NARRATIVE

Project Description

- The purpose of this project is to construct a fiber optic network within the city of Orono, MN for Midcontinent Communications (Midco). The project entails multiple crossings that fall within the watersheds district. All crossings in the area will be permitted under one permit.
- All the proposed crossings will be horizontally directionally drilled; with the drill being set up a minimum of 100' away from each of the said crossings, unless noted otherwise on overviews.

Planned Erosion and Sedimentation Control Practices

-Our method of installation will not require surface destabilization; only if/when other existing utilities impede our path to installation will destabilization be required. If needed, surface stabilization will be accomplished with existing vegetation, straw mats and straw wattles until regrowth occurs in affected areas. Affected areas will be hand dug holes to locate any potential utilities in conflict with the installation of the proposed utility. Those potential affected areas will not be known until proximity to the installation date.

-For setbacks under 100' due to geographic or existing roadway circumstances, straw wattles will be placed around the drill rig until drilling is complete. Once the drill rig is removed from the location, The first erosion control practice(s) will be utilized for the area within the wattles as stated in the previous paragraph. The wattles originally around the drill will remain until regrowth occurs within the affected area. The specific location for the drill to be setup within 100' will be carefully selected so as to maintain stream or wetland integrity with minimal disturbance to be re-stabilized.

CONSTRUCTION SCHEDULE

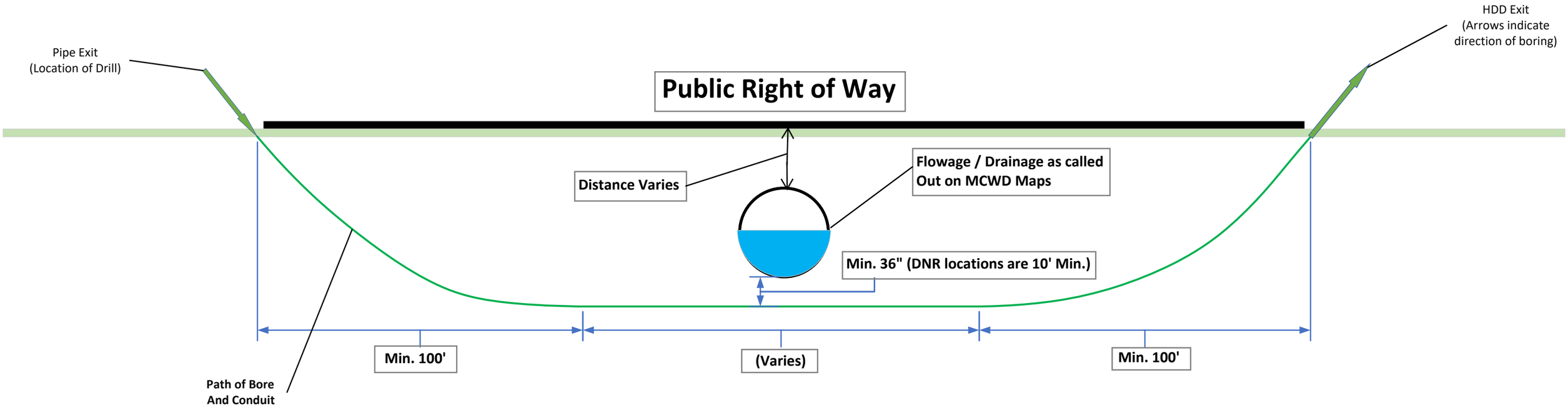
1. Obtain plan approval and other applicable permits.
2. Flag the work area and note setbacks for equipment no closer than 100 feet from waterbody.
3. If a disturbance in the soil is necessary, straw wattles will be placed near the soil collection mounds to impede runoff or erosion to the waterbody. (See also under 100 foot setback erosion plan)
4. Install conduit under waterway/wetland in accordance with this permit.
5. Disturbed areas will be backfilled, compacted to 3" lower than grade; loose fill soil will then be placed to grade with seed to initiate re-stabilization.
6. Install temporary straw mats and wattles over and around any destabilized surface areas that were required for the installation of the conduit.
7. All soil and erosion control methods implemented will be monitored after rainfall events and no longer than weekly. Needed repairs will be made promptly.
8. After site(s) is stabilized, remove all temporary measures.

