

Welcome

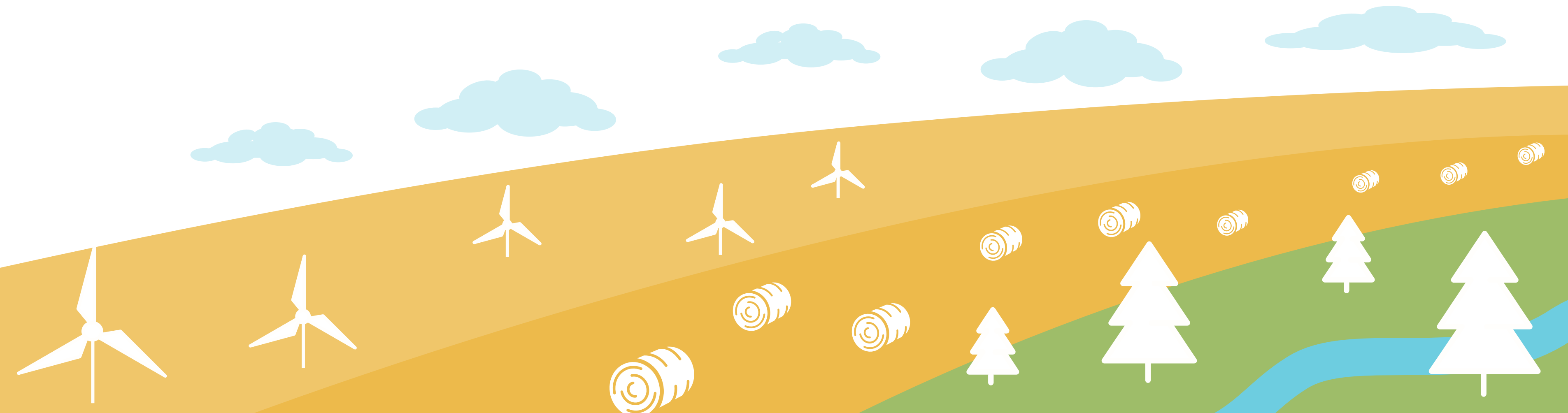
to the Willow Ridge Wind Project Open House

This Open House is an opportunity to learn more about the Willow Ridge Wind Project and share your input with the project team.

Your feedback will be considered and included in the MD of Willow Creek and the Alberta Utilities Commission applications.

The project team wants to hear from you!

Please ask questions and fill out our feedback form before you leave.



Project Background



The Willow Ridge Wind Project started in 2008. The previous developer placed the Project on hold to reassess the financial feasibility. Technical studies and stakeholder engagement activities were initiated in 2018 by Liberty, the parent company of Algonquin Power & Utilities Corp.

Due to technology improvements, the Project has evolved, resulting in a reduced footprint, fewer turbines, and a greater generation capacity.

	Original Design	Proposed Development	Project Improvements
Turbines	55	34	21 Fewer Turbines
Generation Capacity	100 MW	210.8 MW	Increase of 110.8 MW

Project Developer: SPWC Development GP Inc.
(a subsidiary of Liberty)

Number of Turbines: 34

Project Generation Capacity: Up to 210.8 Megawatts
(Enough to power up to 80,000 homes)

Project Location:

- 7.2 km (4.5 miles) South of Fort Macleod
- 2 km (1.2 miles) West of the Kainai Nation (Blood Reserve 148)
- 8 km (4.9 miles) East of the Piikani Nation Reserve

Land for Project Infrastructure: 234.33 acres
(includes turbines, buildings, access roads, meteorological towers)



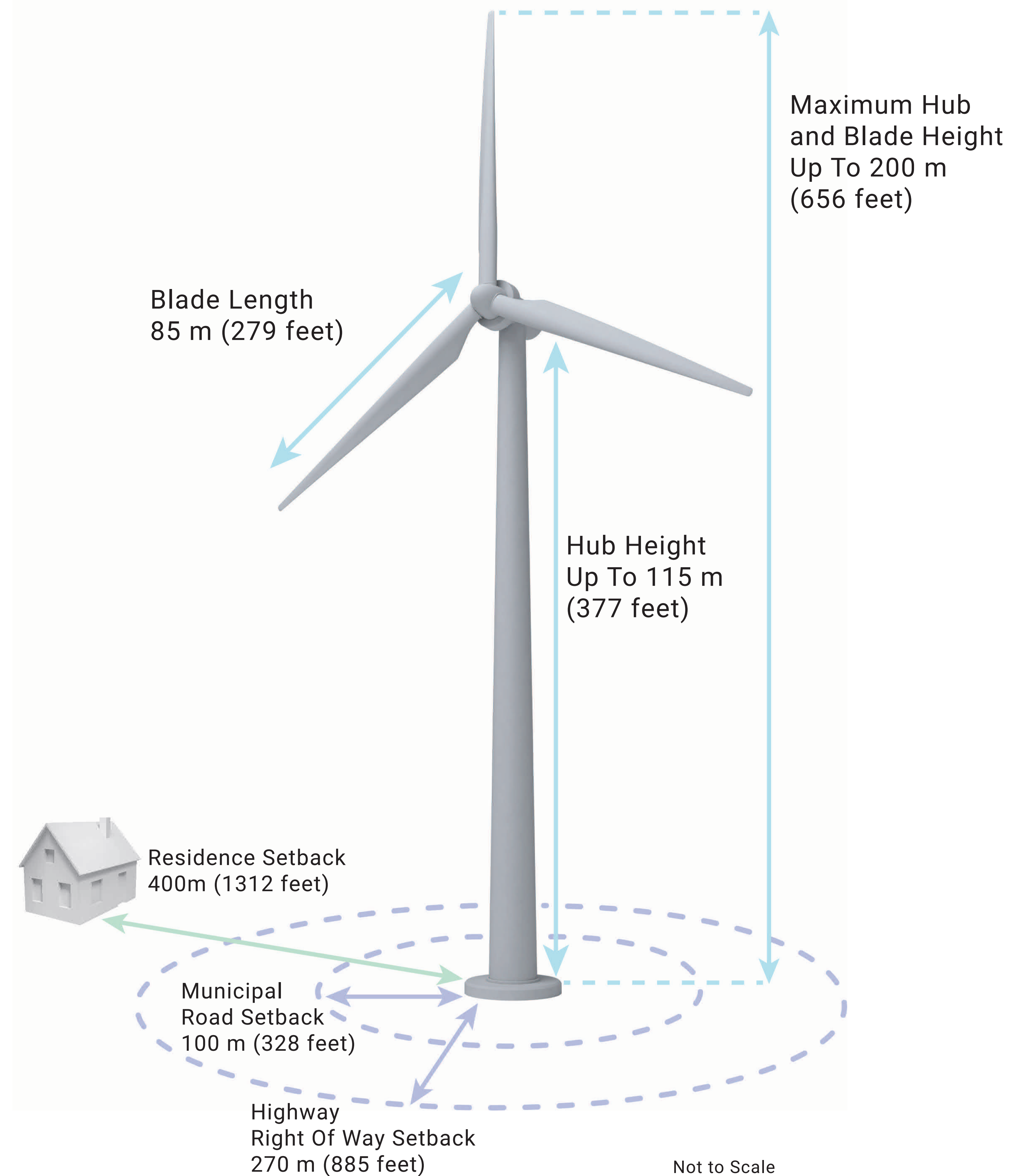
Project Information



The Project proposes below-ground collection lines. Above-ground power lines will be limited to the short tie-in (approximately 200 m) between the proposed substation and existing transmission lines and will be operated by Altalink Management Ltd through a separate application.

The application is proposed to include:

