



WELCOME

ALTALINK

OPEN HOUSE

CHAPEL ROCK TO PINCHER CREEK AREA TRANSMISSION DEVELOPMENT

We have started to develop the Chapel Rock to Pincher Creek Area Transmission Development and the Intertie Restoration Project and we want your input.



Who is AltaLink?

Our transmission lines transport the power you use every day.

Headquartered in Calgary, with offices in Edmonton, Red Deer and Lethbridge, AltaLink is Alberta's largest electricity transmission provider. AltaLink is partnering with its customers to provide innovative solutions to meet the province's demand for reliable and affordable energy.

With a commitment to community and environment, AltaLink is ensuring the transmission system will support Albertans' quality of life for years to come.

Learn more at www.altalink.ca



Project details

The Chapel Rock to Pincher Creek Area Transmission Development includes:

A new 240 kV transmission line, between 41 and 46 km long, connecting a new proposed substation to be called the Chapel Rock Substation, to either the existing Goose Lake Substation or Castle Rock Ridge Substation, both located north of Pincher Creek.

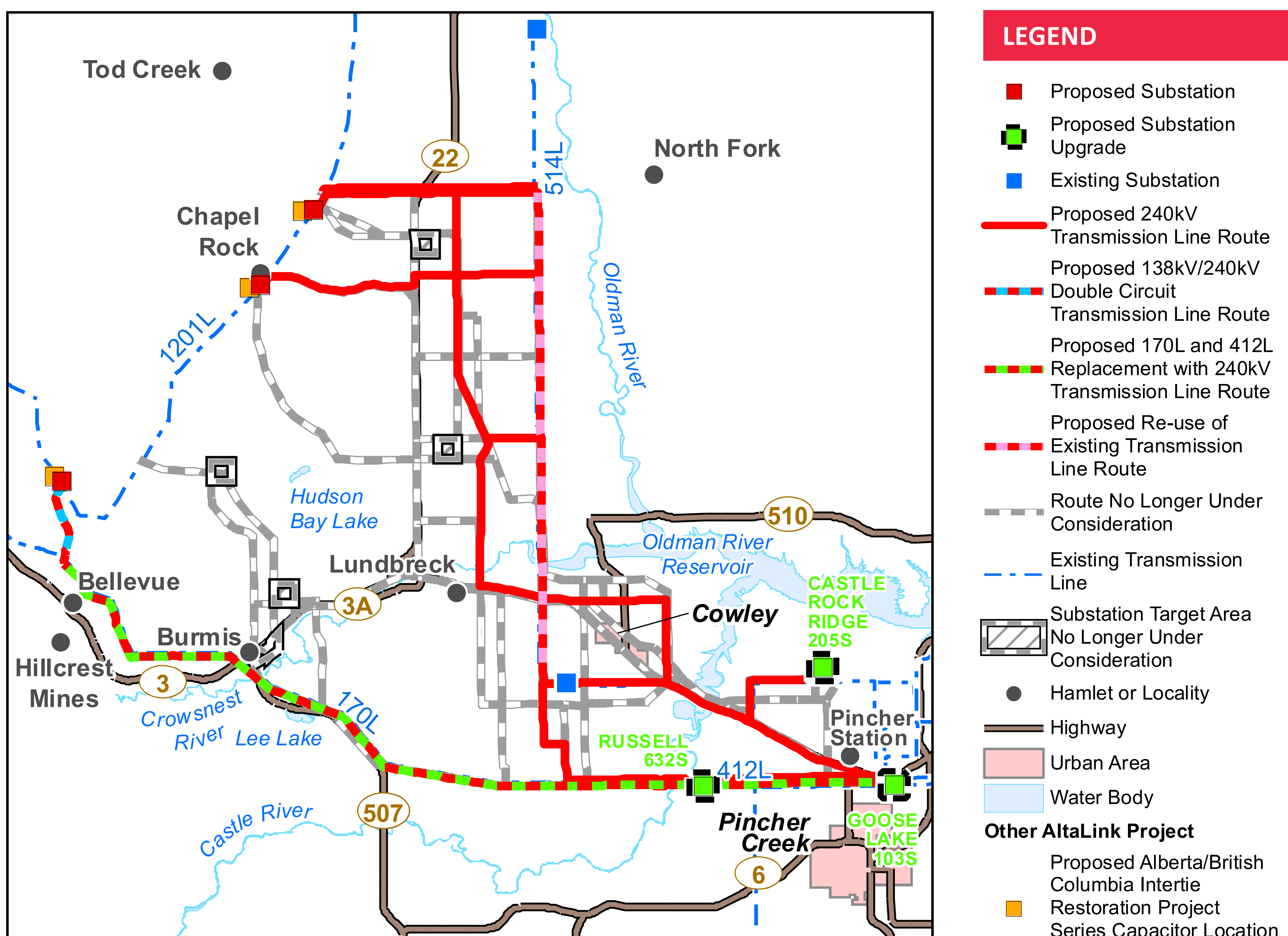
The new proposed Chapel Rock Substation will connect the new transmission line with the existing 1201L transmission line, which is the Alberta/British Columbia intertie.



Progress we've made

Since we began consulting with stakeholders on this proposed project in September 2018, we've received valuable feedback that has helped in our project planning.