Reroute Statement

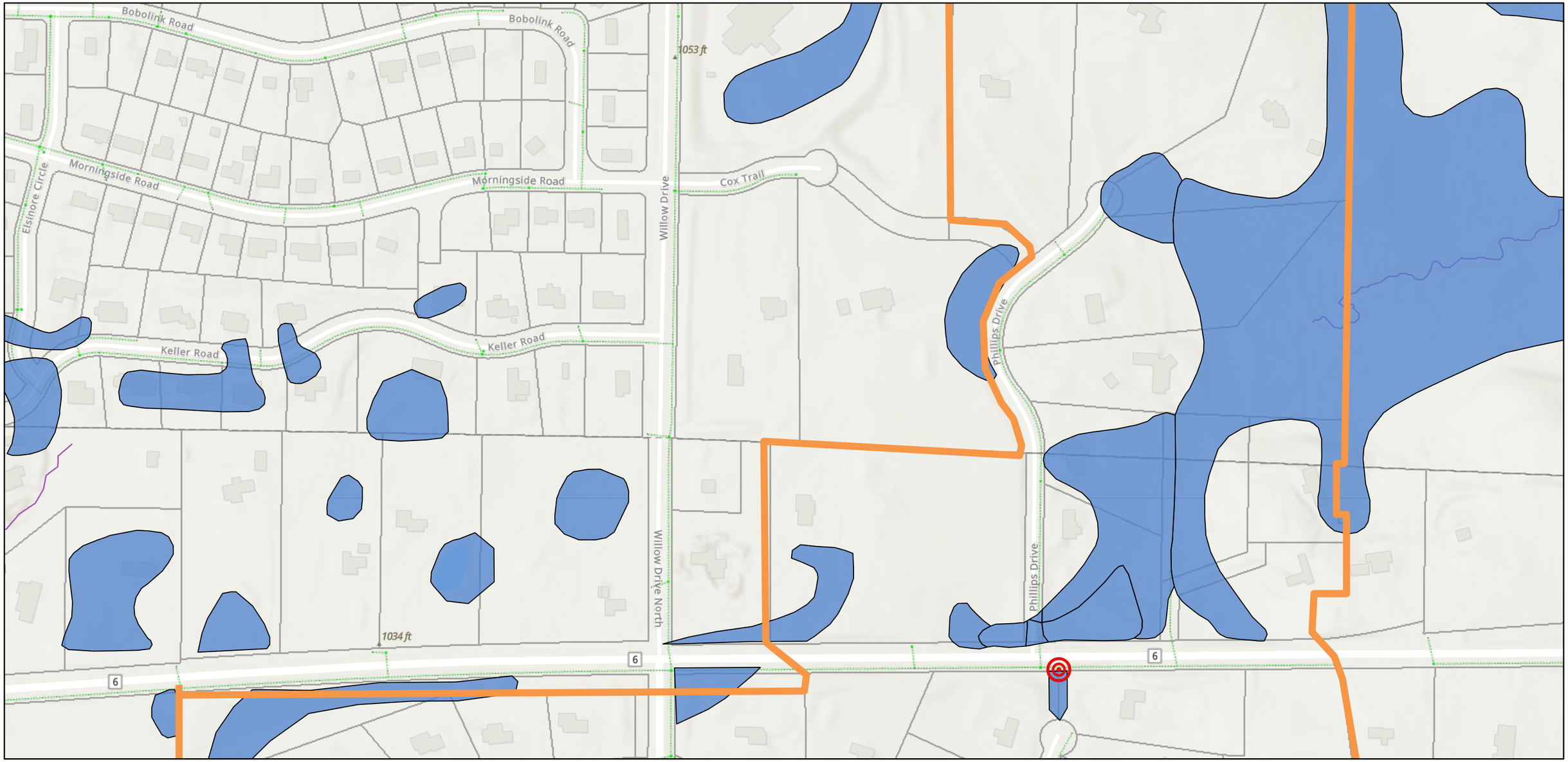
We are servicing fiber optic cable to all parcels within City limits. Reroute(s), while technically possible, would not eliminate substantial amounts of watershed stream locations. Reroute(s) that would lower the overall number affected locations would simultaneously prohibit certain parcels from being able to be serviced with fiber optic cables for our project. We will be horizontally Directionally drilling everything, setting up at a minimum of 100' from the stream or waterbody. Minimal impact will be exercised at all locations.

General Overview

Overviews of each crossing or parallel are included in this permit application. The MCWD Stream Order Map, MS4 Data Set and the Functional Assessment of Wetlands feature layers were overlayed onto our mapping system temporarily for ease of visualization. These overviews will indicate which side of a public road right-of-way we intend to drill. The specific distance from centerline will be determined when locates become valid during construction. Due diligence will be taken when choosing the route to be as minimally invasive as possible. The specific location of the bore path start pit and stop pit will vary but will be **at least 100'** from the wetland or stream, unless noted otherwise on the overviews. The wetlands classified as "NA" or "NW" are omitted from this application, unless they happen to be near classified wetlands in the overview. They will be noted as such. For the "wetlands" that are encompassed by houses and roads, overviews are included in this permit application with a callout indicating distances assumed. A side profile will be included at the beginning of the permit pack. Those specifications indicated will be followed anytime there is a crossing of a stream or wetland, as called out in the MCWD dataset. In the instance a crossing also requires a MNDNR crossing permit, we are mandated to be 10' below culvert and or thalweg.


Pipe Exit
(Location of Drill)
Public Right of Way
HDD Exit
(Arrows indicate
direction of boring)
Distance Varies
Flowage / Drainage as called
Out on MCWD Maps
Min. 36" (DNR locations are 10' Min.)
Path of Bore
And Conduit
Min. 100'
(Varies)
Min. 100'

