

Highway 64 Alignment Clear River Valley Functional Planning Study

Information Session

October 23, 2024 - 4:30 to 8:00 pm

Menno Simons Community School

WELCOME



Highway 64 Clear River Bridge Looking North

Welcome

Highway 64 Alignment
Clear River Valley
Functional Planning Study

Information Session #2

This information session is an informal drop-in format, there will be no presentation.

The purpose of this information session is to:

- Provide information on the updated study process and objectives
- Share the alignments explored for Highway 64
- Present the proposed alignment
- Gather your comments and input

Please take a few minutes to review the display panels and discuss the study with project staff.

This is the second of two Information sessions for the study. The first information session was held in November 2022.

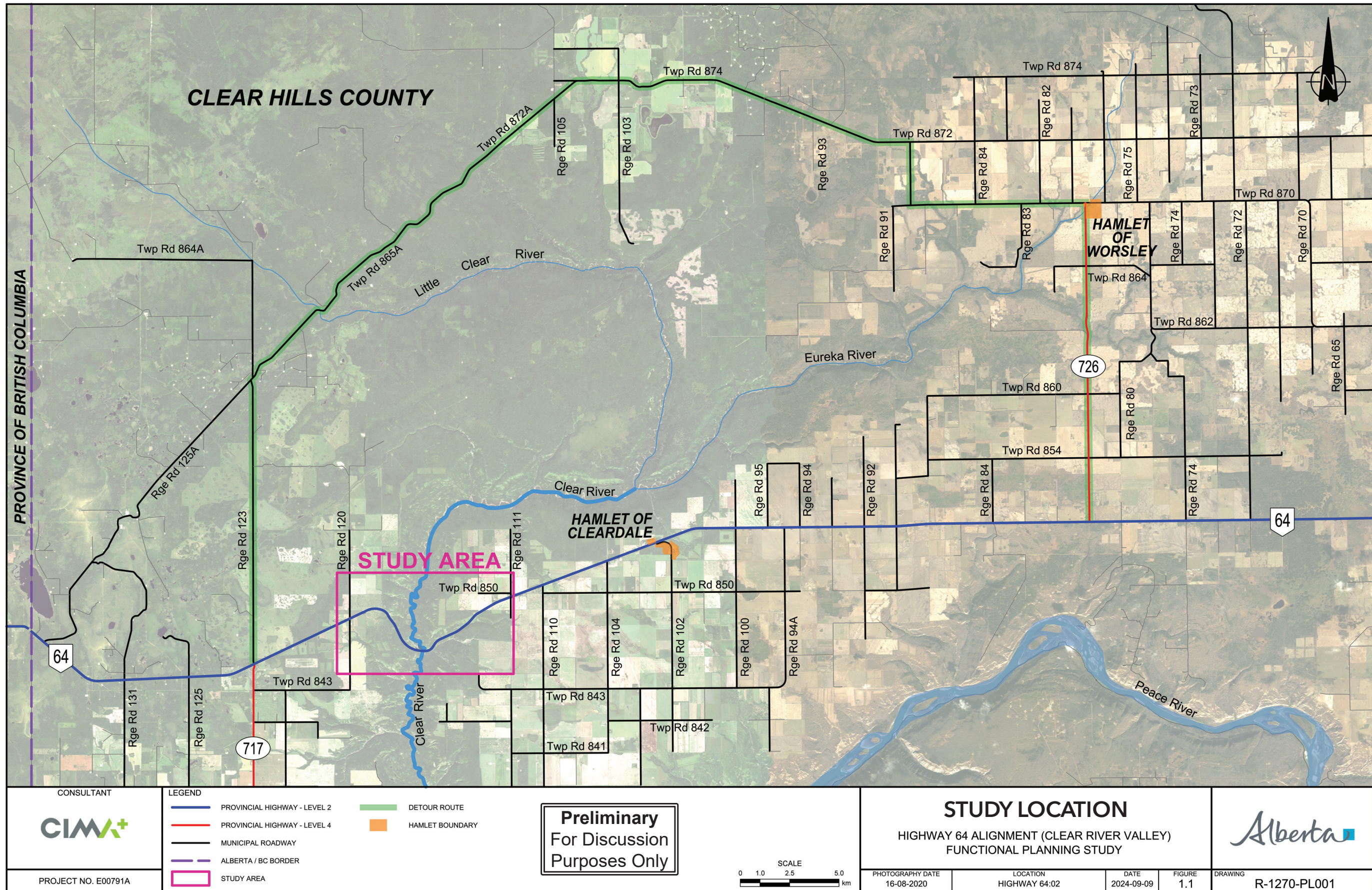
Study Background

- Highway 64 is a major two-lane provincial highway facility
- First paved in 1983, the highway is the primary transportation corridor through Clear Hills County, connecting Highway 2 near Fairview with British Columbia and linking most of the County's hamlets.
- With 8 active slide locations, the existing Clear River crossing is increasingly at risk of slide activity and road closures.
- The existing bridge will soon need a major rehabilitation or replacement and river stabilization.



Existing Highway 64 Looking East Across the Clear River

Study Location & Regional Roadway Network



Bold text indicates changes made since Information Session #1.

Study Purpose

Identify and review technically feasible alternatives for a potential new Highway 64 alignment crossing of the Clear River Valley **and compare with options to upgrade the existing highway alignment.**

Study Objectives

To develop a technically feasible alignment plan that:

- Provides the most appropriate design given site and **implementation** constraints
- Addresses stability and safety, community interests, environmental and historical resources, drainage and other impacts
- Identifies access requirements
- Identifies right-of-way requirements

Study Outcome

The outcome of this study will:

- Help the province understand the **most feasible/practical long-term** alignment crossing of the Clear River Valley exists

Working Together

Technical Review Committee (TRC)

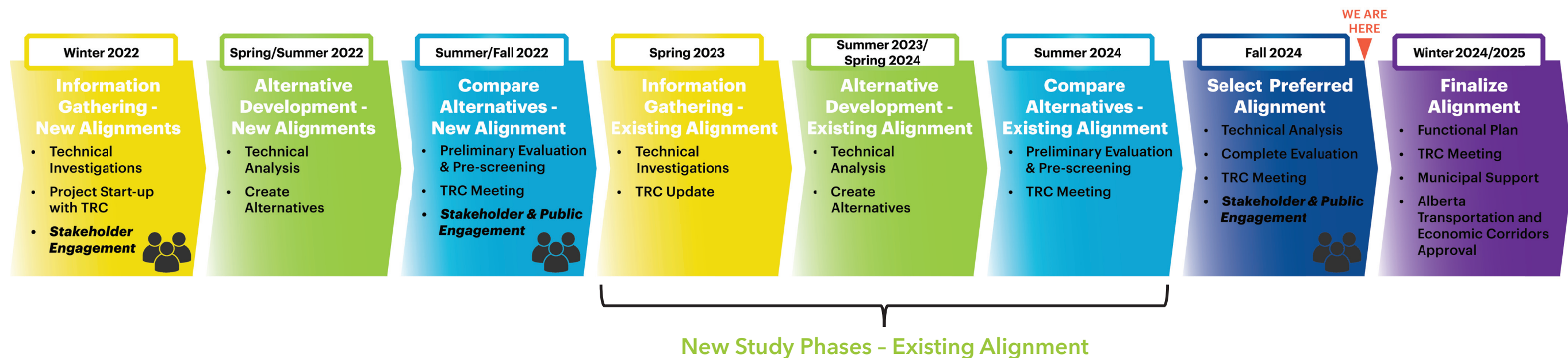
- Clear Hills County is a member of the Technical Review Committee
- The Technical Review Committee guides the study process at key points