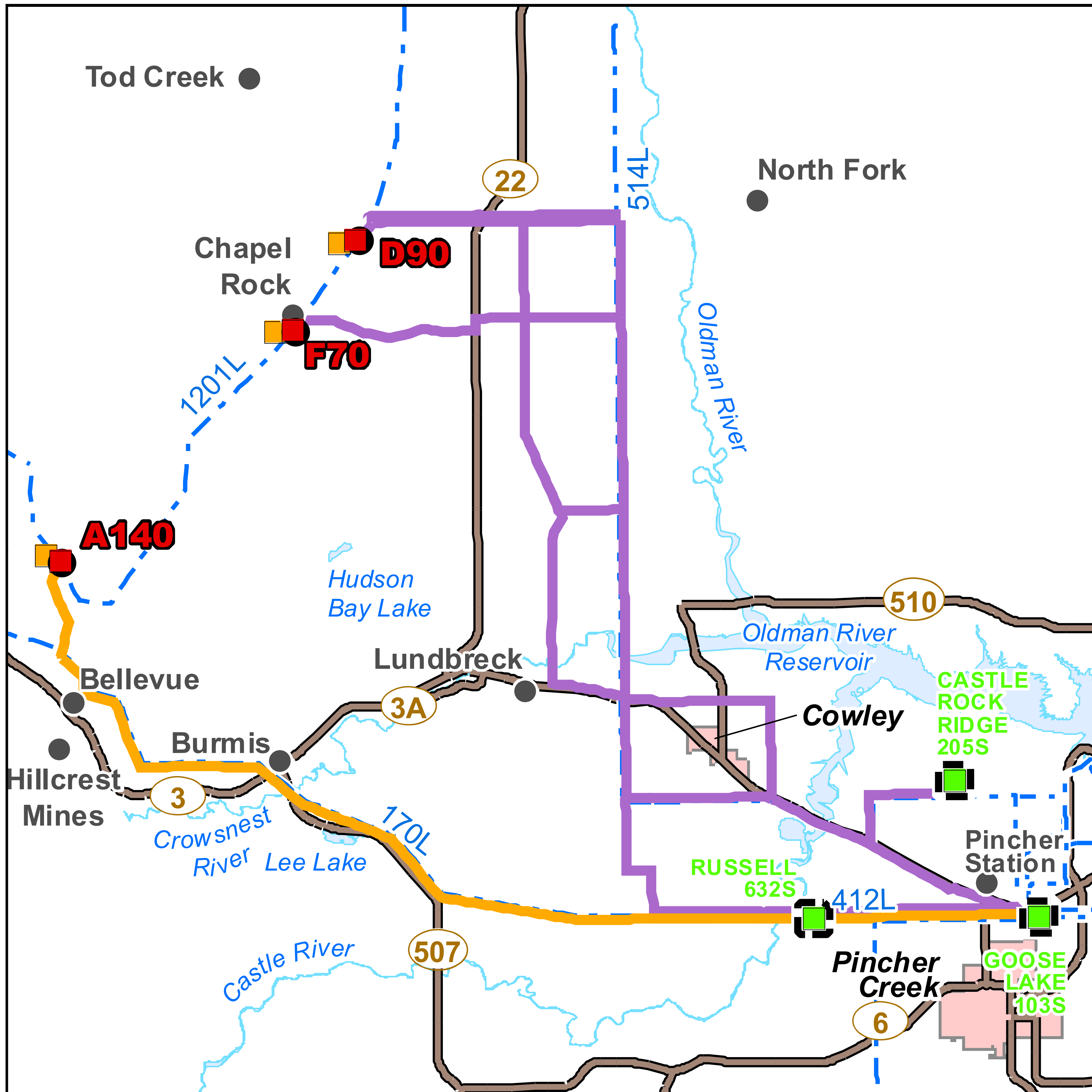
With the input we've received from stakeholders, along with information gathered through ongoing field studies and engineering, we have refined the transmission line routes and substation sites proposed for this project, added new potential options and removed others from consideration.



Updated technical solutions

	NORTH TECHNICAL SOLUTION <i>Shown in purple on the map</i>	SOUTH TECHNICAL SOLUTION (NEW) <i>Shown in orange on the map</i>
	<i>Refined routes and sites based on what was proposed in the first round of consultation</i>	<i>The 170L/412L replacement route</i>
Substation work	<p>A new Chapel Rock Substation to be built at one of two proposed sites:</p> <ul style="list-style-type: none"> NW-31-8-2-W5M (designation point F70 on the map) NE-8-9-2-W5M (designation point D90 on the map) <p>This technical solution can connect at either the Goose Lake or Castle Rock Ridge substation</p> <p>In any case, modifications are required at the Goose Lake Substation</p> <p>If the line connects to Castle Rock Ridge modifications will also be required at this substation</p>	<p>A new Chapel Rock Substation to be built at one proposed substation site:</p> <ul style="list-style-type: none"> SW-8-8-3-W5M (designation point A140 on the map) <p>This technical solution only connects at the Goose Lake Substation</p> <p>Modifications will be required at the Russell, Goose Lake and Pincher Creek substations</p>
New transmission line	<p>Route will generally travel west and north from either the Goose Lake or Castle Rock Ridge substation to the new Chapel Rock Substation</p> <p>Several route options are proposed for this technical solution, only one of which will be built</p>	<p>Route will travel west from the Goose Lake Substation to the new Chapel Rock Substation</p> <p>One proposed route option primarily using a portion of the existing 170L and 412L right-of-way</p>
Structure types	<p>Primarily monopole</p> <p>H-frame structures may be used in some select areas</p>	<p>A mix of H-frame and monopole structures to address different features and terrain along the route</p>