2026 Orono Overview North MCWD



2/3/2026, 3:00:39 PM

1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

MCWD_FAW_gdb - MCWD_FAW

MCWD_STREAM_ORDER_gdb - MCWD_STREAM_ORDER

Trench

<all other values>

No

Yes

UndergroundStructure

<all other values>

Ped

Apt Box

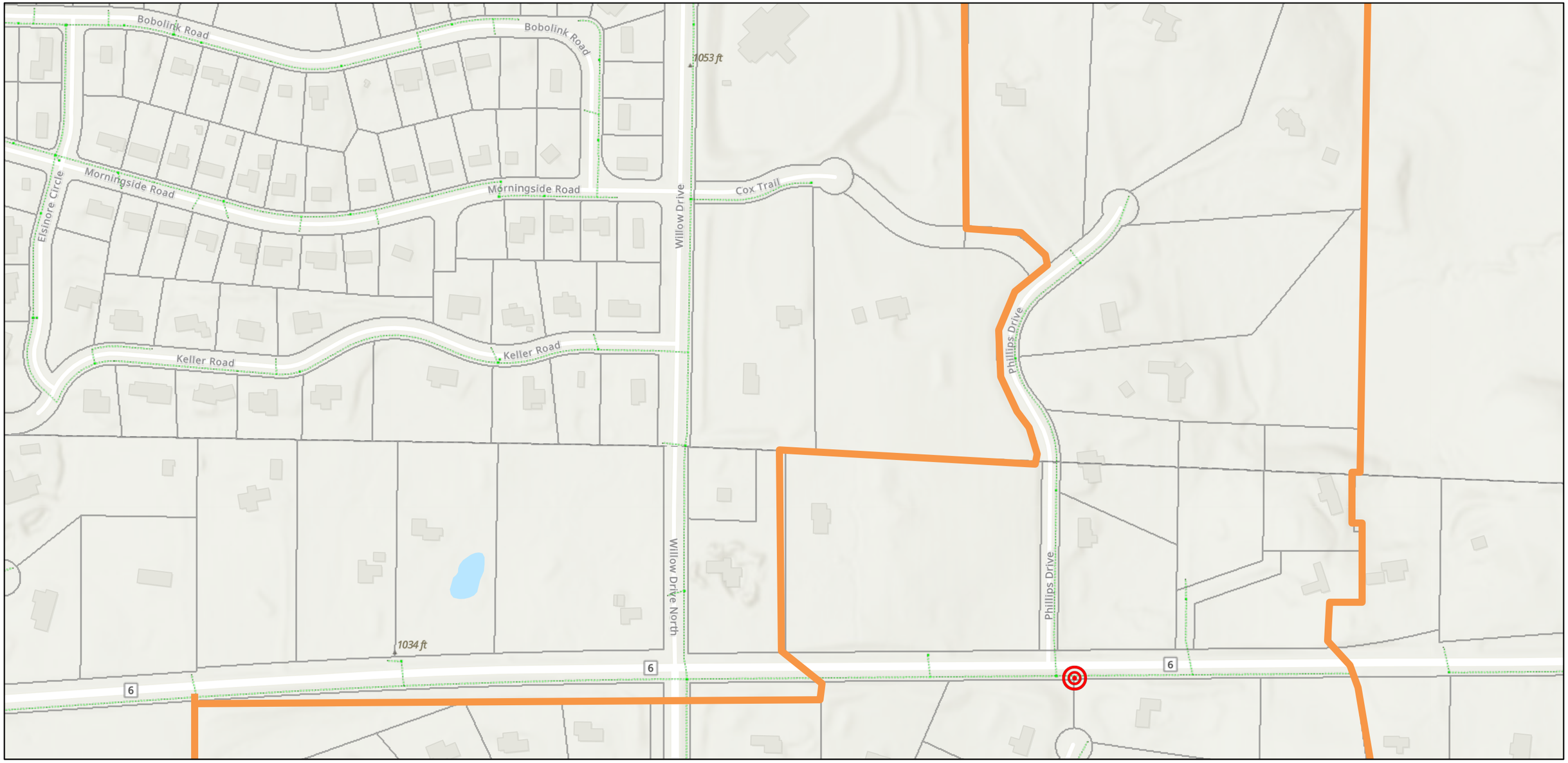
Vault

SupportStructure

Address Point

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural

2026 Orono Overview North



2/3/2026, 4:14:12 PM

Trench
- Yes
- <all other values>
- No

UndergroundStructure
- <all other values>

Ped
Apt Box
Vault

SupportStructure
Address Point

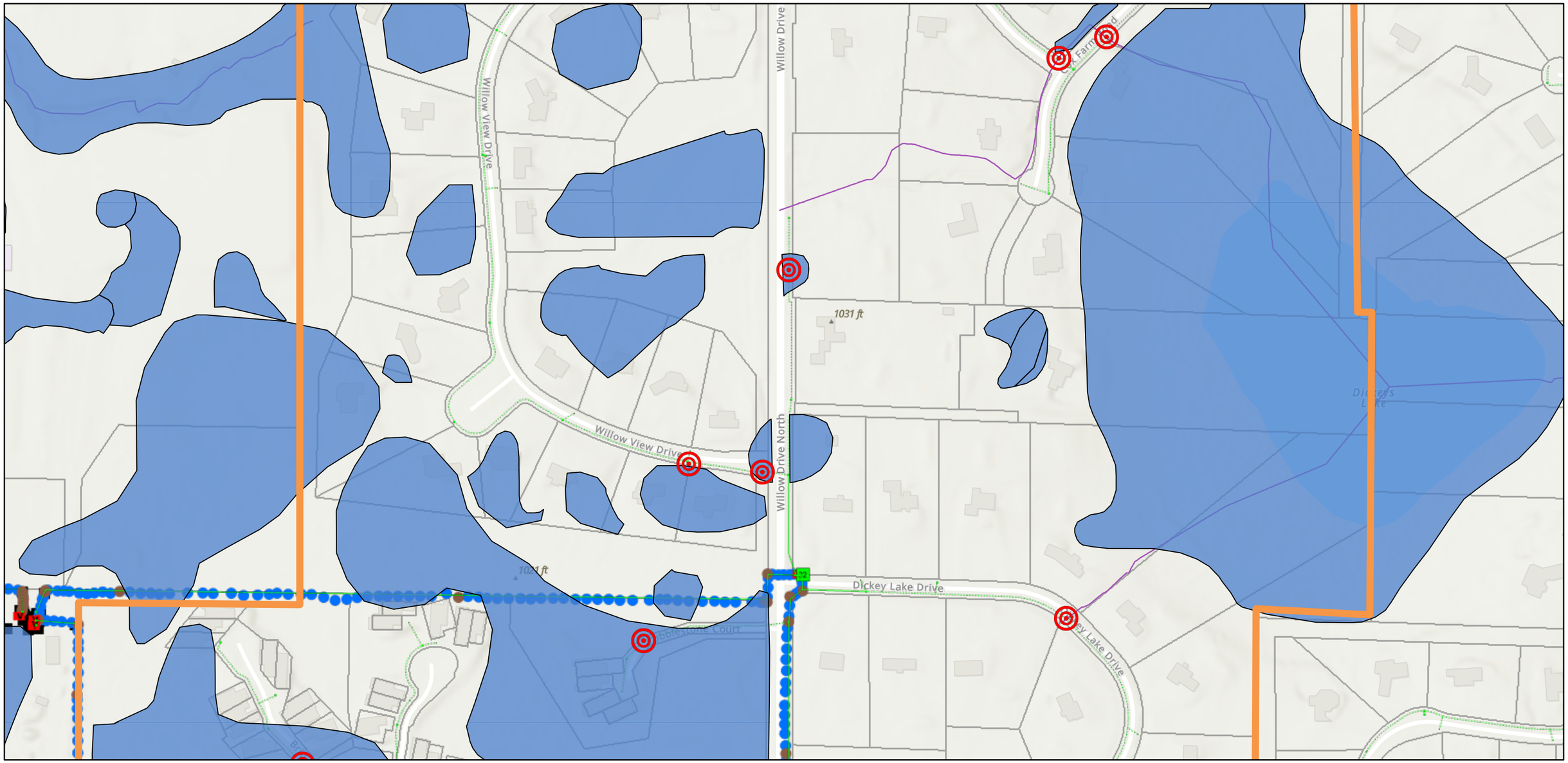
1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural

2026 Orono Overview Middle MCWD



2/3/2026, 3:03:35 PM

MCWD_FAW_gdb - MCWD_FAW

MCWD_STREAM_ORDER_gdb - MCWD_STREAM_ORDER

Trench

- <all other values>
- No
- Yes

UndergroundStructure

- <all other values>
- Ped
- Apt Box
- Vault
- SupportStructure
- Address Point

ROW_Markers

Running_Line

- Bore
- Trench

Chambers

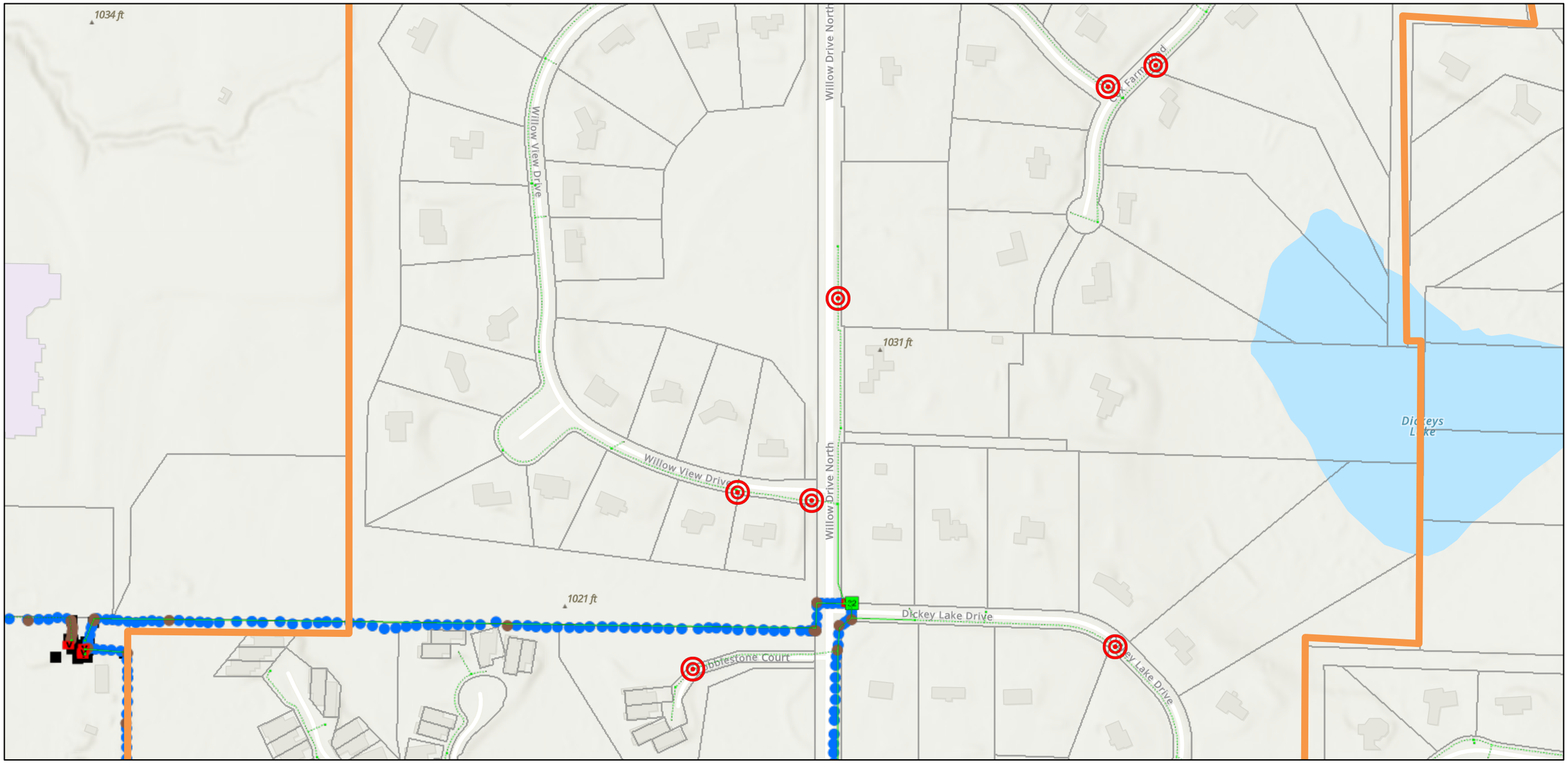
- Large Vault
- PON Cabinet

1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

2026 Orono Overview Middle



2/3/2026, 4:15:43 PM

1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

Trench
- <all other values>
- No
- Yes

UndergroundStructure
- <all other values>
- Ped
- Apt Box

Vault