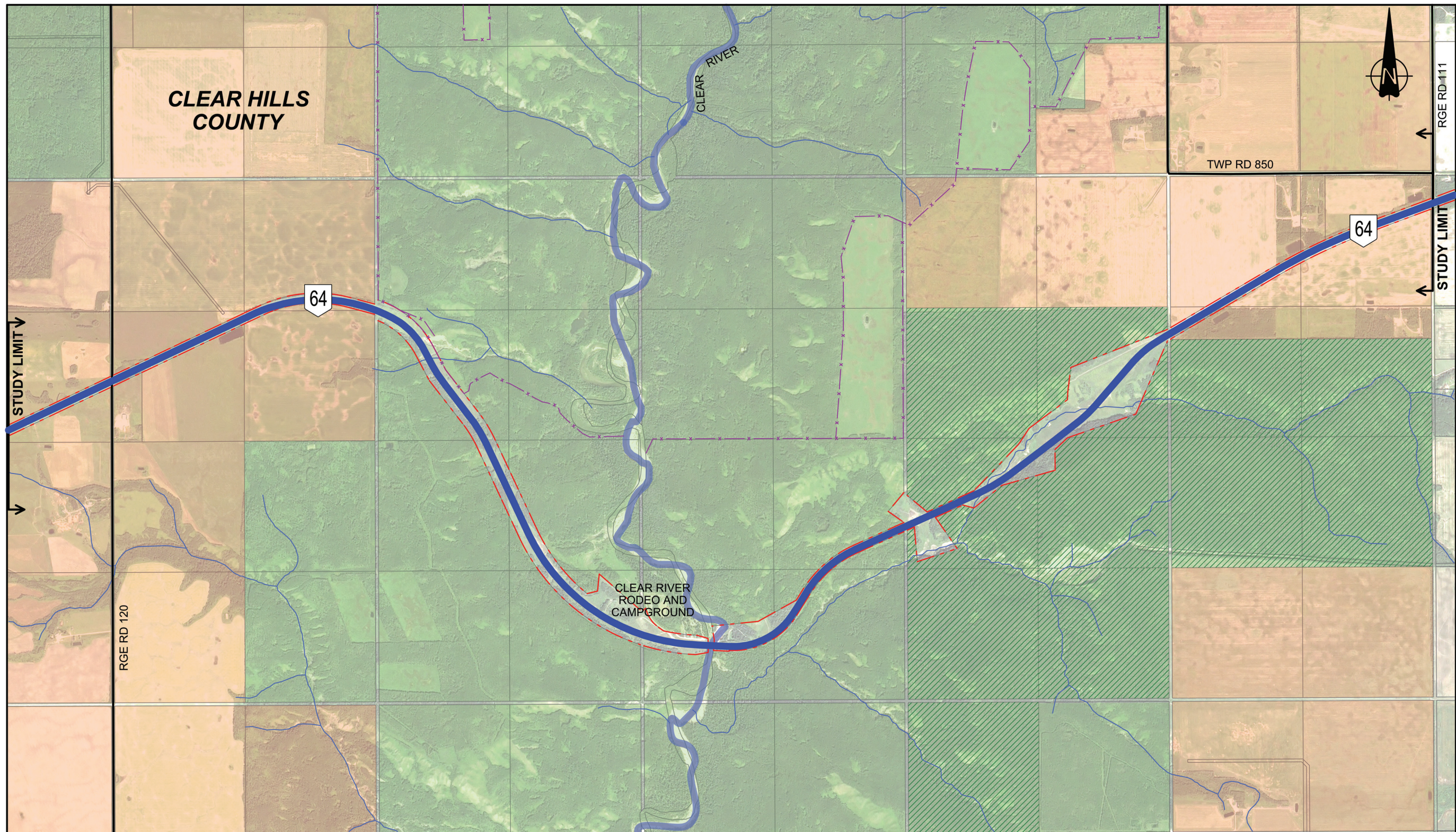
Stakeholders & Members of the Public

- The study team will obtain feedback on alternatives and outcomes
- Information session #1 was held in November 2022, focusing on the development of new alignment options.

Project Process & Timeline

- Based on feedback received and the initial study findings, the scope of the study was revised to include alignments along existing Highway 64.





CONSULTANT



PROJECT NO. E00791A

LEGEND

- PROVINCIAL HIGHWAY 64
- MUNICIPAL ROADWAY
- EXISTING HIGHWAY R/W
- WOLF CREEK GRAZING ASSOCIATION FENCE

- CROWN LAND PARCEL WITH GRAZING LEASE
- CROWN LAND PARCEL WITH NO GRAZING LEASE
- FREEHOLD LAND PARCEL

Preliminary
For Discussion
Purposes Only

NOTE:
THE CHANNEL OF THE CLEAR
RIVER HAS SUBSTANTIALLY
DEVIATED FROM WHAT IS SEEN
IN THE HISTORIC SURVEYED
BOUNDARIES.

SCALE
0 100 250 500
m

LAND USE

HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)
FUNCTIONAL PLANNING STUDY

