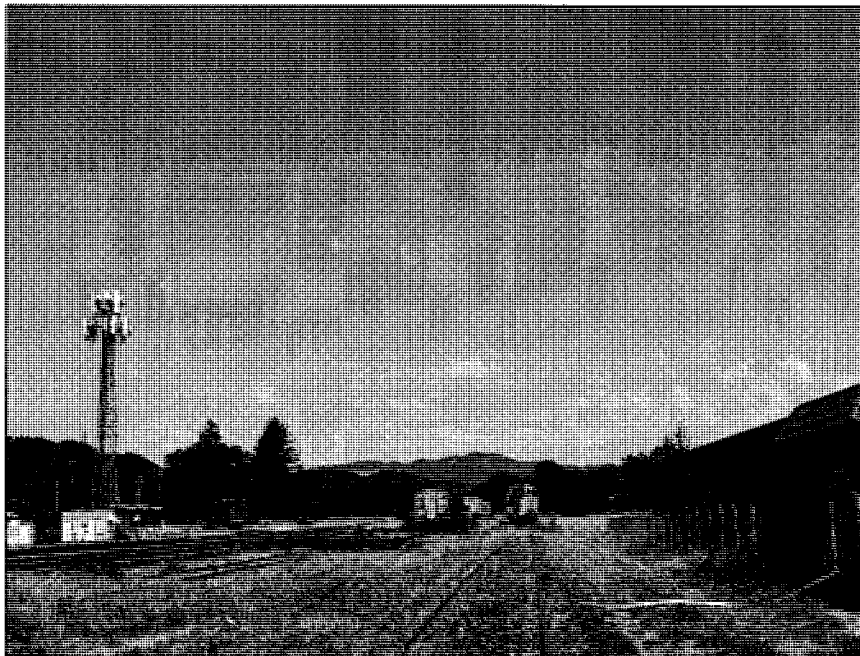
AERIAL PHOTOGRAPH



SUBJECT PROPERTY PHOTOGRAPHS



View facing northeast across railyard.



View facing north along railyard

SUBJECT PROPERTY PHOTOGRAPHS



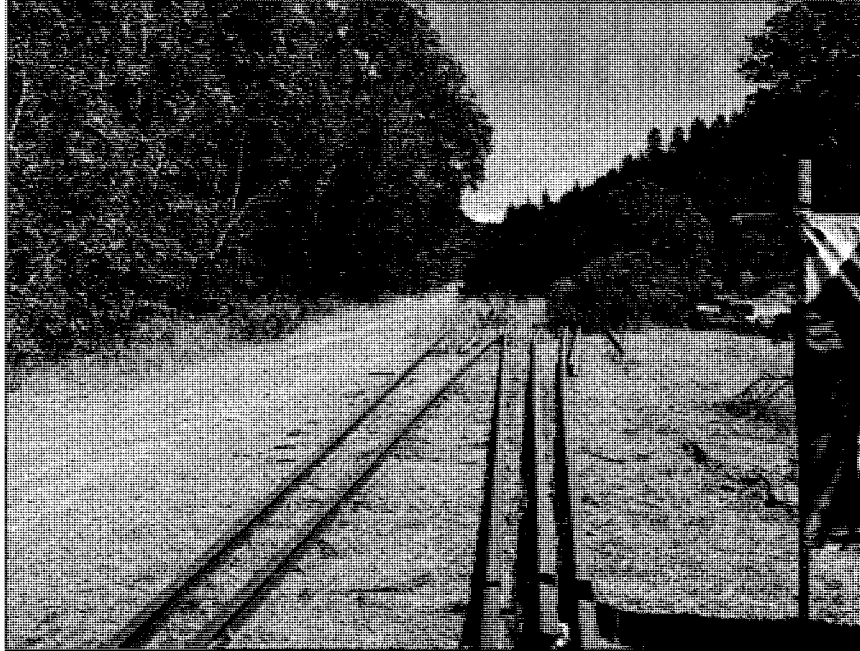
View of corridor facing northeast near mile marker 142±



View facing southwest along the corridor near mile marker 142



SUBJECT PROPERTY PHOTOGRAPHS



View facing east along the corridor just past mile marker 152



View at mile marker 139.5 facing west along Commercial Street

**SUBJECT PROPERTY DESCRIPTION**

<b>Corridor Length</b>	The corridor is 13 miles and consists of 221.39± acres per information provided by the client.
<b>Shape</b>	Irregular
<b>Frontage / Exposure</b>	Exposure varies, ranging from good to limited dependent on property's location within the 13-mile corridor.
<b>Access</b>	Portions of the Subject Property have no direct road access, while other portions have direct access along frontage streets.
<b>Topography</b>	The topography of the railroad corridor is generally level, however, slightly sloped towards the sides of the corridor that are adjacent to nearby creeks.
<b>Utilities</b>	All utilities are available to the site.
<b>Zoning</b>	Due the length of the corridor there are multiple zonings that the subject property resides in. Listed below are the individual zonings along with their associated segments.

Typical Zoning	Segments	Description
Industrial - M-H	A	Light and Heavy Industrial Uses
Agricultural - AG-40	B	Agricultural and Residential Uses
Rural Residential - UR-20, UR-40, RR-10, RL,	C, D	Residential Uses

**General Plan Designation** M-G – Industrial General (City of Willits)

**Segment Size**

The railroad corridor is 13 miles in length and according to information provided by the client the total fee ownership equates approximately 221.39± acres in size. There are portions of the 13 mile corridor which are owned in easement; however, the acres noted above only reflect the fee ownership of the corridor. We have broken out the corridor into segments which correspond to the breakout of the square footages is shown in the chart following.

Segment	ATF - Land Use	Total SF	Total AC
A	Industrial	1,607,364	36.90
B	Agricultural	715,336	16.42
C	Rural Residential Lots	2,137,000	49.06
D	Rural Residential Lots	5,184,033	119.01

**ATF Size**

Segment	Land use	Median Size	Average Size	Min. Size	Max Size
A	Industrial	5.66	6.7	1	12.1
B	Agricultural	37.17	57.87	13.35	147.5
C	Rural Residential	10.25	13.21	1	53.5
D	Rural Residential	29.25	40.42	1	300

The table above references the various sizes of the parcels located adjacent to each segment of the corridor. For valuation purposes we have selected a typical size for value comparisons. For Segment A, we have concluded with a size of 6 acres for the ATF parcel. This segment generally consist of the industrial zoned land. For Segment B, we have concluded at 50 acres for the ATF parcel. This parcel offers surround agriculturally zoned parcels. For Segment C and D the surround highest and best use the property's a generally for rural residential uses. However, each segment offers slightly differing size for the adjacent properties. We have concluded at 12 acres for the ATF parcel for Segment C and for Segment D we have concluded at an average parcel of 40 acres.

**Improvements**

The subject property is improved with the original Northwestern Pacific Railroad line which has been inactive for approximately 25 years. The appraiser notes the existence of certain stockpiled railroad ties upon a portion of the analyzed real property, which GRTA informs appraisers have been placed by Mendocino Railway. Such ties are not affixed to the property and are not considered part of the Real Estate. Thus, are not considered in the valuation analysis.

**Lease or Rental Status**

Based on our knowledge no lease agreements encumber the subject property.

**Easements**

No preliminary title report was reviewed in connection with the preparation of this appraisal. However, Counsel for GRTA has conducted a legal review of the title to the appraised real property and warrants to the appraiser that all property included for valuation herein is held in fee by GRTA, without subsequent encumbrance relevant to valuation, except as noted in Segment A (Land Use Covenant).

**Encroachments**

None were noted or reported.

**Private Restrictions**

None known to exist.

**Flood Zone**

The Main Line corridor is located generally in Flood Zone X and portions are in Flood Zone AE, according to FEMA Flood Insurance Rate Maps 06045C-0900F 06045C-1100F 06045C-1111F, 06045C-1125F. All of which are dated June 2, 2011.

**Seismic Information**

The subject parcel is not within an active California fault zone. However, faults may affect the site depending on the characteristics of the earthquake and the location of the epicenter. In general, the effects should be confined to shaking and/or acceleration (shock waves) and potential damage to structures should be minimized by employing adequate design and construction procedures.

Because the County of Mendocino, and most of the State of California, is a seismically active region, the potential for earthquake-induced hazards must be acknowledged. However, the history of past earthquake activity does not indicate that Mendocino County is a particularly hazardous area. Current engineering design and construction practices, such as the Uniform Building Code, provide the opportunity to reduce earthquake related hazards.

**Cultural Recreational and Historic Significance** None known or suspected to be present.

**Toxic Hazards** We are aware that the rail yard had past contamination on the site, specifically within "Willits Yard" (Segment A). The contamination was due to discharges associated with railroad maintenance operations. Due to remaining contamination, a soil and groundwater management plan and an environmental land use covenant (LUC) were prepared for the site. The California Water Board noted that no further action is required. The Land Use Covenant restricts development to Industrial, commercial and or office space uses. These uses are consistent with the highest and best use of the land within this segment and therefore do not negatively impact the value within this segment of the corridor.

**Property Tax Data and Projected Taxes** Because the subject property is owned by a body corporate and politic, no property taxes are assessed.

## OVERALL COMMENTS

The Subject Property has been identified as a 13± mile section of the Northwestern Pacific Railroad. Portions of the Subject Property's corridor have been improved with railroad that have been inactive for approximately 25 years. The appraiser has identified four different zones of value (based on the various land uses in the four segments).

## HIGHEST AND BEST USE ANALYSIS

Highest and best use may be defined as the reasonably probable use of property that results in the highest value.

There are four criteria used in the highest and best use analysis process. These are:

**1. Legally Permissible Use**

What uses are permitted legally under existing zoning, building codes, historic district controls, environmental regulations, deed (private) restrictions, and long-term lease provisions on the site in question?

**2. Physically Possible Use**

What uses of the site are physically possible, given its size, shape, area, terrain, soils composition, accessibility, assembly potential, and risk potential from natural disasters?

**3. Financially Feasible Use**

Which possible and permissible uses will produce a positive net return to the owner of the property?

**4. Maximally Productive Use**

Among the feasible uses, which use will produce the highest residual land value consistent with the rate of return warranted by the market for that use?

## HIGHEST AND BEST USE OF THE SITE, AS VACANT

### LEGALLY PERMISSIBLE USES

Possible uses are constrained by legal restrictions on a property both private and public. As previously mentioned, given that the Subject Property is a railroad corridor there is no zoning associated with the Subject Property. However, as previously discussed, the basis of the valuation of the various segments of the Subject Property corridor is "Across the Fence" methodology, which relies on typical adjoining or vicinity land. We have researched the zoning of all the parcels adjacent to the affected segments of the canal corridor and have divided the corridor into seven segments. The table below summarizes the typical zoning and description of the surrounding land uses for each identified segment of the corridor.

Typical Zoning	Segments	Description
Industrial - M-H	A	Light and Heavy Industrial Uses
Agricultural - AG-40	B	Agricultural and Residential Uses
Rural Residential - UR-20, UR-40, RR-10, RL	C, D	Residential Uses

## PHYSICALLY POSSIBLE USES

The size, topography, and location of the Subject Property are important factors in determining the use of the Subject Property. The size of the site can significantly affect the type of development that is possible, as the “economies of scale” notion often comes into play. As previously discussed, the Subject Property is 13± miles of a segment of the railroad corridor, which is the focus of this appraisal. The range in parcel sizes, average size, and median size of the properties adjacent to each identified segment are shown in the table below.

Segment	Land use	Median Size	Average Size	Min. Size	Max Size	Typical
A	Industrial	5.66	6.7	1	12.1	6 acres
B	Agricultural	37.17	57.87	13.35	147.5	50 acres
C	Rural Residential	10.25	13.21	1	53.5	12 acres
D	Rural Residential	29.25	40.42	1	300	40 acres

The legally permissible uses are physically possible along and, in the areas, adjacent to the corridor.

## FINANCIALLY FEASIBLE / MAXIMALLY PRODUCTIVE USES

A proposed property improvement must be able to deliver an income return that, in turn, generates a market value sufficient to pay for the developmental costs, the undertaking of the risks involved, and a profit appropriate for the development.

Given demand in the market, industrial uses, residential uses and agricultural uses are financially feasible. Further, it is evident by the recent sales used in this report that demand currently exists. However, it is noted that the increase in interest rates over the last several months may quell demand in the near future. Residential, Industrial and agricultural uses appear to be financially feasible.

## HIGHEST AND BEST USE CONCLUSION, AS IF VACANT

Considering the preceding factors, the maximally productive use and the highest and best use of each segment of the Subject Property, as if vacant, is for development with a use consistent with zoning for the uses that are financially feasible. In many instances, assemblage with an adjacent parcel would be maximally productive.

## HIGHEST AND BEST USE AS IMPROVED

The Subject Property is developed with a railroad line. Some portions of the railroad intersect with Highway 101 and various canals throughout the 13± mile segment. Based on the inspection, the improvements are in fair condition as the rail line has not been used for some time. Most of the improvements have little value relative to the Subject Property overall. Besides the abandoned railroad use, there are few other potential uses for the Subject Property’s corridor such as recreational uses.

There appears to be little viability of this particular property for use as a railroad corridor due to its location. The Subject Property has the potential to offer value as recreational use due to its location which is one of the sought after tourist attractions in the region. Further, it is noted that the tourist skunk train runs to the south of the corridor and could expand operations north. Therefore, the highest and best use, as improved, is repurpose the existing railroad line for recreation use, most prominently as a trail or expansion of tourist train route.



## VALUATION

### VALUATION PREMISE

Given that the Subject Property is a rail corridor, which is considered a special purpose property, there are specific methodologies which are considered appropriate for valuing a corridor. The applicability of these methodologies will be described in the various sections below. Based on the highest and best use of the corridor, the available data, and the nature of the subject corridor, the across the fence (ATF) methodology including consideration of a corridor factor is the most applicable approach in providing an opinion of the value of the Subject Property. This valuation approach is most widely used by peers in the appraisal industry, and is recognized by the courts.

### ACROSS THE FENCE METHOD (ATF)

This methodology is appropriate when the highest and best use of the land is for continued corridor operation. ATF methodology is recognized by the courts and is the most prevalent method for appraising viable corridors.

The ATF method separates the corridor into segments based on the typical adjacent land use. Comparable data is collected and verified as similar as possible to the typical adjacent use within each segment of the corridor. The appropriate unit price (i.e. price per square foot, price per acre, etc.) is then computed based on the sale prices indicated for the adjacent lands. The comparable sales are then compared to the adjacent parcels with consideration given to differences including market conditions and location, and a per-unit value is concluded for each segment of the corridor. The total value of all segments after applying the appropriate unit price to each use category is the resulting ATF value.

### CORRIDOR FACTOR

The corridor factor is derived from market data (ratio of the market value, or price of the corridor, to the ATF value) and is typically greater than 1.0. This concept is unique to valuation of transportation or utility corridor valuation. The corridor factor reflects the inherent physical and economic characteristics that are unique to the corridor and the fact that value can be generated when two or more parcels are assembled to provide greater utility. This factor reflects the alternative cost and time/risk of acquiring, clearing, and assembling individual parcels to create a corridor (i.e. purchase of the existing corridor might avoid costs necessary to create a new one, and would certainly avoid the time and unknowns with creation of a new corridor that may involve significant severance damages, eminent domain actions, above market prices required on "hold-out" property owners, in addition to the typical costs associated with acquisition of the real estate).

The primary argument in favor of applying this corridor factor is based around this concept of cost avoidance. The more urbanized areas involve higher densities of development and significantly higher assemblage costs, which would be reflected in a higher corridor factor (additional premium over the ATF value) for an existing corridor. The physical characteristics of the corridor, such as width, curvature, and grade/topography, impact the utility and demand of the corridor. These factors are all considered in determination of the appropriate corridor factor.

There are cases whereby the corridor factor is less than 1.0, implying a discount off the ATF value. Such situations reflect a lack of demand for a particular corridor. There are cases where corridors may have demand for alternative uses, such as recreation or land banking, and similar corridors may sell below the ATF value but far above the net liquidation value.

This methodology is most common for similar corridors and is the most appropriate in providing an opinion of the market value of the Subject Property. The subject corridor was determined to have essentially seven different zones of value. These seven different zones of value were determined based the various land uses in the various corridor segments. Additionally, a corridor factor for each segment appraised was also determined based on an evaluation of the criteria noted above and as further detailed below.

#### **CORRIDOR VALUATION METHOD (SALES COMPARISON APPROACH)**

This valuation methodology establishes corridor value using sales and rental data of linear corridor properties. The valuation by this technique requires adequate sales data of similar properties and an appropriate unit price (price/SF or price/AC of corridor) that can be extracted from the data. The analysis requires adequate sales data comparable to the property appraised with similar location and physical attributes. The location is critical as corridors in more urbanized areas typically have significantly higher demand for transportation and utility use compared to corridors in agricultural areas, for example.

Recent sales of large corridor sales are rare, and the likelihood of a corridor sale with substantially similar location and physical attributes is virtually non-existent. Most acquisitions of linear corridors (transportation and utility corridors) are acquired by public/quasi-public agencies under the threat of eminent domain law and are therefore not truly a market transaction that meets the applicable definition of market value for this assignment. This definition requires the parties to the transaction be typically motivated under no necessity to buy or sell. Public agencies are not acting under typical motivation to purchase a property when it is necessary for an identified project that will benefit the greater public. The properties purchased under this scenario are not typically exposed to the market, and the sellers may not be typically motivated to sell at the time of the offer. Corridor purchases by private parties also take place, but typical motivation of the parties involved is again called into question. The buyer, say Exxon, requires the corridor and the purchase may involve more of a business motivation than a decision based solely on real estate value.

Sales of very similar corridors are virtually non-existent, and therefore application of the direct sales comparison approach involving other corridor sales to provide an indication of land unit value was considered but ultimately not employed in this assignment. Note: these types of transactions were used in the development of the corridor factor which will be discussed further below.

## VALUATION OF THE SUBJECT CORRIDOR

The Subject Property has been divided into several segments based on the land uses surrounding the corridor. As a result, we have evaluated the zones of value on the appropriate unit of measure depending upon the applicable real estate market segment. We will first present the comparables chosen for the individual segment followed by the resulting estimated conclusion of value on a per unit basis for that particular segment. The valuation of the differing zones of value will be conducted and specific value influences for each segment will be considered.

### VALUATION OF CORRIDOR- INDUSTRIAL ZONE (SEGMENT A)

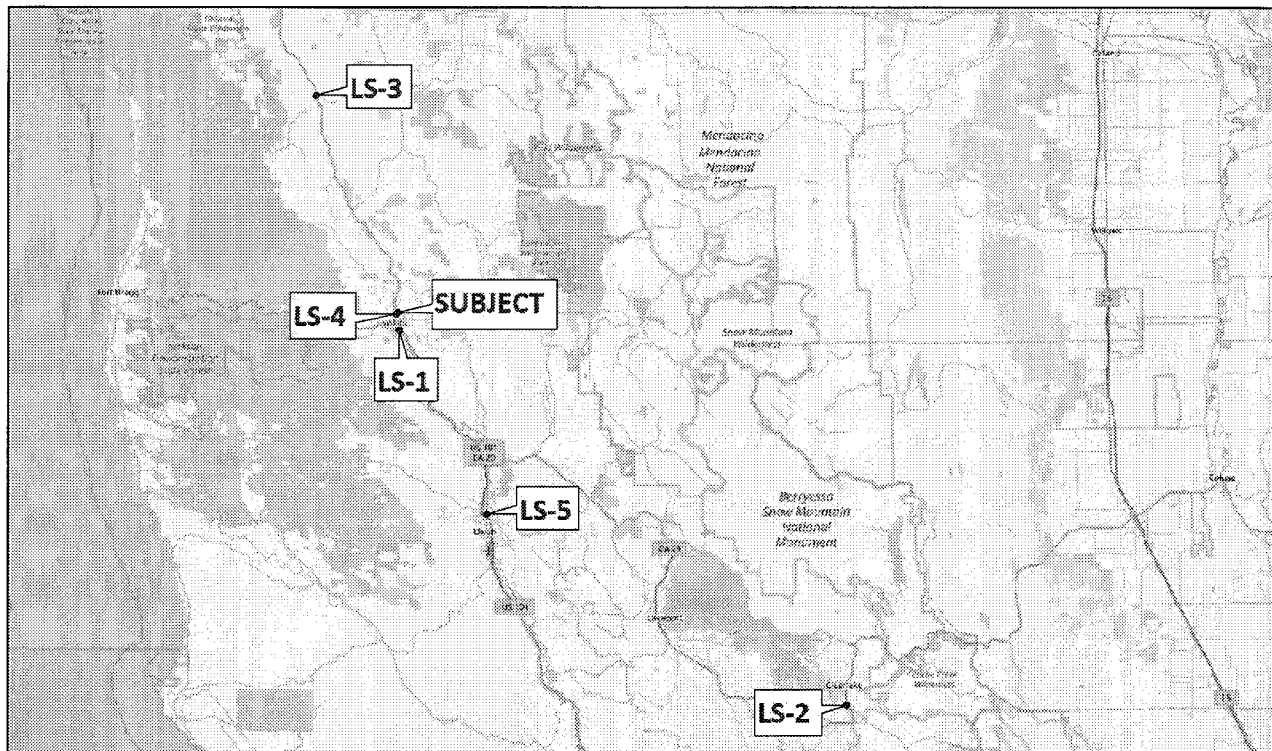
The comparable sales selected for this specific segment of the corridor are industrial land use properties, which were chosen given that the primary land use adjacent to this segment is Industrial. The typical lot sizes are shown in the table below.

Segment	Land Use	Median Size	Average Size	Typical Size
A	Industrial	5.66	6.7	6

The previous chart shows the typical lot sizes of the properties adjacent to the industrial segment. Based upon average and median sizes of the adjacent properties we have selected comparable properties ranging from 1.00± acres to 12.1± acres in order to represent the typical or average size. We have considered the specific value influences such as the average size of the adjacent properties and the location for each of these segments. A list of the comparable properties is located on the following page.

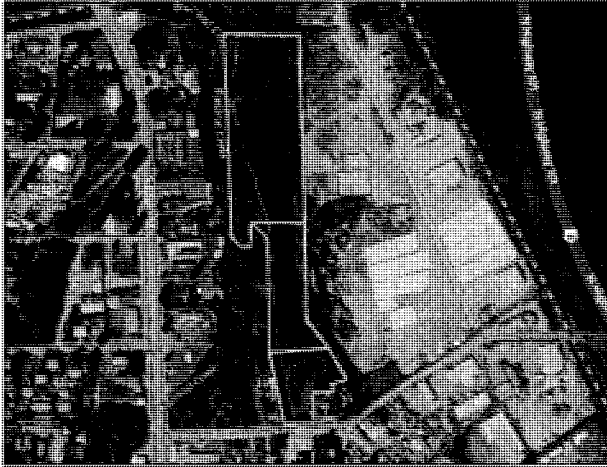
COMPARABLE LAND SALES SUMMARY TABLE AND MAP

Sale #	Location	Seller	Sale Date	Sale Price	Zoning	Size Acres / SF	Price / SF
DC #	APN(s)	Buyer	Doc #				
LS-1 6829	1471 S Main Street Willits, CA APN: 007-060-03, 006-230-26, 006-240-12	8 LANE HOLDINGS LLC, SALCOCAL HOLDINGS LLC,	03/02/2022 2022-02789	\$1,300,000	M-H	10.48± 456,509±	\$2.85
LS-2 6797	6885 Old Highway 53 Clearlake, CA APN: 010-043-40, -42, -48	Burbank Housing Development Corporation City Of Clearlake	09/23/2021 2021.16052	\$1,000,000	C	5.28± 229,997±	\$4.35
LS-3 6060	45500 Highway 101 Laytonville, CA APN: 014-020-67	Lorin Geoffrion & Martha Betz Merino's Properties, LLC	4/12/2021 2021.05616	\$550,000	C1	3.00± 130,680±	\$4.21
LS-4 6794	23701 N HIGHWAY 101 Willits, CA APN: 108-040-11	Stone Living Trust Sanhedrin Timber Co LLC	11/25/2020 2020.16032	\$725,000	C1	10.62± 462,607±	\$1.57
LS-5 6795	440 Ford Road Ukiah, CA APN: 170-200-06	Thomas D C & B J Trust Merinos Properties LLC	06/17/2020 2020.6726	\$555,500	L2	5.1± 222,156±	\$2.50
ATF Parcel		Appraisal	---	---	M-H	6.00±	---



## DISCUSSION OF SALE COMPARABLES

This analysis identifies the similarities and differences between the selected across-the-fence parcel and comparable properties. The primary elements of comparison include property rights, financing terms, conditions of sale (motivation), market conditions (sale date), and physical characteristics (e.g., zoning, utilities, site improvements, location, access, etc.).



### Comparable Land Sale 1

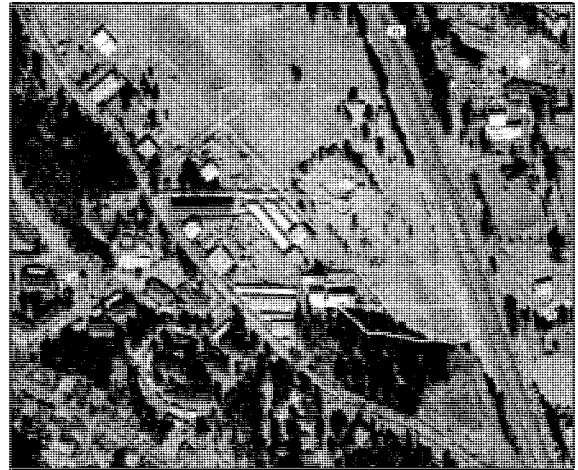
This is the sale of a 3 parcel, 10.48-acre industrial property that sold for \$1,300,000, or \$2.85 per square foot on March 2, 2022. The property is located on the north side of Baechtel Road in Willits, CA. According to the listing agent, the buyer purchased the property for redevelopment purposes. The buyer paid cash in this arms-length transaction. According to the listing agent, this property is currently listed at \$1,450,000, or \$3.17 per square foot but have not received any offers yet. The zoning is M-H for

industrial use, and the property has rough grade level topography with electricity, gas, and public water available at the street. The surrounding uses include industrial and various commercial uses, the Adventist Hospital, and various education facilities. All three parcels are adjacent, irregular in shape with access from Baechtel Road.

The property is the most recent sale and best reflects current market conditions. Additionally, this comparable has the same zoning and location as the subject property. However, this comparable is larger in size from the typical ATF parcel indicating a higher unit of value for the subject ATF parcel. Giving most weight to the inferior size; the across-the-fence parcel's unit value will be above \$2.85 per square foot.

## Comparable Land Sale 2

This is the sale of a 3 parcel, 5.28-acre commercial property that sold for \$1,000,000, or \$4.35 per square foot on September 23, 2021. The property is located on the east side of Highway 53 in Clearlake, CA. According to the listing agent, the City of Clearlake purchased the property for redevelopment purposes. The buyer paid cash in this arms-length transaction. The zoning is C for commercial use, and the property has rough grade level topography with electricity, gas, and public water available at the street. The surrounding uses include commercial, the Adventist Hospital, and various education facilities. Parcels 010-043-42 & 010-043-48 are adjacent, rectangular in shape with access from Highway 53. Parcel 010-043-40 is separated from the other two parcels and has an irregular shape and access from Airport Road.



The property is similar in size although slightly smaller. However, the sale involved a highly motivated buyer which indicates superior sale conditions. Further, the location of this comparable is considered to slightly superior. Giving most weight to the superior sale conditions; the across-the-fence parcel's unit value will be below \$4.35 per square foot.



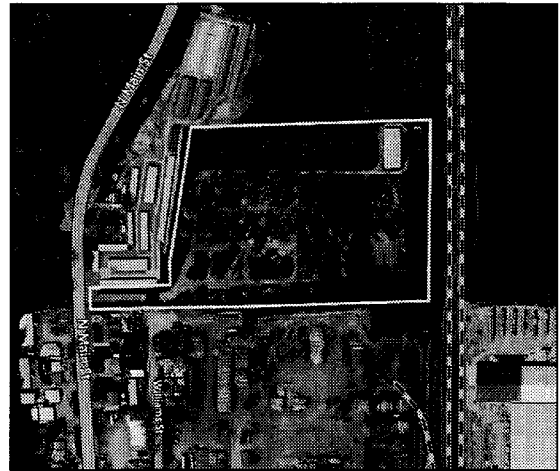
## Comparable Land Sale 3

This is the sale of a 3.00-acre commercial property located along the west side of Highway 101 in Laytonville. The site sits a few miles north of Central Laytonville. The site zoned C for commercial use and is generally level and finished grade. The site is lightly wooded and has no improvements. Electricity access is available at the street. The buyer plans to use the land for future development of a commercial use. Escrow closed on April 12, 2021, for \$550,000 or \$4.21 per square foot.

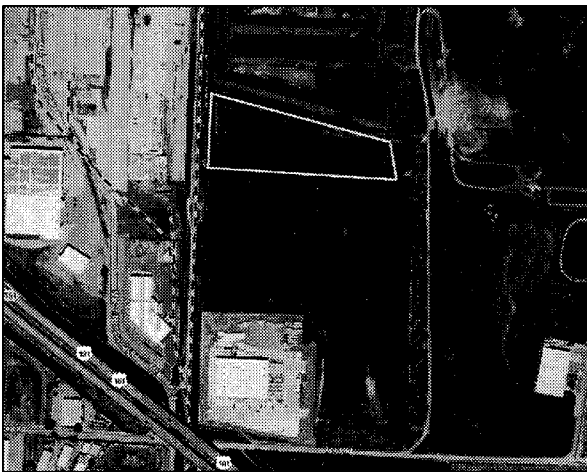
This comparable is smaller in size from the typical ATF parcel indicating a lower unit of value for the subject ATF parcel. Overall, this sale is considered superior to the across-the-fence parcel and the across-the-fence parcel's unit value will be below this indicator.

### Comparable Land Sale 4

This is the sale of a 10.62-acre commercial property that sold for \$725,000, or \$1.57 per square foot on November 25, 2020. The property is located on the east side of North Main Street in Willits, CA. According to the listing broker, there were no unusual sale conditions. The buyer paid all cash in this arms-length transaction and plans to use the property for their timber company. The zoning is C1, and the property has overall level topography with direct access to North Main Street. The property has historically been used for recreational use, and the associated improvements are greatly diminished and added no value towards the closing price. The buyer will need to complete site clearing in preparation for development. There is electricity and public water available at the road. The property has a slightly irregular shape and is located adjacent to the old Northwestern Pacific Railroad line.



This comparable is the closest to the subject property and has the most similar location. However, this comparable is much larger and would suggest a higher unit of value for the subject's ATF parcel. Further, this sale sold during inferior market conditions. All factors considered; the across-the-fence parcel's unit value will be above \$1.57 per square foot.



### Comparable Land Sale 5

This is the sale of a 5.1-acre industrial property that sold for \$555,500, or \$2.50 per square foot on June 17, 2020. The property is located on the north side of Ford Road in Ukiah, CA. According to the listing agent, the buyer owns the adjacent southern parcels and plans to hold on the property for future development. The buyer used conventional financing in this arms-length transaction. The zoning is L2, and the property has rough grade level topography with easement access to Ford Road along the three southern parcels.

The surrounding uses include the adjacent railroad line to the east along with various industrial uses, and agricultural use to the west. There is electricity and public water available at the road. The property has a general rectangular shape.

This comparable is similar in overall size. This sale also has a slightly superior location in Ukiah. However, the sale represents the oldest sale and it sold during inferior market conditions. All factors considered; the across-the-fence parcel's unit value will be above this indicator.

**LAND VALUE CONCLUSION**

Based on the previous discussion, the sale comparables indicate the subject bracketed value range is from \$1.57 to \$4.21 per square foot. See the array below.

Comp No.	Subject Value Less Than / Greater Than	Sale Price / SF	Sale Date	Parcel Size (Acres)
LS-2	<	\$4.35	9/21	5.28±
LS-3	<	\$4.21	4/21	3.00+
<i>Subject unit value ranges from \$2.85 to \$4.21 per square foot</i>				
LS-1	>	\$2.85	3/22	10.48±
LS-5	>	\$2.50	6/20	5.10±
LS-4	>	\$1.57	11/20	10.62±

In reconciling among the five sales used to conclude a value, the subjects ATF parcel is bracketed between Sale 1 and Sale 3 with a mid-point of the bracketed range at \$3.53 per square foot. Sales 1 and 3 are the most similar in terms of overall location; however only Sale 1 is a recent sale and offers the most similar location. For this reason, we have placed more weight on Land Sale 1 and have conclude just above Land Sale 1. Based upon the proceeding discussion, the concluded across-the-fence parcel unit value is \$2.95 per square foot.

According to Caltrans Guidelines, "Enhanced Corridor Value" is defined as, "A theory of substitution where the cost of acquiring, clearing, and assembling individual parcels to create a corridor has been proposed as a measure of value. Purchase of an existing corridor might avoid those costs necessary to create a new one. This is also sometimes presented as the aggregate Across the Fence Value of the right of way, multiplied by a factor of 1 to say, 3.0."

Per the special assignment condition the client has instructed that this appraisal will be used at the Surface Transportation Board (STB) and that STB does not allow corridor value or corridor enhancement factors as part of a valuation. Therefore, no enhancement factor is applied. The resultant figure represents the corridor land value. This calculation is shown below.

ATF Value / SF	Corridor Factor	Final Value / SF
\$2.95	--	\$2.95



## VALUATION OF CORRIDOR- AGRICULTURAL ZONE (SEGMENT B)

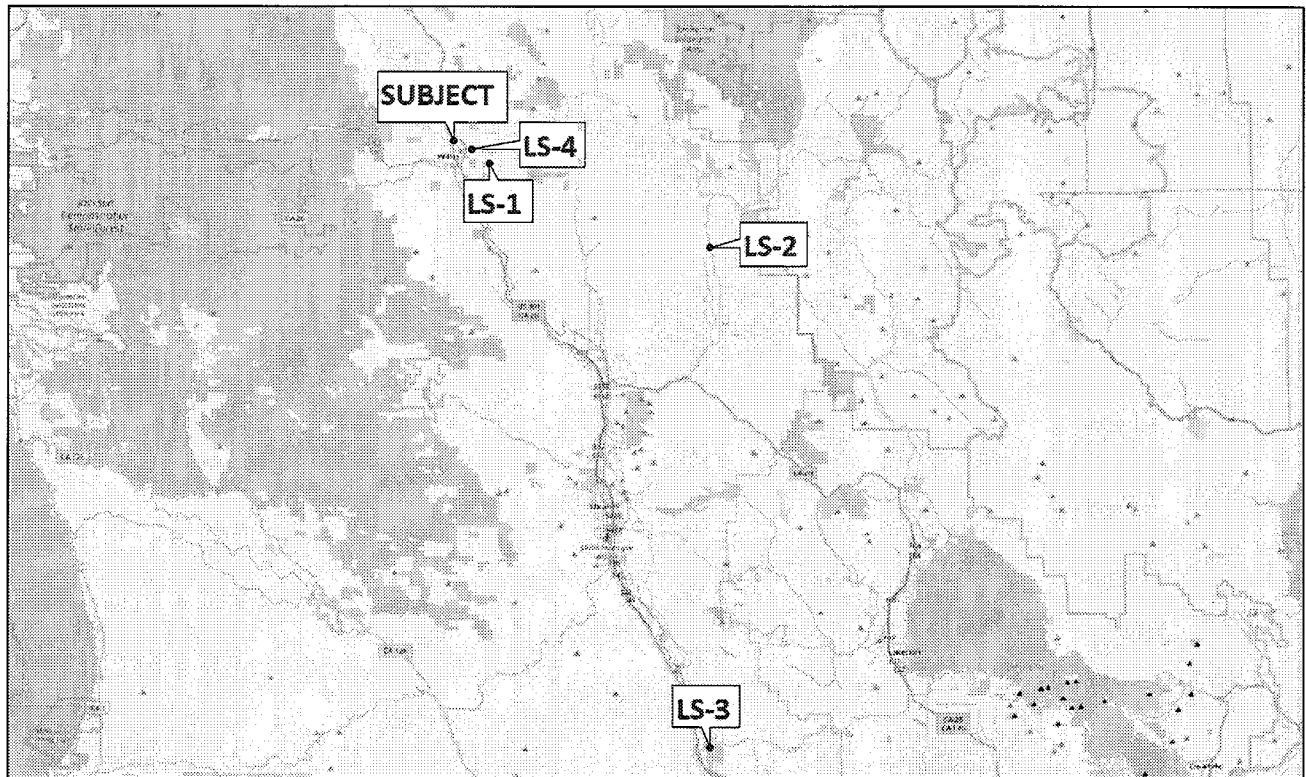
The comparable sales selected for this specific segment of the corridor are agricultural land use properties, which were chosen given that the primary land use adjacent to this segment is agricultural. The typical lot sizes are shown in the table below.

Segment	Land Use	Median Size	Average Size	Typical Size
B	Agricultural	37.17	57.87	50

The previous chart shows the typical lot sizes of the properties adjacent to each of the agricultural segments. Based upon average and median sizes of the adjacent properties we have selected comparable properties ranging from 13.35± acres to 147.5± acres in order to represent the typical or average size. We have considered the specific value influences such as the average size of the adjacent properties and the location for each of these segments. A list of the comparable properties are listed in the following table.

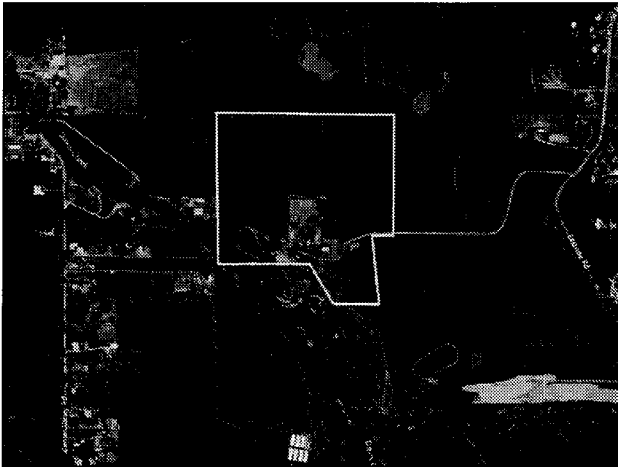
COMPARABLE LAND SALES SUMMARY TABLE AND MAP

Sale #	Location	Seller	Sale Date	Sale Price	Zoning	Size Acres / SF	Price / AC
DC #	APN(s)	Buyer	Doc #				
LS-1 6813	22360 Eastside Road Willits, CA APN: 103-250-15	Bertolucci Joseph W Austin Lisa	01/10/2022 2022.497	\$600,000	AG-40	47.71± 2,121,808±	\$12,318
LS-2 6801	13400 Eel River Road Potter Valley, CA APN: 173-160-22	Redwood Business Park of Ukiah Akerstrom Berndt O & Shannon R	11/09/2021 2021.16721	\$600,000	AG-40	51.47± 2,242,033±	\$11,657
LS-3 6805	2350 Highway 175 Hopland, CA APN: 048-270-27	Bray Family 2007 Trust Golden Eagle Mendocino LLC	10/06/2020 2020.13294	\$500,000	AG-40	32.3± 1,406,988±	\$15,480
LS-4 6138	1080 Hearst Willits Road Willits, CA APNs: 103-010-05, 103-030-05, -06	THE FALCON GROUP 1962 LLC, Schreck, Thor	11/7/2019 2019-13815	\$690,000	AG-40	59.00± 2,570,040±	\$11,695
ATF Parcel		Appraisal	---	---	AG-40	50±	---



## DISCUSSION OF SALE COMPARABLES

This analysis identifies the similarities and differences between the selected across-the-fence parcel and comparable properties. The primary elements of comparison include property rights, financing terms, conditions of sale (motivation), market conditions (sale date), and physical characteristics (e.g., zoning, utilities, soil quality, site improvements, location, access, etc.).



### Comparable Land Sale 1

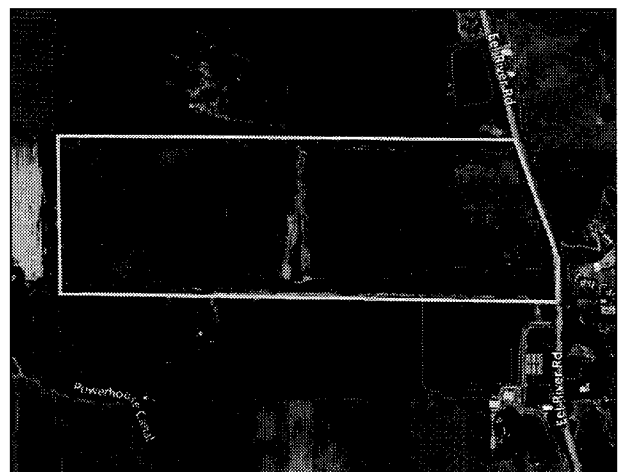
This is the sale of a 48.71-acre agricultural property that sold for \$600,000, or \$12,318 per acre on January 10, 2022. The property is located on the west side of Eastside Road in Willits, CA. According to the listing agent the buyer used cash in this arms-length transaction. However, the seller was foreclosing on the property, and was factored into the sale price. This property has historically been used for row crop and livestock. The zoning is Ag-40 for agricultural use, and the property has an irregular shape with level

topography. There are a few improvements on the property but contributed very little towards the sale price. The property has electricity and a well. The surrounding uses are predominantly agricultural in nature with some rural resident uses.

This comparable is the most recent sale and is located near the subject corridor segment; however, this property has inferior sales conditions since the property was in foreclosure. However, this is more than offset given that this property included improvements which is slightly superior. All factors considered; the across-the-fence parcel's unit value will be below this indicator.

### Comparable Land Sale 2

This is the sale of a 51.47-acre agricultural property that sold for \$600,000, or \$11,657 per acre on November 9, 2021. The property is located on the west side of Eel River Road in Potter Valley, CA. According to the buyer they used conventional financing in this arms-length transaction and will continue to use the property for cattle grazing. The zoning is Ag-40 for agricultural use, and the property has a rectangular shape with level topography. The



property has a single well and electricity available at the street. The surrounding uses are predominantly agricultural in nature with some rural resident uses.

The comparable is very similar overall and is the second closest property to the subject. This property consists of grazing land and also as some low lying areas that pond and drain similar to the subject ATF parcels. All factors considered; the across-the-fence parcel's unit value will be near indicator.



### Comparable Land Sale 3

This is the sale of a 32.3-acre agricultural property that sold for \$500,000, or \$15,480 per acre on October 6, 2020. The property is located on the north side of Highway 174 in Hopland, California. According to the listing agent the buyer used private finance in this arms-length transaction. However, the financing had no significant impact on the sale price. This property has historically been used for row crop land and the buyer plans to continue doing so. The zoning is Ag-40 for

agricultural use, and the property has a rectangular shape with level topography. There are a few older improvements on the property, but did not factor into the sale price, according to the listing agent. The property has electricity, a single well and irrigation. The surrounding uses are predominantly agricultural in nature with some rural resident uses.

This comparable is superior to the across-the-fence parcel in terms of location and soils quality. Furhet the smaller size of the comparable would suggest a lower unit of value for the subject ATF parcel. While this sale sold during inferior market conditions, the superior attributes more than outweigh the market conditions at the time of sale. All factors considered; the across-the-fence parcel's unit value will be well below this indicator.

### Comparable Land Sale 4

This is the sale of a 3 parcel 59-acre agricultural property that sold for \$690,000, or \$11,695 per acre on November 7, 2019. The property is located on the north side of Hearst Road in Willits, CA. According to the listing agent the buyer used conventional financing in this arms-length transaction. The zoning is AG-40 for agricultural use, and the property has rough grade level topography with electricity and public water available at the street. The surrounding uses are



predominantly agricultural in nature with some rural resident uses. These three parcels provide easement access to Hearst Road for the neighboring parcel to the north. Each three parcels are rectangular in shape.

This comparable is located closest to the subject segment on the outskirts of Willits. This property is similar in overall size. This property has improvements which is superior to the subject property. However, this superior attribute is slightly offset given the inferior market conditions in which the property sold. All factors considered; the across-the-fence parcel's unit value will be near this indicator.

### LAND VALUE CONCLUSION

Based on the previous discussion, the sale comparables indicate the subject bracketed value range is from \$11,657 to \$15,480 per acre. See the array below.

Comp No.	Subject Value Less Than / Greater Than	Sale Price / AC	Sale Date	Parcel Size (Acres)
LS-3	<	\$15,480	10/20	32.3±
LS-1	<	\$12,318	01/22	47.71±
<i>Subject unit value ranges from \$11,695 to \$12,318 per square acre</i>				
LS-4	≈	\$11,695	11/19	59.0±
LS-2	≈	\$11,657	11/21	51.47±

In reconciling among the four sales used to conclude a value, we placed most weight on land sales 2 and 4. Given its unique characteristics, no single land sale is a mirror image of the across-the-fence parcel. Land Sale 4 is the most similar in terms of location and characteristics and thus was given considerable weight. Overall a value between Sale 2 and Sale 4 is considered appropriate. Based upon the proceeding discussion, the concluded across-the-fence parcel unit value is \$11,675 per acre.

Per the special assignment condition the client has instructed that this appraisal will be used at the Surface Transportation Board (STB) and that STB does not allow corridor value or corridor enhancement factors as part of a valuation. Therefore, no enhancement factor is applied. The resultant figure represents the corridor land value. This calculation is shown below.

