TRANSMISSION LINE CONSTRUCTION AND MITIGATION PLAN (CMP)

Cardinal-Hickory Creek 345kV Transmission Line Project

SEGMENT W-1

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LIST OF ACRONYMS

ATC	American Transmission Company
ATCP	Agriculture, Trade, and Consumer Protection
BMP	Best management practice
CMP	Construction Mitigation Plans
CPCN	Certificate of Public Convenience and Necessity
Dairyland	Dairyland Power Cooperative
DATCP	Department of Agriculture, Trade and Consumer Protection
ECP	Erosion Control Plan
EPA	U.S. Environmental Protection Agency
ER Review	Certified Endangered Resources Review
General Permit	WPDES Permit No. WI-S067831-5
GIS	Geographic Information System
IAM	Independent Agricultural Monitor
IEM	Independent Environmental Monitor
ITC	ITC Midwest LLC
MISO	Midwest Independent System Operator
NOI	Notice of Intent
NOT	Notice of Termination
OHWM	Ordinary high-water mark
Project	Cardinal-Hickory Creek 345kV Transmission Line Project – Segment W-1
PSCW	Public Service Commission of Wisconsin
ROD	Record of Decision
ROW	Right of Way
RUS	Rural Utilities Service
SWMP	Storm Water Management Plan
TCSB	Temporary clear span bridges
TSS	Total Suspended Solids
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WDNR	Wisconsin Department of Natural Resources
WDOT	Wisconsin Department of Transportation
WPDES	Wisconsin Pollutant Discharge Elimination System

A. Project Description

The Cardinal to Hickory Creek Transmission Line Project is a proposed 345-kV transmission line owned and operated by ITC Midwest LLC (ITC), American Transmission Company (ATC), and Dairyland Power Cooperative (Dairyland). It is one of a suite of projects approved by the Midwest Independent System Operator (MISO). The project would be constructed from the Cardinal Substation in Wisconsin to the Hickory Creek Substation in Iowa, a distance of approximately 102 miles. In October 2019, ITC, ATC, and Dairyland were granted a CH: 30-.025(1m) Utility Permit by the Wisconsin Department of Natural Resources (WDNR) to place fill material in wetlands and utilize temporary clear span bridges (TCSB) over navigable waters. Similarly, a Certificate of Public Convenience and Necessity (CPCN) for the project was approved by the Public Service Commission of Wisconsin (PSCW) In August 2019. Conditions #76 through #83 of the WDNR Utility Permit (Permit No. IP-SC-2019-25-03588) and multiple sections of the PSCW Final Order outline the requirements for the Construction Mitigation Plans (CMP) required prior to the start of construction on any segment of the project. Accordingly, this CMP is specific to the approximately 17-mile-long Segment W-1 (W-1) portion of the project within Grant County, from Cassville to Lancaster (Project), which outlines construction methods and procedures that will be followed to minimize impacts to these features. The remaining section of the Project in Wisconsin are addressed in a separate CMP.

This CMP specifically addresses conditions and compliance orders of both the WDNR Utility Permit and the PSCW Order. This CMP does not list every permit condition or order point, and ITC understands that all permit conditions and order points are required, even if not described within this document. Attachments are labeled according to the CMP Sections and are included as outlined below:

Attachment D: Geographic Information System (GIS) Shapefiles

Attachment E: CMP Map

Attachment G1: Wetland Summary Table with Photos
Attachment G2: Revised WDNR Table 1 – W-1

Attachment H1: Waterway Summary Table with Photos
Attachment H2: Fisheries Waiver Package (Includes Typical TCSB Design Sheet)

Attachment L: Revegetation and Monitoring Plan

Attachment O: Waterway Navigability Determination Request Package

Attachment Q: Structure Removal Procedure

B. Overall Project Sequencing and Scheduling

The ITC portion of the project is split between two segments: W-1 (Cassville to Lancaster) and W-2 (Lancaster to Hill Valley). Per the information provided in the CPCN application, W-11 is comprised of the following sub-segments:

- A01A, A01B, A02, A03, D01, D03, D04, and D05

W-2 is comprised of the following sub-segments:

- D05, D08, D09A, L05, D10A, and D10B

W-1 will be prioritized first, followed by W-2. The following denotes the high-level anticipated construction schedule for both W-1 & W-2:

- ROW (Right-of-Way) Clearing: October 2021 – April 2023
- Structure Foundations: March 2022 – December 2023
- Install Structures: March 2022 – December 2023
- Install Conductor: March 2022 – December 2023
- ROW Cleanup & Restoration: Mat removal, ROW cleanup and restoration are scheduled to occur as portions of the Project are completed. It is anticipated this will occur from the fall of 2022 to the fall of 2023. Additional restoration activities may extend into 2024 depending on weather and soil conditions.

C. Segment Sequencing and Scheduling

The following denotes the anticipated timing of specific construction sequencing and scheduling for W-1:

- ROW Clearing: October 2021 – April 2022
- Mat placement, where needed for ROW clearing and construction: October 2021 – March 2023
- Structure Foundations: March 2022 – February 2023
- Install Structures: March 2022 – February 2023
- Install Conductor: March 2022 – February 2023
- Mat removal, ROW cleanup and restoration within Segment W-1 is scheduled to occur in the spring 2023 following completion of construction, although actual dates for restoration will be weather dependent.

D. GIS Shapefiles

GIS shapefiles of Segment W-1 data are provided along with this CMP as a digital attachment (Attachment D).

E. Final Access Plan Map

A CMP Map is provided in Attachment E that shows the anticipated temporary construction access routes throughout the W-1 Project area. The CMP Map also includes baseline Project information (structure locations, ROW, TCSB, temporary matting in wetlands, etc.) and environmental data (wetlands, waterways, and general environmental sensitive areas). Temporary construction access routes have been designed to minimize ground impact and general construction traffic. Access routes, both in and off ROW, are anticipated to be as direct as practical and no more than 16 feet wide to further minimize ground impact. To the extent practicable, access routes were designed to utilize existing gravel roads, farm access, and two-track paths to reduce the number of new access routes within the Project area. Since the submittal of the CPCN application, the access routes have been better defined and differ in some areas from the original set. Laydown yard locations are still being evaluated and are not finalized at this time. Final laydown yard locations will be provided in updated map revisions.

As further discussed in other sections of this CMP, all Project components (including access routes and laydown yards) have been assessed for environmental constraints, such as impacts to wetlands, water ways, protected species, and cultural resources. Where practicable, access routes were routed away from wetlands and waterways. However, based on the Project size, some temporary impacts from matting are anticipated in wetlands. Similarly, some TCSBs will be needed to access areas that are constrained by intermittent or perennial waterways as shown on the CMP Map. At this time no modifications to the access routes, matting, TCSBs or laydown yards are anticipated but these components may be adjusted during construction to account for instances of soil instability, unexpected topography, and general obstructions. In the case that additional laydown yards or off-ROW access paths are identified, the Applicants will complete an environmental review of these areas and submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 111.71.

F. Noise and Transportation Requirements

Per the requirements of the U.S. Department of Agriculture (USDA), Rural Utilities Service (RUS) Record of Decision (ROD), the following noise measures will be implemented:

- When undertaking construction activities around residences, ITC and their contractors will be cognizant of the residents and will limit work hours in that area as feasible, especially during the early morning hours.
- If helicopters or drones are used on the Project, ITC will use various forms of outreach to notify the affected communities and landowners of when the helicopters will be in operation.
- As feasible, construction work will generally occur during daylight hours Monday through Saturday, with an average workday to be approximately 11 hours.

The following transportation measures will be implemented:

- Traffic control plans will be developed and implemented during construction to minimize traffic impacts and comply with permit requirements.
- ITC will minimize the number of vehicles and the amount of time they are parked on roadways.
- Off-ROW access on driveways may be protected using timber mats or other low-profile protection systems. As applicable, commercial, or industrial driveways will be evaluated prior to use as surface protection may not be required.
- Any damage caused by construction access will be repaired, as needed.
- ITC and their contractors will not block any residential driveways with equipment unless agreed upon with the landowner or resident.
- ITC will adhere to Wisconsin Department of Transportation (WDOT) guidance on defining clear zones in its Facilities Development Manual.

G. Wetland Impact Minimization Discussion

Field work began in 2017 to delineate wetlands and characterize other natural resource features along the majority of W-1; however, access to the entire corridor width was not available until 2021. Therefore, portions of W-1 were subsequently re-evaluated during additional field visits in 2021. As result, there are changes to the wetland information as provided in the CPCN application. The following wetlands were provided in the CPCN application, but have since been removed:

- D-W04 (forested wetland that merged with adjacent D-W03 after a 2020 field delineation readjustment)
- D-OR-W01 (wetland in off ROW access that is no longer part of the Project)
- D-OR-W02 (wetland in off ROW access that is no longer part of the Project)
- D-OR-W03 (wetland in off ROW access that is no longer part of the Project)
- D-OR-W05 (wetland in off ROW access that is no longer part of the Project)

The following wetlands were provided in the CPCN application, but have since been modified:

- D-W03 (wet meadow wetland that expanded to include the area previously associated with D-W04 after a 2020 field delineation readjustment)
- D-W06 (forested wetland that was slightly expanded further west after a 2020 field delineation readjustment)
- D-OR-W04 (wet meadow wetland that was modified per an off-ROW access adjustment)

The following wetlands areas have been added within the Project area since the CPCN submittal:

- D-W33 (wet meadow wetland)

Additional information on the current wetlands within the Project area is provided in the Wetland Summary Table (Attachment G1). Pre-construction photos of each wetland within W-1 are also provided

in Attachment G1.
ITC designed the Project to avoid wetland impacts to the extent practicable. Due to the size and complexity of the Project, some wetland impacts (both temporary and permanent) are unavoidable. The sections below discuss specific Project components in relation to wetlands, including efforts to minimize impacts to wetlands.

Please note both the Invasive Species Management Plan (Section J) and Wetland Restoration and Revegetation Plan (Section K) address wetland impact minimization efforts.

Structures in Wetlands

Within W-1, two structures are proposed to be installed in wetland areas, resulting in a combined total of 190 sq feet (0.004 acre) of permanent wetland impact/fill:

- Structure 119 is proposed to be installed within wetland D-W02, resulting in 95 sq feet (0.002 acre) of permanent impact. This wetland is an actively farmed wetland complex immediately adjacent to Rattlesnake Creek, that was likely once a wetland drainage prior to human settlement and farming activities. This impact is unavoidable based on the long linear length of wetland D-W02 in the middle of the ROW, not allowing for complete spanning over this wetland area. This general area is also constrained from additional structure shifts based on the meandering location of Rattlesnake Creek.

- Structure 145 is proposed to be installed within wetland D-W06, resulting in 95 sq feet (0.002 acre) of permanent impact. This wetland is a forested deciduous complex adjacent to wetland D-W05 (wet meadow) and Pigeon Creek. This impact is unavoidable based on large size of both wetland D-W05 and D-W06 east of Pigeon Creek, not allowing for complete spanning over both wetland areas.

Both of these structure impacts were accounted for in the Joint Application to the WDNR and U.S. Army Corps of Engineers (USACE). Accordingly, there are no changes to the proposed permanent wetland impacts since the submittal of the original CPCN Application.

The remaining 99 proposed structures along W-1 avoid placement within wetland areas. All W-1 structures and their proximity to wetland areas are shown in the CMP Map (Attachment E). The WDNR Table 1 (Attachment G2) summarizes all proposed wetland impacts within W-1.

Structure Removal

As noted in Section B, following installation of Segment W-1 structures, existing transmission line poles will be removed as part of the decommissioning of the existing X16 138 kV transmission line as shown on the CMP Map (Attachment E). Attachment Q (Structure Removal Process) describes the structure removal process in wetlands. The majority of the existing structures to be removed will be accessed from the proposed Segment W-1 ROW by a truck with specialized equipment to pull out or cut the existing structure to grade. In general, existing structures within wetland areas will be cut off just below grade, backfilled with suitable topsoil, and seeded with an approved native wetland mix. Revegetation

of the disturbed areas will follow the Revegetation and Monitoring Plan (Attachment L). This procedure allows the wetland to restore back to pre-X16 line conditions. Removal of existing transmission line structures in wetland areas is not anticipated to result in permanent impacts based on the Structure Removal Process protocols.

Wetland Crossings

Access routes both in and off ROW are required for equipment, crews, and material to mobilize throughout the Project area as shown in the CMP Map (Attachment E). As stated in Section E, all access routes are anticipated to be no more than 16 feet wide to minimize ground impact. To the extent practicable, access routes were designed to utilize existing gravel roads, farm access, and two-track paths to reduce the number of new access routes within the Project area. Despite these minimization efforts, some access routes extend through wetland areas due to the complexity and size of the Project area, use of existing ROW, and prevalence of wetlands. In all instances where access routes are proposed to cross through wetland areas, temporary construction matting will be used to spread the load of vehicles and minimize general ground impacts. Per WDNR permit requirements, construction mats within wetland areas will not be removed until final construction cleanup is completed. Specific access routes to be used for vegetation clearing are shown on the CMP Map (Attachment E). Vegetation clearing in wetland areas is anticipated to be completed during frozen ground conditions such that matting is not proposed within these specific access routes. WDNR Table 1 (Attachment G2) denotes which wetland areas are proposed to have temporary construction matting, including total square footage within each wetland. When feasible, construction access through wetland areas will be prioritized in the winter months when soils are frozen to further minimize ground surface impacts. A list of wetlands proposed to be crossed and utilizing construction matting are provided below:

- Wetland D-W02: 2,743 square feet of matting
- Wetland D-W05: 7,054 square feet of matting
- Wetland D-W06: 15,816 square feet of matting
- Wetland D-W33: 2,164 square feet of matting
- Wetland D-OR-W04: 562 square feet of matting

All vehicles and equipment used in wetlands will be checked a minimum of once per workday for fluid leaks. All leaks will be immediately corrected before the equipment is allowed back into operation and reported to the Independent Environmental Monitor (IEM) and ITC.

Erosion Control

Ann Erosion Control Plan (ECP) will be developed for the Project. The ECP will be developed to comply with the WDNR General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System (WPDES) Permit No. WI-S067831-5 (General Permit). In order to obtain authorization to discharge under the General Permit, the Notice of Intent (NOI) and all required supporting information

will be submitted to the WDNR at least 14 days prior to the start of construction activities for Segment W-1. The ECP will include best management practices (BMPs) to address erosion and stormwater control within and adjacent to wetland areas, such as construction matting, silt fence, straw wattles, and use of low ground pressure tires on vehicles. Inspections are required on a weekly basis as well as following qualified rain events of 0.5 inches or more. The inspections will be conducted throughout the duration of construction, until the final stabilization requirements have been satisfactorily met and a Notice of Termination (NOT) is submitted to the WDNR. If BMPs are identified as deficient during inspections or through general observation, maintenance or repairs will be made within the timeframes outlined in the General Permit.

H. Waterway Crossings and Impact Minimization Discussion

Similar to wetlands, field work began in 2017 to delineate waterways along the majority of Segment W-1; however, access to the entire corridor width was not available until 2021. Therefore, portions of Segment W-1 were subsequently re-evaluated during additional field visits in 2021. As a result, there are changes to the waterway information as provided in the CPCN application. The following waterways were provided in the CPCN application, but have since been removed:

- D-OR-R01 (waterway in off ROW access that is no longer part of the Project)
- D-OR-R02 (waterway in off ROW access that is no longer part of the Project)
- D-OR-R03 (waterway in off ROW access that is no longer part of the Project)

The following waterways were provided in the CPCN application, but have since been modified:

- D-OR-R04 (waterway that was modified per an off-ROW access adjustment)
- D-OR-R05 (waterway that was modified per an off-ROW access adjustment)

The following waterways were not provided in the CPCN application, but have since been delineated within the Project area:

- D-R08.1 (new waterway within ROW delineated in 2020)
- D-R40 (new waterway within ROW delineated in 2020)
- D-R43 (new waterway within ROW delineated in 2021)
- D-R44 (new waterway within ROW delineated in 2021)
- D-OR-R20 (new waterway within off ROW access delineated in 2021)
- D-OR-R22 (new waterway within off ROW access delineated in 2021)
- D-OR-R23 (new waterway within off ROW access delineated in 2021)
- D-OR-R24 (new waterway within off ROW access delineated in 2021)
- D-OR-R25 (new waterway within off ROW access delineated in 2021)

Additional information on the current waterways within the Project area are provided in the Waterway

Summary Table (Attachment H1). Pre-construction photos of each waterway within Segment W-1 are also provided in Attachment H1.