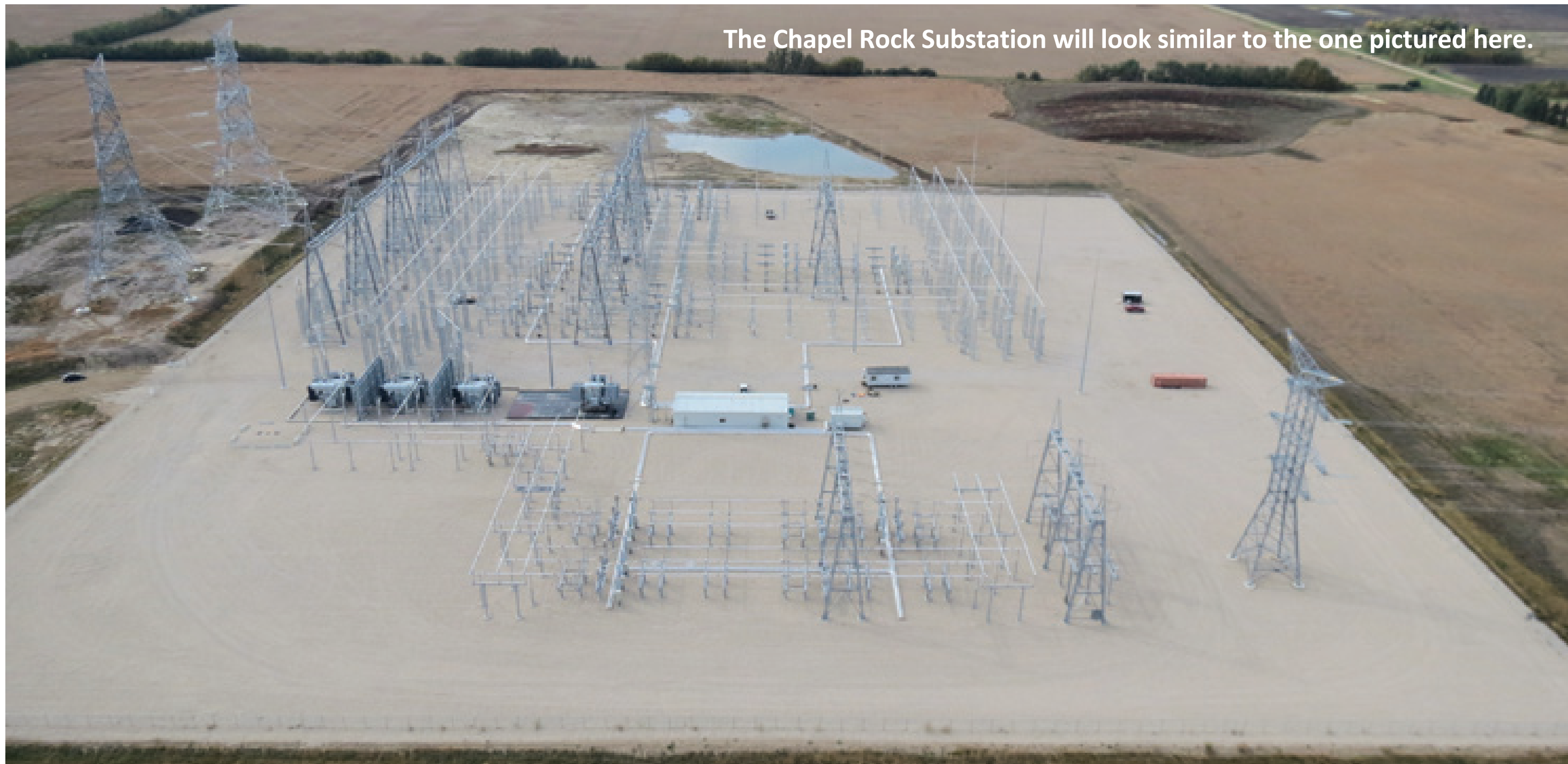
Updated technical solutions



LEGEND

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|-------------------------------|---|----------------------------------|--|
| ● Point Designation | — Proposed Transmission Line Route - North Technical Solution | - - - Existing Transmission Line | Other AltaLink Project |
| ■ Proposed Substation | — Proposed Transmission Line Route - South Technical Solution | ● Hamlet or Locality | Proposed Alberta/British Columbia Intertie Restoration Project Series Capacitor Location |
| ■ Proposed Substation Upgrade | — Highway | Urban Area | |
| | Water Body | | |

New proposed Chapel Rock Substation



North Technical Solution

- approximately 195 x 210 metres in size
 - proposed site: NW-31-8-2-W5M located at the end of Chapel Rock Road (designation point F70 on the map)
 - proposed site: NE-8-9-2-W5M located within the Wildcat Creek Valley (designation point D90 on the map)
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South Technical Solution