ATF Value / AC	Corridor Factor	Final Value / AC
\$11,675	--	\$11,675

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## VALUATION OF CORRIDOR- RURAL RESIDENTIAL ZONE (SEGMENT C)

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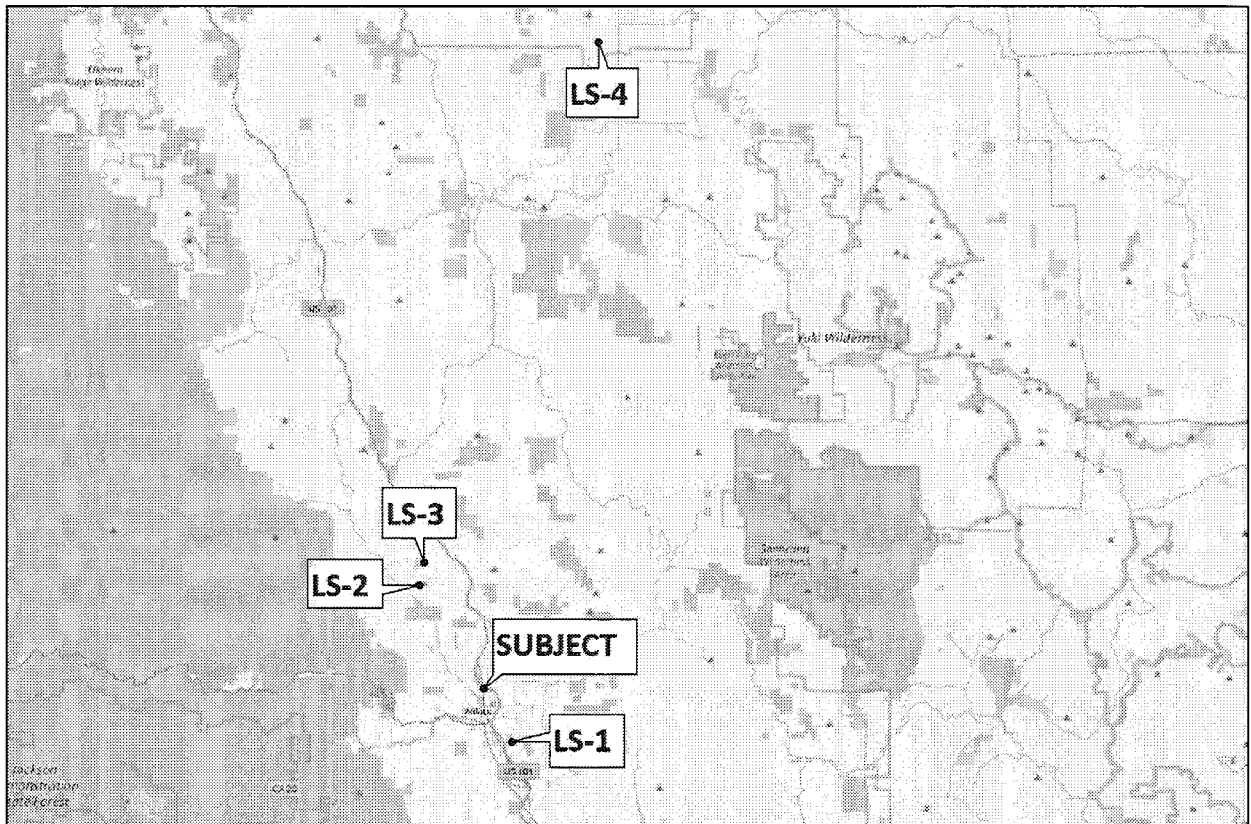
The comparable sales selected for this specific segment of the corridor are rural residential land use properties, which were chosen given that the primary land use adjacent to this segment is agricultural. The typical lot sizes are shown in the table below.

Segment	Land Use	Median Size	Average Size	Typical Size
C	Rural Res	10.25	13.21	12

The previous chart shows the typical lot sizes of the properties adjacent to each of the rural properties within segment C. Based upon average and median sizes of the adjacent properties we have selected comparable properties ranging from 5± acres to 21± acres in order to represent the typical or average size. We have considered the specific value influences such as the average size of the adjacent properties and the location for each of these segments. A list of the comparable properties is located on the following page.

COMPARABLE LAND SALES SUMMARY TABLE AND MAP

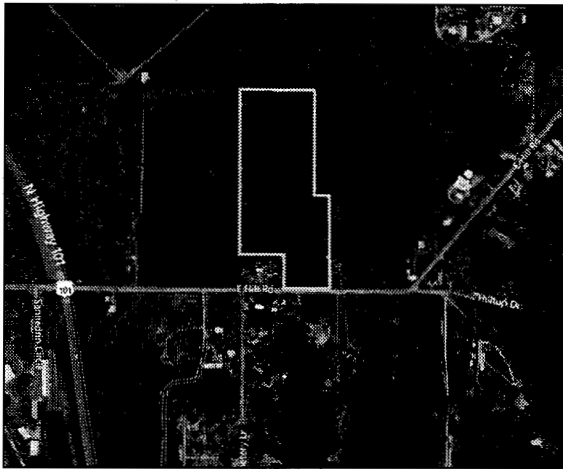
Sale #	Location	Seller	Sale Date	Sale Price	Zoning	Size Acres / SF	Price / AC
DC #	APN(s)	Buyer	Doc #				
LS-1 6815	1001 E Hill Road Willits, CA APN: 103-150-12	Bredehoft Revocable Trust Robert W McAsey and Tuesday M McAsey 2005 Revocable Trust	07/15/2022 2022.8563	\$209,000	AG-40	13.97± 608,533±	\$14,960
LS-2 6817	28500 Valley View Drive Willits, CA APN: 037-650-04	Eimstad Wendy Mae & Murray Robert Lesley J Schwenger Trust	03/08/2021 2021.3582	\$292,500	UR-20	21.37± 930,877±	\$13,687
LS-3 6801	6601 Third Gate Road Willits, CA APN: 037-590-05	Morganti Marysusan Bohte Steven Mark	01/06/2021 2021.196	\$235,000	RL	18.78± 818,057±	\$12,513
LS-4 6087	77214 Crawford Road Covelo, CA APN: 032-480-13-05	Linda, J Marshall Emily Paola Escareno Arteaga	11/12/2019 2019-13908	\$215,000	RR-10	5.00± 217,800±	\$43,000
ATF Parcel		Appraisal	---	---	UR20, UR-40, RR-10, RL	12.00±	---





## DISCUSSION OF SALE COMPARABLES

This analysis identifies the similarities and differences between the selected across-the-fence parcel and comparable properties. The primary elements of comparison include property rights, financing terms, conditions of sale (motivation), market conditions (sale date), and physical characteristics (e.g., zoning, utilities, soil quality, site improvements, location, access, etc.).



### Comparable Land Sale 1

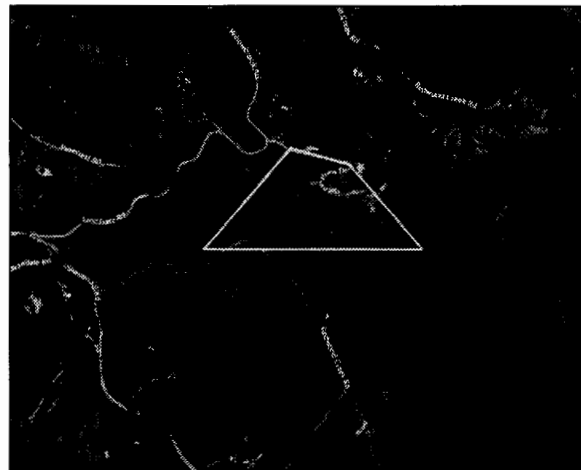
This is the sale of a 13.97-acre vacant rural residential property that sold for \$209,000, or \$14,960 per acre on July 15, 2022. The property is located on the north side of East Hill Road in Willits, California. According to the listing agent the buyer paid cash in this arms-length transaction. The zoning is AG-40 for agricultural and single family residential use, and the property has a rectangular shape with level topography. There are a few older improvements on the property, but they did not factor into the sale price. The property has electricity

access at the street. The surrounding uses are predominantly range land in nature with some rural resident uses.

This comparable is the most recent sale and therefore best reflects current market conditions. While this comparable is the closest in size to the subject this attribute is outweighed by the inferior location. All factors considered; the across-the-fence parcel's unit value will be above this indicator.

### Comparable Land Sale 2

This is the sale of a 21.37-acre vacant residential property that sold for \$292,500, or \$13,687 per acre on March 8, 2021. The property is located on the south side of Valley View Road in Willits, CA. Access is available via Sherwood Road to the south towards Brooktrails. According to the listing agent the buyer paid cash in this arms-length transaction. The zoning is UR-20 for residential use, and the property has a triangular shape, sloped topography, and dense forestry with cleared open space on the northern side of the property. The surrounding uses are predominantly rural residential use surrounded by open space and range land.



This comparable is similar to the subject property in terms of location and topography. However, this comparable is significantly larger which indicate a lower site value for the subject ATF parcel. All factors considered; the across-the-fence parcel's unit value will be below this indicator.



### Comparable Land Sale 3

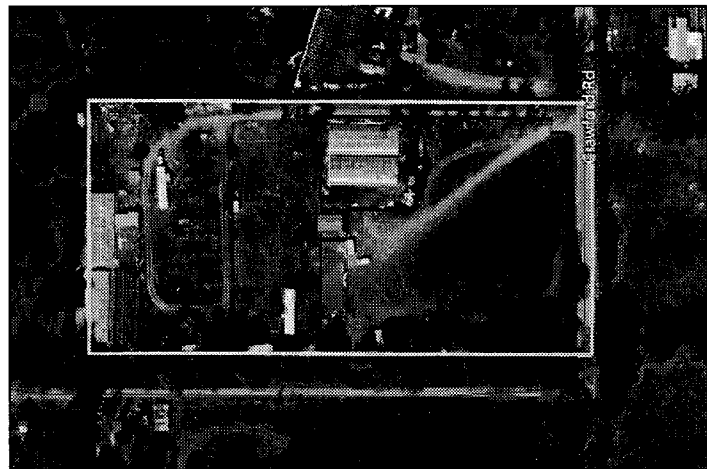
This the sale of an 18.78-acre vacant rural residential property that sold for \$235,000, or \$12,513 per acre on January 6, 2021. The property is located on the south side of Third Gate Road in Willits, CA. According to the listing agent the buyer used private financing in this arms-length transaction. The zoning is RL for range land and single family residential use, and the property has an irregular shape with downward sloped topography. The property has electricity access at the street. The

surrounding uses are predominantly range land in nature with some rural resident uses.

The comparable is the closest to the subject and is most similar in terms of location, topography, and access. This property is larger which indicates a lower per unit value. However, this attribute is outweighed by the inferior market conditions. All factors considered; the across-the-fence parcel's unit value will be below this indicator.

### Comparable Land Sale 4

This is the sale of 5 acres of rural residential land located at 77214 Crawford Road in Covelo. The parcel is in the northwest of town of the west side of the town and has average access to Covelo's amenities. The parcel is typical of much of the rural residential land in town. The site does not have access to the sewer system, but water and electricity are available. There is a trailer located on the site as well as several other small improvements. The buyer plans to build a single-family residence at a later point. Escrow closed on November 12, 2019, for \$215,000 or \$0.98 per square foot.



This comparable is the smaller in size which would indicate a higher site value for the subject. Further, this property sold during inferior market conditions. All factors considered; the across-the-fence parcel's unit value will be above this indicator.

**LAND VALUE CONCLUSION**

Based on the previous discussion, the sale comparables indicate the subject bracketed value range is from \$209,000 to \$292,500 per vacant lot. See the array below.

Comp No.	Subject Value Less Than / Greater Than	Sale Price	Sale Date	Parcel Size (Acres)
LS-2	<	\$292,500	03/21	21.37±
LS-3	<	\$235,000	01/21	18.78±
<i>Subject unit value ranges from \$215,000 to \$235,000 per vacant lot</i>				
LS-4	>	\$215,000	11/19	5.00±
LS-1	>	\$209,000	07/22	13.97±

In reconciling among the four sales the bracketed range is between Sale 3 and Sale 4 with a midpoint of the bracketed range at \$225,000. Given its unique characteristics, no single land sale is a mirror image of the across-the-fence parcel. Land Sale 4, which sold for \$215,000, is of interest given its size is less than 12 acres. Considering the sized of the comparables the subject ATF parcel at 12 acres would tend toward the lower end of the bracketed range considering the overall sizes of the comparables. Based upon the proceeding discussion, the concluded across-the-fence parcel unit value is \$220,000 per site, or \$18,333 per acre.

Per the special assignment condition the client has instructed that this appraisal will be used at the Surface Transportation Board (STB) and that STB does not allow corridor value or corridor enhancement factors as part of a valuation. Therefore, no enhancement factor is applied. The resultant figure represents the corridor land value. This calculation is shown below.

ATF Value / AC	Corridor Factor	Final Value / AC
\$18,333	--	\$18,333

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## VALUATION OF CORRIDOR- RURAL RESIDENTIAL ZONE (SEGMENT D)

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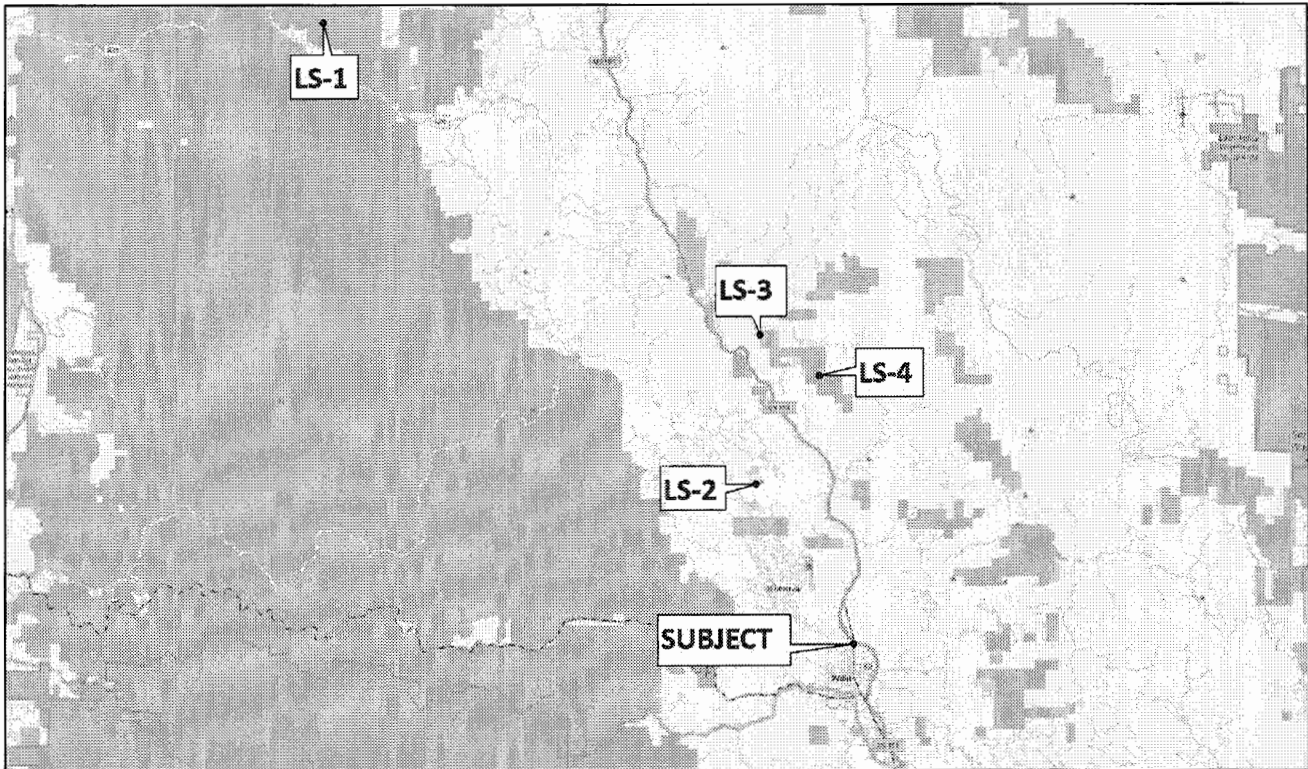
The comparable sales selected for this specific segment of the corridor are rural residential land use properties, which were chosen given that the primary land use adjacent to this segment is agricultural. The typical lot sizes are shown in the table below.

Segment	Land Use	Median Size	Average Size	Typical Size
D	Rural Res	29.25	40.42	40

The previous chart shows the typical lot sizes of the properties adjacent to each of the rural properties within segment D. Based upon average and median sizes of the adjacent properties we have selected comparable properties ranging from 1± acres to 300± acres in order to represent the typical or average size. We have considered the specific value influences such as the average size of the adjacent properties and the location for each of these segments. A list of the comparable properties is located on the following table.

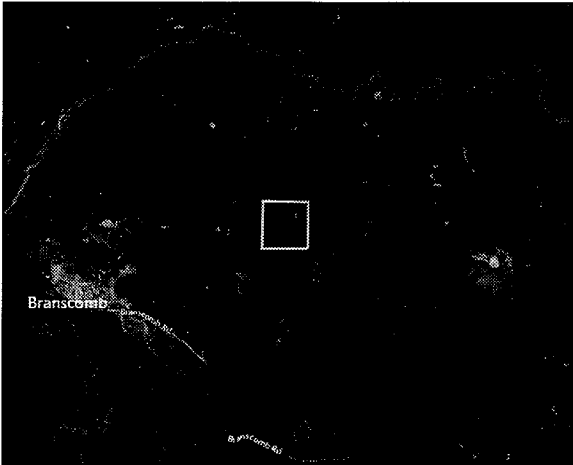
COMPARABLE LAND SALES SUMMARY TABLE AND MAP

Sale #	Location	Seller	Sale Date	Sale Price	Zoning	Size Acres / SF	Price / AC
DC #	APN(s)	Buyer	Doc #				
LS-1 6821	11830 Branscomb Road Branscomb, CA APN: 013-692-08	ABSOLUTELY ORGANIC LLC, Daniel L Tucker	06/02/2022 2022-06931	\$300,000	RL	40.00± 1,742,400 ±	\$7,500
LS-2 6817	28500 Valley View Drive Willits, CA APN: 037-650-04	Eimstad Wendy Mae & Murray Robert Lesley J Schwenger Trust	03/08/2021 2021.3582	\$292,500	UR-20	21.37± 930,877±	\$13,687
LS-3 6820	Four Mile Road Willits, CA APN: 036-200-23	Helga And Martin Raab Living Trust Blower Shawn D	02/02/2021 2021.1537	\$400,000	UR-40	40.00± 1,742,400±	\$10,000
LS-4 6816	30171 N Highway 101 Willits, CA APNs: 037-050-14	Swanson, Alan; Swanson, Janic Michael Garrity	04/16/2019 2019-04016	\$300,000	UR-40	40.00± 1,742,400±	\$7,500
ATF Parcel		Appraisal	---	---	UR20, UR-40, RL	40.00±	---



## DISCUSSION OF SALE COMPARABLES

This analysis identifies the similarities and differences between the selected across-the-fence parcel and comparable properties. The primary elements of comparison include property rights, financing terms, conditions of sale (motivation), market conditions (sale date), and physical characteristics (e.g., zoning, utilities, soil quality, site improvements, location, access, etc.).



### Comparable Land Sale 1

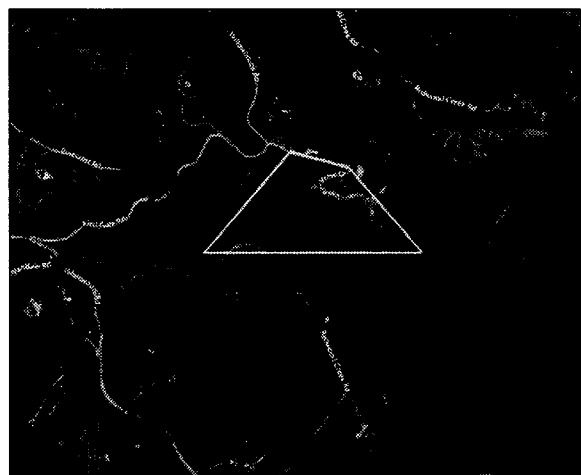
This is the sale of a 40-acre vacant residential property that sold for \$300,000, or \$7,500 per acre on June 2, 2022. The property is located north of Branscomb Road in Branscomb, CA. Access to the property is via gravel road to the south that connects to Branscomb Road. According to listing agent the buyer paid cash in this arms-length transaction. The zoning is RL for residential use, and the property has a square shape with sloped topography. The property has a single well and electricity available at the street.

The property has a few older improvements but did not contribute to the closing price. The property has heavy forestry with one open space to build a single family residence. The surrounding uses are predominantly range land with some rural resident uses.

This comparable is the most recent and best reflects current market conditions. Noteworthy similarities to the subject property include size, zoning, and topography. However, this comparable is the furthest from the subject property. All factors considered; the across-the-fence parcel's site value will be near this indicator.

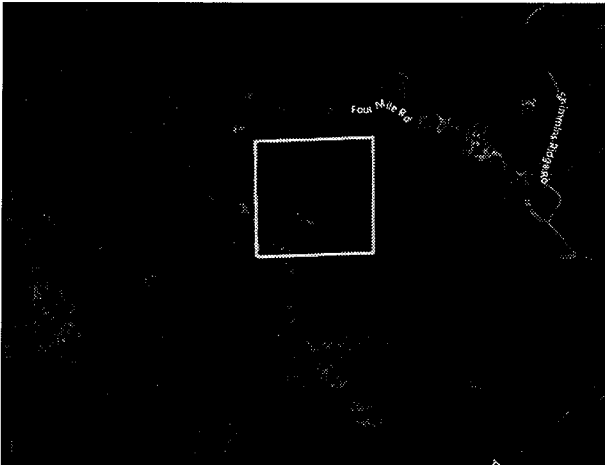
### Comparable Land Sale 2

This is the sale of a 21.37-acre vacant residential property that sold for \$292,500, or \$13,687 per acre on March 8, 2021. The property is located on the south side of Valley View Road in Willits, CA. Access is available via Sherwood Road to the south towards Brooktrails. According to the listing agent the buyer paid cash in this arms-length transaction. The zoning is UR-20 for residential use, and the property has a triangular shape, sloped topography, and dense forestry with cleared open space on the northern side



of the property. The surrounding uses are predominantly rural residential use surrounded by open space and range land.

This comparable is similar to the subject property in terms of location and topography. However, this comparable has inferior in size and access. All factors considered; the across-the-fence parcel's unit value will be above this indicator.



### Comparable Land Sale 3

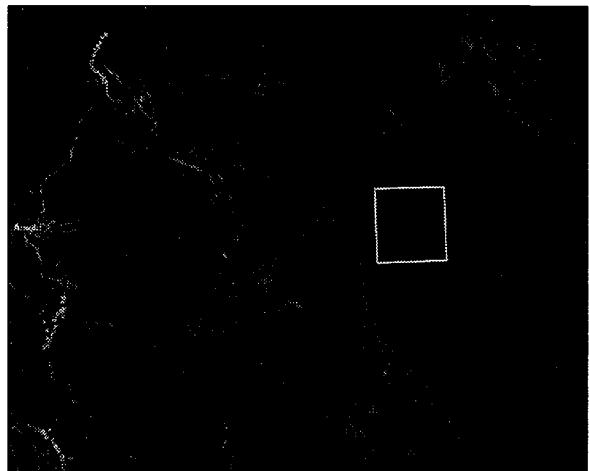
This is the sale of a 40-acre vacant residential property that sold for \$400,000, or \$10,000 per acre on February 2, 2021. The property is located on the south side of Four Mile Road in Willits, CA. Access is available via dirt road that connects to Four Mile Road and Highway 162 to the north. According to the listing agent the buyer used private financing in this arms-length transaction. However, the private financing did not factor into the sale price. The zoning is UR-40 for residential use, and the property has a square shape, sloped

topography, and dense forestry with some open space on the southern side of the property. The surrounding uses are predominantly rural residential use surrounded by open space and range land. It appears that the buyer may have been atypically motivated as he purchased the adjacent property two months after the close of this sale.

This comparable is similar to the subject property in terms of location size, and topography. However, it appears that there may have been some atypically motivation. All factors considered; the across-the-fence parcel's unit value will be below this indicator.

### Comparable Land Sale 4

This is the sale of a 40-acre vacant residential property that sold for \$300,000, or \$7,500 per acre on April 16, 2019. The property is located on the east side of Shimmins Ridge Road in Willits, CA. According to the listing agent the buyer used conventional financing in this arms-length transaction. The zoning is UR-40 for residential use, and the property has a square shape, sloped topography with dense forestry. The surrounding uses are predominantly range land in nature with some rural resident uses.



Access to the property is available via dirt road that connects to Shimmins Ridge Road to the west which connects to Highway 101.

This comparable is one of the closest to the subject property and shares other similar traits like size and topography. However, this comparable is the oldest sale and has inferior market conditions. All factors considered; the across-the-fence parcel's unit value will be near or slightly above this indicator.

### LAND VALUE CONCLUSION

Based on the previous discussion, the sale comparables indicate the subject bracketed value range is from \$292,500 to \$400,000 per site. See the array below.

Comp No.	Subject Value Less Than / Greater Than	Sale Price / AC	Sale Date	Parcel Size (Acres)
LS-3	<	\$400,000	02/21	40.0±
<i>Subject unit value ranges from \$300,000 to \$400,000 per site</i>				
LS-1	≈	\$300,000	06/22	40.0±
LS-4	≈	\$300,000	04/19	40.0±
LS-2	>	\$292,500	3/21	21.37±

In reconciling among the four sales used to conclude a value, we placed most weight on land sales 1 and 4. However, it's worth noting the narrow range of size within this market area, and that the vast majority of properties in the segment D market area are approximately 40 acres. Further, three of the four sales offer a very tight range near \$300,000. Based upon the proceeding discussion, the concluded across-the-fence parcel unit value is \$300,000 per site or \$7,500 per acre.

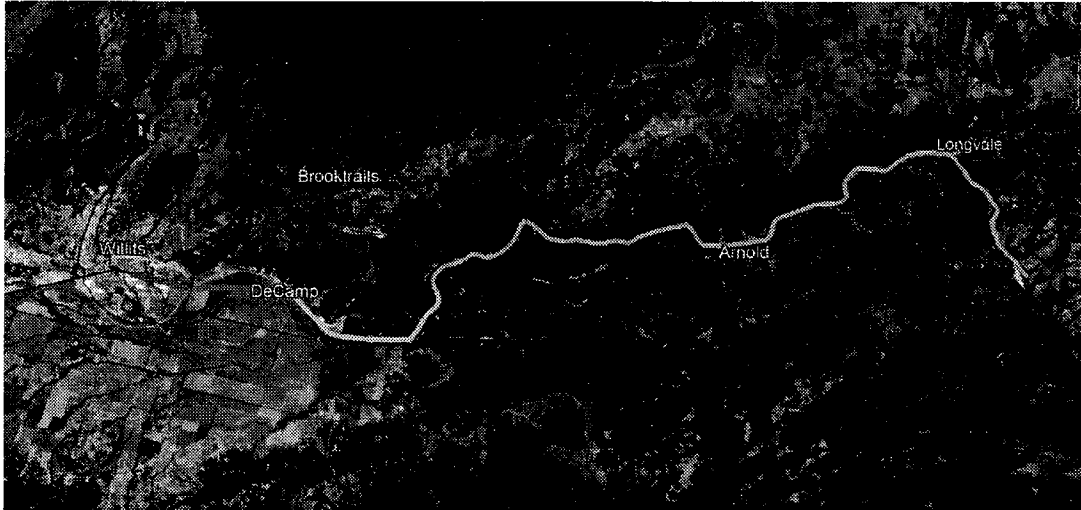
Per the special assignment condition the client has instructed that this appraisal will be used at the Surface Transportation Board (STB) and that STB does not allow corridor value or corridor enhancement factors as part of a valuation. Therefore, no enhancement factor is applied. The resultant figure represents the corridor land value. This calculation is shown below.

ATF Value / AC	Corridor Factor	Final Value / AC
\$7,500	--	\$7,500



## CONCLUSION OF MARKET VALUE (LAND ONLY)

As a reminder, the various segments are shown on the map below. This is followed by a tabular summary of the segment values and the Market Value Conclusion.



Segment	ATF - Land Use	Total AC	Value Per Acre	Total Value
A	Industrial	36.90	\$ 128,502	\$ 4,741,724
B	Agricultural	16.42	\$ 11,675	\$ 191,704
C	Rural Residential	49.06	\$ 18,333	\$ 899,417
D	Rural Residential	<u>119.01</u>	\$ 7,500	\$ 892,575
	<b>Total</b>	<b>221.39</b>		<b>\$ 6,725,419</b>
	<b>Rounded</b>			<b>\$ 6,725,000</b>

The Sales Comparison Approach indicates a value of \$6,725,419 or \$6,725,000 (rounded), for the Subject Property's approximately 13-mile corridor. Expressed on a per mile basis, this equates to approximately \$517,308 per mile.

This concludes the report.

## APPENDIX

## APPRAISERS' CERTIFICATIONS

## APPRAISER'S CERTIFICATION

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased and professional analyses, opinions and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
4. I have neither appraised nor provided any service pertaining to the subject property in the past three years.
5. I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. My engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP).
9. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
10. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
11. As of the date of this report, I have completed the continuing education program of the Appraisal Institute.
12. I have made a personal inspection of the property that is the subject of this report.
13. I have not revealed the findings and results of this appraisal to anyone other than the proper officials of the client and I will not do so unless and until authorized by the client, or until I am required to do so by due process of law, or until I am released from this obligation by having publicly testified as to such findings.

14. Such appraisal has been made in conformity with the appropriate California laws, Title VI of the 1964 Civil Rights Act, and regulations, policies, and procedures applicable to appraisal of right of way.
15. To the best of my knowledge, no portion of the value of the property appraised consists of items which are non-compensable under the established laws of California. It is my understanding that federal funds may be involved in the project that pertains to the subject of this report.
16. Rob Reid provided significant assistance in the preparation of this report including collection and analysis of the data, valuation analysis, and the reconciliation in this report under the direct supervision of the undersigned.
17. My opinion of the total market value of the appraised property identified in this report was derived without collusion, coercion or direction as to value.



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David C. Houghton, MAI  
Certified General Real Estate Appraiser  
California Certificate No. AG039402

## ASSESSMENT VALUATION REPORT OF THE NCRA RAILROAD

## Appendix A

<b>Assessment Valuation Report of the NCRA Railroad</b> <b>MP 140.2- MP 152.5 including the Willits yard area August 29, 2022 Draft</b> <b>Right of Way Areas MP 140.2 (Sta 16+36.5.7), begin Val Map 854-23-15B (1) to 152.5 (Sta 660+50.0)</b>										
Start Mile Post	Start Property Reference	End Property Reference	Right of Way Width	Length of this section	Total Square Feet this section	County	Map Page Ref	File	Station	Special Notes
140.2	1	1	72		16,236	Mendocino		854-23-15B	(Match Mark 16+36.5	
140.2	1	1	200	225.5	45,100	Mendocino		854-23-15B (1).tif		
	2	2	150	1400	390,000	Mendocino		854-23-15B (1).tif		
140								854-23-15B (1).tif		City of Willits Easement .1033 acres
140						Mendocino		854-23-15B (1).tif		State of California Easement 1.01 acres
141	3	3	100	2600	528,000	Mendocino		854-23-15B (1).tif		
142	4	4	100	5280	120,000	Mendocino		854-23-15B (1).tif		
			100	1200	80,000	Mendocino		854-23-15B (1).tif		
			125	800	400,000	Mendocino		854-23-15B (1).tif		
	4	5	100	3200	30,000	Mendocino		854-23-15B (1).tif		
143	4	5	160	300	320,000	Mendocino		854-23-15B (1).tif		
	6	6	100	2000	158,000	Mendocino		854-23-15B (1).tif		
143.7	6	6	160	1580	160,000	Mendocino		854-23-15B	(Outlet 197+34.4	
	7	8	100	1000	40,000	Mendocino	2 of 28	854-23-16A	(Match Mark 210	
	9	9	100	400	340,000	Mendocino	2 of 28	854-23-16A (1).tif		
144	10	10	100	3400	150,000	Mendocino	2 of 28	854-23-16A (1).tif		
	11	11	150	1500	75,000	Mendocino	2 of 28	854-23-16A (1).tif		
	12	12	100	500	400,000	Mendocino	2 of 28	854-23-16A (1).tif		
145	13	15	100	4000	140,000	Mendocino	2 of 28	854-23-16A (1).tif		
	16	17	200	1400	1,080,000	Mendocino	2 of 28	854-23-16A (1).tif		
146	17	17	200	5400	160,000	Mendocino	2 of 28	854-23-16A (1).tif		
	17	17				Mendocino		Easement & Grant List		U.S. Government Grant 32.36 Acres not included
147	17	17	200	800	100,000	Mendocino	2 of 28	854-23-16A (1).tif		
	19	19	100	500	50,000	Mendocino	2 of 28	854-23-16A (1).tif		
	20	20	150	500	270,000	Mendocino	2 of 28	854-23-16A (1).tif		
	20	20	125	1800	37,500	Mendocino	2 of 28	854-23-16A (1).tif		
	20	20	100	300	140,000	Mendocino	2 of 28	854-23-16A	(Match Mark 72.33	

## Appendix A

148	21	21	100	1400	528,000	Mendocino	3 of 28	854-23-17A (1).tif	
149	22	24	100	5280	90,000	Mendocino	3 of 28	854-23-17A (1).tif	
	24	24	100	900	50,000	Mendocino	3 of 28	854-23-17A (1).tif	
	24	24	130	500	260,000	Mendocino	3 of 28	854-23-17A (1).tif	
	25	27	100	2000	140,000	Mendocino	3 of 28	854-23-17A (1).tif	
	26	27	150	1400	90,000	Mendocino	3 of 28	854-23-17A (1).tif	
150	26	27	100	600	50,000	Mendocino	3 of 28	854-23-17A (Tunnel 12 879'	
	28	28	100	500	70,000	Mendocino	3 of 28	854-23-17A (1).tif	
	28	28	150	700	240,000	Mendocino	3 of 28	854-23-17A (1).tif	
	28	28	100	1600	30,000	Mendocino	3 of 28	854-23-17A (1).tif	
	28	28	120	300	120,000	Mendocino	3 of 28	854-23-17A (1).tif	
	28	28	100	1000	100,000	Mendocino	3 of 28	854-23-17A (1).tif	
	29	29	125	1000	25,000	Mendocino	3 of 28	854-23-17A (1).tif	
151	29	29	100	200	200,000	Mendocino	3 of 28	854-23-17A (1).tif	
	30	30	100	2000	30,000	Mendocino	3 of 28	854-23-17A (1).tif	
	30	30	150	300	75,000	Mendocino	3 of 28	854-23-17A (1).tif	
	30	31	100	500	150,000	Mendocino	3 of 28	854-23-17A (Match Mark 610	
	31	31	100	1500	100,000	Mendocino	4 of 28	854-23-18A (1).tif	
151								854-23-18A (1).tif	State of California Easement .78 acres
152	31	31	150	1000	60,000	Mendocino	4 of 28	854-23-18A (1).tif	
	31	31	125	400	237,500	Mendocino	4 of 28	854-23-18A (1).tif	
	31	32	175	1900	52,500	Mendocino	4 of 28	854-23-18A (1).tif	
152					333			854-23-18A (1).tif	J.A. Whittaker 2,000 Sq ft between MP 152 and MP 155 = 2,000/6 = 333.3 Sq ft. between MP 152 and MP 152.5
	34	36	230	300	69,000	Mendocino	4 of 28	854-23-18A (segment	Longview 661 +56.0 End of this line
152.5	49	49			39,200	Mendocino	4 of 28	854-23-18A (Small Parcel next to R of W	
Total Square Feet					8,036,369				
Total Acres					184.49				



## Appendix A

<b>Yard Area north of Commercial Street to MP 140.2 (Sta 1636.5)</b>									
North end of Yard defined as MP 140.2 at start of Val Map 854-23-15B (1)									
EG Stati	End Station	Length	Dist. Lt	Dist. Rt	Width	Area	Acre	Notes	
544.6	1636.5	1091.9	75	75	150	163,785	3.760	Val map shows 200' and parcel mapping indicates 150' used 150'	
Scaled from Parcel maps						207,800	4.770	parcel 503003 Log operation using several acres	
Scaled from Parcel maps						106,000	2.433	parcel 50300 located east of 503003	
Scaled from Parcel maps						101,118	2.321	parcel 50600 Adjacent High School	
Scaled from Parcel maps						112,203	2.576	parcel 5070RW center track area from school to Commercial Street	
Scaled from Parcel maps						85,637	1.966	parcel 50600 Rt of track in school area	
Scaled from Parcel maps						19,989	0.459	parcel 51101 just north of creek on Lt.	
Scaled from Parcel maps						4,759	0.109	parcel 51101 just south of creek on Rt.	
Scaled from Parcel maps						511,008	11.731	parcel 511008 access to main street just north of Y	
Scaled from Parcel maps						129,228	2.967	parcel 51101 turn around Y	
Scaled from Parcel maps						24,570	0.564	parcel 50500 Rt of track south of creek	
Scaled from Parcel maps						82,230	1.888	parcel 51201 Rt of track south of creek	
Scaled from Parcel maps						48,730	1.119	parcel 51101 Rt of track south of creek	
Scaled from Parcel maps						10,307	0.237	parcel 51300 Rt of track south of creek	
<b>Total Acres of Yard</b>							<b>36.900</b>		
One Mile is 5280 feet									
One Acre is 43,560 square feet									
All track miles are measured to the nearest 10th of a mile unless noted									

## APPRAISERS' QUALIFICATIONS

# PROFESSIONAL QUALIFICATIONS



## YEARS OF EXPERIENCE

17 Years (with BRI since 2014)



## EDUCATION

BS, Science of Business  
Management  
University of Phoenix  
Phoenix, Arizona



## PROFESSIONAL REGISTRATIONS

California Certified General  
Real Estate Appraiser  
AG 39402



## PROFESSIONAL AFFILIATIONS

Northern California Chapter of  
Appraisal Institute



## DESIGNATIONS

MAI, Appraisal Institute

## DAVID HOUGHTON, MAI

### Manager of Agency Appraisal

David Houghton is a Senior Appraiser with Bender Rosenthal (BRI). He has been involved in real estate appraising since 2005 and is a Certified General Appraiser in the State of California. He has professional experience appraising a wide range of property types, including industrial, office, medical office, retail, multifamily, condemnation, right of way, residential subdivisions, and various agricultural/rural residential property types. Between 2007 and 2014 he worked exclusively on low income housing appraisal assignments. While focused on that specialty, Dave gained experience appraising affordable housing and conducting market studies for Low Income Housing Tax Credit (LIHTC) developers. In 2014, David began working with BRI and has since shifted his focus and expertise into right of way appraisal assignments.

Geographically, Dave has appraised properties and completed market studies throughout Southern and Northern California, Washington, Hawaii, and Nevada, with the bulk of the experience in Southern and Northern California.

## REPRESENTATIVE VALUATIONS INCLUDE

**Office** – Existing and proposed office properties in Sacramento Region and Central Valley.

**Retail** – Existing and proposed retail properties in Northern and Southern California.

**Industrial** – Existing and proposed industrial properties in Sacramento Region and Central Valley.

**Multi-family** – Existing and proposed multi-family properties in Northern and Southern California, the state of Washington, New Mexico, Nevada and Hawaii.

**Mixed Use** – Existing and proposed mixed use properties in Northern and Southern California.

**Subdivision** – Proposed residential subdivisions in Sacramento Region and Central Valley.

**Eminent Domain** – Improved and unimproved properties involving full and partial takings for municipalities, quasi-public companies, and property owners.

**Agricultural** – Vineyards, dairies, orchards, field/row crop land, and rural residential properties.

**Land** – Various types of land appraised such as commercial land, retail pad sites, residential land, transitional land, and agricultural/rural residential land.

**Multi-family Market Studies** – Existing and proposed multi-family LIHTC/HUD/USDA properties in Northern and Southern California, the state of Washington, New Mexico, Nevada and Hawaii.

## Attachment D

RECORDING REQUESTED BY

AND WHEN RECORDED MAIL TO

Northern Pacific Acquisition  
c/o Southern Pacific Land Corp.  
Attn: C. W. Johnson  
201 Mission St.  
San Francisco, CA 94105

MAIL TAX STATEMENTS TO

same as above

16158

RECORDED BY REQUEST OF  
FIRST AMERICAN TITLE COMPANY  
BOOK 1481 PAGE 186

Nov 5 2 39 PM '84

RECORDS  
HUMBOLDT COUNTY CALIF  
MARSH A. YOUNG  
RECORDER

21.00

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Documentary Transfer Tax is  
\$ 499.95 based on full  
consideration.

### Quitclaim Deed

ACCOMODATION ONLY  
WITHOUT LIABILITY

*E. Pauling Carter*

NORTHWESTERN PACIFIC RAILROAD COMPANY,

a California corporation, Grantor,

hereby QUITCLAIMS TO NORTHWESTERN PACIFIC ACQUIRING CORPORATION,

a California corporation, Grantee;

all of its right, title and interest in and to that certain real property situated in the Counties  
of Humboldt,  
Trinity and Mendocino, State of California, described in Exhibit "A," attached and  
hereby made a part hereof.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed this 25th  
day of October, 1984.

NORTHWESTERN PACIFIC RAILROAD COMPANY

By *E. Pauling Carter* (Seal Affixed)  
(Title) VICE PRESIDENT

Attest *[Signature]*  
Assistant Secretary

Approved as to form  
by General Counsel  
March 1, 1981

BOOK 1481 PAGE 186

STATE OF CALIFORNIA }  
City and County of San Francisco } s.s.

On this 30th day of October in the year One Thousand Nine Hundred and Eighty FOUR  
before me, CATHERINE G. GILBRONSON, a Notary Public in and for the City and County of San Francisco, State of California, personally appeared  
XXXXXXXXXXXX E. P. Ahoro, Vice President

personally known to me by name and on the basis of satisfactory evidence to be the person who  
executed the within instrument of president for secretary or on behalf of the Corporation therein  
named and acknowledged to me that the Corporation executed it.



Corporation  
My Commission Expires November 9, 1934

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at my  
office in the City and County of San Francisco, the day and date in this certificate first above  
written.

*Catherine G. Gilbronsen*  
Notary Public in and for the City and County of San Francisco, State of California.

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EXHIBIT "A"

DWJ/PMY  
10/25/89

Those certain parcels of land situated in the Counties of Mendocino, Trinity and Humbolt, all in the State of California, described as follows: All the land described in the following deeds (#1 thru #22) recorded in the records of said Mendocino County, from:

<u>Grantor</u>	<u>Recorded</u>
1. J. H. Carothers	August 31, 1907, D.B. 86, Pg. 254
2. Nellie S. James, et al	January 23, 1908, D.B. 86, Pg. 361
3. E. P. DeCamp, et al (Parcels III & IV)	October 16, 1907, D.B. 86, Pg. 292
4. Sunset Trading and Land Co.	February 23, 1910, D.B. 118, Pg. 4
5. Robert G. Sowers	September 30, 1907, D.B. 86, Pg. 285
6. Richard Grease	February 4, 1908, D.B. 86, Pg. 379
7. Bernt Schow	October 16, 1907, D.B. 86, Pg. 302
8. Nancy M. Vincent	January 11, 1909, D.B. 86, Pg. 503
9. Solomon Kramer	March 25, 1910, D.B. 118, Pg. 38
10. Mary Elizabeth Holton	October 22, 1907, D.B. 86, Pg. 308
11. Charles E. Russell, et al	February 5, 1908, D.B. 86, Pg. 384
12. Theon D. Hood	September 20, 1909, D.B. 86, Pg. 595
13. Ailla Cleveland	January 15, 1909, D.B. 113, Pg. 247
14. Charles John Edwards	October 30, 1907, D.B. 86, Pg. 315
15. G. W. Dishor	September 25, 1907, D.B. 86, Pg. 279
16. P. L. Arnold, et al	June 20, 1910, D.B. 118, Pg. 67
17. P. N. Fisher	June 6, 1910, D.B. 118, Pg. 59
18. Oliver Wescott, et al	August 31, 1907, D.B. 86, Pg. 256
19. Sunset Trading and Land Co.	September 22, 1909, D.B. 86, Pg. 605
20. Sunset Trading and Land Co.	April 5, 1910 D.B. 118, Pg. 40

<u>Grantor</u>	<u>Recorded</u>
21. Wagner Land Co.	June 7, 1911 D.B. 118, Pg. 148
22. Northwestern Redwood Co.	May 2, 1910 D.B. 118, Pg. 48
23. L. B. Rose	September 14, 1909 D.B. 86, Pg. 573
24. Edward Zorn	September 14, 1909 D.B. 86, Pg. 590
25. Edward Zorn	July 8, 1911, D.B. 118, Pg. 155
26. L. B. Rose	June 16, 1911, D.B. 118, Pg. 152
27. Erling J. Miller	August 30, 1909, D.B. 86, Pg. 560
28. L. B. Rose	December 10, 1918, D.B. 155, Pg. 9
29. Northwestern Redwood Co.	June 17, 1933, Dk. 83 of O.R., Pg. 126
30. Mary E. Rowe	March 24, 1910, D.B. 118, Pg. 9
31. George A. Knight	September 20, 1909, D.B. 86, Pg. 599
32. Mendocino Cattle and Land Co.	September 14, 1909, D.B. 86, Pg. 582
33. Mendocino Cattle and Land Co.	November 15, 1915, D.B. 86, Pg. 332
34. J. H. Brooks	May 21, 1912, D.B. 130, Pg. 498
35. M. A. Norris	March 24, 1910, D.B. 118, Pg. 11
36. M. A. Norris	February 18, 1911, D.B. 118, Pg. 123
37. Northwestern Redwood Co.	May 2, 1910, D.B. 118, Pg. 53
38. Naomi G. Wallace	June 17, 1910, D.B. 119, Pg. 403
39. County of Mendocino	December 7, 1915, Supervisor's minutes
40. Rosalia Shore	March 24, 1910, D.B. 118, Pg. 13
41. Northwestern Redwood Co.	March 8, 1915, D.B. 142, Pg. 42
42. Cora F. Fales, et al	June 23, 1914, D.B. 118, Pg. 283
43. Cora F. Fales, et al	June 23, 1914, D.B. 118, Pg. 282
44. California State Water Commission	January 17, 1916, Co. Recorder's Office
45. H. H. Beard	August 22, 1916, D.B. 147, Pg. 236
46. H. L. Gillogly	December 9, 1919, D.B. 156, Pg. 393
47. Catherine M. Crowley	March 24, 1910, D.B. 118, Pg. 19



<u>Grantor</u>	<u>Recorded</u>
48. Cora E. Fales	March 24, 1910, D.B. 118, Pg. 16
49. William Fales	March 24, 1910, D.B. 118, Pg. 18
50. F. G. Woodruff, et ux	August 23, 1938, Book 127, Pg. 114, O.R.
51. Glen N. Johnson, et al	April 28, 1965, Book 688, Pg. 20, O.R.
52. John S. Rohrbough	January 13, 1911, D.B. 118, Pg. 106
53. Annie L. Hurt	March 24, 1910, D.B. 118, Pg. 22
54. Rafe Beard	March 24, 1910, D.B. 118, Pg. 25
55. Rafe Beard	December 26, 1913, D.B. 137, Pg. 149
56. Danjuan D. Middleton	March 24, 1910, D.B. 118, Pg. 27
57. William F. Anger	March 24, 1910, D.B. 118, Pg. 29
58. Evan F. Rohrbough, et ux	March 17, 1960, D.B. 535, Pg. 526
59. Henry J. Nash	April 11, 1911, D.B. 118, Pg. 136
60. Henry J. Nash	July 3, 1916, D.B. 147, Pg. 146
61. California Cattle & Land Co.	July 14, 1910, D.B. 118, Pg. 75
62. A. P. Redwine	March 24, 1910, D.B. 118, Pg. 31
63. Grace Warnoch Smith	August 26, 1910, D.B. 118, Pg. 90
64. Fred Simmerley, et ux	March 24, 1910, D.B. 118, Pg. 33
65. Fred Simmerley, et ux	August 13, 1912 D.B. 118, Pg. 205
66. F. Simmerly, Sr.	March 15, 1913, D.B. 118, Pg. 244
67. Fred Simmerly, et ux	October 14, 1915, D.B. 118, Pg. 325
68. Western Farm & Land Company	July 30, 1910, D.B. 118, Pg. 81
69. Fred Simmerly, et ux	October 14, 1915, D.B. 118, Pg. 326
70. Ramsey Land & Live Stock Co.	February 14, 1911, D.B. 118, Pg 115
71. Ramsey Land & Live Stock Co.	November 2, 1914, D.B. 118, Pg. 289
72. M. L. Gillogly	November 6, 1914, D.B. 141, Pg. 149
73. Lehrke-Fredricks Land & Live Stock Company	March 15, 1917, D.B. 149, Pg. 172

<u>Grantor</u>	<u>Recorded</u>
74. Fred H. Lunblade, et ux	September 8, 1966, Book 724, Pg. 401, O.R.
75. F. & M. Crawford Lumber Co.	June 13, 1967, Book 741, Pg. 694, O.R.
76. Richard A. Wilson, et ux	June 6, 1969, Book 793, Pg. 19, O.R.
77. Dean Witter, Jr.	September 17, 1969, Book 800, Pg. 225, O.R.
78. William D. Witter	September 17, 1969, Book 800, Pg. 223, O.R.
79. Helen A. Gillette	September 17, 1969, Book 800, Pg. 227, O.R.
80. George N. Merritt	February 17, 1911, D.B. 118, Pg. 119
81. Elsie Ramsey	August 30, 1916, D.B. 147, Pg. 253
82. Elsie R. Frost, et vic	July 7, 1942, Book 156, Pg. 103, O.R.

