

# Highway 744 Alignment Little Smoky River Valley Functional Planning Study

Information Session

October 24, 2024 - 4:00 to 8:00 pm

Club Etoile, Girouxville

# WELCOME



*Highway 744 Smoky River Bridge Looking South*

# Welcome

Highway 744 Alignment  
Little Smoky River Valley  
Functional Planning Study

## Information Session #1

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

**The purpose of this information session is to:**

- Introduce the study process
- Outline the study objectives and organization
- Present the constraints and factors affecting development of a realignment plan
- Share the alignments explored for Highway 744
- Gather your comments and input

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



## Study Background

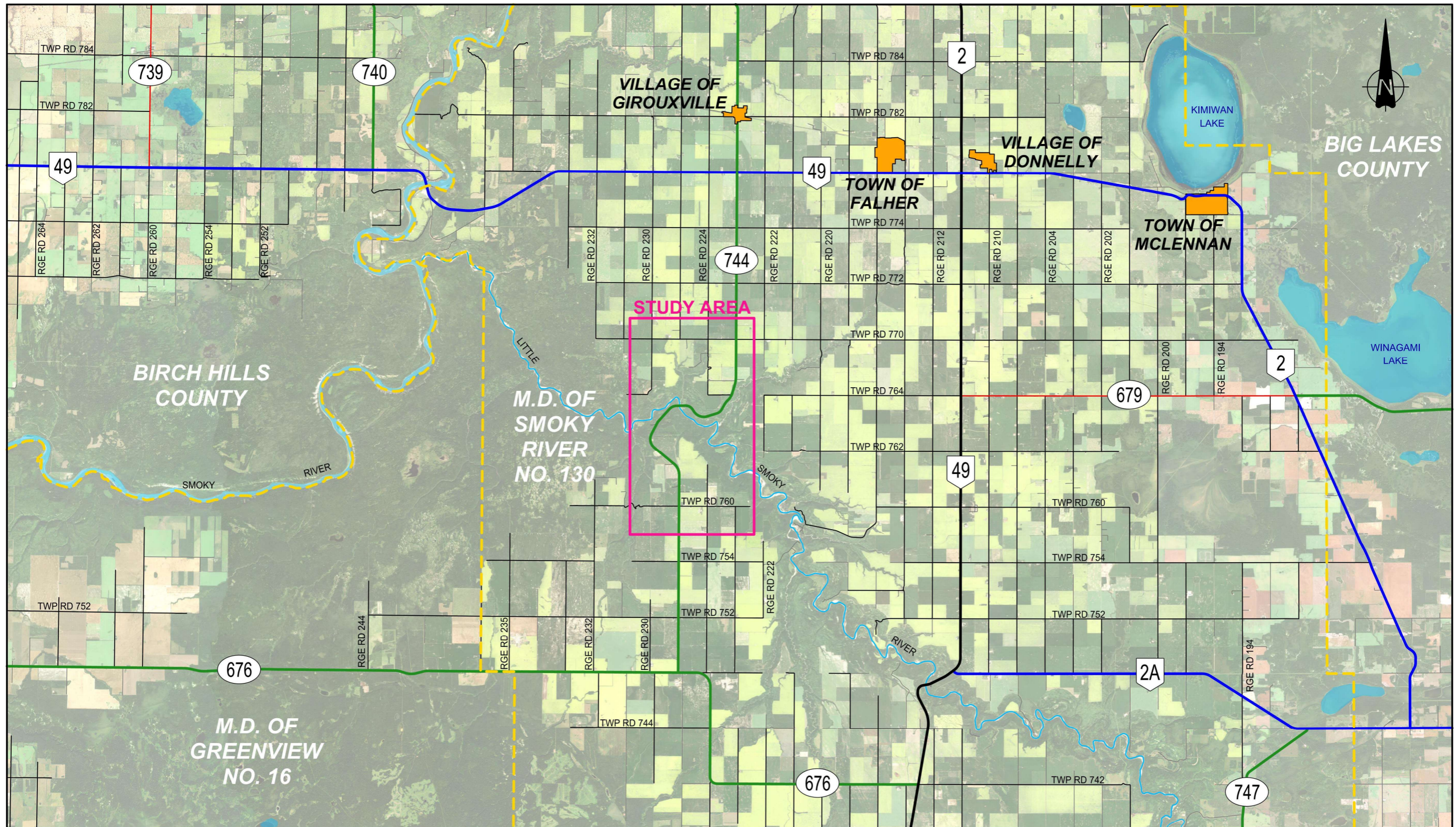
- Highway 744 is a minor two-lane, inter-regional highway facility
- It connects Highway 676 to the south with Highway 49, Girouxville, and Falher to the north
- Important to the local community, the crossing accommodates agricultural, resource and recreational access and local travel
- With many active slide locations, the existing crossing is increasingly at risk of disruption or temporary closure
- The existing bridge will soon need a major rehabilitation or replacement



*Existing Highway 64 Looking East Across the Little Smoky River*



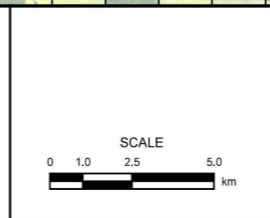
# Study Location & Regional Roadway Network



CONSULTANT  
**CIM+**  
 PROJECT NO. E00830A

| LEGEND |                            |
|--------|----------------------------|
|        | PROVINCIAL HIGHWAY LEVEL 1 |
|        | PROVINCIAL HIGHWAY LEVEL 2 |
|        | PROVINCIAL HIGHWAY LEVEL 3 |
|        | PROVINCIAL HIGHWAY LEVEL 4 |
|        | MUNICIPAL ROADWAY          |
|        | STUDY AREA                 |
|        | M.D./COUNTY BOUNDARY       |
|        | TOWN/VILLAGE BOUNDARY      |

**Preliminary  
For Discussion  
Purposes Only**



**STUDY LOCATION**  
 HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)  
 FUNCTIONAL PLANNING STUDY

|                                |                            |                    |               |
|--------------------------------|----------------------------|--------------------|---------------|
| PHOTOGRAPHY DATE<br>09-17-2020 | LOCATION<br>HIGHWAY 744:02 | DATE<br>2024-09-10 | FIGURE<br>1.2 |
|--------------------------------|----------------------------|--------------------|---------------|

*Alberta*

DRAWING  
**R-1313-PL002**



## Study Purpose

To determine the most viable long-term river crossing location along with the best highway alignment to avoid the current geohazards.

## Study Objectives

To develop a technically feasible alignment plan that:

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

## Study Outcome

The outcome of this study will:

- Help the province understand the most practical and feasible alignment for Highway 744 crossing the Little Smoky River Valley.