- approximately 200 x 220 metres in size
 - proposed site: SW-8-8-3-W5M (designation point A140 on the map)
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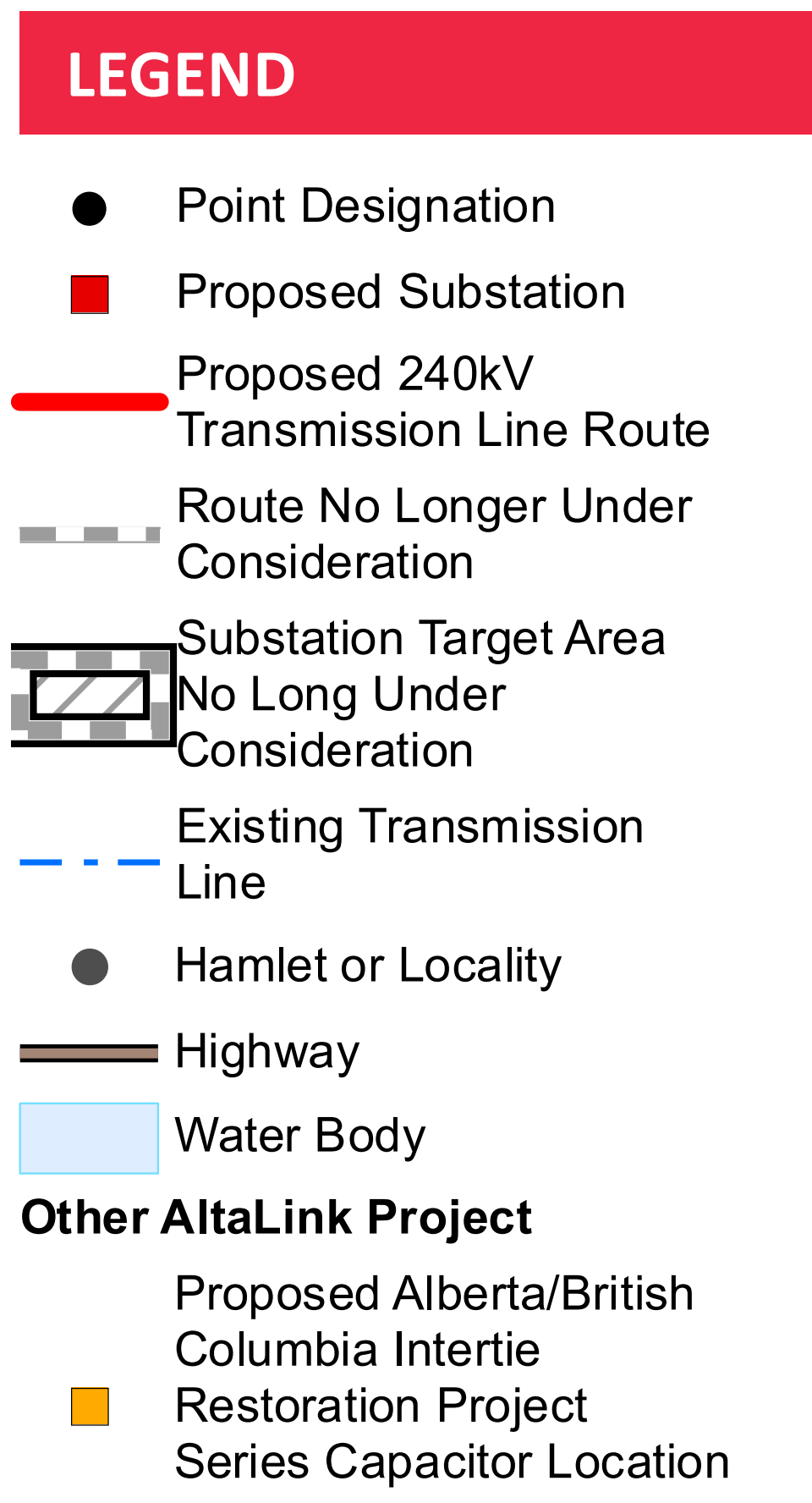
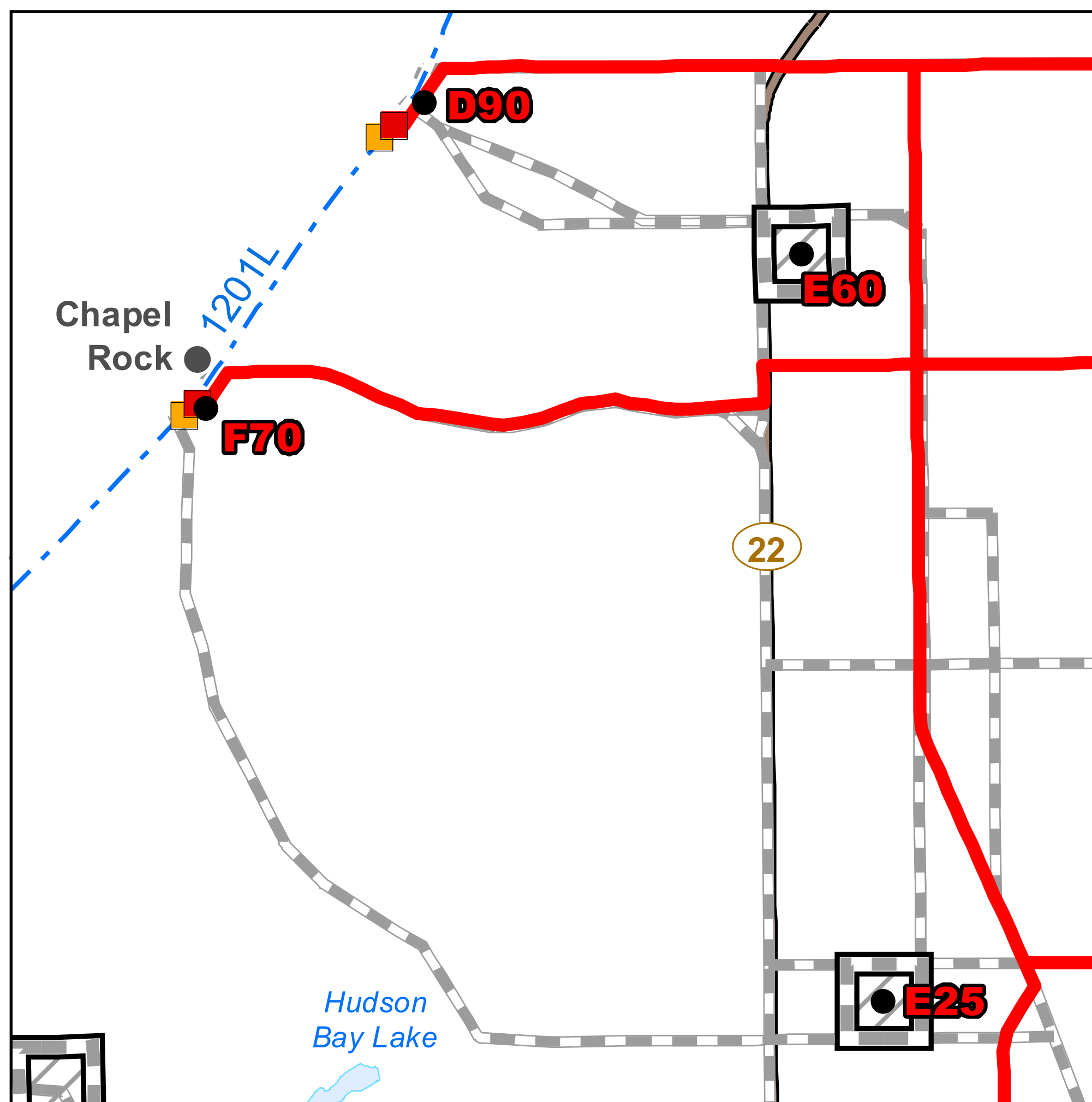
500 kV structure requirements