Also, all the land described in the following deeds (#83 thru #100) recorded in the records of said Trinity County from:

83. Ramsey Land & Live Stock Co.	February 13, 1911, D.B. 34, Pg. 660
84. Ernest G. Johnson	January 3, 1911, D.B. 34, Pg. 598
85. George N. Merritt	January 14, 1911, D.B. 34, Pg. 618
86. Bank of Ukiah	February 13, 1911, D.B. 34, Pg. 667
87. Elsie R. Frost, et vic	May 5, 1942, Book 19, Pg. 256, O.R.
88. Ramsey Land & Live Stock Co.	February 13, 1911, D.B. 34, Pg. 664
89. Frank A. Leach	April 20, 1911, D.B. 34, Pg. 739
90. Jeanette E. Merritt	October 31, 1910, D.B. 34, Pg. 515
91. Elsie H. Ramsey	February 7, 1918, D.B. 150, Pg. 424
92. John Beaumont	November 3, 1910, D.B. 34, Pg. 521
93. Martin P. Lauffer	September 19, 1910, D.B. 34, Pg. 429
94. W. P. White	January 14, 1911, D. B. 34, Pg. 616
95. John W. Wood	September 19, 1910, D.B. 34, Pg. 426
96. John S. Rohrbough	January 14, 1911, D.B. 34, Pg. 610
97. John S. Rohrbough	September 28, 1914, D.B. 37, Pg. 157
98. Petaluma Savings Bank	January 23, 1911, D.B. 34, Pg. 650

<u>Grantor</u>	<u>Recorded</u>
99. W. P. White	January 14, 1911, D.B. 34, Pg. 612
100. Floyd J. White, et al	November 25, 1938, Book 10, pg. 359, O.R.

Also, all the land described in the following deeds (#101 thru #373) recorded in the records of said Humboldt County from:

101. W. P. White, et al	January 14, 1911, D.B. 113, Pg. 298
102. John D. Long	September 20, 1910, D.B. 113, Pg. 82
103. Frank M. Stansberry	January 3, 1911, D.B. 113, Pg. 82
104. Bruce Delamater	January 2, 1917, D.B. 135, Pg. 416
105. Petaluma Savings Bank	January 23, 1911, D.B. 113, Pg. 317
106. Frank Thomas Swanson	September 20, 1910, D.B. 113, Pg. 78
107. Monte Vista Land Co.	October 31, 1910, D.B. 113, Pg. 130
108. Charles R. Smith	October 31, 1910, D.B. 113, Pg. 127
109. Frank L. Cain	September 20, 1910, D.B. 113, Pg. 79
110. Charles R. Smith	January 20, 1916, D.B. 131, Pg. 437
111. Petaluma Savings Bank, et al	October 3, 1910, D.B. 113, Pg. 98
112. E. N. Tooby, et al	December 5, 1910, D.B. 113, Pg. 190
113. D. H. Prior	August 22, 1910, D. B. 112, Pg. 312
114. Alderpoint Development Co.	October 16, 1915, D.B. 131, Pg. 194
115. Alderpoint Development Co.	November 27, 1914, D.B. 127, Pg. 336
116. Frederick H. Lay	December 18, 1914, D.B. 127, Pg. 388
117. J. F. Coonan, et al	August 22, 1910, D.B. 112, Pg. 311
118. J. B. Dusenbury	May 28, 1915, D.B. 129, Pg. 376
119. Henry M. Devoy, et al	March 1, 1912, D.B. 116, Pg. 467
120. Humbolt County Land & Dev. Co.	June 9, 1915, D.B. 130, Pg. 378
121. Humbolt County Land & Dev. Co.	May 15, 1916, D.B. 133, Pg. 228
122. M. C. Gillogly	April 27, 1916, D.B. 133, Pg. 190
123. Henry M. Devoy, et al	March 1, 1912, D.B. 116, Pg. 467

<u>Grantor</u>	<u>Recorded</u>
124. John A. Cathio	May 9, 1911, D.B. 115, Pg. 11
125. Fred A. Mathison	August 22, 1910, D.B. 12, Pg. 315
126. Ellen C. Mathison	September 20, 1910, D.B. 113, Pg. 81
127. Lula H. Maddon	August 22, 1910, D.B. 112, Pg. 314
128. Theodore A. Hamann	August 22, 1910, D.B. 112, Pg. 317
129. T. A. Hamann	March 18, 1913, D.B. 121, Pg. 203
130. Humbolt County Land & Dev. Co.	June 8, 1914, D.B. 126, Pg. 428
131. Humbolt County Land & Dev. Co.	June 9, 1915, D.B. 130, Pg. 380
132. Edwin A. Boehne	August 22, 1910, D.B. 112, Pg. 313
133. Z. Russ & Sons Co.	November 15, 1909, D.B. 110, Pg. 181
134. Isaiah Hartman	November 4, 1910, D.B. 112, pg. 522
135. Doana Favre	January 12, 1942, D.B. 253, Pg. 451
136. Calif. Eastern Timber Co.	March 17, 1959, D.B. 526, Pg. 365
* 137. Humbolt County Land & Dev. Co., et al	July 31, 1915, D.B. 131, Pg. 1
138. Humbolt County Land & Dev. Co., et al	December 27, 1915, D.B. 131, Pg. 369
139. Chester B. Denmark	November 15, 1909, D.B. 110, Pg. 180
140. Robert Foster	December 10, 1909, D.B. 111, Pg. 191
141. Charles G. Taylor	October 4, 1909, D.B. 110, Pg. 117
142. Antone Perry	November 15, 1909, D.B. 110, Pg. 185
143. Vermon J. Bilderback, et al	November 3, 1966, Vol. 902, Pg. 376, O.R.
144. Patrick Duffy	November 15, 1909, D.B. 110, Pg. 187
145. G. W. Filkins	December 10, 1909, D.B. 110, Pg. 241
146. G. W. Filkins, et al	January 25, 1915, D.B. 127, Pg. 482
147. John Geering	May 17, 1915, D.B. 130, Pg. 327
148. R. C. Bostetter	May 21, 1910, D.B. 110, Pg. 471
149. Robert B. Hule	March 19, 1910, D.B. 110, Pg. 386

<u>Grantor</u>	<u>Recorded</u>
150. Albert Curless	November 15, 1909, D.B. 111, Pg. 93
151. Henry A. Hanson, et al	January 3, 1910, D.B. 110, Pg. 286
152. Levi H. Whoat	December 10, 1909, D.B. 110, Pg. 243
153. J. H. French	January 3, 1910, D.B. 110, Pg. 284
154. Frank E. Baxter	November 30, 1908, D.B. 107, Pg. 43
155. Levi H. Whoat	June 26, 1911, D.B. 115, Pg. 154
156. Eliza Jane Halvorson	November 15, 1909, D.B. 111, Pg. 91
157. M. L. Gillogly	November 4, 1910, D.B. 112, Pg. 523
158. W. H. Haw	March 14, 1910, D. B. 110, Pg. 375
159. Hammond Lumber Co.	November 4, 1912, D.B. 119, Pg. 428
160. Hammond Lumber Co.	May 15, 1915, D.B. 130, Pg. 319
161. Theodore H. Howatt	March 29, 1910, D.B. 110, Pg. 406
162. Bonita Weaver, et al	March 23, 1914, D.B. 126, Pg. 154
163. Levi H. Wheat	March 23, 1914, D.B. 126, Pg. 151
164. Philitus Bell, et al	March 23, 1914, D.B. 126, Pg. 153
165. Samuel Dickson	November 15, 1909, D.B. 111, Pg. 95
166. Hammond Lumber Co.	May 15, 1915, D.B. 130, Pg. 325
167. Hammond Lumber Co.	December 3, 1912, D.B. 121, Pg. 26
168. West Shore Wood Co.	March 25, 1909, D. B. 107, Pg. 239
169. M. L. Gillogly	March 19, 1915, D.B. 130, Pg. 163
170. Hiram C. Smith	November 13, 1911, D.B. 116, Pg. 259
171. Hammond Lumber Co.	May 15, 1915, D.B. 130, Pg. 312
172. Hammond Lumber Co.	May 15, 1915, D.B. 130, Pg. 316
173. Levi H. Wheat, et al	May 15, 1915, D.B. 130, Pg. 317
174. Samuel Dickson	November 15, 1909, D.B. 110, Pg. 183
175. M. L. Gillogly, et al	June 9, 1910, D.B. 110, Pg. 506
176. H. B. Hickoy	January 21, 1910, D.B. 110, Pg. 331

<u>Grantor</u>	<u>Recorded</u>
177. The Pacific Lumber Co.	March 23, 1914, D.B. 126, Pg. 145
178. The Pacific Lumber Co.	December 15, 1913, D.B. 123, Pg. 381
179. The Pacific Lumber Co.	January 22, 1920, D.B. 140, Pg. 226
180. The Pacific Lumber Co.	March 6, 1922, D.B. 159, Pg. 46
181. The Pacific Lumber Co.	February 16, 1920, D.B. 140, Pg. 324
182. The Pacific Lumber Co.	August 1, 1932, D.B. 207, Pg. 362
183. F. W. Georgeson	December 10, 1913, D.B. 123, Pg. 369
184. John W. Bryan	August 3, 1908, D.B. 102, Pg. 340
185. The Pacific Lumber Co.	July 31, 1906, D.B. 96, Pg. 114
186. The Pacific Lumber Co.	December 6, 1911, D.B. 116, Pg. 312
187. The Pacific Lumber Co.	August 29, 1906, D.B. 96, Pg. 181
188. The Pacific Lumber Co.	May 16, 1903, D.B. 82, Pg. 410
189. John McKeown	August 4, 1916, D.B. 135, Pg. 2
190. The Pacific Lumber Co.	January 22, 1920, D.B. 140, Pg. 226
191. Lesley L. Sanders, et ux	April 5, 1955, Book 334, Pg. 74, O.R.
192. Clifford C. Cook, et al	August 25, 1969, Instrument 12244 of O.R.
193. The Pacific Lumber Co.	July 31, 1906, D.B. 96, Pg. 108
194. The Pacific Lumber Co.	January 22, 1920, D.B. 140, Pg. 224
195. The Pacific Lumber Co.	June 25, 1931, D.B. 202, Pg. 373
196. State of California	May 12, 1973, Book 1189, Pg. 425, O.R.
197. Annie Dinsmore	July 10, 1913, D.B. 123, Pg. 23
198. George W. Evans, et al	May 12, 1965, Book 835, Pg. 621, O.R.
199. Lewis S. East, et ux	July 26, 1913, D.B. 123, Pg. 67
200. Lewis S. East, et ux	November 28, 1914, D.B. 127, Pg. 345
201. M. P. Hanson	February 20, 1892, D.B. 41, Pg. 237
202. M. P. Hanson	July 17, 1884, D.B. 14, Pg. 302
203. Peter Hauck	June 24, 1884, D.B. 13, Pg. 477

<u>Grantor</u>	<u>Recorded</u>
204. John O. Dinsmore	July 17, 1884, D.B. 14, Pg. 306
205. Horace Drake	July 17, 1884, D.B. 14, Pg. 299
206. John S. East	July 17, 1884, D.B. 14, Pg. 300
207. Benjamin Campton	August 16, 1884, D.B. 14, Pg. 479
208. A. P. Campton	August 16, 1884, D.B. 14, Pg. 481
209. Martha J. Lindloy, et al	June 26, 1884, County Clerk (Superior Court Case #562)
210. Charles C. Bryant	May 20, 1911, D.B. 113, Pg. 512
211. J. F. Lockwood	January 12, 1883, D.B. 7, Pg. 405
212. Samuel Huling	January 12, 1883, D.B. 7, Pg. 407
213. Daniel French	June 24, 1884, D.B. 13, Pg. 476
214. R. Camoron	September 1, 1884, County Clerk (Superior Court Case #561)
215. Henry Rohner	August 28, 1884, County Clerk (Superior Court Case #558)
216. Mary A. Rohner	June 22, 1904, D.B. 87, Pg. 501
217. G. F. Gushaw	July 17, 1884, D.B. 14, Pg. 307
218. Christina A. Peugh	March 17, 1897, D.B. 56, Pg. 591
219. F. H. Friedenbach	June 24, 1884, D.B. 13, Pg. 473
220. A. Robinson	June 24, 1884, D.B. 13, Pg. 474
221. Daniel Snider	March 24, 1884, D.B. 8, Pg. 126
222. Joseph Rolley	February 24, 1893, D.B. 45, Pg. 452
223. Peter Schoonover	December 1, 1882, D.B. 7, Pg. 52
224. J. W. Henderson	February 14, 1893, D.B. 45, Pg. 394
225. W. V. Cope	December 1, 1882, D.B. 7, Page 46
226. John S. Connick	June 2, 1883, D.B. 8, Pg. 718
227. Thomas J. Finch	April 21, 1883, D.B. 8, Page 361
228. John Robinson	December 15, 1882, D.B. 7, Pg. 164

<u>Grantor</u>	<u>Recorded</u>
229. Thomas A. Groig	April 15, 1913, D.B. 121, Pg. 353
230. Benjamin F. Portor	March 4, 1913, D.B. 122, Pg. 40
231. John Anderson	April 21, 1883, D.B. 8, Pg. 362
232. Alvin N. Barber	December 1, 1882, D.B. 7, Pg. 44
233. George E. Hanson	February 2, 1923, D.B. 161, Pg. 466
234. Shell Company of California	March 21, 1924, D.B. 167, Pg. 200
235. L. S. East, et al	March 21, 1924, D.B. 167, Pg. 278
236. Sarah Anne Heckman Hansen	April 28, 1972, D.B. 182, Pg. 187
237. Isaac Van Duzer	December 1, 1882, D.B. 7, Pg. 54
238. I. H. Van Duzer	March 6, 1900, D.B. 69, Pg. 442
239. I. H. Van Duzer	October 29, 1884, D.B. 15, Pg. 139
240. Jens E. Clausen	March 9, 1906, D.B. 95, Pg. 251
241. O. L. Chapman	December 22, 1887, D.B. 24, Pg. 638
242. I. H. Van Duzer	June 23, 1913, D.B. 121, Pg. 489
243. Esther Greig	April 21, 1883, D.B. 8, Pg. 364
244. C. E. and H. E. Lugg	November 22, 1892, D.B. 44, Pg. 370
245. S. A. Swauger	June 2, 1883, D.B. 8, Pg. 720
246. William Percott	April 24, 1883, D.B. 8, Pg. 399
247. J. H. Trost	February 20, 1892, D.B. 41, Pg. 229
248. William Percott	February 20, 1892, D.B. 41, Pg. 235
249. James A. Dickson	February 20, 1892, D.B. 41, Pg. 227
250. Enoch Barkdull	June 2, 1883, D.B. 8, Pg. 722
251. John Healy	April 24, 1883, D.B. 8, Pg. 397
252. William Percott, et ux	December 19, 1906, D.B. 99, Pg. 10
253. John Noe	July 18, 1883, County Clerk (Superior Court Case #399)
254. John & Hannah Noe	July 18, 1883, County Clerk (Superior Court Case #401)



<u>Grantor</u>	<u>Recorded</u>
255. James Tierney	February 6, 1883, D.B. 7, Pg. 566
256. I. R. Belcher, et al	February 14, 1932, D.B. 206, Pg. 55
257. S. A. H. Hanson	April 28, 1927, D.B. 182, Pg. 190
258. County of Humboldt	June 21, 1927, D.B. 182, Pg. 433
259. Thomas Baird	April 21, 1883, D.B. 8, Pg. 357
260. Thomas Baird	February 20, 1892, D.B. 41, Pg. 231
261. Tryphona Y. Clyde	March 17, 1883, D.B. 8, Pg. 56
262. John McCarty	February 3, 1883, D.B. 7, Pg. 555
263. James E. Still	January 12, 1883, D.B. 7, Pg. 404
264. Russ Investment Company	February 17, 1917, D.B. 136, Pg. 388
265. William M. White	January 31, 1883, D.B. 7, Pg. 544
266. Stephen Hill	January 11, 1883, D.B. 7, Pg. 391
267. B. Fitchpatrick	January 30, 1883, D.B. 7, Pg. 519
268. Niels Thogerson	January 3, 1922, D.B. 158, Pg. 197
269. Waterman Field (Parcel II)	December 1, 1882, D.B. 7, Pg. 47
270. H. H. Duhme	August 9, 1885, County Clerk (Superior Court Case #660)
271. S. F. Pino	March 19, 1885, D.B. 16, Pg. 295
272. Joseph Russ	May 2, 1884, D.B. 16, Pg. 517
273. Mary Tomlinson	February 25, 1885, D.B. 16, Pg. 97
274. Susan Roberts, et al	January 7, 1886, Judgement Book 2, Pg. 268
275. Mary T. Blackburn	March 19, 1885, D.B. 16, Pg. 297
276. E. Tomlinson	March 23, 1885, D.B. 16, Pg. 326
277. Russ Market Company	June 29, 1916, D.B. 133, Pg. 387
278. Thomas H. Creighton	February 25, 1885, D.B. 16, Pg. 99
279. William S. Clark, Executor	October 29, 1884, D.B. 15, Pg. 141

<u>Grantor</u>	<u>Recorded</u>
280. Dalboer and Carson Lumber Company	September 12, 1934, D.B. 216, Pg. 115
281. Russ Market Company	September 12, 1934, D.B. 216, Pg. 117
282. Eureka Lumber and Cross- arm Company	September 8, 1952, Book 220, Pg. 540, O.R.
283. Holmes Eureka Lumber Company	September 16, 1952, Book 221, Pg. 397, O.R.
284. The Pacific Lumber Company	February 27, 1953, Book 240, Pg. 399, O.R.
285. McKay and Company	January 26, 1901, D.B. 71, Pg. 45
286. McKay and Company, et al	May 3, 1922, D.B. 159, Pg. 316
287. Margaret McDonald	February 15, 1899, D.B. 65, Pg. 318
288. Dalboer and Carson Lumber Company	September 2, 1921, D.B. 155, Pg. 125
289. Dalboer and Carson Lumber Company	August 18, 1911, D.B. 116, Pg. 101
290. Melinda A. McCann, et al	February 9, 1899, D.B. 65, Pg. 300
291. Dalboer and Carson Lumber Company	September 2, 1921, D.B. 155, Pg. 128
292. N. H. Pine	April 7, 1899, D.B. 65, Pg. 491
293. N. Abrahamson	October 22, 1900, D.B. 70, Pg. 464
294. J. G. Loveren	March 2, 1899, D.B. 65, Pg. 370
295. R. L. Haughy	January 6, 1905, D.B. 92, Pg. 89
296. Eureka and Freshwater Railway Company, et al	August 17, 1901, D.B. 71, Pg. 541
297. Peter Tydd, et al	August 8, 1900, D.B. 70, Pg. 290
298. F. E. Herrick	September 30, 1901, D.B. 71, Pg. 590
299. Reuben Gross, et al	September 21, 1900, D.B. 70, Pg. 364
300. C. A. Hooper	April 7, 1899, D.B. 65, Pg. 488
301. State of California	March 5, 1902, County Clerk (Superior Court Case #3850)
302. H. P. Roberts	May 11, 1917, D.B. 137, Pg. 377

<u>Grantor</u>	<u>Recorded</u>
303. J. M. Carson, et al	August 7, 1917, D.B. 139, Pg. 83
304. J. M. Carson, et al	May 25, 1903, D.B. 82, Pg. 431
305. John Smith	September 21, 1900, D.B. 72, Pg. 443
306. D. J. Flanigan, et al	October 16, 1900, D.B. 70, Pg. 445
307. John Harpst, et al	June 19, 1900, D.B. 70, Pg. 195
308. John Harpst, et al	June 19, 1900, D.B. 70, Pg. 194
309. M. P. Roberts	June 19, 1900, D.B. 70, Pg. 193
310. Silvio Comisto	November 11, 1902, D.B. 77, Pg. 617
311. R. J. Tyson	May 16, 1903, D.B. 82, Pg. 412
312. W. N. Campbell	December 31, 1901, D.B. 77, Pg. 75
313. Arcata and Mad River Rail Road Company	May 16, 1903, D.B. 82, Pg. 414
314. Ralph W. Bull	June 26, 1919, D.B. 146, Pg. 404
315. California Barrel Company	February 6, 1947, Book 2, Pg. 400, O.R.
316. Lily Patton, et al	May 1, 1953, Book 248, Pg. 558, O.R.
317. Arcata Land and Improvement Company	December 31, 1901, D.B. 77, Pg. 73
318. R. J. Walker	December 31, 1901, D.B. 77, Pg. 69
319. A. Connick	December 31, 1901, D.B. 77, Pg. 71
320. T. Devlin Tanning Company	October 3, 1902, D.B. 77, Pg. 549
321. J. C. Bull, Jr.	December 31, 1901, D.B. 78, Pg. 86
322. W. L. Rogers	November 30, 1901, D.B. 76, Pg. 607
323. E. H. Vanco	May 11, 1896, D.B. 57, Pg. 601
324. W. A. Preston	August 2, 1906, D.B. 96, Pg. 122
325. The Savings Bank of Humboldt County	September 28, 1899, D.B. 68, Pg. 326
326. Arcata Mill and Lumber Company	May 22, 1897, D.B. 60, Pg. 397
327. Emma F. Jones	February 23, 1905, D.B. 92, Pg. 177

<u>Grantor</u>	<u>Recorded</u>
328. Margaret Green	October 19, 1907, D.B. 103, Pg. 143
329. John Roth	October 19, 1907, D.B. 103, Pg. 142
330. Iver Iverson	November 10, 1925, D.B. 174, Pg. 368
331. W. L. Rodgers	April 6, 1905, D.B. 92, Pg. 273
332. J. P. Anderson	June 25, 1903, D.B. 84, Pg. 616
333. J. C. Bull	September 12, 1896, D.B. 58, Pg. 447
334. R. J. Walker	March 12, 1896, D.B. 59, Pg. 166
335. George Zehndner	March 12, 1896, D.B. 57, Pg. 374
336. Arcata Land and Improvement Co.	August 7, 1897, D.B. 62, Pg. 37
337. J. N. Lottell	July 13, 1896, D.B. 56, Pg. 288
338. J. N. Lottell	July 13, 1896, D. B. 56, Pg. 289
339. L. M. Hancock	May 20, 1911, D.B. 115, Pg. 56
340. J. P. Anderson, et ux	October 30, 1919, D.B. 145, Pg. 487
341. M. I. Randle, et ux	October 30, 1919, D.B. 145, Pg. 488
342. W. L. Rogers, et ux	June 1, 1920, D.B. 149, Pg. 291
343. Arcata School District	March 15, 1920, D.B. 140, Pg. 441
344. Lucy P. Conover	February 10, 1896, D.B. 57, Pg. 198
345. E. H. Vanco	May 11, 1896, D.B. 57, Pg. 601
346. R. J. Richards	February 10, 1896, D.B. 57, Pg. 202
347. T. H. Griffith, et al	July 13, 1896, D.B. 56, Pg. 285
348. Harry Harms	February 10, 1896, D.B. 57, Pg. 204
349. H. A. Marks	February 13, 1897, D.B. 59, Pg. 545
350. J. P. Harrison	March 12, 1896, D.B. 57, Pg. 376
351. Dalbear and Carson Lumber Co.	January 9, 1897, D.B. Book 59, Pg. 396
352. Vance Redwood Lumber Co., et al	June 20, 1911, D.B. 116, Pg. 9
353. Hammond Lumber Company	February 2, 1925, D.B. 171, Pg. 186
354. Georgia-Pacific Corporation	January 16, 1963, Book 719, Pg. 599, O.R

<u>Grantor</u>	<u>Recorded</u>
355. Simpson Timber Company	October 3, 1966, Book 899, Pg. 57, O.R.
356. Simpson Timber Company	October 3, 1966, Book 899, Pg. 54, O.R.
357. Crown Simpson Pulp Company	October 3, 1966, Book 899, Pg. 50, O.R.
358. Simpson Timber Company	October 3, 1966, Book 899, Pg. 31, O.R.
359. George Miller	July 17, 1884, D.B. 14, Pg. 305
360. Jeromiah Dale	September 3, 1884, County Clerk (Superior Court Case #597)
361. H. J. Hanson	July 17, 1884, D.B. 14, Pg. 303
362. Joel Burnell	June 27, 1884, D.B. 13, Pg. 503
363. Bell Rowso, et al	May 3, 1902, D.B. 78, Pg. 630
364. John Palmer, et al	April 20, 1902, D.B. 78, Pg. 609
365. Annie Robertson	June 30, 1902, D.B. 79, Pg. 270
366. G. W. Reynolds	April 20, 1902, D.B. 78, Pg. 610
367. A. C. Noe	July 11, 1902, D.B. 79, Pg. 313
368. S. J. Vanco	July 12, 1902, D.B. 79, Pg. 316
369. W. E. Eaton	July 16, 1902, D.B. 79, Pg. 335
370. W. H. Bryner, et al	June 25, 1903, D.B. 84, Pg. 609
371. W. H. Smith	July 26, 1902, D.B. 79, Pg. 387
372. Buhne and Henderson	August 2, 1902, D.B. 79, Pg. 435
373. Southern Pacific Transportation Company	October 31, 1984 Serial No. 2096 Humboldt County

Also, all those strips of land, 200 feet wide, lying within said counties, between the south line of the northwest quarter of the southeast quarter of Section 14, Township 19 North, Range 14 West, H.D.M., at railroad Engineer's Station 305 + 63.5 and the south line of the northwest quarter of the southwest quarter of Section 1, Township 2 South, Range 3 East, H.D.M. at railroad Engineer's Station 5362 + 50.0 acquired pursuant to an Act of Congress dated March 3, 1875, as evidenced by "Filing Maps" filed as follows:

- A. November 4, 1907 in Oakland Land Office; Approved by First Assistant Secretary of the Interior, April 20, 1908. (Near Willits - E.S. 0 + 00 to near Farley - E.S. 1018 + 00)
- B. February 14, 1908 in Oakland Land Office; Approved by First Assistant Secretary of the Interior, May 5, 1908. (Near Farley - E.S. 1018 + 00 to Ramsay - E.S. 3078 + 00)
- C. August 11, 1910 in Eureka Land Office; Approved by Secretary of the Interior, June 24, 1912. (Ramsay - E.S. 3078 + 00 to Fort Seward - E.S. 4527 + 00)
- D. February 14, 1908 in Eureka Land Office; Approved by First Assistant Secretary of the Interior, July 1, 1908. (Fort Seward - E.S. 4527 + 00 to Sequoia - E.S. 5424 + 00)

Also, all the land included within east half of Section 15, Township 5 South, Range 6 East, Humboldt Meridian, Humboldt County acquired pursuant to an Act of Congress dated March 3, 1875 as evidenced by "Filing Map" filed January 29, 1915 in Eureka Land Office; Approved by First Assistant Secretary of the Interior, October 29, 1915. (Island Mt. - Station Grounds - opposite E.S. 3334 + 00 - E.S. 3355 + 67.9)

Excepting from the land described in deed listed as #11 above that portion lying southerly of a line passing through the center line of Northwestern Pacific Railroad marking the yard limit at Mile Post 142.5 (E.S. 137 + 67.7)

Also, excepting from the land described in deed listed as #310 above that portion lying northerly of the northeasterly line of land described in deed listed as #309 above.

None of the property described herein includes tracks or track structures which are severed from the land.

NORTH COAST RAILROAD AUTHORITY

RECORDED - OFFICIAL RECORDS  
HUMBOLDT COUNTY, CALIFORNIA  
CAROLYN CRNICH, RECORDER  
Recorded by NORTHCOAST RAILROAD AUTH

AND WHEN RECORDED MAIL TO

Name [ Davis, McClendon, Poovey & Anderson, Inc.  
Street Address [ 937 Sixth Street  
Eureka, CA 95501  
City State Zip [ Attn: John M. Anderson #91-164

SP Clerk: VS Total: EXEMPT  
Apr 2, 1992 at 12:23

MAIL TAX STATEMENTS TO

Name [ Davis, McClendon, Poovey & Anderson, Inc.  
Street Address [ 937 Sixth Street  
Eureka, CA 95501  
City State Zip [

DOCUMENTARY TRANSFER TAX \$  
\_\_\_\_\_  
COMPUTED ON FULL VALUE OF PROPERTY CONVEYED.  
\_\_\_\_\_  
OR COMPUTED ON FULL VALUE LESS LIENS AND  
\_\_\_\_\_  
ENCUMBRANCES REMAINING AT TIME OF SALE.

Signature of Declarant or Agent determining tax. Firm Name

### QUITCLAIM DEED

(Escrow No. ....61887-RG.....)

By this instrument dated ..... March 26, 1992 ..... for a valuable consideration,  
Jerry E. Gregg, as Trustee in Bankruptcy for the Estate of Northwestern Pacific  
Acquiring Corporation, a California corporation

do...es.. hereby remise, release and forever quitclaim to  
North Coast Railroad Authority, an entity created pursuant to California Government  
Code 93000 thru 93025

the following described Real Property in the State of California, County of ..... Humboldt .....  
City of .....

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF FOR DESCRIPTION

This deed is made pursuant to and Order Authorizing Sale of Real Property ~~Free and~~  
~~Clear of Liens~~ issued out of Case No. 1-86-01977, United States Bankruptcy Court  
for the Northern District of California.

Attest Date APR 2 1992  
This instrument is a correct copy of the  
original on file in this office.  
Carolyn Crnich, Humboldt Co. Recorder  
by *Vicki Sallady* Deputy Recorder

*Jerry E. Gregg*  
Jerry E. Gregg, Trustee

STATE OF CALIFORNIA } On 3/31 1992 before me, the undersigned, a Notary Public in and for  
COUNTY OF HUMBOLDT } SS. said County and State, personally appeared Jerry E. Gregg, Trustee  
person..... whose name is..... subscribed to the within instrument, and acknowledged to me that he..... executed the same.



Notary's Signature *Charlotte Dodson*  
Type or Print Notary's Name Charlotte Dodson

MAIL TAX STATEMENTS AS DIRECTED ABOVE

EXHIBIT "A"

PARCEL ONE:

All property lying within the County of Mendocino which is described in deed dated October 25, 1984 executed by Northwestern Pacific Railroad Company, a California corporation to Northwestern Pacific Acquiring Corporation, a California corporation by deed recorded November 5, 1984 in Book 1481 of Official Records at Page 186, Mendocino County Records.

INCLUDING ALL tracks and track structures.

PARCEL TWO:

All property lying within the County of Trinity which is described in the deed dated October 25, 1984 executed by Northwestern Pacific Railroad Company, a California corporation to Northwestern Pacific Acquiring Corporation, a California corporation recorded November 2, 1984 in Book 246 of Official Records at Page 930, Trinity County Records and as re-recorded November 13, 1984 in Book 247 of Official Records at Page 161, Trinity County Records.

INCLUDING ALL tracks and track structures.

PARCEL THREE:

All property lying within the County of Humboldt which is described in the deed dated October 25, 1984 executed by Northwestern Pacific Railroad Company, a California corporation to Northwestern Pacific Acquiring Corporation, a California corporation by deed recorded November 5, 1984 in Book 1751 of Official Records at Page 636, Humboldt County Records.

INCLUDING ALL tracks and track structures.

PARCEL FOUR:

An easement for railroad and transportation purposes upon, over, across and along real property located within the County of Humboldt as described in the Easement dated October 25, 1984 executed by Northwestern Pacific Railroad Company, a California corporation to Northwestern Pacific Acquiring Corporation, a California corporation recorded November 5, 1984 in Book 1751 of Official Records at Page 85, Humboldt County Records.

PARCEL FIVE:

All property lying within the County of Humboldt which is described in the deed dated September 20, 1988 executed by The Arcata and Mad River Railroad Company, a corporation to Jerry E. Gregg, as Trustee in Bankruptcy for The Estate of Eureka Southern Railroad Company, Inc., recorded December 14, 1988 in Book 1895 of Official Records at Page 1149, Humboldt County Records.

EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded May 17, 1990 as Document No. 1990-11535-11, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded May 17, 1990 as Document No. 1990-11536-7, Humboldt County Records.

CONTINUED

**STEWART TITLE**  
GUARANTY COMPANY

1992-9029-3



exhibit (continued)

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Easement Deed recorded June 5, 1990 as Document No. 1990-13106-3, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Deed of Timber Interests recorded January 31, 1991 as Document No. 1991-2322-2, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Memorandum of Agreement recorded January 31, 1991 as Document No. 1991-2323-5, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Memorandum of Agreement recorded January 31, 1991 as Document No. 1991-2324-2, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded May 3, 1991 as Document No. 1991-9402-3, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded May 8, 1991 as Document No. 1991-9853-2, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded July 19, 1991 as Document No. 1991-16207-2, Humboldt County Records.

ALSO EXCEPTING FROM Parcels 3, 4 and 5, as they may apply, all that portion as set forth in the Quitclaim Deed recorded September 23, 1991 as Document No. 1991-21875-4, Humboldt County Records.

1992-9029-3

99C-1

**STEWART TITLE**  
GUARANTY COMPANY

3

Extra Copy  
NCR  
MAY 6 1996

RECORDING REQUESTED BY:  
North Coast Railroad Authority

00007014  
Recorded at the recorder's office  
NORTH COAST RAILROAD AUTHORITY  
Book 2328 Page 251  
04/30/1996 08:50A  
Fee: \$0.00 No of Pages:35

RECEIVED

AND WHEN RECORDED MAIL TO:  
North Coast Railroad Authority  
4 West 2nd Street  
Eureka, CA 95501  
Attn: Edward M. McLaughlin

OFFICIAL RECORDS  
MENDOCINO COUNTY CALIF  
MARSHA A. YOUNG, RECORDER

MAIL TAX STATEMENTS TO:  
North Coast Railroad Authority  
4 West 2nd Street  
Eureka, CA 95501  
Attention: Edward M. McLaughlin

	\$20.00 PAID
	PCO FILED
<input checked="" type="checkbox"/>	Exempt

SPACE ABOVE THIS LINE FOR RECORDER'S USE

This instrument is exempt from  
Recording Fees (Govt. Code §27383)  
and from Documentary Transfer Tax  
(Rev. & Tax Code §11922)

**GRANT DEED**

(Willits) Mendocino County, California

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Southern Pacific Transportation Company, a Delaware corporation and successor in interest by mesne Certificates of Merger with Northwestern Pacific Railroad Company, also known as Northwestern Pacific Railroad Co., a corporation, San Francisco and North Pacific Railway Company, a corporation and California Northwestern Railway Company, a corporation ("Grantor"), sells, transfers, grants and conveys to North Coast Railroad Authority, a local agency created by the California legislature, ("Grantee"), having its principal office at 4 West 2nd Street, Eureka, CA 95501, (a) that portion of Grantor's Northwestern Pacific railroad line located in the County of Mendocino, State of California, more particularly described on Exhibit A attached hereto and by this reference made a part hereof (the "Land"); (b) all of Grantor's interest, if any, in the improvements on the Land ("Improvements"); (c) all fixtures, if any, that Grantor owns and uses in the operation and maintenance of the Land and the Improvements; and (d) all appurtenances to the foregoing property, including, without limitation, all strips, gaps and gores (the Land, the Improvements, such fixtures and such appurtenances being referred to herein collectively as the "Property"), subject to the Permitted Exceptions (as defined in the Amended and Restated Agreement of Purchase and Sale (Willits Segments) dated April 11, 1996 between Grantor and Grantee (the "Purchase Agreement")).

### Mineral Reservation

Grantor excepts from the Property hereby conveyed and reserves unto itself and its successors and assigns all oil, gas, and other minerals of whatever kind or character whether now known or hereafter discovered, in and under the Property at a depth of five hundred (500) feet or more; provided that Seller shall not have a right of surface entry on or from the Property or the right to remove or impair the lateral or subjacent support of the Property.

### Fiber Optics Easement Reservation

Grantor excepts from the Property hereby conveyed and reserves unto itself and its successors and assigns a perpetual, nonexclusive easement (the "Fiber Optics Easement") as more particularly described in and subject to the terms of that certain Fiber Optics Easement Agreement of even date herewith between Grantor and Grantee, the provisions of which are incorporated herein by this reference, together with necessary rights of access in, on, over and across the Property. The location of the Fiber Optics Easement (the "Fiber Optics Easement Property") shall be determined as provided in the Fiber Optics Easement Agreement. Grantor and its lessees, sublessees, licensees, successors and assigns shall have the right in, on, under, over and across the Fiber Optics Easement Property to own, construct, reconstruct, maintain, repair, operate, use, relocate and/or remove existing and future fiber optics communication systems, lines and facilities.

### Calpella Easement Reservation

Grantor hereby excepts from the Property conveyed and reserves unto itself and its successors and assigns a nonexclusive easement (the "Calpella Access Easement") in, on, over, across, under and through the property described in Parcel 113 on Exhibit A attached hereto and being reserved therefrom for use as a roadway to allow vehicular and pedestrian ingress to and egress from the adjacent property described on Exhibit B attached hereto (the "Calpella Property") in connection with the remediation of the Calpella Property as provided in the Purchase Agreement.

Grantor shall indemnify, defend and hold Grantee harmless from and against any and all demands, claims, causes of action or judgments, reasonable costs and expenses (including, without limitation, attorneys' fees and disbursements) incurred in connection with any injury to person, loss of life or damage to property arising out of Grantor's use of the Calpella Access Easement except to the extent caused by Grantee's negligence or willful misconduct.

The Calpella Access Easement shall terminate upon completion of remediation of the Calpella Property and the closing of the purchase and sale of the fee interest in the Calpella Property, all as provided in the Purchase Agreement.

Laughlin Easement Reservation

Book #: 2328  
Page: 255

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Grantor hereby excepts from the Property conveyed and reserves unto itself and assigns a nonexclusive easement (the "Laughlin Access Easement") in, on, and through the property described in Parcel 101 on Exhibit A attached hereto therefrom for use as a roadway to allow vehicular and pedestrian ingress to adjacent property described on Exhibit C attached hereto (the "Laughlin Easement") in connection with the remediation of the Laughlin Property as provided in the Purchase Agreement.

Grantor shall indemnify, defend and hold Grantee harmless from and against any claims, damages, causes of action or judgments, reasonable costs and expenses (including reasonable attorneys' fees and disbursements) incurred in connection with any use of the Property or damage to property arising out of Grantor's use of the Laughlin Property except to the extent caused by Grantee's negligence or willful misconduct.

The Laughlin Access Easement shall terminate upon completion of remediation of the Property and the closing of the purchase and sale of the fee interest in the Laughlin Property as provided in the Purchase Agreement.

As the Grant Deed is given pursuant to the Purchase Agreement and the warranties and other provisions thereof are incorporated herein by this reference and shall survive the recordation hereof. Except as expressly set forth in the Purchase Agreement, Grantor makes no warranties, promises, understandings or representations, express or implied, relating to the Property.

IN WITNESS WHEREOF, Grantor has set its hand and seal as of April 30, 1996.

GRANTOR:  
  
SOUTHERN PACIFIC TRANSPORTATION  
COMPANY, a Delaware corporation

ATTEST:

By: [Signature]  
  
Secretary

By: [Signature]  
MICHAEL D. DWIGHT  
Its: VICE PRESIDENT

[SEAL]

STATE OF CALIFORNIA )  
 ) ss.  
COUNTY OF San Francisco )

On this 29<sup>th</sup> day of June, 1996, the undersigned, a Notary Public, personally appeared Michael D. Orzech, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

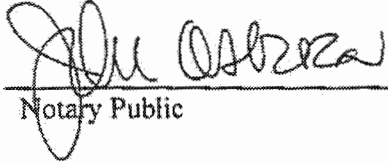
  
\_\_\_\_\_  
Notary Public

EXHIBIT A  
(Attached to and made a part of  
the Grant Deed  
from Southern Pacific Transportation Company  
to North Coast Railroad Authority)

THE LAND

[Please refer to the attached Legal Description  
consisting of 24 pages]

D. J. P.  
1-31-96

All those parcels of land situate in the County of Mendocino, State of California, described as follows:

PARCEL 1: (V-2-17 Portion #'s 349 & 350 thru 353; V-2-18 #353) [59169-M-1]

All that portion as described in the Deed to Cloverdale and Ukiah Railroad Company by Deed recorded August 8, 1887 in Book 41 of Deeds at Page 145, Mendocino County Records.

EXCEPTING THEREFROM any portion thereof which lies within the boundaries of Sonoma County as the same existed on the date of said conveyance.

PARCEL 2: (V-2-18 #'s 354 thru 356) [59169-M-4]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company recorded October 19, 1887 in Book 41 of Deeds at Page 527, Mendocino County Records.

PARCEL 3: (V-2-18 #357 & #359) [59169-M-2]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a California corporation, recorded June 28, 1909 in Book 86 of Deeds at Page 562, Mendocino County Records, described as follows:

A strip of land one hundred (100) feet wide, being fifty (50) feet on each side of the center line of the railroad of said party of the second part as now constructed through the East one-half (1/2) and Northwest quarter (1/4) of the Northwest quarter (1/4) of Section Fourteen (14), Township Twelve (12) North, Range Eleven (11) West, Mount Diablo Meridian.

Also the following described tract:

BEGINNING at a point on the Westerly line of said right of way of Railroad Company, said point being South 64°45' West sixty-seven and forty-five hundredths (67.45) feet from a point on the center line of railroad tract at the Southerly end of the trestle over Cumiskey Creek; said point on said center line being North 65° West seven hundred three and one tenth (703.1) feet from the quarter section corner between Section Fourteen (14) and twenty-three (23), Township Twelve (12) North, Range Eleven (11) West, Mount Diablo Meridian; running thence South 64°45' West one hundred ninety-six and three-tenths (196.3) feet; thence South 23°20' East two hundred twenty-five and two-tenths (225.2) feet to a point on the Westerly line of the right of way of railroad company; thence on said line North 16°55' East three hundred three and six-tenths (303.6) feet to the place of beginning.

PARCEL 4: (V-2-18 #358) [No Prior Report]

A right of way twenty (20) feet in width to be used as a public wagon road from the railroad to the County Road, being more particularly described in the Deed to Northwestern Pacific Railroad Company, a California corporation, recorded June 28, 1909 in Book 86 of Deeds at Page 562, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 5: (V-2-18 #364) [59169-M-3]

All that portion as described in the Deed to the Northwestern Pacific Railroad Company, a corporation, recorded December 15, 1922 in Book 174 of Deeds at Page 167, Mendocino County Records.

PARCEL 6: (V-2-18 #363; V-2-19 #'s 363 & 366) [59169-M-5]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company by Deed recorded April 4, 1888 in Book 43 of Deeds at Page 373, Mendocino County Records.

PARCEL 7: (V-2-19 #'s 367A & 368) [No Prior Report]

Parcel A:

All that portion as described in the Deed to San Francisco and North Pacific Railway Company, a California corporation, recorded June 28, 1902 in Book 88 of Deeds at Page 412, Mendocino County Records.

Parcel B:

An easement for access purposes 25 feet in width, as reserved in the Deed from Northwestern Pacific Railroad Company, a California corporation to Robert L. Bradford, recorded August 12, 1985 in Book 1518 of Official Records at Page 125, Mendocino County Records.

PARCEL 8: (V-2-19 #364) [59169-M-6]

All that portion as described in the Final Judgment of Condemnation in favor of Cloverdale and Ukiah Rail Road Company, recorded January 24, 1888 in Book 42 of Deeds at Page 450, Mendocino County Records.

PARCEL 9: (V-2-19 #365) [No Prior Report]

All that portion as described in the Deed to The San Francisco and North Pacific Railway Company, a corporation, recorded September 7, 1891 in Book 55 of Deeds at Page 131, Mendocino County Records.

PARCEL 10: (V-2-19 #370) [No Prior Report]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a corporation, recorded December 4, 1920 in Book 162 of Deeds at Page 418, Mendocino County Records.

CONTINUED



DESCRIPTION CONTINUED:

PARCEL 11: (V-2-19 #369; V-2-20 #369) [59169-M-7]

All that portion as described in the Final Order of Condemnation in favor of the Cloverdale and Ukiah Railroad recorded December 22, 1887 in Book 42 of Deeds at Page 279, Mendocino County Records.

PARCEL 12: (V-2-20 #370) [59169-M-8]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded April 4, 1888 in Book 43 of Deeds at Page 371, Mendocino County Records.

PARCEL 13: (V-2-20 #371) [59169-M-9]

All that portion as described in the deed to Cloverdale and Ukiah Rail Road Company by deed recorded August 8, 1887 in Book 41 of Deeds at Page 141, Mendocino County Records.

PARCEL 14: (V-2-20 #372) [59169-M-10]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company by deed recorded July 16, 1888 in Book 44 of Deeds at Page 308, Mendocino County Records.