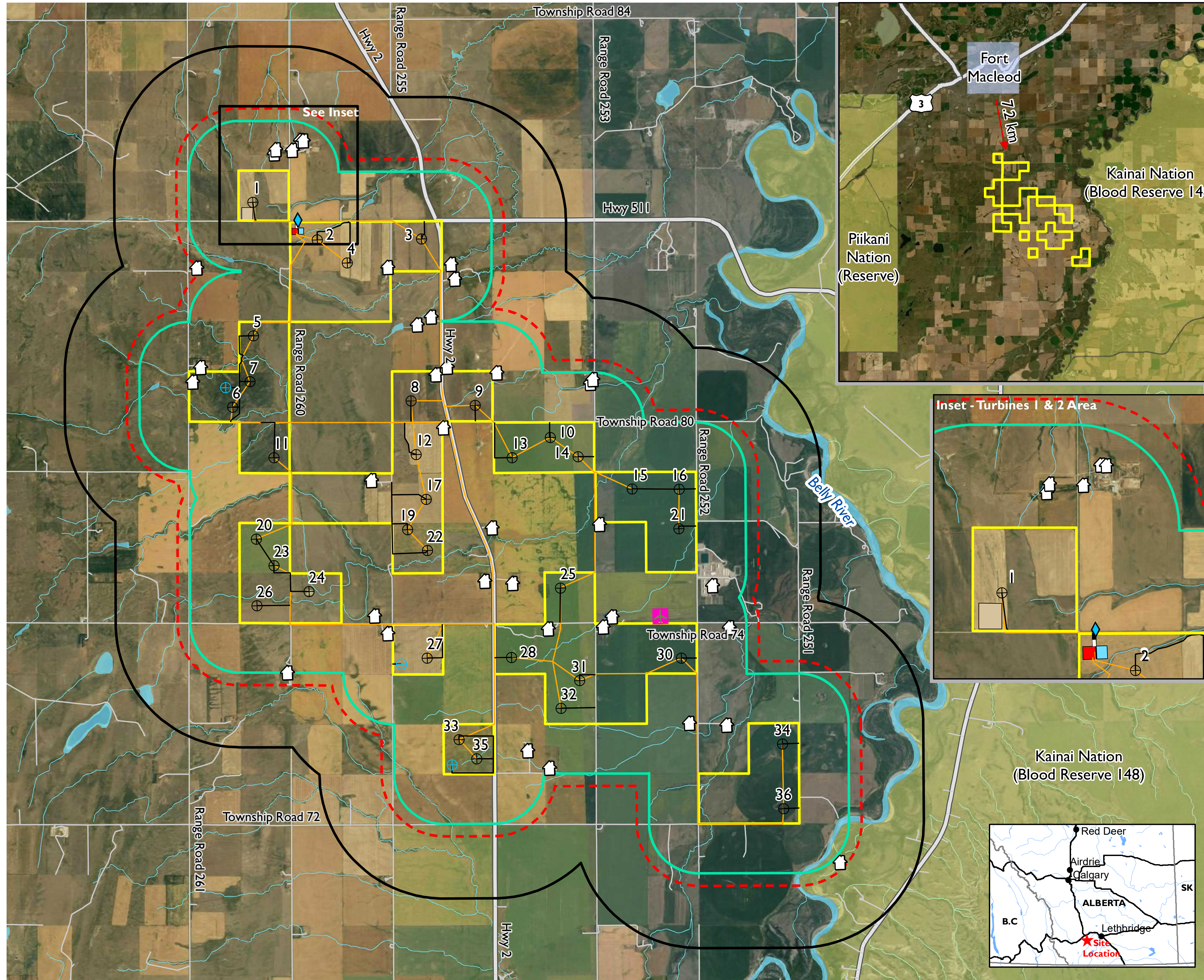
- 34 Wind Turbine Generators
 - blade length of 85 metres
 - maximum hub height of up to 115 metres
 - maximum “blade-tip-height” of up to 200 metres
- Turbine pad sites;
- Access roads;
- Battery Energy Storage System (BESS);
- Operation and Maintenance Building;
- Two meteorological towers up to 115m tall;
- Collection Lines (below ground);
- Minimal above-ground transmission lines, up to 200 metres in length; and
- Temporary laydown areas during construction.



Not to Scale
For Illustrative Purposes Only



Project Site Details



SPWC DEVELOPMENT GP INC.
WILLOW RIDGE WIND PROJECT

ATTACHMENT 1A - PROJECT DETAILS

- Residence
- Project Components**
- Turbines
- Meteorological Towers
- Point of Interconnection (Anticipated)
- Transmission Line (Anticipated)
- Access Roads
- Collection Lines
- Project Area
- Wildlife Study Area (1 km)
- Consultation Buffer (800m)
- Notification Buffer (2 km)
- Operation and Maintenance Building
- Substation / Battery Energy Storage System
- Temporary Construction Compound
- Base Data**
- Aerodrome Facility
- Municipal Roads
- Provincial Highway
- First Nation Reserves
- Town of Fort Macleod



MAP DRAWING INFORMATION:
DATA PROVIDED BY:
ALTALIS, CANVEC, ESRI, GEODISCOVER ALBERTA AND DILLON CONSULTING

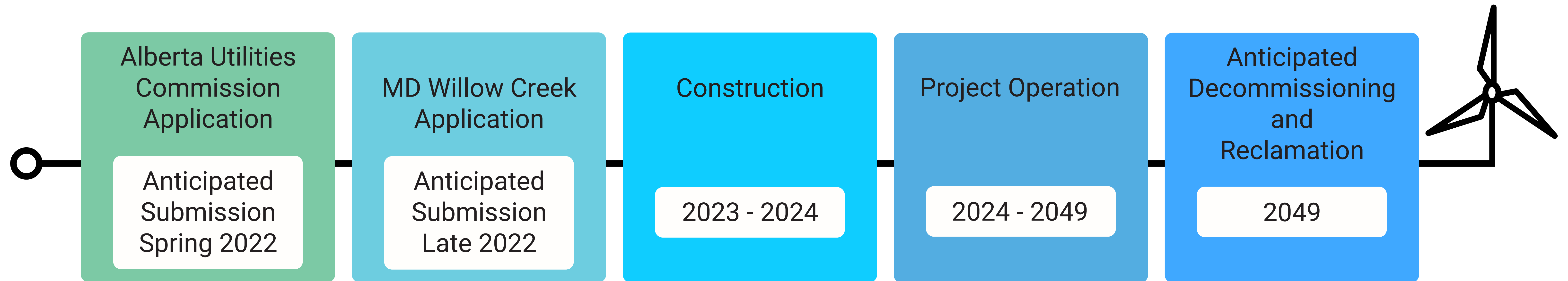
MAP CREATED BY 34DU
MAP CHECKED BY BH
ROTATION: 2°

MAP PROJECTION: NAD 1983 UTM Zone 12N



PROJECT: 212787
STATUS: DRAFT
DATE: 2022-03-24

Project Timeline



The Project is expected to operate for 25 years, or longer with replaced or upgraded equipment. The turbines and associated infrastructure will be decommissioned once the Project is no longer operational and the lands will be returned to their original state.



Environmental Considerations



Potential environmental effects have been evaluated in accordance with the requirements of the Alberta Utilities Commission and Alberta Environment and Parks.

Environmental surveys were conducted in 2018 and 2021 and included:

- Breeding Bird Surveys (including sensitive birds of prey or “raptors”)
- Spring and Fall Bird Migration Surveys;
- Spring and Fall Bat Activity Monitoring;
- Wildlife Habitat Mapping (including wetlands and native grassland);
- Sharp-tailed Grouse Lek Surveys; and Rare Plant Surveys.

Potential effects and mitigation measures of the project are outlined in the table on the right.

Potential Effect

Mitigation

<p>Bird and Bat Mortality</p>	<ul style="list-style-type: none"> • Monitoring and operational controls during seasonal periods • An annual review of the Project during the first three years of operation to determine effects and if additional mitigation is required
<p>Loss or reduction of wildlife habitat (e.g., native grasslands and wetlands)</p>	<ul style="list-style-type: none"> • Where overlap with areas of wildlife habitat cannot be avoided site-specific conservation and reclamation measures will be developed
<p>Temporary disturbance of wildlife during construction or seasonal activity</p>	<ul style="list-style-type: none"> • Scheduling construction outside of seasonally restricted activity periods • Environmental monitoring and implementation of additional measures (e.g., fencing)
<p>Disturbance of sensitive or agriculturally significant soils during construction activities</p>	<ul style="list-style-type: none"> • Site-specific soil handling measures to minimize the risk of erosion, compaction, rutting or mixing of topsoil with subsoil
<p>Introduction of weeds, invasive species or agricultural pests (e.g., Clubroot) during construction</p>	<ul style="list-style-type: none"> • Site-specific monitoring and management of existing weeds and invasive, non-native species • Equipment cleaned of soil and vegetation debris prior to and during construction



Traffic



Construction Traffic

Each turbine will require approximately 7-10 oversize vehicle trips plus additional vehicle trips to deliver equipment (e.g., graders, bulldozers) and supplies (e.g., concrete).

Specific haul routes and traffic accommodation strategies will be confirmed at a later date through discussions with Alberta Transportation and the Municipal District of Willow Creek.

SPWC will notify landowners and stakeholders when construction activities occur in their area.

When possible, turbine construction will minimize impacts during seasonal farming activities.

Traffic After Construction

Vehicle traffic will be reduced to light-duty pick-up trucks during normal operations.

It is anticipated that the entire Project site will have 1-5 small vehicle trips per week for inspections and maintenance.



Other Considerations



Agriculture

The Project does not require rezoning, and the lands will remain as an agricultural use while allowing the turbines to operate.

When the Project is complete, the lands will be reclaimed and re-seeded to grass or used for cropland.

Development

Site-specific constraints may exist that could limit some new types of development (e.g. oil or natural gas wells, new wind turbines, solar panels, substations, etc.).

Rezoning or subdivision of lands in proximity to Project infrastructure (e.g., turbines) may be limited until the Project is decommissioned.



Community Benefits

SPWC values the relationships with its neighbours, and actively seeks opportunities to support the growth of the communities in which it operates. The Project will support the community through:

- Municipal property taxes
- Lease agreements with Project Landowners
- Employment or contracting during construction and operation

SPWC is actively working to identify community benefit projects. Please let us know if you have any suggestions.