# Working Together

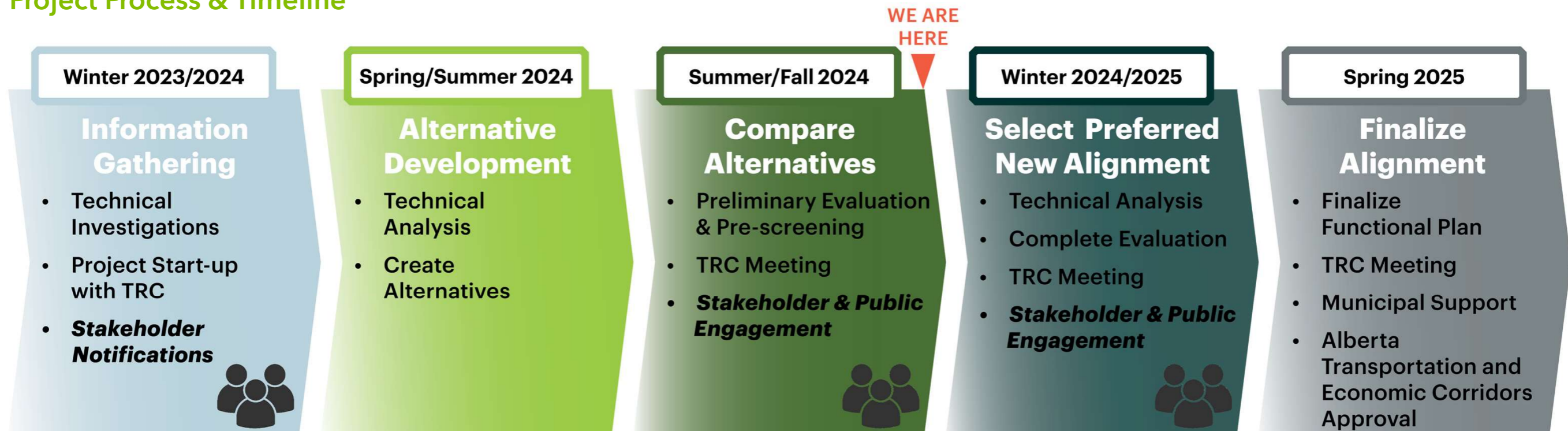
## Technical Review Committee (TRC)

- The Municipal District of Smoky River is a member of the Technical Review Committee
- **The Technical Review Committee guides the study process at key points**

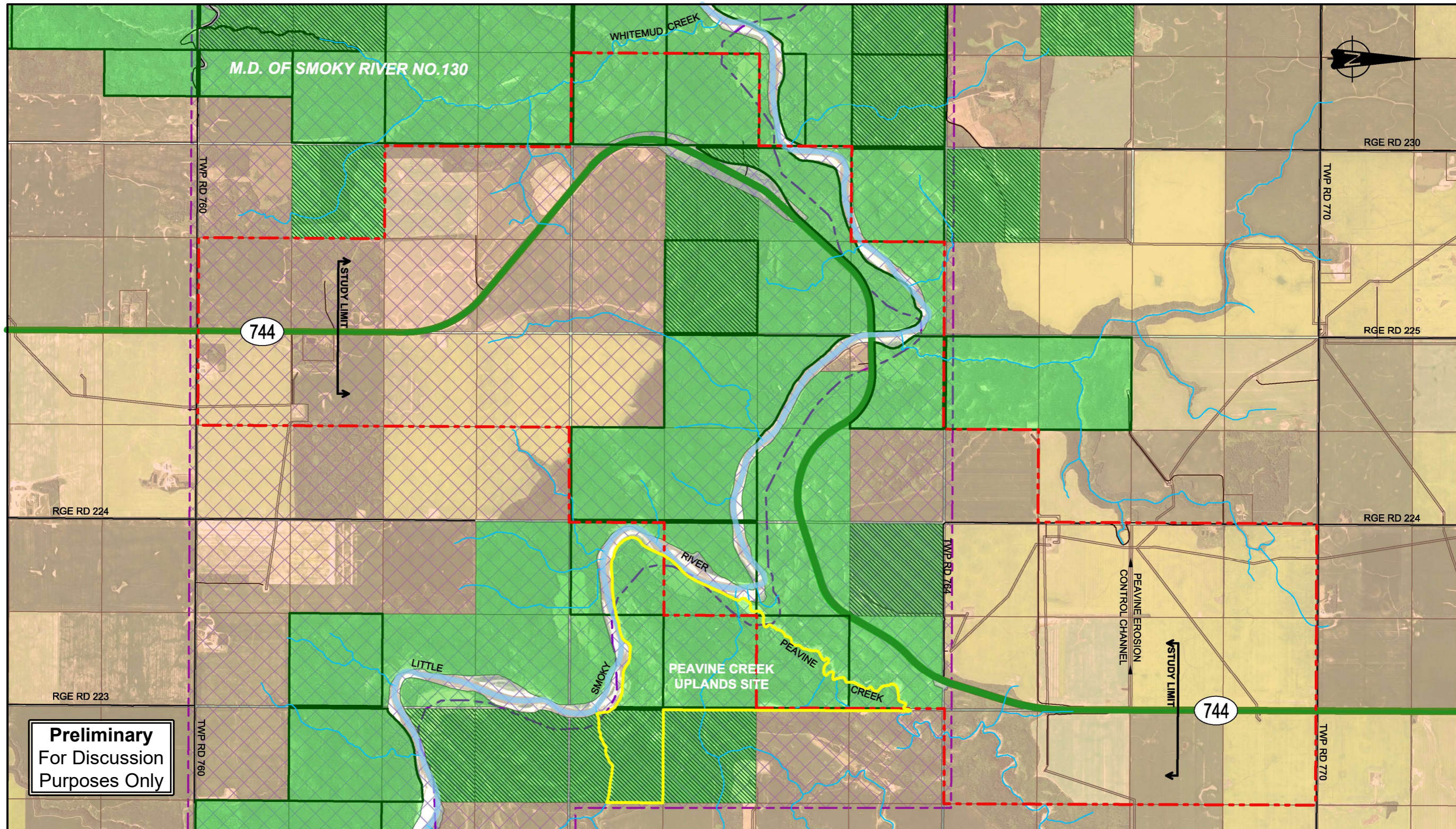
## Stakeholders & Members of the Public

- The study team will obtain feedback on alternatives and outcomes

## Project Process & Timeline







**Preliminary**  
For Discussion  
Purposes Only

CONSULTANT  
  
 PROJECT NO. E00830A

**LEGEND**

|   |  |   |
|---|--|---|
|  LEVEL 3 HWY CLASSIFICATION    |  POTENTIALLY IMPACTED STAKEHOLDER BOUNDARY      |  WATERCOURSE |
|  MUNICIPAL ROADWAY             |  ALBERTA CONSERVATION ASSOCIATION AREA BOUNDARY |   |
|  CROWN LAND PARCEL             |  CROWN LAND RESERVATION AREA BOUNDARY           |   |
|  CROWN LAND WITH GRAZING LEASE |  REGISTERED FUR MANAGEMENT AREA                 |   |
|  FREEHOLD LAND                 |  |   |

