



## ShakeAlert Station Siting Report

**Station: 1207-DOORS**

**Site Coordinates:** 47.05457°, -123.25721°

**Elevation:** 137m

**PLSS Information:** S13 T18N R5W

**Magnetic Declination:** 15.51° E

**Site Address:** Grays Harbor County Parcel: 618051321004

**Landowner:**

**Name:** City of McCleary  
**Phone:** (360) 495-3667

**Contact(s):**

**Main contact:** Todd Baun, Director of Public Works  
**Phone (office):** (360) 495-3667 ext. 103  
**E-mail:** ToddB@CityofMcCleary.com  
**Mailing address:** ATTEN: Todd Baun  
100 S. 3rd St.  
McCleary, WA 98557

**Site Type:** Utilities Compound

**Site Visit:** May 4, 2021  
**Visitors:** Nicholas Schlagenhaft  
**Report by:** Nicholas Schlagenhaft  
**Report approval:** Karl Hagel 5/6/2021

**Instrumentation to be Installed:**

- 6-channel broadband sensor (enclosure type: post and power)
- GPS antenna
- Repeater box for IT equipment in comm shack
- Repeater box for AC to DC power conversion
- 2x Nanobeam pucks

**Instrument Location:**

The station sensor will be located within a gated utility compound owned by the City of McCleary. The post-hole sensor will be located in the northwest corner of the compound, within the perimeter fence. The post and power enclosure will be located approximately 20 ft to the east of the post-hole sensor, adjacent to the perimeter fence. Contractors should advance the post-hole to a depth of 10 ft to minimize noise from a comms tower to the east. Contractors should use site photo references to determine location of post-hole sensor and post and power enclosure.

A GPS antenna will be mounted to the post and power enclosure.

**Power Option:**

- Power will be provided via an outdoor 120V ac outlet located approximately 13m to the south southeast of the station location. AC power will be converted to low voltage DC power and trenched to the post and power enclosure. A licensed electrician will be required to pull power for the instrument.

**Internet Option:**

- Grays Harbor County PUD has a fiber drop in a comms shack located in the northeast corner of the utility compound. PNSN staff will work with Grays Harbor County PUD to configure an internet connection for the station. 2x Nanobeam pucks will be used to link the station to the fiber drop in the comms shack.