One new 500 kV structure is required at two of the proposed substation sites:

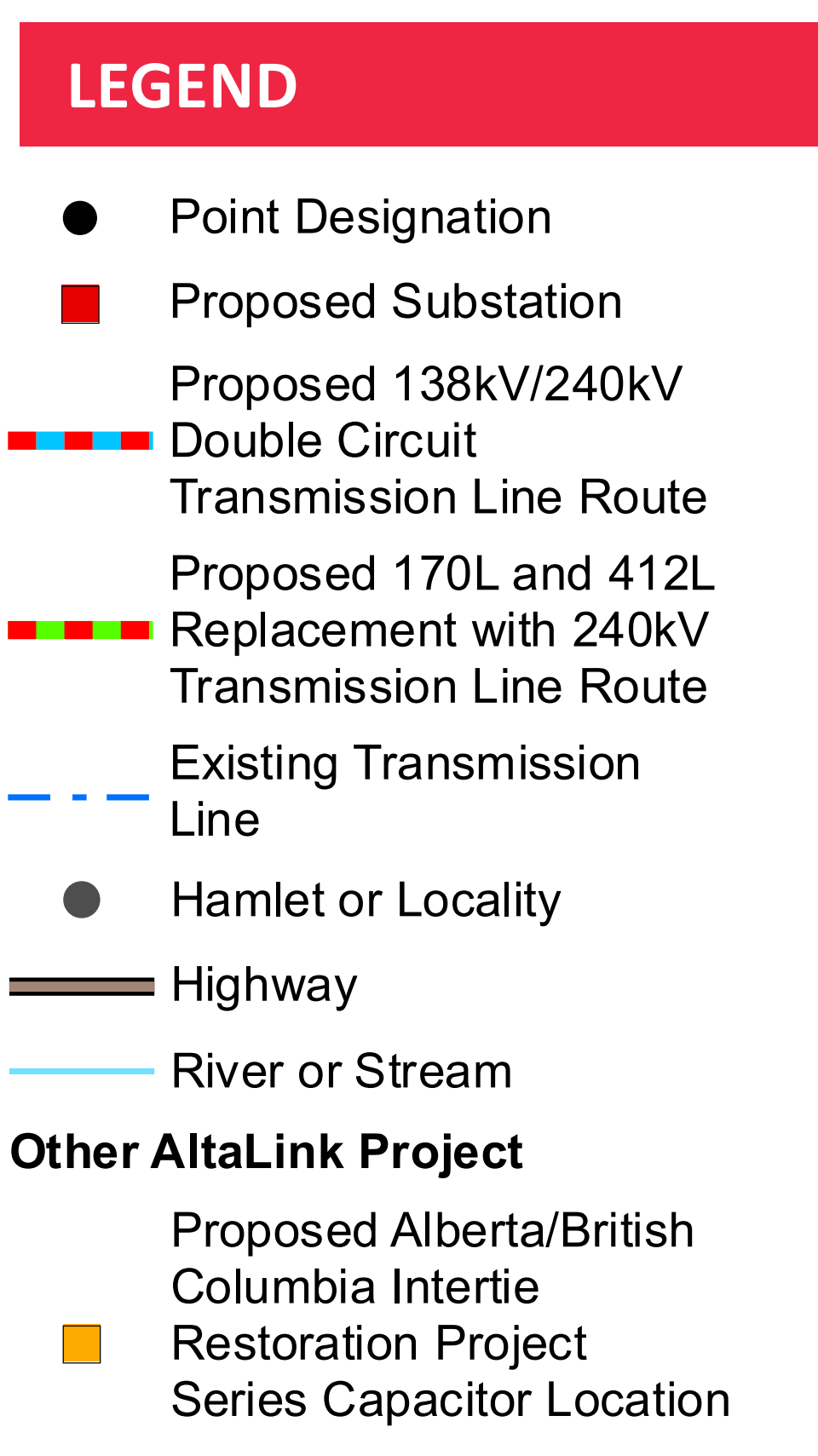
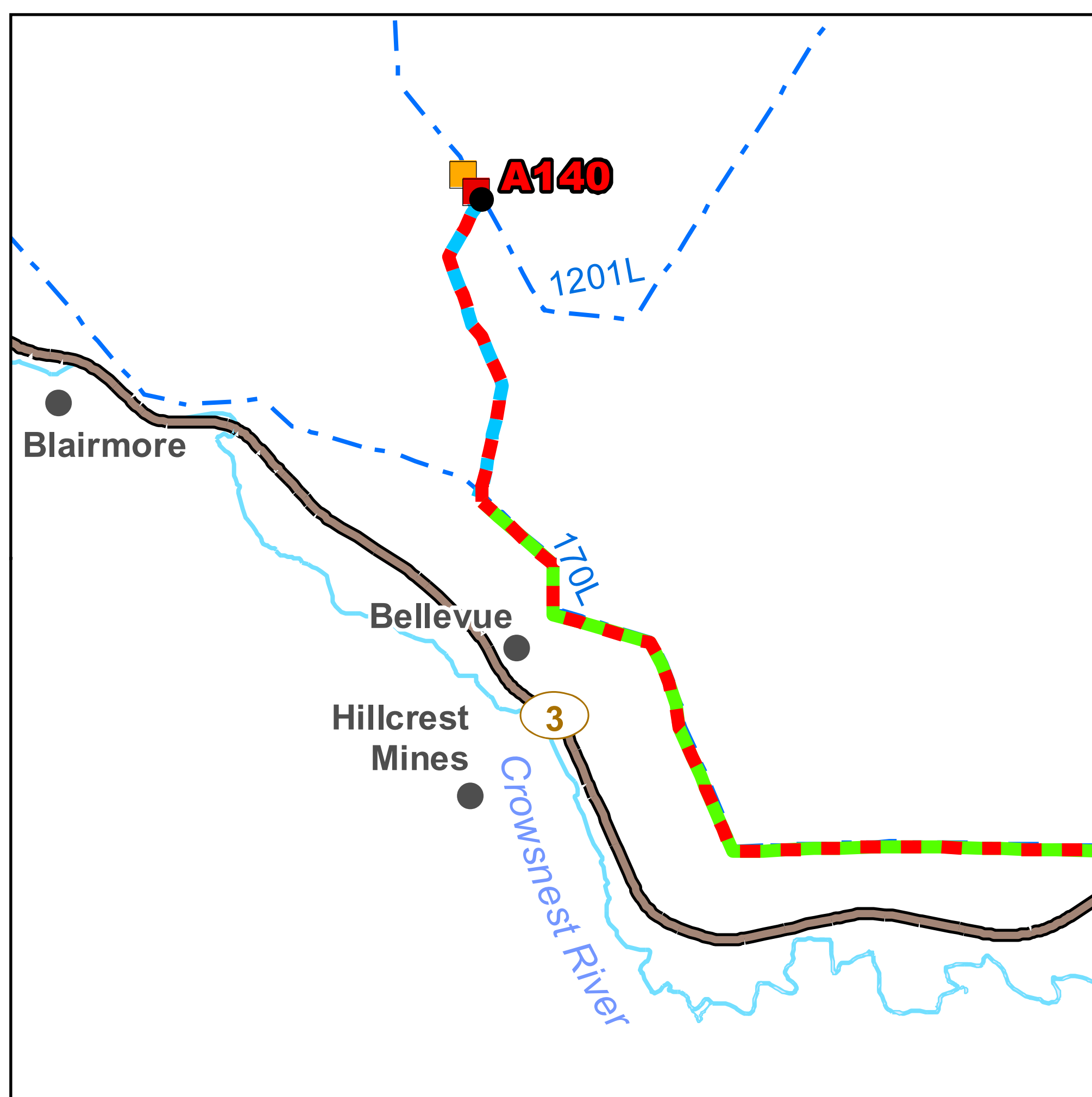
- D90 (North Technical Solution)
- A140 (South Technical Solution)