SCALE  
 0 0.2 0.5 1.0  
 km

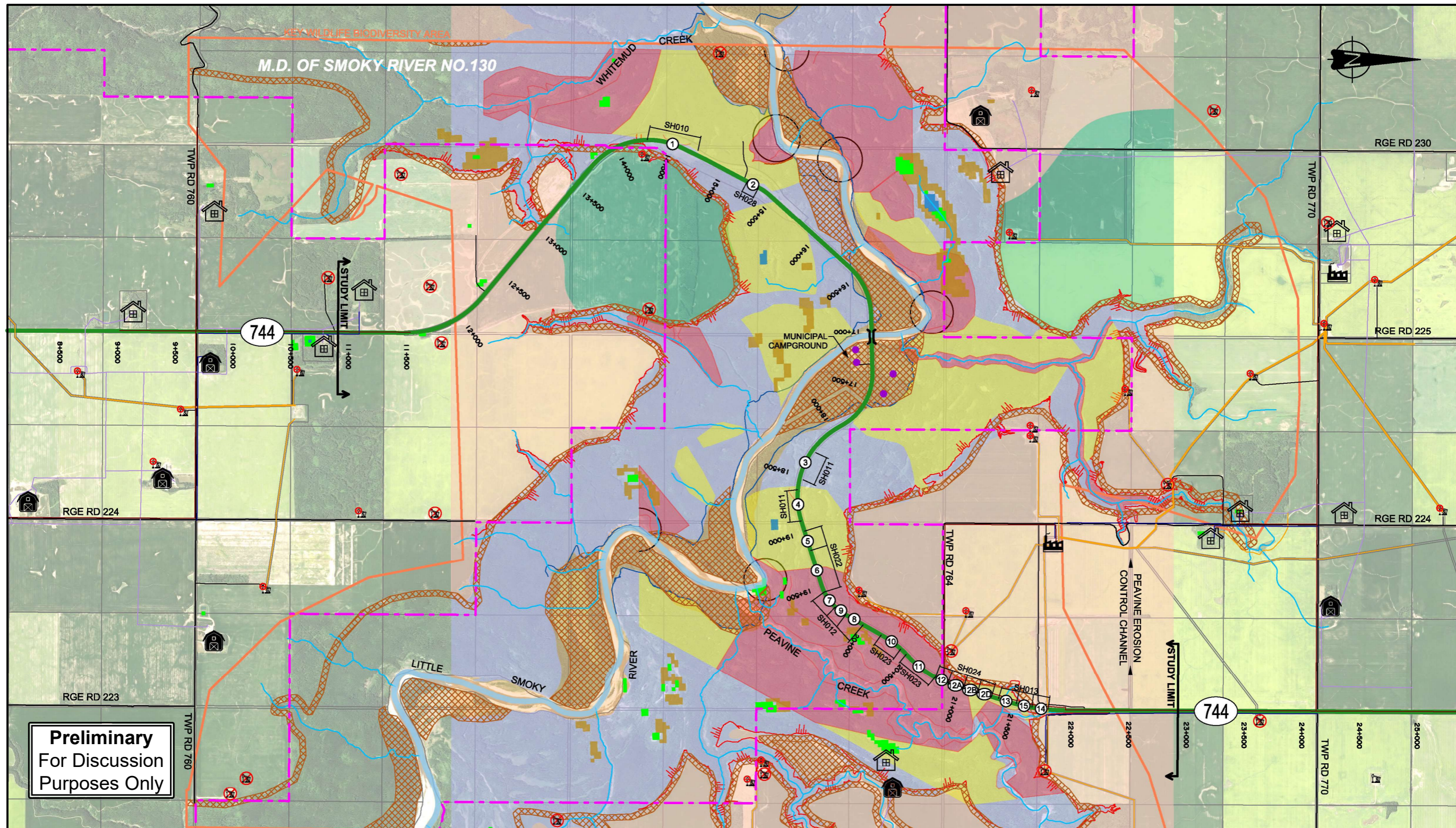
**LAND USE**  
 HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)  
 FUNCTIONAL PLANNING STUDY

|                                |                            |                    |               |                         |
|--------------------------------|----------------------------|--------------------|---------------|-------------------------|
| PHOTOGRAPHY DATE<br>09-17-2020 | LOCATION<br>HIGHWAY 744:02 | DATE<br>2024-09-30 | FIGURE<br>1.4 | DRAWING<br>R-1313-PL004 |
|--------------------------------|----------------------------|--------------------|---------------|-------------------------|





