



CRISI STC Grant

Grade Stabilization

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GM – RWRR



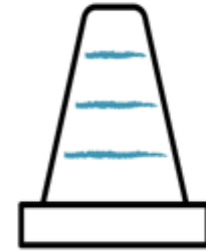
Our Foundation Principles



Value Our
Customers

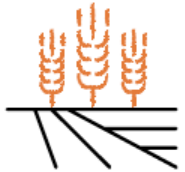


Value Our
People



Safely Improve
Every Day

Serving Diverse Industries



Agriculture



Wind Energy



Aggregates



Chemical



Retail



Construction



Waste



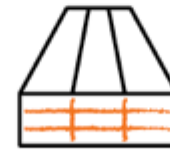
Oil/Gas



Automotive



Coal



Lumber

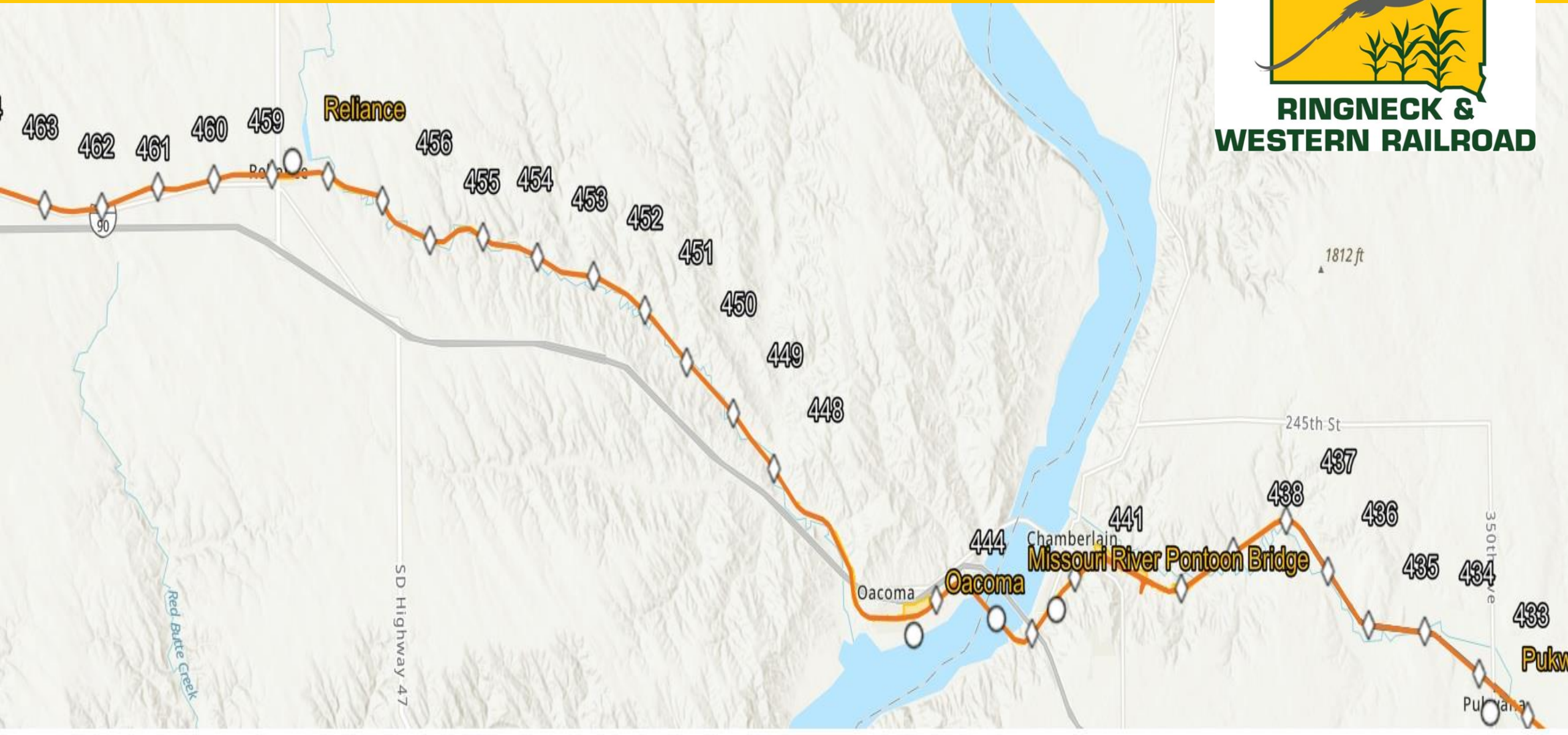


Steel

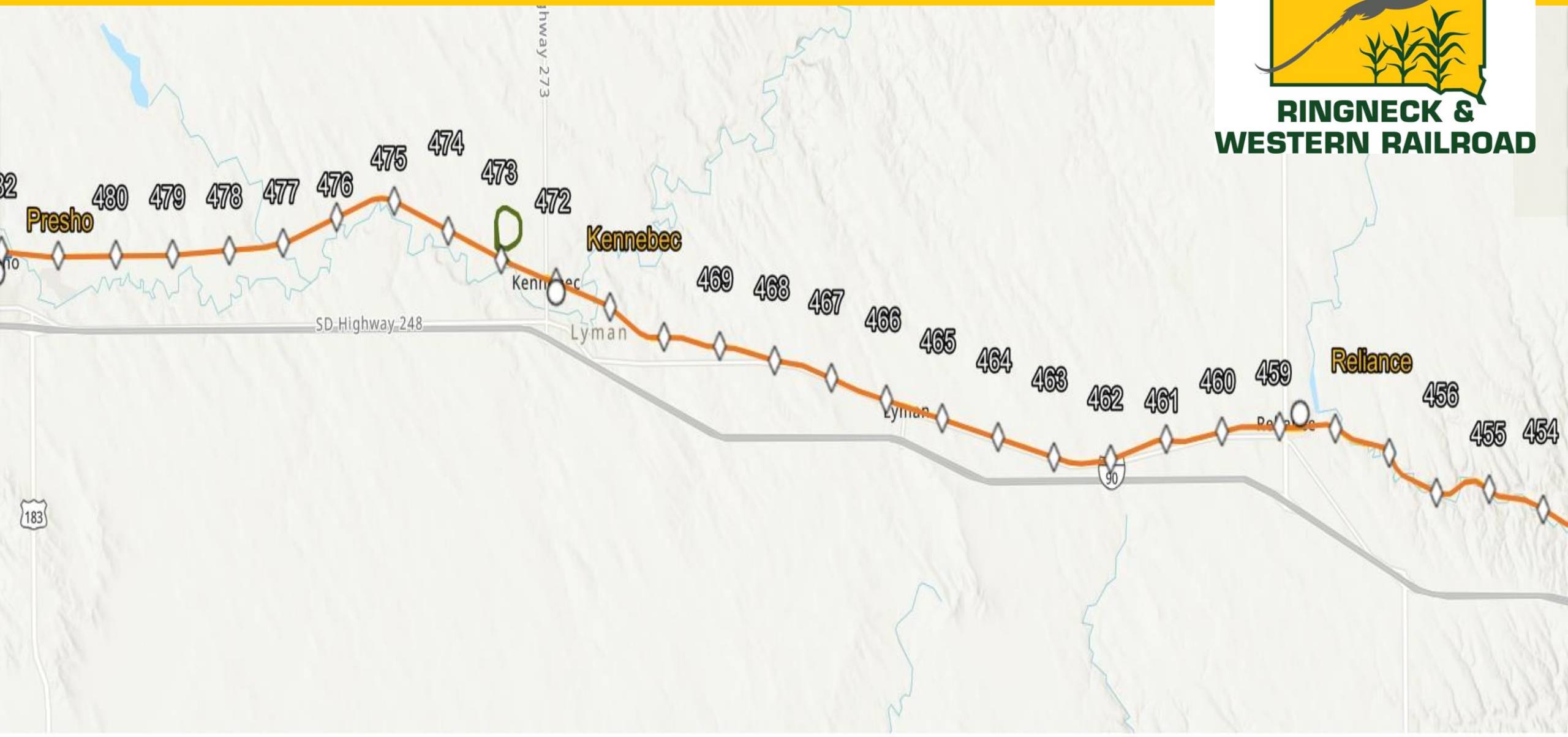
Project Overview

- <https://youtu.be/fN-eaHJppq0>
- <https://vimeo.com/watco/rwrr>