As noted in Section E, access routes were designed to utilize existing gravel roads, farm access, and two-track paths to the extent practicable to reduce the number of new access routes within the Project area. In conjunction with this minimization effort, access routes were designed to avoid unnecessary crossings over waterways within the Project area. As a result of these minimization efforts, proposed access route crossings over waterways have been reduced to the absolute minimum needed for sufficient construction access within the Project area.

Currently there are ten access routes that cross over waterways within Segment W-1 (WDNR Table 1, Attachment G2). Of this total, two consist of existing culverts or bridges installed. In these instances, the existing crossings are anticipated to be sufficient for construction access such that additional modifications to the existing culverts or bridges are not anticipated. Temporary timber matting may be placed directly over the existing culvert or bridge to provided added strength and protection. One crossing (D-R40) had proposed a TCSB but has since been designated by WDNR as a non-navigable waterway. Accordingly, this waterway will utilize matting or culverts to create a temporary crossing such that flow is not restricted. The remaining seven crossings propose to use TCSBs, which do not have any support structures below the ordinary high-water mark (OHWM) of each waterway and will be installed from the banks of the waterways, avoiding in-waterway disturbance. Placement of the TCSBs will minimize the removal of trees, shrubs, and other shoreline vegetation to the extent practicable. TCSBs will be sufficiently anchored beyond the waterway banks to minimize chances of washout during potential flooding or storm flows. When feasible, each TCSB will be removed as soon as possible, but it is currently anticipated that each TCSB will need to remain in place throughout the duration of Project construction to provide sufficient access for ROW clearing, construction, restoration, and monitoring. Design sheets of typical TCSB specifications and photos of each pre-construction waterway crossing are provided in Attachment H2 (Fisheries Waiver Package). TCSBs designs differ between waterway sizes. For larger waterway crossings (D-OR-R04 and D-OR-R05), TCSB Design #1 will allow a minimum of five vertical feet clearance between the ordinary high-water level and bottom of each TCSB. For remaining five smaller waterway crossings, TCSB Design #2 will attempt to maintain five feet of vertical clearance between the ordinary high-water level and bottom of each TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of small waterways that also do not have any known history of regular public use.

TCSB Design #1 for waterway crossings D-OR-R04 and D-OR-R05 should safely allow sufficient passage for recreation vessels throughout construction under normal conditions. Neither D-OR-R04 and D-OR-R05 are known for motorized boat use. In the event that safe passage under either of these TCSBs is not allowable, signs will be placed on both upstream and downstream top of bank edges alerting recreational vessels that inland portage around the TCSB is allowable if it is determined that safe passage is not allowable due to high water. The sign will state that any member of the public opting for inland portage around a TCSB must alert any present construction personnel of their presence and intention to pass around the TCSB, where they shall comply with directions from present construction

crews for inland portage. When construction crews are not present, instructions on the sign will direct walking passage around the outside base of the TCSB, where safe entry back into the waterway is permitted. Discussions with Grant County regarding use of TCSBs within floodplain areas throughout construction are in-progress, but no County level permitting or authorizations are anticipated.

Waterways within the Project area that will not be crossed will have signs installed on both banks alerting construction crews that the waterway cannot be traversed or bridged. These signs will be installed prior to clearing activities and shall remain in place throughout all phases of construction, including restoration. Installation and removal of the TCSBs will be conducted in a manner that minimizes sediment and debris from entering the waterway. Upon removal of the TCSBs, the waterway banks will be restored as discussed in the Revegetation and Monitoring Plan (Attachment L).

Erosion Control

As noted in Section G, a Project specific ECP will be developed to meet the requirements of Wisconsin Administrative Code (Wis. Admin Code Ch.) NR 151 and NR216 and included in ITC's NOI to be submitted to WDNR. The ECP will provide additional discussion and measures regarding erosion control in proximity to waterways and TCSBs.

Water Withdrawal

In order to support open boreholes during foundation work, water will be needed to pump into each foundation area. Where feasible, ITC will use water trucks to deliver water to foundation areas. However, in some instances, water from nearby waterways would reduce the need for water trucks. Accordingly, ITC requests to withdrawal water from the waterways within the Project area on an as needed basis. Currently ITC has not identified any specific locations for water withdrawal from waterways.

- All machinery and equipment used for the Project will be adequately decontaminated for aquatic invasive species prior to being used in non-infested waters.
- All equipment that comes in contact with infested waters will be thoroughly disinfected.
- Water will not be discharged to wetland areas or waterways without prior effective water quality treatment. If discharged water to wetlands or waterways is cloudy or exceeds 40 mg/l of total suspended solids (TSS), ITC will immediately suspend water discharge and contact the WDNR to determine an alternative discharge method.
- Water withdrawals from public waterways will avoid placement of a structure/suction equipment on the bed of the waterway in accordance with Ch. 30.12 (Wis. Stats.).

I. Endangered Resources Plan

ITC worked with the WDNR to develop a Certified Endangered Resources Review #20-083 (ER Review) as part of the Joint Application. The ER Review identified and summarized endangered resources known to occur along each proposed segment. Upon receiving the ordered route, the ER Review has been

amended annually in coordination with WDNR as construction details have been developed. The ER Review amendment identified which state-listed species have required follow-up actions and the specific areas along the Project where measures are needed to avoid and minimize direct or indirect impacts to state-listed species. Furthermore, the ER Review amendment identified voluntary measures recommended to avoid and minimize impacts to other sensitive state-listed species or resources (e.g., natural communities).

A Biological Opinion was issued from US Fish & Wildlife Service (USFWS) for the Project for potential adverse effects to federally listed species. Nondiscretionary measures were included to minimize effects from the Project. ITC will implement appropriate measures where applicable. Segment W-1 does not include High Potential Zones for the Rusty patch bumble bee.

The CMP Map (Attachment E) shows the environmentally sensitive areas that occur within Segment W-1. These environmentally sensitive areas do not reveal specific information but do include time of year and/or construction setback requirements. Please note that vegetation clearing is currently scheduled to occur after the 2021 growing season, but before the start of the 2022 growing season. If the schedule for tree and vegetation clearing is anticipated to extend into the 2022 growing season, state and federal agencies will need to be consulted and the CMP may be updated to reflect any additional restrictions.

J. Invasive Species Management Plan

Project wide assessments for general plant species and communities were conducted concurrently with wetland delineation and protected/sensitive species surveys in 2017 and 2021. During these surveys, environmental scientists documented and recorded the location of any invasive plant species that was observed within the Project area. Noted invasive plant species were based on restricted and prohibited classified species defined in Wis. Admin Code Ch. NR 40. Some restricted classified plant species were documented during survey, but no prohibited classified species were observed within Segment W-1:

- Garlic mustard (*Alliaria petiolate*)
- Canada thistle (*Cirsium arvense*)

The surveyed locations for the above restricted species are shown on the CMP Map (Attachment E). Reed canarygrass (*Phalaris arundinacea*) is a common invasive species throughout most of the delineation wetlands, but the WDNR does not list this species as either restricted or prohibited based on how widespread it has become throughout the state.

Nearly all of Segment W-1 is partially within the existing ATC X16 138 kV transmission line ROW. Accordingly, documented invasive species are primarily within the existing transmission line ROW, which is occasionally cleared to maintain required clearance for the above wires. Approximately 45% of Segment W-1 ROW is within croplands, with the remaining land cover comprised of grasslands (30%), woodlands (20%), wetlands (3%) and roadways (2%).

Grassland areas are generally comprised of plant species not in the Wis. Admin Code Ch. NR 40 list, primarily Kentucky blue grass (*Poa pratensis*) and smooth brome grass (*Bromus inermis*). The primary Wis. Admin Code Ch. NR 40 restricted plant species observed in grassland areas include Canada thistle (*Cirsium arvense*), wild parsnip (*Pastinaca sativa*), and leafy spurge (*Euphorbia esula*). These invasive species were more commonly observed in more disturbed portions of grassland areas, such as within the existing X16 138 kV transmission line ROW, in roadside ditches, and on unplanted perimeter portions of croplands.

Where woodland areas are present within the Project area, they occur adjacent to the existing X16 138 kV transmission line ROW and the areas of subsequent occasional mowing or clearing. Woodland areas are generally comprised of plant species not in the Wis. Admin Code Ch. NR 40 list, primarily eastern red-cedar (*Juniperus virginiana*), black walnut (*Juglans nigra*), bitternut hickory (*Carya cordiformis*), red oak (*Quercus rubra*), and northern prickly-ash (*Zanthoxylum americanum*). The primary Wis. Admin Code Ch. NR 40 restricted plant species observed in woodland areas include common buckthorn (*Rhamnus cathartica*), Morrow's honeysuckle (*Lonicera morrowii*), garlic mustard (*Allaria petiolata*), and multiflora rose (*Rosa multiflora*).

Wetland areas represent a small portion of the Segment W-1 area and are generally degraded in nature based on their location within or adjacent to the existing X16 138 kV transmission line ROW which has been in place for years. Forested wetlands are generally comprised of plant species not in the Wis. Admin Code Ch. NR 40 list, primarily silver maple (*Acer saccharinum*) and box elder (*Acer negundo*); while emergent wetlands are generally comprised of reed canary grass (*Phalaris arundinacea*). The primary Wis. Admin Code Ch.NR 40 restricted plant species observed in wetland areas include narrow-leaf cattail (*Typha angustifolia*) and common buckthorn.

Roadside ditches within the Project area are regularly mowed and therefore more likely to contain common invasive and nuisance plant species. The primary Wis. Admin Code Ch. NR 40 restricted plant species observed in roadside ditches include Canada thistle, wild parsnip, and garlic mustard.

General BMPs

Based on the invasive species documented in the Project area and to comply with Wis. Admin Code Ch. NR 40, the following BMPs were developed based on WDNR and the Wisconsin Council of Forestry "Invasive Species Best Management Practices: Rights-of-Way" guidance and general best professional judgement and will be implemented to minimize the spread of existing invasive species and prevent the introduction of additional species within the Project area:

- General Construction Access, Equipment, and Material
    - To the extent practicable, construction access throughout the Project area will be prioritized to use existing roads and access routes.
    - Temporary construction matting will be used where appropriate to minimize ground disturbance, including in all wetlands within the ROW and off-ROW access roads.

  - Traffic in the ROW between transmission structure locations will be limited to a single access route to the extent practicable.
  - Equipment will be cleaned prior to arrival onsite and visible dirt will be removed from all equipment using high pressure compressed air blowers or brushing.
  - The construction contractor will maintain a record of cleaning for all equipment used onsite.
  - Laydown yards will be located in areas with existing disturbance, largely void of vegetation. Example of these areas include open quarries, closed facility areas, and gravel/pavement lots.

- Managing Soil and Vegetation
  - Soil disturbance in steeply sloped areas will be minimized to the extent practicable and, where feasible and practicable, root systems will be left intact in these areas to provide additional soil support and erosion control.
- Invasive Species Management
  - Selective herbicides may be used for spot treatment of areas with invasive species when the use of herbicides has been permitted by the landowner, but not within 75 feet of a waterway. All herbicide treatments will be conducted by a Certified Pesticide Applicator, who will only use herbicides registered and labeled by the U.S. Environmental Protection Agency (EPA) and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant.
  - All equipment used for withdrawing water will be regularly inspected and disinfected for aquatic based invasive species.
  - Clearing crews will be trained to identify documented invasive species. Where feasible, cut and cleared material in areas with invasive species will be left in the same area to limit risk of species spreading locally. All cleared invasive species that are removed from the Project will be disposed of in a responsible manner, including burning offsite or disposal an at approved yard waste facility.
  - A thin layer of certified weed free mulch/woodchips may be utilized in bare ground areas that are adjacent to invasive species or otherwise generally susceptible to invasive species establishment.
  - To minimize the spread of oak wilt, the cutting or pruning of oak trees between April 15 and July 1 for maintenance will be conducted in accordance with Wis. Admin Code Ch. PSCW 113.051.
  - Practices that minimize the spread of emerald ash borer will be employed, which include avoiding movement of ash wood products (logs, posts, pulpwood, bark and bark products, and slash and chipped wood from tree clearing) and hardwood firewood from

emerald ash borer quarantine areas to nonquarantine areas. Where ash wood products cannot be left on-site, alternative plans will be developed that comply with Wis. Admin Code Ch. Agriculture, Trade, and Consumer Protection (ATCP) 21.17.

- To avoid the spread of gypsy moth damage, ITC will review if any known locations of gypsy moth quarantine areas are within the Project area. ITC does not anticipate this occurring, but if quarantine areas are discovered within the Project area, ITC will utilize standard practices including inspections by trained staff and avoiding movement of wood products from gypsy moth quarantine areas to nonquarantine areas, according to Wis. Admin Code Ch. ATCP 21.10.

- Restoration
  - Specific native seed mixes have been developed for the Project based on land cover and are to be used as discussed in the Revegetation and Monitoring Plan (Attachment L).
  - All disturbed soils will be seeded as soon as possible following construction activities (within the appropriate seasonal timeframes and when the ground is sufficient prepped to receive seed), including the use of a temporary quick establishing cover crop where appropriate.

Location Specific Areas

The list of above BMPs is provided for general use, to be utilized where practicable. However, certain location specific areas have been delineated based on having above average native vegetative, with relatively low abundance of invasive species present. Each of these areas will be marked in the field to alert construction crews of their presence. The approximate locations provided below are shown on the CMP Map (Attachment E).

Location ID	Description
Vegetation Management Area (VMA)-1	The area is part of Alliant Energy's Goat Prairie restoration prairie area at the top of the bluff area in Cassville. A 2020 habitat assessment was conducted, which determined the general area was comprised of a large diversity of native plant species, but still contained invasive species such as garlic mustard and multiflora rose. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Use of existing gravel roads will be used to mobilize equipment into general area. Where existing gravel roads are not available, temporary access matting will be used to limit ground disturbance.
VMA-2	Wooded area near structure 153 that is primarily comprised of native species with a relatively low abundance of invasive species. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Temporary access matting will be used to limit ground disturbance.
VMA-3	Wooded area between structure 156 and 157 that is primarily comprised of native species with a relatively low abundance of invasive species. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Access through this area is not anticipated for structure installation. After clearing the limits of this area within the ROW to the extent required, monitoring will determine where specific restoration efforts should be prioritized based on abundance and diversity of native understory vegetation.
VMA-4	Wooded area between structure 158 and 159 that is primarily comprised of native species with a relatively low abundance of invasive species. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Access through this area is not anticipated for structure installation. After clearing the limits of this area within the ROW to the extent required, monitoring will determine where specific restoration efforts should be prioritized based on abundance and diversity of native understory vegetation.
VMA-5	Wooded area near structure 160 that is primarily comprised of native species with a relatively low abundance of invasive species. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Access through this area is not anticipated for structure installation. After clearing the limits of this area within the ROW to the extent required, monitoring will determine where specific restoration efforts should be prioritized based on abundance and diversity of native understory vegetation.
VMA-6	Wooded area near structure 153 and between structure 160 and 161 that is primarily comprised of native species with a relatively low abundance of invasive species. Access into this area will be limited to the extent practicable, with all equipment to be washed and inspected prior to entering this wooded area. Access through this area is not anticipated for structure installation. After clearing the limits of this area within the ROW to the extent required, monitoring will determine where specific restoration efforts should be prioritized based on abundance and diversity of native understory vegetation.