PHOTOGRAPHY DATE
16-08-2020

LOCATION
HIGHWAY 64:02

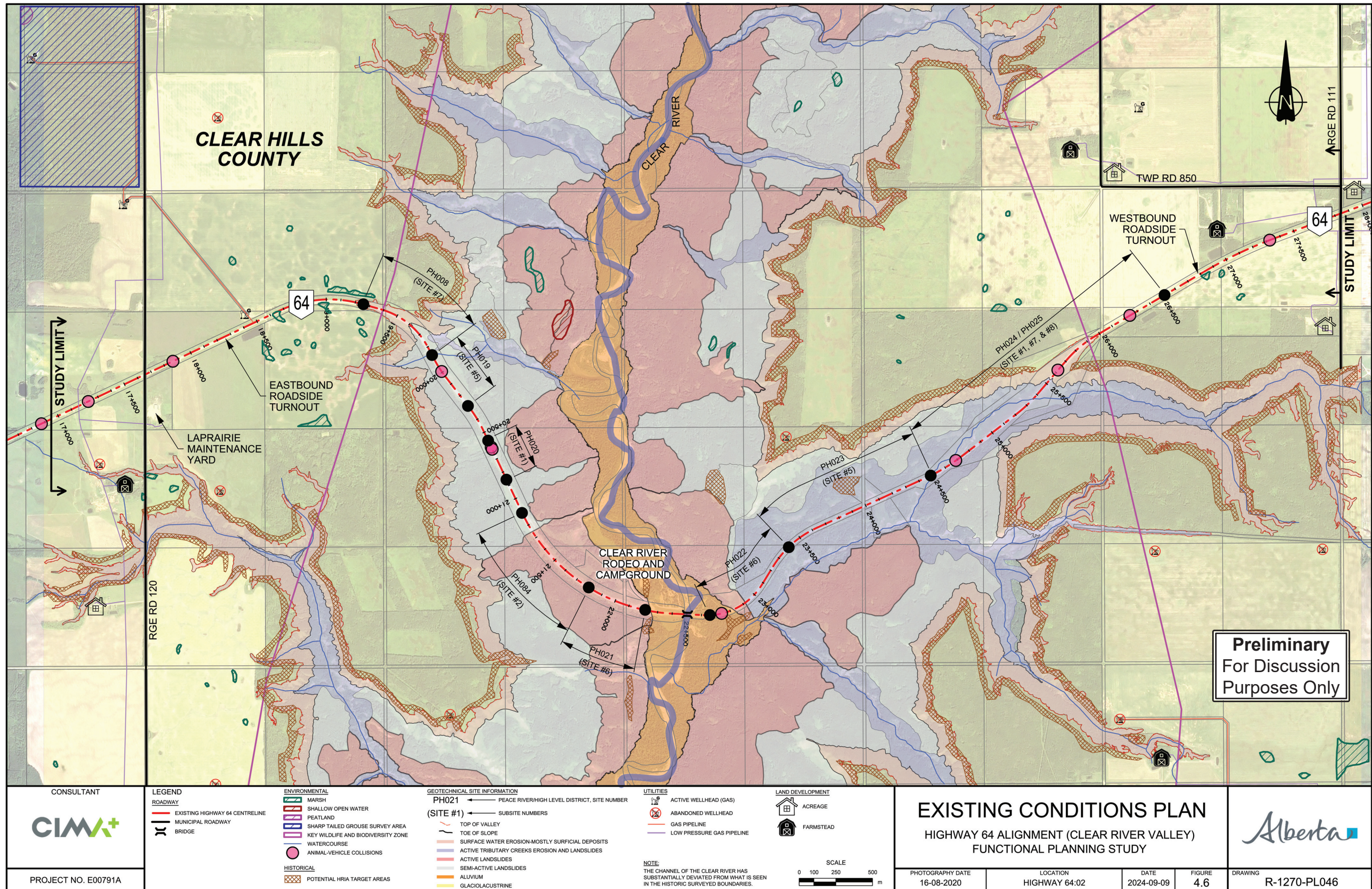
DATE
2024-09-09

FIGURE
3.1

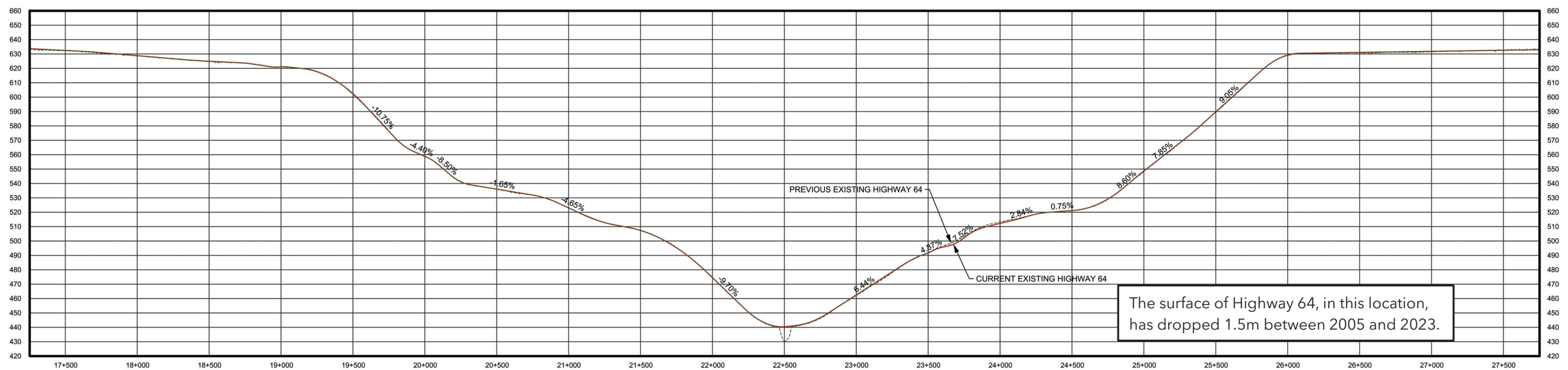
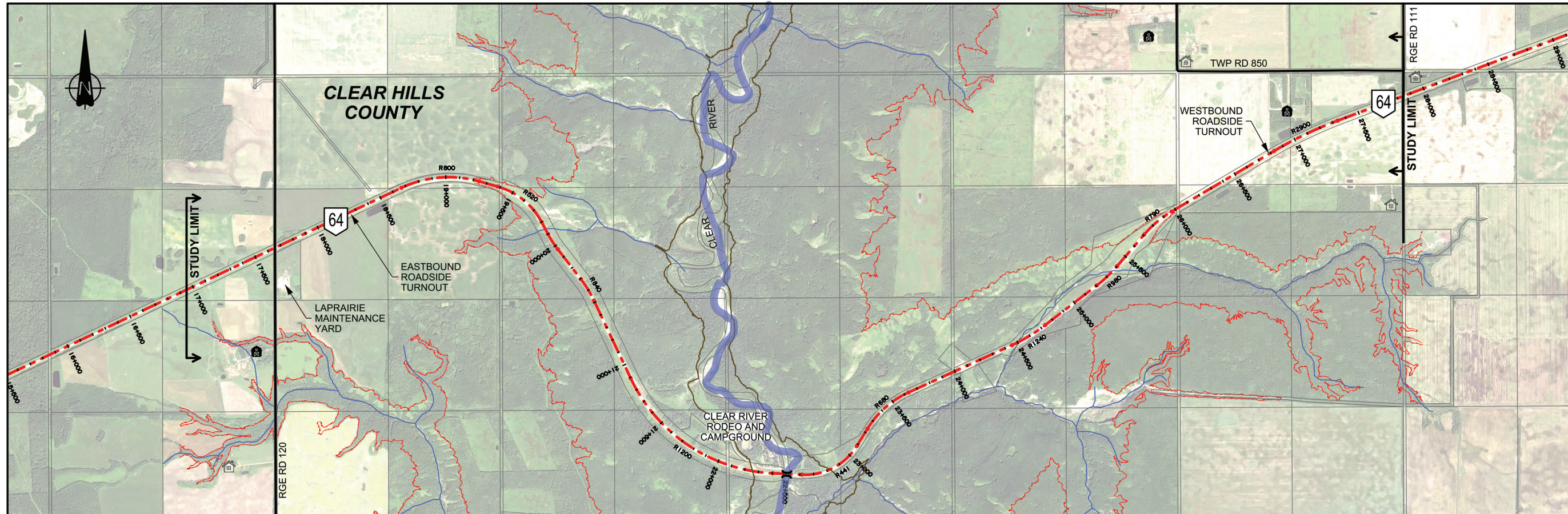
DRAWING
R-1270-PL031



Existing Conditions



Existing Highway



CONSULTANT



PROJECT NO. E00791A

LEGEND



EXISTING HIGHWAY 64 CENTRELINE
MUNICIPAL ROADWAY
BRIDGE

ENVIRONMENTAL

WATERCOURSE

GEOTECHNICAL

TOP OF VALLEY
TOE OF SLOPE

LAND DEVELOPMENT

ACREAGE
FARMSTEAD

Preliminary
For Discussion
Purposes Only

NOTE:
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RIVER HAS SUBSTANTIALLY
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SCALE
0 100 250 500
m

EXISTING HIGHWAY 64

HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)
FUNCTIONAL PLANNING STUDY

PHOTOGRAPHY DATE
16-08-2020

LOCATION
HIGHWAY 64:02

DATE
2024-09-09

FIGURE
6.1

DRAWING
R-1270-PL061



Alternative Development

Key technical factors in the development of alternatives were:

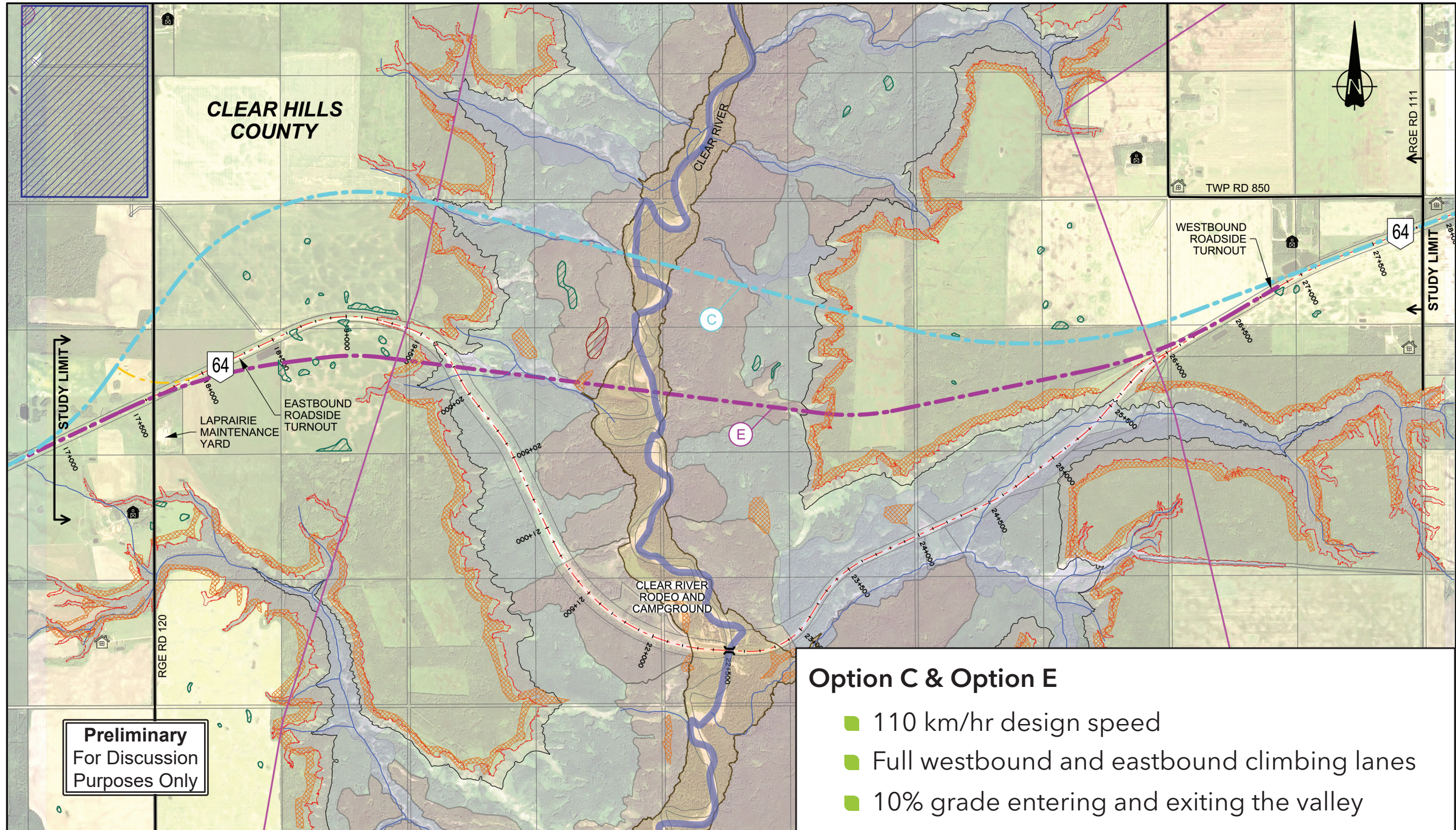
- Geotechnical stability
- River stability and bridge requirements
- Roadway design standards
- Constructability and stageability
- Environmental and historical resources

Alternatives for both a new crossing location and upgrading existing Highway 64 were reviewed by the study team. A preliminary screening was used to narrow down to the most practical/feasible alternatives along both the new and existing alignments. These preferred options were carried forward to the final screening to identify a proposed plan. This process is shown in the following displays.












































Highway 64, Looking West Across the Clear River Valley

New Alignment Alternatives



Option C & Option E

- 110 km/hr design speed
- Full westbound and eastbound climbing lanes
- 10% grade entering and exiting the valley

<div>CONSULTANT</div> <div></div> <div>PROJECT NO. E00791A</div>	<div>LEGEND</div> <div><div>ROADWAY</div><div> EXISTING HIGHWAY 64 CENTRELINE</div><div> MUNICIPAL ROADWAY</div><div> BRIDGE</div><div> ALIGNMENT OPTION</div></div> <td><div>ENVIRONMENTAL</div><div> WETLAND</div><div> SHALLOW OPEN WATER</div><div> PEATLAND</div><div> SHARP TAILED GROUSE SURVEY AREA</div><div> KEY WILDLIFE AND BIODIVERSITY ZONE</div><div> WATERCOURSE</div></td> <td><div>GEOTECHNICAL</div><div> TOP OF VALLEY</div><div> SURFACE WATER EROSION-MOSTLY SURFICIAL DEPOSITS</div><div> ACTIVE TRIBUTARY CREEKS EROSION AND LANDSLIDES</div><div> ACTIVE LANDSLIDES</div><div> SEMI-ACTIVE LANDSLIDES</div><div> ALUVIUM</div><div> GLACIOLACUSTRINE</div><div><div>NOTE:</div><div>THE CHANNEL OF THE CLEAR RIVER HAS SUBSTANTIALLY DEVIATED FROM WHAT IS SEEN IN THE HISTORIC SURVEYED BOUNDARIES.</div></div></td> <td><div>LAND DEVELOPMENT</div><div> ACREAGE</div><div> FARMSTEAD</div><div><div>HISTORICAL</div><div> POTENTIAL HRIA TARGET AREAS</div></div><div><div>SCALE</div><div></div><div>0 100 250 500 m</div></div></td> <td colspan="4"><div>REALIGNMENT OPTIONS C & E</div><div>HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)</div><div>FUNCTIONAL PLANNING STUDY</div></td> <td><div></div></td>	<div>ENVIRONMENTAL</div> <div> WETLAND</div> <div> SHALLOW OPEN WATER</div> <div> PEATLAND</div> <div> SHARP TAILED GROUSE SURVEY AREA</div> <div> KEY WILDLIFE AND BIODIVERSITY ZONE</div> <div> WATERCOURSE</div>	<div>GEOTECHNICAL</div> <div> TOP OF VALLEY</div> <div> SURFACE WATER EROSION-MOSTLY SURFICIAL DEPOSITS</div> <div> ACTIVE TRIBUTARY CREEKS EROSION AND LANDSLIDES</div> <div> ACTIVE LANDSLIDES</div> <div> SEMI-ACTIVE LANDSLIDES</div> <div> ALUVIUM</div> <div> GLACIOLACUSTRINE</div> <div><div>NOTE:</div><div>THE CHANNEL OF THE CLEAR RIVER HAS SUBSTANTIALLY DEVIATED FROM WHAT IS SEEN IN THE HISTORIC SURVEYED BOUNDARIES.</div></div>	<div>LAND DEVELOPMENT</div> <div> ACREAGE</div> <div> FARMSTEAD</div> <div><div>HISTORICAL</div><div> POTENTIAL HRIA TARGET AREAS</div></div> <div><div>SCALE</div><div></div><div>0 100 250 500 m</div></div>	<div>REALIGNMENT OPTIONS C & E</div> <div>HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)</div> <div>FUNCTIONAL PLANNING STUDY</div>				<div></div>
				<div>PHOTOGRAPHY DATE</div> <div>16-08-2020</div>	<div>LOCATION</div> <div>HIGHWAY 64:02</div>	<div>DATE</div> <div>2024-09-09</div>	<div>FIGURE</div> <div>7.9</div>	<div>DRAWING</div> <div>R-1270-PL079</div>	