Project Description



Project Description



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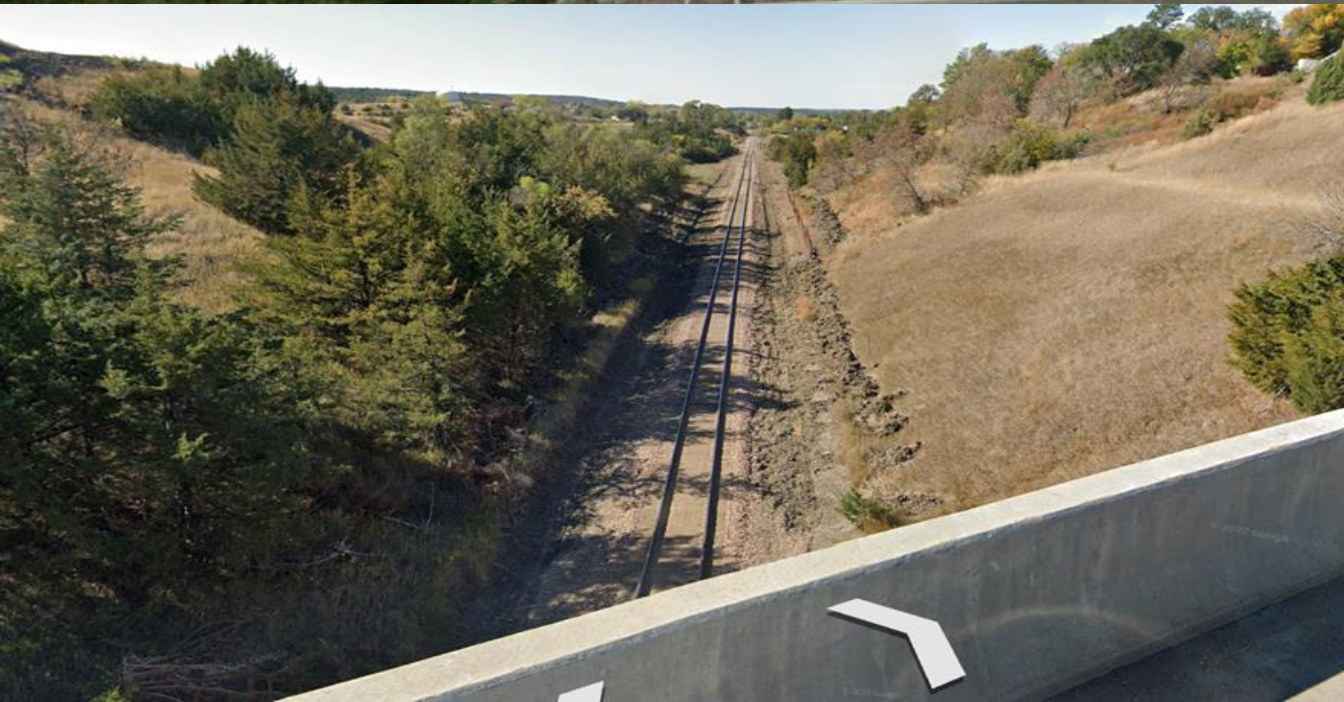
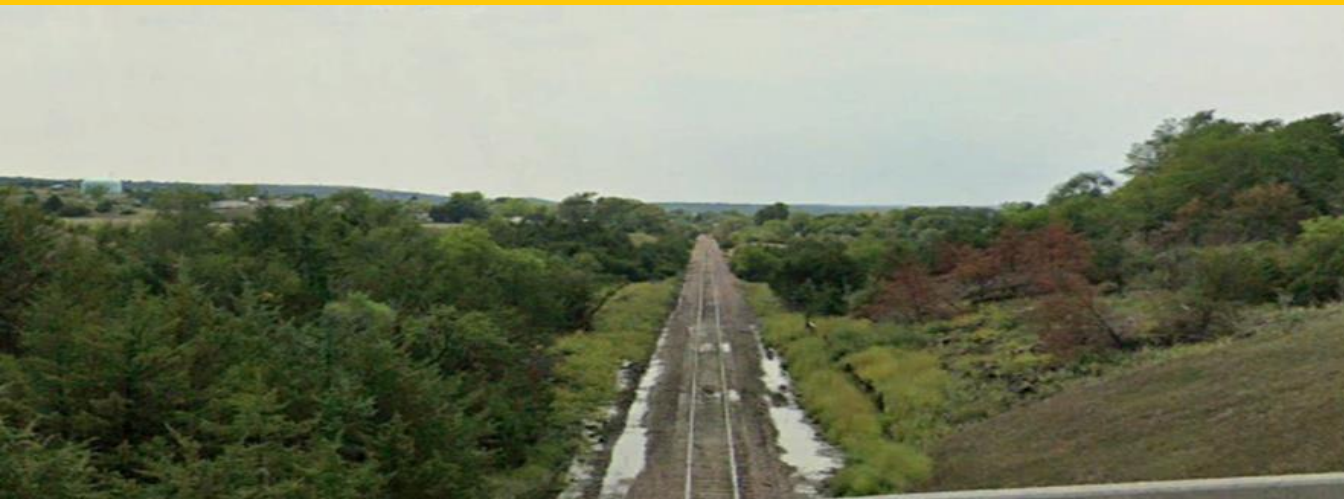
- 44 miles of repair and surfacing
- 31,600 ties
- 17,000 tons of ballast
- Culvert at MP 468.15
- Bridgework at MP 454.3, MP 455, and MP 455.2