**Telemetry Option:**

- N/A

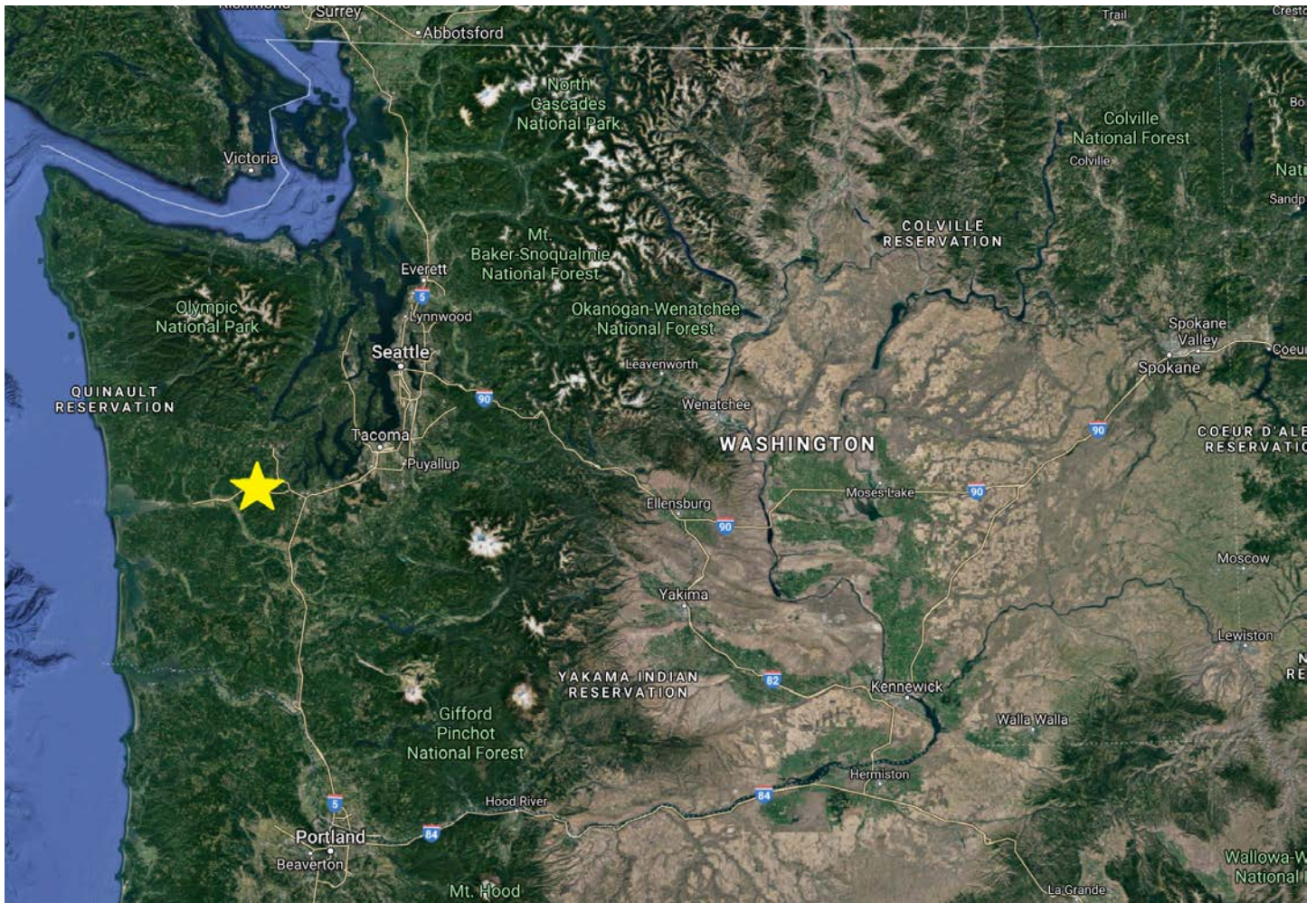
**Issues and Additional Information:**

- All personnel must request permission from the main contact to enter the site area and/or perform any installation or servicing.
- Travel to the site requires passage through a locked gate. PNSN will provide contractors with an access key.
- An electrician will need to be on-site to pull power from the outdoor AC power pole.