PARCEL 15: (V-2-20 #'s 374) [59169-M-11]

All that portion as described in the deed to the Cloverdale and Ukiah Rail Road Company by deed recorded October 8, 1888, in Book 45 of Deeds at Page 189, Mendocino County Records, described as follows:

A way for the rail road of the said party of the second part and for its side tracks, turn tables, depots, water tanks and other appurtenances thereto belonging the following described tract of land situate lying and being in the County of Mendocino and State of California more particularly described as follows to wit:

A tract of land eighty (80) feet in width being fifty (50) feet on the Westerly side and thirty (30) feet on the Easterly side of the located center line of the Cloverdale and Ukiah Rail Road Company's projected Rail Road and of the length of said center line being described as follows:

CONTINUED

DESCRIPTION CONTINUED:

BEGINNING at the intersection of the said center line with the Northerly line of the County Road from Sanel to Hopland running thence by the true meridian (variation 16° East) North 17°43' West, three hundred and thirty five (335) feet, thence by a curve of 5° or 1146 feet radius to the right six hundred (600) feet thence North 12°17' East eight hundred and fifty nine (859) feet thence by a curve of 5° or 1146 feet radius to the left one hundred and twenty one (121) feet.

EXCEPTING THEREFROM all that portion thereof as described in the Quitclaim Deed to the County of Mendocino recorded January 18, 1916 in Book 118 of Deeds at Page 339, Mendocino County Records.

PARCEL 16: (V-2-20 #376) [59169M-130]

All that portion as described in the Deed to Cloverdale and Ukiah Railroad Company by Deed recorded October 8, 1888 in Book 45 of Deeds at Page 189, Mendocino County Records, described as follows:

The following described tract of land beginning at a stake driven in the ground at a point from which the most Southwesterly corner of Thatcher's Barn bears North 87°43' East Two Hundred and twenty four and one half (224 1/2) feet distant running thence parallel to and distant One Hundred and twenty (120) feet from the said center line by a curve 1266 feet radius to the right Four Hundred and one (401) feet, thence North 12°17' East One Hundred and eighty seven (187) feet thence South 77°43' East Seventy (70) feet, thence South 12°17' West One Hundred and eighty seven (187) feet thence by a curve of 1196 feet radius to the left Four Hundred and Eight (408) feet thence North 73°26' West Seventy five and eight tenths (75 8/10) feet to the place of beginning.

PARCEL 17: (V-2-20 #378) [Portion 59169M-131]

All that portion being the secondly described Parcel in the Deed to The San Francisco and North Pacific Railway Company, a corporation by Deed recorded July 17, 1894 in Book 65 of Deeds at Page 78, Mendocino County Records.

PARCEL 18: (V-2-20 #'s 379) [59169-M-12]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 137, Mendocino County Records.

EXCEPTING THEREFROM all that portion thereof as conveyed in the Quit Claim Deed to the County of Mendocino by deed recorded January 18, 1916 in Book 118 of Deeds at Page 339, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 19: (V-2-20 #381) [59169-M-13]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a California corporation by deed recorded October 6, 1916 in Book 118 of Deeds at Page 320, Mendocino County Records.

PARCEL 20: (V-2-20 #382) [59169-M-14]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company by Deed recorded August 8, 1887 in Book 41 of Deeds at Page 139, Mendocino County Records.

EXCEPTING THEREFROM all that portion thereof as conveyed in the Quitclaim Deed to the County of Mendocino by deed recorded January 18, 1916 in Book 118 of Deeds at Page 339, Mendocino County Records.

PARCEL 21: (V-2-20 #385) [59169-M-15]

All that portion as described in the Deed to Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 144, Mendocino County Records.

PARCEL 22: (V-2-20 #386; V-2-21 #386) [59169-M-16]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company recorded June 30, 1888 in Book 44 of Deeds at Page 252, Mendocino County Records.

PARCEL 23: (V-2-20 #387) [59169M-132]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a California corporation by Deed recorded April 6, 1920 in Book 159 of Deeds at Page 274, Mendocino County Records.

PARCEL 24: (V-2-20 #388) [59169-M-18]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a corporation, recorded April 9, 1926 in Book 12 of Official Records at Page 14, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 25: (V-2-20 #389) [59169M-133]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a California corporation by Deed recorded November 19, 1926 in Book 14 of Official Records at Page 385, Mendocino County Records.

PARCEL 26: (V-2-20 #390) [59169-M-17]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a corporation, by Deed recorded November 20, 1952 in Book 332 of Official Records at Page 93, Mendocino County Records.

PARCEL 27: (V-2-21 #387) [59169-M-19]

All that portion as described in the Deed to the Cloverdale and Ukiah Rail Road Company, recorded April 24, 1888 in Book 43 of Deeds at Page 461, Mendocino County Records.

PARCEL 28: (V-2-21 #'s 391 & 392) [59169-M-20]

All that portion as described in the Deed to the San Francisco and North Pacific Railway Company, a corporation, recorded December 28, 1889 in Book 49 of Deeds at Page 558, Mendocino County Records.

PARCEL 29: (V-2-21 #'s 388, 389 & 390) [59169-M-21]

All that portion as described in the Final Decree of Condemnation in favor of The Cloverdale and Ukiah Railroad recorded December 8, 1887 in Book 42 of Deeds at Page 207, Mendocino County Records.

PARCEL 30: (V-2-21 #393) [59169-M-22]

All that portion as described in the Final Decree of Condemnation in favor of The Cloverdale and Ukiah Railroad recorded January 24, 1888 in Book 42 of Deeds at Page 446, Mendocino County Records.

PARCEL 31: (V-2-21 #394; V-2-22 #394) [59169-M-23]

All that portion as described in the deed to Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 142, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 32: (V-2-22 #395) [59169-M-24]

All that portion as described in the deed to the San Francisco and North Pacific Railway Company, a corporation by deed recorded December 28, 1889 in Book 51 of Deeds at Page 1, Mendocino County Records.

PARCEL 33: (V-2-22 #396) [59169-M-25]

All that portion as described in the Final Decree of Condemnation in favor of The Cloverdale and Ukiah Rail Road Company, a corporation, recorded December 9, 1887 in Book 42 of Deeds at Page 213, Mendocino County Records.

PARCEL 34: (V-2-22 #'s 397 & 398) [59169-M-26]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 136, Mendocino County Records.

PARCEL 35: (V-2-22 #399) [59169-M-27]

All that portion as conveyed to the San Francisco and North Pacific Railway Company, a corporation recorded June 19, 1902 in Book 88 of Deeds at Page 380, Mendocino County Records.

PARCEL 36: (V-2-22 #401; V-2-23 #401) [59169-M-28]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 134, Mendocino County Records.

PARCEL 37: (V-2-23 #402) [59169-M-29]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded September 6, 1887 in Book 41 of Deeds at Page 255, Mendocino County Records.

PARCEL 38: (V-2-23 #403) [59169-M-30]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company by deed recorded August 8, 1887 in Book 41 of Deeds at Page 131, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 39: (V-2-23 #404) [59169-M-31]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company recorded August 17, 1887 in Book 41 of Deeds at Page 185, Mendocino County Records.

PARCEL 40: (V-2-23 #405) [59169M-32]

All that portion as described in the deed to Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 130, Mendocino County Records.

PARCEL 41: (V-2-23 #406) [59169M-33]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 125, Mendocino County Records.

PARCEL 42: (V-2-22 #400) [59169-M-34]

All that portion as described in the Deed to the San Francisco and North Pacific Railway Company recorded April 26, 1893 in Book 60 of Deeds at Page 154, Mendocino County Records.

PARCEL 43: (V-2-23 #407) [59169M-35]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 133, Mendocino County Records.

PARCEL 44: (V-2-23 #409) [59169M-36]

All that portion as described in the deed to Cloverdale and Ukiah Railroad Company recorded July 14, 1888, in Book 44 of Deeds at Page 311, Mendocino County Records and by the Quit Claim Deed to the Northwestern Pacific Railroad Company, a corporation recorded October 3, 1966 in Book 725 of Official Records at Page 710, Mendocino County Records.

PARCEL 45: (V-2-23 #410) [59169M-37]

All that portion as described in the deed to Wallace N. Dutton, et al, recorded August 8, 1887 in Book 41 of Deeds at Page 128, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 46: (V-2-23 #411) [59169M-38]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded August 8, 1887 in Book 41 of Deeds at Page 127, Mendocino County Records.

PARCEL 47: (V-2-23 #412) [59169-M-39]

All that portion as described in the deed to Cloverdale and Ukiah Railroad Company by deed recorded December 30, 1887 in Book 42 of Deeds at Page 348, Mendocino County Records.

PARCEL 48: (V-2-23 #'s 414 & 415) [59169-M-40]

All that portion as described in the deed to Cloverdale and Ukiah Rail Road company by deed recorded April 30, 1888 in Book 43 of Deeds at Page 494, Mendocino County Records.

PARCEL 49: (V-2-23 #416) [59169-M-41]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded April 14, 1888, in Book 43 of Deeds at Page 418, Mendocino County Records.

PARCEL 50: (V-2-23 #417) [59169-M-42]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a California corporation recorded September 10, 1908 in Book 86 of Deeds at Page 488, Mendocino County Records.

PARCEL 51: (V-2-23 #418) [59169-M-43]

All that portion as conveyed to the Cloverdale and Ukiah Railroad Company by deed recorded April 14, 1888 in Book 43 of Deeds at Page 417, Mendocino County Records.

PARCEL 52: (V-2-23 #419; V-2-24 #419) [59169-M-44]

All that portion as described in the deed to the Cloverdale and Ukiah Railroad Company recorded April 16, 1888 in Book 43 of Deeds at Page 422, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 53: (V-2-23 #420) [59169-M-45]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation recorded October 13, 1923 in Book 175 of Deeds at Page 358, Mendocino County Records.

PARCEL 54: (V-2-24 #421) [59169-M-46]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company by Deed recorded February 11, 1888 in Book 43 of Deeds at Page 35, Mendocino County Records.

PARCEL 55: (V-2-24 #422) [59169-M-47]

All that portion as described in the Deed to the Cloverdale and Ukiah Railroad Company by Deed recorded April 14, 1888 in Book 43 of Deeds at Page 420, Mendocino County Records.

EXCEPTING THEREFROM that portion thereof described as follows:

BEGINNING at the intersection of the Southerly line of Perkins Street, 50 feet wide, with the Southerly prolongation of the Easterly line of land described in Parcel 8 of deed recorded November 16, 1892, Deed Book 57, Page 58, Records of said County; thence Easterly along said Southerly line of Perkins Street, 362 feet to the Northeast corner of land described in said deed recorded in Deed Book 43, Page 420; thence Southerly, along the Easterly line of last said land, 1089 feet to the Southeast corner thereof; thence Westerly, along the Southerly line thereof, to a line distant 225 feet parallel with said Easterly line thereof; thence Northerly, along last said parallel line, 800 feet; thence Northwesterly, in a direct line, 280 feet to the Point of Beginning.

PARCEL 56: (V-2-24 #'s 424 & 425) [59169-M-48]

All that portion as described in the Deed to the San Francisco and North Pacific Railway Co., a corporation by Deed recorded November 16, 1892 in Book 57 of Deeds at Page 580, Mendocino County Records, described as follows:

Parcel A:

Lot two (2) of Perkins Addition to Ukiah City and being one hundred and thirty two (132) feet front on Perkins street and three hundred and nineteen (319) feet deep as shown by map of said Perkins Addition to Ukiah City, now on records in the Recorder's Office of said County of Mendocino State of California.

CONTINUED



DESCRIPTION CONTINUED:

EXCEPTING THEREFROM that portion thereof lying Westerly of a line drawn 65 feet Westerly and parallel with the Easterly line of said land described therein.

Parcel B:

All that certain lot of land commencing at iron stake driven at the intersection of the East line of Mason street with the North line of Norton street as such streets are laid out and designated upon Rice's survey and map of the town of Ukiah City and running thence South 85°22' West (with magnetic variation 17°30' East) 76 links thence South 3° West two and seventy three hundredths (2.73) chains to the South line of the land of J.A. Poage; thence North 85°22' East one and seventy one hundredths (1.71) chains thence Southerly parallel to and distant 30 feet Easterly from the located centerline of the railroad of the railroad of the San Francisco and North Pacific Railway Company eighteen and sixty four hundredths chains (18.64) to the Northerly lines of Perkins addition thence along said Northerly line of Perkins addition South 77°35' West three and fifty three hundredths (353) chains to the Easterly line of Mason street thence along the said Easterly line of Masons street North 3° West sixteen and twenty four hundredths (16.24) chains to the place of beginning.

EXCEPTING THEREFROM that portion thereof lying Westerly of a line drawn 65 feet Westerly and parallel with the Easterly line of land described in deed to Northwestern Pacific Railroad Company, recorded December 5, 1924, in Deed Book 179, Page 357, Records of said County.

PARCEL 57: (V-2-24 #430) [59169-M-49]

All that portion as described in the Deed to the California and Northwestern Railway Company, a corporation, by Deed recorded September 7, 1900 in Book 78 of Deeds at Page 296, Mendocino County Records.

PARCEL 58: (V-2-24 #431) [59169-M-50]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, by Deed recorded March 14, 1901 in Book 78 of Deeds at Page 510, Mendocino County Records.

PARCEL 59: (V-2-24 #433) [59169-M-51]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, by Deed recorded October 16, 1900 in Book 82 of Deeds at Page 117, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 60: (V-2-24 #434) [59169-M-52]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, by Deed recorded September 21, 1900 in Book 78 of Deeds at Page 311, Mendocino County Records.

PARCEL 61: (V-2-24 #435) [59169-M-53]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 18, 1900 in Book 78 of Deeds at Page 308, Mendocino County Records.

PARCEL 62: (V-2-24 #437) [59169-M-54]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded November 2, 1900 in Book 78 of Deeds at Page 366, Mendocino County Records.

PARCEL 63: (V-2-24 #438) [59169-M-55]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 16, 1900 in Book 81 of Deeds at Page 542, Mendocino County Records.

PARCEL 64: (V-2-24 #'s 439 thru 441) [59169-M-56]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 16, 1900 in Book 81 of Deeds at Page 536, Mendocino County Records.

PARCEL 65: (V-2-24 #442) [59169-M-57]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 8, 1900 in Book 78 of Deeds at Page 305, Mendocino County Records.

PARCEL 66: (V-2-24 #443) [59169-M-58]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 16, 1900 in Book 81 of Deeds at Page 540, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 67: (V-2-24 #445) [59169-M-59]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 19, 1900 in Book 78 of Deeds at Page 351, Mendocino County Records.

PARCEL 68: (V-2-24 #446) [59169-M-60]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 10, 1901 in Book 84 of Deeds at Page 550, Mendocino County Records.

PARCEL 69: (V-2-24 #447) [59169-M-61]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 21, 1900 in Book 78 of Deeds at Page 316, Mendocino County Records.

PARCEL 70: (V-2-24 #448) [59169-M-62]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded October 16, 1900 in Book 78 of Deeds at Page 347, Mendocino County Records.

PARCEL 71: (V-2-24 #449) [59169-M-63]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 15, 1900 in Book 78 of Deeds at Page 301, Mendocino County Records.

PARCEL 72: (V-2-24 #450) [59169-M-64]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 15, 1900 in Book 78 of Deeds at Page 300, Mendocino County Records.

PARCEL 73: (V-2-24 #452) [59169-M-65]

All that portion as described in the Deed to the California Northwestern Railway Company, a corporation, recorded September 20, 1900 in Book 78 of Deeds at Page 313, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 74: (V-2-24 #453) [59169-M-66]

DELETED

PARCEL 75: (V-2-24 #454) [59169-M-67]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a California corporation, recorded December 5, 1924 in Book 179 of Deeds at Page 357, Mendocino County Records.

PARCEL 76: (V-2-24 #455) [59169-M-68]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded August 23, 1946 in Book 204 of Official Records at Page 17, Mendocino County Records.

PARCEL 77: (V-2-24 #456) [59169-M-69]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded August 23, 1946 in Book 204 of Official Records at Page 16, Mendocino County Records.

PARCEL 78: (V-2-24 #457) [59169-M-70]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded August 23, 1946 in Book 204 of Official Records at Page 14, Mendocino County Records.

PARCEL 79: (V-2-24 #458) [59169-M-71]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded August 23, 1946 in Book 204 of Official Records at Page 18 Mendocino County Records.

PARCEL 80: (V-2-24 #459) [59169-M-72]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded August 26, 1946 in Book 204 of Official Records at Page 42, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 81: (V-2-24 #460) [59169-M-73]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded October 3, 1947 in Book 226 of Official Records at Page 479, Mendocino County Records.

PARCEL 82: (V-2-24 #427) [59169-M-74]

All that portion as described in the Deed to the California Northwestern Pacific Railway Company, a corporation, by Deed recorded September 15, 1900 in Book 78 of Deeds at Page 304, Mendocino County Records.

PARCEL 83: (V-2-25 #454) [59169-M-75]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation recorded September 18, 1900 in Book 78 of Deeds at Page 310, Mendocino County Records.

PARCEL 84: (V-2-25 #455) [59169-M-76]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded September 17, 1900 in Book 78 of Deeds at Page 306, Mendocino County Records.

PARCEL 85: (V-2-25 #453) [59169-M-77]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation recorded December 10, 1902 in Book 90 of Deeds at Page 222, Mendocino County Records.

PARCEL 86: (V-2-25 #'s 456, 462 & 467 thru 470) [59169-M-78]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 24, 1900 in Book 78 of Deeds at Page 359, Mendocino County Records.

EXCEPTING THEREFROM that portion as described in the deed to Lindberg Lumber Company, a general partnership by Deed recorded August 5, 1983 in Book 1414 of Official Records at Page 89, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 87: (V-2-25 #457) [59169-M-79]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded September 20, 1900 in Book 78 of Deeds at Page 314, Mendocino County Records.

PARCEL 88: (V-2-25 #458) [59169-M-80]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded December 6, 1900 in Book 78 of Deeds at Page 412, Mendocino County Records.

PARCEL 89: (V-2-25 #459) [59169-M-81]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded September 18, 1900 in Book 78 of Deeds at Page 309, Mendocino County Records.

PARCEL 90: (V-2-25 #460) [59169-M-82]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded September 27, 1900 in Book 78 of Deeds at Page 320, Mendocino County Records.

PARCEL 91: (V-2-25 #461) [59169-M-83]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 24, 1900 in Book 78 of Deeds at Page 358, Mendocino County Records.

EXCEPTING THEREFROM that portion described in the deed to Lindberg Lumber Company recorded August 5, 1983 in Book 1414 of Official Records at Page 89, Mendocino County Records.

PARCEL 92: (V-2-25 #463) [59169-M-84]

All that portion as described in the deed on The California Northwestern Railway Company, a corporation, recorded November 7, 1900 in Book 78 of Deeds at Page 373, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 93: (V-2-25 #464) [59169-M-85]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 10, 1900 in Book 81 of Deeds at Page 518, Mendocino County Records.

PARCEL 94: (V-2-25 #465) [59169-M-86]

All that portion as described in the Deed to The California Northwestern Railway Company, a corporation, recorded September 28, 1900 in Book 78 of Deeds at Page 318, Mendocino County Records.

PARCEL 95: (V-2-25 #466) [59169-M-87]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded September 27, 1900 in Book 78 of Deeds at Page 319, Mendocino County Records.

PARCEL 96: (V-2-25 #472) [59169-M-89]

DELETED

PARCEL 97: (V-2-25 #473) [59169-M-90]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded July 11, 1921 in Book 166 of Deeds at Page 34, Mendocino County Records.

PARCEL 98: (V-2-25 #474) [59169-M-91]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 9, 1900 in Book 78 of Deeds at Page 333, Mendocino County Records.

PARCEL 99: (V-2-25 #475) [59169-M-92]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 19, 1900 in Book 78 of Deeds at Page 348, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 100: (V-2-25 #476) [59169-M-93]

All that portion as described in the deed to the California Northwestern Railway Company, a corporation, recorded November 16, 1900 in Book 78 of Deeds at Page 394, Mendocino County Records.

PARCEL 101: (V-2-25 #477) [59169-M-94]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded October 15, 1931 in Book 64 of Deeds at Page 351, Mendocino County Records.

RESERVING an easement, 20 feet wide, for road and utility purposes, over parcels 86, 95 and 101 herein, the Westerly line thereof being coincident with the Westerly line of lands described in deed from F.O. Strong, recorded September 27, 1990, in Deed Book 78, Page 319, Records of said County, and in deed from W.N. Fulwider, recorded October 15, 1931, in Book 64, Page 351, Official Records of said County, and in deed from E.J. LeBreton, recorded October 24, 1900, in Deed Book 78, Page 359, Records of said County, lying between the Northerly line of Moore Street in Calpella and the Northerly line of land described in said deed recorded in Book 64, Page 351, Official Records of said County.

PARCEL 102: (V-2-26 #477) [59169-M-88]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 7, 1900 in Book 78 of Deeds at Page 374 Mendocino County Records.

PARCEL 103: (V-2-26 #478) [59169-M-95]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 26, 1900 in Book 78 of Deeds at Page 401, Mendocino County Records.

PARCEL 104: (V-2-26 #479) [59169-M134]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 28, 1901 in Book 78 of Deeds at Page 462, Mendocino County Records.

PARCEL 105: (V-2-26 #480) [59169-M135]

DELETED

CONTINUED



DESCRIPTION CONTINUED:

PARCEL 106: (V-2-26 #481) [59169-M-96]

All that portion as described in the deed to the California Northwestern Railway Company, a corporation, recorded October 8, 1900 in Book 78 of Deeds at Page 341, Mendocino County Records.

PARCEL 107: (V-2-26 #482) [59169-M-97]

An undivided three quarters (3/4) interest in and to all that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded October 30, 1900 in Book 78 of Deeds at Page 364, Mendocino County Records.

PARCEL 108: (V-2-26 #484) [59169-M-98]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 3, 1900 in Book 78 of Deeds at Page 368, Mendocino County Records.

PARCEL 109: (V-2-26 #486) [59169-M-99]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 3, 1900 in Book 78 of Deeds at Page 378, Mendocino County Records.

PARCEL 110: (V-2-26 #488) [59169M100]

All that portion as described in the deed to the California Northwestern Railway Company, a corporation, recorded February 27, 1906 in Book 102 of Deeds at Page 387 Mendocino County Records.

PARCEL 111: (V-2-26 #489) [59169M101]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded February 27, 1906 in Book 102 of Deeds at Page 388 Mendocino County Records.

PARCEL 112: (V-2-26 #491) [59169M102]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded December 31, 1900 in Book 78 of Deeds at Page 441, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 113: (V-2-26 #'s 492 & 493) [59169M103]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 8, 1900 in Book 78 of Deeds at Page 376, Mendocino County Records.

RESERVING THEREFROM an easement, 20 feet wide, for road and utility purposes, the Southerly line thereof described as follows:

BEGINNING at the intersection of the Westerly line of Laughlin Way (70 feet wide), with the Southerly line of land described in deed from E.G. Schmit to California Northwestern Railway Company, recorded November 8, 1900, in Deed Book 78, Page 376, Records of said County; thence Northwesterly, along said Southerly line, 200 feet.

The Westerly line of said strip of land to be drawn at right angles, Northeasterly, from said Southerly line; the Northerly line thereof to terminate in said Westerly line of Laughlin Way.

PARCEL 114: (V-2-26 #494) [59169M-104]

DELETED

PARCEL 115: (V-2-26 #495; V-2-27 #495) [59169M-105]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded November 28, 1904 in Book 86 of Deeds at Page 152, Mendocino County Records.

PARCEL 116: (V-2-26 #496) [59169M-136]

DELETED

PARCEL 117: (V-2-27 #496; V-2-28 #'s 496, 500 & 502; V-2-29 #'s 502 thru 504) [59169M106]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded April 4, 1903 in Book 86 of Deeds at Page 80, Mendocino County Records.

EXCEPTING THEREFROM all that portion thereof as described in the deed to General Development Company a California corporation recorded December 24, 1903 in Book 94 of deeds at Page 251, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 118: (V-2-27 #'s 497 & 498) [59169M107]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded December 22, 1964 in Book 678 of Official Records at Page 349, Mendocino County Records.

PARCEL 119: (V-2-28 #501; V-2-29 #'s 501 & 505) [59169M108]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded June 17, 1901 in Book 78 of Deeds at Page 603, Mendocino County Records.

PARCEL 120: (V-2-28 #499) [59169M-109]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded July 11, 1921 in Book 166 of Deeds at Page 35, Mendocino County Records.

PARCEL 121: (V-2-29 #'s 506 & 513) [59169M-110]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 189, Mendocino County Records.

PARCEL 122: (V-2-29 #'s 507 & 511) [59169M-111]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 184, Mendocino County Records.

PARCEL 123: (V-2-29 #'s 508 thru 510) [59169M-112]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 186, Mendocino County Records.

PARCEL 124: (V-2-29 #512) [59169M-113]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 185, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 125: (V-2-30 #541) [59169M-114]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded August 2, 1955 in Book 405 of Official Records at Page 260, Mendocino County Records.

PARCEL 126: (V-2-29 #'s 514 & 515; V-2-30 #515) [59169M115]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 193, Mendocino County Records.

PARCEL 127: (V-2-30 #'s 516, 517 & 521) [59169M116]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 187, Mendocino County Records.

PARCEL 128: (V-2-30 #'s 518 & 519) [59169M117]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 191, Mendocino County Records.

PARCEL 129: (V-2-30 #523) [59169M118]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 23, 1902 in Book 85 of Deeds at Page 232, Mendocino County Records.

PARCEL 130: (V-2-30 #'s 524 thru 526) [59169M119]

All that portion as described in the Final Decree of Condemnation to The California Northwestern Railway, a corporation, recorded December 21, 1901 in Book 82 of Deeds at Page 629, Mendocino County Records.

PARCEL 131: (V-2-30 #528) [59169M120]

All that portion as described in the deed to The California Northwestern Railway Company, a corporation, recorded January 4, 1902 in Book 85 of Deeds at Page 190, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

PARCEL 132: (V-2-30 #'s 529 thru 531) [59169M121]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded May 2, 1910 in Book 118 of Deeds at Page 45, Mendocino County Records, described as follows:

The following parcel of land in the Town of Willits, County of Mendocino, State of California:

BEGINNING at a point, North 88°30' East, Twelve (12) feet from the Southeasterly corner of Block 3 as shown on the map of the Northwestern Addition to the Town of Willits: running thence North 88°30' East One Hundred Twenty-five and two-tenths (125.2) feet: thence South 0°09' West Seven hundred six and four-tenths (706.4) feet: thence North 19°16' East Fifty (50) feet: thence North 68°21' East Thirty-four and nine tenths (34.9) feet: thence North 0°05' East Eight hundred sixty-five and two-tenths (865.2) feet to the Northerly line of Commercial Street (as shown on said map), if extended; thence North 88°33' East Five and two-tenths (5.2) feet: thence North 0°05' East One thousand one hundred seven and six tenths (1,107.6) feet: thence North 89°55' West Three hundred twenty-four and five-tenths (324.5) feet: thence Westerly parallel to and distant Fifty (50) feet Northwesterly from the track of the Northwestern Pacific Railroad running to the roundhouse Three Hundred and twenty-three and nine-tenths (323.9) feet: thence South 64°51' West Five Hundred ninety-one and two-tenths (591.2) feet to the Easterly line of Main Street as shown on said map of the Northwestern Addition to the Town of Willits: thence South 1°30' East One hundred nine and two-tenths (109.2) feet: thence North 64°51' East Five hundred and thirty-two (532) feet: thence Easterly parallel to and distant Fifty (50) feet Southerly from the center line of the Northwestern Pacific Railroad Four hundred thirty-four and four-tenths (434.4) feet: thence South 1°30' East Nine hundred thirty-nine and seven-tenths (939.7) feet to the place of beginning.

EXCEPTING THEREFROM all that portion thereof lying northerly of the northerly line of Commercial Street in the City (Town) of Willits as said line existed on the date of said conveyance.

PARCEL 133: (V-2-30 #'s 532 thru 534) [59169M122]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded July 22, 1912 in Book 131 of Deeds at Page 271, Mendocino County Records.

EXCEPTING THEREFROM all that portion thereof lying northerly of the northerly line of Commercial Street in the City (Town) of Willits as said line existed on the date of said conveyance.

PARCEL 134: (V-2-30 #537; V-3-1 #1) [59169M-126]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a California corporation, recorded October 16, 1907 in Book 86 of Deeds at Page 305, Mendocino County Records.

DESCRIPTION CONTINUED:

PARCEL 135 : (V-3-1 #'s 2 & 4) [S9169M-127]

Parcels 1 and 2 as described in the deed to Northwestern Pacific Railroad Company, a California corporation, recorded October 16, 1907 in Book 86 of Deeds at Page 292, Mendocino County Records.

PARCEL 136 : (V-3-1 #3) [S9169M-128]

All that portion as described in the Deed to Northwestern Pacific Railroad Company, a California corporation, recorded August 31, 1907 in Book 86 of Deeds at Page 258, Mendocino County Records.

PARCEL 137: (V-3-1 #5) [S9169M-129]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded August 31, 1907 in Book 86 of Deeds at Page 254, Mendocino County Records.

EXCEPTING THEREFROM all that portion as described in the deed to Northwestern Pacific Acquiring Corporation, recorded November 5, 1984 in Book 1481 of Official Records at Page 186, Mendocino County Records.

2022-10611

Recorded at the request of  
GREAT REDWOOD TRAIL AGENCY  
09/12/2022 03:07 PM  
Fee: \$0 Pgs: 1 of 42

OFFICIAL RECORDS  
Katrina Bartolome - Clerk-Recorder  
Mendocino County, CA

RECORDING REQUESTED BY:  
Great Redwood Trail Agency



AND WHEN RECORDED MAIL TO:  
Great Redwood Trail Agency  
419 Talmage Road, Suite M  
Ukiah, CA 95482  
Attn: Karyn Gear, Executive Director

	\$20.00
	PAID
	PCO
	FILED
X	Exempt

SPACE ABOVE THIS LINE FOR RECORDER'S USE

This instrument is exempt from Recording Fees (Govt. Code § 27383) and from Documentary Transfer Tax (Rev. & Tax Code §11922)

GRANT DEED  
Mendocino County, California  
(WILLITS YARD)

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, **Union Pacific Railroad Company**, a Delaware corporation, and successor in interest to Southern Pacific Transportation Company ("Grantor"), sells, transfers, grants and conveys to **Great Redwood Trail Agency**, a local agency created by the California legislature, and successor in interest to the North Coast Railroad Authority ("Grantee"), having its principal office at 419 Talmage Road, Suite M, Ukiah CA, 95482, (a) that portion of Grantor's predecessor in interest's Northwestern Pacific railroad line located in the County of Mendocino, State of California, more particularly described in **Exhibit A**, attached hereto and by this reference made a part hereof (the "Land"); (b) all of Grantor's interest, if any, in the improvements on the Land ("Improvements"); (c) all fixtures, if any, that Grantor owns and uses in the operation and maintenance of the Land and the Improvements; and (d) all appurtenances to the foregoing property, including, without limitation, all strips, gaps and gores (the Land, the Improvements, such fixtures, and such appurtenances, being referred to herein collectively as the "Property"), subject to the Permitted Exceptions (as defined in the Amended and Restated Agreement of Purchase and Sale (Willits Segments) dated April 11, 1996, between Southern Pacific Transportation Company and North Coast Railroad Authority, predecessors in interest to Grantor and Grantee, respectively (the "Purchase Agreement")). Grantor and Grantee agree to sign **Exhibit B**, attached hereto and made a part hereof.

Mineral Reservation.

Grantor excepts from the Property hereby conveyed and reserves unto itself and its successors and assigns all oil, gas, and other minerals of whatever kind or character whether now known or hereafter discovered, in and under the Property at a depth of five hundred (500) feet or more; provided that Seller shall not have a right of surface entry on or from the Property or the right to remove or impair the lateral or subjacent support of the Property.

Fiber Optics Easement Reservation

Grantor excepts from the Property hereby conveyed and reserves unto itself and its successors and assigns a perpetual, non-exclusive easement (the "Fiber Optics Easement") as more particularly described in and subject to the terms of that certain Fiber Optics Easement Agreement dated April 30, 1996 between predecessors in interest of Grantor and Grantee, the provisions of which are incorporated herein by this reference together with necessary rights of access in, on, over and across the Property. The location of the Fiber Optics Easement (the "Fiber Optics Easement Property") shall be determined as provided in the Fiber Optics Easement Agreement. Grantor and its lessees, sublessees, licensees, successors and assigns shall have the right in, on, under, over and across the Fiber Optics Easement Property to own, construct, reconstruct, maintain, repair, operate, use, relocate and/or remove existing and future fiber optics communication systems, lines and facilities.

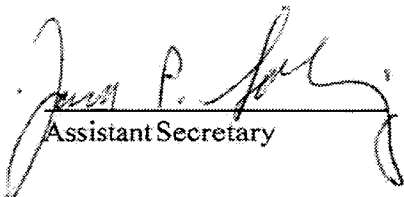
This Grant Deed is given pursuant to the Purchase Agreement and the representations, warranties and other provisions thereof are incorporated herein by this reference and shall survive the recordation hereof. Except as expressly set forth in the Purchase Agreement, Grantor makes no warranties, promises, understandings or representations, express or implied, relating to the Property.

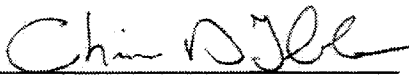
IN WITNESS WHEREOF, Grantor has set its hand and seal as of  
September 9, 2022.

GRANTOR:

UNION PACIFIC Railroad Company,  
a Delaware corporation

ATTEST:

  
Assistant Secretary

By:   
Chris D. Goble  
Assistant Vice President - Real Estate

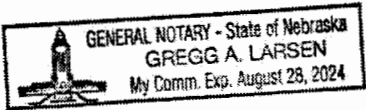
[SEAL]



STATE OF NEBRASKA                    )  
  ) ss.  
COUNTY OF DOUGLAS                )

On this 9<sup>th</sup> day of September, 2022, the undersigned, a Notary Public, personally appeared Chris D. Goble personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

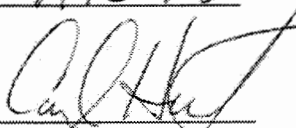
WITNESS my hand and official seal.



Gregg A. Larsen  
Notary Public

CERTIFICATE OF ACCEPTANCE  
(pursuant to Government Code §27281)

This is to certify that the interest in real property conveyed by Grant Deed dated as of September 9, 2022, from Union Pacific Railroad Company, a Delaware corporation, to the Great Redwood Trail Agency, a local agency created by the California legislature, is hereby accepted by the undersigned officer pursuant to authority conferred by Resolution No. EC176 adopted by the Great Redwood Trail Agency on Sept 7, 2022, and the Grantee consents to recordation thereof by its duly authorized representative.

Date: 9/12/22  
  
\_\_\_\_\_  
Caryl Hart  
Chairwoman, Board of Directors

STATE OF CALIFORNIA                    )  
  )ss.  
COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, personally appeared \_\_\_\_\_, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

[seal]

**Notary Certificate Attached**  
\_\_\_\_\_  
Notary Public

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Sonoma

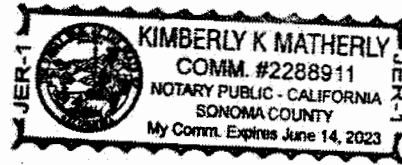
On 09/12/2022 before me, **Kimberly K Matherly, Notary Public**,  
personally appeared Caryl Hart

who proved to me on the basis of satisfactory evidence to be the persons(s) whose name(s) ~~is~~ / are subscribed to the within instrument and acknowledged to me that ~~he~~ / ~~she~~ / ~~they~~ executed the same in his ~~(her~~ / ~~their~~ authorized capacity(ies), and that by his ~~(her~~ / ~~their~~ signature(s) on the instrument the person(s), or entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Kimberly K Matherly



\*\*\*\*\*

CAPACITY CLAIMED BY SIGNER

- Individual
- Corporate \_\_\_\_\_ (Title)
- Partners –  Limited  General
- Attorney-in-fact
- Trustee(s)
- Guardian / Conservator
- Other Chairwomen - Board of Directors

Signer is representing Great Redwood Trail Agency.

Document attached to Certificate of Acceptance.

**EXHIBIT A**

(Attached to and made a part of the Grant Deed from Union Pacific Railroad Company  
to Great Redwood Trail Agency)

**THE LAND**

(Please refer to the attached Legal Description  
consisting of three pages)

DAC  
2-1-46

All those parcels of land situate in the County of Mendocino, State of California, described as follows:

PARCEL - 1: (V-2-30 #'s 529 thru 531) [59169M121]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded May 2, 1910 in Book 118 of Deeds at Page 45, Mendocino County Records, described as follows:

The following parcel of land in the Town of Willits, County of Mendocino, State of California:

BEGINNING at a point, North 88°30' East, Twelve (12) feet from the Southeasterly corner of Block 3 as shown on the map of the Northwestern Addition to the Town of Willits: running thence North 88°30' East One Hundred Twenty-five and two-tenths (125.2) feet: thence South 0°09' West Seven hundred six and four-tenths (706.4) feet: thence North 19°16' East Fifty (50) feet: thence North 52°21' East Thirty-four and nine tenths (34.9) feet: thence North 0°05' East Eight hundred sixty-five and two-tenths (865.2) feet to the northerly line of Commercial Street (as shown on said map), ~~is~~ extended; thence North 38°33' East Five and two-tenths (5.2) feet: thence North 0°05' East One thousand one hundred seven and six tenths (1,107.6) feet: thence North 89°53' West Three hundred twenty-four and five-tenths (324.5) feet: thence westerly parallel to and distant Fifty (50) feet Northwesterly from the track of the Northwestern Pacific Railroad running to the roundhouse Three hundred and twenty-three and nine-tenths (323.9) feet: thence South 64°51' West Five hundred ninety-one and two-tenths (591.2) feet to the Easterly line of Main Street as shown on said map of the Northwestern Addition to the Town of Willits: thence South 1°30' East One hundred nine and two-tenths (109.2) feet: thence North 54°51' East Five hundred and thirty-two (532) feet: thence Easterly parallel to and distant Fifty (50) feet Southerly from the center line of the Northwestern Pacific Railroad Four hundred thirty-four and four-tenths (434.4) feet: thence South 1°30' East Nine hundred thirty-nine and seven-tenths (939.7) feet to the place of beginning.

EXCEPTING THEREFROM all that portion thereof lying southerly of the northerly line of Commercial Street in the City (Town) of Willits as said line existed on the date of said conveyance.

PARCEL 2: (V-2-30 #'s 532 thru 534) [59169M123]

All that portion as described in the deed to The Northwestern Pacific Railroad Company, a corporation, recorded July 22, 1912 in Book 131 of Deeds at Page 271, Mendocino County Records.

EXCEPTING THEREFROM all that portion thereof lying southerly of the northerly line of Commercial Street in the City (Town) of Willits as said line existed on the date of said conveyance.

PARCEL 3: (V-2-30 #535) [59169M-123]

All that portion described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded May 2, 1910 in Book 118 of Deeds at Page 51, Mendocino County Records, described as follows:

DESCRIPTION CONTINUED:

The following parcel of land in the Town of Willits, County of Mendocino, State of California:

BEGINNING at a point on the Northerly boundary of Section eighteen (18) Township eighteen (18) North, Range thirteen (13) West, Mount Diablo Meridian, from which point the Northwest corner of Section eighteen (18) bears South 89°51 1/2 West, a distance of 820.4 feet; thence running South 0°05' West, one thousand six hundred and sixty-nine and five-tenths (1,669.5) feet; thence South 89°55' East three hundred twenty-four and five-tenths (324.5) feet; thence North 0°05' East two hundred eighty-nine and one-tenth (289.1) feet; thence South 89°55' East one hundred seventy-five and five-tenths (175.5) feet; thence North 0°05' East one thousand three hundred ninety-five and nine-tenths (1,395.9) feet, to the Southerly boundary of the land of O. Simonson; thence South 88°20' West along said Southerly boundary, five hundred and two-tenths (500.2) feet to the place of beginning.

EXCEPTING THEREFROM all that portion thereof as conveyed to Northwestern Redwood Company, a corporation by deed dated February 19, 1912 as disclosed by the "Right of Way and Track Map-Main Line Ignacio to Willits" Map No. V-2-30 No. 536, described as follows:

BEGINNING at the Northwest corner of that portion conveyed to Northwestern Pacific Railroad Company by deed recorded May 2, 1910 in Book 118 of deeds at Page 51, Mendocino County Records, thence from said point of beginning South 0°05' West 1484.5 feet; thence North 42°05' East 74.7 feet; thence North 0°05' East 1430.5 feet; thence South 88°20' West 50.00 feet to the point of beginning.

PARCEL 4: (V-2-30 portion #538) [59159M-124]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded April 11, 1933 in Book 80 of Official Records at Page 474, Mendocino County Records.

EXCEPTING THEREFROM all that portion as conveyed to Willits Union High School District by deed recorded March 29, 1940 in Book 136 of Official Records at Page 425, Mendocino County Records.

CONTINUED

DESCRIPTION CONTINUED:

ALSO EXCEPTING THEREFROM all that portion as conveyed to Willits Union High School District by deed recorded in Book 493 of Official Records at Page 546, Mendocino County Records.

ALSO EXCEPTING THEREFROM all that portion as conveyed to Willits Unified School District by deed recorded January 27, 1969 in Book 781 of Official Records at Page 245 and re-recorded December 31, 1969 in Book 783 of Official Records at Page 113, Mendocino County Records.

PARCEL 5: (V-2-30 #543) [59169M-125]

All that portion as described in the deed to Northwestern Pacific Railroad Company, a corporation, recorded June 15, 1961 in Book 570 of Official Records at Page 484, Mendocino County Records.

PARCEL 6: (V-2-30 #540)

All that portion as described in deed to Northwestern Pacific Railroad Company, a corporation, recorded March 29, 1940 in Book 136 of Official Records at Page 428, Mendocino County Records.

EXCEPTING THEREFROM all that portion as conveyed to Willits Unified School District by deed recorded December 31, 1969 in Book 783 of Official Records at Page 113, Mendocino County Records.

PARCEL 7: (V-2-3 #542)

All that portion as described in deed to Northwestern Pacific Railroad Company, a corporation, recorded October 2, 1958 in Book 493 of Official Records at Page 518, Mendocino County Records.

PARCEL 8: (V-2-3 #544)

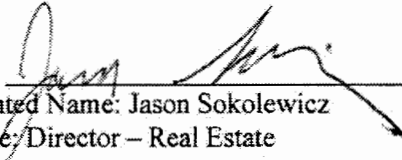
All that portion as described in deed to Northwestern Pacific Railroad Company, a corporation, recorded December 31, 1968 in Book 781 of Official Records at Page 242, Mendocino County Records.

**EXHIBIT B**

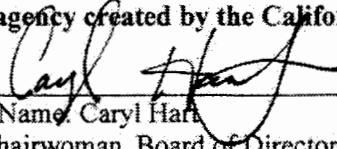
1. The attached **Attachment 1** contains consumer information concerning the proper handling and distribution of creosote pressure-treated wood.
2. Grantee shall provide information on the safe and proper handling of chemically treated ties to each person or company to whom it sells or otherwise conveys ties purchased hereunder. Such information shall include, but not be limited to, delivery to each and every worker and to all persons and companies of a copy of the MSDS Data Sheet Creosote Pressure Treated Wood that is attached hereto and marked Attachment 1, in such translations and along with such other information as may be necessary, to allow such workers, persons and companies to understand and employ safe and proper methods of use, handling and disposal.
3. In addition to providing information, Grantee shall dispose of (and/or store if ties are removed and stored) any and all ties purchased hereunder in a safe manner and in accordance with all applicable federal, state and local laws and regulations and the lawful requirements of responsible government agencies.
4. Grantee shall require the same commitments by contract with any person or company to which it sells ties for resale which are purchased hereunder.
5. Grantee shall defend, indemnify and save harmless Grantor, its successors and assigns, from and against all costs, expenses, fines penalties and other liability whatsoever arising directly or indirectly, whether in whole or in part, out of the failure of Grantee to perform any of its obligations described herein.

Dated this 12 day of September, 2022.

**UNION PACIFIC RAILROAD COMPANY,**  
a Delaware corporation

By:   
Printed Name: Jason Sokolewicz  
Title: Director – Real Estate

**GREAT REDWOOD TRAIL AGENCY,**  
a local agency created by the California legislature

By:   
Printed Name: Caryl Hart  
Title: Chairwoman, Board of Directors



**MSDS DATA**

**CHEMICAL: Creosote Treated Wood  
UP-05323**

**General Information**

**File Name: UP-05323.msd**

**Prepared to U. S. OSHA, CMA, ANSI, and Canadian WHMIS Standards (1)**

- (1) NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

Information contained in this MSDS refers only to the specific material designated and does not relate to any process or to use with any other materials. This information is furnished free of charge and is based on data believed to be reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no guarantee, expressed or implied, and no liability is assumed by J.H. Baxter in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.

**PART I: What is the material and what do I need to know in an emergency?****1. PRODUCT IDENTIFICATION**

TRADE NAME IS (as labeled): Creosote Treated Wood

CHEMICAL CLASS: Treated Wood

MANUFACTURER'S NAME: J.H. Baxter  
ADDRESS: 1700 South El Camino Real  
San Mateo, CA 94401-0902

EMERGENCY PHONE: CHEMTREC: 1-800-424-9300

BUSINESS PHONE: 1-415-349-0201

DATE OF PREPARATION: June 14, 1994

**2. COMPOSITION & INFORMATION ON INGREDIENTS**

Chemical Name	CAS #	% w/w	Exposure Limits in Air	
			ACGIH TLV mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>
Creosote	8001-58-9	<15	NE	NE
Wood	Not Applicable	>85	1 (hardwood)	10 (softwood)

Chemical Name	CAS #	% w/w	Exposure Limits in Air			
			OSHA PEL mg/m <sup>3</sup>	OSHA STEL mg/m <sup>3</sup>	OSHA IDLH	OTHER
Creosote			NE	NE	NE	NIOSH REL: TWA 1 mg/m <sup>3</sup>
Wood		2.5 (Western Red Cedar)	10 (All woods except Western Red Cedar)	NE	NE	
		5 (All other)				

NE = Not  
Established

### 3. HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW:

This product consists of dark brown to black lumber or wood poles. It presents limited hazards in an emergency situation. Dusts from this product can be irritating to exposed tissue. It is a combustible material, which will decompose to produce acid smoke and toxic gases (i.e. carbon monoxide and carbon dioxide).

#### HAZARDOUS MATERIAL INFORMATION SYSTEM:

HEALTH (BLUE)	1
FLAMMABILITY (RED)	1
REACTIVITY (YELLOW)	0
PROTECTIVE EQUIPMENT	
EYES	
RESPIRATORY:	SEE SECTION 8
HANDS	
BODY:	SEE SECTION 8

For machining wood products.