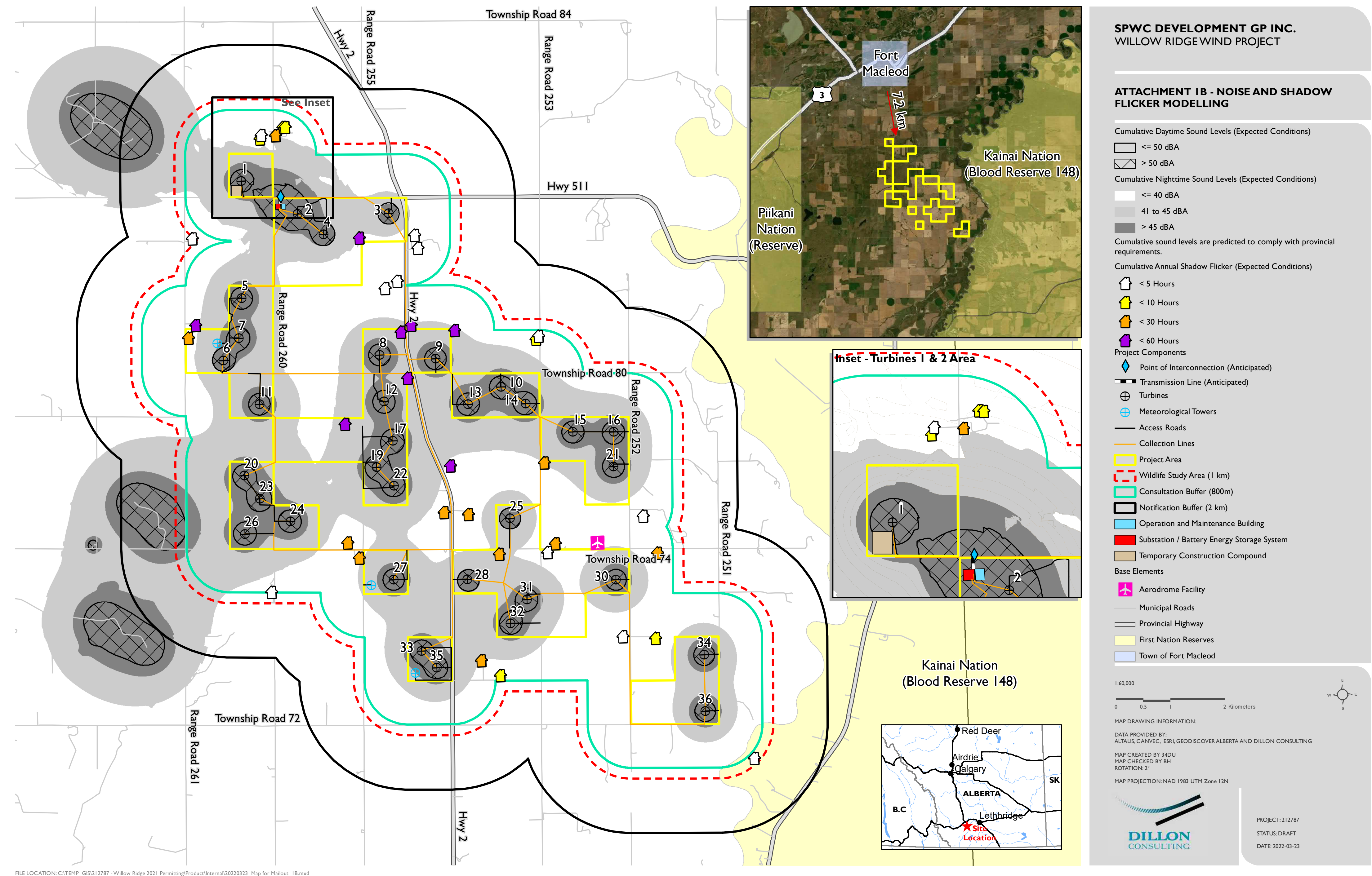


Noise and Shadow Flicker

Noise impact on residences varies based on orientation and distance between turbines and other noise-generating facilities (e.g., oil wells).

Shadow flicker is a phenomenon that occurs when rotating turbine blades create a moving shadow over building windows, creating a flickering effect indoors.

Shadow flicker occurs at certain times of the year when the sun makes a shadow over nearby homes.



SPWC has modelled the cumulative noise impacts to acceptable Alberta Utilities Commission requirements and assessed the predicted annual duration of shadow flicker that could be experienced by residences in the vicinity.

Decommissioning and Reclamation

Decommissioning will occur following the end of the Project lifespan, approximately 25 years.

The decommissioning will include the removal of the turbines and other above-ground infrastructure, including:

- Substation and other buildings.
- Turbine foundations to a depth of 1.2 m as required by Alberta Environment and Parks, and sites reclaimed.
- Sites will be remediated. A cultivated site can then be used by the landowner, and natural areas will be restored with subsoil, topsoil, and re-vegetated.
- To reduce ground disturbance at the end of the Project, underground collection lines are anticipated to remain and will be de-energized.

Once reclaimed, the Willow Ridge Wind Project is required to obtain a reclamation certificate from Alberta Environment and Parks.

The Turbine components will be collected and disposed of through reuse, disposal, salvage, or recycling. The salvage value will go towards the cost of decommissioning, closure and reclamation.



What are the Next Steps?



We will consider and incorporate feedback gathered into a “What We Heard” document, which will be made available on the Project website.

All feedback will be considered and included in applications to the Alberta Utilities Commission and the Municipal District of Willow Creek. The public will also have the ability to provide comments through both of these application processes.

Please speak with a Project team member today if you would like to schedule a time to meet with the team after this open house.

Thank you for attending today. Please remember to complete our feedback form so your comments can be considered.

We have hard copies available today, or you can fill out this form online by visiting the Project website
<https://willowridgewindproject.com/>

Project Website



Scan here!