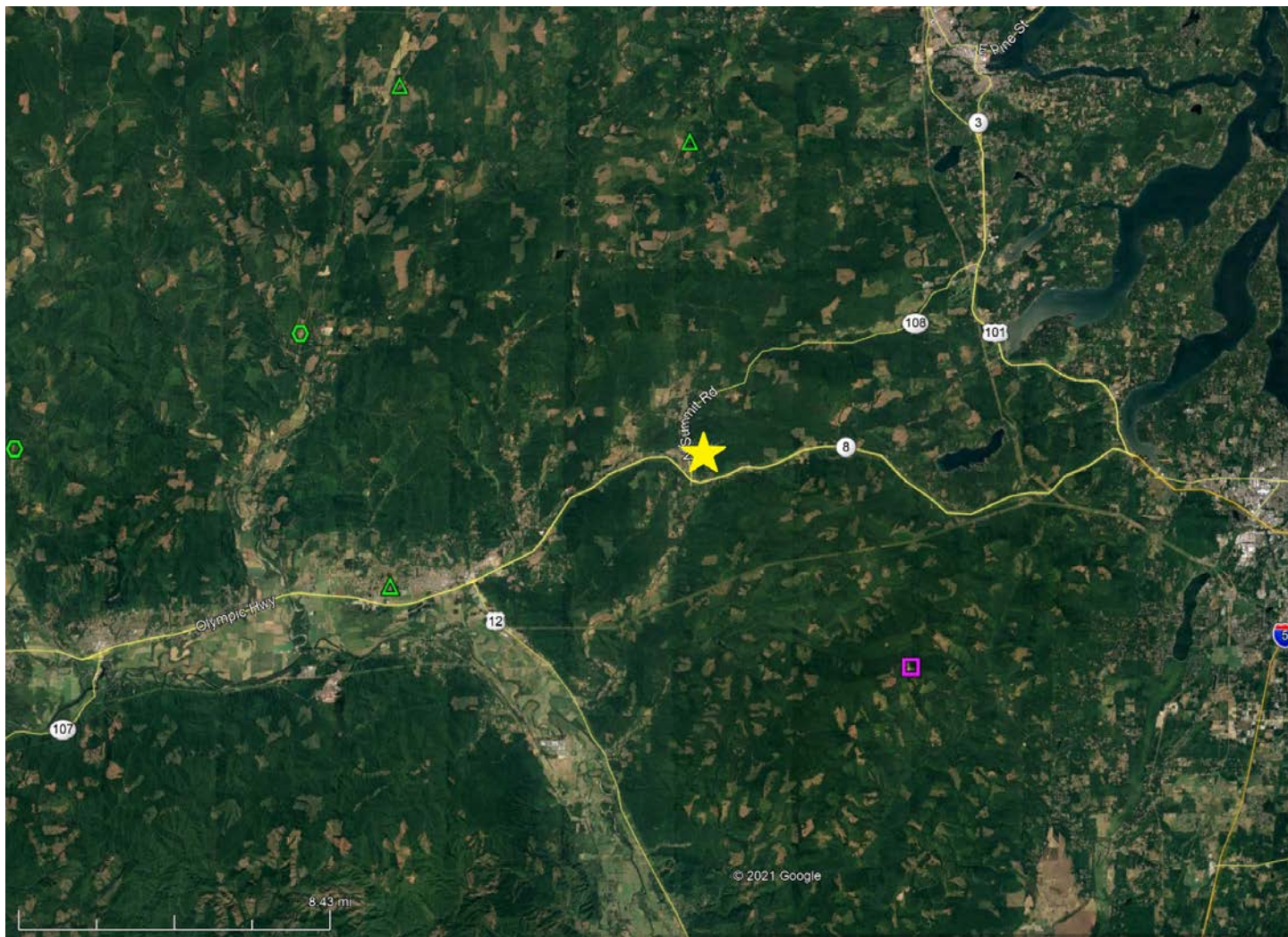
**Background Vibrations:**

- Comms tower (55m to the east. Comms tower is <55m in height)
- HWY 12 (1km to the south/southwest)