Project Need



- Significant grade failures in 2022
 - Saturated subgrade
 - Erosion from storm events
 - Close proximity to two creeks
 - Washouts / hill slides / sink holes

Saturated subgrade



Saturated subgrade



2022 Repairs



2022 Repairs Update



2022 Repairs Update



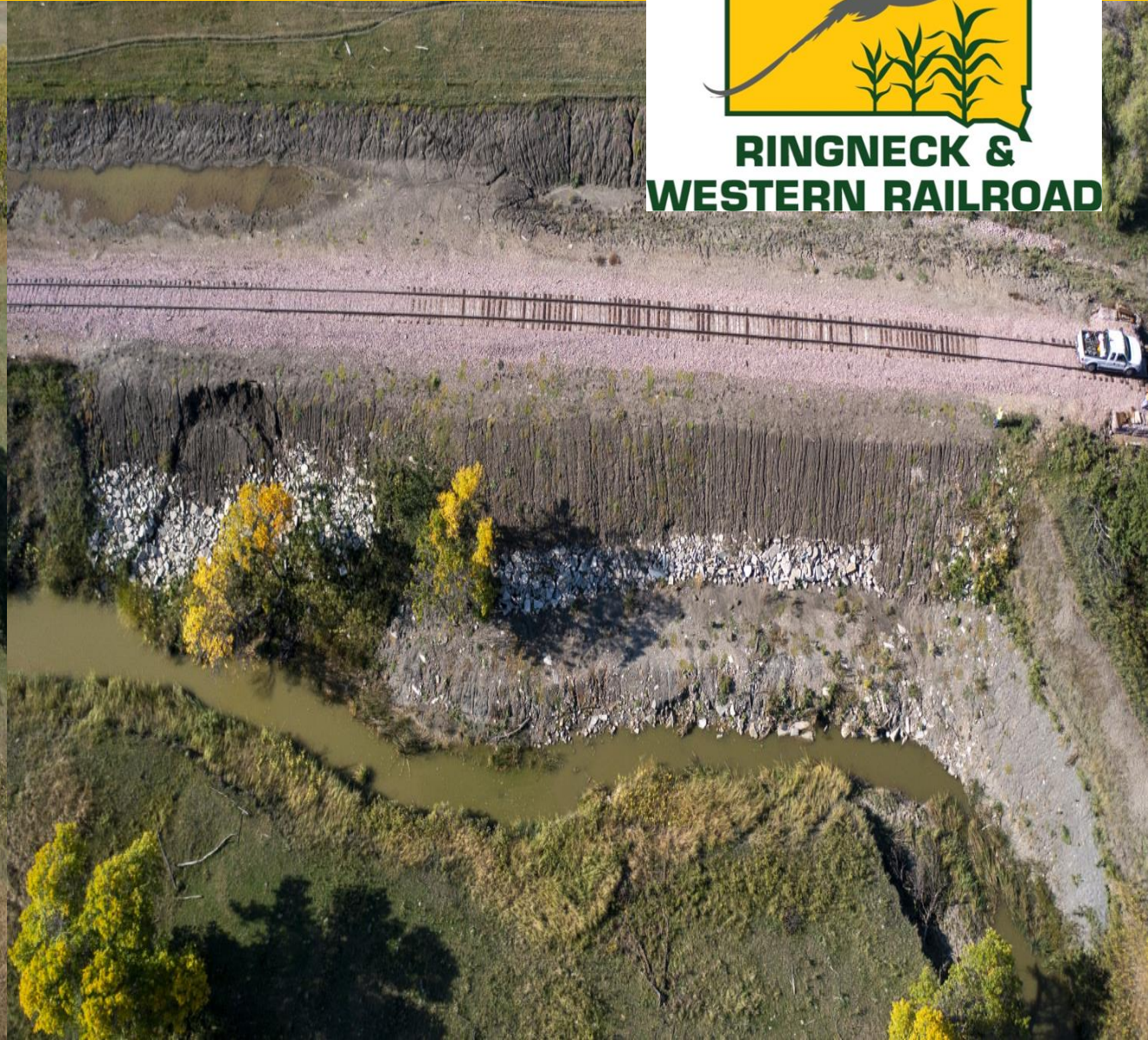
2022 Repairs Update



2022 Repairs Update



2023 Repairs



2023 Repairs



Culvert at MP 468.15



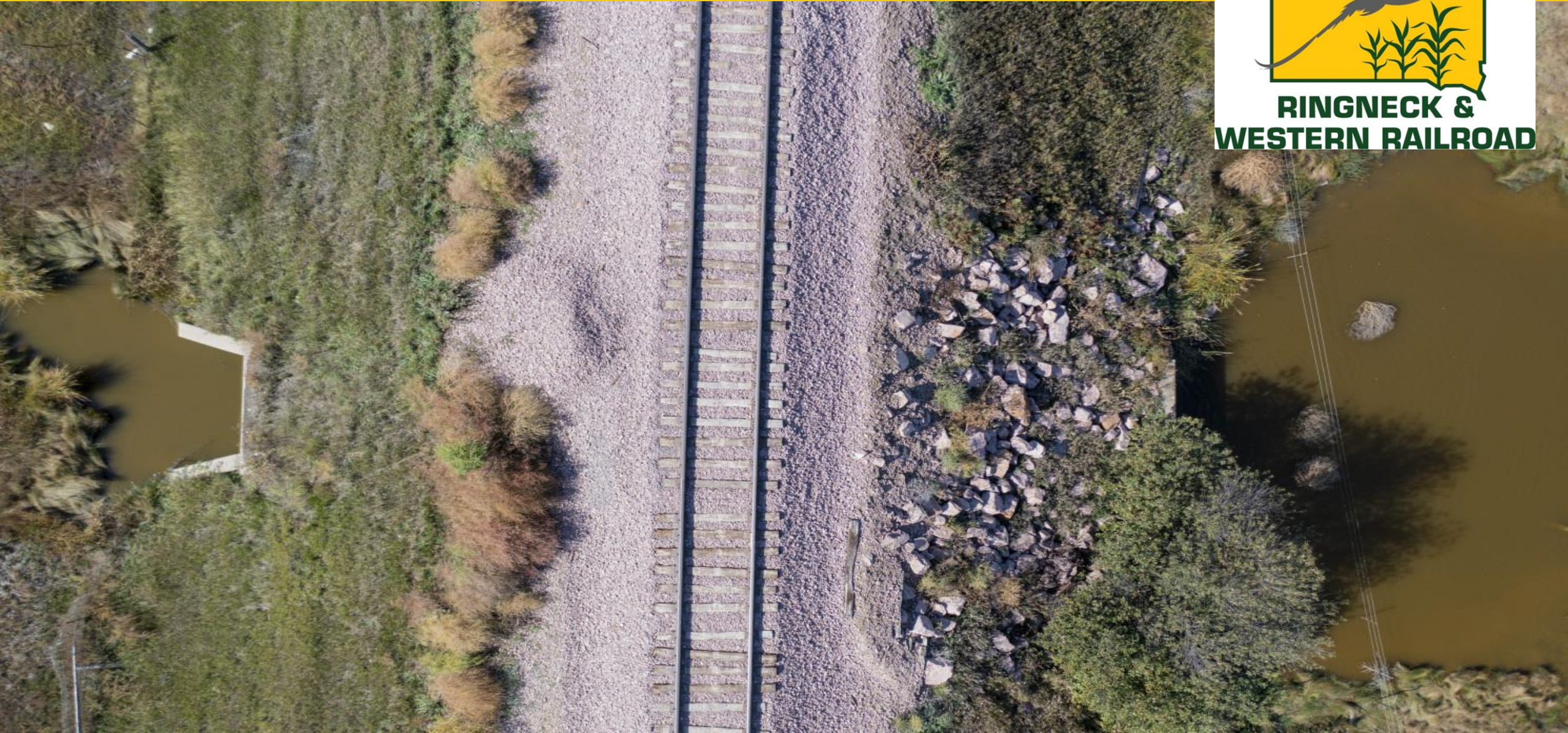
Culvert at MP 468.15



Culvert at MP 468.15



Culvert at MP 468.15



Bridgework



Bridgework



Bridgework



Shoulder Stabilization



Erosion Control



Project Budget



Materials

Item	Description	Unit	Quantity	Unit Price	Total
1	Tie Plates	Each	1,320	\$ 17.00	\$ 22,440.00
2	Rail Spikes 59/keg	Kegs	1,400	\$ 50.00	\$ 70,000.00
3	7"x9"x8'-6" Grade 5 Ties	Each	31,600	\$ 85.00	\$ 2,686,000.00