Preliminary Screening (2022) – New Alignment

Criteria No.:		1	2	3		4	5	6	7		8	9
DESCRIPTION: ALIGNMENT OPTIONS		Environ- mental & Historical Resources	Bridge Placement & River Training	Geotechnical Stability		Construct- ability - Traffic Disruption	Access to Rodeo & Camp- ground	Impact to Land Uses	Land Requirements		Excavation	Preliminary Cost Estimate
				Bridge Placement	Hillsides				In the River Valley	Above the River Valley		
1	Option 'C' (north of existing)	Good	Good	Moderate	Moderate	Best	Best	Moderate	Moderate	Good	Moderate	Worst
2	Option 'E' (crossing existing)	Moderate	Best	Moderate	Moderate	Good	Good	Good	Best	Best	Good	Worst

Screening Criteria

1. Environmental & Historical Resources

Impact on watercourse crossings, fisheries, wetlands and historical resources.

2. Bridge Placement & River Training

Ability to move the river, hold it in place using river training spur & guide bank structures

3. Geotechnical Stability

Compares alignments to a typical river crossing with flat stable terraces on each side and approach fills less than 10 m high and considers added risks compared to a typical approach cut of less than 15 m depth in a stable valley slope

4. Constructability - Traffic Disruption

Extent of construction related disruption to access and traffic flow

RANKING LEGEND

Scale:	Poor Outcomes			Better Outcomes	
	Worst	Poor	Moderate	Good	Best

5. Ease of Access to Rodeo Grounds & Campground

6. Impact to Land Uses

Level of fragmentation to existing agricultural and grazing areas.

7. Land Requirements

Comparison of land requirements both in & above the river valley

8. Excavation

Amount of surplus material, including disposal impacts, ability to adjust design to improve material balance

9. Cost Estimate

Anticipated construction and property costs

Public Input

What We Heard – November 2022

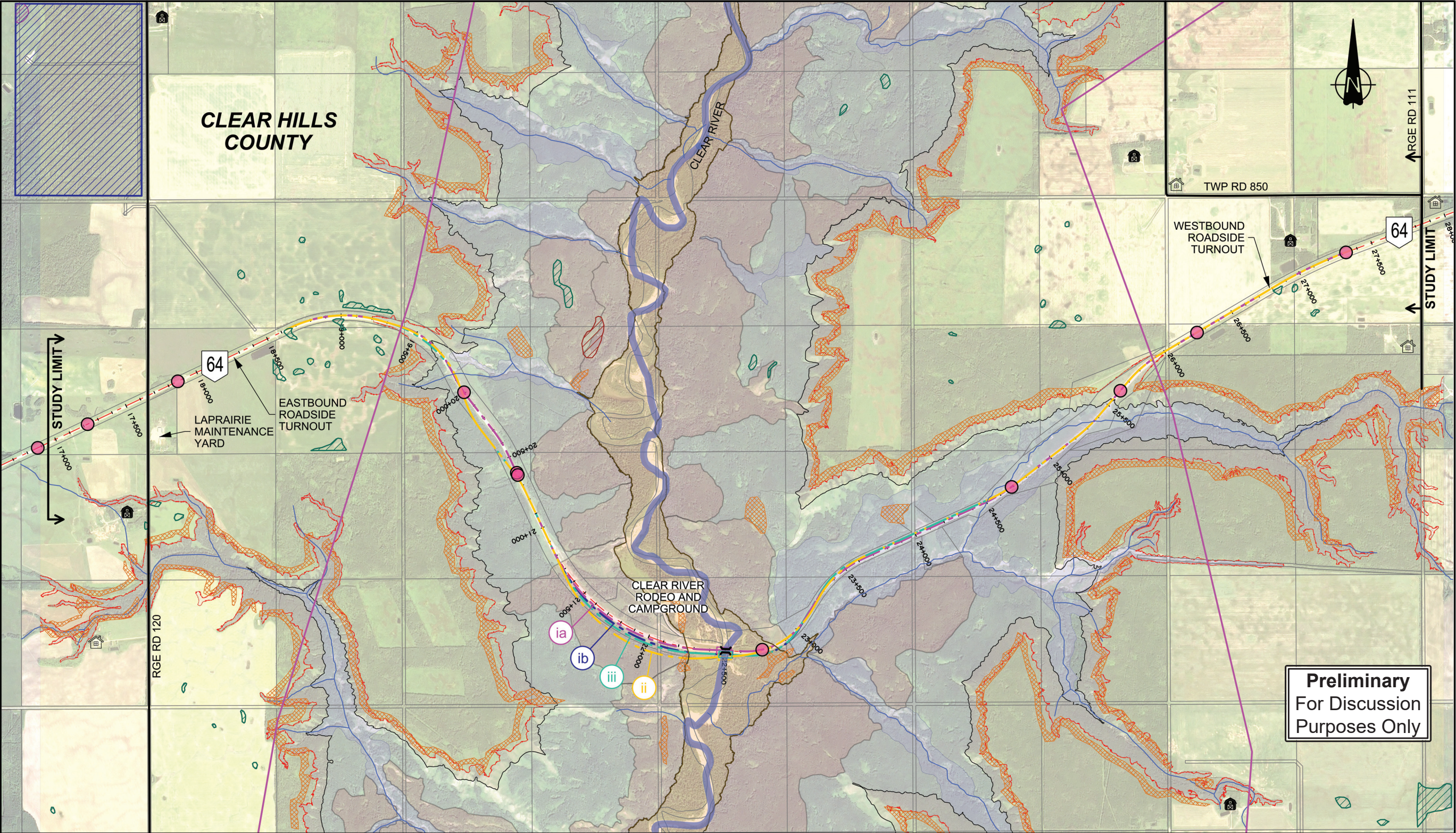
Eight (8) stakeholders and Twenty (20) members of the public attended the stakeholder meeting and public information session.

The November 2022 sessions focused on development of new alignment options for Highway 64.

























Common themes from the November 2022 sessions included:

- Option E was preferred between the two new realignment alternatives
- General concern for:
 - The cost implications and land impacts associated with a new alignment
 - That any new construction would maintain the existing steep grade (10%)
 - The underlying problem of slide activity in the valley may remain in the long-term
- That the potential funding be used towards upgrading the existing alignment, particularly related to the curve/grade on the west side of the crossing.