Project Visualizations

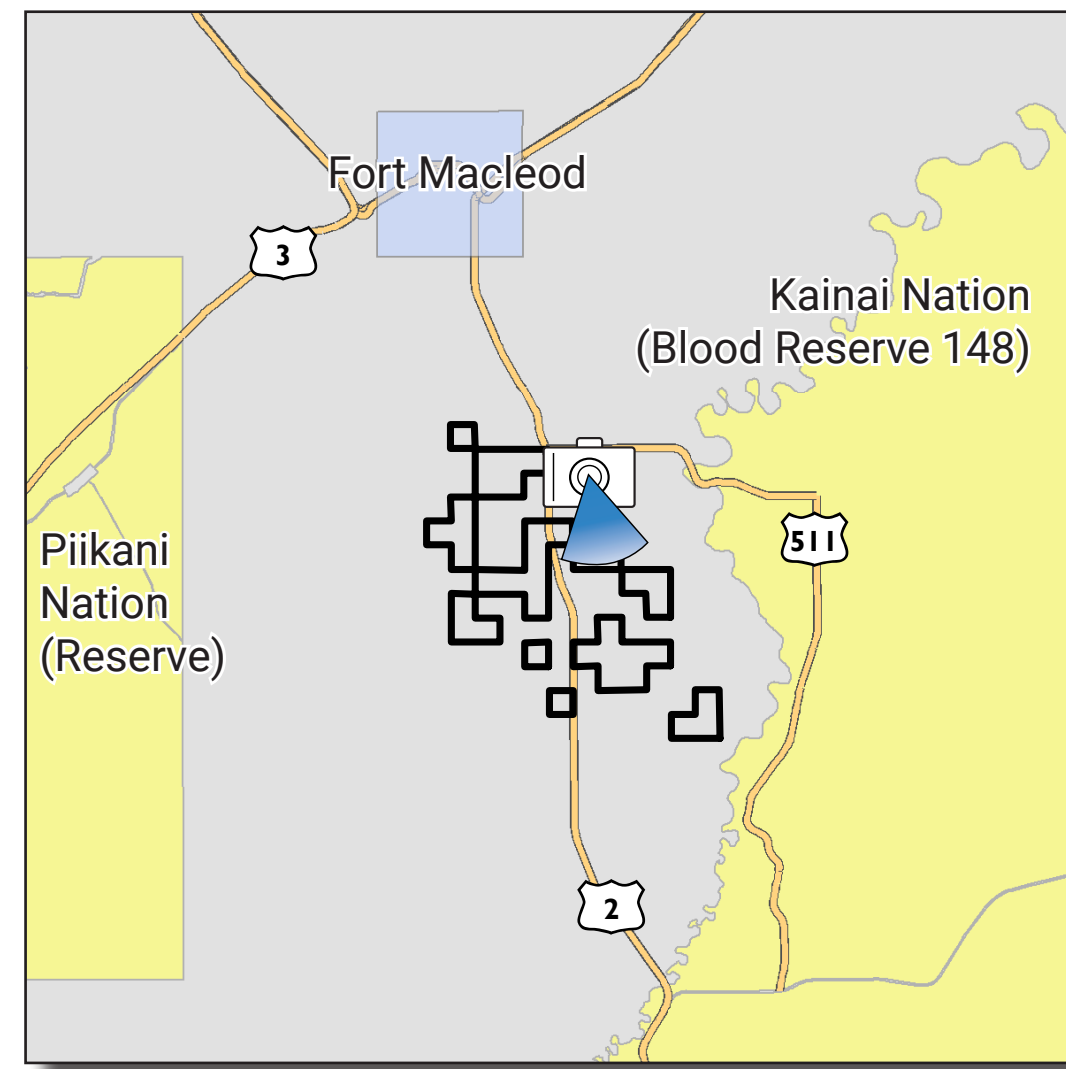


 Image looking southeast on Highway 2

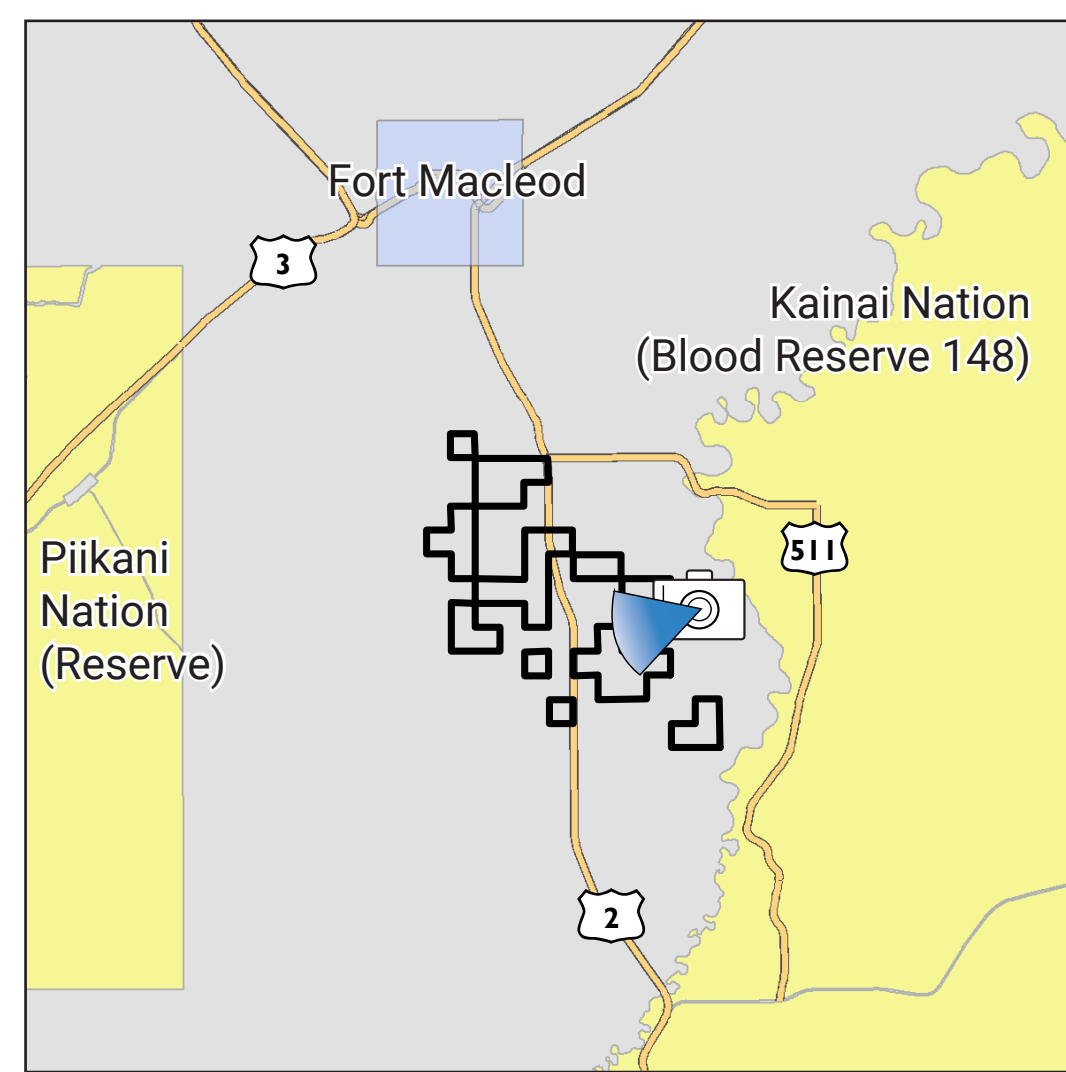


 Image looking west from Range Road 251

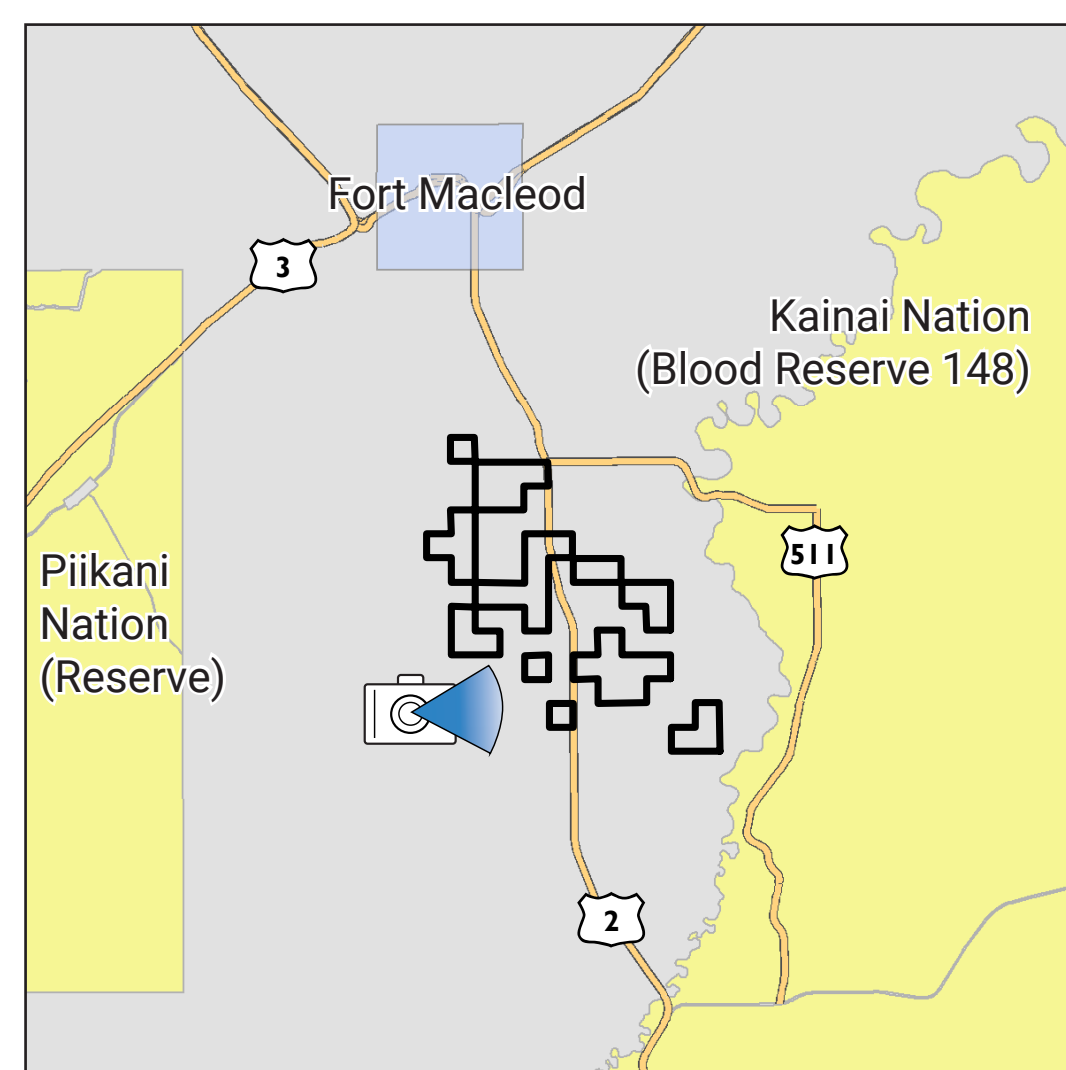