# Existing Conditions

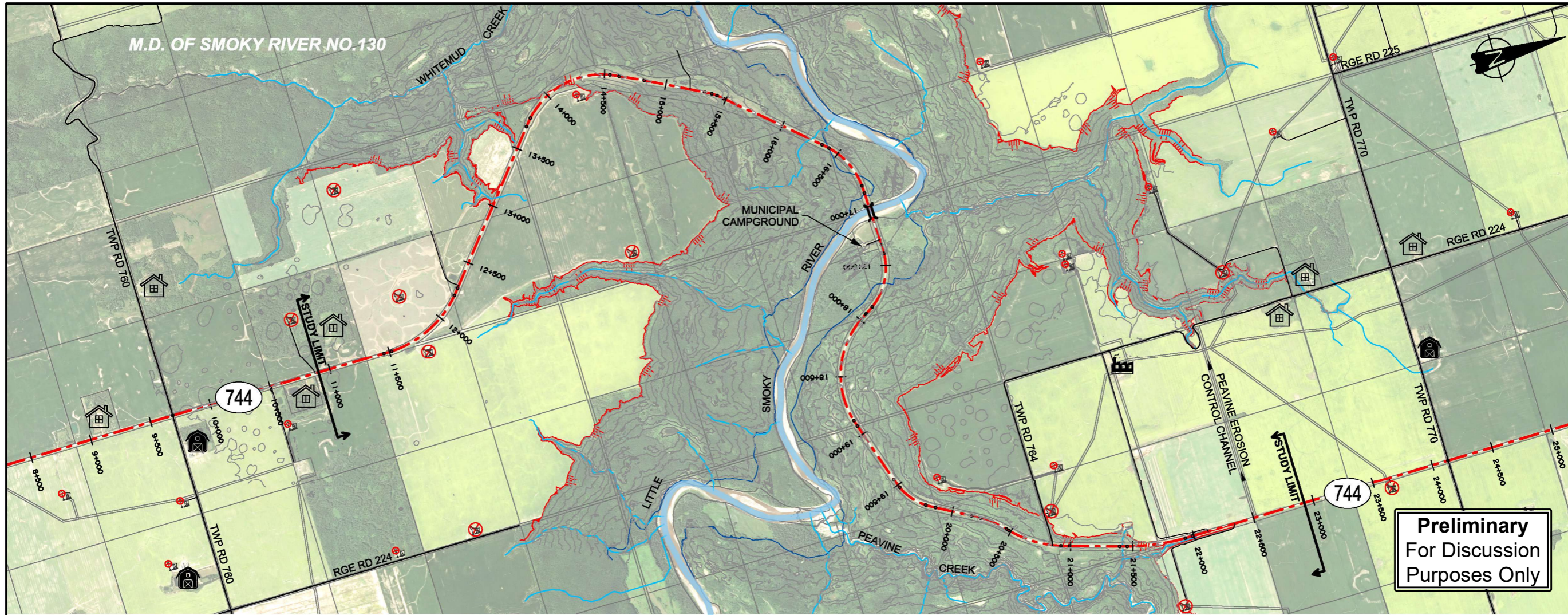


Preliminary  
For Discussion  
Purposes Only

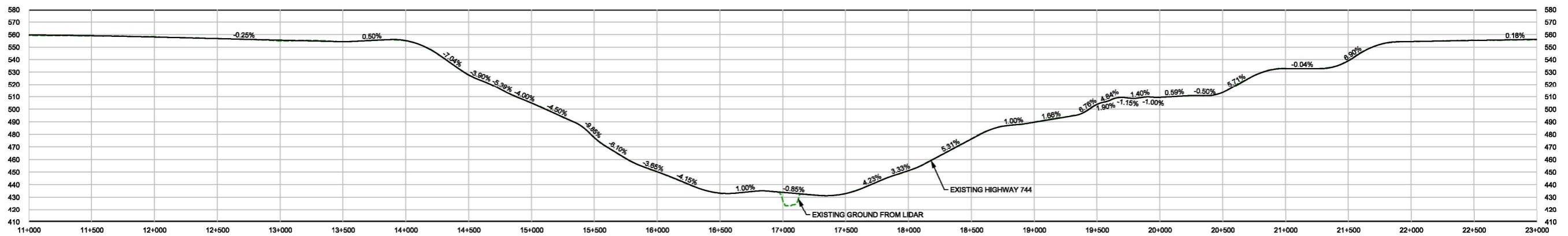
|                       |  |  |   |   |  |  |                           |                                |                            |  |
|-----------------------|--|--|---|---|--|--|---------------------------|--------------------------------|----------------------------|--|
| <b>CONSULTANT</b><br> | <b>LEGEND</b><br><ul style="list-style-type: none"> <li>LEVEL 3 HWY CLASSIFICATION</li> <li>MUNICIPAL ROADWAY</li> <li>CROWN LAND EXTENTS</li> <li>BRIDGE</li> </ul> <b>HISTORICAL</b><br><ul style="list-style-type: none"> <li>POTENTIAL HRIA TARGET AREAS</li> <li>KNOWN HISTORIC RESOURCE, HRV0</li> </ul> | <b>GEOTECHNICAL</b><br><ul style="list-style-type: none"> <li>ALLUVIAL DEPOSITS</li> <li>COLLUVIUM DEPOSITS</li> <li>GLACIOLACUSTRINE</li> <li>EOLIAN DEPOSITS</li> <li>QUITE ACTIVE MOVEMENT</li> <li>MODERATE MOVEMENT</li> <li>TOP OF VALLEY</li> <li>TOE OF VALLEY</li> <li>ACTIVE SCARPS</li> </ul> | <ul style="list-style-type: none"> <li>ACTIVE RIVER EROSION</li> <li>PEACE REGION/ SWAN HILLS DISTRICT SITE NUMBER</li> <li>SUBSITE NUMBERS</li> </ul> <b>ENVIRONMENTAL</b><br><ul style="list-style-type: none"> <li>MARSH</li> <li>OPEN WATER</li> <li>KEY WILDLIFE AND BIODIVERSITY ZONE</li> <li>WATERCOURSE</li> </ul> | <b>UTILITIES</b><br><ul style="list-style-type: none"> <li>ACTIVE WELLHEAD</li> <li>SUSPENDED WELLHEAD</li> <li>ABANDONED WELLHEAD</li> <li>LOW PRESSURE PIPELINE</li> <li>HIGH PRESSURE PIPELINE</li> <li>POWERLINE</li> <li>TELUS TRENCH</li> </ul> | <b>LAND DEVELOPMENT</b><br><ul style="list-style-type: none"> <li>RESIDENCE</li> <li>FARM OPERATION</li> <li>INDUSTRY</li> </ul> | <b>EXISTING CONDITIONS</b><br>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)<br>FUNCTIONAL PLANNING STUDY |                           |                                |                            |  |
|                       |  |  |   |   |  | PROJECT NO. E00830A  | SCALE<br>0 0.2 0.5 1.0 km | PHOTOGRAPHY DATE<br>09-17-2020 | LOCATION<br>HIGHWAY 744:02 |  |



# Existing Highway



**Preliminary**  
For Discussion  
Purposes Only



|                           |                   |                                     |  |  |   |   |  |  |
|---------------------------|-------------------|-------------------------------------|--|--|---|---|--|--|
| <b>CONSULTANT</b><br><br> | <b>LEGEND</b><br> | <b>ENVIRONMENTAL</b><br>WATERCOURSE | <b>GEOTECHNICAL</b><br>TOP OF VALLEY<br>TOE OF VALLEY<br>10m CONTOUR LINES | <b>LAND DEVELOPMENT</b><br>RESIDENCE<br>FARM OPERATION<br>INDUSTRY | <b>UTILITIES</b><br>ACTIVE WELLHEAD<br>SUSPENDED WELLHEAD<br>ABANDONED WELLHEAD | <b>EXISTING HIGHWAY 744</b><br>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)<br>FUNCTIONAL PLANNING STUDY |  |  |
|                           |                   |                                     |  |  |   |   |  |  |



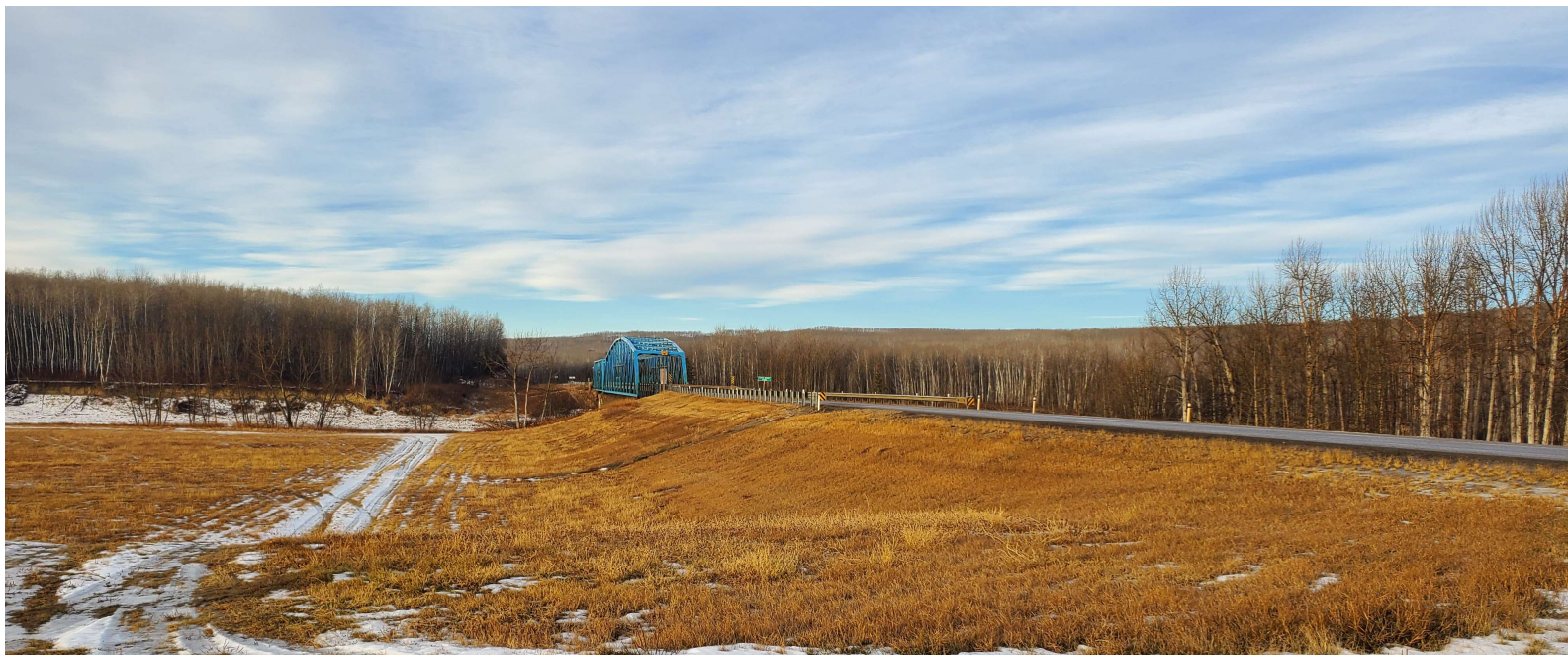
# Alternative Development

Key technical factors in the development of alternatives were:

- Geotechnical stability
- Roadway design standards and constructability
- River stability and bridge placement
- Environmental and historical resources

Preliminary alignment alternatives were developed and reviewed considering desirable technical outcomes.