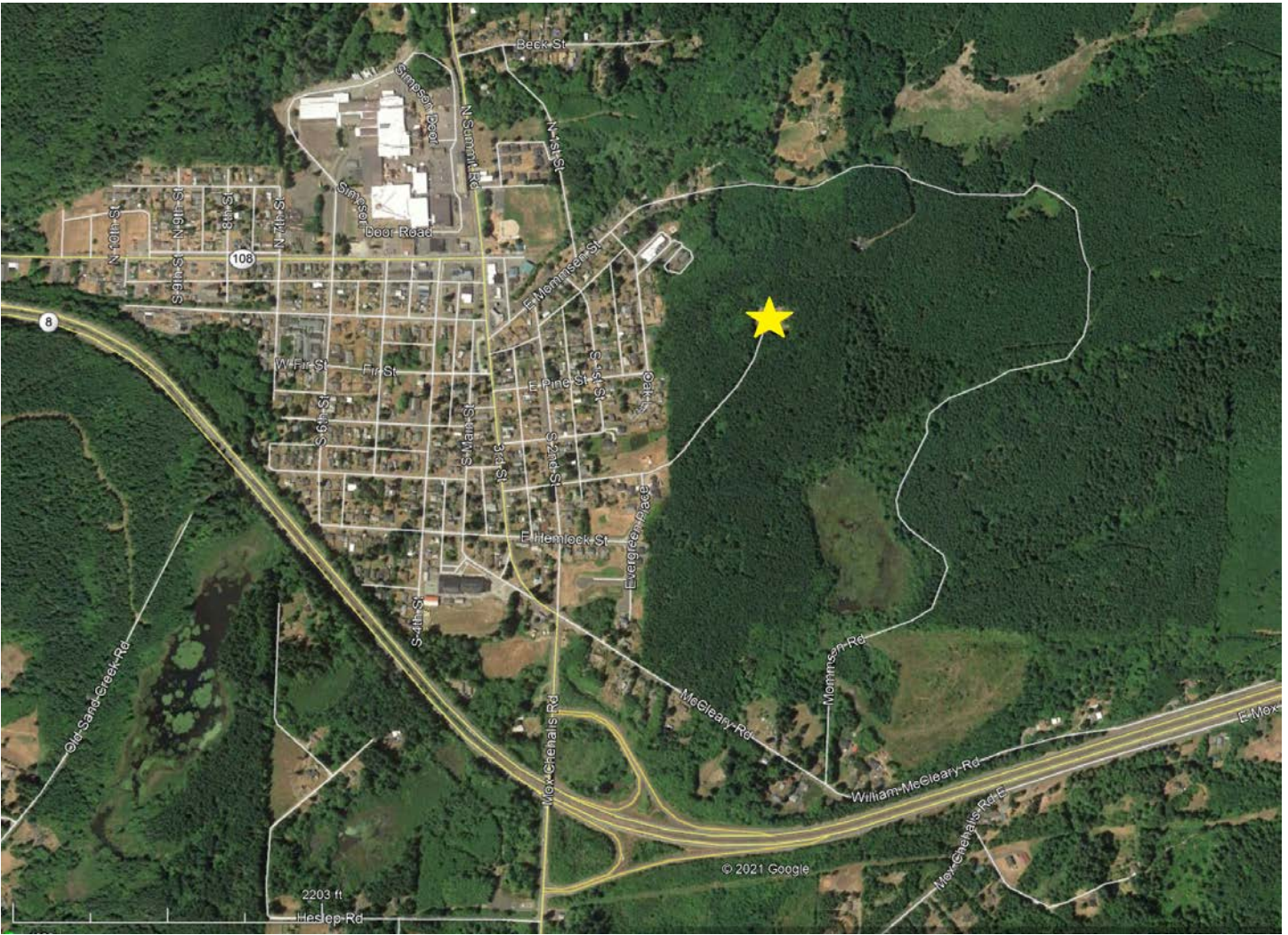
**Site Photos:**



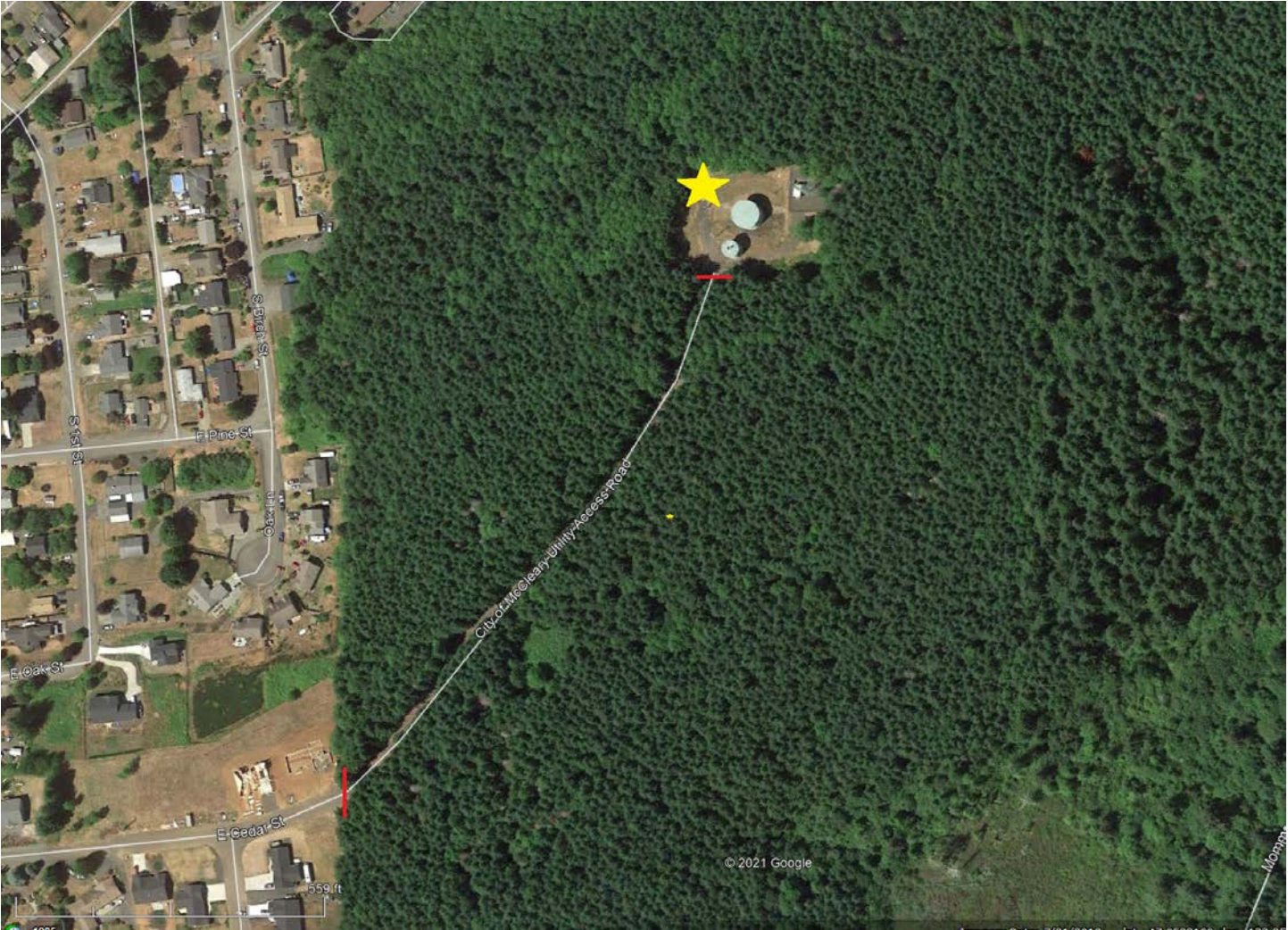
**Image 1:** State-scale aerial image. The location of 1224-COWL is marked by the yellow star.