 Image looking east from Range Road 261

Project Visualizations

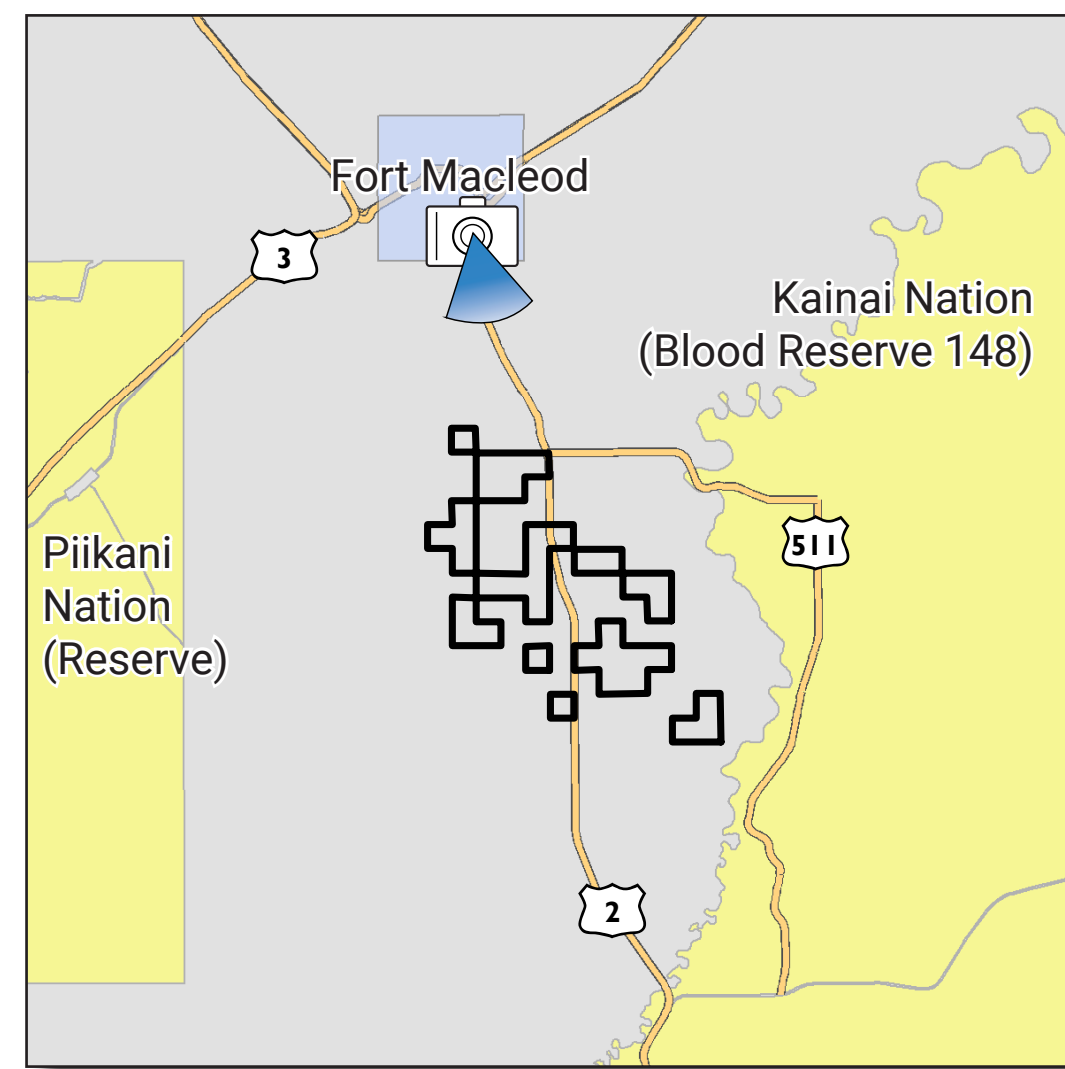


 Image looking south on Highway 2 from Fort Macleod

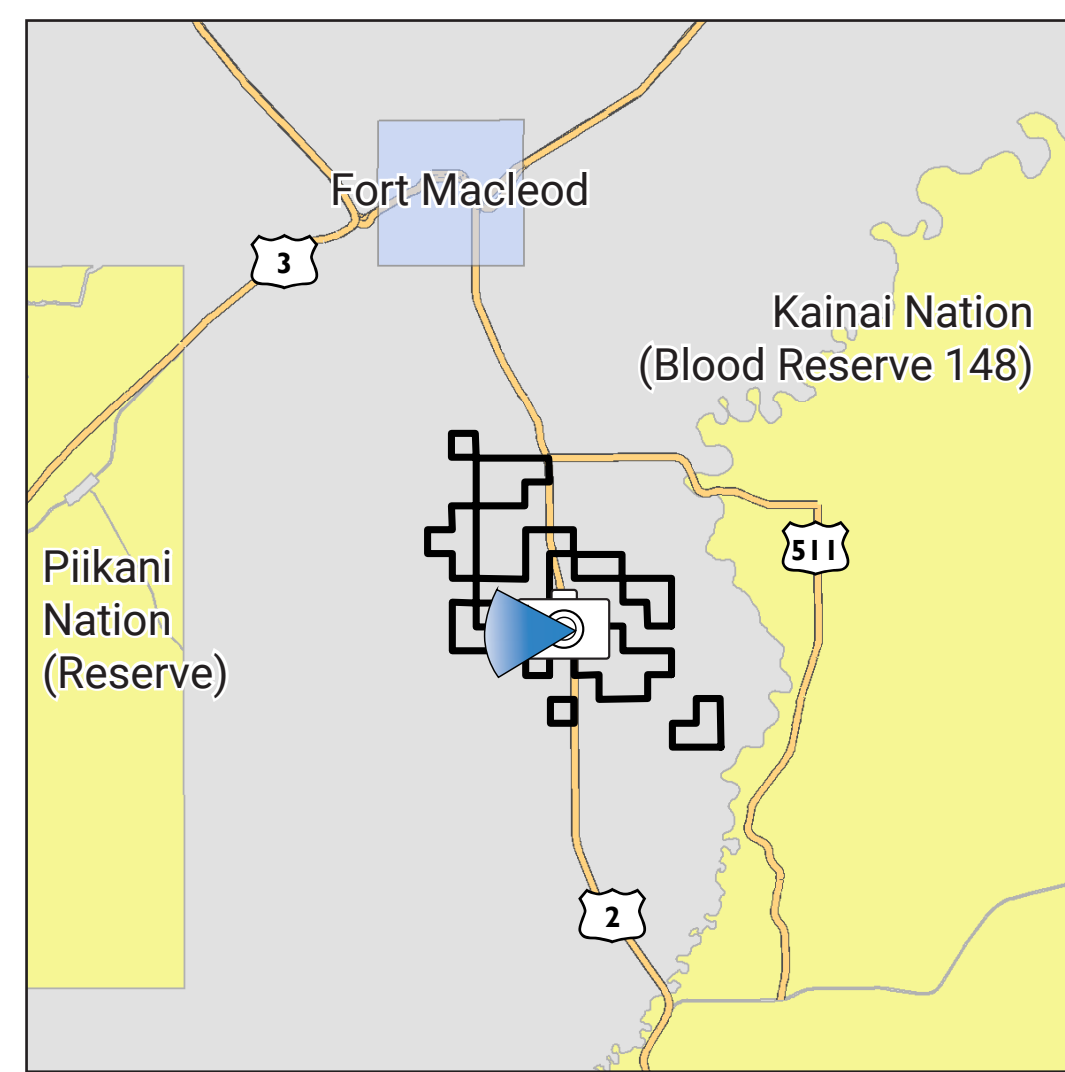