SupportStructure

Address Point

ROW_Markers

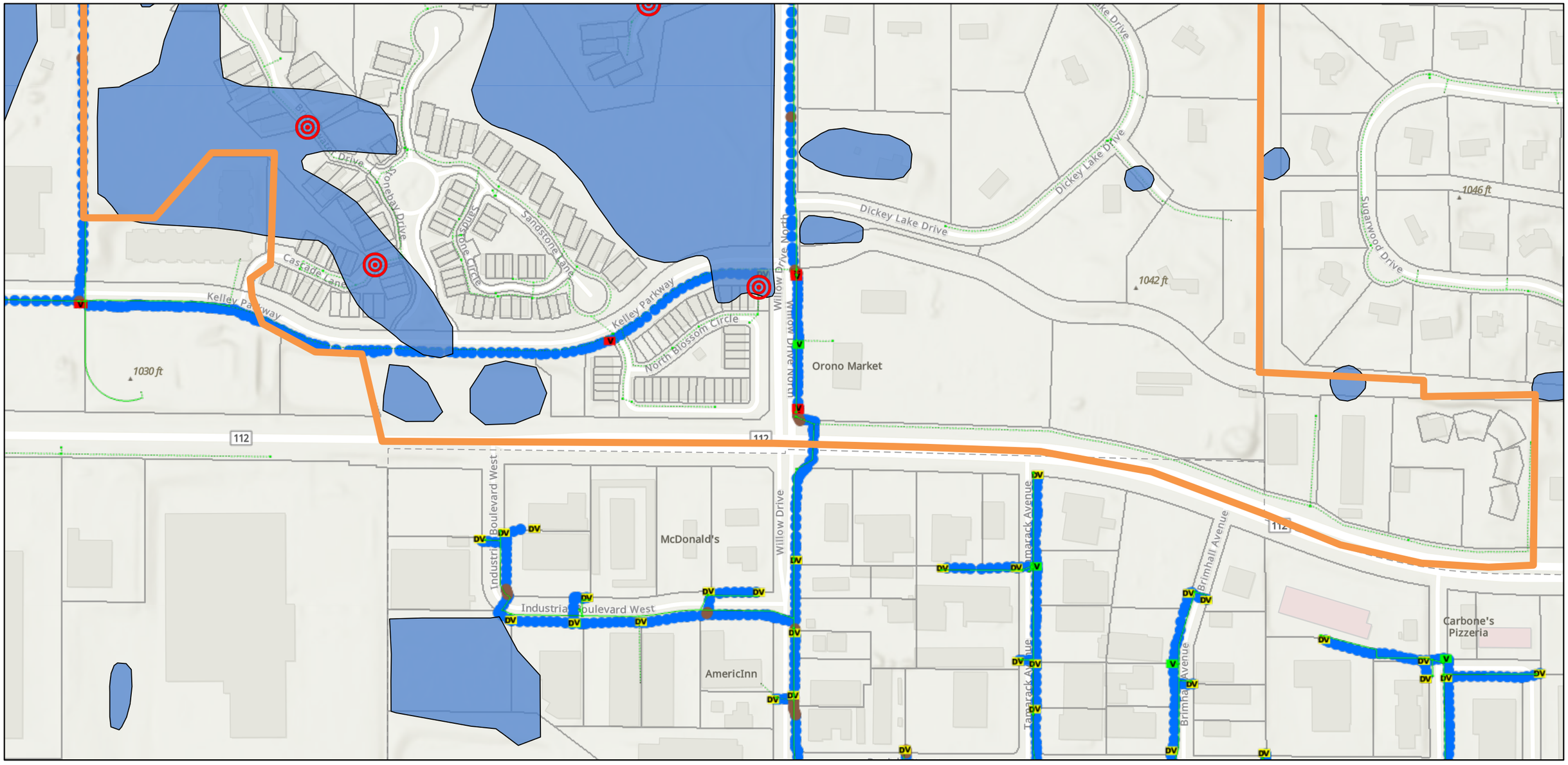
Running_Line
- Bore
- Trench

Chambers
- Large Vault
- PON Cabinet

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural

Web AppBuilder for ArcGIS

2026 Orono Overview South MCWD



2/3/2026, 3:07:24 PM

MCWD_FAW_gdb - MCWD_FAW

Trench
- <all other values>
- No
- Yes

UndergroundStructure
- <all other values>
- Ped
- Apt Box
- Vault
- SupportStructure

Address Point

ROW_Markers

Running_Line
- Bore
- Trench

Chambers
- Large Vault
- PON Cabinet
- Small Vault
- Drop Vault

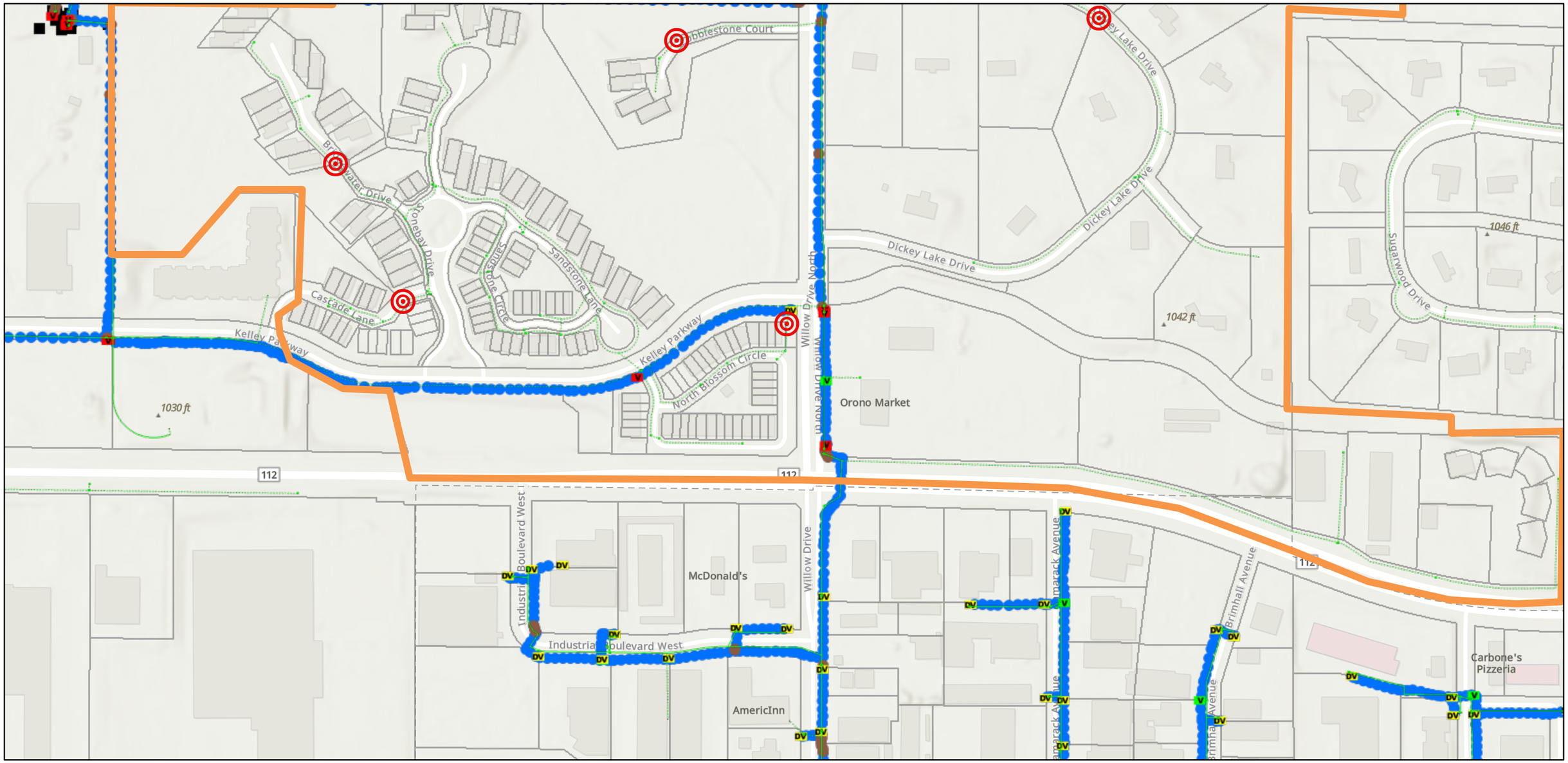
1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural

2026 Orono Overview South



2/3/2026, 4:17:22 PM

1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

Trench
- <all other values>
- No
- Yes

UndergroundStructure
- <all other values>
- Ped
- Apt Box

Vault

SupportStructure

Address Point

ROW_Markers

Running_Line
- Bore
- Trench

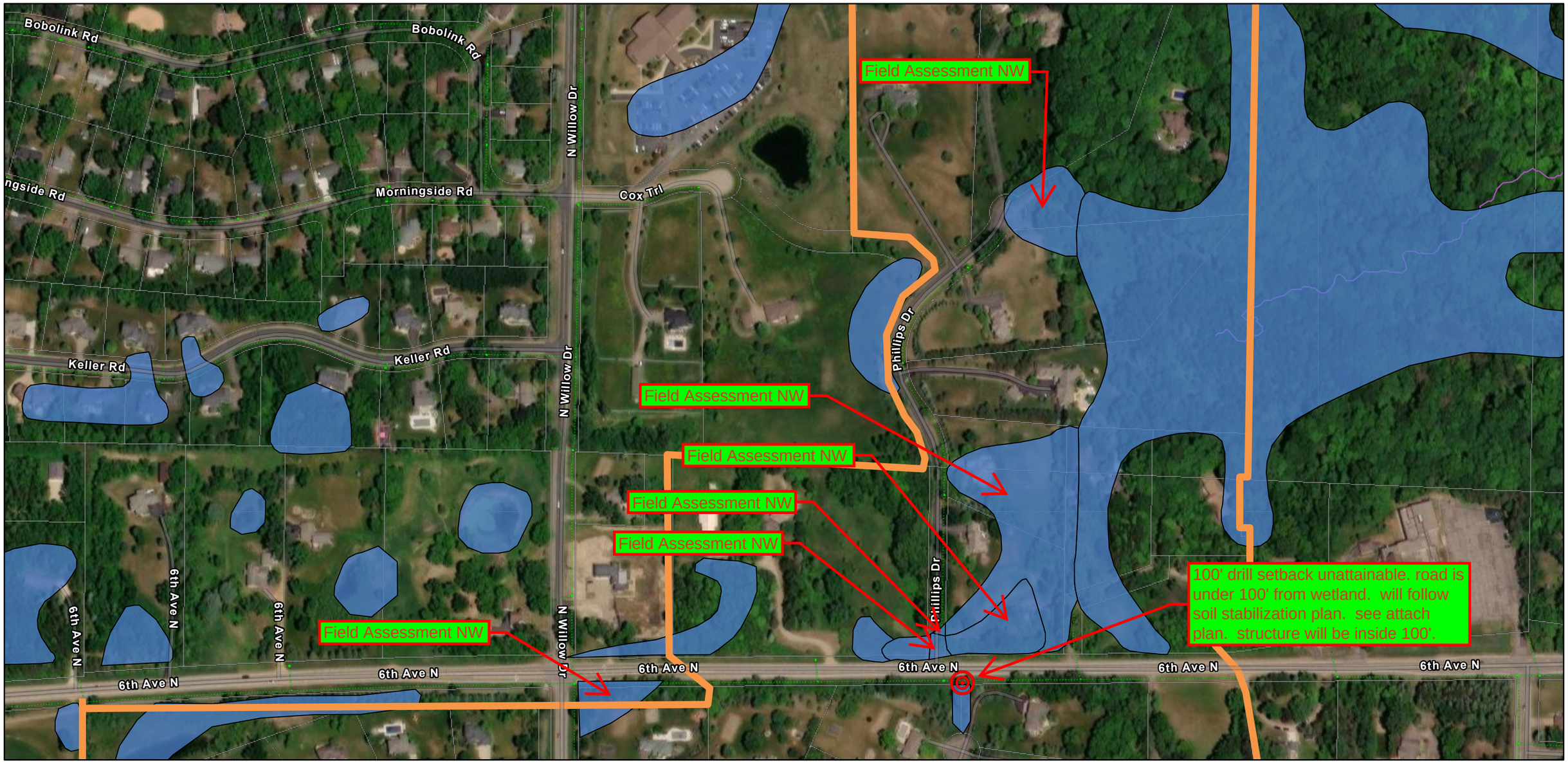
Chambers
- Large Vault
- PON Cabinet
- Pedestal

Small Vault

Drop Vault

Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, Esri Community Maps Contributors, Metropolitan Council, MetroGIS, Three Rivers Park District, MN Dept Natural