Additional location specific areas may be identified during routine monitoring. If so, they will be added to this CMP and discussed with ITC and their contractors.

K. Wetland Restoration and Revegetation Plan

A Revegetation and Monitoring Plan is provided as Attachment L, which discusses guidance for restoration of disturbed wetland areas in Segment W-1.

L. Post-Construction Monitoring and Revegetation Plan

Following construction activities, monitoring throughout Segment W-1 will occur as outlined in the Revegetation and Monitoring Plan (Attachment L). The plan includes guidance on monitoring protocols, frequency, photo documentation, reporting, and revegetation performance standards.
The plan also provides Project specific seed mixes, recommended usage protocols, and recommendation locations for seeding.

M. Revised WDNR Table 1

The WDNR Table 1 for Segment W-1 has been updated to reflect changes since the original CPCN application submittal and is provided in Attachment G2. Examples include updated wetland areas, revised access, and new laydown areas.

N. Fisheries Waiver

As discussed in Section E, several TCSB locations are proposed to allow for sufficient construction access across waterways where there is no other practicable alternate access available. For all proposed TCSB locations over waterways in Segment W-1, ITC requests the seasonal restriction for placement and removal of TCSBs be waived. A fish spawning timing restriction waiver request package is provided in Attachment H2, which includes a summary table of all requested waterways, characteristics, photos, and a general TCSB design specification.

O. Waterway Navigability Determination Request

After WDNR review of the CMP provided in July 2021, four waterways were determined to be non-navigable and therefore not subject to Chapter 30 regulations. These four areas are called out in the CMP Map. Attachment O includes the original navigability determination request with a note that WDNR has approved all requested locations as non-navigable.

P. Independent Monitor Roles and Responsibilities

Upon approval of the overall Project, the PSCW and WDNR authorized the hiring of a combined IEM and Independent Agricultural Monitor (IAM) during construction. The independent monitor will be a direct report to the PSCW and not employed by either ITC or their contractors. The independent monitor will be responsible for impartial review of construction activities within environmental and agricultural areas

via routine monitoring. More specifically, the independent monitor will be responsible for reviewing ITC and their contractor's compliance requirements with the following documents:

- PSCW Final Decision and Order, including the agricultural conditions recommended by Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) and approved by the Commission.
- WDNR Utility Permit IP-SC-2019-25-03588
- WPDES Stormwater Discharge permit
- Certified ER Review (#20-083)
- The Project Avian Protection Plan, including Bald Eagle Nest Management Plan
- This CMP document

Q. Agricultural Conditions

The following conditions will be implemented in agricultural areas as required by the PSCW Final Order:

- Soils in agricultural areas will be decompacted to allow soil structure to redevelop and reduce impacts to crop yields.

- Significant rutting is defined as ruts of six inches or greater. If Project construction causes significant ruts in cropland or pasture, repair will begin as soon as practicable.

- Impacts to agricultural erosion controls and water management practices and facilities in farmlands will be avoid to the extent practicable or mitigated where damaged.

- Landowners and renters of agricultural land, as well as farm owners affected by the Project, will be communicated with regularly to stay informed of construction schedules and potential impacts so that farm activities can be adjusted accordingly.

- For organic farms, landowners will be consulted to minimize potential impacts to their organic farming status. Specific training and documentation for construction work within organic farms will be coordinated by ITC.

- ITC will work with landowners with agricultural buildings located within the Project area to minimize and mitigate impacts to farming operations.

- ITC will work with landowners with properties enrolled in tax incentive programs so as to minimize the impacts to their participation in the program and compensate them for any reduction in payments because of the Project.

- The applicants shall work with the county drainage boards to minimize impacts to properties within drainage districts.

- If Project construction activities during the growing season create inaccessible cropland or cropland that is too small or irregularly shaped to be farmed, ITC will properly compensate the property owners for the temporary loss of the use of the land.

- During the process of removing existing transmission poles, construction personnel will be trained on the proper protection of agricultural fields and soils and a Project specific wreck out procedure document is included as Attachment Q.

- ITC will consult with affected landowners to determine the least damaging locations for transmission structures and off-ROW access roads.

- ITC will be responsible for post construction monitoring to ensure that any damage to agricultural fields or operations from construction activities has been repaired or mitigated. Where construction activities have caused damage to agricultural fields or operations, ITC will work with landowners to address the problems as soon as practicable.

- ITC will strip and segregate all topsoil at all excavation sites located within cropped and uncropped areas in agricultural fields, and all areas where grading is required within agricultural fields. Stripped topsoil will be hauled away or stockpiled near the location where it was removed and will be replaced as soon as practicable. If necessary, new topsoil will be spread if topsoil has been lost or substantially mixed with subsoils.

- All parent material/spoil excavated will be removed from agricultural fields.

- Every reasonable effort shall be made so as not to damage drainage systems (ie terracing drain tiles, grass waterways, etc). If damage occurs to drainage systems the contractor will work with the agricultural operator and/or landowner to repair the damage.

- In the event soils sensitive to compaction are encountered in areas of agricultural production, contractor will minimize impacts to these soils by using protective measures such as avoidance, matting and changing type of equipment used. Winter work can be implemented if site conditions warrant.

- In the case of organic farms, landowners will be consulted to minimize potential impacts to their organic farming status.

- Several existing transmission line structures will be removed as part of this Project. The Structure Removal Procedure (Attachment Q) provides additional detail regarding structure removals within agricultural lands.

- If construction causes significant ruts in cropland or pasture ITC will repair the ruts as soon as practical.

Mitigation measures to address potential significant rutting in agricultural areas may include:

- Placing construction mats on the access routes and work areas,
- Using approved alternate access,
- Changing type of equipment used, or
- Temporarily suspending work until the area dries out or firms up.

Attachment D - GIS DATA (CLICK TO DOWNLOAD)

Attachment E - CMP MAP

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
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GIS Data Sources:
Burns & McDonnell - Stormwater BMPs, Pole Locations, Vegetation Managment Areas, Delineated Waterways, Delienated Wetlands, Sensitive Areas

ITC - Existing X-16 Pole Location, Structure Platforms, Construction Access, Vegetation Clearing Access, Matting, Laydown Yards, Pullsites, Stream Crossings/TCSBs

JCG - Parcel Data, ROW, Landowner Notes

WDNR - 24k Flowline Hydrology

USDA - 2020 NAIP Imagery

Spruce Road Quarry Laydown Yard

Fairview Quarry Laydown Yard

Lancaster Substation

Nelson Dewey Substation

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

Mapbook Page & Number

Wisconsin Segment W-1 Right-of-Way

ITC A FORTIS COMPANY

BURNS McDONNELL

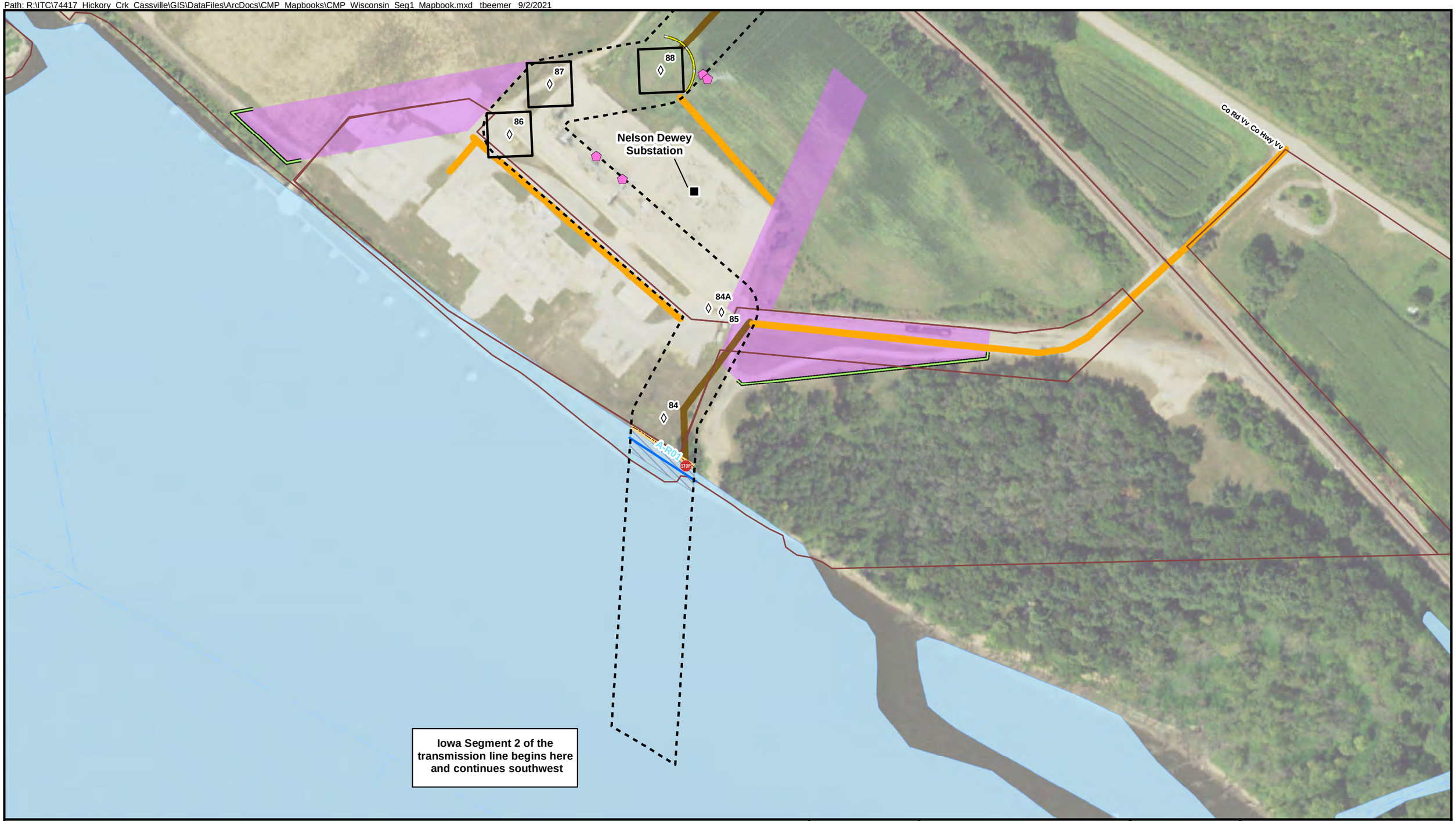
NORTH

0 1 2 Miles

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1
Mapbook Index

Source: ESRI, ITC, JCG, and Burns & McDonnell Engineering Company, Inc.

Issued: 9/2/2021



Existing
Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Pull Sites
Turnaround Points
Construction Access
Wetland/Stream 25ft Buffer Area
Delineated Waterway (A or D-R#)
WDNR 24k Flowline
Sediment Control
Silt Fence
Construction Fence
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Construction Management Plan
Wisconsin Segment W1

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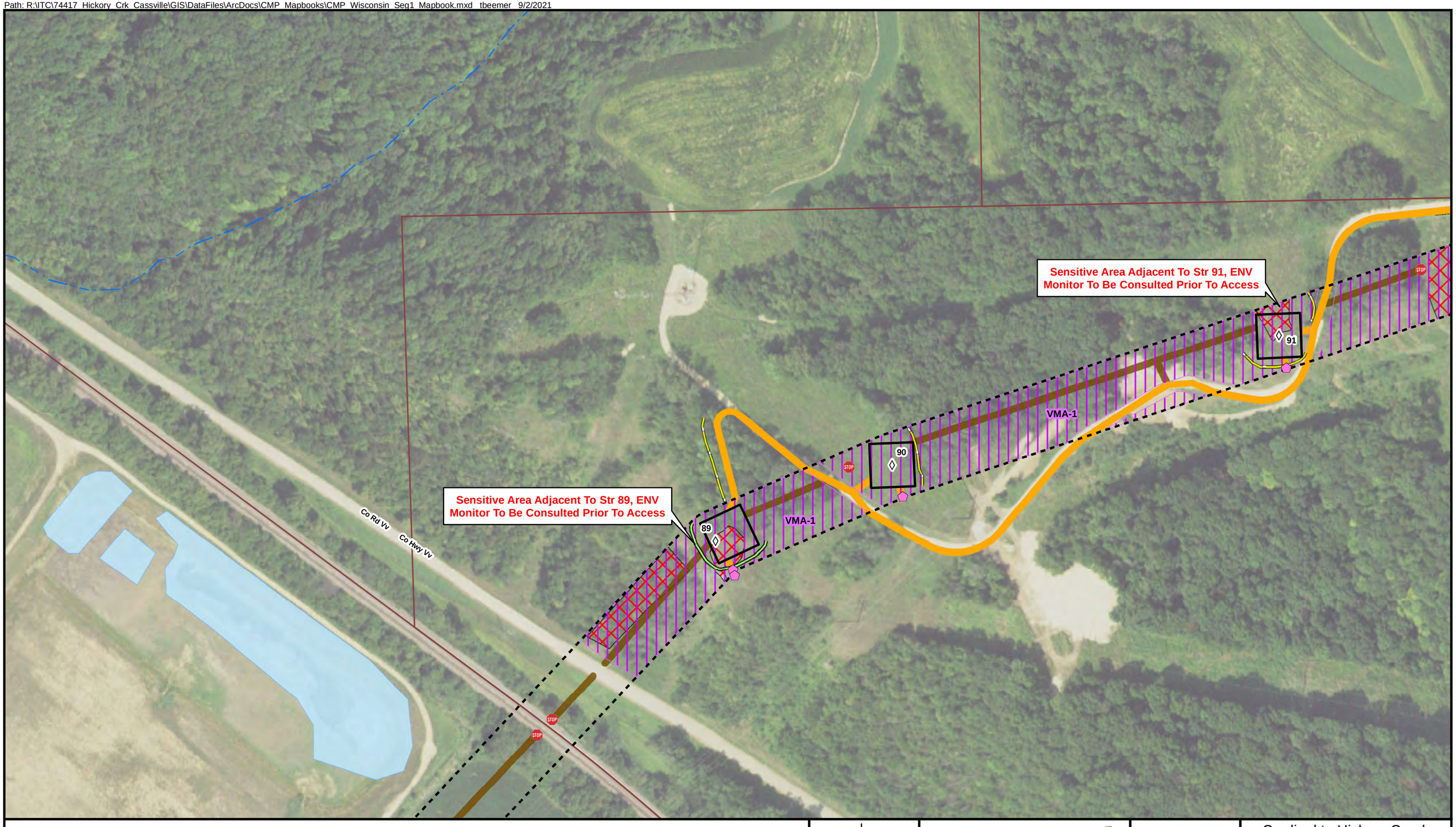

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform

Turnaround Points
Construction Access
Location-Specific Vegetation Management Areas (VMA)

WDNR 24k Flowline
Sediment Control
Silt Fence
Sensitive Area
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Construction Management Plan
Wisconsin Segment W1