#### SYMPTOMS OF OVER EXPOSURE BY ROUTE OF EXPOSURE:

##### INHALATION:

Inhalation of finely divided dusts of this product may cause irritation of the nose, throat, and other tissues of the respiratory system.

##### CONTACT WITH SKIN OR EYES:

Dusts which may contaminate the eyes can cause irritation and scratching of eye tissues. Prolonged and/or repeated skin contact can cause mild irritation which

disappears after exposure ends. Coal tar products, such as the creosote, can react with sunlight to produce compounds which promote sunburns.

#### SKIN ABSORPTION:

There is currently no evidence that any component of this product absorbs into the skin.

#### INGESTION:

Ingestion of this product can irritate the mouth, throat, stomach, and other tissues of the digestive system. Symptoms of ingestion may include nausea, vomiting, and irritation.

#### INJECTION:

The only way injection of this material could occur is by wood splinters puncturing the skin. The main symptoms associated with such an exposure would be redness and irritation at the point of injection.

#### HEALTH EFFECTS OR RISKS FROM EXPOSURE:

An Explanation in Lay Terms.

#### ACUTE:

The main health hazard presented by this product would be irritation of contaminated tissues — especially the skin and eyes.

#### CHRONIC:

The symptoms of long-term exposure would be similar to those for acute exposure, described above. Additionally, some individuals can become sensitized to wood dusts and develop allergy-like symptoms upon repeated exposures. Studies have been conducted focusing on employees who routinely work with wood products. The International Agency for Research on Cancer reports that there is sufficient evidence that exposure to wood dust from hardwood species may lead to an increased risk of nasal/paranasal sinus cancer.

### **PART II: What should I do if a hazardous situation occurs?**

#### **4. FIRST-AID MEASURES**

#### SKIN EXPOSURE:

Immediately begin cleansing affected area with running water. Remove exposure or contaminated clothing, taking care to not irritate the eyes.

**EYE EXPOSURE:**

Open victim's eyes while under gentle running water. Use sufficient force to open eye lids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victims with wood splinters in the eye must receive immediate medical attention.

**INHALATION:**

Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

**INGESTION:**

CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting.

Victims of chemical exposure must be taken for medical attention if signs of irritation or other symptoms develop. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or health professional with victim.

**5. FIRE-FIGHTING MEASURES**

**NFPA RANKING:**                  **FLAMMABILITY 2**  
   **HEALTH 1**  
   **REACTIVITY 0**

**OTHER:**

<b>FLASH POINT, Deg. C (method):</b>	Not Applicable.
<b>AUTOIGNITION TEMPERATURE, Deg. C:</b>	Not Applicable.
<b>FLAMMABLE LIMITS (in air by volume, %):</b>	Lower: Not available. Upper: Not available.
<b>FIRE EXTINGUISHING MATERIALS:</b>	Water Spray: YES Dry Chemical: YES Carbon Dioxide: YES Halon: NO Foam: YES Other: Any "A" Class.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

This product is combustible. Dusts of this product may form explosive mixture with air. When involved in a fire, this material may decompose and produce irritating fumes and toxic gases (carbon monoxide and carbon dioxide).

Explosion Sensitivity to Mechanical Impact: Not applicable.  
Explosion Sensitivity to Static Discharge: Not applicable.

#### SPECIAL FIRE FIGHTING PROCEDURES:

Incipient fire responders should wear eye protection. Structural fire fighters must wear self-contained breathing apparatus and full protective equipment.

### **6. ACCIDENTAL RELEASE MEASURES**

#### SPILL AND LEAK RESPONSE:

This product can not spill or leak because the chemicals are fixed in the wood. In the event of a release of dust or chips of this product, safety goggles, mechanically-resistant gloves, and coveralls should be worn by clean-up personnel. In particularly dusty areas, use a MSHA/NIOSH approved dustmask. Sweep-up or vacuum dust and chips. If necessary, rinse the area with soap and water.

### **PART III: How can I prevent hazardous situations from occurring?**

### **7. HANDLING & STORAGE**

#### WORK PRACTICES AND HYGIENE PRACTICES:

Avoid getting dusts ON YOU or IN YOU. Wash hands after handling this product. If work generates significant amounts of dust, shower and change clothes at the end of such operations. Do not eat or drink in areas where there are dusts of this product. Individuals prone to sunburns should wear sun screen (protection factor 15 or higher) when handling large quantities of this product or working in areas where there are significant quantities of product dust.

#### STORAGE AND HANDLING PRACTICES:

Keep in cool, dry place away from open flame. Avoid contaminating food, feed, and water with dusts of this product. Always, use this product in areas where adequate ventilation is provided.

#### PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:

Follow practices indicated in Section 6 (Accidental Release Measures).

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

### VENTILATION AND ENGINEERING CONTROLS:

Use with adequate ventilation. Use a mechanical fan or vent area to outside.

### RESPIRATORY PROTECTION:

If it is anticipated that the exposure limits for dust may be exceeded during work with this product, wear a MSHA/NIOSH approved dustmask.

### EYE PROTECTION:

Splash goggles or safety glasses.

### HAND PROTECTION:

Mechanically resistant gloves.

### BODY PROTECTION:

Use body protection appropriate for task (i.e. coveralls).

## 9. PHYSICAL & CHEMICAL PROPERTIES

### VAPOR DENSITY:

Not applicable.

### SPECIFIC GRAVITY:

Not available.

### SOLUBILITY IN WATER:

Insoluble.

### VAPOR PRESSURE:

mm Hg @ 20 Deg. C: Not applicable.

### EVAPORATION RATE:

(water=1): Not applicable.

### MELTING POINT or RANGE:

Not applicable.

**BOILING POINT:**

Not applicable.

**pH:**

Not applicable.

**APPEARANCE AND COLOR:**

Dark brown to black lumber or wood poles with tar-like odor.

**HOW TO DETECT THIS SUBSTANCE:**

(warning properties): There are no unusual warning properties associated with this product besides the tar-like odor.

**10. STABILITY & REACTIVITY**

**STABILITY:**

Stable.

**DECOMPOSITION PRODUCTS:**

Carbon monoxide, carbon dioxide and other toxic compounds will be released upon combustion of this product.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:**

This product is incompatible with strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**CONDITIONS TO AVOID:**

Avoid contact with open flame and other sources of extreme high temperatures.  
Avoid contact with incompatible materials.

**PART IV: Is there any other useful information about this material?**

## 11. TOXICOLOGICAL INFORMATION

### TOXICITY DATA:

There is currently no toxicology information available on this product. The following information is available on creosote:

TDLo (oral, rat) = 52416 mg/kg; reproductive effects

TDLo (skin, mouse) = 99 g/kg; carcinogenic effects

LD50 (oral, rat) 755 mg/kg

LD50 (oral, mouse) = 433 mg/kg

LDLo (oral, dog) = 600 mg/kg

LDLo (oral, cat) = 600 mg/kg

LDLo (oral, rabbit) = 600 mg/kg

### SUSPECTED CANCER AGENT:

Creosote is listed in the NTP Fifth Annual Report on Carcinogens and as an IARC Group 2A Compound (probably carcinogenic to humans).

### IRRITANCY OF PRODUCT:

This product is slightly irritating to contaminated tissue.

### REPRODUCTIVE TOXICITY INFORMATION:

Listed below is information concerning the effects of this product and its components on the human reproductive system.

#### Mutagenicity:

While no data exists for the product, it is not expected to cause any fetal toxicity problems related to mutagenicity. Animal studies indicate some experimental mutagenic effects for creosote at relatively high doses.

#### Teratogenicity:

While no data exists for the product, it is not expected to cause any fetal toxicity problems related to teratogenicity.

#### Reproductive Toxicity:

While no data exists for the product, it is not expected to have an adverse effect on the male or female reproductive system or to cause any fetal toxicity problems. Animal studies indicate some experimental reproductive effects for creosote at relatively high doses.



**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

Disorders involving the skin, eyes, liver, or respiratory tracts may be aggravated by occupational exposures to dusts of this product.

**RECOMMENDATIONS TO PHYSICIANS:**

Treat symptoms.

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL STABILITY:**

This product is treated so it will not decompose.

**EFFECT OF MATERIAL ON PLANTS OR ANIMALS:**

Do not use treated wood under circumstances where the preservative may become a component of food or animal feed. Examples of such sites would be structure or containers for storing silage of food.

**EFFECT OF CHEMICAL ON AQUATIC LIFE:**

There is currently no information available on this product's effects on aquatic life; however, if is anticipated that if large enough quantities of product dusts contaminate a water system, exposed aquatic life may experience adverse health effects.

**13. DISPOSAL CONSIDERATIONS**

**PREPARING WASTES FOR DISPOSAL:**

Waste disposal must be in accordance with appropriate Federal, State, and local regulations. Waste disposal must be done in accordance with Federal, State and local regulations.

**EPA WASTE NUMBER:**

Not applicable for wastes consisting only of this product.

**14. TRANSPORTATION INFORMATION**

THIS MATERIAL IS NOT HAZARDOUS as defined by 49 CFR 172.101 by the U.S. Department of Transportation.

**PROPER SHIPPING NAME:**

Not applicable.

HAZARD CLASS NUMBER & DESCRIPTION:

Not applicable.

UNIDENTIFICATION NUMBER:

Not applicable.

PACKING GROUP:

Not applicable.

DOT LABEL(S) REQUIRED:

Not applicable.

EMERGENCY RESPONSE GUIDE NUMBER:

Not applicable.

MARINE POLLUTANT:

Creosote is defined as a marine pollutant under 49 CFR 172.101, Appendix B; however, the creosote treated wood is not so defined.

CTC DANGEROUS GOODS SHIPPING REGULATIONS:

THIS MATERIAL IS NOT CONSIDERED AS DANGEROUS GOODS.

**15. REGULATORY INFORMATION (+++)**

NOTE: The regulatory information is provided on this sheet is for the creosote component contained in the treated wood. Chemical components of the treated wood are fixed into the wood and are not reportable under SARA or CERCLA.

SARA REPORTING REQUIREMENTS:

Creosote solution is subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act; however, the creosote treated wood is not.

TSCA INVENTORY STATUS:

The chemical in this product are listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY

(RQ): Creosote = 1 pound.

**STATE REGULATORY INFORMATION:**

Chemicals in this product are covered under specific State regulations, as denoted below:

- Alaska - Designated Toxic and Hazardous Substances: None.
- California - Permissible Exposure Limits for Chemical Contaminants: None.
- Florida - Substance List: Creosote.
- Illinois - Toxic Substance List: None.
- Kansas - Section 302/313 List: None
- Massachusetts - Substance List: Creosote.
- Minnesota - List of Hazardous Substances: None.
- Missouri - Employer Information/Toxic Substance List: None.
- New Jersey - Right to Know Hazardous Substance List: None.
- North Dakota - List of Hazardous Chemicals, Reportable Quantities: Creosote.
- Pennsylvania - Hazardous Substance List: Creosote.
- Rhode Island - Hazardous Substance List: None.
- Texas - Hazardous Substance List: None.
- West Virginia - Hazardous Substance List: None.
- Wisconsin - Toxic and Hazardous Substances: None.

**CALIFORNIA PROPOSITION 65:**

Creosote is on the California Proposition 65 lists as a chemical known to the State of California to cause cancer.

**LABELING (Precautionary Statements):**

**CAUTION!** Dusts of this product can irritate the skin, eyes, nose, throat, on other tissues of the respiratory system. Dusts can also scratch the eyes, and splinters of this product can puncture the skin. Avoid contact with skin and eyes. Avoid breathing dust.

**TARGET ORGANS:**

(For Dusts of Product) Skin, Eyes, Respiratory System.

**WHMIS SYMBOL:**

Not applicable.

**16. OTHER INFORMATION**

**PREPARED BY:** CHEMICAL SAFETY ASSOCIATES, Inc.  
9163 Chesapeake Drive, San Diego, CA 92123-1002  
619/565-0302

**DISTRIBUTED BY:** Pennington Crossarm Co., Po Box 2236, Eugene, Or 97402

**MATERIAL SAFETY DATA SHEET**  
**Chemical: Pentachlorophenol Treated Wood**

**GENERAL INFORMATION**

**Chemical Name / Synonym / Trade Name:**

Pentachlorophenol Treated Wood  
Pentachlorophenol Treated Wood (063191)

**Manufacturer Name:**

KOPPERS INDUSTRIES, INC.

**Chemical Family Name:**

**CAS Number:**

**DOT Classification:**

**NA Number:**

**UN Number:**

**MATERIAL SAFETY DATA SHEET**

**KOPPERS INDUSTRIES, INC.**

**436 SEVENTH AVENUE**

**PITTSBURGH, PA. 15219-1800**

**MEDICAL EMERGENCIES:**

1 800 553-5631

**OUTSIDE U.S.A.:**

412 227-2001

**GENERAL INFORMATION:**

412 227-2884

**CHEMTREC ASSISTANCE**

1 800 424-9300

**CANUTEC:**

1 613 996-6666

**Prepared By:**

Occupational Health and Product Safety Department

**REVISION DATE:**

06/91

**SPECIFICATION SHEET NUMBER:**

**COMMODITY NUMBER:**

00000034

**CODE NUMBER:**

WPR00097JU9109

**REPLACES SHEET:**

WPR00097JL8908

**SUPPLIER INFORMATION:**

Same as manufacturer.

**NOTICE:**

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Koppers Industries makes no warranty with respect thereto and disclaims all liability from reliance thereon.

## SECTION I — PRODUCT IDENTIFICATION

**PRODUCT NAME:** Pentachlorophenol Treated Wood  
**COMMODITY NUMBER:** 00000034  
**SYNONYM:** None  
**PRODUCT USE:** Treated Wood  
**CHEMICAL FAMILY:** NA  
**FORMULA:** Preserved Wood  
**CAS NUMBER:** None  
**DOT PROPER SHIPPING NAME:** None  
**DOT HAZARD CLASS:** None  
**UN/NA NUMBER:** None  
**CANADIAN PRODUCT CLASSIFICATION:** Exempted - wood product

## SECTION II—HEALTH/SAFETY ALERT

### CAUTION:

Handling may cause splinters.  
Preservative treatment may cause eye and skin irritation.  
Observe good hygiene and safety practices when handling this product.  
Do not use this product until MSDS has been read and understood.

### WARNING:

This product contains a chemical known to the state of California to cause cancer.  
Do not burn in open fires, stoves, fireplace or residential boilers.

## SECTION III - HEALTH HAZARD INFORMATION

**EYE:** Treated or untreated wood dust or preservative may cause irritation.  
**SKIN:** Prolonged and/or repeated direct contact with treated or untreated wood may cause mild, transient irritation. See Section XII for additional information.

**INHALATION:**

Finely divided wood dust, treated or untreated, may cause nose, throat or lung irritation and other respiratory effects. Preservative vapor may cause respiratory tract irritation. If exposed in a closed space, vapors may produce headache, drowsiness, and possible weakness and incoordination. See Section XII - COMMENTS.

**INGESTION:**

Eating treated sawdust may cause mouth, throat and stomach irritation. Nausea, vomiting and diarrhea can occur.

**SECTION IV - EMERGENCY AND FIRST AID PROCEDURES****EYE CONTACT:**

Gently flush any particles from the eye with large amounts of cold water. **DO NOT RUB EYES.** Flush with clean, cool water for 15 minutes.

**SKIN CONTACT:**

Rinse skin free of material with water to avoid abrasion of skin. **DO NOT RUB** until skin is free of material then wash thoroughly with soap and water.

**INHHALATION:**

Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as indicated. Seek medical aid.

**INGESTION:**

Wipe material from mouth and lips. If symptoms appear, seek medical aid.

**NOTE TO PHYSICIAN:**

There is no specific antidote for effects from overexposure to this material. Treatment should be directed at the control of symptoms and the clinical condition.

**SECTION V — FIRE AND EXPLOSION HAZARD INFORMATION**

<b>FLASH POINT &amp; METHOD:</b>	NA
<b>AUTOIGNITION TEMP:</b>	NA
<b>FLAMMABLE LIMITS (% BY VOLUME/AIR):</b>	LOWER: NA UPPER: NA

**TDG FLAMMABILITY CLASSIFICATION:** None

**EXTINGUISHING MEDIA:** Use water stream/spray/fog.

**FIRE-FIGHTING PROCEDURES:**

Wear complete fire service protective equipment, including full-face MSHA/NIOSH approved self-contained breathing apparatus. Use water to cool fire-exposed container/structure/protect personnel.

**FIRE AND EXPLOSION HAZARDS:**

Dust (powder) may form explosive mixture in air. When heated (fire conditions), vapors/decomposition products may be released forming flammable/explosive mixtures in air.

**SENSITIVITY TO MECHANICAL IMPACT:** ND

**SENSITIVITY TO STATIC DISCHARGE:** ND

**SECTION VI - SPILL, LEAK AND DISPOSAL INFORMATION**

**SPILL OR LEAK PROCEDURES (PRODUCT):** Not applicable

**WASTE DISPOSAL:**

Dispose of treated wood by ordinary trash collection or burial. Treated wood should not be burned in open fires or in stoves, fireplaces or residential boilers because toxic chemicals may be produced as part of the smoke and ashes. Treated wood from commercial or industrial use (e.g., construction sites) may be burned only in commercial or industrial incinerators or boilers in accordance with state and federal regulations.

**SECTION VII - RECOMMENDED EXPOSURE LIMIT/HAZARDOUS INGRED.  
EXPOSURE LIMIT (PRODUCT):**

(\*) (hard wood dust)

(\*\*) (soft wood dust)

(\*\*\*) Based on treatment at a level of 0.6 lbs/ft<sup>3</sup> and wood density of 36 lbs/ft<sup>3</sup> actual percentage may vary due to differences in wood stock treatment.

**HAZARDOUS INGREDIENTS CAS NUMBER %BY WT. EXPOSURE LIMIT  
(PPM;MG/M3)**

Pentachlorophenol	87-86-5	<0.01	ACGIH-TWA -	0.5skin
			OSHA-PEL -	0.5skin
			OSHA-TWA -	0.5



Fuel Oil	68476-34-6	<0.02	ACGIH-TWA - 5 ACGIH-STEL - 10
Wood		>99.9	ACGIH-TWA - 1(*) - 5(**) ACGIH-STEL - 10(**)

SARA TITLE III SECTION 313 CHEMICALS  
(SEE SECTION VII FOR CAS NUMBERS AND PERCENTAGES)  
Pentachlorophenol

### SECTION VIII - PERSONAL PROTECTION INFORMATION

#### EYE PROTECTION:

Industrial safety glasses, minimum. As necessary to comply with 29 CFR 1910.133 and work area conditions: use side shields, goggles or face shield. When power-sawing and machining, wear goggles.

#### SKIN PROTECTION:

Industrial resistant heavy duty-type flexible gloves required for prolonged or frequent contact. For dusty operations (areas) wear necessary resistant protective apparel to include required head, hand and safety-type footwear items. Wear tightly woven coveralls or long sleeved shirts and long pants.

#### RESPIRATORY PROTECTION:

When existing conditions, OSHA regulations, and manufacturer "Instructions" and "Warnings" permit, Organic vapor/acid gas cartridges or canisters may be used. When sawing or machining treated wood, wear a MSHA/NIOSH approved dustmask (TC-21C).

#### VENTILATION:

Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits and areas below explosive dust concentrations.

### SECTION IX - PERSONAL HANDLING INSTRUCTIONS

#### HANDLING:

Avoid prolonged or repeated contact with skin or breathing of dusts. Observe good personal hygiene practices and recommended procedures. Avoid prolonged or repeated contact with skin or eyes. Do not wear contaminated clothing. Launder separately from household clothing before reuse, or discard.

**STORAGE:** No special storage is required.

**OTHER:**

Showering and clothing change recommended at the end of each shift. If oily preservatives/sawdust soil clothes, launder before reuse. Urethane, shellac, latex epoxy enamel, and varnish are acceptable sealers for pentachlorophenol-treated wood. Whenever possible, sawing/machining treated wood should be performed outdoors to avoid accumulations of airborne treated wood sawdust.

**SECTION X — REACTIVITY DATA**

**CONDITIONS CONTRIBUTING TO INSTABILITY:**

Stable under normal conditions.

**INCOMPATIBILITY:**

Open flame.

**HAZARDOUS REACTIONS/DECOMPOSITION/COMBUSTION PRODUCTS:**

Combustion of this product may produce/release chlorinated dibenzodioxins and dibenzofurans.

**CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:**

None

**SECTION XI — PHYSICAL DATA**

<b>BOILING POINT:</b>	NA
<b>MELTING POINT:</b>	NA
<b>VAPOR PRESSURE:</b>	NA
<b>VAPOR DENSITY (AIR=1):</b>	NA
<b>SOLUBILITY (WATER):</b>	NA
<b>VOC:</b>	ND
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	ND
<b>APPEARANCE/ODOR:</b>	Light tan to brown wood with fuel oil odor.
<b>SPECIFIC GRAVITY:</b>	NA
<b>% VOLATILE BY VOL:</b>	NA

**EVAPORATION RATE (ETHER=1):** NA

**VISCOSITY:** NA

**pH:** NA

## **SECTION XII — COMMENTS**

Persons with pre-existing disease in or a history of ailments involving the skin, liver, eye, respiratory tract may be at a greater than normal risk of developing adverse health effects from woodworking operations with this product.

### **UNTREATED WOOD DUST OR SAWDUST:**

The principal health effects reported from occupational exposure to sawdust or wood dust generated from untreated wood are dermatitis, rhinitis, conjunctivitis reduced or suppressed mucociliary clearance rates, chronic obstructive lung changes, and nasal sinus cancer. Skin and respiratory sensitization have been reported from exposure to hardwood dust.

Epidemiological studies have been reported on carcinogenic risks of employment in the furniture-making industry, the carpentry industry, and the lumber and sawmill industry. IARC has reviewed these studies and reports that there is sufficient evidence that nasal carcinomas have been caused by employment in the furniture-making industry where the excess risk is associated with exposure to untreated wood dust or sawdust from hardwood species. IARC concluded that epidemiological data are not sufficient to make a definite assessment of the carcinogenic risks of employment as a carpenter or worker in a lumbermill or sawmill.

### **PENTACHLOROPHENOL PRESERVATIVE:**

Volume 41 of the IARC Monographs states that there is limited evidence for the carcinogenicity of occupational exposure to chlorophenols including pentachlorophenol. Pentachlorophenol is fetotoxic, causing delay in the development of laboratory animal embryos and reducing litter size. Pentachlorophenol appears in OSHA Subpart Z Table but not in the NTP Annual Report on Carcinogens. Pentachlorophenol may contain as contaminants other chlorinated phenols and chlorinated dibenzofurans and dibenzodioxins. Fuel oil has been shown to produce tumor formation in laboratory animals following long-term application. Epidemiological studies of workers in the woodtreating industry have shown no significant health effects due to occupational exposure to pentachlorophenol preservative.

May be absorbed through the skin including mucous membranes and eye either by airborne mist, or more particularly, by direct contact. Skin contact should be avoided. To the extent necessary, the use of gloves, coveralls, goggles or other

appropriate personal protective equipment, engineering controls or work practices should be utilized to prevent or reduce skin absorption.

No known ingredients which occur at greater than 0.1%, other than those listed above, are listed as a carcinogen in the IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, the NTP Annual Report on Carcinogens or OSHA 29 CFR 1910.1001-1047 subpart Z Toxic and Hazardous Substances (Specifically Regulated Substances).

**SKIN PROTECTION (protective material):**

Permeation/degradation values of chemical mixtures cannot be predicted from pure components or chemical classes. Thus, these materials are normally best estimates based on available pure component data. A significant difference in chemical breakthrough time has been reported for generically similar gloves from different manufacturers (AIHA J., 48, 941-947 1987).

Do not use until Consumer Information Sheet is read and understood. Wash exposed areas promptly and thoroughly after skin contact from working with this product and before eating, drinking, using tobacco products or rest rooms.

Do not wear contact lens without proper eye protection when using this product.

**MSDS DATA**  
**CHEMICAL: Wood Dust**  
**UP-03046**

**General Information**

**Chemical Name / Synonym / Trade Name:**

Wood Dust

**Manufacturer Name:**

Timber Products Company

**CAS Number:**

**Address:**

Post Office Box 269, Springfield, Oregon 97477-0055

**Phone:**

503/747-3321

**TRADE NAME:** Wood Dust

**SYNONYMS:** None

**CAS. NO.:** None

**DESCRIPTION:** Particles generated by any manual or mechanical cutting or abrasion process performed on wood.

**PHYSICAL DATA**

<b>Boiling Point:</b>	Not Applicable
<b>Specific Gravity:</b>	Variable (Dependent on wood species and moisture content).
<b>Vapor Density:</b>	Not Applicable
<b>% Volatiles of Volume:</b>	Not Applicable
<b>Melting Point:</b>	Not Applicable
<b>Vapor Pressure:</b>	Not Applicable
<b>Solubility in H(2)O (% by wt.):</b>	Insoluable
<b>Evaporation Rate (Butyl Acetate =1):</b>	Not Applicable
<b>pH:</b>	Not Applicable

**Appearance & Odor:**

Light to dark colored granular solid Color and odor are dependent on the wood species and time since dust was generated.

**FIRE & EXPLOSION DATA**

<b>Flash Point:</b>	Not Applicable
<b>Autoignition Temperature:</b>	Variable (typically 400-500 F)
<b>Explosive Limits in Air:</b>	40 grams M(3) (LEL)
<b>Extinguishing Media:</b>	Water, CO(2), Sand
<b>Special Fire Fighting Procedures:</b>	

Wet down with water Wet down wood dust to reduce the likelihood of ignition or dispersion of dust into the air.

Remove burned or wet dust to open area after fire is extinguished.

**Unusual Fire & Explosion Hazard:**

Strong to severe explosion hazard (if wood dust "cloud" contacts an ignition source.)

**HEALTH EFFECTS DATA****Exposure Limit:**

ACGIH TLV (R): TWA-5.0 mg/m(3); STEL (15 min.)-10 mg/m(3)  
(softwood) TWP-1.0 mg/m(3) (certain hardwoods such as beech and oak)  
OSHA PEL -No current PEL

**Skin & Eye Contact:**

Eye Irritation & Allergic Contact Dermatitis (Wood  
Dust can cause eye irritation. Various species of wood dust can elicit  
allergic contact dermatitis in sensitized individuals)

**Ingestion:**

Not Applicable

**Skin Absorption:**

Not known to occur

**Inhalation:**

May cause:

nasal dryness, irritation & obstruction. Coughing, wheezing,  
& sneezing; sinusitis & prolonged colds have also been reported.

**Chronic Effects:**

May cause:

Wood dust, depending on species, may cause dermatitis on prolonged,  
repetitive contact; may cause respiratory sensitization and/or irritation.  
Prolonged exposure to wood dust has been reported by some observers to  
be associated with nasal cancer. Wood dust is not listed as a carcinogen by  
IARC, NTP, ACGIH or OSHA.

**REACTIVE DATA**

**Conditions Contributing to Instability:** Stable under normal conditions

**Incompatibility:**

Avoid contact with: oxidizing agents, drying oils & flame. Product may ignite at  
temperatures in excess of 400 F.

**Hazardous Decomposition Products:**

Thermal-oxidative degradation of wood produces: irritating & toxic fumes &  
gases, including CO, aldehydes and inorganic acids.

**Conditions contributing to Polymerization:**

Not Applicable

**PRECAUTIONS & SAFE HANDLING**

**Eye Contact:** Avoid:

**Skin Contact:**

Avoid:

repeated or prolonged contact with skin. Careful bathing & clean clothes are indicated  
after exposure

**Inhalation:**

Avoid:

repeated or prolonged breathing of wood dust in air. Oxidizing Agents & Drying Oils.

**Open Flame:**

Avoid:

**GENERALLY APPLICABLE CONTROL MEASURES**

**Ventilation:**

**Provide:**

adequate general & local exhaust ventilation to maintain healthful working conditions

**Safety Equipment:**

**Provide & Wear:** goggles or safety glasses. Other protective equipment such as gloves & approved dust respirators may be needed depending upon dust conditions.

**EMERGENCY & FIRST AID PROCEDURES**

**Eyes:**

Flush with water to remove dust particles. If irritation persists, get medical attention.

**Skin:**

Get medical advice if a rash or persistent irritation or dermatitis occur, and before returning to work where wood dust is present.

**Inhalation:**

Remove to fresh air & get medical advice if persistent irritation, severe coughing, breathing difficulties occur, before returning to work where wood dust is present.

**Ingestion:** Not Applicable

**SPILL/LEAK CLEAN-UP PROCEDURES**

**Recovery or disposal:**

**Clean-up:**

Sweep or vacuum spills for recovery or disposal; avoid creating dust conditions. Provide good ventilation where dust conditions may occur. Place recovered wood dust in a container for proper disposal.

**IMPORTANT:**

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. There is no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein.

**GENERAL INFORMATION**  
**ACZA Treated Wood**

Filename: UP-06032.msd

(1) NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-1993 format.

PART I What is the material and what do I need to know in an emergency?

PART II What should I do if a hazardous situation occurs?

PART III How can I prevent hazardous situations from occurring?

PART IV Is there any other useful information about this material?

**ACZA TREATED WOOD**

Information contained in this MSDS refers only to the specific material designated and does not relate to any process or to use with any other materials. This information is furnished free of charge and is based on data believed to be reliable as of the date hereof. It is intended for use by persons processing technical knowledge at their own discretion and risk. Since actual use is beyond our control, no guarantee, expressed or implied, and no liability is assured by J.H. Baxter in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.

**1. PRODUCT IDENTIFICATION**

TRADE NAME (AS LABELED):

ACZA TREATED WOOD

Ammoniacal Copper Zinc Arsenate Treated Wood

CHEMICAL CLASS:

Treated Wood

MANUFACTURER'S NAME:

J.H. Baxter

ADDRESS:

1700 South El Camino Real

San Mateo, CA 94401-0902

EMERGENCY PHONE:

CHEMTREC: 1-800-424-9300

BUSINESS PHONE:

1-415-349-0201

DATE OF PREPARATION

October 26, 1995

**2. COMPOSITION and INFORMATION OF INGREDIENTS**

This product consists of lumber treated with a preservative containing the components listed in the table below. This product is treated with differing strengths of the preservative. The treated wood, based on the strength of preservative treatment, retains the following amounts of preservative per cubic foot of wood:

0.25 lbs preservative/cu ft

1.00 lbs preservative/cu ft

0.40 lbs preservative/cu ft

2.50 lbs preservative/cu ft

0.60 preservative lbs/cu ft

For the amount of preservative in a particular product, refer to product label. The information presented in this document is applicable for all preservative strengths.

CHEMICAL NAME	CAS #	% w/w (Based on total weight of the retained preservative)	EXPOSURE LIMITS IN AIR	
			TLV mg/m3	ACGIH STEL mg/m3
Arsenic Compounds	Not applicable	25	0.01 (as Arsenic)	NE



Copper Compounds	Not applicable	50	NE	NE
Zinc Compounds	Not applicable	25	NE	NE

**CHEMICAL EXPOSURE LIMITS IN AIR**

NAME	PEL	OSHA STEL	IDLH	OTHER
	mg/m <sup>3</sup>	mg/m <sup>3</sup>		
Arsenic Compounds	0.01 (Cancer Hazard)	NE	NE	NIOSH REL: C 2 micrograms/g Arsenic/m <sup>3</sup> /15M
Copper Compounds	NE	NE	NE	NE
Zinc Compounds	NE	NE	NE	NE

NE = Not Established  
C = Ceiling Level

The table below presents the exposure limits for the wood.

CHEMICAL NAME	CAS #	% w/w	EXPOSURE LIMITS IN AIR ACGIH	
			TLV mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>
Wood	Not applicable	Entire Non-preservative Component	1 (hard wood) 5 (soft wood)	10 (soft wood)

CHEMICAL NAME	EXPOSURE LIMITS IN AIR OSHA			
	PEL	STEL	IDLH	OTHER
	mg/m <sup>3</sup>	mg/m <sup>3</sup>		
Wood	2.5 (Western Red Cedar) 5 (All other)	10 (All woods except Western Red Cedar)	NE	NE

NE = Not Established  
C = Ceiling Level

**3. HAZARD IDENTIFICATION**

**EMERGENCY OVERVIEW:**

This product consists of light green to brown lumber or wood poles. It presents limited hazards in an emergency situation. Dusts from this product can be irritating to exposed tissue. It is a combustible material, which will decompose to produce acrid smoke and toxic gases (i.e. arsenic oxides, carbon monoxide, and fumes containing copper and zinc).

**SYMPTOMS OF OVER EXPOSURE BY ROUTE OR EXPOSURE:**

**INHALATION:**

Inhalation of finely divided dusts of this product may cause irritation of the nose, throat, and other tissues of the respiratory system.

**CONTACT WITH SKIN or EYES:**

Dusts can cause eye irritation and scratching of eye tissue. Prolonged or repeated skin contact can cause mild irritation which disappears after exposure ends.

**SKIN ABSORPTION:**

Arsenical compounds may be absorbed through skin, causing numbness or irritation of affected area.

**INGESTION:**

Ingestion of large quantities this product can irritate the mouth, throat, stomach, and other tissues of the digestive system. Symptoms of ingestion may include nausea, vomiting, and irritation, and blood in vomit, stools, or urine.

**INJECTION:**

The only way injection of this material could occur is by wood splinters puncturing the skin. The main symptoms associated with such an exposure would be redness and irritation at the point of injection.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE:**

An Explanation in Lay Terms.

**ACUTE:**

The main health hazard presented by this product would be irritation of contaminated tissues – especially the skin and eyes.

**CHRONIC:**

The symptoms of long-term exposure would be similar to those for acute exposure, described above. Additionally, some individuals can become sensitized to wood dusts and develop allergy-like symptoms upon repeated exposures. Studies have been conducted focusing on employees who routinely work with wood products. The International Agency for Research on Cancer reports that there is sufficient evidence exposure to wood dust from hardwood species may lead to an increased risk of nasal/paranasal sinus cancer. Arsenic Acid is a confirmed human carcinogen.

**HAZARDOUS MATERIAL INFORMATION SYSTEM**

<b>HEALTH</b>	<b>(BLUE)</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>(RED)</b>	<b>1</b>
<b>REACTIVITY</b>	<b>(YELLOW)</b>	<b>0</b>

**PROTECTIVE EQUIPMENT**

**EYES**

**RESPIRATORY**

SEE SECTION 8

**HANDS**

**BODY**

For routine industrial applications

**4. FIRST-AID MEASURES**

**SKIN EXPOSURE:**

Immediately begin cleansing the area with running water. Remove exposed or contaminated clothing, taking care to not to irritate the eyes.

**EYE EXPOSURE:**

Open victim's eyes while under gentle running water. Use sufficient force to open eye lids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Victims with wood splinters in the eye must receive medical attention.

**INHALATION:**

Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers.

**INGESTION:**

CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Victims of chemical exposure must be taken for medical attention if signs of irritation or other symptoms develop. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or health professional with victim.

**5. FIRE-FIGHTING MEASURES****FLASH POINT, Deg. (method):**

Not Applicable.

**AUTOIGNITION TEMPERATURE, Deg. C:**

200 - 270 Deg. C

**FLAMMABLE LIMITS (in air by volume, %):**

Lower: Not available.

Upper: Not available.

NFPA RANKING

FLAMMABILITY 2

HEALTH 1

REACTIVITY 0

OTHER

**FIRE EXTINGUISHING MATERIALS:**

Water Spray: YES

Dry Chemical: YES

Carbon Dioxide: YES

Halon: NO

Foam: YES

Other: Any "A" Class.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

This product is combustible. When involved in a fire, this material may decompose and produce irritating fumes and toxic gases (copper and zinc fumes, carbon monoxide and carbon dioxide, arsenic compounds).

Explosion Sensitivity to Mechanical Impact: Not applicable.

Explosion Sensitivity to Static Discharge: Not applicable.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Incipient fire responders should wear eye protection. Structural fire fighters must wear self-contained breathing apparatus and full protective equipment.

**6. ACCIDENTAL RELEASE MEASURES****SPILL AND LEAK RESPONSE:**

This product can not spill or leak because the chemicals are fixed in the wood. In the event of a release of dust or chips this product, safety goggles, mechanically-resistant gloves, and coveralls should be worn by clean-up personnel. In particularly dusty areas, use a MSHA/NIOSH approved dustmask. Sweep-up or vacuum dust and chips. If necessary, rinse the area with soap and water.

**7. HANDLING and STORAGE****WORK PRACTICES AND HYGIENE PRACTICES:**

Avoid getting dusts ON YOU or IN YOU. Wash hands after handling this product. Do not eat or drink in areas where there are dusts of this product.

**STORAGE AND HANDLING PRACTICES:**

Keep in cool, dry place away from open flame. Avoid contaminating food, feed, and water with dusts of this product. Always use product in areas where adequate ventilation is provided.

**PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:**  
Follow practices indicated in Section 6 (Accidental Release Measures).

**8. EXPOSURE CONTROLS - PERSONAL PROTECTION**  
**VENTILATION AND ENGINEERING CONTROLS:**

Use with adequate ventilation. Use a mechanical fan or vent area to outside.

**RESPIRATORY PROTECTION:**

If it is anticipated that the exposure limits for dust may be exceeded during work with this product, wear a MSHA/NIOSH approved dustmask.

**EYE PROTECTION:**

Splash goggles or safety glasses.

**HAND PROTECTION:**

Mechanically resistant gloves.

**BODY PROTECTION:**

Use body protection appropriate for task (i.e. coveralls).

**9. PHYSICAL and CHEMICAL PROPERTIES**

**VAPOR DENSITY:**

Not applicable.

**SPECIFIC GRAVITY:**

Not available.

**SOLUBILITY IN WATER:**

Insoluble.

**VAPOR PRESSURE, mm Hg @ 20 Deg. C:**

Not applicable.

**EVAPORATION RATE (water=1):**

Not applicable.

**MELTING POINT or RANGE:**

Not applicable.

**BOILING POINT:**

Not applicable.

**pH:**

Not applicable.

**APPEARANCE AND COLOR:**

Light tan to brown lumber or wood poles.

**HOW TO DETECT THIS SUBSTANCE (warning properties):**

There are no unusual warning properties associated with this product.

**10. STABILITY and REACTIVITY**

**STABILITY:**

Stable.

**DECOMPOSITION PRODUCTS:**

Carbon monoxide, carbon dioxide, zinc oxide, ammonia, copper oxides, and arsenic compounds will be released upon combustion of this product.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:**

This product is incompatible with strong oxidizing agents.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**CONDITIONS TO AVOID:**

Avoid contact with open flame and other sources of extreme high temperatures. Avoid contact with incompatible materials.

**11. TOXICOLOGICAL INFORMATION****TOXICITY DATA:**

There is currently no toxicology information available on this product.

**SUSPECTED CANCER AGENT:**

This product's ingredients are found on the following lists:

COMPOUND	FEDERAL	OSHA Z LIST	IARC	NTP	CAL/OSHA
Arsenic/Arsenic Compounds	Yes		Yes	Yes	Yes
Wood Dust	No		Yes	No	No

Wood Dust listed as a "Human Carcinogen" (Group 1) by IARC. This classification is based primarily on IARC's evaluation of increased risk in the occurrence of adenocarcinomas of the nasal cavities and paranasal sinuses associated with exposure to wood dust. Neither wood, nor wood dust are considered carcinogenic by the Federal OSHA, NTP, or CAL/OSHA.

**IRRITANCY OF PRODUCT:**

This product is slightly irritating to contaminated tissue.

**REPRODUCTIVE TOXICITY INFORMATION:**

Listed below is information concerning the effects of this product and its components on the human reproductive system.

**Mutagenicity:**

While no data exist for the product, it is not expected to cause any fetal toxicity problems related to mutagenicity.

**Teratogenicity:**

While no data exist for the product, it is not expected to cause any fetal toxicity problems related to teratogenicity. Animal studies indicate some experimental teratogenic effects for arsenic acid and zinc oxide at relatively high doses.

**Reproductive Toxicity:**

While no data exist for the product, it is not expected to have an adverse effect on the male or female reproductive system or to cause any fetal toxicity problems. Animal studies indicate some experimental reproductive effects for zinc oxide and copper oxides at relatively high doses.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

Disorders involving the skin, eyes, liver, or respiratory tracts may be aggravated by occupational exposures to dusts of this product.

**RECOMMENDATIONS TO PHYSICIANS:**

Treat symptoms. 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL STABILITY:**

This product is treated so it will not decompose. Arsenic, copper, and zinc compounds may slowly be released into the environment and will be transported or degraded based on pH, soil type, and salinity.

**EFFECT OF MATERIAL ON PLANTS or ANIMALS:**

Do not use treated wood under circumstances where the preservative may become a component of food or animal feed. Examples of such sites would be structures or containers for storing silage of food.

**EFFECT OF CHEMICAL ON AQUATIC LIFE:**

There is currently no information available on this product's effects on aquatic life; however, it is anticipated that if large enough quantities of product dusts contaminate a water system, exposed aquatic life may experience adverse health effects.

**13. DISPOSAL CONSIDERATIONS**

**PREPARING WASTES FOR DISPOSAL:**

Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

**EPA WASTE NUMBER:**

Not applicable for wastes consisting only of this product.

**14. TRANSPORTATION INFORMATION**

**THIS MATERIAL IS NOT A HAZARDOUS MATERIAL (49 CFR 172.101 BY THE U.S. DEPT. OF TRANSPORTATION.**

**PROPER SHIPPING NAME:**

Not applicable.

**HAZARD CLASS NUMBER and DESCRIPTION:**

Not applicable.

**UN IDENTIFICATION NUMBER:**

Not applicable.

**PACKING GROUP:**

Not applicable.

**DOT LABEL(S) REQUIRED:**

Not applicable.

**EMERGENCY RESPONSE GUIDE NUMBER:**

Not applicable.

**MARINE POLLUTANT:**

The product is not defined as a marine pollutant, 49 CFR 172.101 Appendix B.

**CTC DANGEROUS GOODS SHIPPING REGULATIONS:**

**THIS MATERIAL IS NOT CONSIDERED AS DANGEROUS GOODS.**

**15. REGULATORY INFORMATION (+++)**

NOTE: The regulatory information is provided on this sheet is for the preservative solutions and is not applicable to preservative components contained in the treated wood. Chemical components of the treated wood are fixed into the wood and are not reportable under SARA or CERCLA.

**SARA REPORTING REQUIREMENTS:**

Arsenic compounds, Copper and its compounds, and Zinc compounds are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act. This treated wood product is not subject to these requirements.

**TSCA INVENTORY STATUS:**

The chemicals in this product are listed on the TSCA Inventory.

**CERCLA REPORTABLE QUANTITY (RQ):**

Arsenic = 1 pound; Copper = 5000 pounds; Zinc = 1000 pounds.

The treated wood product is not subject to these requirements.

**STATE REGULATORY INFORMATION:**

Chemicals in this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substance:

None

California - Permissible Exposure Limits for Chemical Contaminants:

Arsenic Compounds, Copper (Salts, Dusts, Miss)

Florida - Substance List:

Arsenic

Illinois - Toxic Substance List:

Arsenic Compounds, Copper Compounds

Kansas - Section 302/313 List:

Copper and Compounds

Massachusetts - Substance List:

Arsenic Compounds

Minnesota - List of Hazardous Substances:

Arsenic Compounds, Copper (Dusts and Mists)

Missouri - Employer Information/Toxic Substance List:

Arsenic Acid, Zinc Oxide

New Jersey - Right to Know Hazardous Substance List:

Arsenic Acid, Inorganic Copper Compounds, Zinc Oxide

North Dakota - List of Hazardous Chemicals, Reportable Quantities:

Arsenic, Copper and Compounds, Zinc and Compounds

Pennsylvania - Hazardous Substance List:

Arsenic Compounds, Copper, Zinc Oxide

Rhode Island - Hazardous Substance List:

Zinc Oxide

Texas - Hazardous Substance List:

None

West Virginia - Hazardous Substance List:

None

Wisconsin - Toxic and Hazardous Substances:

None

**CALIFORNIA PROPOSITION 65:**

Inorganic Arsenic Compounds (i.e. Arsenic Acid) is on the California Proposition 65 lists as being known to the State of California to cause cancer.

**LABELING (Precautionary Statements):**

**CAUTION!** Dusts of this product can irritate the skin, eyes, nose, throat, on other tissues of the respiratory system. Dusts can also scratch the eyes, and splinters of this product can puncture the skin. Avoid contact with skin and eyes. Avoid breathing dust.

**TARGET ORGANS:**

(For Dusts of Product) Skin, Eyes, Respiratory System.

**WHMIS SYMBOL:**

Not applicable.

Heading: 16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc. 9163 Chesapeake Drive, San Diego, CA 9163  
Chesapeake Drive, San Diego, CA 92123-1002 619/565-0302



Attachment E

September 12, 2022

Net Liquidation Value  
Willits MP 139.5 to Longvale MP 152.5



American Rail Engineers

300 E 39<sup>th</sup> Street

Kansas City MO 54111

Contact: Dave Anderson, (714) 943-4068

## Introduction

The net liquidation determination relied on field visits to get an overall assessment of the rail, other track materials (OTM's), ties, ballast, as well as how salvage would be accomplished. Track charts were used to identify the various rail sizes on the property. The field assessment results are summarized below.

**Mainline & Yard Rail** – Spot checks of rail size confirmed the rail to be primarily 112 lb in fair condition with few burn marks found. Overall rail was judged to be good for relay.

**Rail Anchors & Spikes** – Rail anchors were placed on every third tie and in general the ties were spiked with two spikes per tie plate. Both the anchors and the spikes were determined to be categorized as scrap.

**Track Ballast** – Ballast is largely river run and is very fouled. Existing ballast rock does not meet railroad ballast specifications. Therefore, no salvage value other than potential use on the site for fill.

**Track Ties** – Ties are in very poor condition. Based on field inspection counts it was determined to use 15% for relay.

## Salvage & Delivery

Labor and equipment costs were estimated considering that seven miles of the 13-mile track is covered with very heavy vegetation.