1115 Cox Farm Rd Orono MN, 55356



2/3/2026, 3:15:26 PM

MCWD_FAW_gdb - MCWD_FAW

MCWD_STREAM_ORDER_gdb - MCWD_STREAM_ORDER

Trench

<all other values>

No

Yes

UndergroundStructure

<all other values>

Ped

Apt Box

Vault

SupportStructure

Address Point

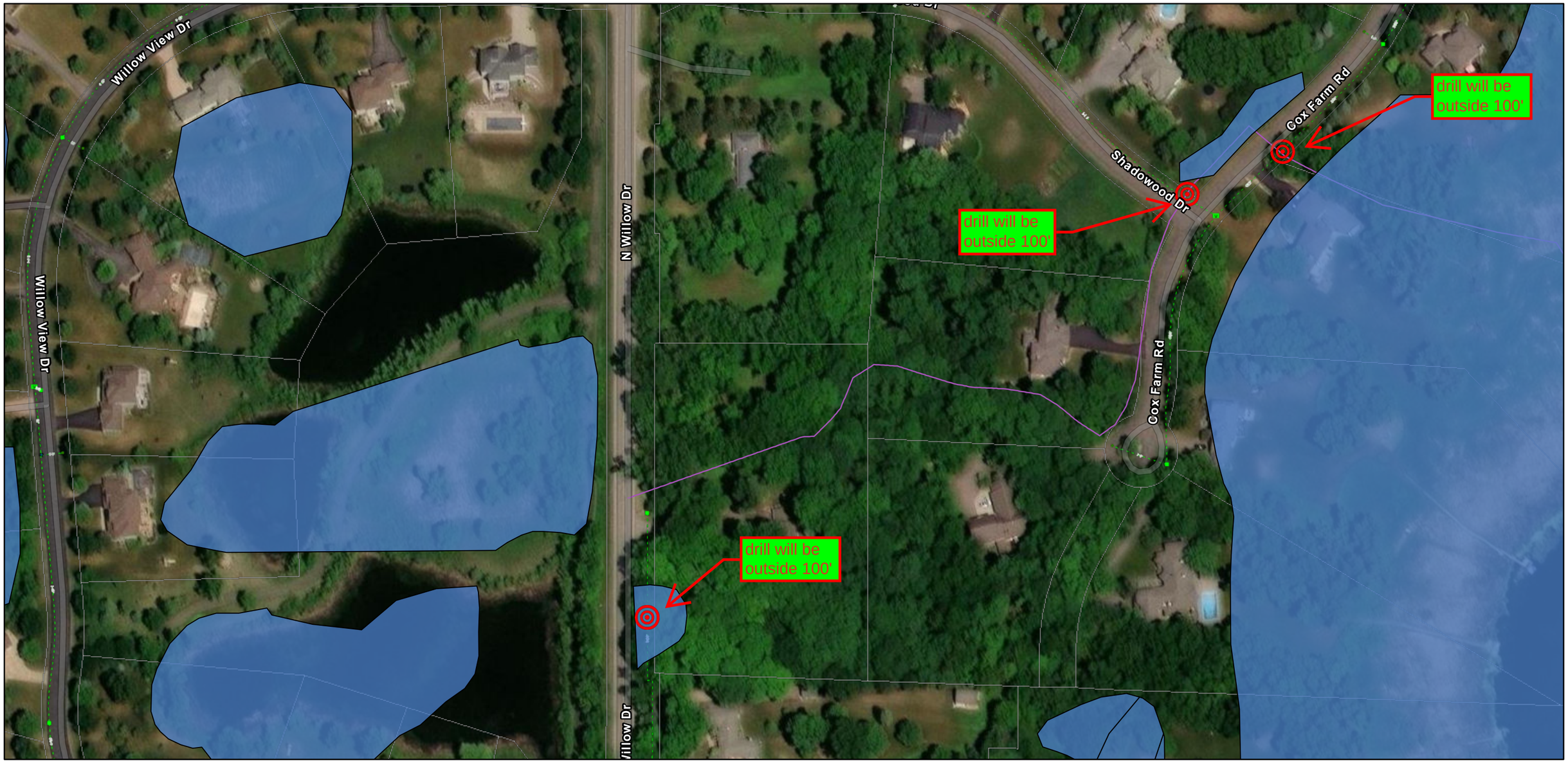
Wetland Conflict

1:4,514

0 0.04 0.07 0.15 mi

0 0.05 0.1 0.2 km

2280 Shadowood Dr Orono MN, 55356



2/3/2026, 3:31:33 PM

MCWD_FAW_gdb - MCWD_FAW

MCWD_STREAM_ORDER_gdb - MCWD_STREAM_ORDER

MduBoundary

RFDrop

Trench

<all other values>

No

Yes

UndergroundStructure

<all other values>

Ped

Apt Box

Vault

SupportStructure

UndergroundJunction

BoreHole

Junction

Address Point

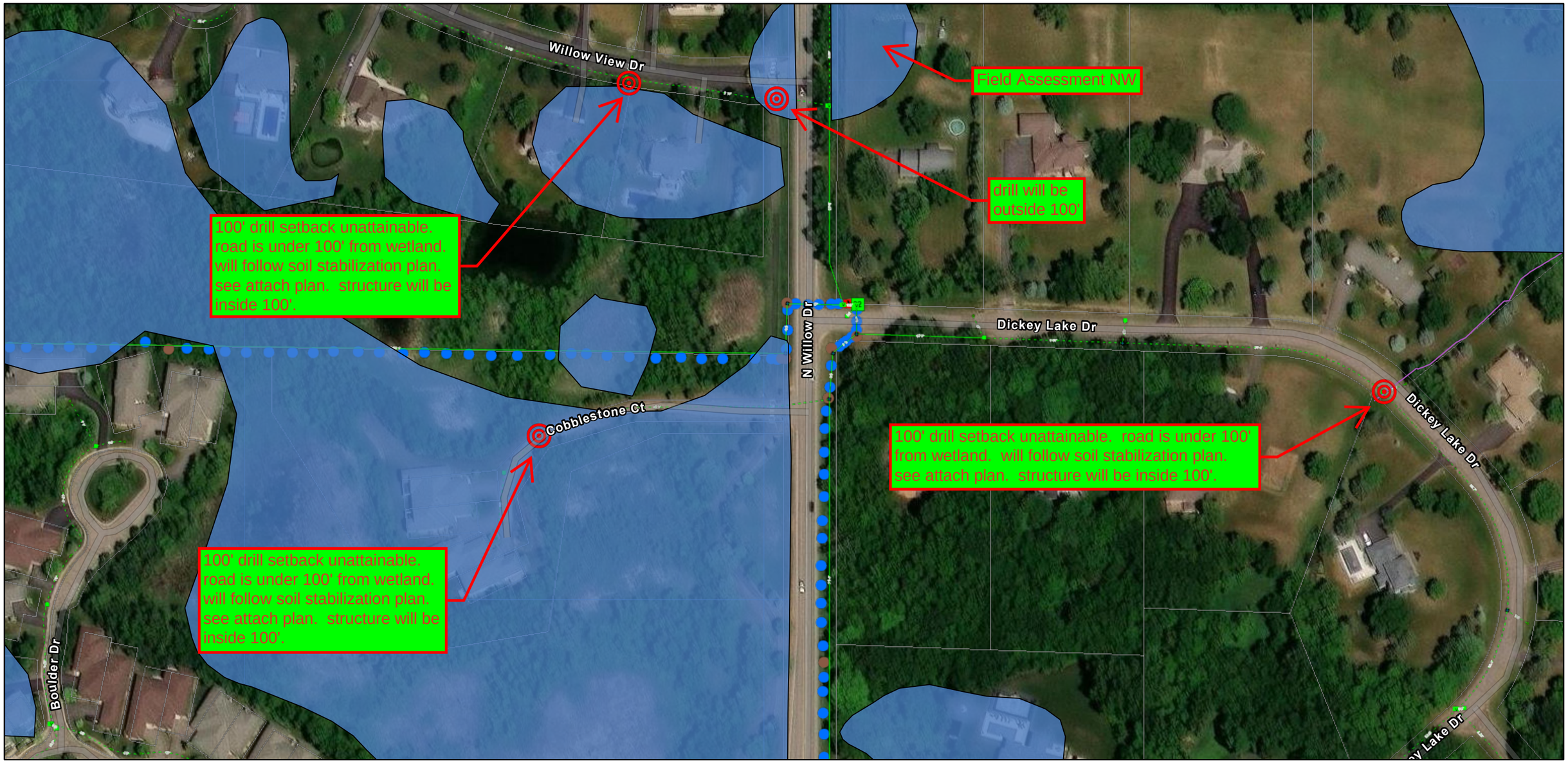
Wetland Conflict

1:2,257

0 0.02 0.04 0.07 mi

0 0.03 0.06 0.12 km

805 Willow View Dr Orono MN, 55356



2/3/2026, 3:49:13 PM

- MCWD_FAW_gdb - MCWD_FAW