 Image looking west on Highway 2

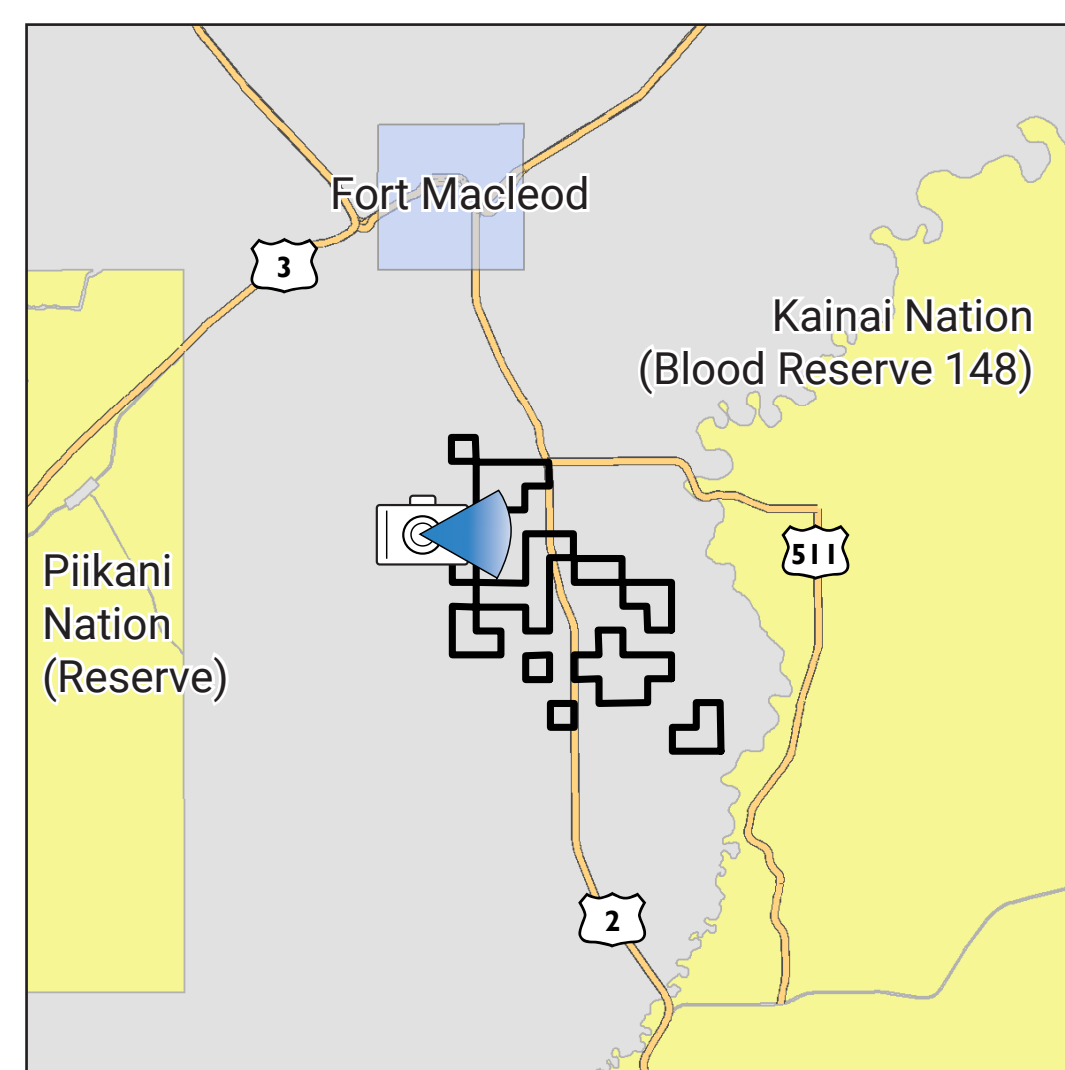


 Image looking east from Range Road 261

Project Visualizations

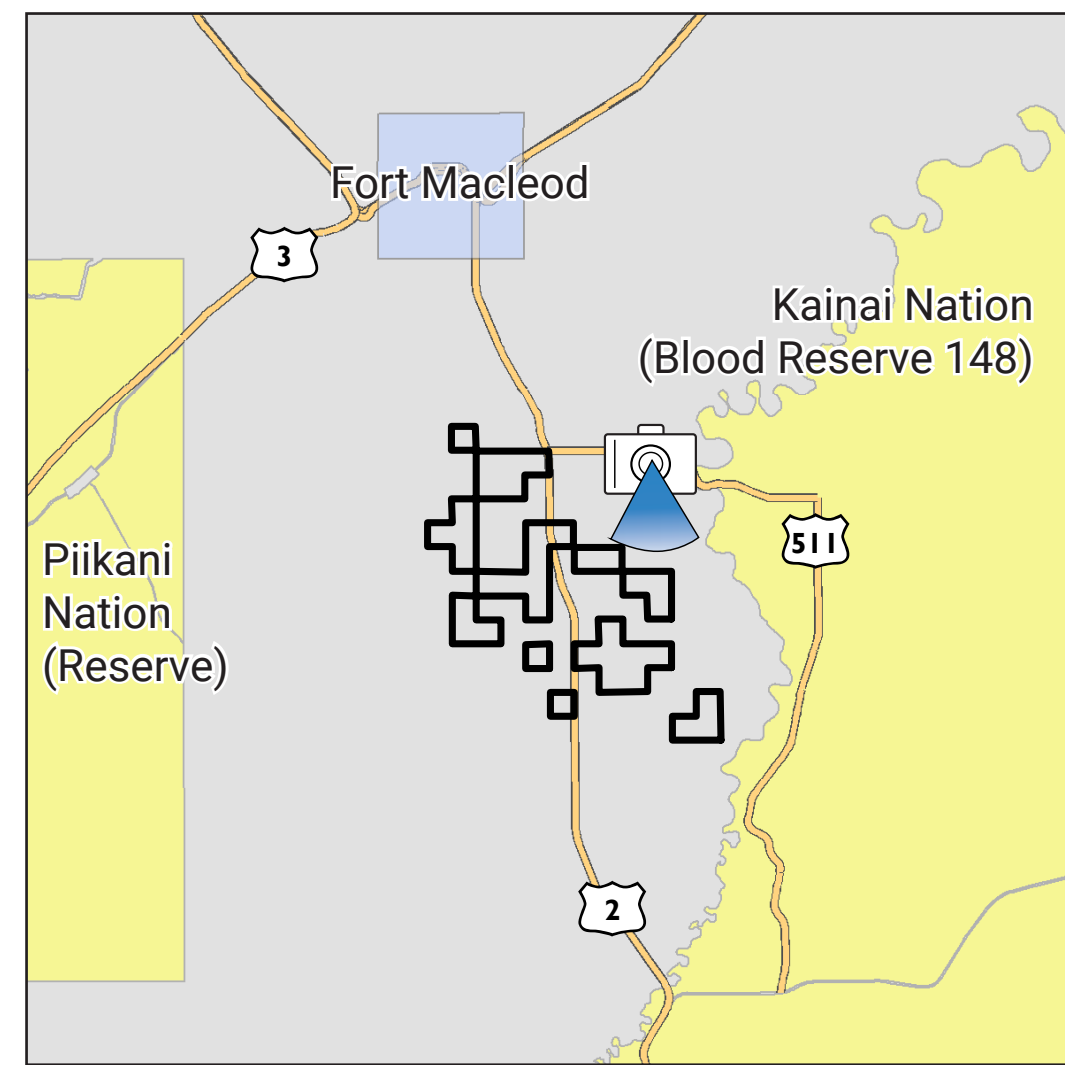
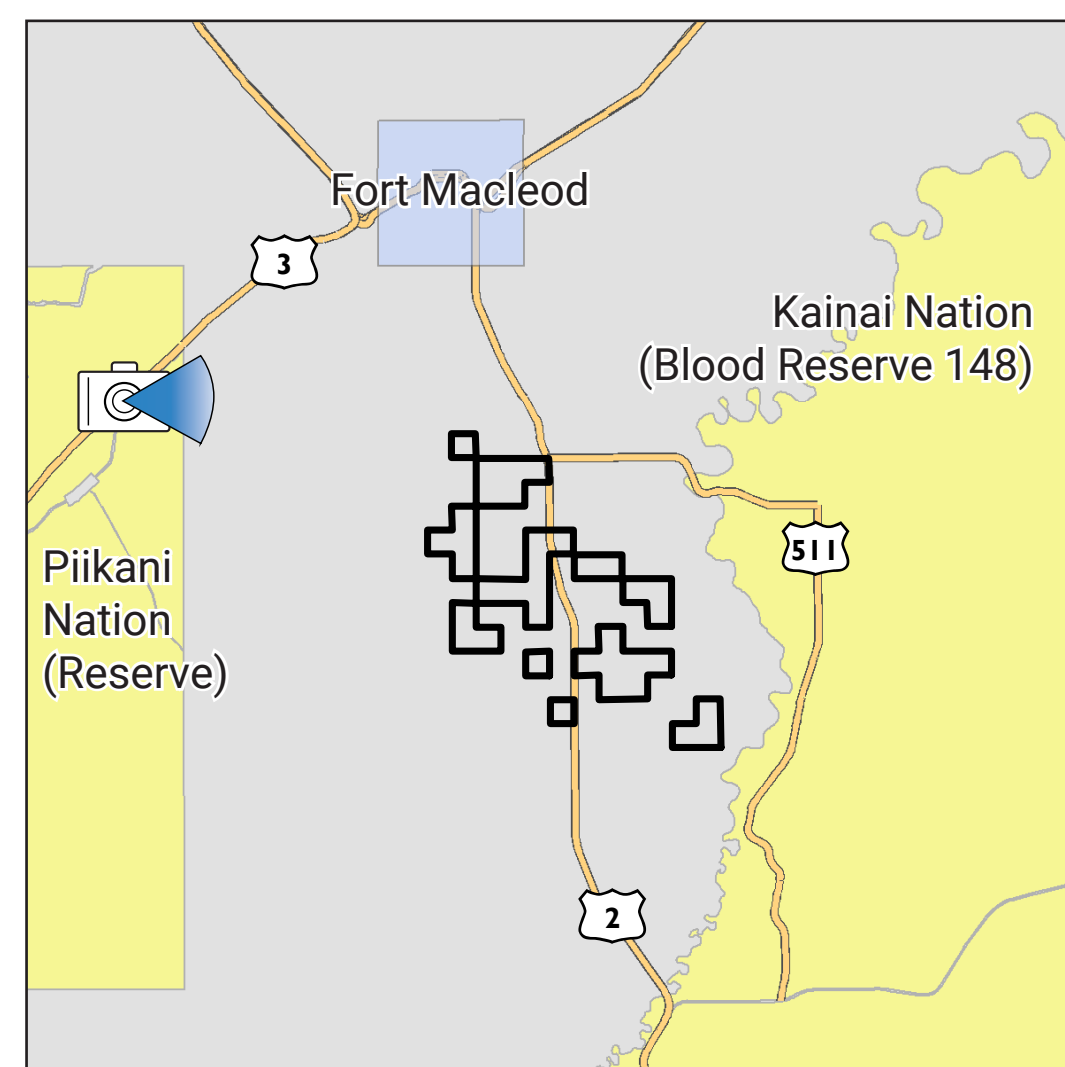