New proposed Chapel Rock Substation

North Technical Solution



South Technical Solution



Work at existing substations

Depending on the technical solution that is chosen, modifications are required at existing substations in the area to accommodate the project.

North Technical Solution: Castle Rock Ridge Substation

- Substation would be expanded approximately 13 metres to the east and 24 metres to the south to accommodate equipment needed to connect the transmission line
 - Will only occur if the proposed transmission line connects to this substation
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South Technical Solution


- Russell Substation: will be expanded by approximately 80 metres by 130 metres to the south and west
 - Pincher Creek Substation: modifications required to existing equipment by not fence line expansion is required
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North and South Technical Solutions: Goose Lake Substation

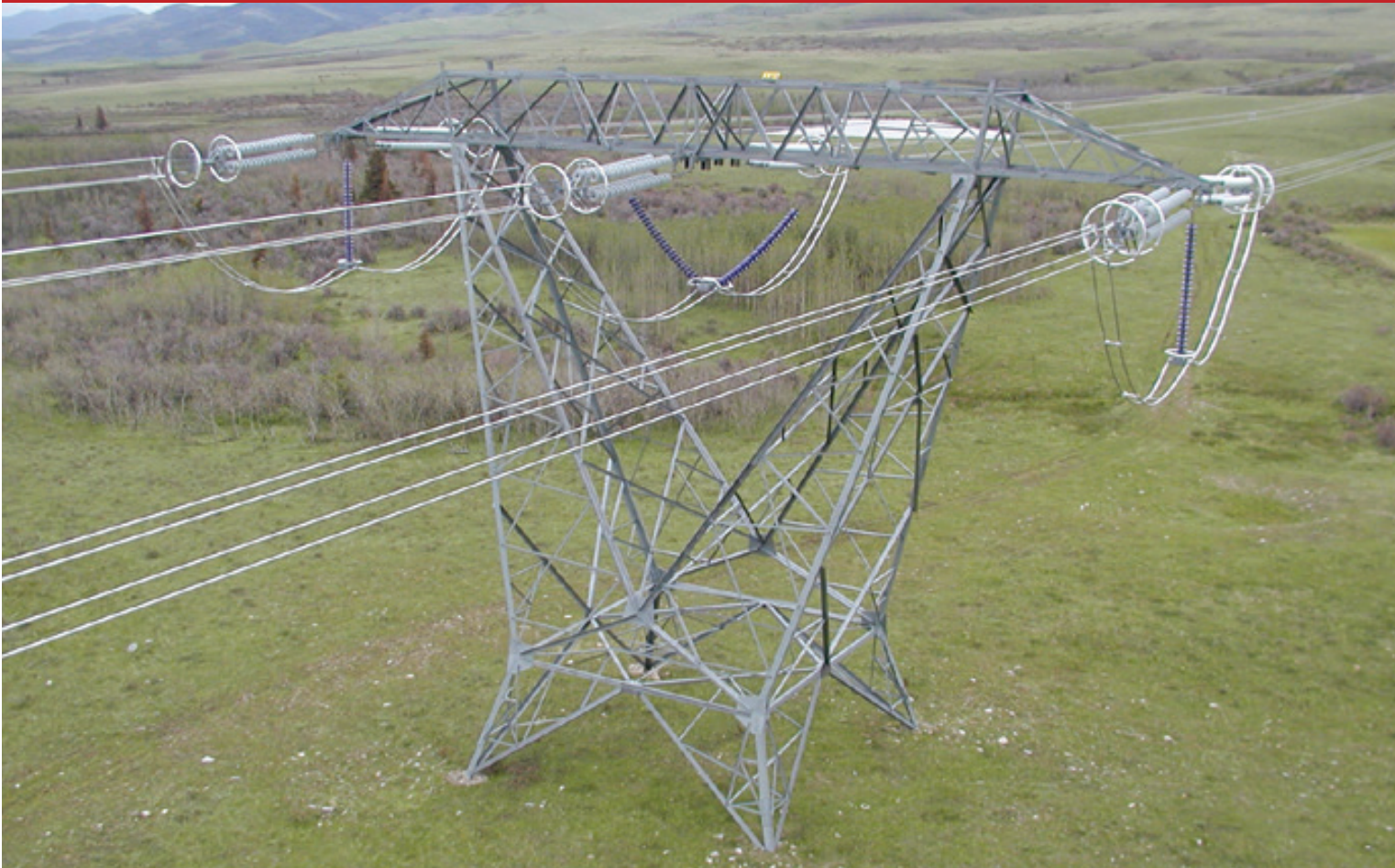
- Substation will be expanded by approximately 85 metres to the south and 45 metres to the east to accommodate new equipment that will help regulate the electric system
- Will occur regardless of which technical solution is chosen

Structure types

SINGLE CIRCUIT MONOPOLE		
	Structure height	18-40 m
	Structure width	1-1.5 m at the base
	Right-of-way width	When on private property: 22 m When in road allowance: 10 m from the edge of the road allowance
	Technical solution	North - primarily used South - in select areas

SINGLE CIRCUIT H-FRAME		
	Structure height	16-36 m
	Structure width	6 m at the base
	Right-of-way width	When on private property: 35-85 m (typically 40 m unless otherwise noted) When in road allowance: 20 m
	Technical solution	North - in select areas South - in select areas

DOUBLE CIRCUIT H-FRAME		
	Structure height	25-38 m
	Structure width	6 m at the base
	Right-of-way width	When on private property: 30 m When in road allowance: 14 m
	Technical solution	South - in select areas

500 kV		
	Structure height	30-40 m
	Structure width	11x11 m up to 18x18 m at the base
	Right-of-way width	N/A
	Technical solution	North - D90 substation site South - A140 substation site

Please note, all dimensions are approximate and subject to change with further engineering. We are proposing to use either self-supporting or guyed structures at angle locations along the transmission line route.

What do you think?

Brown finish steel structures



To minimize visual impacts related to the transmission line, the use of brown finish steel for the structures may be an option

Brown finish steel structures will slowly weather over time and result in a dark brown, rust-like appearance

This is different than a typical galvanized steel structure which is largely visually unaffected over time and generally maintains the original appearance

Project schedule & next steps

Notify and consult with stakeholders:
Fall 2018 to Summer 2019

File application with the AUC:
Fall 2019

**Start construction if project is
approved: 2021 (earliest)**

**Anticipated construction
completion: 2023 (earliest)**

Although we attempt to follow the anticipated project schedule, it is subject to change. We will continue to provide you with updated schedule information if required as the project progresses.