Table 1 – Salvage and Delivery Cost Estimate

<b>1) Vegetation removal for access</b>	<b>\$ 138,500</b>
<i>Days required</i>	10
<i>Chipper/day (including operator)/day</i>	3,000
<i>3-person Labor Crew/day</i>	2,850
<i>Security/day</i>	3,000
<i>Supervisor/day</i>	1,500
<i>Flagger/day</i>	500
<i>Mobilization</i>	30,000
<b>2) Take up cost</b>	<b>\$ 208,500</b>
<i>Days required</i>	13
<i>5-member Rail Gang/day</i>	5,500
<i>Work train/day</i>	5,000
<i>Security/day</i>	1,500
<i>Supervisor/day</i>	1,500
<i>Flagger/day</i>	1,000
<i>Mobilization</i>	20,000
<b>3) Delivery</b>	<b>\$ 110,000</b>
<i>Days required</i>	10
<i>Trucking/day</i>	2,500
<i>Disposal of ties</i>	85,000
<b>Total =</b>	<b>\$ 457,000</b>
<b>Cost /Mile =</b>	<b>\$ 35,000</b>

## Net Liquidation Value (NLV)

The NLV shown below references scrap and wholesale relay steel prices per gross ton that were obtained from a scrap dealer as of August 31, 2022. The scrap prices per gross ton is \$625.00 delivered. The wholesale relay steel price per stick is \$975. These values were quoted by Omaha Track, Chicago, Illinois. The relay tie price on site is \$15.00 per tie. As mentioned above the ballast has no value. The salvage value of the turnouts (including rail and OTM) did not cover the cost to remove and deliver.

The following table summarizes the information used to calculate the NLV. This is based on 18.27 miles of track – 13 miles of mainline, 0.49 miles in the Longvale Yard, and 4.78 miles in the Willits Yard.

Table 2 – Net Liquidation Value as of 8/31/2022

Item	Average Unit Weight	Qty Pieces	Qty wt GT	Scrap / GT Delivered \$625.00	Wholesale Relay / GT \$975.00	Net Liquidation Value
Rail Size	109.14	4,946	3,132.57		\$3,054,259	\$3,054,259
Joint Bars	85	4,946	187.67		\$182,982	\$182,982
Tie Plates	14	110,220	688.87		\$671,650	\$671,650
Anchors	1.1	73,480	36.08	\$22,552		\$22,552
Spikes	0.833	220,439	81.98	\$51,235		\$51,235
Ties (15% relay@\$15/tie)	n/a	8,266	n/a		\$123,997	\$123,997
Substandard Ballast	n/a	n/a	n/a			\$0.00
Turnouts w/rail and OTM	n/a	n/a	n/a			\$0.00
Take up & Delivery	\$35,000/mile			\$(8,467)	\$(448,533)	\$(457,000)
Totals				65,000	\$3,585,000	\$3,650,000
<b>NLV Total =</b>						<b>\$3,650,000</b>

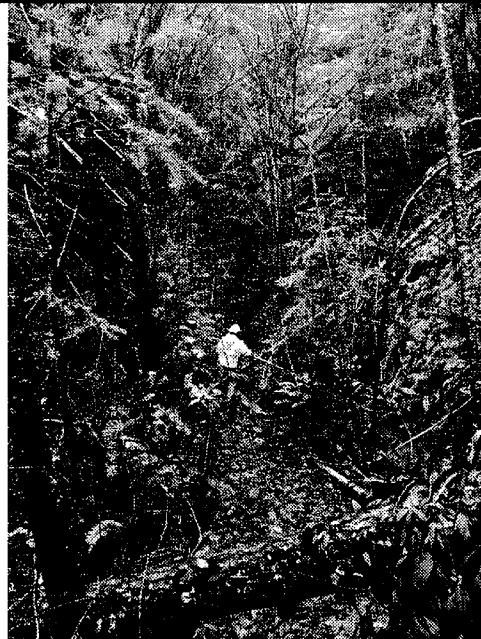
## Contributing Authors

- \* David Anderson, P.E. of American Rail Engineers Corporation (ARE) served as Project Manager and Senior Engineer in ARE's capacity as prime consultant for the project. He is licensed as a Professional Engineer in California and has worked with the state agencies overseeing the NWP corridor for over 20 years. Dave has prior experience working with the FRA on net liquidation values through RRIF loan processing.
- \* Carl Belke, Principal Engineer for D&H Rail Consulting LLC has served in rail industry engineering and executive management roles for 49 years. As a member of Genesee & Wyoming's and the Livonia, Avon & Lakeville Railroad's line acquisition teams, Carl has performed numerous line evaluations including NLV's for contractions and expansions.

Attachment F

September 12, 2022

Railroad Rehabilitation Assessment  
Willits MP 139.5 to Longvale MP 152.5



American Rail Engineers

300 E 39<sup>th</sup> Street

Kansas City MO 54111

Contact: Dave Anderson, (714) 943-4068

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

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Appendix A – Geotechnical & Tunnels Assessment Report

## 1. Introduction

This Assessment was completed to determine an estimated cost necessary to rehabilitate 13 miles of GRTA Rail Line from Willits, CA MP 139.5 north to Longvale, CA MP 152.5 to FRA Class 1 track standards for freight rail service.

This segment of the railroad was last in-service 24 years ago. It was embargoed on December 9, 1998 by the FRA due to washouts and flooding events associated with El Niño storms rendering the track unsafe. The 13 miles of rail line had minimal maintenance prior to the embargo and has not been maintained since the embargo. Therefore, obtaining access was challenging given the inherent geohazards and the heavy vegetation over much of the right-of-way.

ARE's team for the assessment includes several senior individuals with decades of railroad experience. The separate individual's areas of expertise include:

- Geotechnical engineering with extensive experience working with shortline and Class 1 railroads addressing slides, erosion, and tunnels.
- Roadmaster responsibilities for track maintenance and safety with extensive knowledge of FRA regulations for Class 1 track.
- Railroad Bridges and Structures experience with extensive knowledge of FRA related requirements for Bridge Management Programs, inspection requirements and load capacity determinations.
- Railroad CEO responsible for overall operations and P&L.

Bios of the team members and their roles are included at the end of this document.

The current condition of the railroad was determined by field inspection of approximately 6.5 miles of the line and low-level photography and LiDAR collected by helicopter. The LiDAR was helpful in areas of heavy vegetation for detection of land formations, such as outlining landslides. It however was not helpful for more detailed information like tie conditions in areas that were not accessible on foot. In addition, as outlined in the geotechnical assessment, past assessments in 2002 and 2007 provided insight to tunnel condition over time.

## 2. Geotechnical Assessment

### *Line Segment Description<sup>1</sup>*

North of Willits (MP 139.5), the railroad parallels Highway 101 and Outlet Creek along the western margin of Little Lake Valley. A few miles north of Willits (MP 142), the railroad curves west, diverging away from Highway 101. The rail alignment continues to follow Outlet Creek, transitioning from alluvial soils in the valley to terraces and benches along the toe of steep slopes in a relatively narrow, incised valley. As Outlet Creek flows to the northwest, it cuts across ridges and curves around hills in sharp bends past Tunnel 11 (MP 145.49) and Bridge 145.69. North of the bridge, the creek and railroad follow a relatively straight course along the toe of a ridge to MP 148 where they rejoin Highway 101. From MP 148 to the Highway 162 turnoff near Longvale (MP 152.5), the highway, Outlet Creek and the railroad curve and

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<sup>1</sup> Line Segment Description from *Geotechnical & Tunnels Assessment Report* by Shannon & Wilson, see Appendix A.



## Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

cross twice in the narrow valley. The railroad continues to follow Outlet Creek to its confluence with the Eel River near MP 159.5.

Between MP 142 and MP 152, Outlet Creek and the railroad cut through and traverse an elongated, northwest-southeast trending exposure mapped as the Coastal Terrane geologic unit (TKfs), part of the Coastal Belt of the Franciscan Complex. Northeast of MP 152, the alignment is within Late Jurassic to Middle Cretaceous rocks of the Central Belt of the Franciscan Complex Mélange (KJfm). This Franciscan Mélange unit consists predominantly of highly fractured, highly sheared argillite. The Coastal Terrane and Central Terrane Mélange units are both highly susceptible to landsliding.

### *Geotechnical / Tunnel Work items*

The location and description of geotechnical work items found within the 13 miles of this assessment are detailed in Appendix A. Table 1 is a summary of the work items and the estimated quantities. Costs associated with these work items and projected ongoing maintenance related to these items is provided in Section 6 Maintenance and Section 7 Rehabilitation Costs.

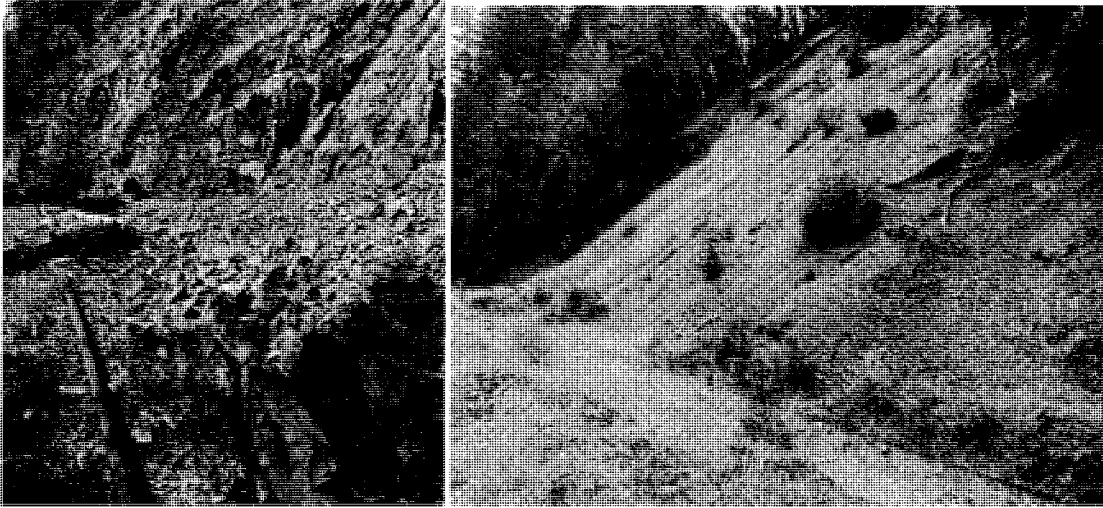
Table 1 – Geotechnical Work Items and Quantities

Geotechnical / Tunnel	Number of Locations	Estimated Total Track Length (Ft)	Estimated Total Quantity
Tunnel 11 Repair	1	704	1 LS
Ditching (1-side) / Shoulder Cleaning at Rock & Debris Slides	20	9,610	3,797 CY
Rock Slope Scaling	2	2,720	70 HRS
Catchment Walls (K-Rail Barrier)	2	300	125 LF
Shoulder Retaining Wall	4	1,270	1,270 LF

**Tunnels:** Two tunnels are located within this assessment project area. Tunnel 11 is located at MP 145.49 and is approximately 704 ft long. It was constructed with timber sets and timber lagging in the early 1900's and has had some timber sets replaced with steel sets. This tunnel has collapsed and needs extensive repairs. Tunnel 12 is located at MP 149.94 and is approximately 895 ft long. It was constructed in the early 1900's like tunnel 11. This tunnel was damaged by a fire and rebuilt with steel sets and lined with concrete. It is in good condition but has standing water because of lack of ditch maintenance.

**Ditching at Slides:** There are several areas that require ditching due to rock and debris slides. The rockslides consist of fracture rock, mixed soil, and woody debris resulting in talus slopes. It is evident at several of these slide areas that they have required substantial clearing over time based on large stockpiles of material on the opposite side of the track from ditching. In areas of recurring larger rock falls it is recommended that rock slopes be scaled and catchment walls constructed with K-Rail Barriers.

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5



*Photo 1 Typical slide example*

*Photo 2 MP 146.0 Talus slope*

**Shoulder Walls:** As a result of steep embankment slopes and bank erosion along bends of Outlet Creek, four locations require shoulder retaining walls. Shannon & Wilson geotechnical engineers recommend cast-in-place concrete or shotcrete walls supported on vertical micropiles installed from the roadbed as the most economical solution. The four locations are: MPs 148.9, MP 151.0, MP 151.6, and MP 151.8. At MP 151.6 a field visit measured the distance from face-of-rail to top-of-embankment down slope of 4.0 feet. See Photo 3 and Photo 4 showing the steep railroad embankment on the right side of the track and at the same location the left side of the track with poor drainage. At MP's 148.9 and 152.6 Photos 5 and 6 show bare earth LiDAR views of the erosion of Outlet Creek which is very susceptible to frequent high flows in the rainy season.



*Photo 3 MP 151.6 steep slope at Outlet Creek.*

*Photo 4 MP 151.6 poor drainage*

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

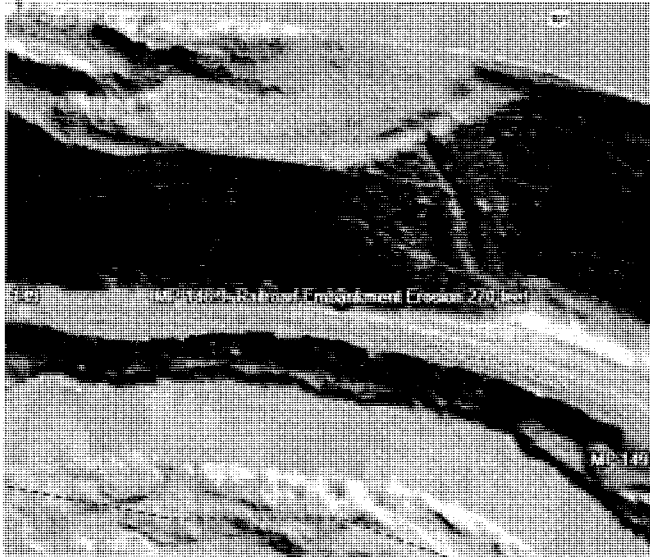


Photo 5 LIDAR image MP 148.9 erosion at Outlet Creek

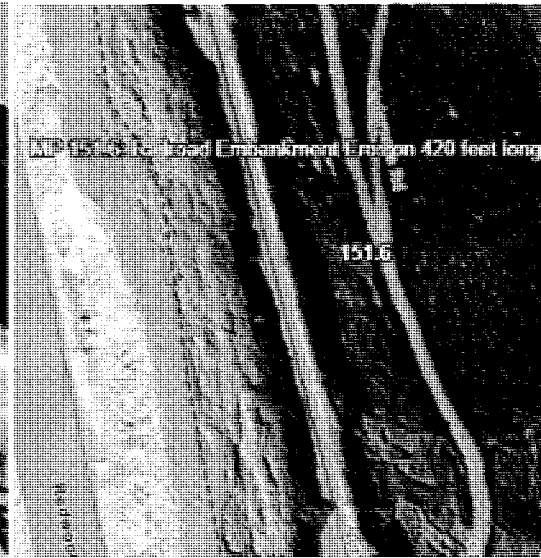


Photo 6 LIDAR image MP 151.6 erosion

### 3. Track Rehabilitation

#### *Brush Cutting and Vegetation Removal*

The summary findings below are based on a July 2022 field inspection of approximately 1/3 of the right of way and review of aerial photography of the line acquired in December of 2021:

Table 2 – Vegetation Condition

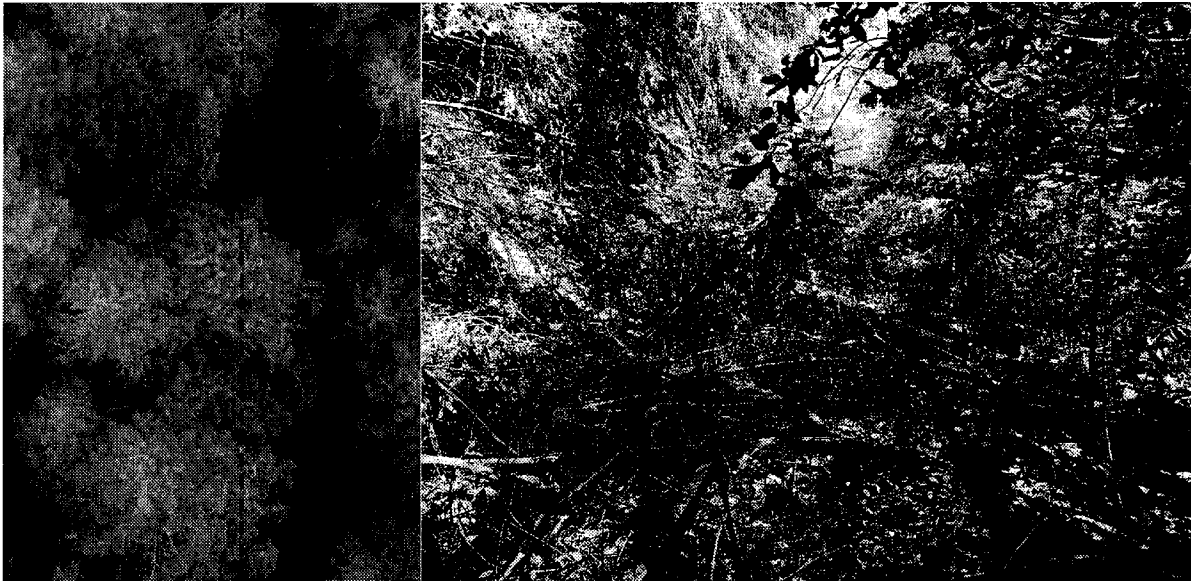
Classification	Miles	Scope of Work
Cleared	1.5	Brush cutting
Light	1.5	Brush cutting
Medium	3	Brushcutting
Heavy	7	Manual Tree/Shrub Removal and brush cutting

Cleared = Able to hi-rail; locals have cleared track for speeder use

Light = No trees; small shrubs; track 90% visible able to walk.

Medium = Trees up to 4" diameter; difficult to walk; track 50% visible

Heavy = Trees up to 6" to 8" diameter; not walkable; track 20% visible



*Photo 7 Example of Heavy Vegetation Canopy over Rail Right-of-way MP 150.6 (dashed line is centerline of track)*      *Photo 8 Example of Heavy Vegetation at Track Level MP 150.6*

Vegetation needs to be cleared 15 feet to 20 feet horizontally from centerline of track and 20 feet vertically to provide required site distance, safety of train crew, and to minimize fire hazard. The cost to clear vegetation assumes using an on-track mounted brush cutter to clear 6 miles and spreading the chipped debris on the right of way. The 6 miles of brush cutting would cover all but the 7 miles of heavy vegetation. Heavy vegetation includes 20-to-30-foot-tall trees mixed with low level shrubs, small trees and fallen trees from up slopes. See Photo 7 showing an aerial view of tree canopies and Photo 8 taken

## Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

when walking the track. For heavy vegetation areas the removal cost assumes that there would be a combination of brush cutting and manual labor falling trees and a flatbed grapple truck to assist with the clearing. Many areas of heavy vegetation are in a narrow corridor requiring removal of material to a disposal area. The larger vegetation that is growing within the track bed will require the removal of stumps and root system. This also assumes manual labor and use of a grapple truck. This will disturb and destroy several ties. The tie program discussed below takes this into account.

### *Culverts*

Based on track charts there are 52 culverts on this 13-mile segment of track, as listed in the table below. They consist of 12" x 12" to 24" x 24" timber culverts, 12" to 24" corrugated metal pipes (CMP), and 24" to 36" concrete pipes.

**Table 3 – Culverts Willits to Longvale<sup>2</sup>**

<b>Culvert No.</b>	<b>Station</b>	<b>MP</b>	<b>Material/Type</b>	<b>Dimensions</b>	<b>Length (ft)</b>
1	8538	141.51	Timber box	12" x 12"	17
2	10935	141.96	CMP	24" diameter	36
3	11780	142.12	Concrete Pipe	36" diameter	63
4	12710	142.3	Timber box	12" x 18"	16
5	13073	142.37	Concrete Pipe	24" diameter	57
6	14081	142.56	Concrete Pipe	36" diameter	62
7	15360	142.8	Concrete Pipe	36" diameter	57
8	16272	142.97	Concrete Pipe	24" diameter	68.4
9	18164	143.33	Concrete Pipe	24" diameter	48
10	18671	143.43	Concrete Pipe	36" conc pipe	62
11	20610	143.8	Concrete Pipe	24" diameter	70
12	21038	143.88	Timber Box	12" x 14"	32.2
13	21571	143.98	Concrete Pipe	24" diameter	61
14	22040	144.07	Concrete Pipe	36" diameter	67.5
15	22965	144.24	Concrete Pipe	24" diameter	48.8
16	23790	144.4	Concrete Pipe	24" diameter	33.4
17	24245	144.48	Concrete Pipe	24" diameter	46.2
18	24770	144.58	Concrete Pipe	24" diameter	47
19	25665	144.75	Concrete Pipe	36" diameter	57.4
20	26181	144.85	Concrete Pipe	30" diameter	49.3
21	28650	145.32	Concrete Pipe	24" diameter	36.6
22	31811	145.92	Concrete Pipe	36" diameter	41.6
23	32919	146.13	Concrete Pipe	36" diameter	62.4
24	33644	146.26	Timber Box	12" x 24"	30
25	33931	146.32	Concrete Pipe	36" diameter	37.9
26	34467	146.42	Concrete Pipe	36" diameter	31.2
27	34892	146.5	CMP	12" diameter	15

<sup>2</sup> This list is representative of culverts on the segment and has not been updated for possible replacements.

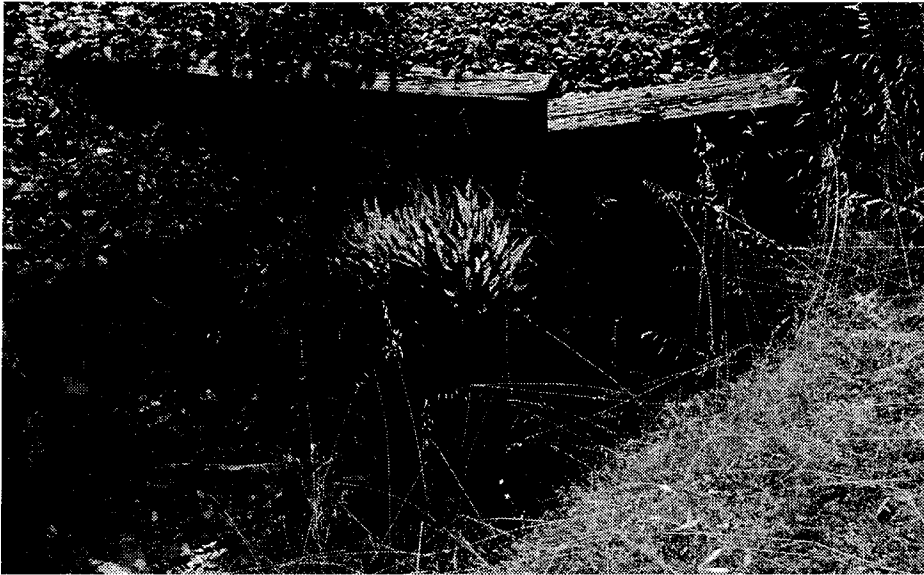
Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Culvert No.	Station	MP	Material/Type	Dimensions	Length (ft)
28	34892	146.5	Timber Box	12" x 12"	12
29	35060	146.53	Timber Box	24" x 24"	20
30	37158	146.93	Concrete Pipe	24" diameter	41.5
31	39215	147.32	Concrete Pipe	36" diameter	41
32	40006	147.47	Timber box	12" x 24"	24
33	44951	148.41	Timber Box	2 -8" x 12"	18
34	47075	148.81	Concrete Pipe	36" diameter	40.7
35	47881	148.96	CMP	24" diameter	18
36	48150	149.01	Concrete Pipe	36" diameter	41.6
37	54424	150.2	Concrete Pipe	36" diameter	36
38	53730	150.07	Timber box	12" x 24"	16
39	54883	150.29	Timber box	12" x 12"	12
40	55308	150.37	Concrete Pipe	24" diameter	23.6
41	55448	150.39	Timber Box	12" x 24"	16
42	55710	150.44	CMP	12" diameter	20
43	56639	150.62	Timber box	12" x 18"	15.6
44	59728	151.2	Concrete Pipe	36" diameter	54
45	60580	151.37	Timber box	12" x 24"	20
46	61200	151.48	Concrete Pipe	24" diameter	23
47	61744	151.59	Concrete Pipe	24" diameter	30
48	65430	152.28	Concrete Pipe	24" diameter	76
49	66025	152.4	Timber Box	12" x 24"	86
50	66240	152.44	CMP	18" diameter	81
51	66353	152.46	CMP	16" diameter	20
52	66934	152.57	Concrete Pipe	36" diameter	56.8

The lack of culvert maintenance over the last 24 years was evident in the field inspection. In general, culvert inlets need clearing of debris and sedimentation and repair of headwalls and wingwalls; and in many cases outlets require repair or installation of headwalls and wingwalls and have erosion that requires remediation, including riprap and possible tight lining down embankments. Based on the evidence of railroad track over-topping and review of drainage watersheds, some culverts are undersized, which is prevalent in railroads constructed in the early 1900's.

The determination of cost for culvert rehabilitation is based on field inspection, careful review of high-definition aerial photography, LiDAR, and the importance of drainage to track condition. The following work is included:

- All culverts will need to be located and cleared of obstructions
- Small timber culverts require replacement
- 50% of the pipe culverts require headwall and wing wall repairs/replacements to address erosion
- The final program will require a detailed inspection of all culverts after removal of vegetation
- All culvert sizes need to be reviewed for capacity based on watershed hydraulics



*Photo 9 Example of ineffective headwall*



*Photo 10 Case of culvert outlet erosion and possible culvert under sizing*

### ***Track Ditching***

In addition to the 9,610 feet (1.8 miles) of ditching listed to address geotechnical hazards in the Geotechnical Assessment, there is an additional 59,030 feet of mainline track in this 13-mile segment that was evaluated for ditching. Track drainage is one of the most significant factors of track integrity and safety. The ditching depth is assumed to range between three- to six-feet to maintain drainage to culverts. The work will require a hi-rail backhoe with a 3-person crew with spoils placed on the right-of-way at appropriate locations.

## Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

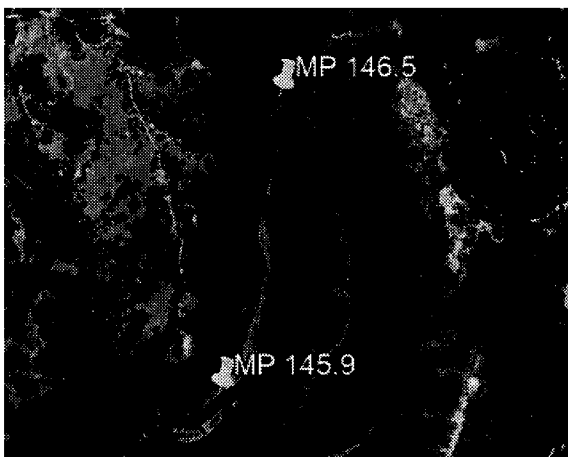
### *Rail and Tie program*

Field inspection of the rail revealed that the rail is in fair condition with minimal signs of wear and sufficient for freight rail service at 10 mph with the grades and curves on this 13-mile segment.

The ties on this segment are in very poor condition reflecting the 24 years the track has been out of service. The track bed ballast is very fouled, and vegetation growth includes trees with 6" to 8" diameters and mature shrubs. The fouled ballast has accelerated tie deterioration and the vegetation removal process will destroy many ties. Before a tie program is implemented it is assumed that vegetation and ditching would be complete.

The estimated cost for track rehabilitation to FRA Class I standards will include a tie program of 1,500 ties per mile. This number could increase upon detailed inspection due to interior rot. As the result of the heavily fouled ballast, a ballast program of 4" to 8" is required. The 8" ballast lift and tamp is needed from MP 149 to 151 where there has been very poor drainage, poor sub ballast and little to no shoulders. The entire line will need surfacing and regulating after the installation of the tie program.

From MP 145.9 to 146.5 the track was subjected to a large forest fire. The fire destroyed all ties for this 0.6 miles of track. In this area the most economical rehabilitation is a complete replacement of the track ties and ballast. Field observations indicated that much of the ballast does not meet railroad ballast specifications. The rail was visually inspected, and it appears that the heat of the fire did not impact the rail and it can be relayed. The rebuild of this segment assumes removal of the rail to be set aside and relayed, replacement of 100% of the ballast (existing non-compliant ballast stockpiled for other use) and installation of all new ties. The rail would be relayed and the ties would be surfaced and regulated. See photos below of fire damaged area, tie damage and substandard ballast.



*Photo 11 Area of fire damage*



*Photo 14 Fire damaged track and substandard ballast.*



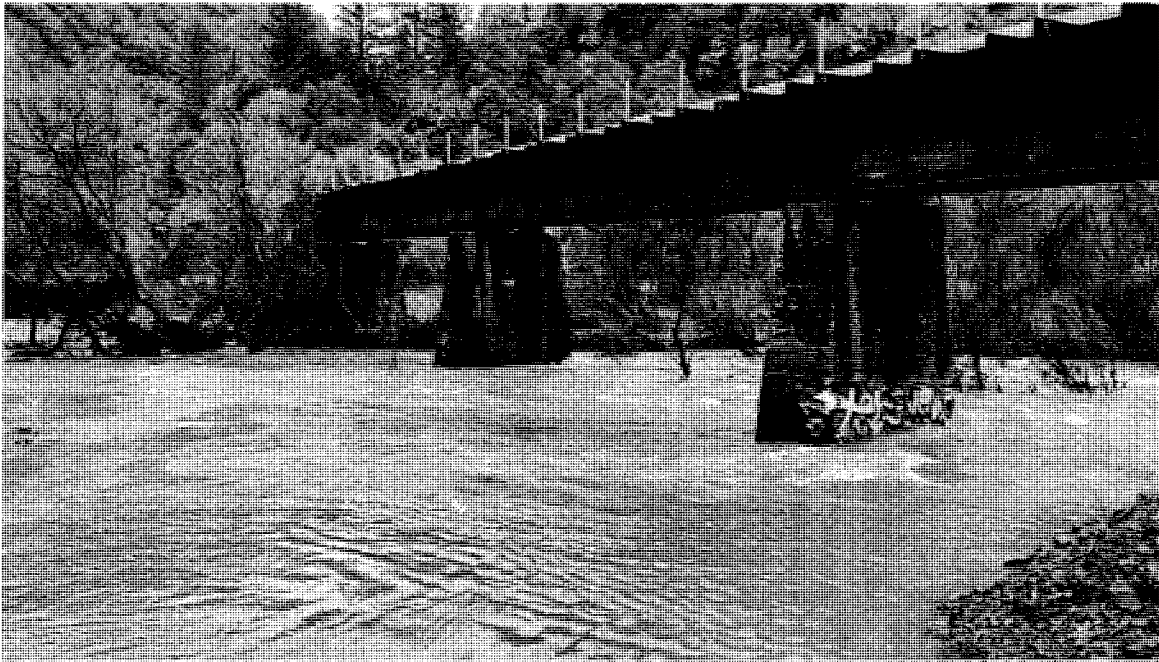
#### 4. Bridge Assessment

There are twenty-two bridges on this segment. The bridges include a combination of timber trestles, deck plate girders and riveted trusses as shown in Table 4 Bridge Inventory.

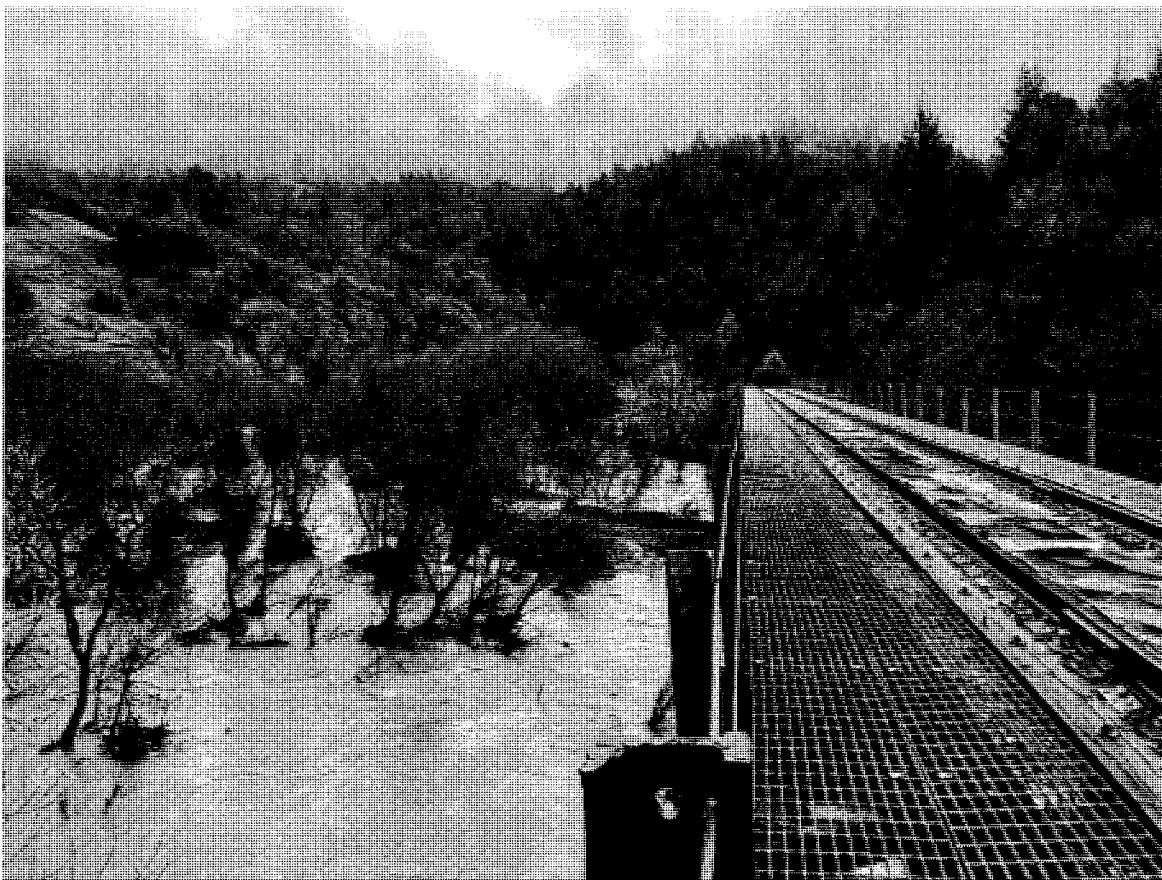
Table 4 – Bridge Inventory

Item No.	Bridge Type	MP	No. Spans	Length Ft	Crossing	Station
1	BDT	139.73	4	60	Willits Creek	
2	ODT	140.54	4	60	Mill Creek	3459.2
3	ODT	141.29	14	195.6	Upp Creek	7386.6
4	BDT	141.79	1	10	Wild Oat Canyon	10009.5
5	BDT	142.10	1	15	Drainage	11645
6	DPG	143.07	3	180	Outlet Creek	16778.9
7	BDT	143.10	14	192	Outlet Creek	16960.5
8	BDT	143.66	1	13	Drainage	19880
9	BDT	145.08	1	16	Ryan Creek	27369
10	Rail Top	145.18	1	10	Drainage	27894
11	TRT	145.62	2	200	Outlet Creek	30247
12	TBS	146.67	1	10	Drainage	35794
13	DPG	147.19	2	140	Outlet Creek	38521.8
14	DPG	147.68	2	160	Outlet Creek	41109.3
15	DPG	148.10	3	240	Outlet Creek	43310
16	Rail Top	148.50	1	10	Drainage	45442
17	BDT	148.67	1	13	Tomkl Creek	46367.9
18	TPG	149.18	3	210	Outlet Creek	49045.2
19	TBS	150.56	1	13	Drainage	56344.1
20	TBS	150.70	1	13	Drainage	57089.5
21	DPG	151.06	3	180	Outlet Creek	58969
22	DPG	151.99	6	400	Outlet Creek	63867.9

The eight Deck Plate Girder bridges have multiple spans with concrete piers and abutments all spanning Outlet Creek. These crossings of Outlet Creek are frequently subjected to very high flows resulting in scour around concrete piers. Exacerbating the impact, many of the piers are skewed to the high flows. During the December 2021 inspection, Outlet Creek was overflowing its banks. See photos below of Bridge at MP 151.99.



*Photo 15 Bridge 151.99 Outlet Creek heavy flow*



*Photo 16 Bridge 151.99 Outlet Creek overflowing banks*

## Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

In general, the steel bridges are in fair condition with minimal signs of corrosion. The main concern for some of these bridges is their timber decks that require bridge tie replacements and walkway and railing repairs. The timber trestles also require timber deck repairs as well as timber stringer and timber bents repairs.

FRA 49 CFR Ch. II Part 237 Bridge Safety Standards requires that any railroad bridge that has been out of service for the previous 540 days must be inspected in accordance with the requirements of Part 237 prior to resumption of rail service.<sup>3</sup> The reinstatement of service would require an update to the existing Bridge Management Program, all bridges to have a detailed inspection including any appropriate underwater and/or scour inspection, and the determination of each bridge's safe load capacity. These activities would be required to be conducted under the review of a Railroad Bridge Engineer.

Below is a summary table of required repairs for startup of freight service that would require updating after the above required inspections and load ratings are completed.

**Table 5 – Bridge Assessment Summary**

Bridge	Deficiencies	Crossing	Notes
139.73	Timber bent piles and cap beams, deck and walkway, backwalls and vegetation removal	Willits Creek	Multiple tracks and three switches on bridge, fire damage
140.54	Timber bent piles and cap beams, deck and walkway, backwalls and vegetation removal	Mill Creek	Multiple tracks
141.29	Timber bent piles and cap beams, deck and walkway, backwalls and vegetation removal	Upp Creek	Vandalized bents
141.79	Erosion and scour abatement	Wild Oat Canyon	Large up-stream watershed
142.10	Deck, walkway and vegetation removal	Under Grade	Abandoned farm crossing
143.07	Bridge ties, guard timbers, walkway repairs, and vegetation removal	Outlet Creek	
143.10	Bridge ties, guard timbers, walkway repairs, and vegetation removal	Outlet Creek	
143.66	Stringer replacements, ballast retainers	Drainage	Concrete abutments
145.08	Stringer replacements, ballast retainers	Ryan Creek	Concrete abutments
145.18	Scour abatement	Drainage	
145.62	Vegetation removal	Outlet Creek	Skewed concrete piers
146.67	Stringer replacements, ballast retainers	Drainage	Concrete abutments
147.19	Bridge ties	Outlet Creek	
147.68	Bridge ties	Outlet Creek	
148.10	Bridge ties, guard timbers and walkway repairs	Outlet Creek	

<sup>3</sup> Section 237.101 (d) states, "Any railroad bridge that has not been in railroad service and has not been inspected in accordance with this section within the previous 540 days shall be inspected and the inspection report reviewed by a railroad bridge engineer prior to the resumption of railroad service."

## Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Bridge	Deficiencies	Crossing	Notes
148.50	Heavy flows, Concrete Abutments scour	Drainage	Concrete abutments
148.67	Scour abatement	Tomkl Creek	
149.18	Bridge ties, guard timbers and walkway repairs	Outlet Creek	
150.56	Stringer replacements, ballast retainers	Drainage	Concrete abutments
150.70	Stringer replacements, ballast retainers	Drainage	Concrete abutments
151.06	Bridge ties, guard timbers and walkway repairs	Outlet Creek	
151.99	Bridge ties, guard timbers, walkway repairs, and vegetation removal	Outlet Creek	

## 5. Crossings Public & Private

### *Public Road Crossings*

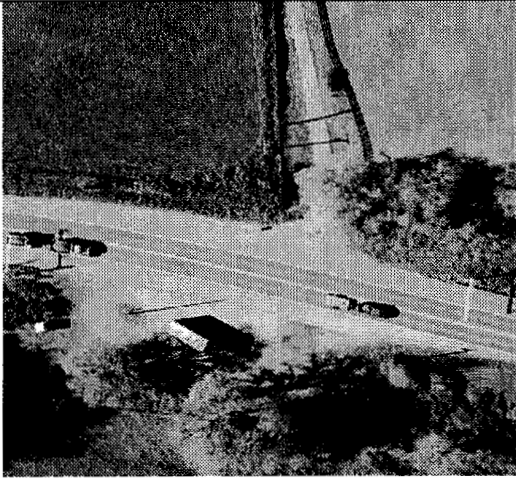


There are three public crossings: State Highway 101 at MP 141.20, Reynolds Highway at MP 143.91, and Covelo Road at MP 152.2. There are no current railroad signals at these public crossings. The warning devices have been removed at both Highway 101 and Covelo Road except for the cantilevers at Highway 101. The physical crossings including rail, ties, and ballast were removed because of unsafe conditions at Highway 101 and Covelo Road and a lack of funds for the required repairs. The inspection of the crossing at Reynolds Highway showed no indication that it has ever had railroad warning signs. The roadway alignment at all three of these crossings is at a high skew, increasing the safety risk of the crossings due to line-of-sight. The skew also increases the length of the physical track crossing increasing the cost to maintain and repair the crossing.

The California Public Utility Commission (CPUC) has jurisdiction over safety mitigations at all public railroad crossings. The three public crossings will require a formal on-site diagnostic to finalize the required railroad crossing warning measures for public safety. Implementation of the warning measures will require a formal approval process through the submittal of a GO 88B form to the CPUC. This document is requiring to be signed by the agency that owns the roadway, agreeing to the safety measures to be implemented.

The cost associated with these crossings includes the submittal of GO 88B's, reconstructing each of the track roadway crossings, the installation of required signals, approach warning signs, pavement markings, and roadway traffic control. Below is a brief description of each crossing with photos.

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Table 6 – Public Crossings Assessment

Crossings	Mile Post	Recommendation	Comments	Photo
Highway 101	MP 141.2	Install 200-foot curved track crossing with concrete panels, Install active constant warning devises including gates and cantilevers, approach roadway signs and address driveway entrance that lays within the crossing.	Tree removals along highway will be required to improve train crew line of site. Crossing skewed 60 degrees.	
Reynolds Highway	MP 143.91	Reconstruct existing very poor 24-foot timber crossing with a concrete panel crossing, add appropriate approach warning signs.	Tree Trimming required S.W. & N.E. Quadrants. Crossing skewed 30 degrees.	
Covelo Road	MP 116.96	Install 100-foot crossing with concrete panels, Install active constant warning devises including gates and cantilevers, approach roadway signs.	Covelo Road west approach is highly curved and may require advanced warning signal.	

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

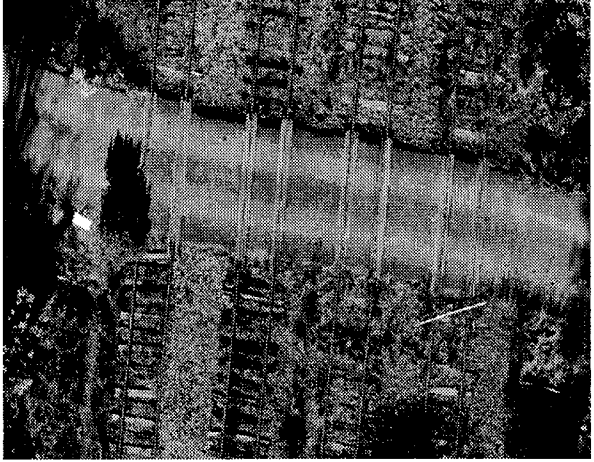
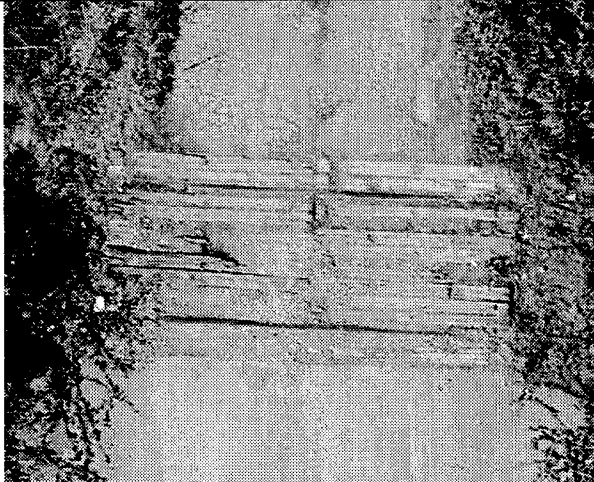
*Private Road Crossings*

Field inspections and aerial photography identified 12 private crossings. However, the heavy vegetation in the project area makes it difficult to conclude all private crossing were found. Two of the locations identified appear to be crossings added over the last 24 years by locals filling in railroad crossing areas with gravel.


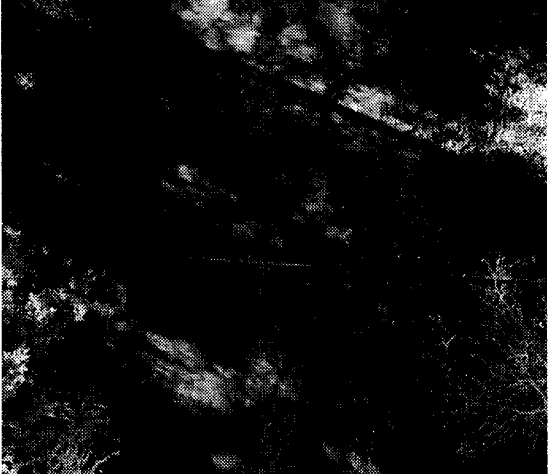

There are a variety of uncertainties regarding ownership and responsibility for repair costs at the twelve private crossings. According to current DOT crossing Inventory, there are several private crossings that are not listed and will require DOT Inventory sheets to be submitted and DOT Numbers assigned. Private crossing records have not been found to assist with the determination of responsibilities for maintenance. None of the crossings inspected in the field had crossing warning signs.

The rehabilitation costs for the private crossings include effort to submit inventory sheets and obtain DOT Numbers, reconstruction of each crossing, the installation of required private crossing signage, and the vegetation clearing for line of sight. Table 7 summarizes the information for identified private crossings.