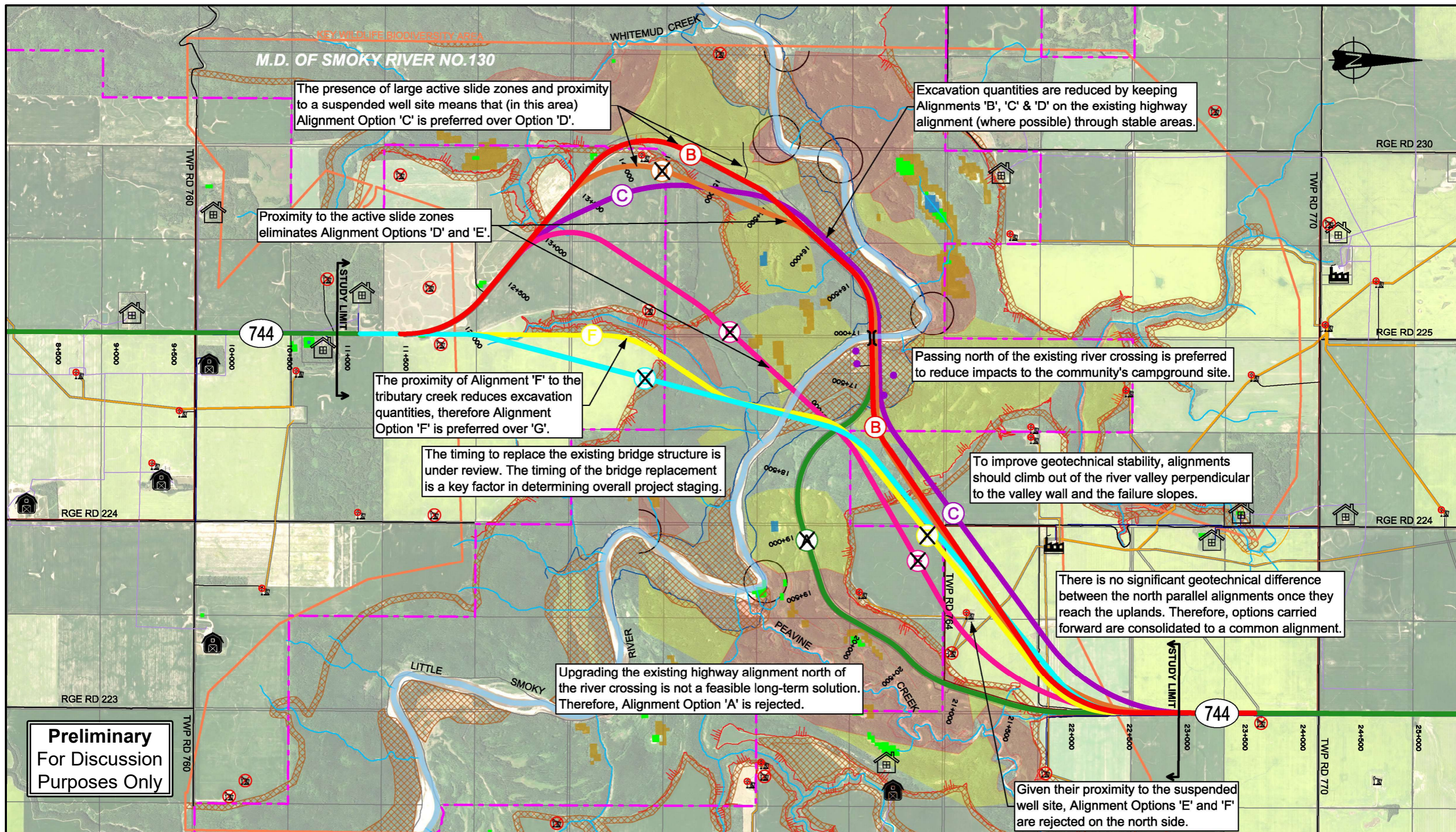
Alignments that provided the most reasonable conditions considering the key technical factors above were carried forward as preferred alternatives.