**Image 2:** Regional-scale aerial image. The location of 1207-DOORS is marked by the yellow star.



**Image 3:** Neighborhood-scale aerial image. The location of 1207-DOORS is marked by the yellow star.



**Image 4:** Directions to Site from McCleary, WA. Head east on E Cedar St. until you reach a locked gate at the tree (red line in bottom left of image). Continue on City of McCleary-Utility Access Road to a second locked gate (red line in top center of image). The site is located in the northwest corner of the fenced utility compound (yellow star). PNSN will provide contractors with keys for gate access.

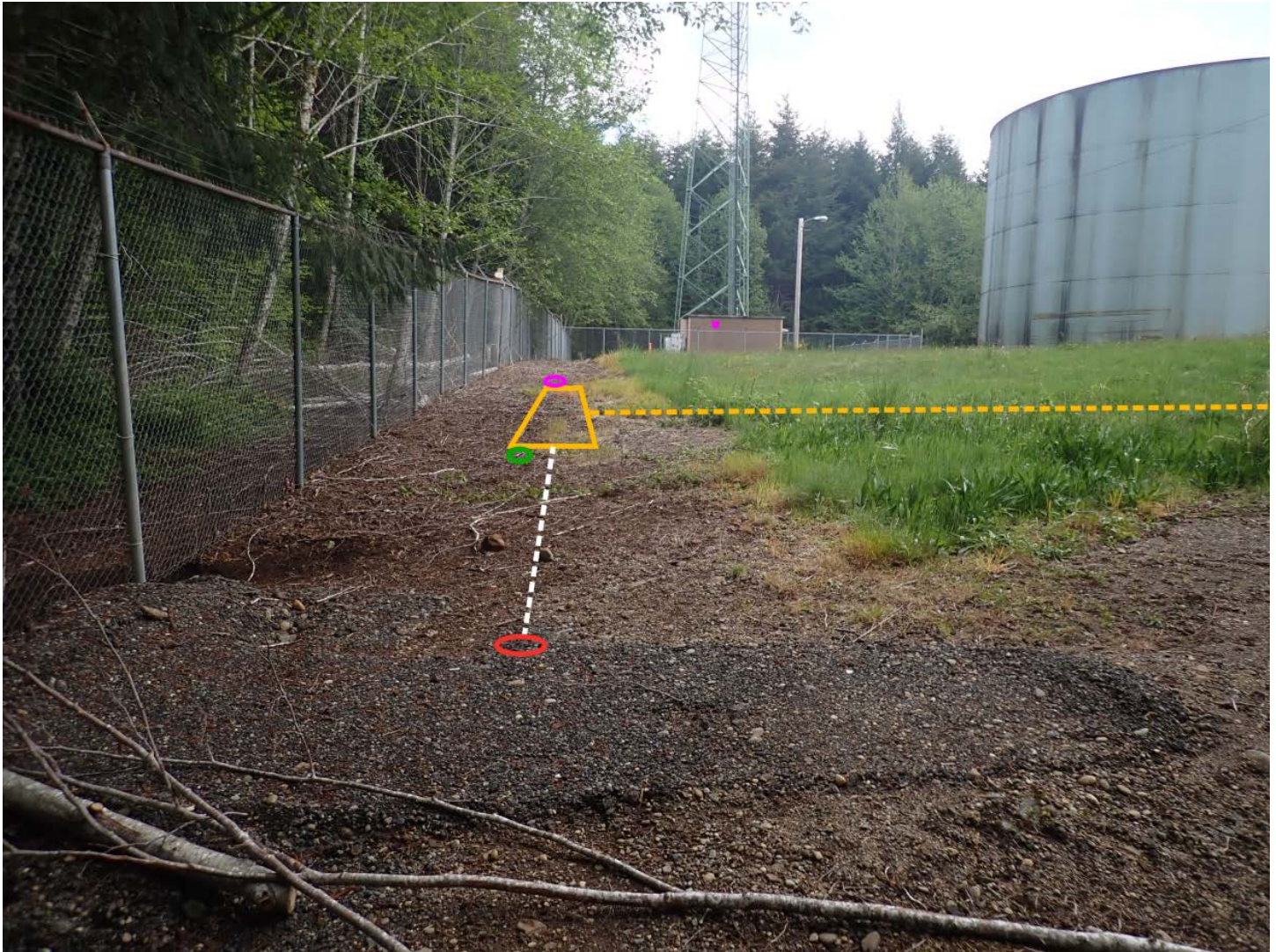


**Image 5:** Looking north at the station configuration for 1207-DOORS. The post-hole sensor (marked by red circle) will be located in the northwest corner of the fenced-in utility compound. The post and power enclosure (marked by the orange rectangle) will be located approximately 20 ft to the east of the post-hole sensor, along the north fence line of the utility compound. Cabling (dashed white lines) between the sensor and the post and power enclosure will be trenched. Power for the instrument will be provided by an outdoor pole-mounted 120v AC connection located approximately 16m to the southeast. AC power will be converted to low-voltage DC current and trenched to the post and power enclosure (orange dashed line). The trench path for the low-voltage power cable will depend on the location of buried utilities (fiber). A GPS antenna (green circle) will be mounted to the post and power enclosure. A Nanobeam puck (purple circle) will be mounted to the post and power enclosure and pointed to the comms shack in the northeast corner of the fenced-in utility compound where contractors will mount a second Nanobeam puck.



**Image 6:** Looking west at the station configuration for 1207-DOORS. The post-hole sensor (marked by red circle) will be located in the northwest corner of the fenced-in utility compound. The post and power enclosure (marked by the orange rectangle) will be located approximately 20 ft to the east of the post-hole sensor, along the north fence line of the utility compound. Cabling (dashed white lines) between the sensor and the post and power enclosure will be trenched. Power for the instrument will be provided by an outdoor pole-mounted 120v AC connection located approximately 16m to the southeast. AC power will be converted to low-voltage DC current and trenched to the post and power enclosure (orange dashed line). The trench path for the low-voltage power cable will depend on the location of buried utilities (fiber). A GPS antenna (green circle) will be mounted to the post and power enclosure. A Nanobeam puck (purple circle) will be mounted to the post and power enclosure and pointed to the comms shack in the northeast corner of the fenced-in utility compound where contractors will mount a second Nanobeam puck.