Existing Alignment Alternatives



Preliminary
For Discussion
Purposes Only

<div>CONSULTANT</div> <div></div> <div>PROJECT NO. E00791A</div>		<div>LEGEND</div> <div><div>ROADWAY</div><div> EXISTING HIGHWAY 64 CENTRELINE</div><div> MUNICIPAL ROADWAY</div><div> BRIDGE</div><div> ALIGNMENT OPTION</div></div>	<div>ENVIRONMENTAL</div> <div> WETLAND</div> <div> SHALLOW OPEN WATER</div> <div> PEATLAND</div> <div> SHARP TAILED GROUSE SURVEY AREA</div> <div> KEY WILDLIFE AND BIODIVERSITY ZONE</div> <div> WATERCOURSE</div> <div> ANIMAL-VEHICLE COLLISIONS</div>	<div>GEOTECHNICAL</div> <div> TOP OF VALLEY</div> <div> SURFACE WATER EROSION-MOSTLY SURFICIAL DEPOSITS</div> <div> ACTIVE TRIBUTARY CREEKS EROSION AND LANDSLIDES</div> <div> ACTIVE LANDSLIDES</div> <div> SEMI-ACTIVE LANDSLIDES</div> <div> ALLUVIUM</div> <div> GLACIOLACUSTRINE</div> <div><div>NOTE:</div><div>THE CHANNEL OF THE CLEAR RIVER HAS SUBSTANTIALLY DEVIATED FROM WHAT IS SEEN IN THE HISTORIC SURVEYED BOUNDARIES.</div></div>	<div>LAND DEVELOPMENT</div> <div> ACREAGE</div> <div> FARMSTEAD</div> <div><div>HISTORICAL</div><div> POTENTIAL HRIA TARGET AREAS</div></div> <div><div>SCALE</div><div> 0 100 250 500 m</div></div>	<div>ALIGNMENT OPTIONS ia-iii</div> <div>HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)</div> <div>FUNCTIONAL PLANNING STUDY</div>				<div></div>
						<div>PHOTOGRAPHY DATE</div> <div>16-08-2020</div>	<div>LOCATION</div> <div>HIGHWAY 64:02</div>	<div>DATE</div> <div>2024-09-09</div>	<div>FIGURE</div> <div>7.6</div>	<div>DRAWING</div> <div>R-1270-PL076</div>

Existing Alignment Alternatives

Current Practice

- Reactive maintenance
- No new or extended climbing lanes

Option ia

- Minimum Upgrade to an 80 km/h design speed
- Bridge is replaced on existing alignment
- Full climbing lanes

Option ib

- Minimum Upgrade to an 80 km/h design speed
- Bridge replaced 25m south of existing
- Full climbing lanes

Option iii

- Upgrade to a 90 km/h design speed
- Bridge replaced 25m south of existing
- Full climbing lanes

Option ii

- Upgrade to a 110 km/h design speed
- Bridge replaced 45m south of existing
- Full climbing lanes

Preliminary Screening (2024) – Existing Alignment

Criteria No.:		1	2	3	4	5		6	7	8			
DESCRIPTION:	Roadway Class Based on Design Speed	Compati- bility with Arterial Class	Operational: Extent of Climbing Lanes	Environ- mental & Historical Resources	Bridge Placement & River Training	Long-Term Geotechnical Stability		Traffic Disruption & Construct- ability During Construction	Stageability (Ease of Upgrading Over Several Years)	Scope and Cost			
						a) Design Require- ments	b) Service Life & Risk			Land Requirements	Disposal of Surplus Fill	Preliminary Cost Estimate	
ALIGNMENT OPTIONS													
Current Practice (Reactive Maintenance Work)		Local	Worst	Poor	Best	Moderate	Worst	Worst	Worst	Best	Best	Best	Good
ia	Minimum Upgrade (Existing Bridge Location)	Local	Worst	Best	Good	Moderate	Poor	Moderate	Worst	Good	Best	Good	Moderate
ib	Minimum Upgrade (New South Bridge Location)	Local	Worst	Best	Good	Moderate	Poor	Moderate	Good	Good	Best	Good	Moderate
iii	Modest Upgrade (90 km/h design speed)	Collector	Poor	Best	Good	Moderate	Poor	Moderate	Poor	Poor	Poor	Poor	Poor
ii	Preferred Standard (110 km/h design speed)	Arterial	Moderate	Best	Good	Moderate	Moderate	Good	Worst	Worst	Worst	Worst	Worst

Screening Criteria

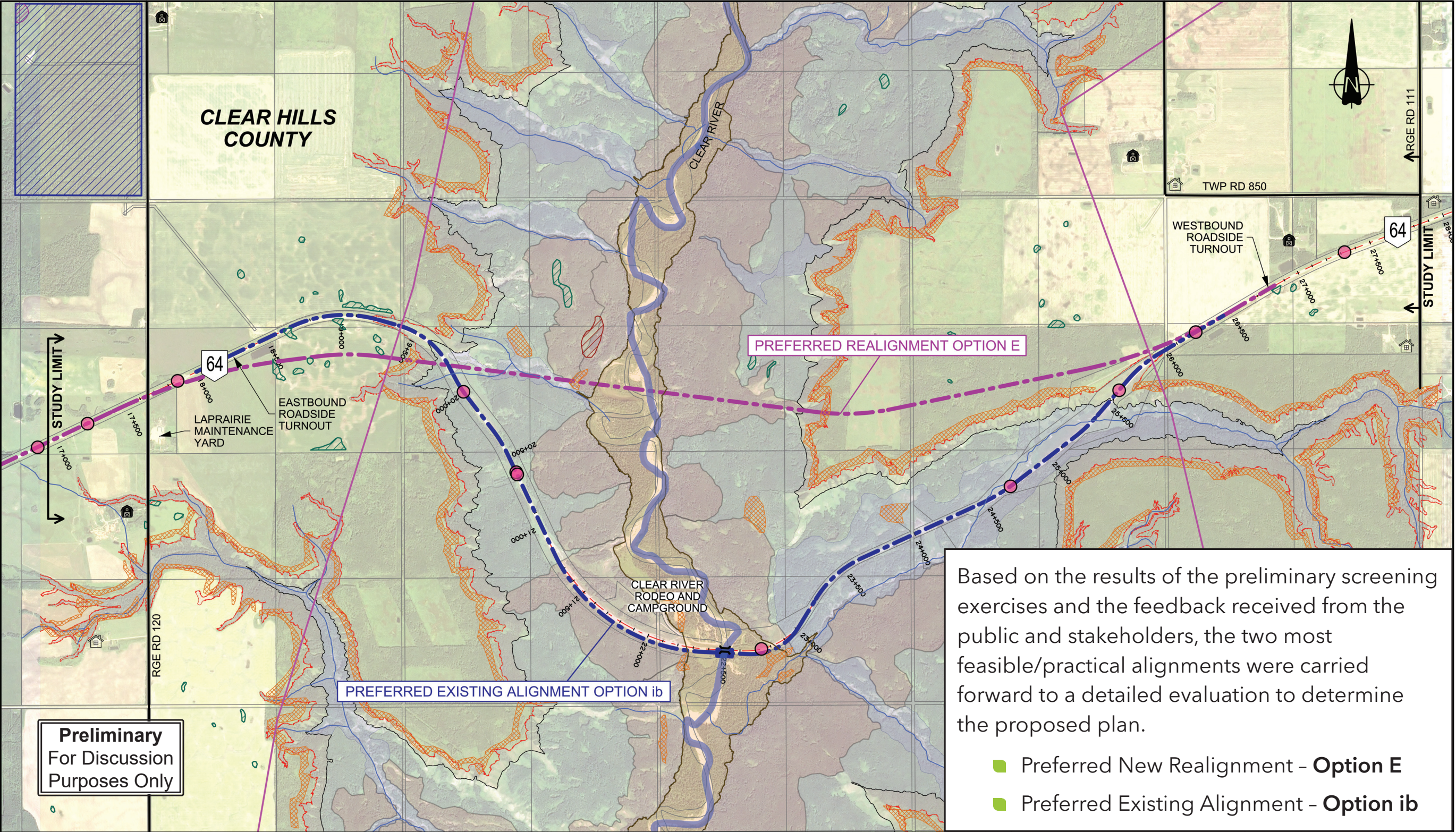
- Compatibility with Current Highway Classification**
- Extent of Climbing Lanes** – The four upgrade options all include full climbing lanes
- Environmental & Historical Resources**
Impact on watercourse crossings, fisheries, wetlands and historical resources.
- Bridge Placement & River Training** – Ability to stabilize the river and build the bridge structure
- Geotechnical Stability**
Compares design requirements to establish a stable roadway and minimize risk of future failures and road closures.