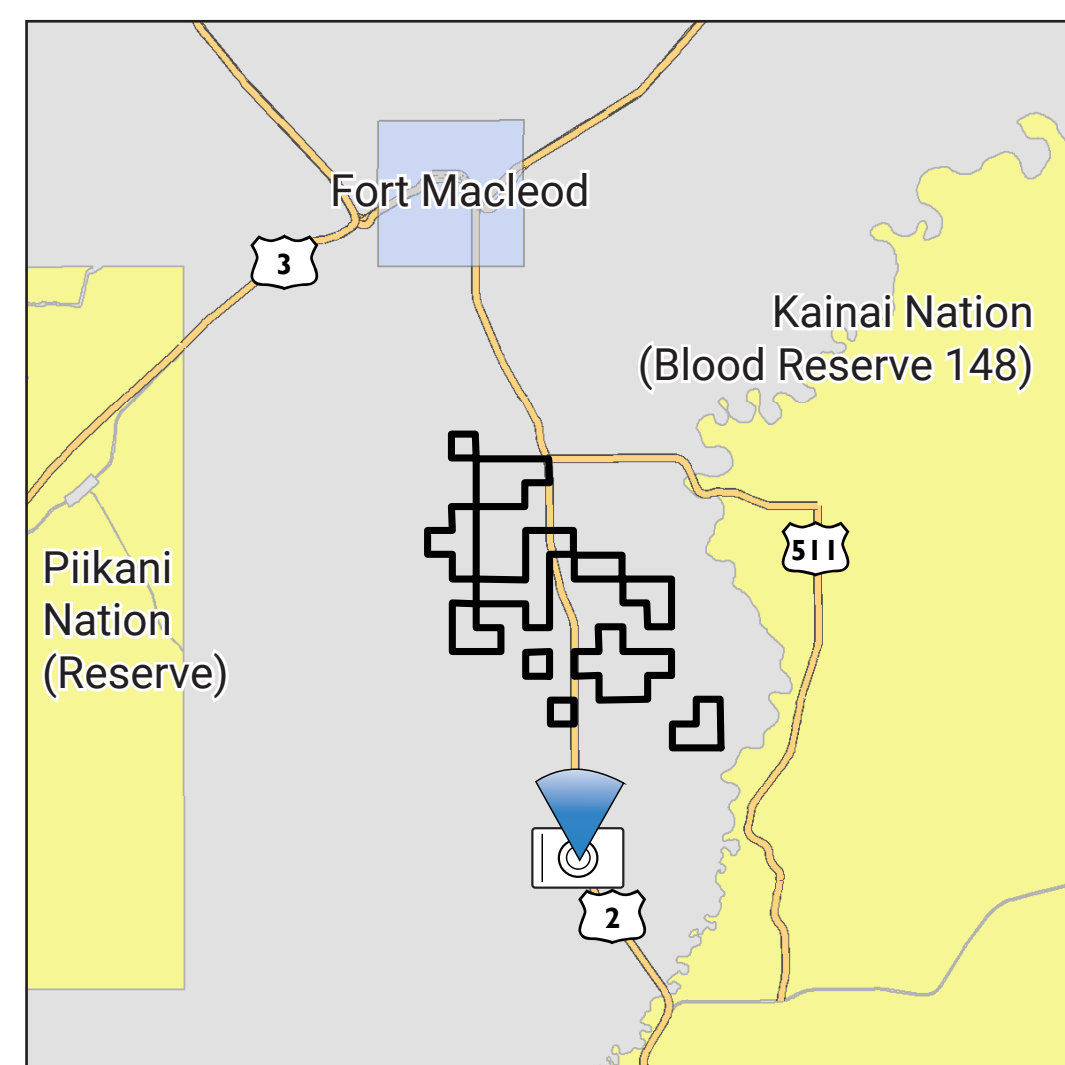



 Image looking southwest from Highway 511



 Image looking east from Highway 3



 Image looking north from Highway 2

Project Visualizations

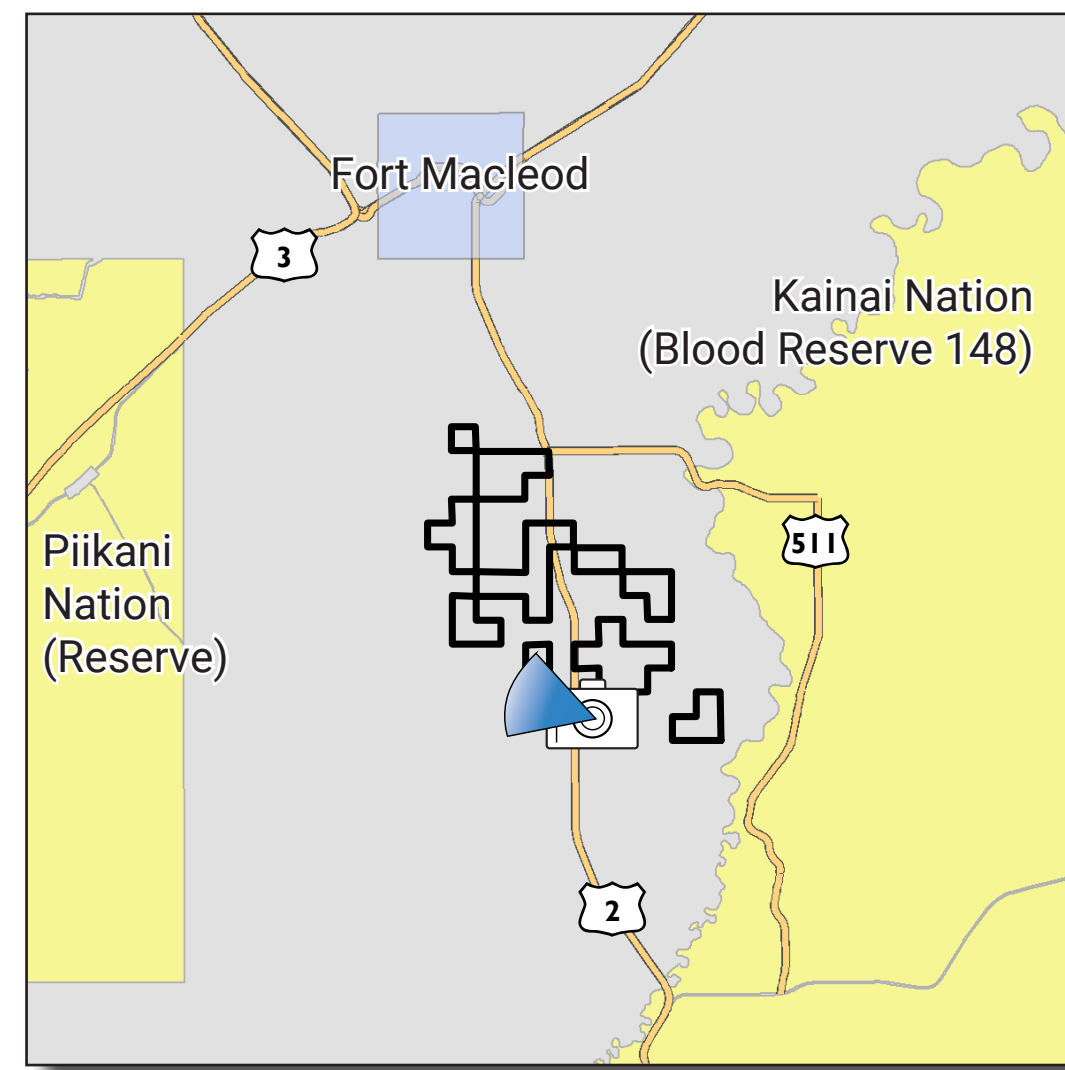
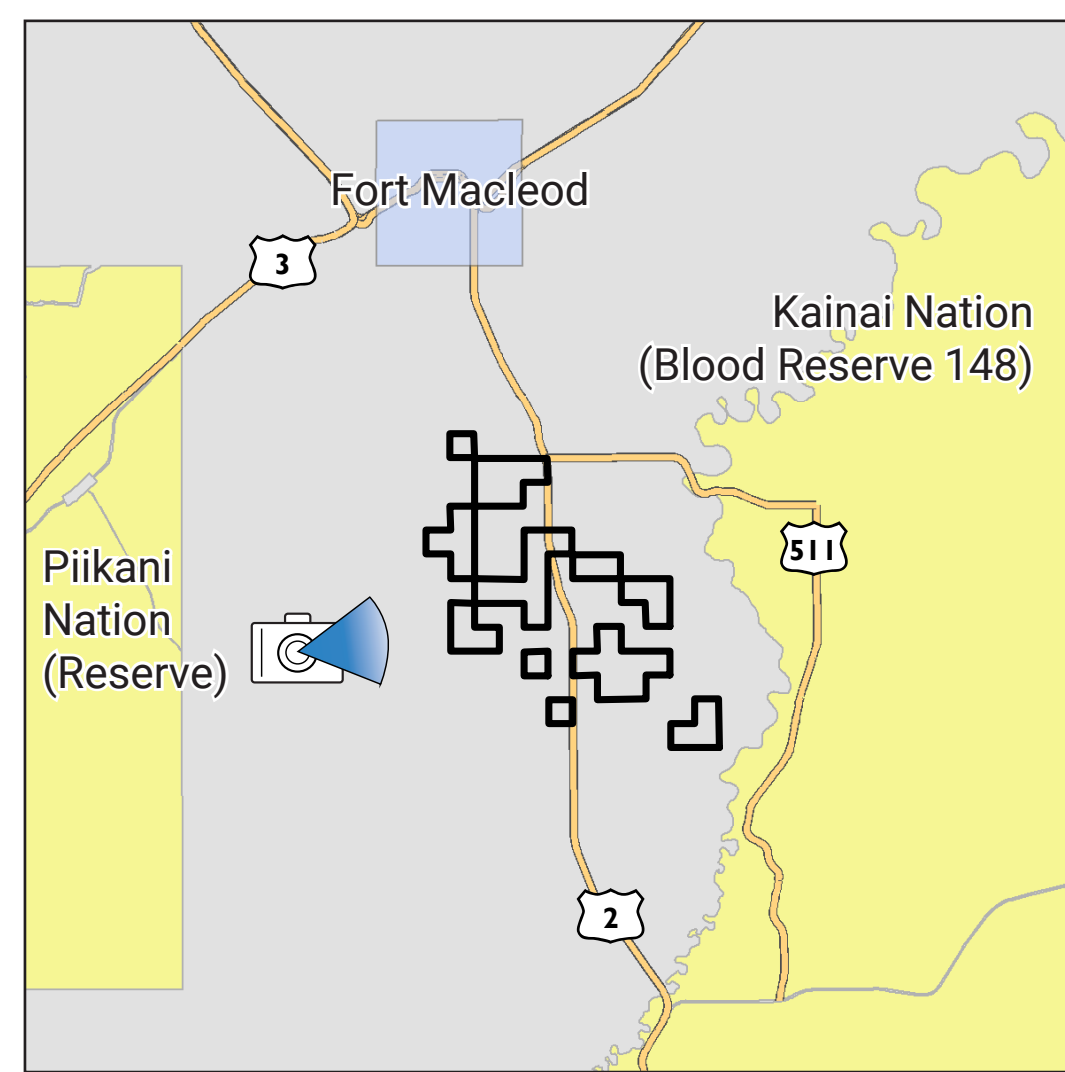