Intertie Restoration Project

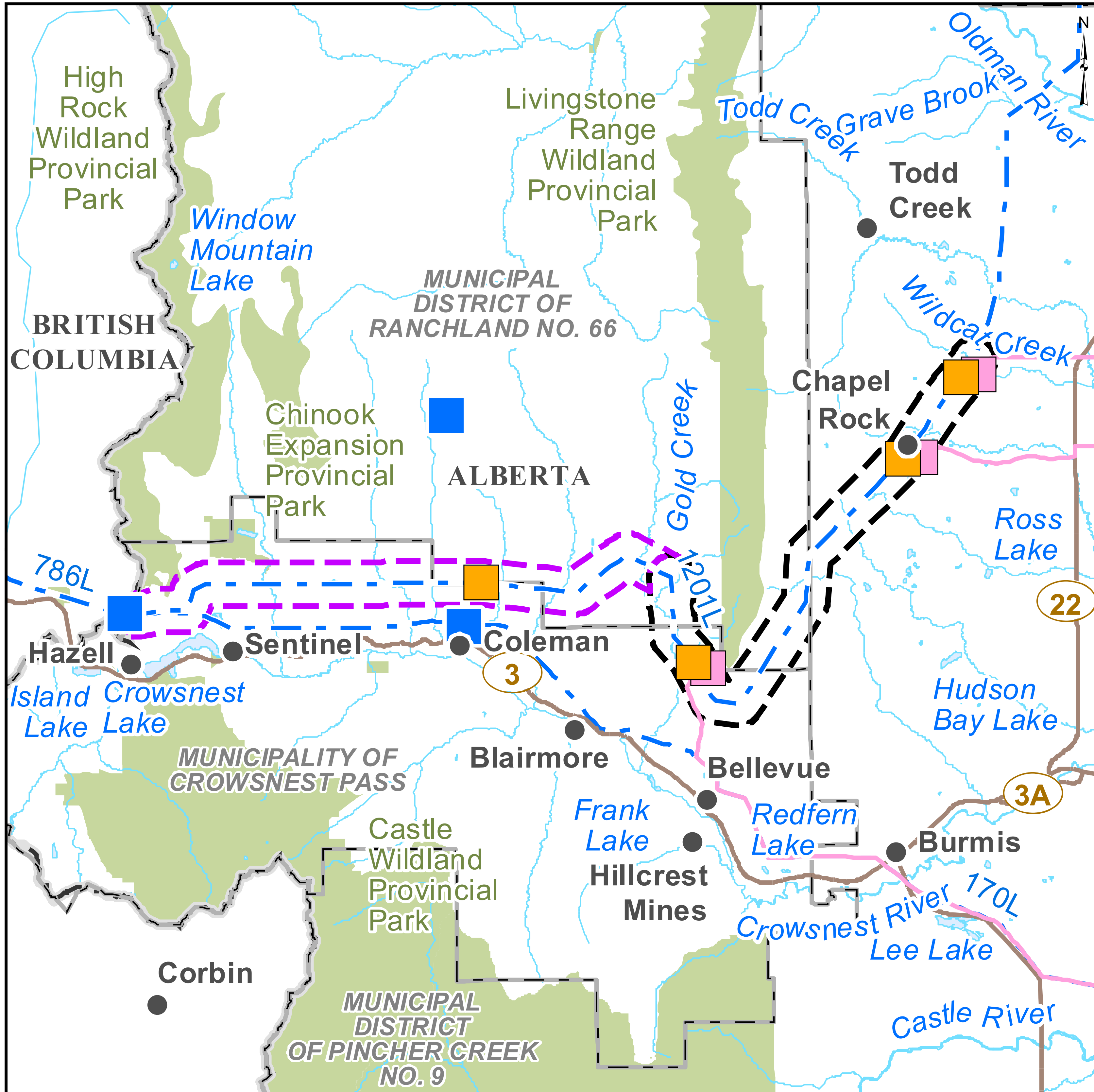
The proposed Intertie Restoration Project is located in the areas of Rocky View County, the Municipal District of Ranchland, the Municipal District of Pincher Creek and the Municipality of Crowsnest Pass.

The project involves:

- adding new equipment along the existing 1201L transmission line, including a series capacitor (which looks similar to a substation)
 - adding one new 500 kV structure (only required at the three of the four proposed sites - not the Coleman area site)
 - adding new equipment and expanding the fenceline at the Bennett Substation, which is located southwest of Langdon
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Intertie Restoration Project



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|------------------------------------|----------------------------|------------------------------|---|
| Proposed Series Capacitor Location | Existing Transmission Line | Park / Other Protected Area | Other AltaLink Project |
| Expanded Study Area | Hamlet or Locality | Municipal or County Boundary | Proposed Chapel Rock to Pincher Creek Substation Target Area |
| Study Area | Major Road | Provincial Boundary | Proposed Chapel Rock to Pincher Creek Transmission Line Route |
| Existing Substation | River or Stream | Water Body | |

Intertie Restoration Project schedule & next steps

Notify and consult with stakeholders:
Fall 2018 to Summer 2019

File application with the AUC:
Fall 2019

**Start construction if project is
approved: Spring 2021 (earliest)**

**Anticipated construction
completion: 2023 (earliest)**

Although we attempt to follow the anticipated project schedule, it is subject to change. We will continue to provide you with updated schedule information if required as the project progresses.

Environment

An Environmental Evaluation identifies environmental features within the project area through existing data and field surveys.

Additional information is gathered from consultation with provincial and federal regulators, landowners and the public.

This information is used to assist in route development. Potential effects from project impacts are identified, so that mitigations can be developed to minimize or eliminate these effects.

Information within the Environmental Evaluation typically includes:

- wildlife and vegetation inventories
 - wetland, watercourse and groundwater assessments
 - threatened and endangered species identification
 - terrain and soil evaluations
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EMF & radio frequency

AltaLink recognizes that people have concerns about exposure to Electric and Magnetic Fields (EMF) and we take those concerns very seriously.

Everyone in our society is exposed to EMF from many sources, including:

- power lines and other electrical facilities
- electrical appliances in your home
- building wiring

National and international organizations such as Health Canada and the World Health Organization have been conducting and reviewing research about EMF for more than 40 years. Based on this research, these organizations have not recommended the general public take steps to limit their everyday exposure to EMF from high voltage transmission lines.