RANKING LEGEND

Scale:	Poor Outcomes			Better Outcomes	
	Worst	Poor	Moderate	Good	Best

- Detours (Traffic Disruption & Constructability)**
Extent of disruption to traffic flow and access and ease of construction.
- Stageability** – Ease of upgrading over several years
- Scope & Cost**
 - Comparison of land requirements both in & above the river valley
 - Amount of surplus material, including disposal impacts, ability to adjust design to improve material balance
 - Anticipated construction and property costs

Preferred Alternatives



Based on the results of the preliminary screening exercises and the feedback received from the public and stakeholders, the two most feasible/practical alignments were carried forward to a detailed evaluation to determine the proposed plan.

- Preferred New Realignment - **Option E**
- Preferred Existing Alignment - **Option ib**

FINAL ALIGNMENT OPTIONS

HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY)
FUNCTIONAL PLANNING STUDY

Alberta

PHOTOGRAPHY DATE 16-08-2020	LOCATION HIGHWAY 64:02	DATE 2024-09-09	FIGURE 7.7	DRAWING R-1270-PL077
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Final Screening – Proposed Alignment Option

Criteria No.:		1	2	3	4		5	6	7	8			
DESCRIPTION:		Roadway Class Based on Design Speed	Compati- bility with Arterial Class	Environ- mental & Historical Resources	Bridge Placement & River Training	Long-Term Geotechnical Stability		Detours (Traffic Disruption & Construct- ability)	Stageability (Ease of Funding & Upgrading Over Several Years)	Impact to Land Use (Campground Access & Fragmentation)	Scope and Cost		
						(a) Risk and Uncertainty	(b) Estimated Service Life				Land Requirements	Disposal of Surplus Fill	Preliminary Cost Estimate
ALIGNMENT OPTION													
ib	Existing Highway Alignment (Minimum Upgrade)	Local	Worst	Good	Good	Poor	Poor	Good	Good	Best	Best	Poor	Poor
E	New Highway Alignment (Preferred Standard)	Arterial	Moderate	Poor	Poor	Moderate	Good	Best	Worst	Poor	Worst	Best	Worst

Screening Criteria

1. Compatibility with Current Highway Classification

2. Environmental & Historical Resources

Impact on watercourse crossings, fisheries, wetlands and historical resources.

3. Bridge Placement & River Training

Ability to stabilize the river and build the bridge structure.

4. Geotechnical Stability

Compares design requirements to establish a stable roadway and minimize risk of future failures and road closures.

5. Stageability

Ease of upgrading over several years

6. Detours (Traffic Disruption & Constructability)

Extent of disruption to traffic flow and access and ease of construction

7. Impact to Land Use

Access to campground and fragmentation of existing agricultural and grazing areas.

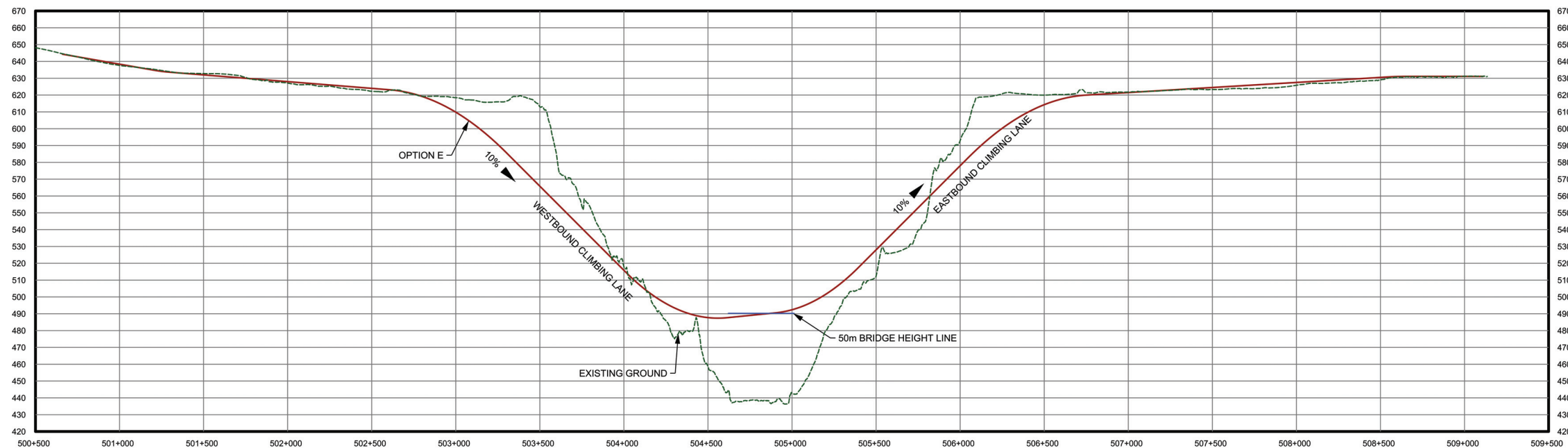
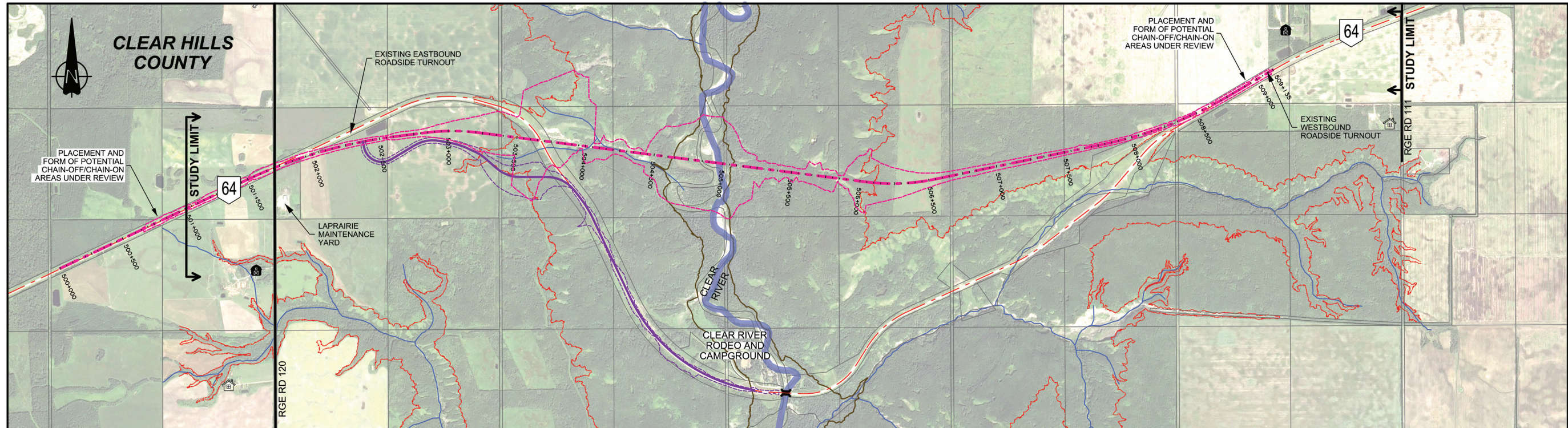
8. Scope & Cost