*Highway 744 Looking Northwest Across the Little Smoky River Valley*



# Preliminary Alignment Alternatives

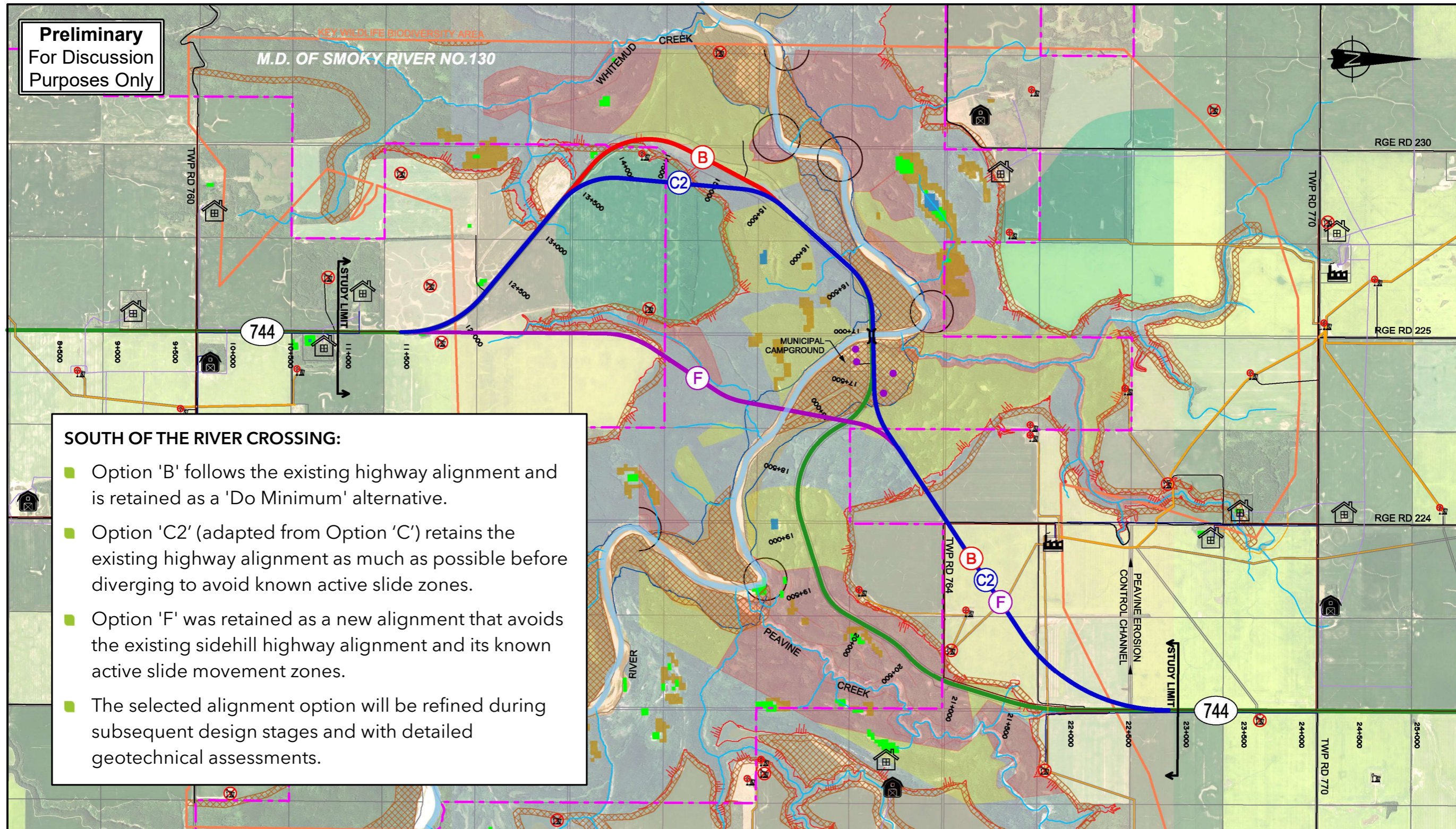


**Preliminary  
For Discussion  
Purposes Only**

|  |   |  |   |   |  |   |                         |
|--|---|--|---|---|--|---|-------------------------|
|  | <b>LEGEND</b><br>LEVEL 3 HWY CLASSIFICATION<br>MUNICIPAL ROADWAY<br>CROWN LAND EXTENTS<br>BRIDGE<br>OPTION NAME<br>HISTORICAL<br>POTENTIAL HRIA TARGET AREAS<br>KNOWN HISTORIC RESOURCE, HRV0 | <b>GEOTECHNICAL</b><br>ALLUVIAL DEPOSITS<br>COLLUVIUM DEPOSITS<br>GLACIOLACUSTRINE<br>EOLIAN DEPOSITS<br>QUITE ACTIVE MOVEMENT<br>MODERATE MOVEMENT<br>TOP OF VALLEY<br>TOE OF VALLEY<br>ACTIVE SCARPS | <b>ENVIRONMENTAL</b><br>MARSH<br>OPEN WATER<br>SWAMP<br>KEY WILDLIFE AND BIODIVERSITY ZONE<br>WATERCOURSE | <b>UTILITIES</b><br>ACTIVE WELLHEAD<br>SUSPENDED WELLHEAD<br>ABANDONED WELLHEAD<br>LOW PRESSURE PIPELINE<br>HIGH PRESSURE PIPELINE<br>POWERLINE<br>TELUS TRENCH | <b>LAND DEVELOPMENT</b><br>RESIDENCE<br>FARM OPERATION<br>INDUSTRY | <b>PRELIMINARY ALIGNMENTS</b><br>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)<br>FUNCTIONAL PLANNING STUDY |                         |
|  | PROJECT NO. E00830A   | SCALE<br>0 0.2 0.5 1.0 km  | PHOTOGRAPHY DATE<br>09-17-2020  | LOCATION<br>HIGHWAY 744:02  | DATE<br>2024-09-10   | FIGURE<br>1.6   | DRAWING<br>R-1313-PL006 |



# Potentially Feasible Alignment Alternatives



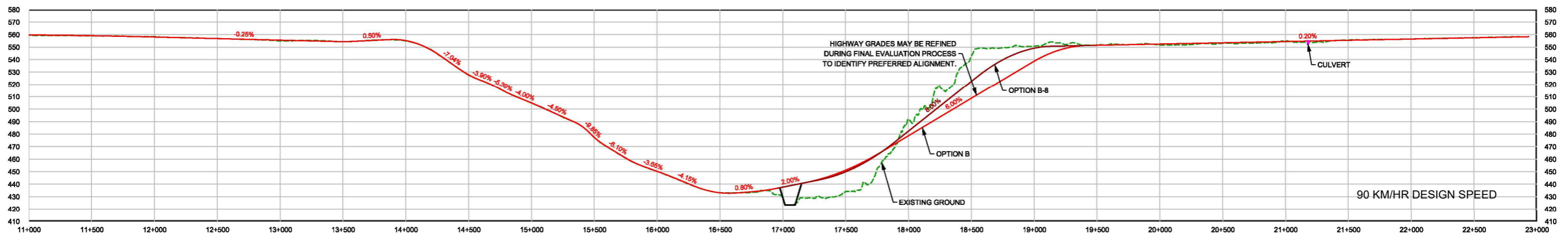
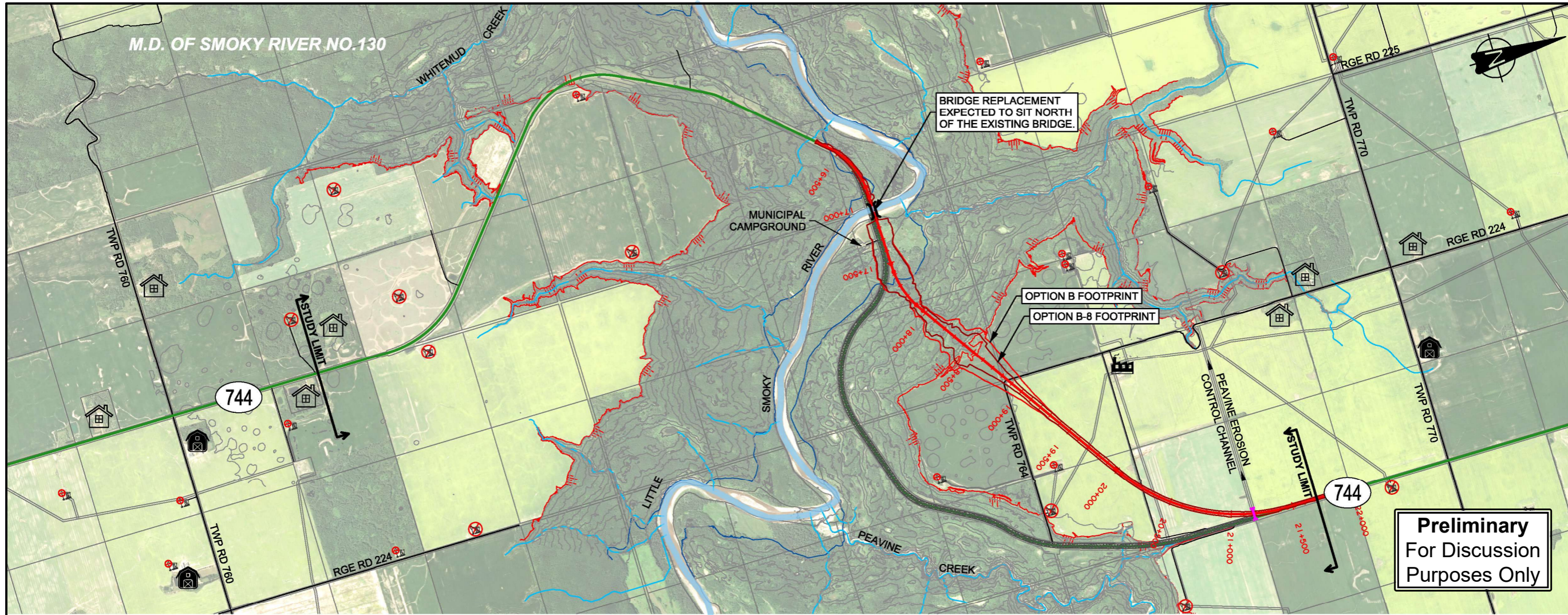
**Preliminary**  
For Discussion  
Purposes Only

- SOUTH OF THE RIVER CROSSING:**
- Option 'B' follows the existing highway alignment and is retained as a 'Do Minimum' alternative.
  - Option 'C2' (adapted from Option 'C') retains the existing highway alignment as much as possible before diverging to avoid known active slide zones.
  - Option 'F' was retained as a new alignment that avoids the existing sidehill highway alignment and its known active slide movement zones.
  - The selected alignment option will be refined during subsequent design stages and with detailed geotechnical assessments.

|  |   |  |   |   |  |   |                         |  |
|--|---|--|---|---|--|---|-------------------------|--|
|  | <b>LEGEND</b><br>LEVEL 3 HWY CLASSIFICATION<br>MUNICIPAL ROADWAY<br>CROWN LAND EXTENTS<br>BRIDGE<br>OPTION NUMBER<br>HISTORICAL<br>POTENTIAL HRIA TARGET AREAS<br>KNOWN HISTORIC RESOURCE, HRV0 | <b>GEOTECHNICAL</b><br>ALLUVIAL DEPOSITS<br>COLLUVIUM DEPOSITS<br>GLACIOLACUSTRINE<br>EOLIAN DEPOSITS<br>QUITE ACTIVE MOVEMENT<br>MODERATE MOVEMENT<br>TOP OF VALLEY<br>TOE OF VALLEY<br>ACTIVE SCARPS | ACTIVE RIVER EROSION<br><b>ENVIRONMENTAL</b><br>MARSH<br>OPEN WATER<br>SWAMP<br>KEY WILDLIFE AND BIODIVERSITY ZONE<br>WATERCOURSE | <b>UTILITIES</b><br>ACTIVE WELLHEAD<br>SUSPENDED WELLHEAD<br>ABANDONED WELLHEAD<br>LOW PRESSURE PIPELINE<br>HIGH PRESSURE PIPELINE<br>POWERLINE<br>TELUS TRENCH | <b>LAND DEVELOPMENT</b><br>RESIDENCE<br>FARM OPERATION<br>INDUSTRY | <b>POTENTIALLY FEASIBLE ALIGNMENT OPTIONS</b><br>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)<br>FUNCTIONAL PLANNING STUDY |                         |  |
|  | PROJECT NO. E00830A   | SCALE<br>0 0.2 0.5 1.0 km  | PHOTOGRAPHY DATE<br>09-17-2020  | LOCATION<br>HIGHWAY 744:02  | DATE<br>2024-09-30   | FIGURE<br>1.7   | DRAWING<br>R-1313-PL007 |  |