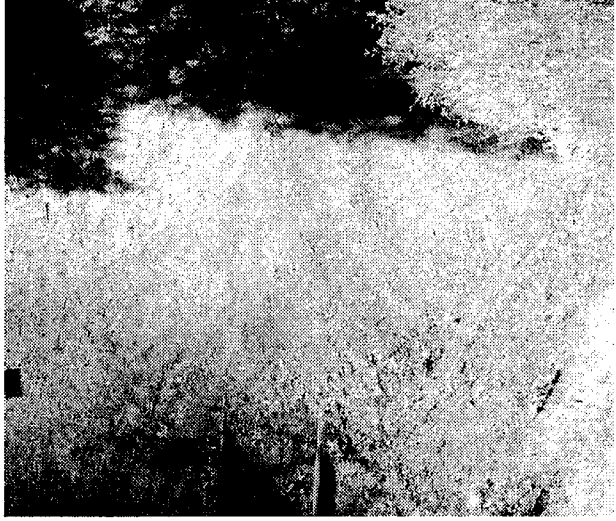
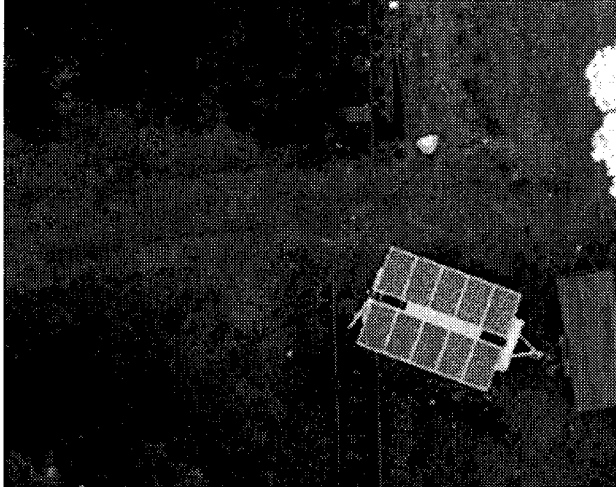

Table 7 – Private Crossings Assessment

Crossings	Mile Post	Recommendation	Comments	Photo
Located in Willits Yard	MP 140.00	Crossing in good condition. Constructed as part of Highway 101 Bypass. Crossing signs required	Tree removal on west approach to railroad may require additional tree removal for line of site.	
Private Resident	MP 141.40	Reconstruct existing very poor 24-foot timber crossing with a concrete panel crossing, add appropriate approach warning signs.	One residence	

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

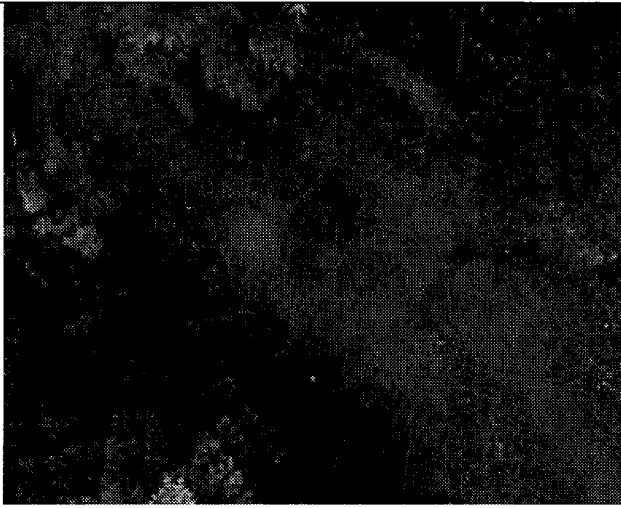

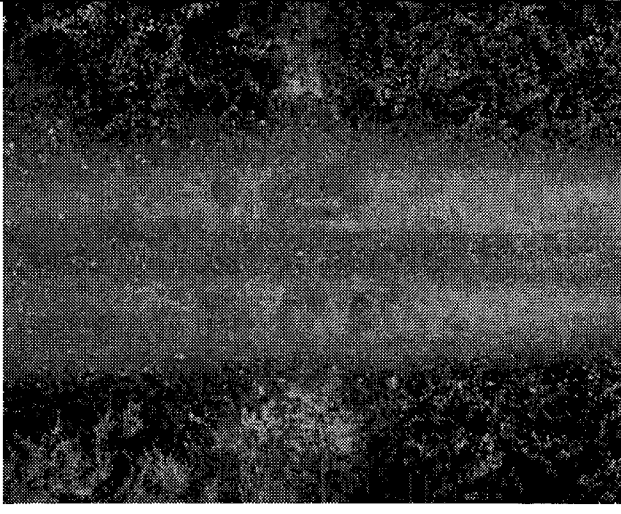
Crossings	Mile Post	Recommendation	Comments	Photo
Mendocino Forest Products Crossing	MP 142.03	Heavy truck usage, earthwork activities. Crossing parallel to 101 with wide angle egress and entrance roads to crossing from 101. Signing and reconstruction of paved over crossing required	This will be a costly repair.	
Serves Several private residences	MP 142.68	Poor condition Rail exposed		
Private Residence may include addition homes	MP 142.77	Crossing in poor condition. Gravel track buried		

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

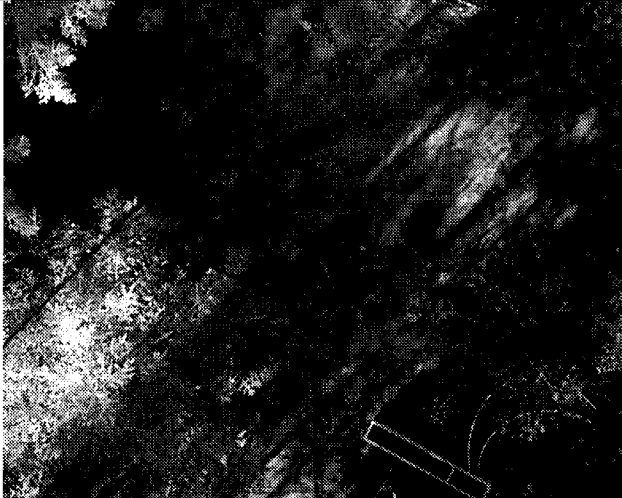
Crossings	Mile Post	Recommendation	Comments	Photo
Serving two residences	MP 145.13	Crossing in poor condition. Gravel track buried		
Gravel over track, Appears to be serving two residences	MP 145.17	Crossing in poor condition. Gravel track buried		
Appears to be serving two residences	MP 145.34	Gravel over track, very skewed. crossing in poor condition		



Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Crossings	Mile Post	Recommendation	Comments	Photo
One Resident	MP 145.60	Crossing in poor condition. Gravel track buried	Timber crossing planks in very poor condition	
Serving one parcel	MP 148.34	Crossing in poor condition. Gravel track buried.		
Serving one residence	MP 148.41	Crossing in poor condition. Gravel track buried		

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Crossings	Mile Post	Recommendation	Comments	Photo
Serving one parcel	MP 149.40	Crossing in poor condition. Gravel track buried		

## 6. Maintenance

In an interview of a former train crew member that worked this segment 40 years ago, he stated, “there were daily train stops to address obstructions like fallen trees and rock.” This type of activity is covered in the Operations Assessment report. Items listed below are related to preventative measures and items related to routine required safety inspections of track and structures. These include chemical spraying for weed control, routine brush cutting, tree trimming, culvert maintenance, bridge repairs based on annual inspections, and track repairs based on required routine track inspections. See table below of expected annual maintenance.

**Table 8 – Annual Maintenance Cost Estimate**

Work Item	Maintenance Item	Frequency	Cost
Timber Bridges	Examples: stringer replacements, cap replacements, bridge tie replacements, erosion mitigation	Annual	\$100,000
All Bridges	Bridge inspection as required under Part 237	Annual	\$25,000
Culverts	Debris and sediment removal, erosion mitigation	Pre- and Post-rainy season, and any significant storm	\$25,000
Weed Control	Spray pre-emergent and weed spraying	Spring and Fall	\$40,000
Vegetation Management	Brush cutting and tree trimming	Annual	\$26,250
Track Maintenance	Track ties, OTM – tie plates, anchors, rail joints	As required to maintain track safety	In Operations Cost
Drainage Management	Track ditching	Annual	\$150,000
<i>Total Annual Maintenance</i>			\$366,250

## 7. Rehabilitation Costs

The following table summarizes the rehabilitation costs based on the assumptions outlined in the previous sections.

Table 9 – Rehabilitation Cost Estimate

Scope of Work	Quantity	Unit	Unit cost	Estimated cost
<b>Yard Rehabilitation</b>				
Willits Yard Rehab	1	LS	\$150,000	\$150,000
Longvale Yard Rehab	1	LS	\$115,000	\$115,000
<i>Subtotal Yard Rehabilitation</i>				<i>\$265,000</i>
<b>Public Crossings</b>				
Highway 101	1	LS	\$1,750,000	\$1,750,000
Reynolds Highway	1	LS	\$84,000	\$84,000
Covelo Road	1	LS	\$1,250,000	\$1,250,000
GO88-B	3	LS	\$7,500	\$22,500
<i>Subtotal Public Crossings</i>				<i>\$3,106,500</i>
<b>Private Crossings<sup>4</sup></b>				
Mendocino Forest Products Crossing (56')	1	LS	\$216,000	\$216,000
4 - 12 ft Crossings	48	LF	\$3,500	\$168,000
1 - 14 ft Crossing	14	LF	\$3,500	\$49,000
3 - 16 ft Crossings	48	LF	\$3,500	\$168,000
1 - 18 Ft Crossing	18	LF	\$3,500	\$63,000
2 - 20 ft Crossings	40	LF	\$3,500	\$140,000
Standard Crossing Signage	12	LS	\$2,500	\$30,000
Crossing Agreements/DOT Inventory Numbers	12	LS	\$1,500	\$18,000
<i>Subtotal Private Crossings</i>				<i>\$852,000</i>
<b>Bridge Repairs</b>				
Bridge Ties	343	EA	\$650	\$222,857
Yard Bridge Walkways	400	FT	\$150	\$60,000
Yard Bridge Timber Railing	400	FT	\$150	\$60,000
Guard Timbers	1,000	FT	\$50	\$50,000
Timber Stringers	32	EA	\$15,000	\$480,000
Timber Bents	5	EA	\$18,000	\$92,700
Vegetation removal at Bridges	22	EA	\$7,500	\$165,000
Detailed Inspection per FRA Part 237	22	EA	\$1,800	\$39,600
Bridge Rating per FRA Part 237	22	EA	\$3,500	\$77,000
<i>Subtotal Bridge Repairs</i>				<i>\$1,247,157</i>
<b>Geotechnical Hazards</b>				
Tunnel 11	1	LS	\$7,259,000	\$7,259,000
Tunnel 12	120	LF	\$110	\$13,200

<sup>4</sup> Work on private crossings should be required to be paid by users. New crossing agreements will be required.

Railroad Rehabilitation Assessment – Willits MP 139.5 to Longvale MP 152.5

Scope of Work	Quantity	Unit	Unit cost	Estimated cost
Slide Area Ditching / Shoulder Cleaning / Debris Removal	3,797	CY	\$75	\$284,775
Shoulder Retaining Wall	1,270	LF	\$1,400	\$1,778,000
Rock Slope Scaling	80	HRS	\$1,104	\$88,320
Catchment Walls (K-Rail Barrier)	125	LF	\$185	\$23,125
Geotechnical Support During Tunnel & Shoulder Wall Construction	1	LS	\$451,850	\$451,850
<i>Subtotal Geotechnical</i>				<i>\$9,898,270</i>
<b>Track - Rehabilitation to Class 1 - 12.4 miles (excludes fire damaged area 0.6 miles)</b>				
Ditching	29,515	CY	\$25	\$737,875
Ties Program 1500 ties/mile	18,600	EA	\$220	\$4,092,000
Tie disposal	18,600	EA	\$12	\$223,200
Ballast 4" Lift and Tamp	8,277	CY	\$45	\$372,486
Ballast 8" Lift and Tamp	3,184	CY	\$45	\$143,264
Regulating & Surfacing	10	Days	\$2,000	\$20,000
<i>Subtotal Track Rehab to Class 1 (12.4 miles)</i>				<i>\$5,588,825</i>
<b>Track - Reconstruct Fire Damaged Area (0.6 miles)</b>				
Ties	1,810	EA	\$200	\$362,057
Ballast 12"	1,447	CY	\$45	\$65,102
Regulating & Surfacing	4	Days	\$2,000	\$8,000
Removal of existing track bed	1,408	CY	\$15	\$21,120
<i>Subtotal Track Reconstruction (0.6 miles)</i>				<i>\$456,279</i>
<b>Track Vegetation &amp; Signing &amp; Testing- 13 miles</b>				
Vegetation Removal	60	Days	\$8,750	\$568,750
Milepost and Whistle Signs/Posts	1	LS	\$7,500	\$7,500
Rail testing	13	Miles	\$2,000	\$26,000
<i>Subtotal Track Rehabilitation - 13 miles</i>				<i>\$602,250</i>
<b>Culvert Rehabilitation</b>				
Clear debris & sedimentation	22	EA	\$2,500	\$55,000
Clear and Repair	16	EA	\$7,125	\$114,000
Culvert Replacement	14	EA	\$22,250	\$311,500
<i>Subtotal Culvert Rehabilitation</i>				<i>\$480,500</i>
<b>Rehabilitation Cost</b>				<b>\$ 22,496,781</b>

## 8. Contributing Authors:

- \* David Anderson, P.E. of American Rail Engineers Corporation (ARE) served as Project Manager and Senior Engineer in ARE's capacity as prime consultant for the project. He is licensed as a Professional Engineer in California and has worked with the state agencies overseeing the NWP corridor for over 20 years. Mr. Anderson's roles for this project included senior-level reviewer and editor of this report.
- \* Carl Belke, P.E. of D&H Rail Consulting prepared the Operations Assessment. Carl serviced as President and Chief Operating Officer for the Western New York & Pennsylvania Railroad for 10 years, General Manager and Vice President of Canadian Operations for Genesee & Wyoming for 7 years and has more than 40 years' experience in railroad operations for a dozen of short line railroads with responsibility for labor management, fleet management, bankruptcy reorganizations, and mergers and acquisitions.
- \* Lon Van Gemert advised on Class 1 track requirements and rehabilitation costs. Van Gemert has over 55 years in the railroad industry, starting his career in 1967 as a section laborer and semi-retiring as CEO of several short line railroads headquartered in the Midwest. In this capacity, he has been responsible for capital planning and maintenance budgets as well as overall profit and loss.
- \* Steve McMullen served as S&W's project manager and primary author of the report. He has been part of S&W's railroad services group for 29 years. Mr. McMullen is licensed as a Professional Civil Engineer in Washington, Idaho, Montana, North Dakota, and South Dakota. He is also a Licensed Engineering Geologist in Washington. Mr. McMullen has over 20 years of experience with the Northwestern Pacific Railroad corridor having performed geotechnical and geological evaluations of corridor segments in 1999, 2002, 2005, 2007, and 2021.
- \* Klaus Winkler prepared the tunnel assessment and repair portions of the report including the estimated costs in Table 2. He also provided cost information for the geotechnical repairs on Table 1. Mr. Winkler is a Licensed Engineering Geologist in Washington. He has been with S&W for 25 years working almost exclusively on railroad tunnel and rock slope projects for the last 20 years.
- \* David O'Malley prepared the geologic conditions section of the report, contributed to the geotechnical site list and recommendations in Table 1, and edited the report. Mr. O'Malley is a Licensed Engineering Geologist in Washington with over 32 years of professional experience.

Appendix A

SUBMITTED TO:  
Mr. David Anderson  
ARE Corporation  
Kansas City, MO 64111

BY:  
Shannon & Wilson  
400 N 34th Street, Suite 100  
Seattle, Washington 98103  
  
(206) 632-8200  
[www.shannonwilson.com](http://www.shannonwilson.com)

GEOTECHNICAL & TUNNELS ASSESSMENT REPORT  
Northwestern Pacific Rail Corridor  
Milepost 139.5 to 152.5  
WILLITS TO LONGVALE, CALIFORNIA

Submitted To: Mr. David Anderson  
ARE Corporation  
Kansas City, MO 64111

Subject: GEOTECHNICAL & TUNNELS ASSESSMENT REPORT, NORTHWESTERN  
PACIFIC RAIL CORRIDOR  
MILEPOST 139.5 TO 152.5 WILLITS TO LONGVALE, CALIFORNIA

This report provides preliminary repair recommendations for tunnels and locations with geotechnical-related damage along the Northwestern Pacific Railroad corridor between Willits and Longvale, California. Shannon & Wilson prepared this report and participated in this project as a subconsultant to American Rail Engineers Corporation (ARE).

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, please contact us.

Sincerely,

SHANNON & WILSON



Steve R. McMullen  
Vice President



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Exhibits

**Exhibit 4-1 – Excerpt from the online interactive Geologic Map of California**

**Exhibit 4-2 – Photo 60 – Blocky sandstone rock slope at approx. MP 147.5**

**Exhibit 4-3 – Photo 65 – Fragments of highly fractured siltstone and mudstone raveling from rock slope at approx. MP 147.3**

**Exhibit 4-4 - Photo 95 – Highly fractured siltstone and mudstone interbedded with blocky sandstone exposed on slope at approx. MP 146**

**Exhibit 4-5 - Photo 15 – Folded and fractured sandstone and siltstone rock slope at approx. MP 151.87**

**Exhibit 4-6 – LIDAR image of rock slope at about MP 147.5 (see Exhibit 2)**

**Exhibit 4-7 – LIDAR image snip from USGS National Map – Showing “Hard and soft topography” areas**

**Exhibit 4-8 – LIDAR image of rock slope and landslide at about MP 146 (see Exhibit 4-4)**

**Exhibit 4-9 - Photo 17 – Narrow shoulder and derailed cars at MP 151.9**

Tables

Table 1: Geohazard Mitigation Locations - Milepost 139.5 to 152.5

Table 2: Tunnel 11 & Tunnel 12 - Repair Recommendations

Appendices

Important Information About Your Geotechnical Report

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# 1 INTRODUCTION

American Rail Engineers Corporation (ARE) retained Shannon & Wilson, Inc. (S&W) as a subconsultant to assess geotechnical-related damage to the railroad track, embankment, and tunnels from Milepost 139.5 to 152.5 of the Northwestern Pacific Railroad corridor between Willits and Longvale, California.

This report summarizes geologic conditions in this 13-mile-long segment of the corridor, impacts to the railroad caused by landslides and erosion, and conditions of Tunnels 11 and 12. It describes previous geotechnical and tunnel assessments, the methods used in the assessments, and preliminary recommendations for improvements and repairs. The intent of the recommendations is to improve conditions along the alignment such that freight trains can safely operate at speeds up to 10 miles per hour (FRA Class 1).

This report was prepared by S&W and ARE with contributions from the following personnel:

- David Anderson, P.E. of ARE Corporation served as Project Manager and Senior Engineer in ARE's capacity as prime consultant for the project. He is licensed as a Professional Engineer in California and has worked with the state agencies overseeing the NWP corridor for over 20 years. Mr. Anderson's roles for this project included senior-level reviewer and editor of this report.
- Steve McMullen served as S&W's project manager and primary author of the report. He has been part of S&W's railroad services group for 29 years. Mr. McMullen is licensed as a Professional Civil Engineer in Washington, Idaho, Montana, North Dakota, and South Dakota. He is also a Licensed Engineering Geologist in Washington. Mr. McMullen has over 20 years of experience with the Northwestern Pacific Railroad corridor having performed geotechnical and geological evaluations of corridor segments in 1999, 2002, 2005, 2007, and 2021.
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- David O'Malley prepared the geologic conditions section of the report, contributed to the geotechnical site list and recommendations in Table 1, and edited the report. Mr. O'Malley is a Licensed Engineering Geologist in Washington with over 32 years of professional experience.

## 2 SITE AND PROJECT DESCRIPTION

The Northwestern Pacific Railroad (NWP) railroad extends north for over 300 miles from Lombard, California, to Arcata, California. The area covered by this report extends from Willits at Milepost (MP) 139.5 to Longvale at MP 152.5.

From a few miles north of Willits, the railroad follows Outlet Creek north to its confluence with the Eel River. The railroad has suffered extensive storm damage such that trains have not operated within the project area since 1998.

## 3 PREVIOUS WORK

S&W has previously performed geotechnical assessments of the NWP railroad and are briefly summarized here, including:

- In 1999, S&W assessed the alignment from MP 68 to 284. We summarized our findings in a report titled, "Geotechnical Recommendations for Repair of Northwestern Pacific Railway, MP 68.0 to 284.1, Healdsburg to Eureka, California," and dated June 22, 1999. The 1999 work included field reconnaissance and a tabulation of sites with geotechnical-related damage.
- In 2002, S&W performed a field reconnaissance from MP 11 to MP 291 and updated the 1999 assessment. The 2002 work also included a condition assessment of the tunnels. Our geotechnical and tunnel assessments were summarized in the Capital Assessment Report (CAR) prepared in July 2002 by Willdan and HNTB. In the CAR, we noted track and supporting infrastructure damage from landslides and erosion at 260 sites with 199 of those sites located between Willits and South Fork.
- In 2007, S&W performed a field reconnaissance and updated the previous assessment from about MP 142.5 to MP 237.3. Our findings were summarized in a report titled, "Geotechnical and Tunnel Assessment, Northwestern Pacific Railroad, MP 142.5 to MP 237.3, Willits to South Fork, California," project no. 21-1-20603-001, dated January 28, 2009. Geotechnical-related damage was documented at nearly 290 sites along the railroad alignment from Willits at MP 142.5 to South Fork at MP 237.3 during the 2007 reconnaissance.

## 4 GEOLOGIC CONDITIONS

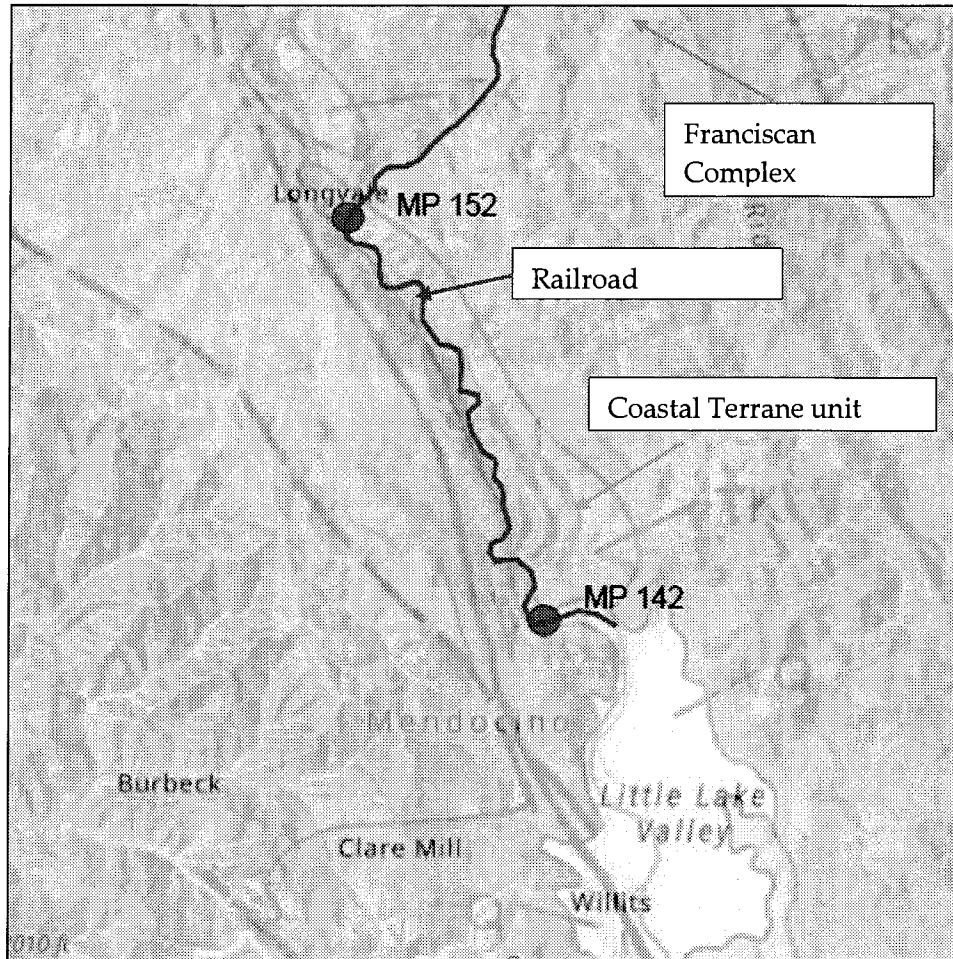
North of Willits (MP 139.5), the railroad parallels Highway 101 and Outlet Creek along the western margin of Little Lake Valley. A few miles north of Willits (MP 142), the railroad curves west, diverging away from Highway 101. The rail alignment continues to follow

Outlet Creek, transitioning from alluvial soils in the valley to terraces and benches along the toe of steep slopes in a relatively narrow, incised valley. As Outlet Creek flows to the northwest, it cuts across ridges and curves around hills in sharp bends past Tunnel 11 (MP 145.49) and Bridge 145.69. North of the bridge, the creek and railroad follow a relatively straight course along the toe of a ridge to MP 148 where they rejoin Highway 101. From MP 148 to the Highway 162 turnoff near Longvale (MP 152.5), the highway, Outlet Creek and the railroad curve and cross twice in the narrow valley. The railroad continues to follow Outlet Creek to its confluence with the Eel River near MP 159.5.

Detailed discussions of the regional geology and hydrology across the entire railroad alignment are presented in the references such as the 1998 report by URS Greiner Woodward Clyde (URS).

Within the project area, the railroad traverses rocks of the Franciscan Complex (see Exhibit 4-1). The Franciscan Complex consists of Mesozoic and Cenozoic age, slightly metamorphosed, sheared and fractured, mostly deep-water marine sedimentary rocks that formed along the west coast of California and were accreted onto the continental plate during subduction of the oceanic plate. The Franciscan Complex also contains fragments of volcanic and metamorphic rocks from the crust and mantle of the oceanic plate. The Franciscan Complex is subdivided into three broad belts that become younger to the west, each separated by a series of faults; the Eastern, Central, and Coastal belts.

Between MP 142 and MP 152, Outlet Creek and the railroad cut through and traverse an elongate, northwest-southeast trending exposure mapped as the Coastal Terrane geologic unit (TKfs), part of the Coastal Belt of the Franciscan Complex. Northeast of MP 152, the alignment is within Late Jurassic to Middle Cretaceous rocks of the Central Belt of the Franciscan Complex M $\acute{e}$ lange (KJfm). This Franciscan M $\acute{e}$ lange unit consists predominantly of highly fractured, highly sheared argillite. The Coastal Terrane and Central Terrane M $\acute{e}$ lange units are both highly susceptible to landsliding.



**Exhibit 4-1 – Excerpt from the online interactive Geologic Map of California**

The Coastal Terrane unit (TKfs) or “broken formation” is Late Cretaceous to Early Eocene age and consists mainly of thickly bedded sandstone (see Exhibit 4-2), with siltstone and shale interbeds with zones of brittle shears, folding, and faulting (see Exhibits 4-3, 4-4 and 4-5). It also contains sections of deep-water marine argillite, and lesser amounts of limestone and pillow basalts.

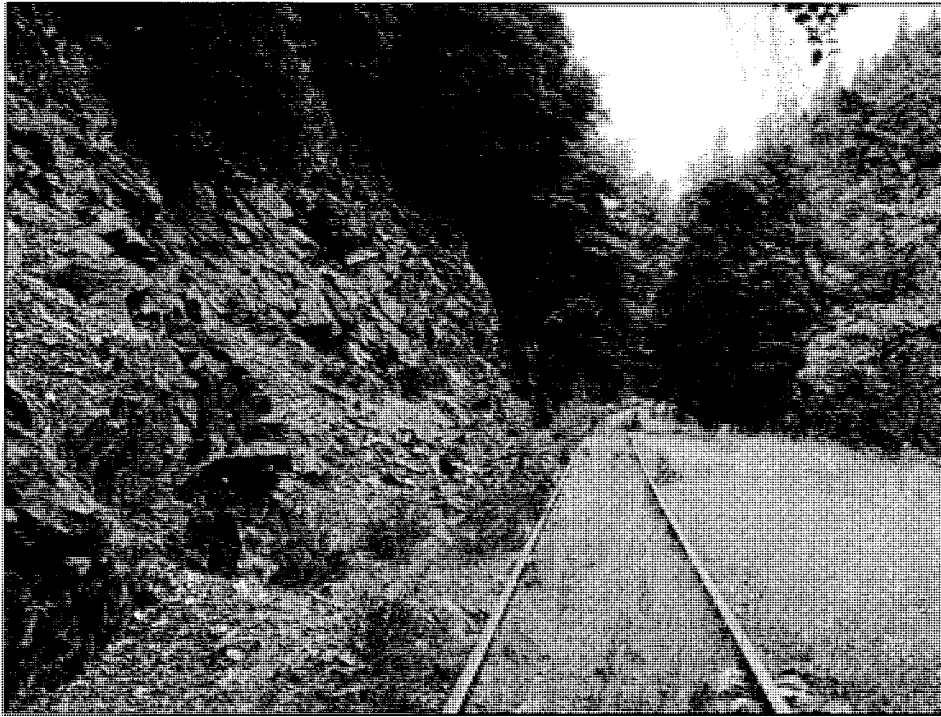


Exhibit 4-2 – Photo 60 – Blocky sandstone rock slope at approx. MP 147.5



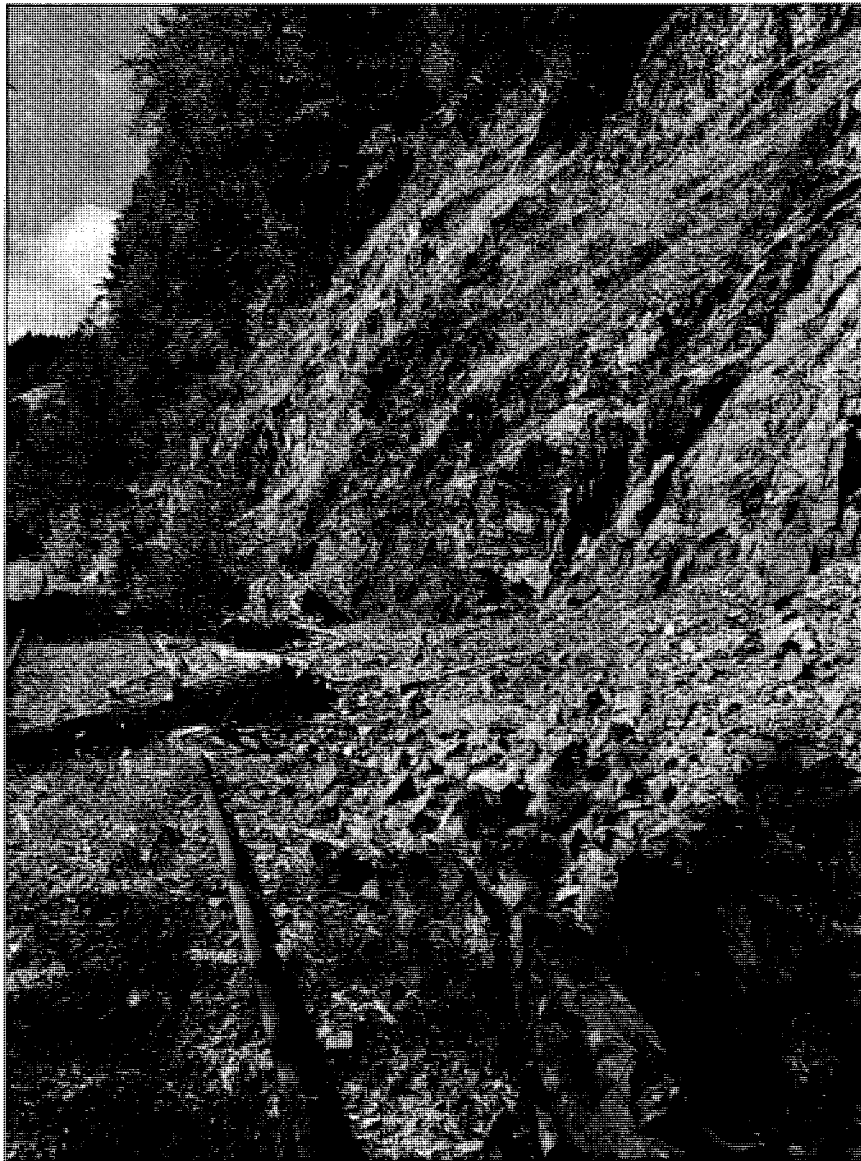
Exhibit 4-3 – Photo 65 – Fragments of highly fractured siltstone and mudstone raveling from rock slope at approx. MP 147.3

The massive, hard sandstone and conglomerate outcrops commonly represent relatively intact blocks of rock bounded by shear zones (see Exhibit 4-4).



**Exhibit 4-4 - Photo 95 – Highly fractured siltstone and mudstone interbedded with blocky sandstone exposed on slope at approx. MP 146**





**Exhibit 4-5 - Photo 15 – Folded and fractured sandstone and siltstone rock slope at approx. MP 151.87**

The intact blocks tend to form hard ridges of steep, sharp-crested topography (see Exhibits 4-6 and 4-7) with a well-incised system of irregular sidehill drainage.

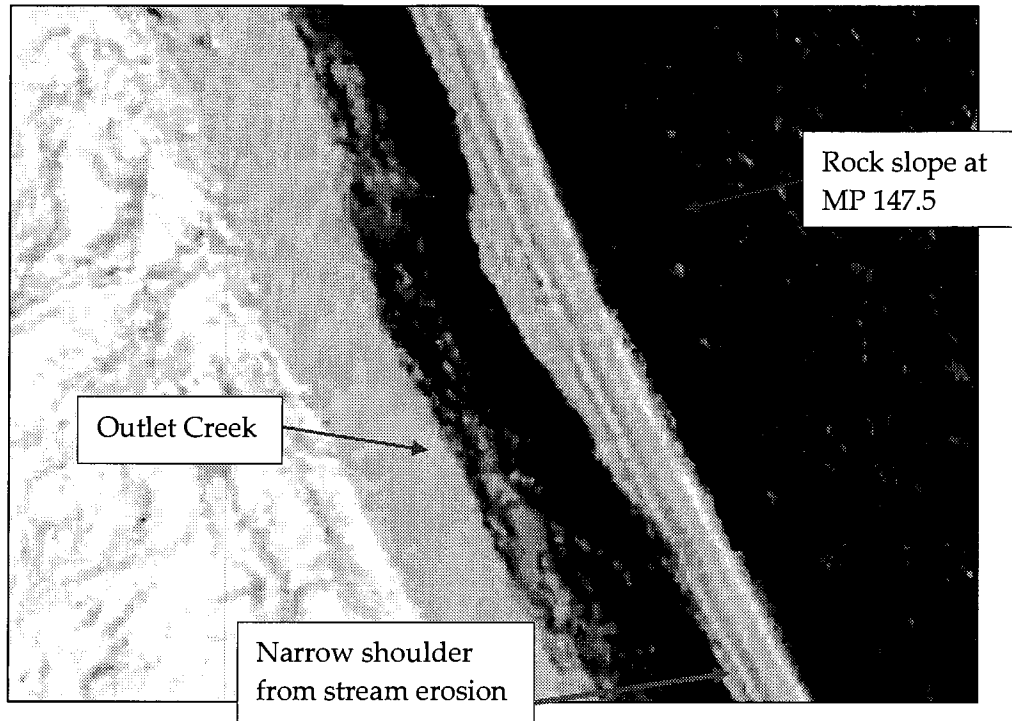


Exhibit 4-6 – LIDAR image of rock slope at about MP 147.5 (see Exhibit 2)

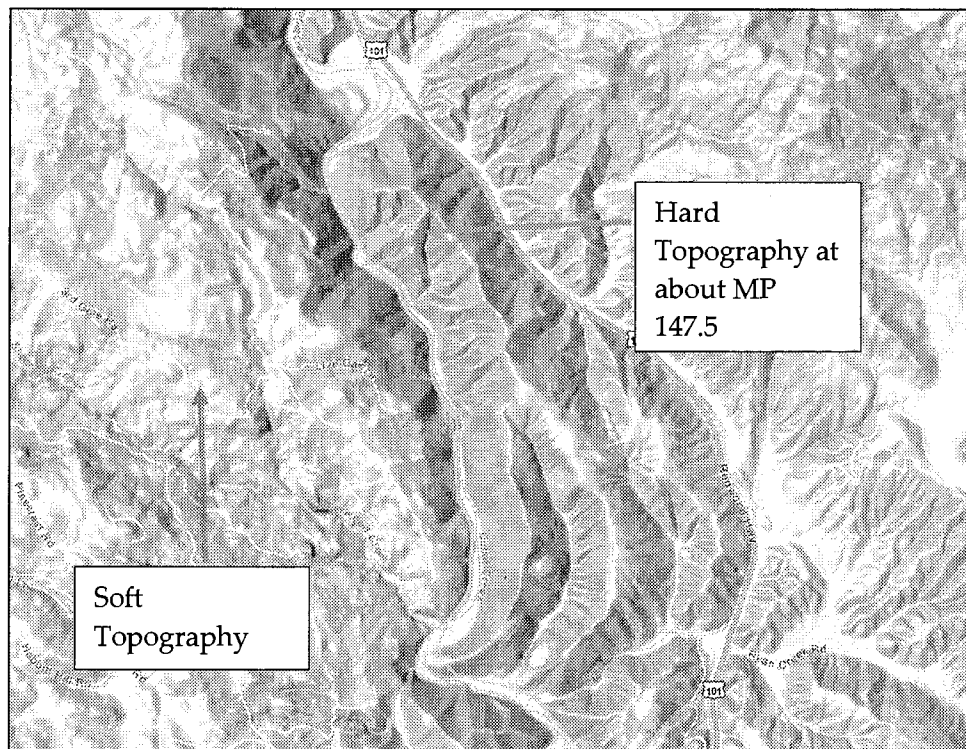
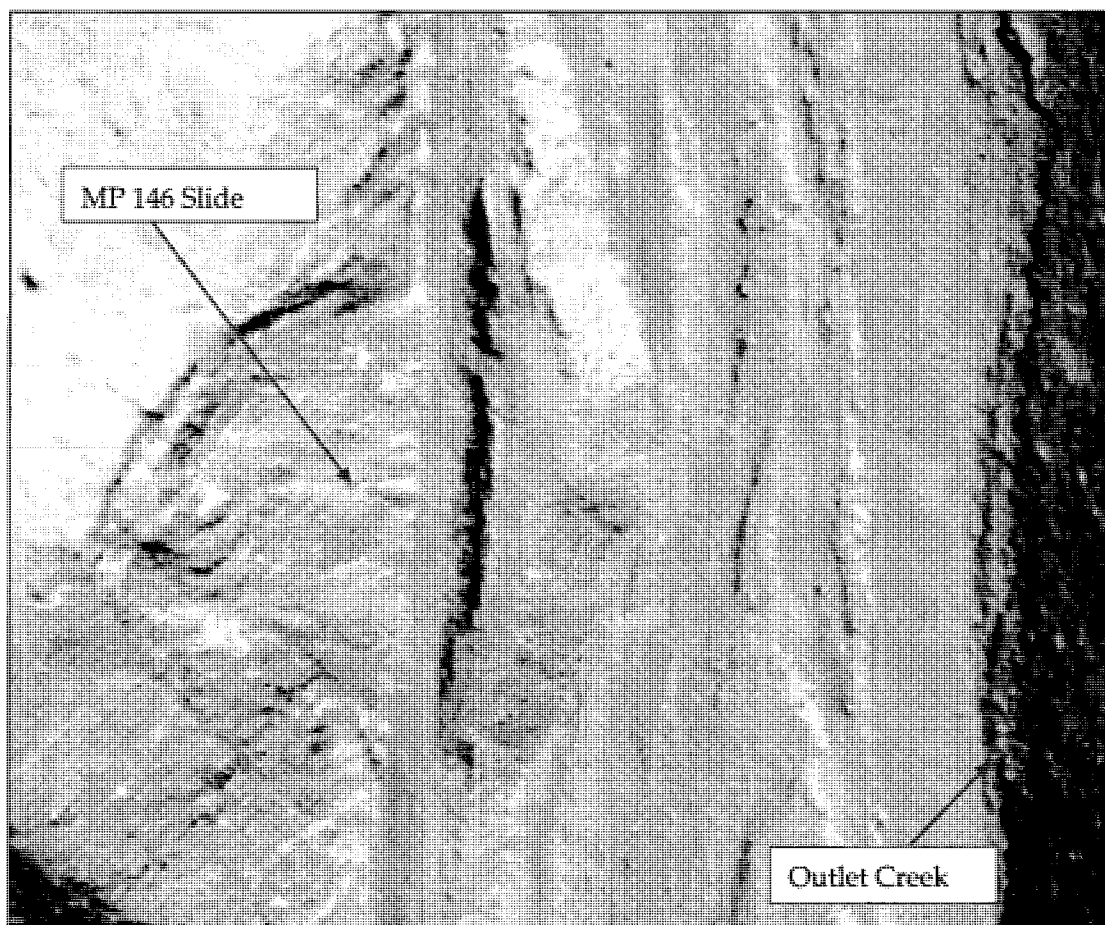


Exhibit 4-7 – LIDAR image snip from USGS National Map – Showing “Hard and soft topography” areas

The weak sheared zones consist of fissile mudstones that easily disaggregate, commonly forming talus deposits at the slope base (see Exhibits 4-3 and 4-4). These shear zones typically create soft topography of gently sloping and rounded, lumpy, and irregular, poorly-incised topography, or irregular topography lacking well-incised sidehill drainages (see Exhibits 4-7 and 4-8).



**Exhibit 4-8 – LIDAR image of rock slope and landslide at about MP 146 (see Exhibit 4-4)**

Streams generally lie in the less competent sheared zones. The massive and hard sandstone blocks form steep slopes, bounded by weak shear zones with landslides of large intact blocks of rock.” (CGS, 2014)

As a result of the location of the railroad, landsliding on steep slopes along the railroad deposit landslide debris onto the railroad (see Exhibits 4-3 and 4-4) and stream flow in Outlet Creek erodes the railroad embankment (see Exhibits 4-6 and 4-9).



Exhibit 4-9 - Photo 17 – Narrow shoulder and derailed cars at MP 151.9

## 5 GEOTECHNICAL ASSESSMENT

### 5.1 General

Damage to the track roadbed (the soil and rock materials that provide foundation support for the track) caused by severe storms has occurred along the railroad throughout its life. Continued weathering and the lack of maintenance and repairs have resulted in increased damage to the railroad.

The current assessment was performed to document any new geotechnical-related damage to the railroad, to update conditions at sites documented previously, and to provide an estimate of the cost to repair the railroad.

## 5.2 Assessment Methodology

Passage through the NWP corridor north of Willits has become increasingly difficult over the years due to Tunnel 11 collapse, culvert washouts, debris slides, vegetation, and other damage.

Assessment of the railroad conditions in 2021 and 2022 was performed during field reconnaissance work and by aerial reconnaissance. Aerial mapping was the primary method of evaluating damage from landslides, washouts, and other geohazards. To assess the existing conditions of tunnels, bridges and track components required closer examination. Therefore, we performed a limited ground reconnaissance consisting of six days in the field. The objective of the field reconnaissance was to visit tunnels and bridges that could be accessed easily from existing roads. Based on the conditions of these structures, and changed conditions since previous inspections, we would make some general assessments that would apply to similar but less accessible structures.

### 5.2.1 Aerial Reconnaissance

ARE under contract with the North Coast Railroad Authority hired GEO1 to collect high resolution photograph and LiDAR data. LiDAR was collected by a Riegl VQ480II sensor rigged to a helicopter flying at an altitude of 500ft AGL. The LiDAR was collected at 200 points per square meter with a swath width of 800ft. Imagery was collected at 800ft AGL (.45" GSD) along with a high pass at 2000ft AGL (1.8" GSD) with a Phase One iXM-RS150F.

The LiDAR was classified to filter the points into ground and above ground points. Bare earth models were created to visualize areas where landslides might be present under vegetation. The rails were also classified in the LiDAR data where the imagery and shadows obscured the track.

### 5.2.2 Ground Reconnaissance

S&W with ARE performed field reconnaissance of the railroad from December 14 – 19, 2021. ARE performed independent ground reconnaissance from July 6 - 8, 2022. The reconnaissance in the project area focused on segments from MP 144 to MP 148, MP 150 to MP 151, and MP 151.5 to MP 152.5.

The field observations enabled us to make the following general conclusions regarding conditions of the railroad track and structures.

- \* Vegetation was extremely dense through nearly every alignment segment that we hiked along. Fallen trees, branches, and dense blackberry vines were common. Trees up to 6

inches in diameter were observed growing between ties. Clearing vegetation, just to make the alignment accessible on foot will be significant.

- Tunnels – we observed both Tunnels 11 and 12. Tunnel 11 has collapsed near both portals and Tunnel 12 was in good condition.
- Landslides and Erosion – We observed locations with landslides and erosion problems that were not documented during previous assessments. At previously documented sites, we noted changes in the site dimensions and conditions.
- Rail & Ties – rails were in generally good condition and appear suitable for re-use or relay. Ties on the other hand have suffered from damage due to the ballast becoming entirely fouled with vegetative matter and mud, and by vegetation growing through the roadbed. The track has significant fire damage from MP 145.9 to MP 146.5.

## 5.3 Assessment Findings

### 5.3.1 Observations and Causes of Damage

Within the project limits, the track generally follows Outlet Creek and is constructed on a bench in the slope above the creek. There are many areas where the railroad is located on the outer bend of the river. During high river flows, the river actively erodes the toe of the slope, decreasing stability of the track and in some cases the entire hillside

The majority of the roadbed and slope instabilities observed along the railroad were caused by one or more of the following:

- Deposition of debris on the track, shoulders, and ditches from rockfalls and slides.
- Erosion of the toe of the slope or embankment by Outlet Creek.
- Overwhelming of drainage systems or inadequate handling of surface water during storm events.
- Erosion of the slope below a culvert outlet.
- Failure of the track shoulder.

Table 1 describes each geotechnical-related damage site documented during the field reconnaissance or based on review of the aerial mapping data. The recommendations and other information in Table 1 may change due to the inability to access all sites in the field.

## 5.4 Recommendations

The intent of the geotechnical recommendations presented in this report is to provide practical, geotechnical-engineered designs that will enable restoration of the railroad for Class 1 traffic (10 mph maximum) and reduce the potential for future erosion and damage

to the railroad through the implementation of best management practices. We developed the recommendations based on our observations and experience with similar railroad embankment and slope failures. The recommendations do not include any work outside the right-of-way (ROW) which is generally 50 feet on each side of track centerline through the project area. The roadbed restoration and geohazard mitigation methods that in our opinion are applicable to the current project area are described below and listed for each site in Table 1.

The recommendations generally consist of the following work items:

- Removing soil and rock debris from track shoulders, ditches and from the track itself. The source of this debris is from intermittent rockfalls from the adjacent slopes, occasional landslides involving larger volumes of debris, and deposition of soil and rock debris from erosion of the adjacent slopes.
- Scaling of rock slopes is recommended at specific locations identified in Table 1 where loose cobbles, boulders, trees, and other debris were observed to have the potential to foul the track when they fail.
- Shoulder retaining walls are recommended at four locations, but the necessary length of these walls should be verified based on measurements of remaining shoulder widths. The walls are assumed to consist of a cast-in-place concrete or shotcrete wall supported on vertical micropiles installed from the roadbed.
- Catchment walls consisting of precast concrete K-rail segments are recommended at two locations where rockfall tends to foul the track.

#### 5.4.1 Estimated Quantities

During the ground reconnaissance and review of aerial mapping data, we visually estimated the sizes of debris piles that need to be excavated and other site dimensions. Based on these dimensions, we estimated earthwork volumes for each site.

Excavation volumes include soil and rock debris that covers the track, was deposited on the shoulders, or filled the ditches. The volumes do not include general ditch cleaning spoils outside geotechnical sites, excess material from culvert installation, or spoils from roadbed grading.