4	Ballast	Ton	17,000	\$ 35.00	\$ 595,000.00
7	Sales Tax	LS	1	\$ 150,000.00	\$ 150,000.00
Total Materials:				\$	<u>3,523,440.00</u>

Labor Only

Item	Description	Unit	Quantity	Unit Price	Total
1	Mobilization	LS	1	\$ 75,000.00	\$ 75,000.00
2	Tie Installation	Each	31,600	\$ 35.00	\$ 1,106,000.00
3	Tie Disposal	Each	31,600	\$ 8.00	\$ 252,800.00
4	Ballast Unloading	Ton	17,000	\$ 2.50	\$ 42,500.00
5	Track Surfacing	Tr-Mile	44	\$ 12,500.00	\$ 550,000.00
11	Bonding	LS	1	\$ 10,000.00	\$ 10,000.00
12	Railroad Protective Insurance	LS	1	\$ 5,000.00	\$ 5,000.00
Total Labor:				\$	<u>2,041,300.00</u>

Bridge Rehabilitation - Material & Labor

Item	Description	Unit	Quantity	Unit Price	Total
1	Bridge 468.15 - New 10'x12' Box Culver	LS	1	\$ 750,000.00	\$ 750,000.00
2	Bridge 437.4 - Tie-back Sheeting	LS	1	\$ 650,000.00	\$ 650,000.00
3	Embankment Stabilization	LS	1	\$ 434,925.00	\$ 434,925.00
	Bridge 454.3	LS	1	\$ 400,000.00	\$ 400,000.00
4	Bridge 455.0	LS	1	\$ 400,000.00	\$ 400,000.00
5	Bridge 455.2	LS	1	\$ 400,000.00	\$ 400,000.00
Total Bridge Rehabilitation:				\$	<u>3,034,925.00</u>

Total Construction:	\$	8,599,665.00
15% Contingency:	\$	1,289,000.00
Preliminary Engineering:	\$	100,000.00
Final Design Engineering:	\$	125,000.00
Environmental Engineering:	\$	50,000.00
Construction Administration:	\$	225,000.00
Total Project Cost:	\$	<u>10,388,665.00</u>

Project Benefits



- Increase resiliency and decrease risk of failure and service interruptions
- Benefit South Dakota's agriculture producers and support new industry use
- Reduce slow order miles and potentially upgrade track classification
- Maintain asset in a state of good repair