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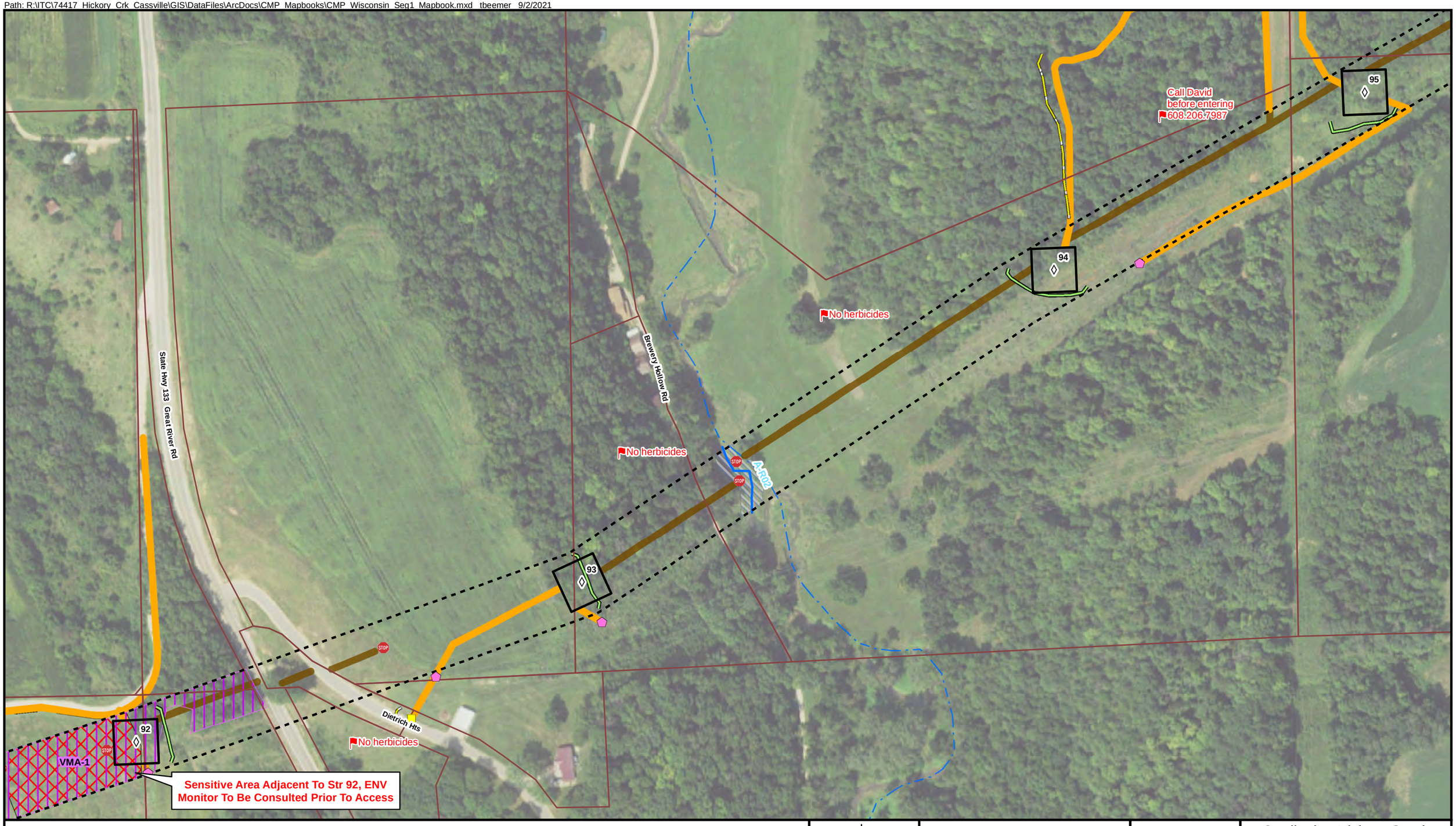

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Location-Specific Vegetation Management Areas (VMA)
- Delineated Waterway (A or D-R#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Sensitive Area
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1
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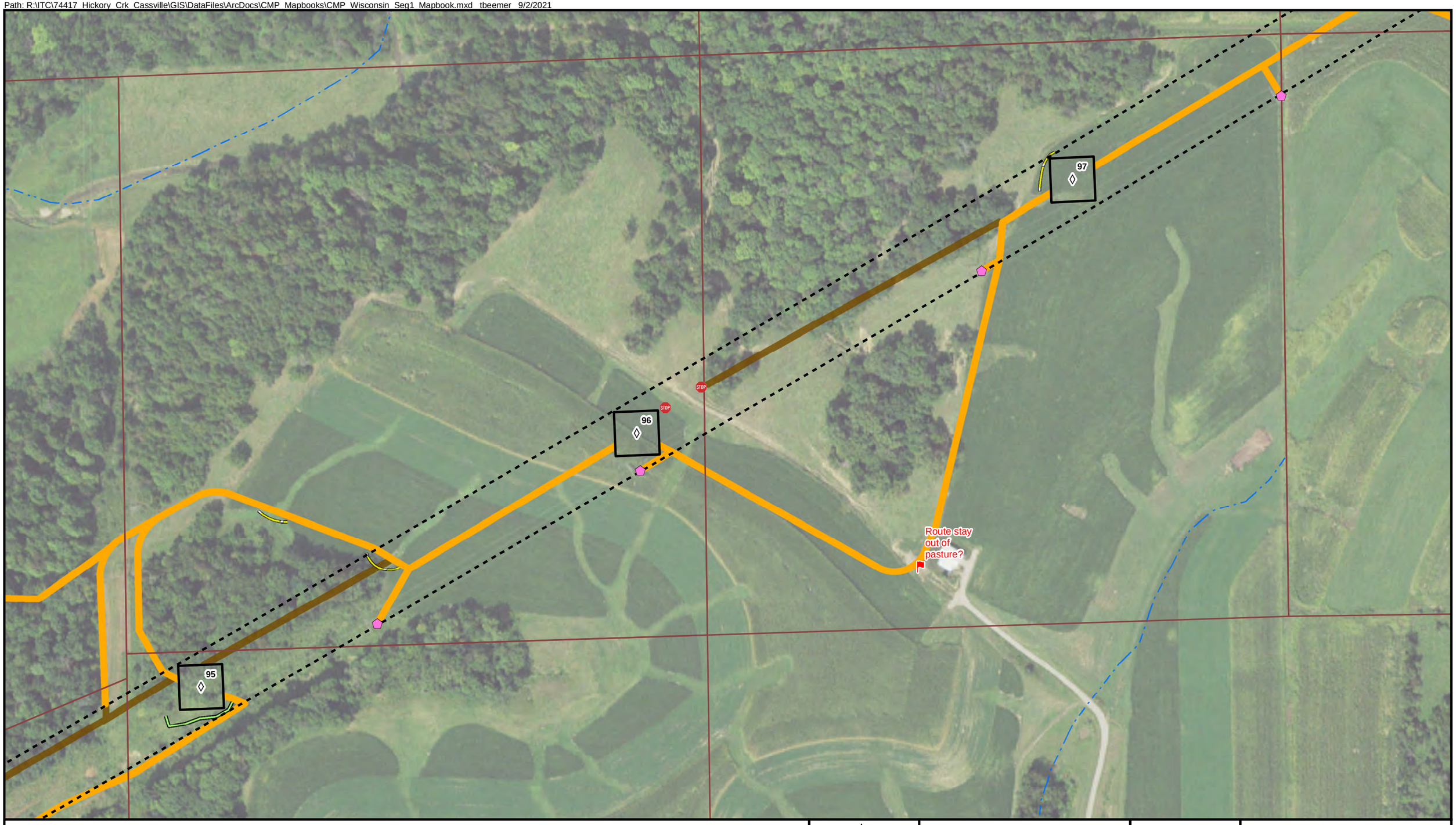

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform

Turnaround Points
Construction Access
JCG Landowner Note

WDNR 24k Flowline
Sediment Control
Silt Fence
Veg Clearing Access
Parcel Boundary

NORTH

0 100 200
Scale in Feet

Map area shown in RED

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Construction Management Plan
Wisconsin Segment W1

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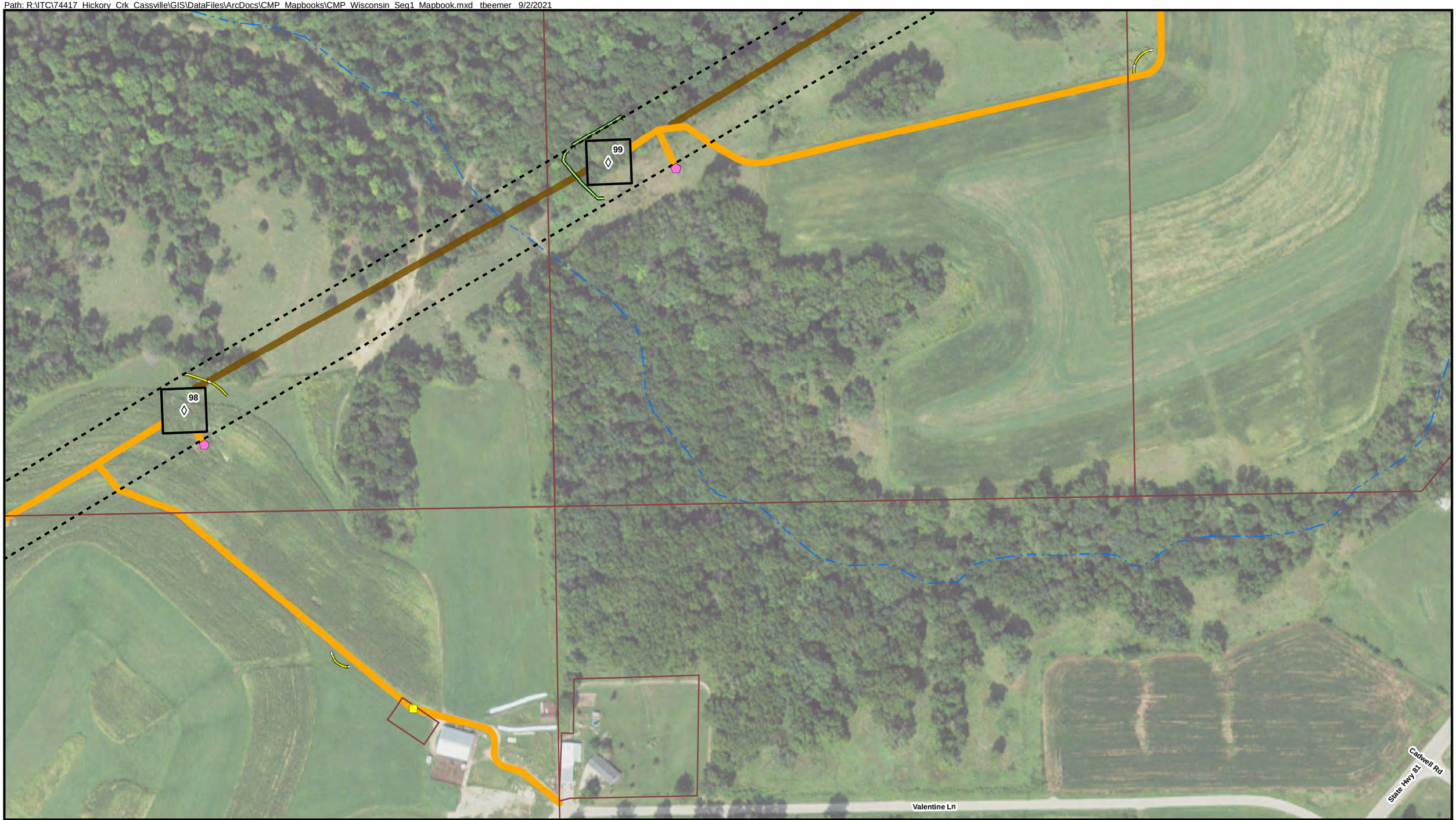

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Construction Access
WDNR 24k Flowline
Sediment Control
Silt Fence
Construction Entrance
Veg Clearing Access
Parcel Boundary

NORTH

0 100 200
Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
345-kV Transmission
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WDNR Determined That Presence Of This 24k Flowline Does Not Reflect A Navigable Waterway and Therefore Not Subject To Chapter 30 Regulations

Garlic Mustard (NR 40 Restricted Species) Surveyed In This Area

No herbicides

WDNR Determined That Waterway D-R40 Is Not Navigable and Therefore Not Subject To Chapter 30 Regulations

D-R40

100

101

102

D-W01

State Hwy 81

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

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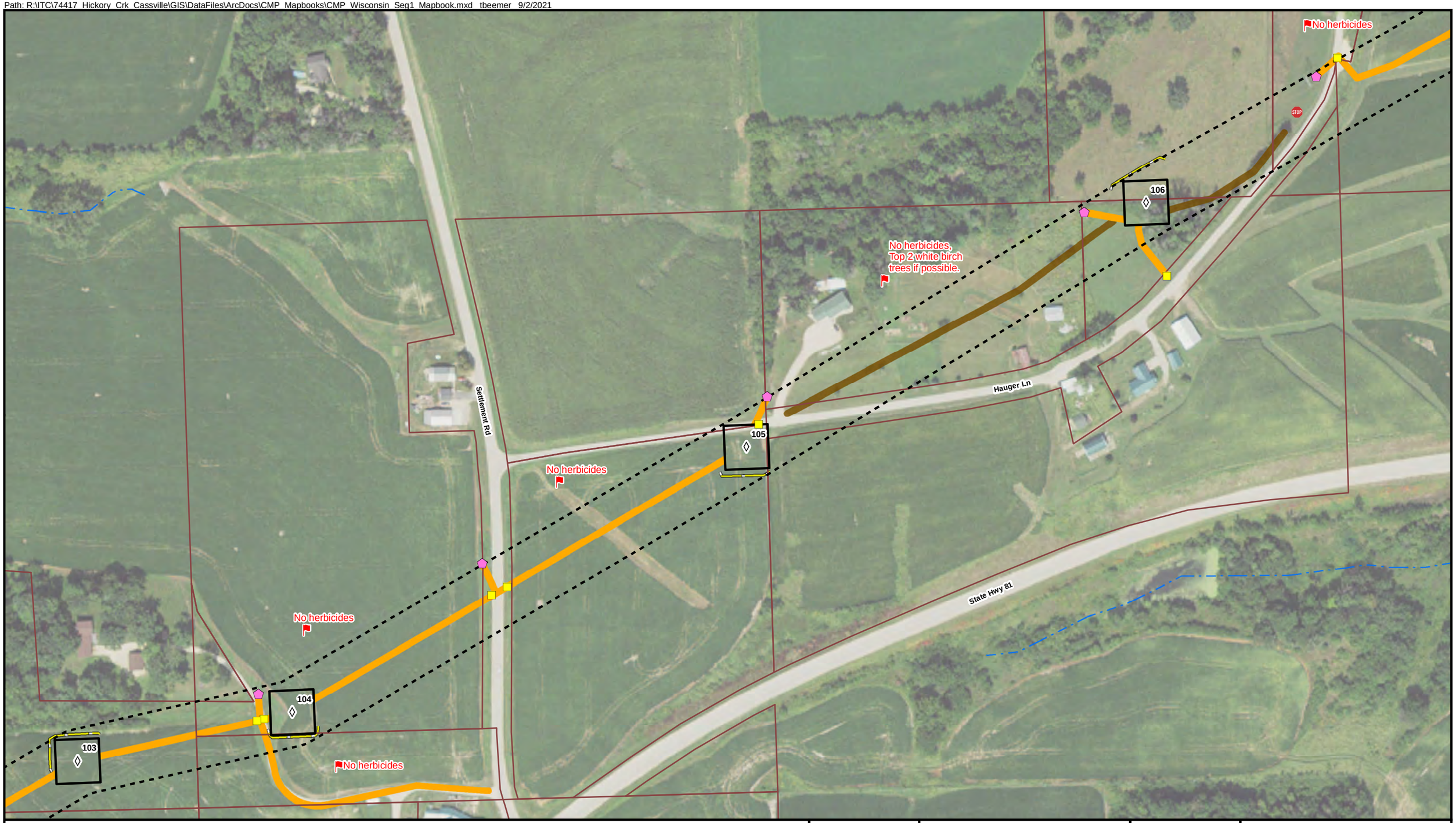

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Turnaround Points
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Sediment Control
Construction Entrance
Veg Clearing Access
Parcel Boundary