- Comparison of land requirements both in & above the river valley
- Amount of surplus material, including disposal impacts, ability to adjust design to improve material balance
- Anticipated construction and property costs

RANKING LEGEND

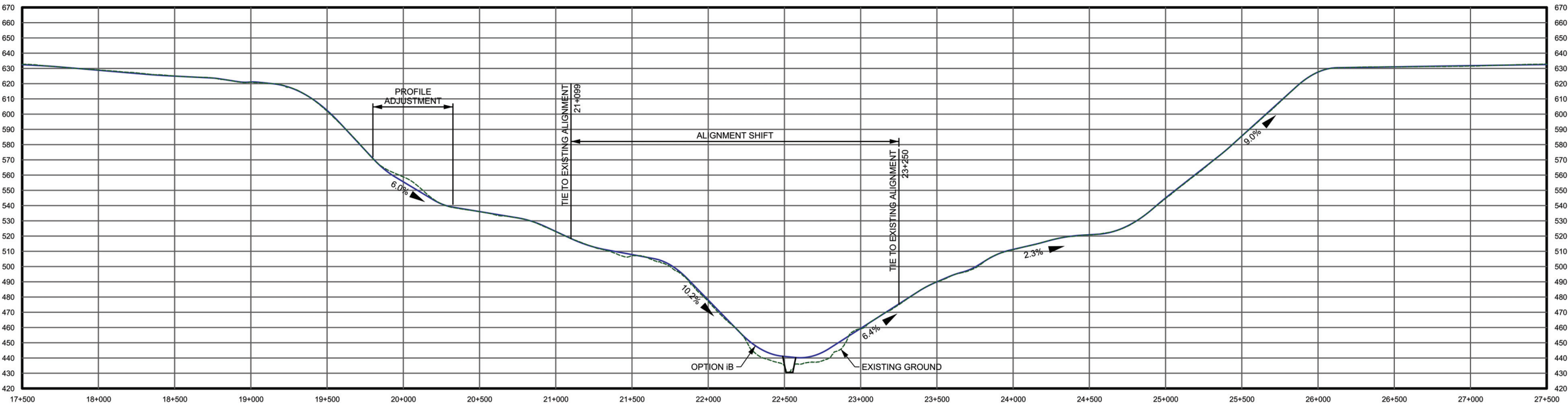
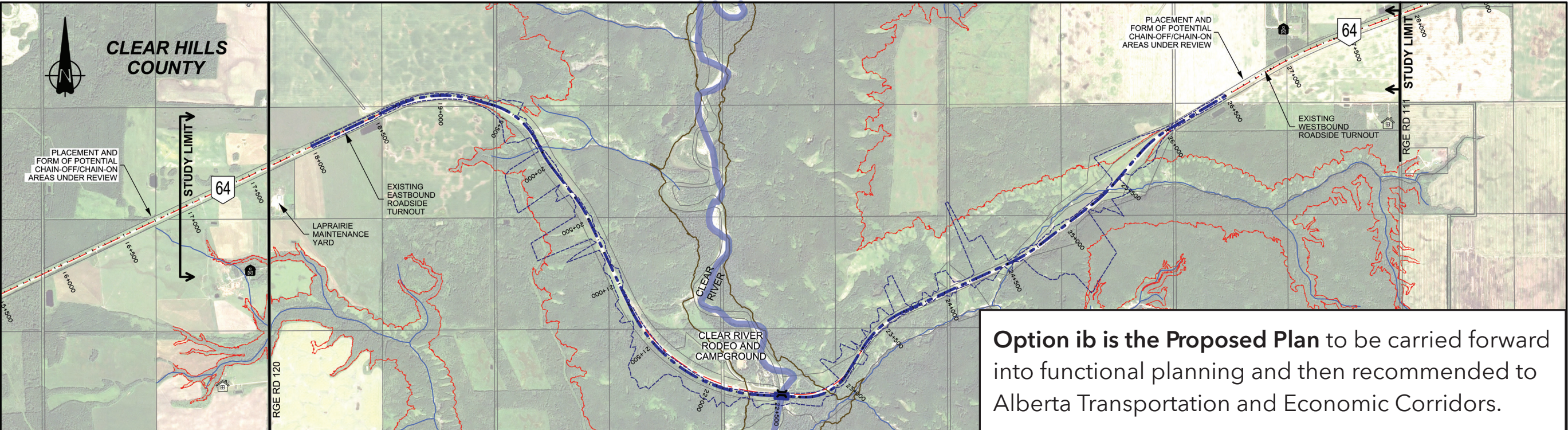
Scale:	Poor Outcomes				Better Outcomes	
	Worst	Poor	Moderate	Good	Best	

Preferred New Alignment - Option E



CONSULTANT 	LEGEND ROADWAY — EXISTING HIGHWAY 64 CENTRELINE — MUNICIPAL ROADWAY — BRIDGE — OPTION E — RODEO AND CAMPGROUND ACCESS — CUT / FILL LINES ENVIRONMENTAL — WATERCOURSE GEOTECHNICAL — TOP OF VALLEY — TOE OF SLOPE LAND DEVELOPMENT — ACREAGE — FARMSTEAD	Preliminary For Discussion Purposes Only	NOTE: THE CHANNEL OF THE CLEAR RIVER HAS SUBSTANTIALLY DEVIATED FROM WHAT IS SEEN IN THE HISTORIC SURVEYED BOUNDARIES.	PREFERRED REALIGNMENT OPTION E HIGHWAY 64 ALIGNMENT (CLEAR RIVER VALLEY) FUNCTIONAL PLANNING STUDY				
				PHOTOGRAPHY DATE 16-08-2020	LOCATION HIGHWAY 64:02	DATE 2024-09-09	FIGURE 7.5	
PROJECT NO. E00791A		SCALE 0 100 250 500 m						

Preferred Existing Alignment (Proposed Plan) – Option ib



Next Steps

- Review and summarize Information Session comments
- Confirm proposed alternative (Option ib)
- Assess to finalize environmental, stormwater, bridge planning, and geotechnical requirements
- Develop functional plans
- Follow-up with Landowners & Grazing Lease Holders
- Recommended Final Plan to Alberta Transportation and Economic Corridors



Highway 64, Looking East Across the Clear River Valley

Thank you for Attending!



Your input is important. **Please fill out a comment form.**



Was the information provided helpful in understanding the study?

Please provide your general comments on the study information presented.



Information session information and final study recommendations will be available at:

<https://www.alberta.ca/highway-64-clear-river-valley.aspx>