- MCWD_STREAM_ORDER_gdb - MCWD_STREAM_ORDER
- MduBoundary
- RFDrop

Trench
- <all other values>
- No
- Yes

UndergroundStructure
- <all other values>
- Ped
- Apt Box
- Vault
- SupportStructure

UndergroundJunction
- BoreHole
- Junction
- Address Point

Running_Line
- Bore
- Trench

Chambers
- Large Vault
- PON Cabinet

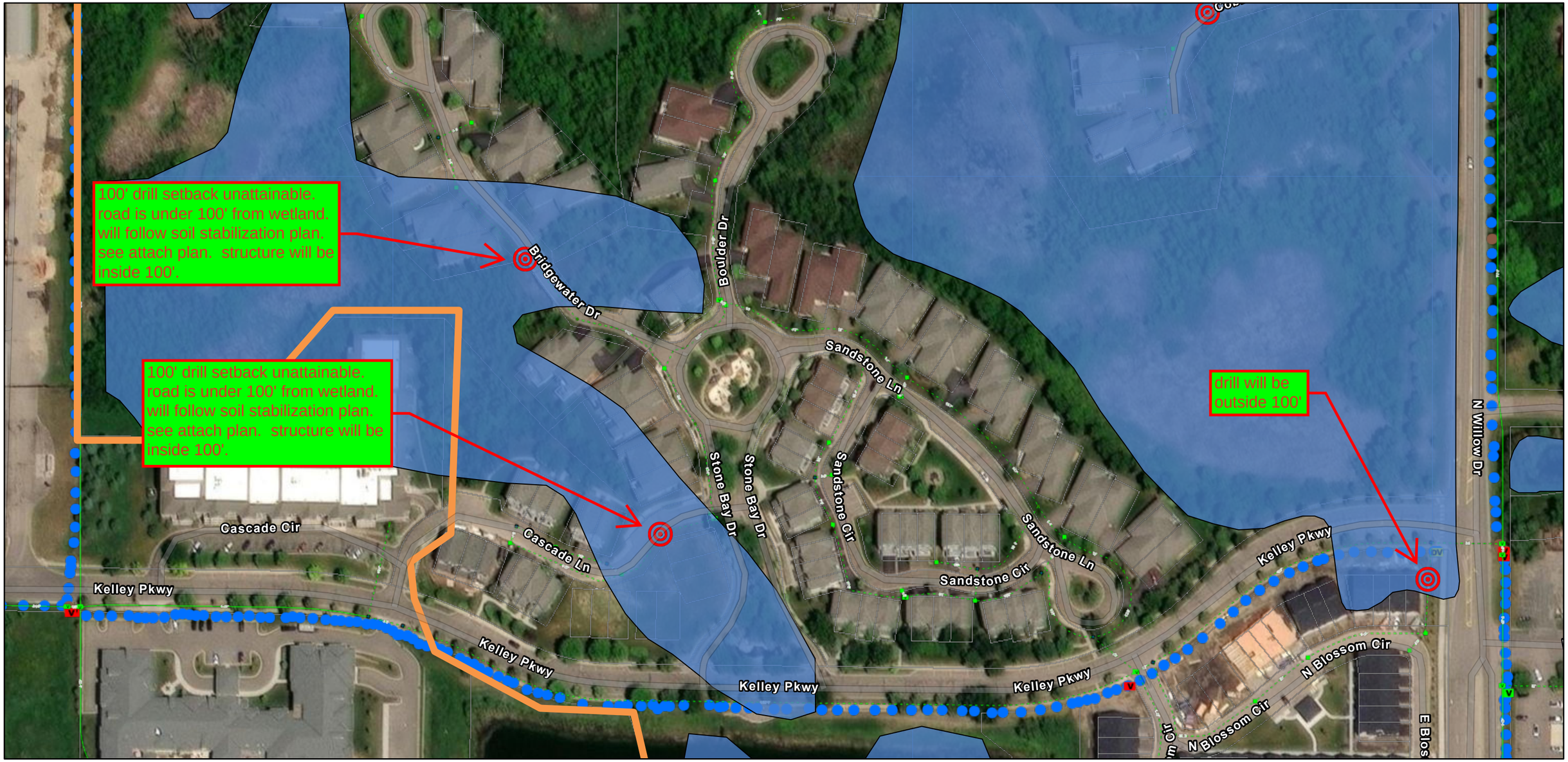
Wetland Conflict

1:2,257

0 0.02 0.04 0.07 mi

0 0.03 0.06 0.12 km

2601 Cascade Lane Orono MN, 55356



2/3/2026, 4:00:25 PM

1:2,257

0 0.02 0.04 0.07 mi

0 0.03 0.06 0.12 km

MCWD_FAW_gdb - MCWD_FAW

MduBoundary

RFDrop

Trench

<all other values>

No

Yes

UndergroundStructure

<all other values>

Ped

Apt Box

Vault

SupportStructure

UndergroundJunction

BoreHole

Junction

Address Point

ROW_Markers

Running_Line

Bore

Trench

Chambers

Large Vault

Small Vault

Drop Vault

Wetland Conflict