NORTH
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Scale in Feet

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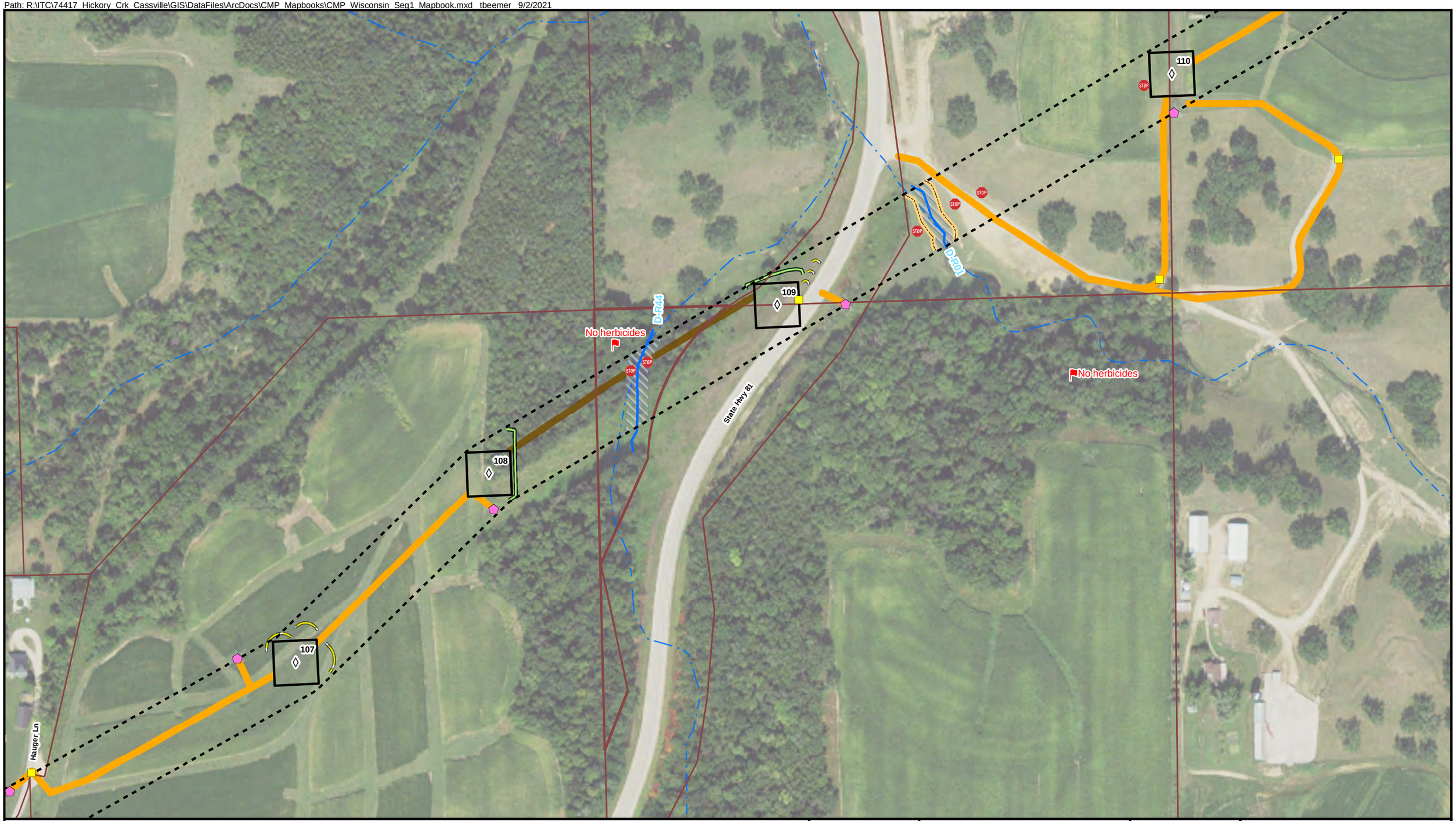
Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
345-kV Transmission
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Wisconsin Segment W1
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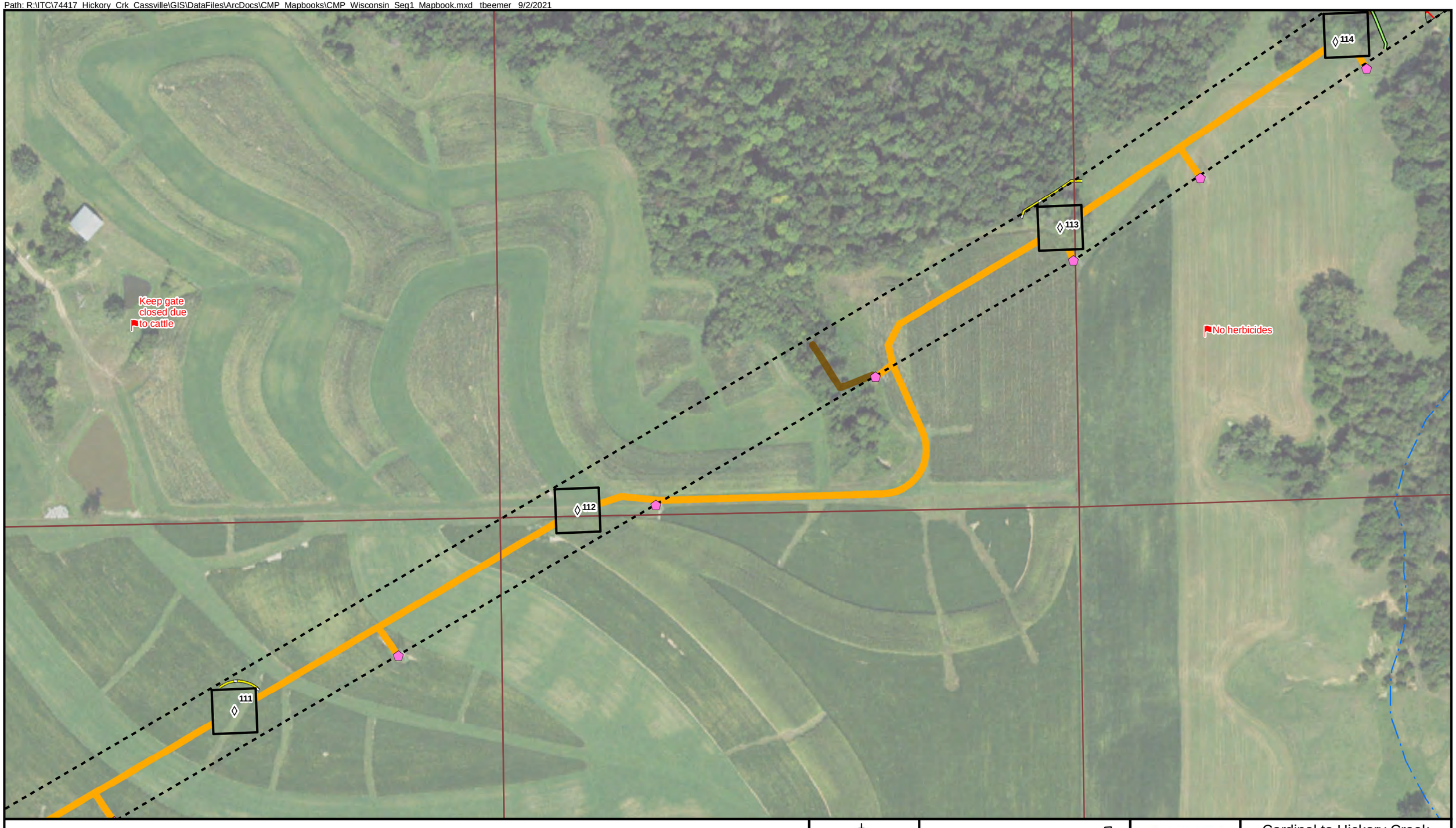

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Construction Access
- JCG Landowner Note
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Sensitive Area
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

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Construction Management Plan
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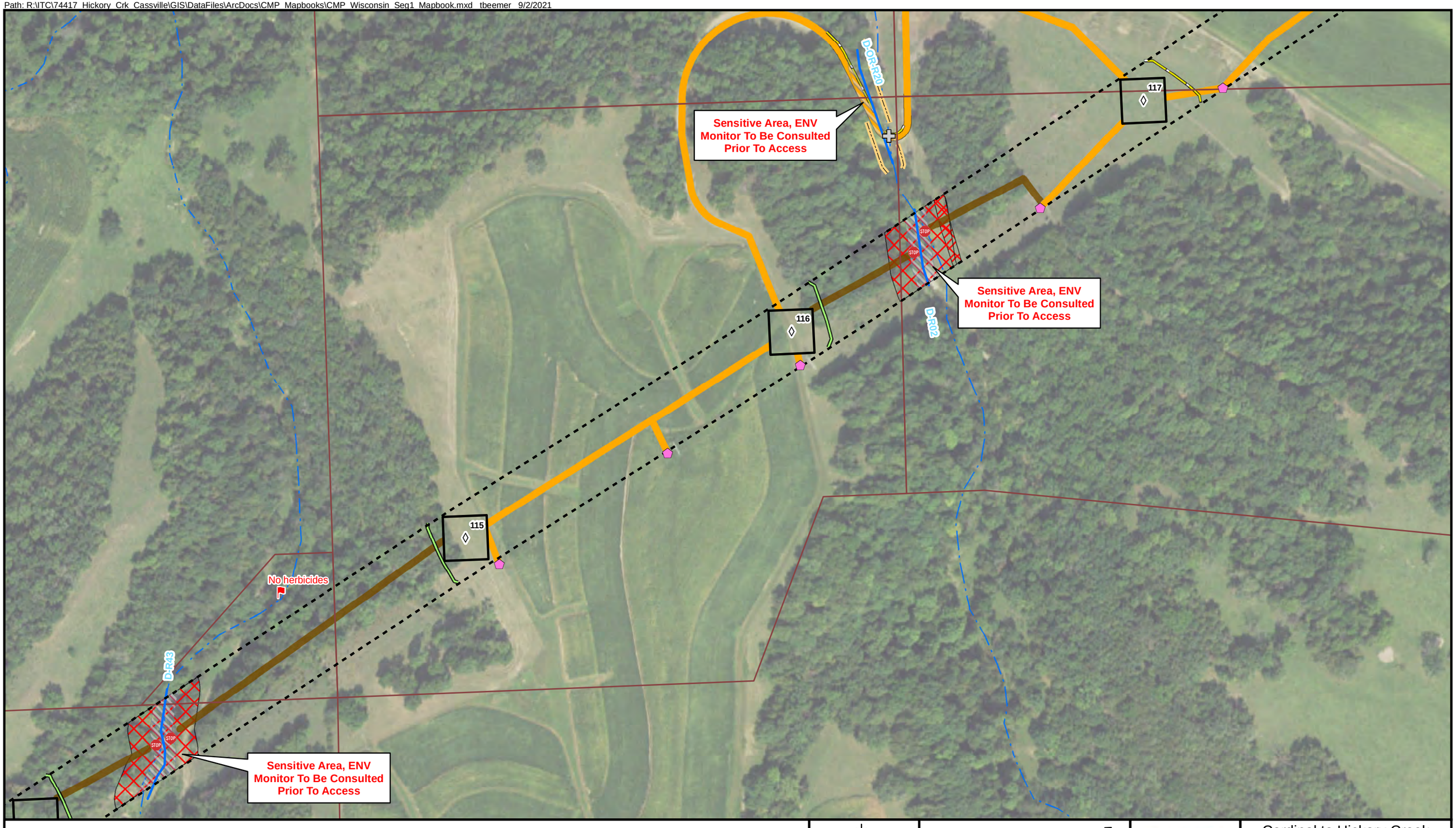

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Turnaround Points
Construction Access
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JCG Landowner Note
Delineated Waterway (A or D-R#)
WDNR 24k Flowline
Sediment Control
Silt Fence
Temporary Clear Span Bridge
Sensitive Area
Construction Fence
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
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Sensitive Area, ENV Monitor To Be Consulted Prior To Access

WDNR Determined That Presence Of This 24k Flowline Does Not Reflect A Navigable Waterway and Therefore Not Subject To Chapter 30 Regulations

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Rattlesnake Rd

D-OR-R05

D-R03-2

D-R03-1

D-W02

119

118

No herbicides

STOP

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland Matting
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Temporary Clear Span Bridge
- Sensitive Area
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
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Wisconsin Segment W1

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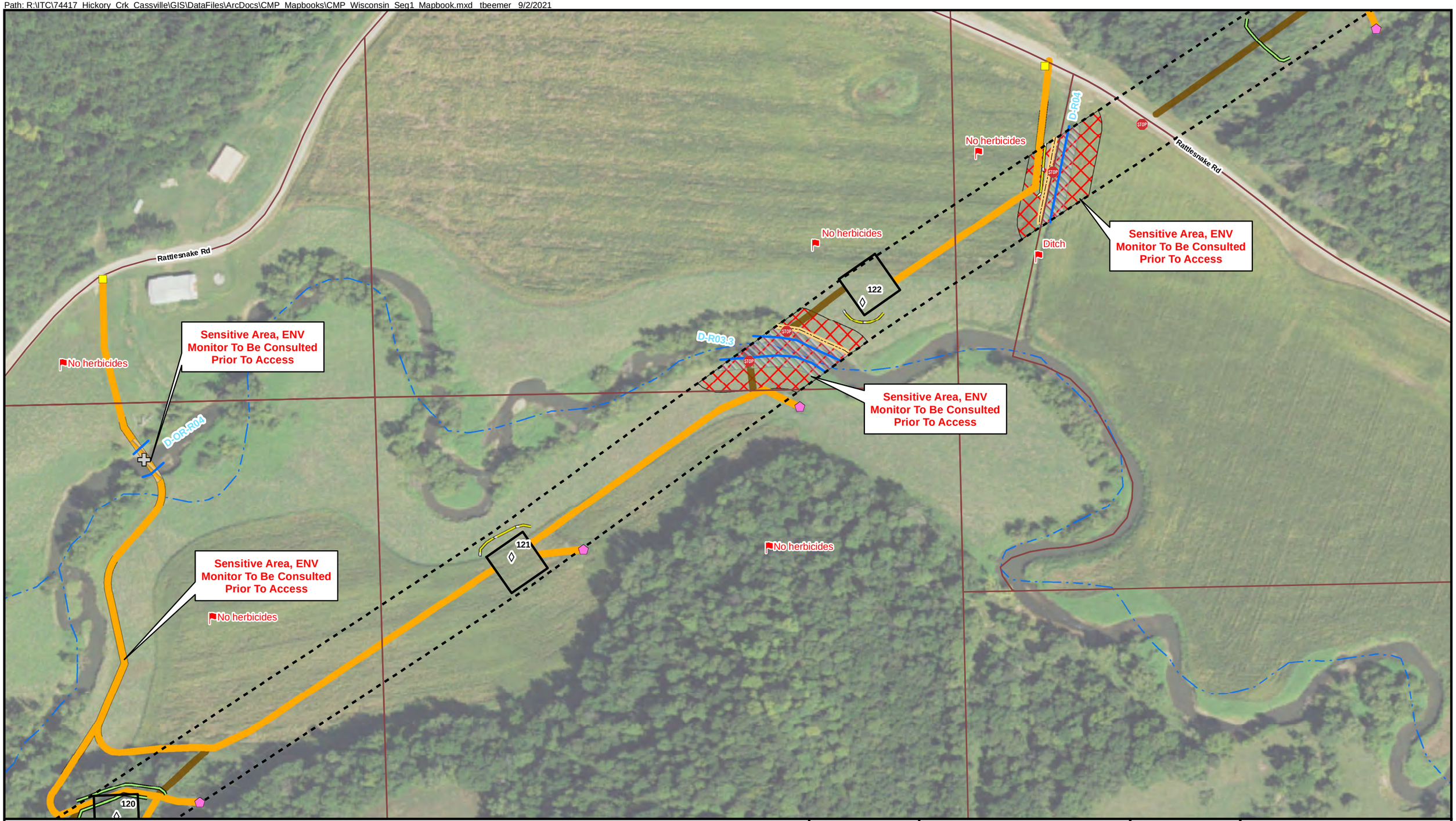