 Image looking northwest from Highway 511



 Image looking east from Township Road 74

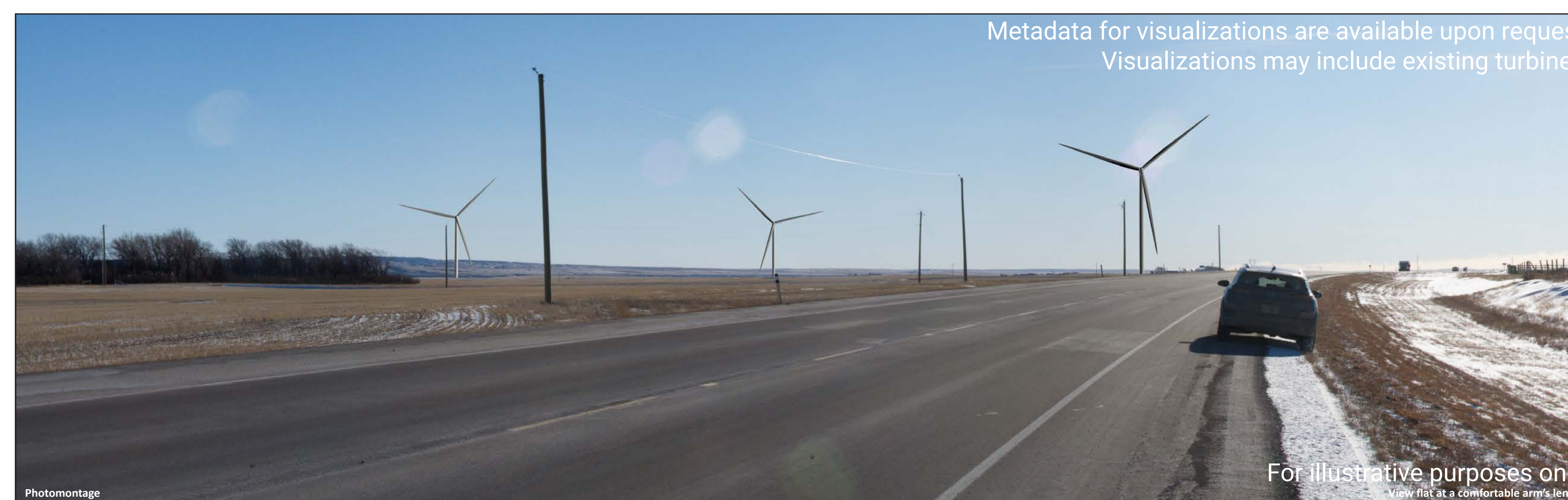
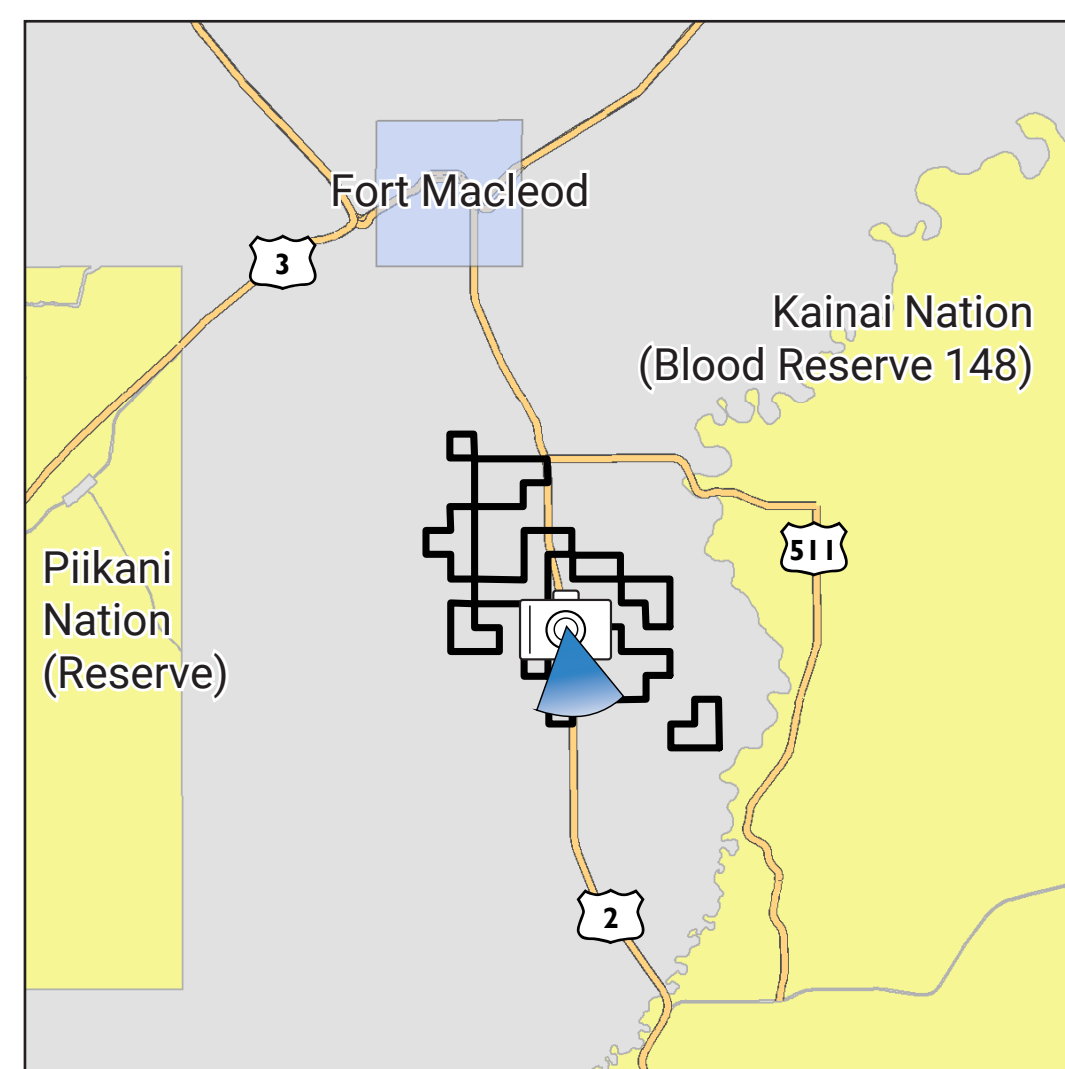


 Image looking southeast from Highway 2