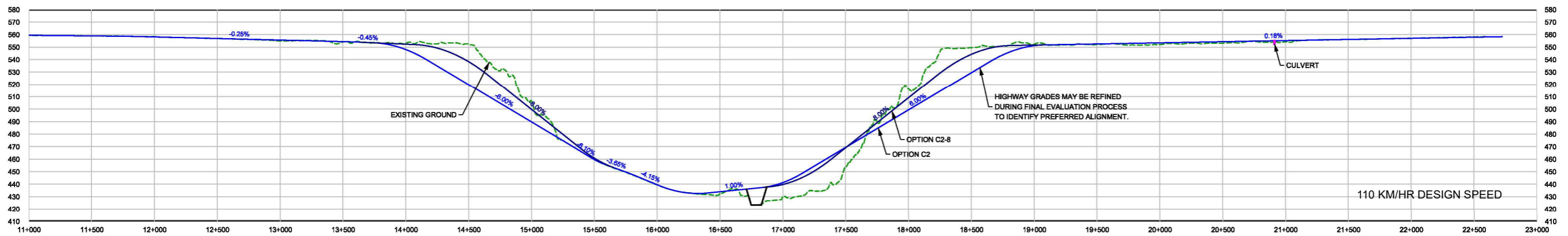
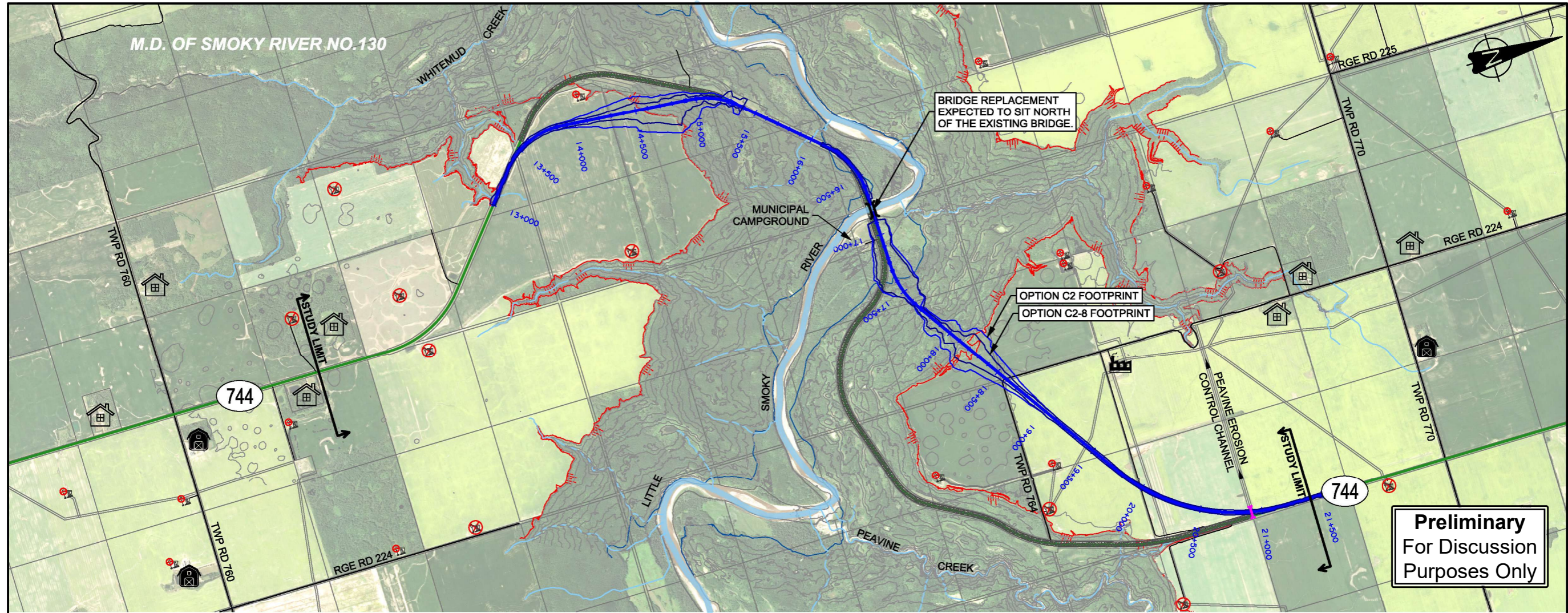
# Option B and Option B-8



|                       |                   |                                     |                           |  |                                |  |                    |   |                         |  |  |  |
|-----------------------|-------------------|-------------------------------------|---------------------------|--|--------------------------------|--|--------------------|---|-------------------------|--|--|--|
| <b>CONSULTANT</b><br> | <b>LEGEND</b><br> | <b>ENVIRONMENTAL</b><br>WATERCOURSE |                           | <b>GEOTECHNICAL</b><br>TOP OF VALLEY<br>TOE OF VALLEY<br>10m CONTOUR LINES |                                | <b>LAND DEVELOPMENT</b><br>RESIDENCE<br>FARM OPERATION<br>INDUSTRY |                    | <b>UTILITIES</b><br>ACTIVE WELLHEAD<br>SUSPENDED WELLHEAD<br>ABANDONED WELLHEAD |                         | <b>OPTIONS B AND B-8</b><br>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)<br>FUNCTIONAL PLANNING STUDY |  |  |
|                       |                   | PROJECT NO. E00830A                 | SCALE<br>0 0.2 0.5 1.0 km |  | PHOTOGRAPHY DATE<br>09-17-2020 | LOCATION<br>HIGHWAY 744:02   | DATE<br>2024-10-09 | FIGURE<br>1.9   | DRAWING<br>R-1313-PL009 |  |  |  |