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Line Project
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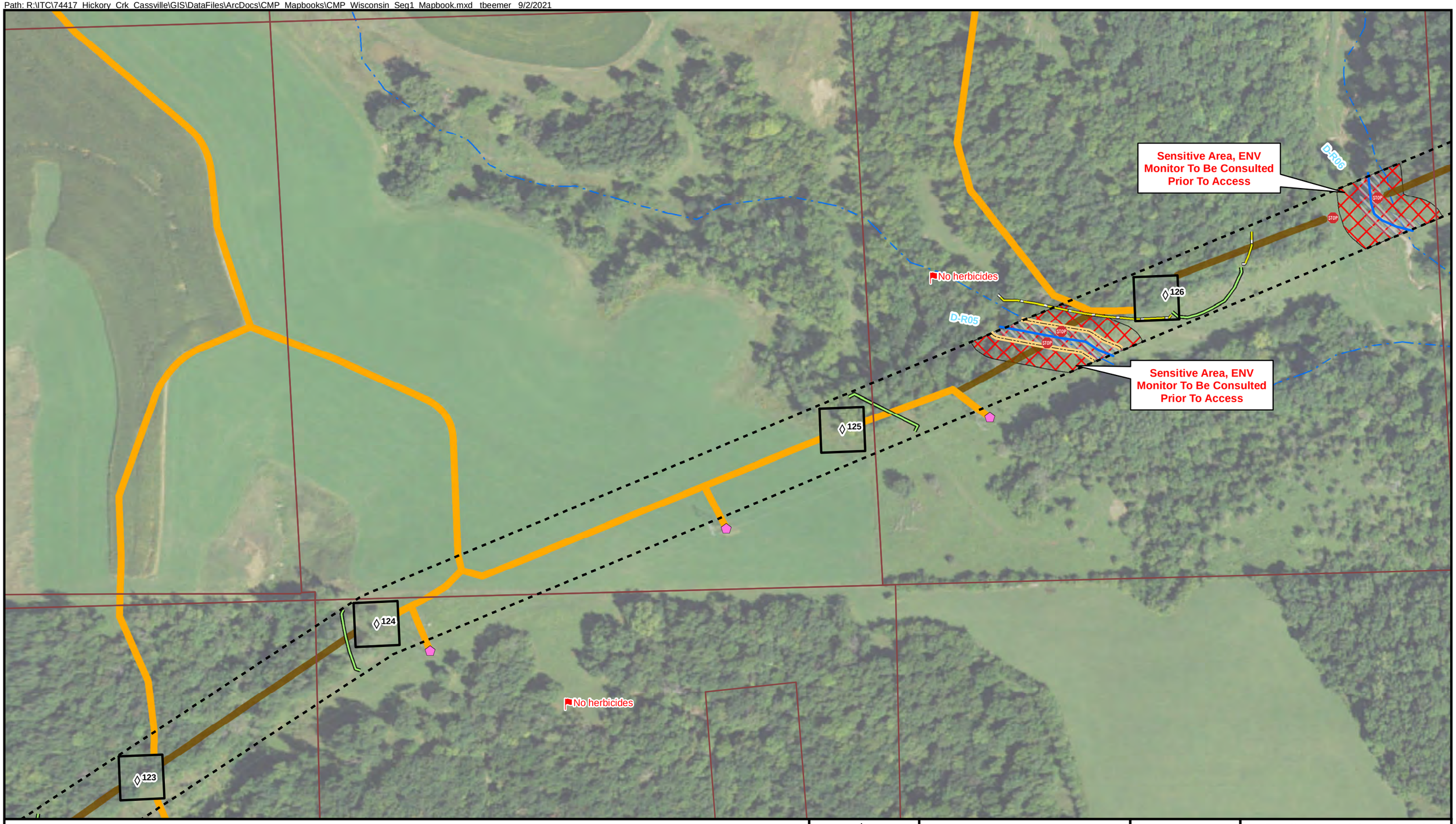

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
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- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

Construction Access
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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Construction Access
Construction Entrance
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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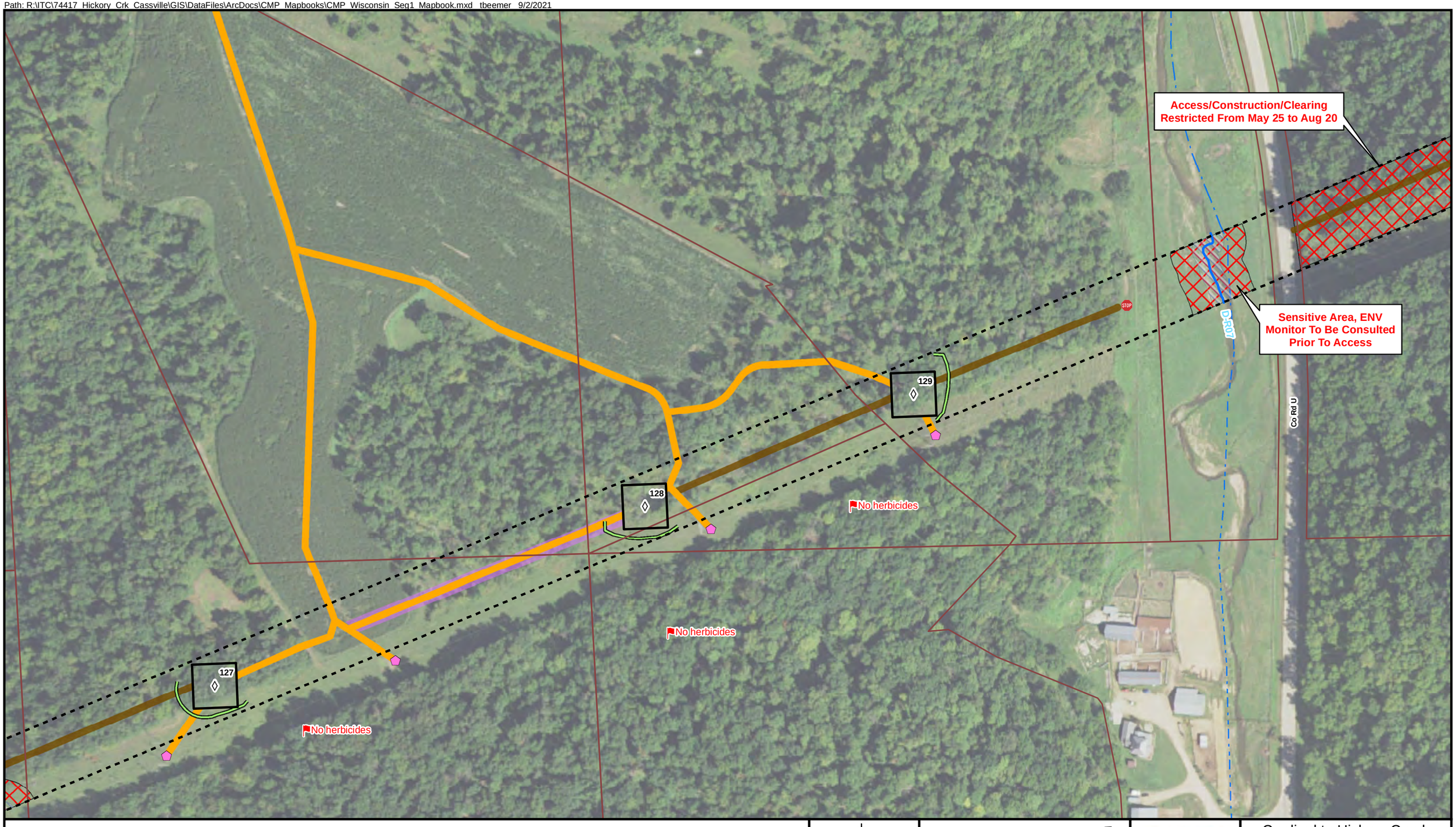

◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Pull Sites
Turnaround Points
Construction Access
Wetland/Stream 25ft Buffer Area
JCG Landowner Note
Delineated Waterway (A or D-R#)
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Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

Construction Access
WDNR 24k Flowline
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Construction Access
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

No herbicides

D-R08.1

D-R08

STOP

STOP

D-W03

132

No herbicides

Access/Construction/Clearing Restricted From May 25 to Aug 20

131

No herbicides

130

No herbicides

Blacktack Rd

D-R25

D-R24

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
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- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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BURNS McDONNELL

Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

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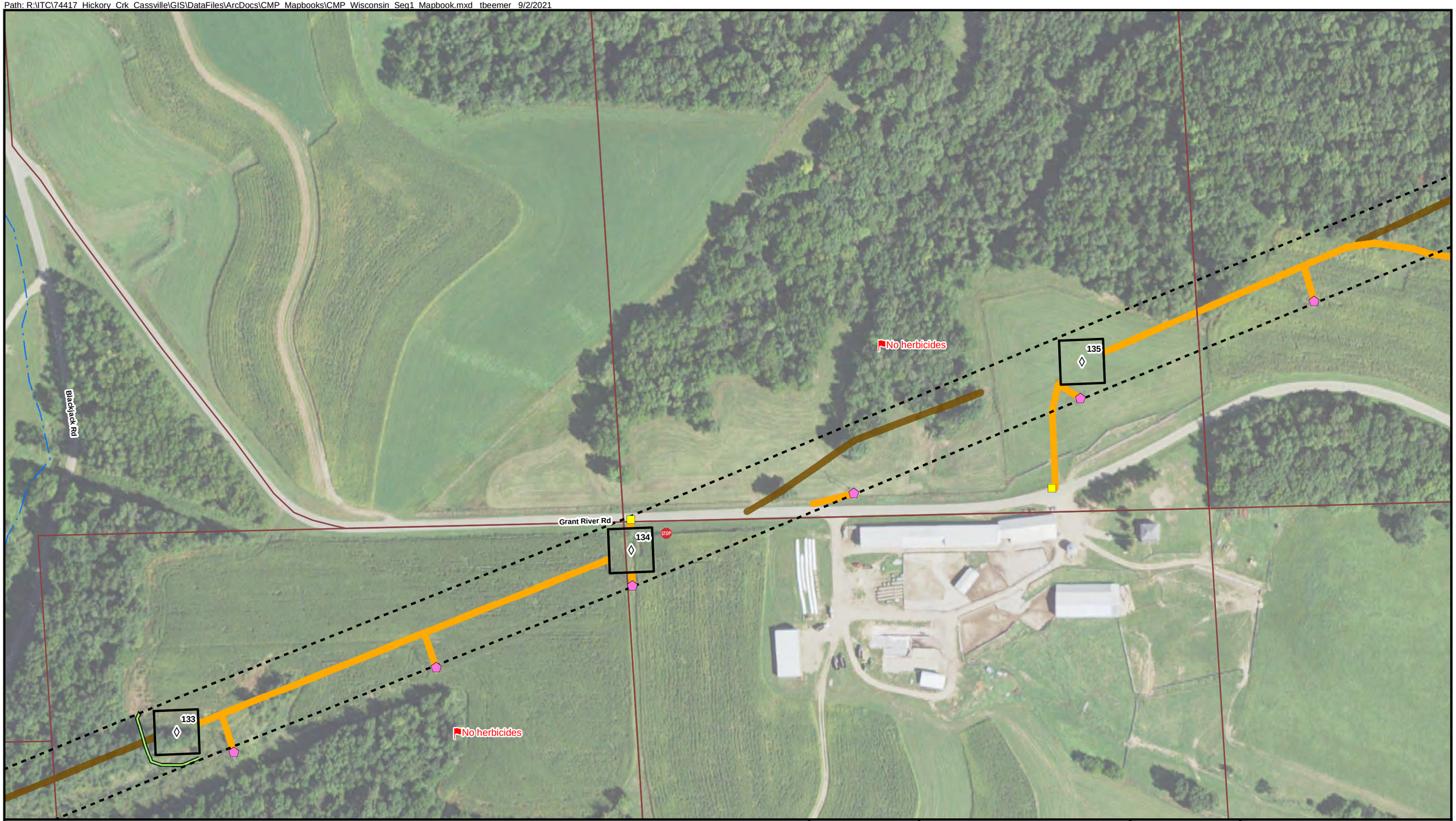

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Turnaround Points
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Silt Fence
Construction Entrance
Veg Clearing Access
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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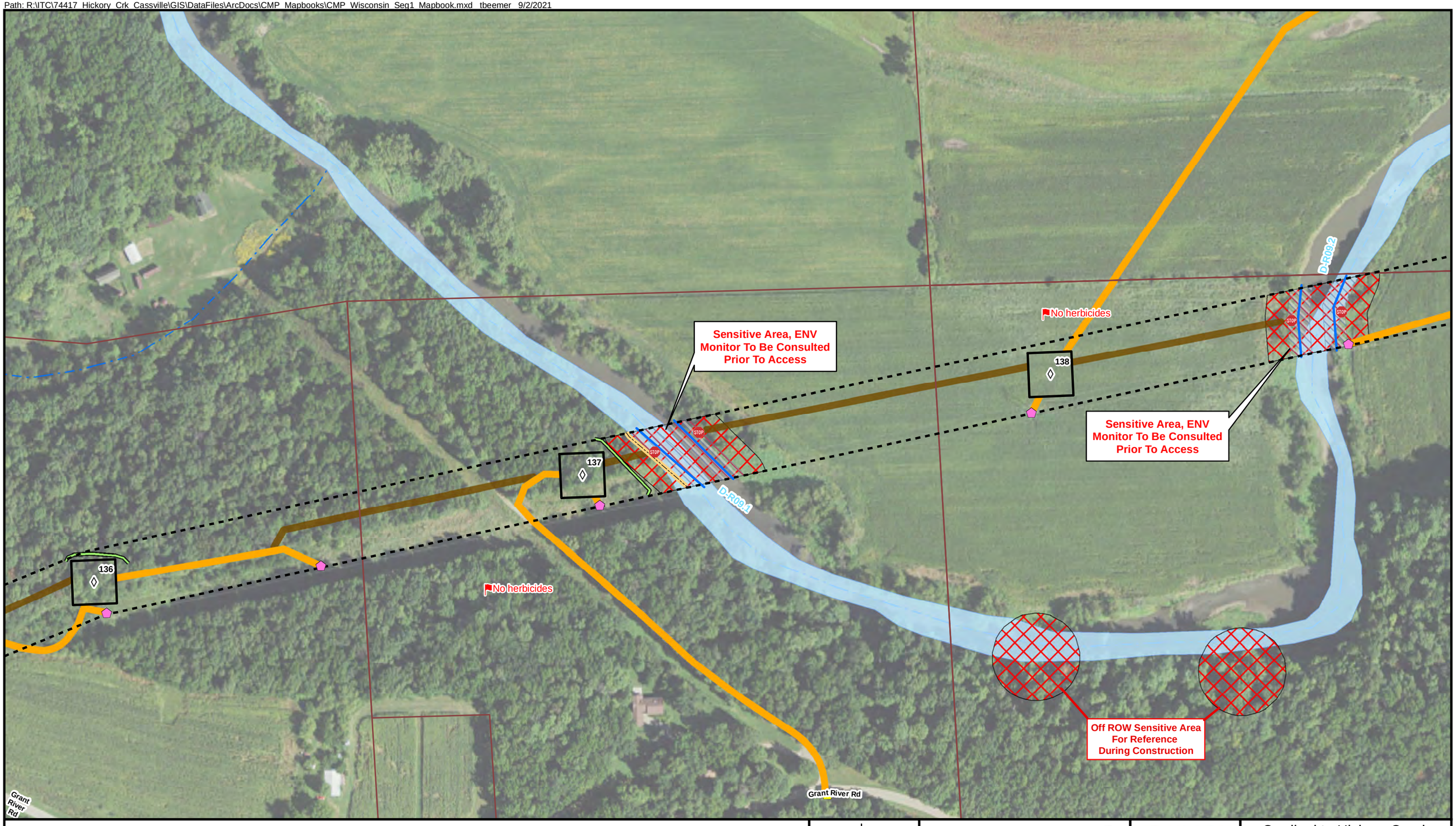

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- WDNR 24k Flowline
- Silt Fence
- Sensitive Area
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

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Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

No herbicides

No herbicides

D-R09.3

D-R09.4

D-R09.5

D-R09.6

139

140

141

STOP

Five Points Rd

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Sensitive Area
- Construction Fence
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