Rock scaling quantities are based on the number of hours we estimate would be required for a 6-person hand-scaling crew to mitigate the rockfall hazard to an acceptable risk through the individual milepost segment.

## 6 TUNNELS ASSESSMENT

### 6.1 General

Two tunnels are located within the project area, Tunnel 11 (MP 145.49) and Tunnel 12 (MP 149.94). Measurements indicate that Tunnel 11 is approximately 704 feet long and Tunnel 12 is approximately 895 feet long. S&W previously performed field reconnaissance of the tunnels in 2002 and 2007, and again in 2021.

### 6.2 Assessment Findings

During previous field reconnaissance of Tunnel 11 in 2002 and 2007, S&W observed that damage to the timber sets had occurred, and sections of the tunnel liner had collapsed. In 2021, S&W was not able to enter Tunnel 11 as collapses at both portals had blocked the tunnel. Tunnel 12 has remained open and in good condition. No repairs are necessary for Tunnel 12 at this time with the exception of ditch cleaning.

Table 2 presents the results of the tunnel condition assessment. The table includes relevant observations from previous assessments. The table provides updated repair recommendations for Tunnel 11. Repair types are described in the notes at the end of Table 2.

### 6.3 Rehabilitation Measures

Tunnel 11 has collapses at both ends of the tunnel. It is assumed that large portions of the 700-foot-long tunnel have also collapsed and require mining to reopen the tunnel.

Remining of Tunnel 11 (Type 1 repairs) would consist of using a top heading and bottom heading sequence, advancing through the collapsed tunnel using steel sets installed at 4-ft spacing with C-channel and grouted hollow bar spiling between sets for temporary overhead ground support. Shotcrete may be needed for temporary ground support at the heading of the excavation. Final lining consists of placing steel channel lagging between the steel sets and backfilling behind the lagging with concrete. Tunnel sections that have not collapsed and where steel sets have been installed previously are completed by placing steel channel lagging between the steel sets and backfilling behind the lagging with concrete (Type 2 repairs). In areas where the original timber liner is still present, the timber sets and timber lagging is replaced with steel sets, steel channel lagging and backfilling behind the lagging with concrete (Type 4A repairs).



## 7 LIMITATIONS

The conclusions and recommendations presented in this report are based on site conditions as they existed at the time of our visit. We have not performed subsurface explorations but have made assumptions as to the subsurface conditions. If subsurface conditions different from those assumed are observed or appear to be present during construction, we should be advised at once so that we can review those conditions and reconsider our recommendations. If there is a substantial lapse of time between submission of our report and the start of work, if conditions have changed because of natural forces or human activity, or if conditions appear to be different from those described in our report, we recommend that we review this report to determine the applicability of the conclusions and recommendations.

No subsurface explorations or slope stability calculations have been performed for this assessment. Unanticipated conditions are commonly encountered and cannot be fully determined by merely reviewing surface conditions. Such unexpected conditions frequently require additional services to achieve a properly constructed project. Some contingency fund is recommended to accommodate such potential extra costs.

The scope of our services did not include environmental assessment or evaluation regarding the presence or absence of wetlands or hazardous/toxic materials in the soil, surface water, groundwater, or air, on or below the site, or for the evaluation/disposal of contaminated soils or groundwater, should any be encountered.

We have prepared the document “Important Information About Your Geotechnical Report” to assist you and others in understanding the use and limitations of this report. Please read this document to learn how you can lower your risks for this project.

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
139.5	139.5			Commercial St., Willits	none	None	n/a	n/a
143.26 - 143.34	143.43 - 143.51	400	L	Steep embankment slope and narrow shoulder due to bank erosion along outside bend of Outlet Creek.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
143.57	143.72	130	L	Tributary to Outlet Creek flows under MP 143.72 bridge, then makes 90 degree turn and flows to the west along toe of embankment for 130 ft.	Visually monitor for toe erosion / embankment instability	None <sup>(2)</sup>	n/a	n/a
143.9	144.05	130	L	Excavation for a road between the railroad embankment and Outlet Creek may have over-steepened the embankment slope causing erosion, shallow sliding, and shoulder loss. Min. shoulder width is ~10 ft.	Visually monitor for embankment instability	None <sup>(2)</sup>	n/a	n/a
143.97 - 143.99	144.12 - 144.14	70	L	Possible setback / scarp on shoulder	Check for embankment instability	None <sup>(2)</sup>	n/a	n/a
144.02-144.08	144.17 - 144.23	300	L	Steep embankment slope and shoulder loss due to bank erosion along Outlet Creek.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
144.31-144.41	144.46 - 144.56	550	L	Steep embankment slope and shoulder loss due to bank erosion along outside bend of Outlet Creek. Narrow shoulder for about 100' at MP 144.56.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
144.44	144.59	60	L	Possible slump / slide extending from shoulder to toe in Outlet Creek about 50 feet downslope; sag in track noted during 2007 reconnaissance, but not observed during 2021 reconnaissance	Visually monitor for track settlement, ground cracks, other evidence of slide movement	None <sup>(2)</sup>	n/a	n/a
144.52 - 144.55	144.67 - 144.70	150	L	Steep embankment slope and narrow shoulder due to bank erosion along Outlet Creek.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
144.55 - 144.92	144.80 - 145.07	1400	L	Steep embankment slope and shoulder loss due to bank erosion along outside bend of Outlet Creek. Narrow shoulder in three segments totals about 600 LF.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
145.35	145.48	100	R	Landslide at South Portal Tunnel 11; mix of soil and rock fragments (up to 12-in.-diam. typical) buries track for approx. 80-100 LF; Soil and rock debris will continue to erode from head scarp located about 80 ft. upslope of track.	Excavate slide debris to restore roadbed and ditch; construct a catchment wall	Excavation	1550	CY
"	"	"	"	"	"	Catchment Wall (K-rail Barrier)	100	LF
145.36 - 145.54 Tunnel 11	145.49 - 145.60 Tunnel 11	704		Tunnel 11	See Table 2 for Tunnel 11 conditions and repair recommendations	See Table 2	n/a	n/a
145.74 - 145.80	145.76 - 145.82	320	L	Steep, rough slope with possible head scarp set back ~30 ft. from crest. Rock fragments accumulate along toe of cut slope. Wide bench on right side projecting into Outlet Creek channel suggests a large hill was excavated for railroad construction; cut slope may be marginally stable	Clean debris from shoulder / ditch along toe of rock slope Visually inspect for head scarp / ground cracks at top of slope.	Ditch / Shoulder Cleaning	133	CY
145.86 - 145.89	145.88 - 145.91	200	L	Shallow slide with head scarp extending up to 150 ft. from track	Clean debris from shoulder / ditch along toe of slope	Ditch / Shoulder Cleaning	133	CY

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
145.95 - 146.01	145.97 - 146.03	220	L	Shallow landslide with head scarp up to 130 ft. from track. Dipslope failure of highly fractured sandstone with adverse bedding (dips toward track). Active rockslide zone as evidenced by the pile of slide debris from previous toe and ditch excavations located on R side; pile measures approx. 24' x 60' x 8'.  Accumulation of slide debris along toe since 2002 and 2007 site visits is estimated to be less than 50 CY, however additional rockfall and slides will occur from loose material in head scarp and flanks of slide; boulders up to several feet in diameter observed along scarp and in debris pile.	Scale loose rock from head scarp, flanks, and slope surface.  Clean L side ditch along toe of slope to improve catchment and drainage. Clean R side ditch along toe of debris pile to improve clearance.  Apparent low frequency of boulders or large volumes of slide debris fouling the track may not warrant a slide fence or catchment wall; limited horizontal clearance to rock slope may also prevent construction of a catchment wall; could consider a rockfall barrier fence installed about 20 ft upslope from toe.  Rock debris could be used as fill to restore shoulder at erosion locations.	Scale Loose Rock from Slope	20	HRS
"	"	"	"	"	"	Ditch / Shoulder Cleaning - Left	228	CY
"	"	"	R	"	"	Ditch / Shoulder Cleaning - Right	65	CY
"	"	"	L	"	"	Catchment Wall (K-rail Barrier)	200	LF
146.01-146.1	146.03 - 146.12	500	L	Several shallow slide zones on rock slope	Clean debris from shoulder / ditch along toe of slope	Ditch / Shoulder Cleaning	37	CY
146.25 - 146.29	146.27 - 146.31	250	L	Stream with depositional fan deposits on slope on L side (west) of track for about 70 LF; loose fan deposits may be susceptible to slope instability and erosion. Shallow slide to the north of fan extends about 75 ft. along the track; head scarp is about 75 ft. from track.	Clean debris from ditch / shoulder	Ditch / Shoulder Cleaning	37	CY
146.30 - 146.33	146.32 - 146.35	160	L	Shallow slides from rock slope between drainage channels	Clean debris from ditch / shoulder	Ditch / Shoulder Cleaning	36	CY

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
146.48 - 146.52	146.50 - 146.54	175	L	<p>Landslide has appearance of rotational slump; head scarp approx. 230 ft. from track; hummocky ground surface with irregular drainage patterns. Slide debris piled on R side shoulder above Outlet Creek measures about 160' x 50'. Track and shoulders have very small accumulation of slide debris and a large portion of the slope is grass-covered, suggesting the slide area is relatively stable at present. Debris piled on R side shoulder indicates it was an active slide zone in the past.</p> <p>Roads at the top of the slope may be directing surface water into slide area.</p>	Clean ditches on both sides of track through slide area.  Slide debris piled on R side could be used as fill to restore shoulder at erosion locations.	Ditch / Shoulder Cleaning	104	CY
146.66 - 146.71	146.68 - 146.73	250	L	Shallow slide / unstable slope; wide shoulder (~30 ft.) suggests slide debris deposited at the toe of the slope has been excavated and placed on the shoulder above Outlet Creek.	Clean debris from ditch / shoulder	Ditch / Shoulder Cleaning	222	CY
146.84 - 146.86	146.86 - 146.88	70	L	Unstable slope / slide area just north of drainage channel; head scarp located about 40 ft. from toe of slope at track	Clean debris from ditch / shoulder	Ditch / Shoulder Cleaning	21	CY
146.88-146.92	146.90 - 146.94	200	L	Slide areas on very steep (60-70 deg.) sandstone slope on L side; head scarp located ~60 ft. from track; toe of slope is about 3 ft. from end of tie. Slide debris piles spaced intermittently along toe of rock slope, possibly below shear zones. Slide debris piled on R shoulder across track from slide area for about 200 ft.	Clean debris from L side ditch / shoulder	Ditch / Shoulder Cleaning	44	CY
146.95	146.97	170	L	Landslide with head scarp ~90 ft. from track	Clean debris from ditch / shoulder	Ditch / Shoulder Cleaning	25	CY

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
147.1	147.12	150	L	Slide debris in ditch at toe of very steep (60-70 deg.) sandstone slope; head scarp ~110' from track. Toe of slope is about 3-4 ft. from rail. Slide debris piled on R shoulder; pile is ~100' x 25'	Clean debris from L side ditch along toe of rock slope Slide debris piled on R side could be used as fill to restore shoulder at erosion locations.	Ditch / Shoulder Cleaning	3	CY
147.3 - 147.7	147.3 - 147.7	2000	R	Large landslides are not apparent upslope of the track along this segment, but debris from the cut slopes accumulates on the track shoulder / ditch. From MP 147.3, the cut slope on R side consists of fragmented, highly disturbed rock; the shoulder / ditch is filled with rock fragments forming talus slopes for about 500 ft. to ~MP 147.4; slope becomes steeper as more massive, less weathered/disturbed sandstone is exposed for ~800 ft. to MP 147.56; less debris in ditch, but angular, cobble-size, sandstone blocks are common; ditch / shoulder narrows to a few feet wide in this segment. Slope angle flattens to ~40 deg. with few outcrops exposed for ~800 ft. north to MP 147.7.	Clean rock slope debris from R side ditch / shoulder	Ditch / Shoulder Cleaning	220	CY
147.37-147.67	147.37 - 147.67	1500	L	Outlet Creek flows through a long, straight reach with a steep bank up to the track. Shoulders appear narrow in several segments.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
147.8 - 147.85	147.80 - 147.85	200	L	Landslides between track and roadcut upslope of the track.	Clean L side ditch	Ditch / Shoulder Cleaning	22	CY
148.92-148.98	148.92 - 148.98	270	L	Steep embankment slope and shoulder loss due to bank erosion along outside bend of Outlet Creek.	Shoulder width to be field-verified; appears sufficiently narrow for a retaining structure. Construct a micropile-supported retaining wall and backfill with relatively lightweight fill (screened rock from slide debris stockpiles may be useable as fill).	Shoulder Retaining Wall	270	LF

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
150.0 - 150.19 Tunnel 12	149.94 - 150.12 Tunnel 12	895		Tunnel 12	See Table 2 for Tunnel 12 conditions. Clean ditches to improve drainage through tunnel.	Ditch / Shoulder Cleaning	200	CY
150.2 - 150.7	150.13 - 150.63	2500	L	Rock slopes on the L side of track are typically covered with trees, shrubs, woody debris, moss, and forest litter. Visible rock outcrops are few. In general, the slopes appear to be stable with isolated zones of rockfall. The ditch along the toe of the slopes was free of debris in many segments, but had standing water due to multiple blockages by woody debris and slide material.  Dense vegetation made assessment of the rockfall hazard difficult, but a higher potential for rockfalls was noted between MP 150.33 and 150.53 based on more outcrops / boulders visible on the slopes, a 2.5-ft.-diam. boulder that came to rest on the track; and larger volumes of rock debris in the ditch.	Perform a detailed reconnaissance to assess rockfall hazard and identify loose rocks and potential rockfall areas.  Clear trees, brush, woody debris, and slide material from track, shoulder, ditch, lower slope.  Identify and remove hazard trees.  Remove loose rock that could potentially foul the track. Hand scaling with prybars, picks, shovels, airbags, etc. should be sufficient to remove most to all high risk rock.	Rock Slope Scaling	50	HR
"	"	"	"	"	"	Ditch / Shoulder Cleaning	444	CY
150.25	150.18			Pile of rock debris on R side shoulder likely comprised of ditch cleaning spoils and slide debris deposited at the toe of the rock slope to the north; pile measures about 110' x 25' x 8'	Slide debris piled on R side could be used as fill to restore shoulder at erosion locations.	None	n/a	n/a
150.35	150.28	40	R	Bank erosion along an outside bend of Outlet Creek causing steep slopes an dpossible shoulder loss. Apparent minimum shoulder width occurs where a tributary stream flows through a 3-ft.-diam. concrete culvert. A 3-ft.-diam. CMP culvert situated higher up in the embankment was dry.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a

TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
150.49 - 150.52	150.42 - 150.45	170	R	Steep slope and narrow shoulder due to bank erosion along Outlet Creek.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>		
150.67 - 150.71	150.60 - 150.64	175	R	Steep slope and narrow shoulder due to bank erosion along outside of sharp bend in Outlet Creek just south of Arnold Overpass (Highway 101).	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>		
150.97 - 151.06	150.89 - 150.98	1000	R	Steep slope and narrow shoulder due to bank erosion along Outlet Creek; minimum shoulder width for approx. 200 LF is 4.5 ft. as measured from near rail to top of Outlet Creek bank slope.	Shoulder width through 1000-ft.-long segment to be field-verified; anticipate 200-ft.-long narrow shoulder segment will increase in length to justify a retaining structure for 500 LF. Construct a micropile-supported retaining wall and backfill with relatively lightweight fill (screened rock from slide debris stockpiles may be useable as fill).	Shoulder Retaining Wall	500	LF
151.3 - 151.4	151.18 - 151.28	200	R	Track crosses toe of large earthflow about 500 ft. wide along track; head scarp is approx. 2,000 ft. upslope of track; cut slope on R side from MP 151.19 to 151.23 appears over-steepened at south end; possibly slumping at north end. Drainage channel along north flank of earthflow routes water to culvert at MP 151.28; possible erosion gully on bank between culvert and Outlet Creek	Evaluate stability of cut slope and erosion at MP 151.28 culvert. Assume ditch needs to be cleaned.	Ditch / Shoulder Cleaning	36	CY
151.54	151.42	50	R	Drainage gully upslope of track appears to deposit sediment on track; no culvert is present under track.	Clean R side ditch	Ditch / Shoulder Cleaning	15	CY



TABLE 1 - GEOHAZARD MITIGATION LOCATIONS  
Milepost 139.5 - 152.5

Milepost (S&W GIS) (2007)	Milepost (Track Chart) (1982 rev.)	Track Length (ft.)	Track Side (R or L)	Feature & Description	Recommendations <sup>(1)</sup>	Quantities		
						Work Item	Work Item Quantity	Unit
151.56 - 151.64	151.44 - 151.52	420	L	Steep slope and narrow shoulder due to bank erosion along Outlet Creek.	Shoulder width to be field-verified; appears sufficiently narrow for a retaining structure approx. 80 ft. long. Construct a micropile-supported retaining wall and backfill with relatively lightweight fill (screened rock from slide debris stockpiles may be useable as fill) to retain and widen shoulder.	Shoulder Retaining Wall	420	LF
151.71 - 151.74	151.59 - 151.62	150	L	Steep slope and narrow shoulder due to bank erosion along Outlet Creek.	Field-verify shoulder width. Visually monitor for toe erosion and shoulder loss.	None <sup>(2)</sup>	n/a	n/a
151.78 - 151.82	151.66 - 151.70	180	L	Steep slope and narrow shoulder due to bank erosion along Outlet Creek. Derailed boxcars lie on the slope between the track and Outlet Creek. Shoulder is low and narrow upslope of the boxcars.	Shoulder width to be field-verified; appears to be sufficiently narrow for a retaining structure approx. 80 ft. long. Construct a micropile-supported retaining wall and backfill with relatively lightweight fill (screened rock from slide debris stockpiles may be useable as fill) to retain and widen shoulder.	Shoulder Retaining Wall	80	LF
151.82 - 151.98	151.70 - 151.86	1000	R	Rock and soil debris ravels and erodes from the slope and piles up on the shoulder.	Clean debris from shoulder to restore catchment and improve drainage.	Ditch / Shoulder Cleaning	222	CY
152.62	152.5			Longvale	none	none	n/a	n/a

Notes:

- (1) It is assumed that vegetation clearing, track removal, roadbed grading, and track laying will be required, but are not included in the recommendations, quantities and costs.
- (2) Site conditions should be field-verified, but stabilization and repair work are not anticipated based on the available information.

TABLE 2  
TUNNEL 11 & TUNNEL 12  
REPAIR RECOMMENDATIONS

Tunnel No.	Milepost at South Portal	Tunnel Segment			Observations / Recommendations		Repair Type (Description of Repair Types on Page 3)
		From Station	To Station	Length (LF)	Type of Liner / Portal	Damage (Dec. 2021 observations in black text) (2007 observations in green text) (2002 observations in blue text)	
11	145.49 658 (track chart) 704 (measured) 10° curve right	South Portal	0+00	0+42	Concrete headwall and wingwalls dated 1910 & 1960 (Track chart shows 589.3' timber, 25' gunite, and 43.5' conc.)  (26 steel sets are stacked outside the south portal)	Concrete in good condition 2002 - Poor tunnel drainage, sitches blocked	none
		0+42	0+75	33	Steel sets and timber lagging	Tunnel collapse about 40' inside south portal due to deterioration of timber lining between steel sets; debris extends to crown; tunnel completely blocked	Type 1
		0+75	1+20	45	Steel sets; sparse timber lagging	Could not observe in 2021, due to collapses at north and south ends - tunnel could be collapsed in this segment from timber lining deterioration Moderate rockfall between sets	Type 2
		1+20	3+00	180	Arch has full timber lagging	Could not observe in 2021, due to collapses at north and south ends - tunnel could be collapsed in this segment from timber lining deterioration 2002 - Moderate rockfall between sets	Type 2
		3+00	3+54	54	Timber sets and partial lagging to 3+36; steel sets between timber sets with timber lagging from 3+36 to 3+54	Could not observe in 2021, due to collapses at north and south ends - tunnel could be collapsed in this segment due to timber lining deterioration noted in 2007 (see below) 2007 - Tunnel partially blocked by rockfall (~40 ft) near center (~Sta 3+00 to 3+50) from E sidewall and arch due to failure of charred timber lining section 2002 - Fire damage: timber sets and lagging are charred	Type 1

TABLE 2  
TUNNEL 11 & TUNNEL 12  
REPAIR RECOMMENDATIONS

Tunnel No.	Milepost at South Portal	Tunnel Segment			Observations / Recommendations		Repair Type (Description of Repair Types on Page 3)	
		From Station	To Station	Length (LF)	Type of Liner / Portal	Damage (Dec. 2021 observations in black text) (2007 observations in green text) (2002 observations in blue text)		
Tunnel 11 (cont.)	Length (ft) Curvature	3+54	4+10	56	Timber sets and partial lagging	Could not observe in 2021 due to collapses at north and south ends - tunnel could be collapsed in this segment from timber lining deterioration 2002 - Fire damage: timber sets are charred and lagging burned through in places	Type 1	
		4+10	4+34	24	Steel sets and newer timber lagging	Could not observe in 2021 due to collapses at north and south ends - it's possible this segment is intact due to newer timber lagging and steel sets	Type 2	
		4+34	4+71	37	Timber sets and partial lagging	Could not observe in 2021 due to collapses at north and south ends - tunnel could be collapsed in this segment from timber lining deterioration 2002 - Lagging burned through in crown	Type 1	
		4+71	6+00	139	Timber sets (2-ft spacing) and full timber lagging	Tunnel completely blocked by debris from collapse at approx. Sta. 6+00; south end of collapse zone is unknown 2002 - Fire damage ends at 4+71	Type 1	
		6+00	6+75	75	Timber sets (2-ft spacing) and full timber lagging	Partial collapse of crown from approx. Sta. 6+60 to Sta. 6+75 2007 - Collapse in crown at N end of timber-lined segment (Sta. 6+75), just S of gunite section; collapse daylight to ground surface; collapse is ~12.5 ft. long (5 sets missing); ~20 CY soil debris on invert.	Type 4A	
		6+75	7+04		Gunite over steel sets (10 sets)	Debris (soil / small rock fragments) from partial collapse noted above is piled on invert (~20 CY) Excavate soil and rock debris from invert (cost is incidental to collapsed segment repair)	none	
			North Portal		Gunite and steel set structure	Good condition	none	

TABLE 2  
TUNNEL 11 & TUNNEL 12  
REPAIR RECOMMENDATIONS

Tunnel No.	Milepost at South Portal	Tunnel Segment			Observations / Recommendations		Repair Type  (Description of Repair Types on Page 3)	
		Length (ft) Curvature	From Station	To Station	Length (LF)	Type of Liner / Portal		Damage  (Dec. 2021 observations in black text) (2007 observations in green text) (2002 observations in blue text)
12	149.94 881 (track chart) 895 (measured) 8° curve left	South Portal	0+00 8+82	8+82 8+95	South Portal	Gunite over steel sets	Gunite & steel set lining is in good condition; wet gunite patches in crown, arch, and sidewalls; lots of drips from crown	No Repairs Needed
							Clean ditches to improve drainage (see Geotech Table)	
							2002 & 2007 - No damage observed during inspections - lining elements in good condition	
							Good condition	
						Concrete	Good condition	"
					North Portal	Concrete headwall	Good condition	"

Tunnel 11 Repair Types

Type 1 Repairs - Excavate collapsed material; remove timber lining and replace with steel sets, install C-channel lagging between steel sets, and backfill with concrete; may require top-heading & bottom-heading excavation, may require spiling and backfill of daylighted area with lightweight concrete

Type 2 Repairs - Install C-channel lagging between existing steel sets and backfill with concrete

Type 3 Repairs - Apply shotcrete (not used)

Type 4A Repairs - Remove timber lining, install steel sets, install C-channel lagging between steel sets, and backfill with concrete

Type 4B Repairs - Remove timber lining, install steel sets, and apply shotcrete (not used)

Type 5 Repairs - Remove timber lining, install C-channel lagging between existing steel sets, and backfill with concrete

# Important Information

## About Your Geotechnical Report

### CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

### THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors that were considered in the development of the report have changed.

### SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events and should be consulted to determine if additional tests are necessary.

### MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied

judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

#### A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary, because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

#### THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

#### BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

**READ RESPONSIBILITY CLAUSES CLOSELY.**

Because geotechnical engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

**IMPORTANT INFORMATION**

## Attachment G



September 12, 2022

# Operations Assessment Report Longvale to Willits and Willits to Fort Bragg



American Rail Engineers

300 E 39<sup>th</sup> Street

Kansas City MO 54111

Contact: Dave Anderson, (714) 943-4068

## Introduction

ARE's subconsultant Carl Belke assembled operating requirements and costs based on his 40 years' experience with responsibility for shortline railroad operations. Key factors used to establish operations costs include:

- Track geometry and grades for the 13-mile segment from Longvale to Willits and the 39-mile segment from Willits to Fort Bragg.
- Tonnage based on the *Market Analysis of Transportation Alternatives for Major Commodities Between the Cities of Fort Bragg and Willits*, prepared by Marie Jones Consulting.
- Crew size and operations base
- Equipment requirements

The operating expenses are based on assumptions concerning the maximum amount of product that may be available for shipment at Longvale for shipment onward to Willits and to Fort Bragg. This is not an admission that such amounts in fact will be made available for shipment. It is simply an effort to compose a scenario maximally favorable to Mendocino Railway should it initiate freight service. For simplicity of presentation, the analysis assumes the shipments are all aggregate, but this assumption is not critical to the analysis. Service cannot currently take place because the line from Longvale to Willits is embargoed. To lift the embargo substantial rehabilitation is required as outlined in ARE's *Railroad Rehabilitation Assessment Willits MP 139.5 to Longvale MP 152.5* report dated September 12, 2022. In addition, the Skunk Line requires track repairs and tunnel reconstruction.

Carl Belke, P.E. of D&H Rail Consulting prepared the following Operations Assessment. Carl serviced as President and Chief Operating Officer for the Western New York & Pennsylvania Railroad for 10 years, General Manager and Vice President of Canadian Operations for Genesee & Wyoming for 7 years and has more than 40 years' experience in railroad operations for a dozen of short line railroads with responsibility for labor management, fleet management, bankruptcy reorganizations, and mergers and acquisitions.

## Summary of Operating Expense

Scenario	Cars	Cubic Yards	Cost per Car	Cost per Cubic Yard
1A	1,313	70,000	\$2,754.25	\$51.66
1B	1,688	90,000	\$2,142.38	\$40.18
2A	656	35,000	\$4,142.50	\$77.67
2B	844	45,000	\$3,221.95	\$60.41

## Scenario 1

Scenario 1 - Maximum Traffic includes 70,000 cubic yards of aggregate from the Grist Creek facility from Longvale to Fort Bragg and an additional 20,000 cubic yards of gravel aggregate from Willits to Fort Bragg. The Longvale to Willits traffic is modeled in Scenario 1A and all the traffic is modeled in Scenario 1B.

The assumptions, modeling, and cost estimate for Scenario 1 follows.

## **Narrative Summary**

### **Traffic assumptions**

#### **Scenario 1A**

- 70,000 Cu. Yd. per year of river gravel aggregate hauled from Longvale to Willits
- 70,000 Cu. Yd. per year of river gravel aggregate hauled from Willits to Fort Bragg

#### **Scenario 1B**

- 70,000 Cu. Yd. per year of river gravel aggregate hauled from Longvale to Willits
- 70,000 Cu. Yd. per year of river gravel aggregate hauled from Willits to Fort Bragg
- 20,000 Cu. Yd. per year of gravel aggregate hauled from Willits to Fort Bragg

### **Freight car assumption**

- 56 Cu. Yd., 80 ton capacity, 24 ft. ore jennie
- based on two sets of 6 cars cycling Longvale - Willits - Fort Bragg and on car cycling Willits to Fort Bragg and two repair spares = 15 total

### **Train crew labor**

- all crews based at Willits
- 5 day per week, 2-person turn crew from Willits takes empties to Longvale, awaits gravel loading and returns to Willits
- 5 day per week, 2-person turn crew from Willits to Fort Bragg with loaded train, unloads train, meets relief crew from Willits, returns to Willits by highway
- 5 day per week, 2-person turn crew from Willits drives to Fort Bragg, relieves original crew from Willits, returns to Willits with empty train
- total of 6 regular train crew members plus 1 relief person to cover sickness, vacations

### **Fuel/Locomotives/Physical Characteristics**

- based upon 2 units per train of models shown on the locomotive sheet
- based on the effort to be exerted (throttle setting) for the grades encountered and curve compensation
  
- based on 4 units on property - 1 assigned Willits - Longvale; 2 assigned Willits - Fort Bragg; 1 spare

### **Mechanical labor**

- based on two person crew to maintain locomotives and freight cars
- expectation that they will also spend time with MOW crew

### **Track labor**

- based on 4 person crew to maintain track, drainage structures, ditches, brush, bridges, tunnels
- assisted by mechanical crew

**Mendocino Railway OFA MP 139.5 to 152.5**  
**Traffic**

SCENARIO 1A - by Weight **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @80 tons / car	Total weight of cars @28 tons each	Total wght of traffic in cars (tons)	Tonnage/ day @250 train days	Average cars / day	Comments
Aggregates	70,000	1.5	105,000	1,313	36,750	141,750	567	6	Longvale to Willits to Fort Bragg
Weekday train - Longvale to Willits							567	6	
Weekday train - Willits to Fort Bragg							567	6	

SCENARIO 1A - by Volume **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @56CY / car	Total weight of cars @28 tons each	Total wght of traffic in cars (tons)	Tonnage/ day @250 train days	Average cars / day	Comments
Aggregates	70,000	1.5	105,000	1,250	35,000	140,000	560	5	Longvale to Willits to Fort Bragg
Weekday train - Longvale to Willits							560	5	
Weekday train - Willits to Fort Bragg							560	5	

SCENARIO 1B - by Weight **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @80 tons / car	Total weight of cars @28 tons each	Total wght of traffic in cars (tons)	Tonnage/ day @250 train days	Average cars / day	Comments
Aggregates	70,000	1.5	105,000	1,313	36,750	141,750	567	6	Longvale to Willits to Fort Bragg
Aggregates - other	20,000	1.5	30,000	375	10,500	40,500	162	2	Willits to Fort Bragg
Weekday train - Longvale to Willits							567	6	
Weekday train - Willits to Fort Bragg							729	7	

SCENARIO 1B - by Volume **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @56CY / car	Total weight of cars @28 tons each	Total wght of traffic in cars (tons)	Tonnage/ day @250 train days	Average cars / day	Comments
Aggregates	70,000	1.5	105,000	1,250	35,000	140,000	560	5	Longvale to Willits to Fort Bragg
Aggregates - other	20,000	1.5	30,000	357	10,000	40,000	160	2	Willits to Fort Bragg
Weekday train - Longvale to Willits							560	5	
Weekday train - Willits to Fort Bragg							720	7	

CY = cubic yard

**Mendocino Railway OFA MP 139.5 to 152.5  
Train Crew Labor**

Zone	Position	Weeks	Days	Working Days	Working hours		Number		rate	Yearly cost
		Per year	Per week	Per year	Per day	Total hrs	Persons	Total hrs	per hour	
Longvale - Willits	Engineer	52	5	260	8	2080	1	2080	\$38.50	\$80,080
Longvale - Willits	Conductor	52	5	260	8	2080	1	2080	\$32.50	\$67,600
Willits - Fort Bragg	Engineer	52	5	260	8	2080	2	4160	\$38.50	\$160,160
Willits - Fort Bragg	Conductor	52	5	260	8	2080	2	4160	\$32.50	\$135,200
Relief/spare	Engineer	52	5	260	8	2080	1	2080	\$38.50	\$80,080
									<b>Total</b>	<b>\$523,120</b>

**Fuel Usage**

Zone	Weeks	Days	Working Days	Working hours		Number	Total hrs	Gallons	Total	Yearly cost
	Per year	Per week	Per year	Per day	Total hrs	of units		per hour	Gallons	
Longvale - Willits	52	5	260	4	1040	2	2080	20	41,600	\$266,240
Willits - Fort Bragg	52	5	260	10	2600	2	5200	45	234,000	\$1,497,600
									<b>Total</b>	<b>\$1,763,840</b>

**Locomotive capabilities**

Model	HP	Weight	STE	CTE	Annual Rental	Max Loads Longvale to Willits	Units required per train	Max Loads Willits to Ft. Bragg	Units required per train	Spare/ repair units required	Total units required	Total locomotive expense
SW1500	1500	248,000	62,000	38,000	\$40,000	20		5				\$0
GP-9	1750	249,000	62,750	44,600	\$25,000	25	1	7	2	1	4	\$80,000
RS-11	1800	257,300	66,000	35,000	\$25,000	20		5				\$0

**Physical Characteristics**

Location	Milepost	Location	Milepost	Distance between miles	Max % grade	Max degree of curvature	Operating Speed - MPH
Longvale	152.5	Willits	139.5	13.0	0.7	10	10
Willits	39.0	Fort Bragg	0	39.0	4.6	24	10

**Mendocino Railway OFA MP 139.5 to 152.5  
Operating Costs Scenario 1**

**MAINTENANCE OF WAY AND STRUCTURES**

Track Labor	\$	250,000
Materials and Equipment		100,000
Programmed Maintenance of Roadbed		75,000
Fringe Benefits		35,000
Grade Crossing Expenses		25,000
		<hr/>

**TOTAL MAINTENANCE OF WAY AND STRUCTURES** \$ 485,000

**MAINTENANCE OF EQUIPMENT**

Mechanical Labor	\$	144,000
Locomotive Repairs		45,000
Fringe Benefits		20,160
Car Repair Expenses		25,000
Track Equipment Repairs		10,000
		<hr/>

**TOTAL MAINTENANCE OF EQUIPMENT** \$ 244,160

**TRANSPORTATION**

Locomotive Lease Expense	\$	80,000
Car Lease Expense		72,000
Train Crew Labor		523,120
Fuel		1,763,840
Transload terminal manager		45,000
Fringe Benefits		79,537
Transload facility maintenance		20,000
Automobile for Fort Bragg crew change		13,000
Car Hire Costs		0
Other - PPE and Comms Equip		25,000
		<hr/>

**TOTAL TRANSPORTATION** \$ 2,621,497

**GENERAL ADMINISTRATION**

Administrative Personnel	\$	132,000
Fringe Benefits		18,480
Insurance – General Liability		35,000
Insurance – Fire and Auto		5,000

GENERAL ADMINISTRATION (continued)

Information Services	4,000
Contracted marketing services	12,000
FRA compliance - Manuals, timetables, D&A testing	8,000
Rules, Safety & FRA training - CFR 243, RWP	5,000
Audit	12,000
Legal	8,000
Payroll Service	3,000
Telephone	7,200
Repairs and Maintenance	2,000
Utilities	3,000
Dues and Subscriptions	1,000
Property Taxes	5,000
Conferences	1,000
Office Supplies, Postage and Other	4,000

TOTAL GENERAL ADMINISTRATION \$ 265,680

<b>GRAND TOTAL OPERATING EXPENSE</b>	<b>\$ 3,616,337</b>
<b>SCENARIO 1A Cost/Car</b>	<b>\$ 2,754.25</b>
<b>SCENARIO 1A Cost/CY</b>	<b>\$ 51.66</b>
<b>SCENARIO 1B Cost/Car</b>	<b>\$ 2,142.38</b>
<b>SCENARIO 1B Cost/CY</b>	<b>\$ 40.18</b>

## **Scenario 2**

Scenario 2 – Assumes half of the traffic modeled in Scenario 1.

The assumptions, modeling, and cost estimate for Scenario 2 follows.



## **Narrative Summary**

### **Traffic assumptions**

#### **Scenario 2A**

- 35,000 Cu. Yd. per year of river gravel aggregate hauled from Longvale to Willits
- 35,000 Cu. Yd. per year of river gravel aggregate hauled from Willits to Fort Bragg

#### **Scenario 2B**

- 35,000 Cu. Yd. per year of river gravel aggregate hauled from Longvale to Willits
- 35,000 Cu. Yd. per year of river gravel aggregate hauled from Willits to Fort Bragg
- 10,000 Cu. Yd. per year of gravel aggregate hauled from Willits to Fort Bragg

### **Freight car assumption**

- 56 Cu. Yd., 80 ton capacity, 24 ft. ore jennie
- based on two sets of 6 cars cycling Longvale - Willits - Fort Bragg and on car cycling Willits to Fort Bragg and two repair spares = 15 total

### **Train crew labor**

- all crews based at Willits
- 3 days per week (M,W,F), 2-person turn crew from Willits takes empties to Longvale, awaits gravel loading and returns to Willits
- 3 days per week, (T,Th, Sa) 2-person turn crew from Willits to Fort Bragg with loaded train, unloads train, meets relief crew from Willits, returns to Willits by highway
- 3 days per week (T,Th,Sa), 2-person turn crew from Willits drives to Fort Bragg, relieves original crew from Willits, returns to Willits with empty train
- total of 4 regular train crew members plus 1 relief person to cover sickness, vacations

### **Fuel/Locomotives/Physical Characteristics**

- based upon 2 units per train of models shown on the locomotive sheet
- based on the effort to be exerted (throttle setting) for the grades encountered and curve compensation
- based on 3 units on property - 2 working daily, 1 spare

### **Mechanical labor**

- based on two person crew to maintain locomotives and freight cars
- expectation that they will also spend time with MOW crew

### **Track labor**

- based on 4 person crew to maintain track, drainage structures, ditches, brush, bridges, tunnels
- assisted by mechanical crew

**Mendocino Railway OFA MP 139.5 to 152.5**  
**Traffic**

SCENARIO 2A - by Weight **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @80 tons / car	Total weight of cars @28 tons each	Total wgt of traffic in cars (tons)	Tonnage/day @250 train days	Average cars / day	Comments
Aggregates	35,000	1.5	52,500	656	18,375	70,875	284	3	Longvale to Willits to Fort Bragg
Weekday train - Longvale to Willits							284	3	
Weekday train - Willits to Fort Bragg							284	3	

SCENARIO 2A - by Volume **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @56CY / car	Total weight of cars @28 tons each	Total wgt of traffic in cars (tons)	Tonnage/day @250 train days	Average cars / day	Comments
Aggregates	35,000	1.5	52,500	625	17,500	70,000	280	3	Longvale to Willits to Fort Bragg
Weekday train - Longvale to Willits							280	3	
Weekday train - Willits to Fort Bragg							280	3	

SCENARIO 2B - by Weight **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @80 tons / car	Total weight of cars @28 tons each	Total wgt of traffic in cars (tons)	Tonnage/day @250 train days	Average cars / day	Comments
Aggregates	35,000	1.5	52,500	656	18,375	70,875	284	3	Longvale to Willits to Fort Bragg
Aggregates - other	10,000	1.5	15,000	188	5,250	20,250	81	1	Willits to Fort Bragg
Weekday train - Longvale to Willits							284	3	
Weekday train - Willits to Fort Bragg							365	4	

SCENARIO 2B - by Volume **Mendocino Railway OFA MP 139.5 to 152.6**  
**Freight traffic analysis**

Commodity	CY / Year	CY Conversion to Tons	Total product weight (tons)	Total car loads @56CY / car	Total weight of cars @28 tons each	Total wgt of traffic in cars (tons)	Tonnage/day @250 train days	Average cars / day	Comments
Aggregates	35,000	1.5	52,500	625	17,500	70,000	280	3	Longvale to Willits to Fort Bragg
Aggregates - other	10,000	1.5	15,000	179	5,000	20,000	80	1	Willits to Fort Bragg
Weekday train - Longvale to Willits							280	3	
Weekday train - Willits to Fort Bragg							360	3	

CY = Cubic Yards

**Mendocino Railway OFA MP 139.5 to 152.5  
Train Crew Labor**

Zone	Position	Weeks	Days	Working Days	Working hours		Number		rate	Yearly cost
		Per year	Per week	Per year	Per day	Total hrs	Persons	Total hrs	per hour	
Longvale - Willits (M,W) Willits-Fort Bragg (T,Th,Sa)	Engineer	52	5	260	8	2080	1	2080	\$38.50	\$80,080
Longvale - Willits (M,W) Willits-Fort Bragg (T,Th,Sa)	Conductor	52	5	260	8	2080	1	2080	\$32.50	\$67,600
Longvale - Willits (F) Willits-Fort Bragg (T,Th,Sa)	Engineer	52	4	208	8	1664	1	1664	\$38.50	\$64,064
Longvale - Willits (F) Willits-Fort Bragg (T,Th,Sa)	Conductor	52	4	208	8	1664	1	1664	\$32.50	\$54,080
Relief/spare	Engineer	52	4	208	8	1664	1	1664	\$38.50	\$64,064
									<b>Total</b>	<b>\$329,888</b>

**Fuel Usage**

Zone	Weeks	Days	Working Days	Working hours		Number	Total hrs	Gallons per hour	Total Gallons	Yearly cost \$6.40
	Per year	Per week	Per year	Per day	Total hrs	of units				
Longvale - Willits	52	3	156	4	624	2	1248	20	24,960	\$159,744
Willits - Fort Bragg	52	3	156	10	1560	2	3120	45	140,400	\$898,560
									<b>Total</b>	<b>\$1,058,304</b>

**Locomotive Capabilities**

Model	HP	Weight	STE	CTE	Annual Rental	Max Loads Longvale to Willits	Units required per train	Max Loads Willits to Ft. Bragg	Units required per train	Spare/ repair units required	Total units required	Total Locomotive expense
SW1500	1500	248,000	62,000	38,000	\$40,000	20		5				\$0
GP-9	1750	249,000	62,750	44,600	\$25,000	25	1	7	2	1	3	\$108,000
RS-11	1800	257,300	66,000	35,000	\$25,000	20		5				\$0

**Physical Characteristics**

Location	Milepost	Location	Milepost	Distance between miles	Max % grade	Max degree of curvature	Operating Speed - MPH
Longvale	152.5	Willits	139.5	13.0	0.7	10	10
Willits	39.0	Fort Bragg	0	39.0	4.6	24	10

**Mendocino Railway OFA MP 139.5 to 152.5**  
**Operating Costs**

**MAINTENANCE OF WAY AND STRUCTURES**

Track Labor	\$	250,000
Materials and Equipment		100,000
Programmed Maintenance of Roadbed		75,000
Fringe Benefits		35,000
Grade Crossing Expenses		25,000

**TOTAL MAINTENANCE OF WAY AND STRUCTURES** \$ 485,000

**MAINTENANCE OF EQUIPMENT**

Mechanical Labor	\$	144,000
Locomotive Repairs		45,000
Fringe Benefits		20,160
Car Repair Expenses		25,000
Track Equipment Repairs		10,000

**TOTAL MAINTENANCE OF EQUIPMENT** \$ 244,160

**TRANSPORTATION**

Locomotive Lease Expense	\$	108,000
Car Lease Expense		72,000
Train Crew Labor		329,888
Fuel		1,058,304
Transload terminal manager		45,000
Fringe Benefits		52,484
Transload facility maintenance		20,000
Automobile for Fort Bragg crew change		13,000
Car Hire Costs		0
Other - PPE and Comms Equip		25,000

**TOTAL TRANSPORTATION** \$ 1,723,676

**GENERAL ADMINISTRATION**

Administrative Personnel	\$	132,000
Fringe Benefits		18,480
Insurance – General Liability		35,000
Insurance – Fire and Auto		5,000

GENERAL ADMINISTRATION (continued)

Information Services	4,000
Contracted marketing services	12,000
FRA compliance - Manuals, timetables, D&A testing	8,000
Rules, Safety & FRA training - CFR 243, RWP	5,000
Audit	12,000
Legal	8,000
Payroll Service	3,000
Telephone	7,200
Repairs and Maintenance	2,000
Utilities	3,000
Dues and Subscriptions	1,000
Property Taxes	5,000
Conferences	1,000
Office Supplies, Postage and Other	4,000

TOTAL GENERAL ADMINISTRATION \$ 265,680

<b>GRAND TOTAL OPERATING EXPENSE</b>	<b>\$ 2,718,516</b>
Scenario 2A Cost/Car	\$ 4,142.50
Scenario 2A Cost/CY	\$ 77.67
Scenario 2B Cost/Car	\$ 3,221.95
Scenario 2B Cost/CY	\$ 60.41

Attachment I  
Verification of Minimum Purchase Price  
For OFA Purposes  
In STB Docket AB 1305X

I, Caryl Hart, state that I am the Chair of Great Redwood Trail Agency (GRTA), formerly named North Coast Railroad Authority, an agency of the State of California; that I am authorized to make this verification; that I have read the foregoing "Certification of Filing and Service" prepared on behalf of Great Redwood Trail Agency; and that the minimum purchase price and other facts asserted therein are true and accurate as stated to the best of my knowledge, information, and belief.

The foregoing verification and certification is made on behalf of GRTA under penalties for perjury under the laws of the United States by the undersigned after due and careful investigation of the matters herein verified and certified and is based on the best of the undersigned's knowledge, information and belief.

For filing: September 15, 2022



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Caryl Hart, Chair

## Attachment I

Verification of Engineering-Related Analyses by David Anderson, P.E.

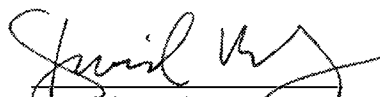
For Purposes of Section 1152.27 (OFA)

In STB Docket AB 1305X

I, David Anderson, state that I am a licensed civil engineer in the State of California and recently retired CEO/President of ARE Corp (<https://are-corp.com/>), a company which provides rail civil engineering services, including line inspections, rehabilitation and NLV evaluations, and operations analysis. I have personally served for the past twenty years as the civil engineering consultant for North Coast Railroad Authority (“NCRA”), now re-named the Great Redwood Trail Agency (“GRTA”). I have repeatedly examined the entire NCRA/GRTA right-of-way (portions of which are now owned by SMART) from its northern endpoint (Samoa, in Humboldt County, CA) to interconnection with the national freight rail network at American Canyon in Marin County, CA. My resume has already been submitted in this proceeding. At the request of GRTA, I participated in the preparation (either as author or co-author) of a series of reports (Attachments E, F, and G) to the “Certification and Filing” filed by GRTA in this proceeding. All facts in the referenced reports are based on my personal inspection of the rail line between MP 139.5 (Willits) and MP 152.5 (Longvale) and review of relevant documentation. All opinions expressed are based on my expert judgment and are

within my expertise. I have also reviewed the aforementioned “Certification and Filing” and the calculations set forth therein for rehabilitation costs for MP 139.5 to MP 152.5, annual maintenance costs, operational costs for a system involving that segment under the scenarios stated, and Net Liquidation Value for track. All such calculations are true and correct to the best of my knowledge, expertise, information and belief.

Pursuant to 28 U.S.C. 1746, I declare and verify under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

  
David Anderson, PE

Dated: September 14, 2022