**Image 7:** Looking east at the station configuration for 1207-DOORS. The post-hole sensor (marked by red circle) will be located in the northwest corner of the fenced-in utility compound. The post and power enclosure (marked by the orange rectangle) will be located approximately 20 ft to the east of the post-hole sensor, along the north fence line of the utility compound. Cabling (dashed white lines) between the sensor and the post and power enclosure will be trenched. Power for the instrument will be provided by an outdoor pole-mounted 120v AC connection located approximately 16m to the southeast. AC power will be converted to low-voltage DC current and trenched to the post and power enclosure (orange dashed line). The trench path for the low-voltage power cable will depend on the location of buried utilities (fiber). A GPS antenna (green circle) will be mounted to the post and power enclosure. A Nanobeam puck (purple circle) will be mounted to the post and power enclosure and pointed to the comms shack in the northeast corner of the fenced-in utility compound where contractors will mount a second Nanobeam puck (smaller purple circle).



**Image 8:** Looking north northwest at the AC power pole that will provide power for the instrument. The proposed station location is depicted in the background of the image. AC power will be converted to low voltage DC power and trenched to the post and power enclosure. The precise path of trenching will depend on the location of other buried utilities (fiber). A small repeater box will need to be mounted to the power pole to host the AC to DC power converter. An electrician will need to be onsite to pull power from the power pole.



**Image 9:** Looking east northeast at the AC power pole that will provide power for the instrument. AC power will be converted to low voltage DC power and trenched to the post and power enclosure. The precise path of trenching will depend on the location of other buried utilities (fiber). A small repeater box will need to be mounted to the power pole to host the AC to DC power converter. An electrician will need to be onsite to pull power from the power pole.



**Image 10:** Looking north at the comms shack and comms tower in the northeast corner of the fenced-in utility compound. The shack and tower are located within a second locked perimeter. PNSN will acquire keys for gate access.



**Image 11:** Telemetry-scale image depicting the proposed VHF shot to a demarcation point in Toledo, WA.