Construction Access
JCG Landowner Note
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Transmission ROW
Construction Access
Wetland/Stream
25ft Buffer Area
Delineated Waterway (A or D-R#)
WDNR 24k Flowline
Existing Culvert
Construction Entrance
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Construction Access
WDNR 24k Flowline
Existing Culvert
Parcel Boundary

NORTH

0 100 200

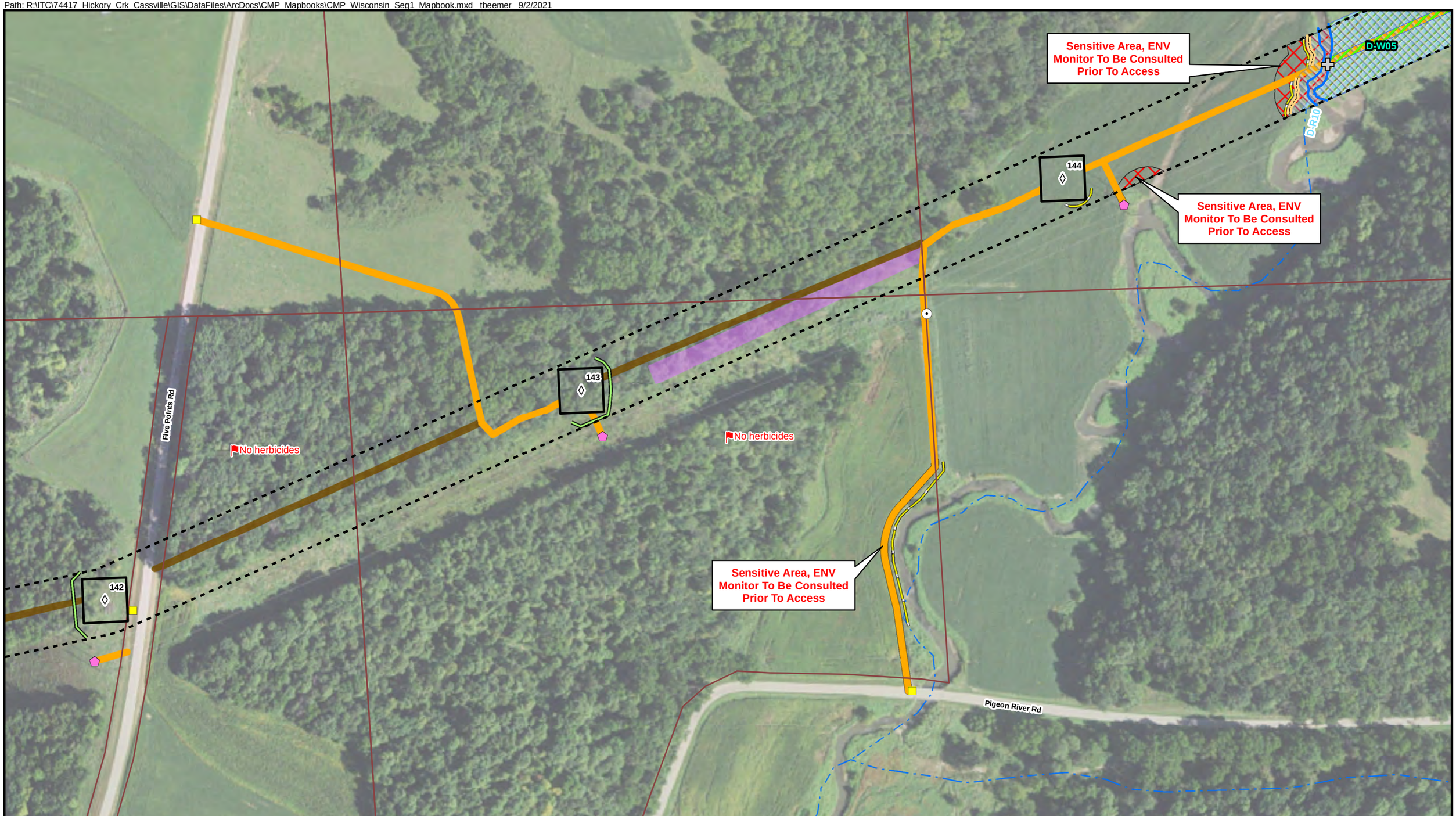
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Pull Sites
- Construction Access
- Wetland Matting
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Temporary Clear Span Bridge
- Existing Culvert
- Sensitive Area
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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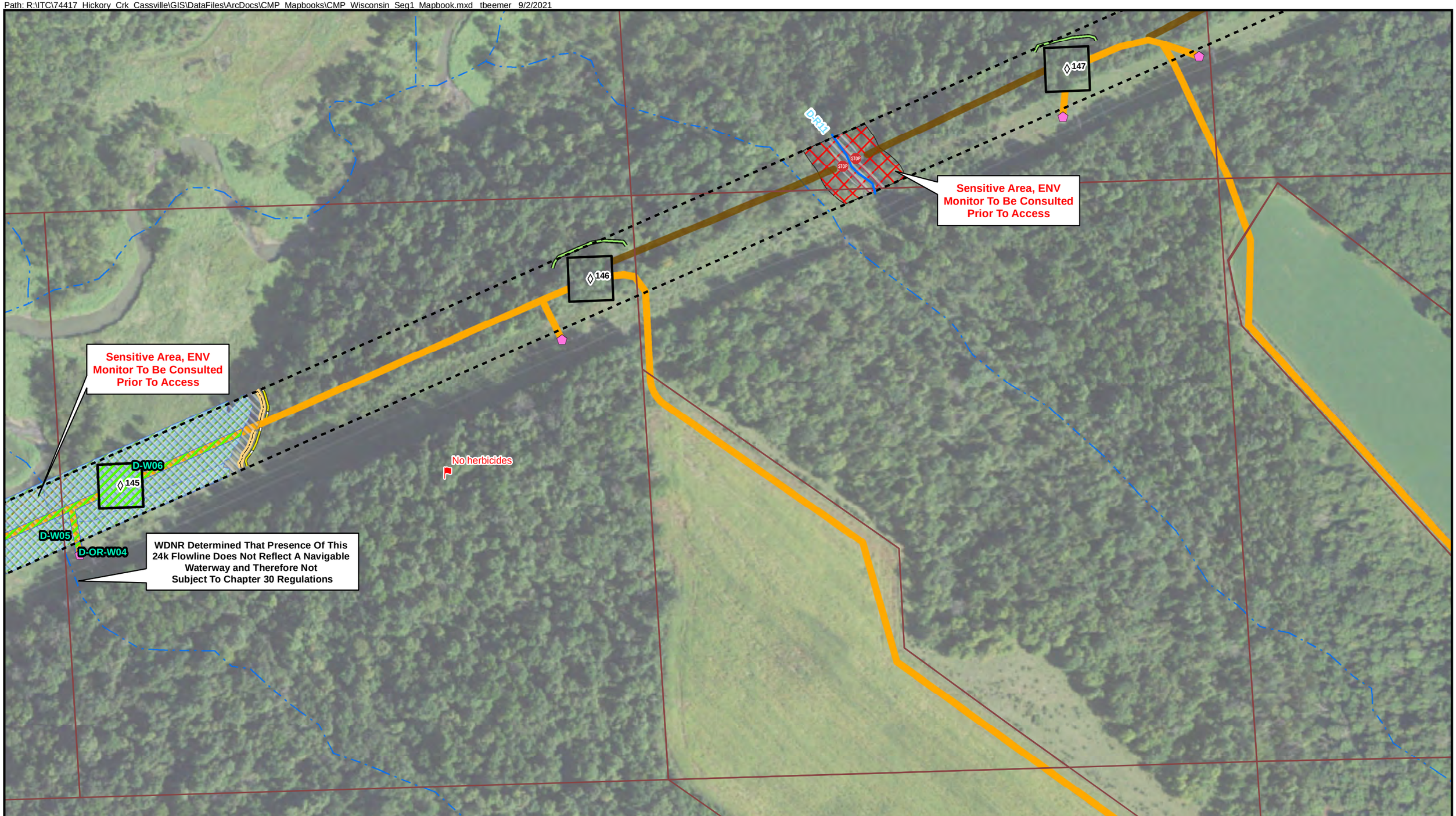

- Proposed Pole
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- Structure Platform
- Turnaround Points
- Construction Access
- Wetland Matting
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- JCG Landowner Note
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- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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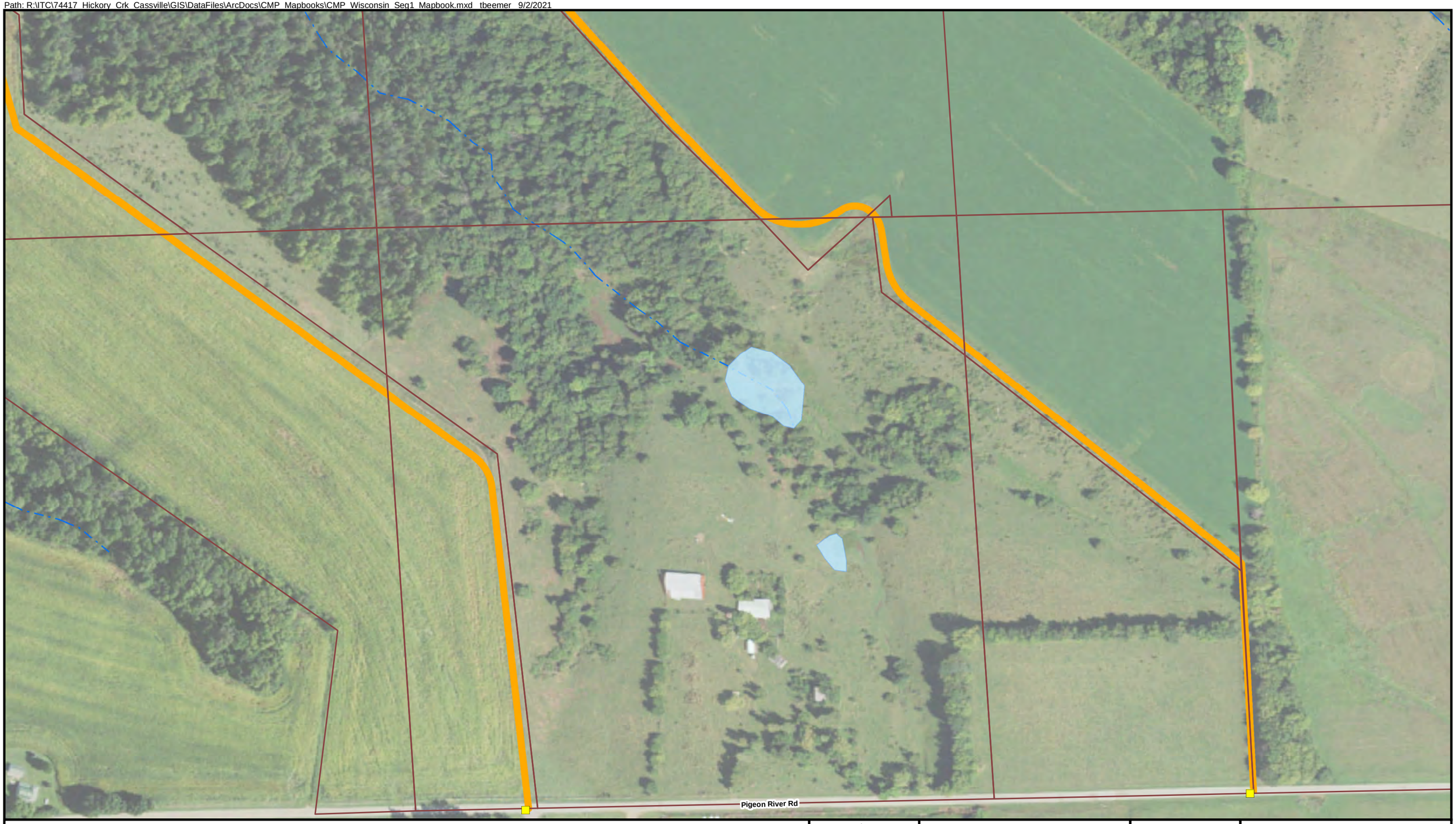


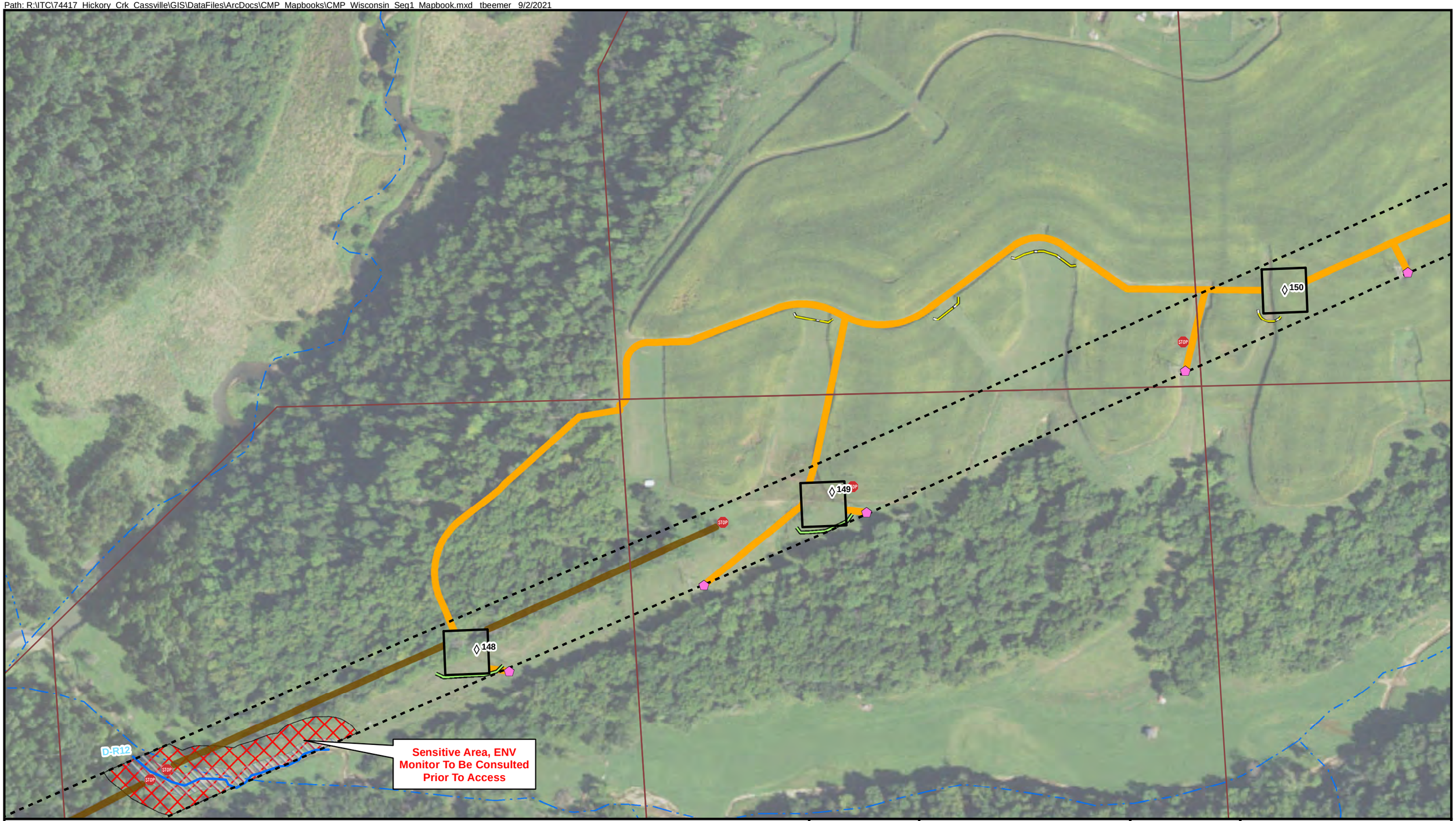
Construction Access
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- Delineated Waterway (A or D-R#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Sensitive Area
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