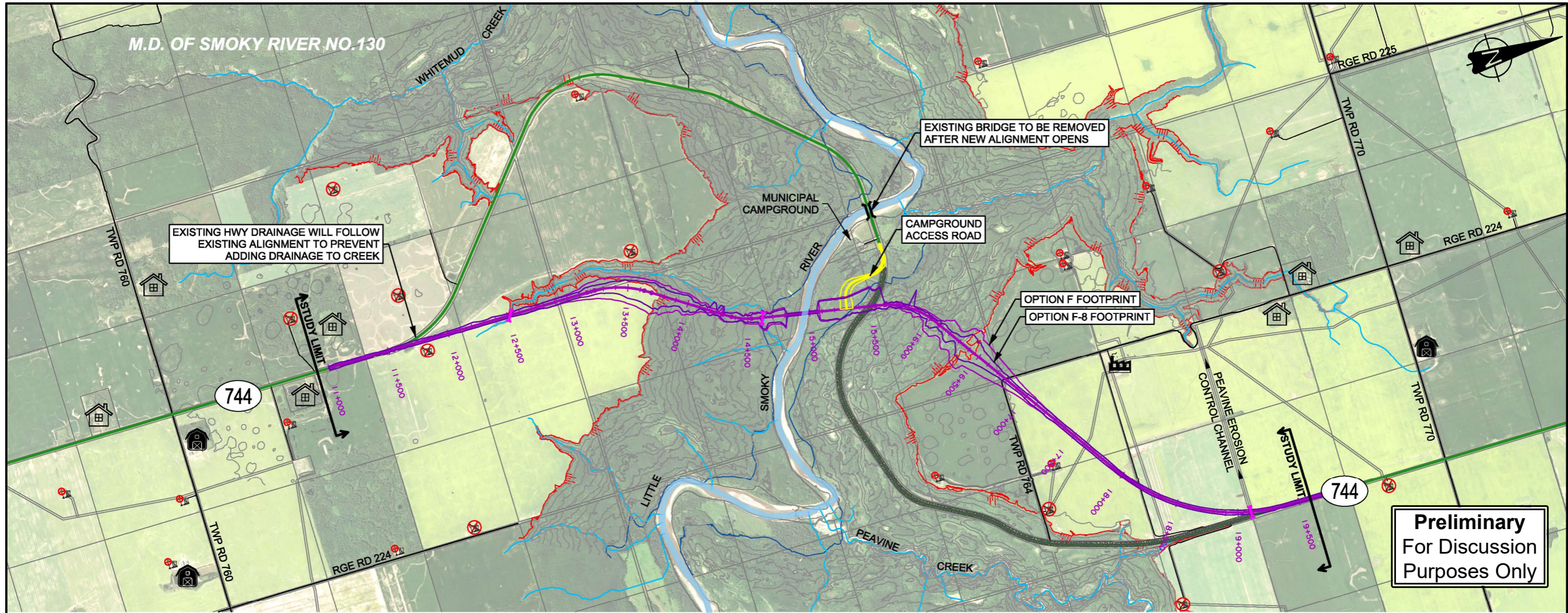
# Option C2 and Option C2-8



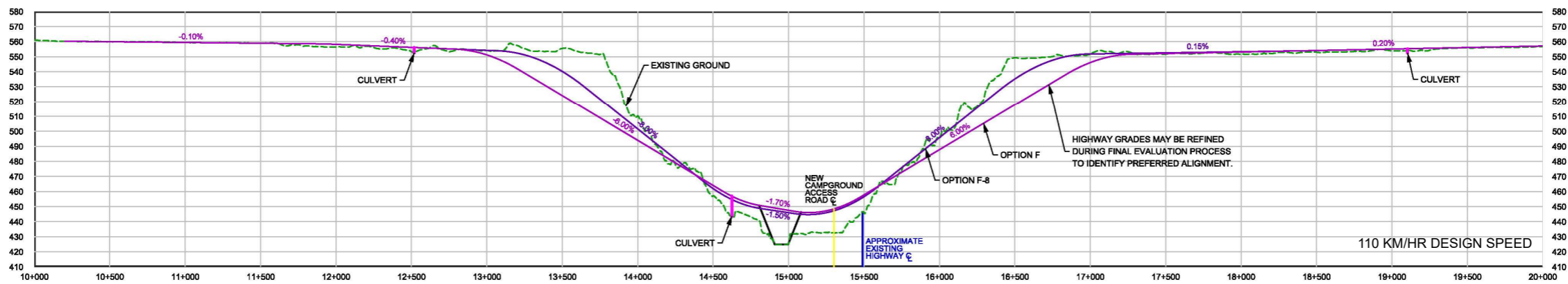
|                       |                   |                          |                         |                             |                      |  |  |  |
|-----------------------|-------------------|--------------------------|-------------------------|-----------------------------|----------------------|--|--|--|
| <b>CONSULTANT</b><br> | <b>LEGEND</b><br> | <b>ENVIRONMENTAL</b><br> | <b>GEOTECHNICAL</b><br> | <b>LAND DEVELOPMENT</b><br> | <b>UTILITIES</b><br> | <b>OPTIONS C2 AND C2-8</b><br><b>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)</b><br><b>FUNCTIONAL PLANNING STUDY</b> |  |  |
|                       |                   |                          |                         |                             |                      |  |  |  |



# Option F and Option F-8



**Preliminary**  
For Discussion  
Purposes Only



|                           |                   |                          |                          |                             |                      |  |                              |                                |                            |  |
|---------------------------|-------------------|--------------------------|--------------------------|-----------------------------|----------------------|--|------------------------------|--------------------------------|----------------------------|--|
| <b>CONSULTANT</b><br><br> | <b>LEGEND</b><br> | <b>ENVIRONMENTAL</b><br> | <b>GEO TECHNICAL</b><br> | <b>LAND DEVELOPMENT</b><br> | <b>UTILITIES</b><br> | <b>OPTIONS F AND F-8</b><br><b>HIGHWAY 744 ALIGNMENT (LITTLE SMOKY RIVER VALLEY)</b><br><b>FUNCTIONAL PLANNING STUDY</b> |                              |                                |                            |  |
|                           |                   |                          |                          |                             |                      | PROJECT NO. E00830A  | SCALE<br>0 0.2 0.5 1.0<br>km | PHOTOGRAPHY DATE<br>09-17-2020 | LOCATION<br>HIGHWAY 744:02 |  |



# Preliminary Screening

| Criteria No.: | 1                      |                   | 2                                    | 3                                 | 4                      |              | 5                                     |              | 6                       |                                  | 7                         |
|---------------|------------------------|-------------------|--------------------------------------|-----------------------------------|------------------------|--------------|---------------------------------------|--------------|-------------------------|----------------------------------|---------------------------|
| OPTION        | Design                 |                   | Environmental & Historical Resources | Bridge Placement & River Training | Geotechnical Stability |              | Staging and Detours                   |              | Impact to Land Use      |                                  | Preliminary Cost Estimate |
|               | % Grade & Design Speed | Campground Access |                                      |                                   | Risk and Uncertainty   | Service Life | Traffic Disruption & Constructability | Stageability | Fragmentation & Removal | Surplus Fill on Quarter Sections |                           |
| B             | Moderate               | Moderate          | Good                                 | Best                              | Poor                   | Worst        | Moderate                              | Good         | Good                    | Moderate                         | Moderate                  |
| B-8           | Poor                   | Good              | Good                                 | Best                              | Moderate               | Poor         | Moderate                              | Good         | Best                    | Best                             | Good                      |
| C2            | Best                   | Poor              | Good                                 | Best                              | Best                   | Good         | Poor                                  | Good         | Poor                    | Worst                            | Poor                      |
| C2-8          | Moderate               | Moderate          | Good                                 | Best                              | Best                   | Good         | Poor                                  | Good         | Moderate                | Best                             | Good                      |
| F             | Best                   | Good              | Worst                                | Good                              | Good                   | Good         | Moderate                              | Worst        | Moderate                | Worst                            | Worst                     |
| F-8           | Moderate               | Good              | Worst                                | Good                              | Good                   | Good         | Moderate                              | Worst        | Good                    | Best                             | Good                      |

## Screening Criteria

### 1. Design

Highway grade & design speed and the changes needed to restore access to the campground

### 2. Environmental & Historical Resources

Impact on watercourse crossings, fisheries and historical resources.

### 3. Bridge Placement & River Training

Structure and bridge design requirements, including river and slope protection needs

### 4. 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 |

### 5. Staging & Detours

Ease of upgrading the project over several years, minimizing disruption to traffic flow & access and ease of construction

### 6. Impact to Land Use

Fragmentation and removal of existing agricultural and grazing areas, impacts due to disposal of surplus fill.

### 7. Preliminary Cost Estimate

Anticipated construction and property costs



## Next Steps

- Review and summarize Information Session comments
- Finalize alignment and include stakeholder input in the review and evaluation of alternatives
- Select proposed alternative
- Assess environmental, stormwater, bridge planning, and geotechnical requirements
- Develop functional plans
- Hold Information Session 2 to present the proposed plan



Highway 744, Looking West Across the Little Smoky River Valley



## Keep In Touch



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.



To receive notification of the next information session, please provide your email address on the comment forms.

Information session information will be available at:  
<https://www.alberta.ca/highway-744-little-smoky-river-valley>

## Thank you for attending!

Please plan to attend the next session in Spring 2025