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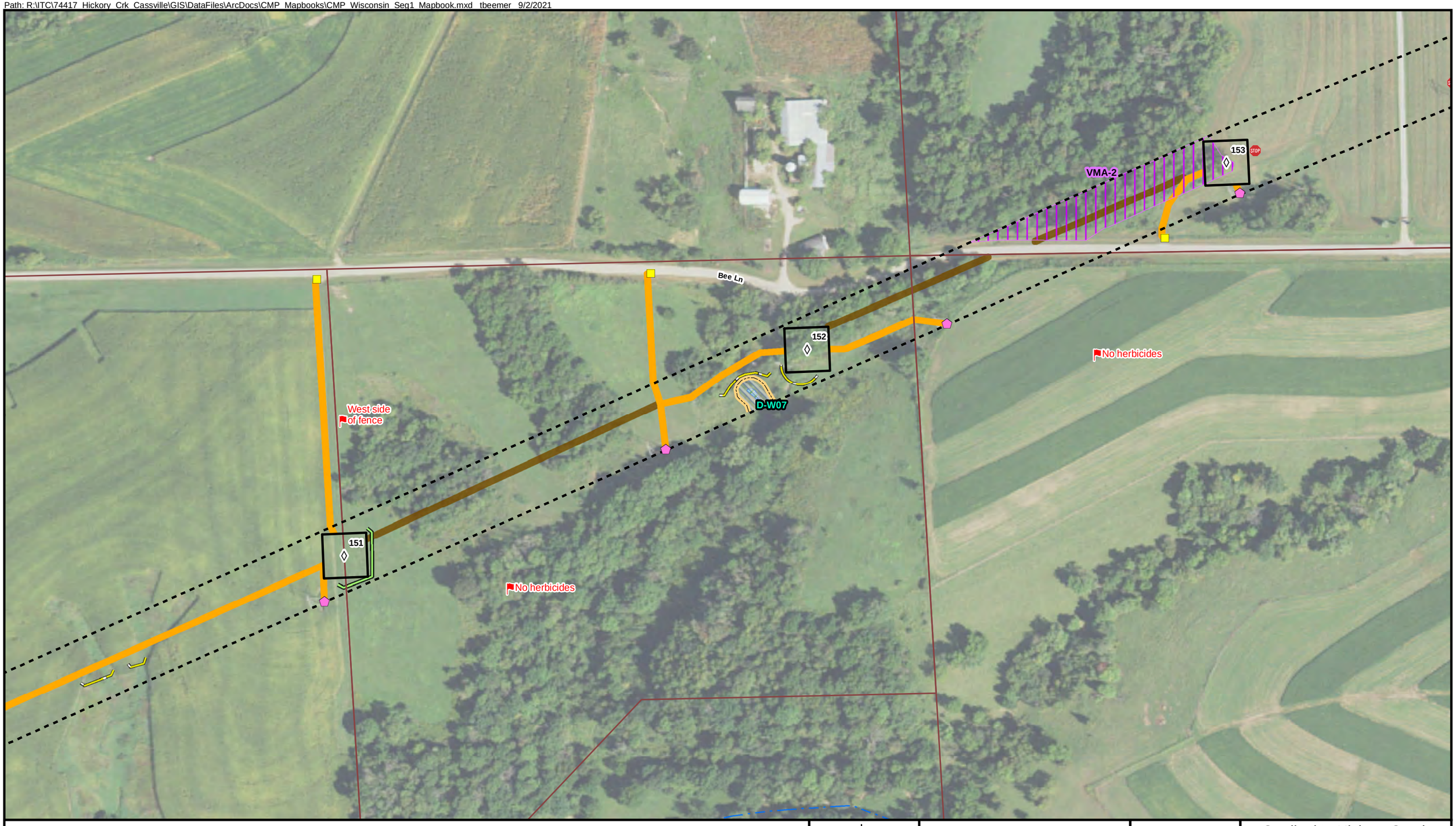

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Location-Specific Vegetation Management Areas (VMA)
- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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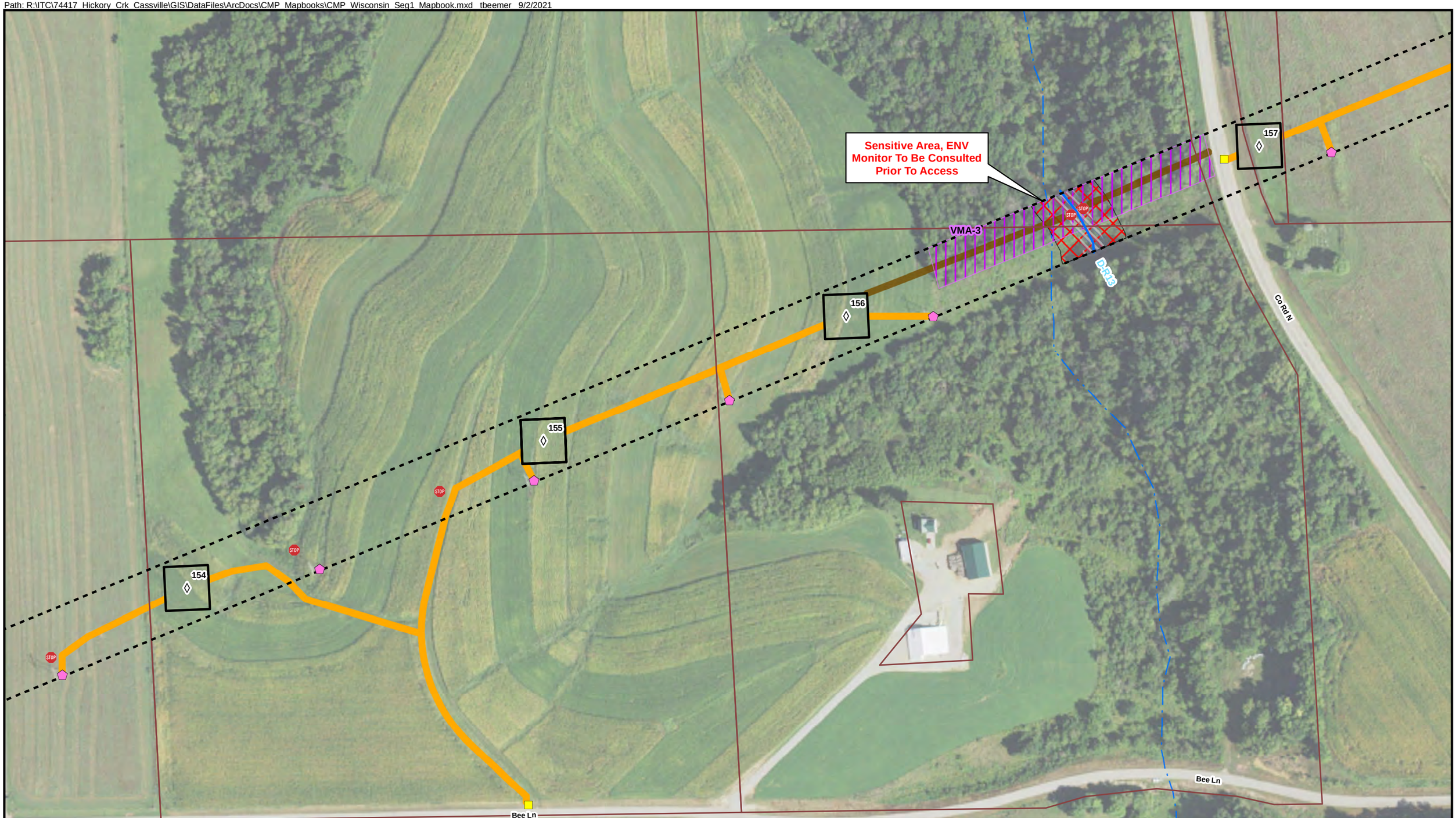

Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Turnaround Points
Construction Access
Wetland/Stream 25ft Buffer Area
Location-Specific Vegetation Management Areas (VMA)
Delineated Waterway (A or D-R#)
WDNR 24k Flowline
Sensitive Area
Construction Entrance
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

VMA-4

VMA-5

VMA-6

D-W08

D-R14

D-R15

D-R16.1

158

159

160

STOP

No herbicides

No herbicides

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
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- Wetland/Stream 25ft Buffer Area
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- Construction Fence
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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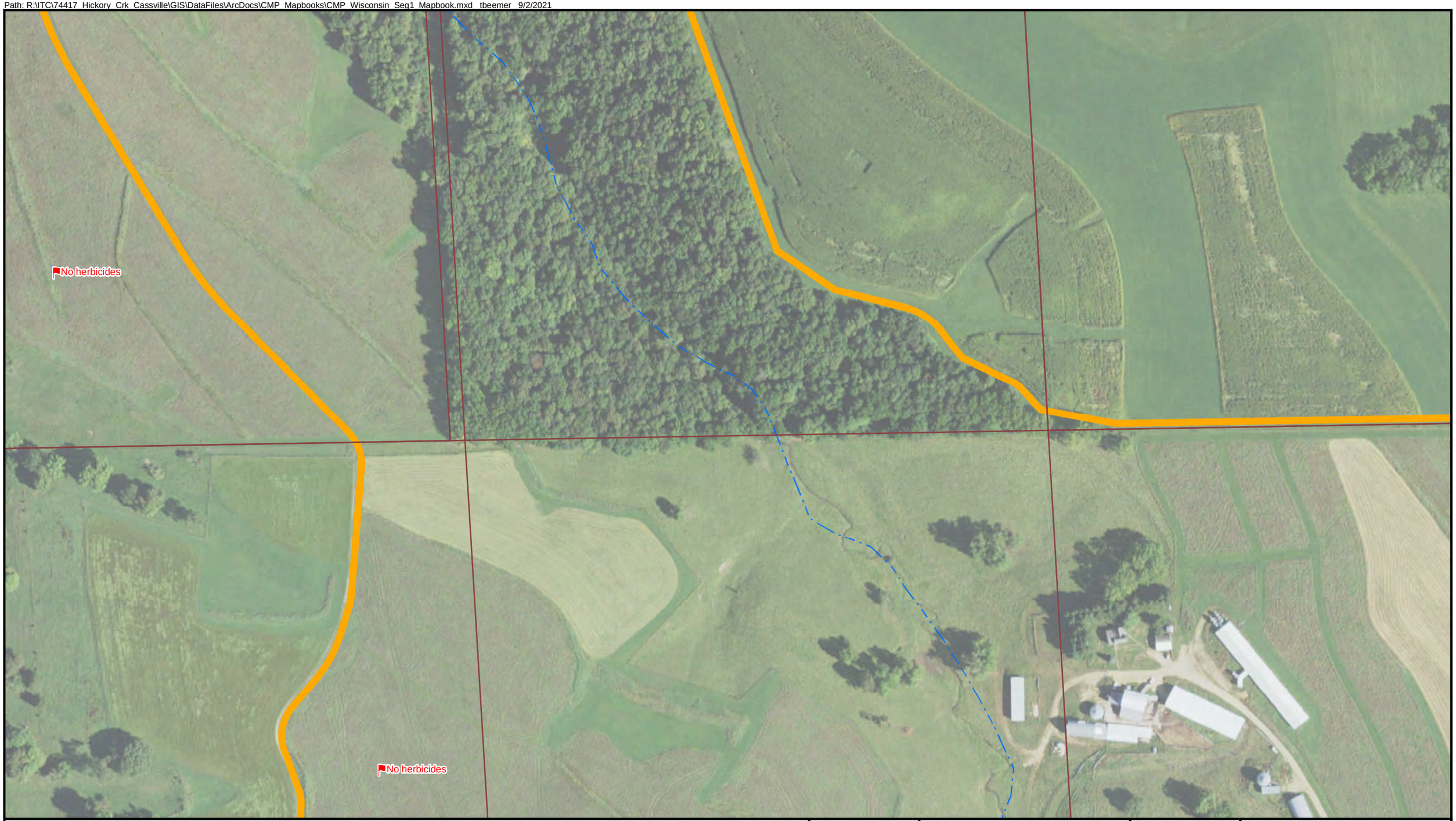


Construction Access
JCG Landowner Note
WDNR 24k Flowline
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

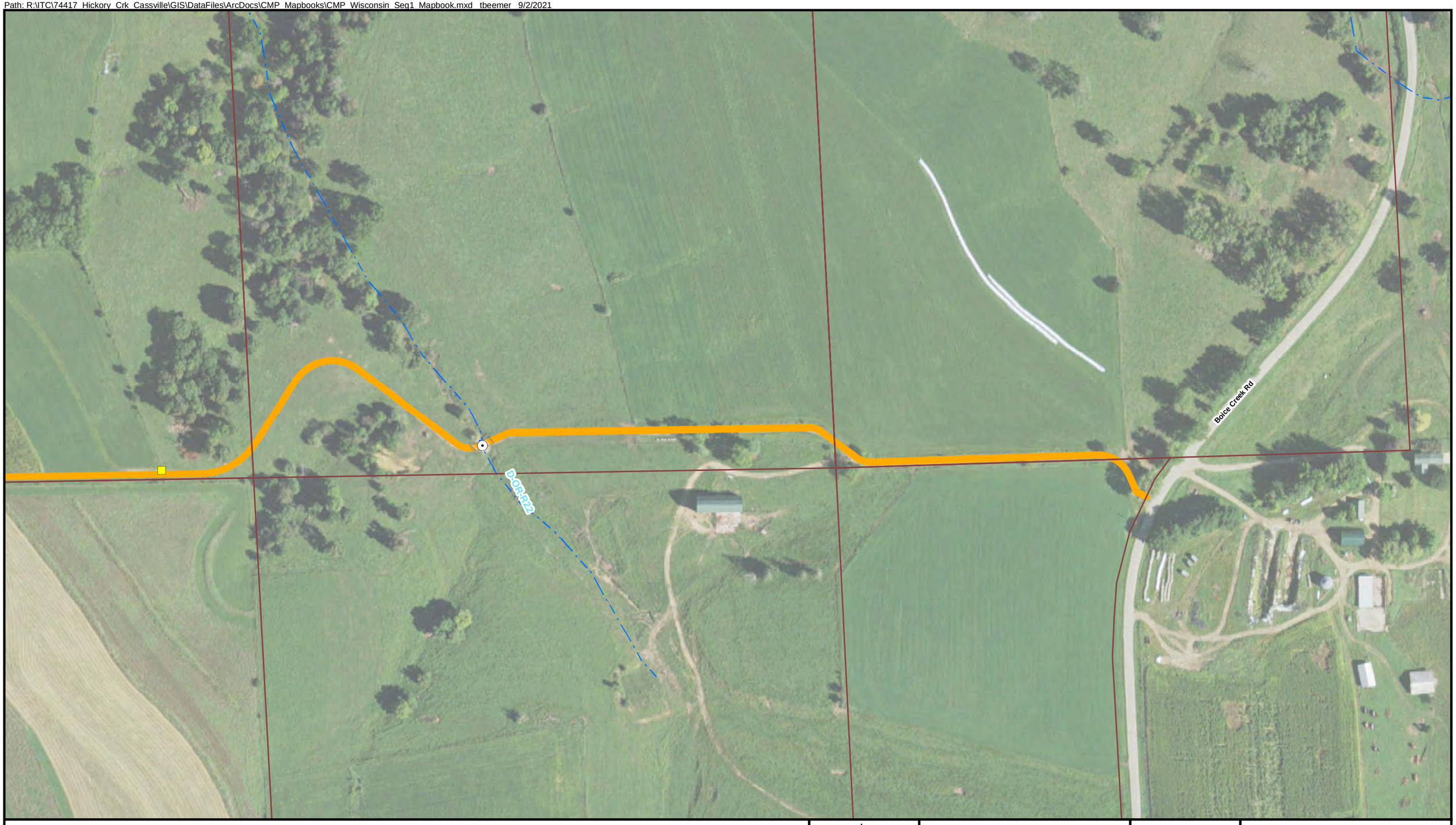
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1



Construction Access
Wetland/Stream 25ft Buffer Area
Delineated Waterway (A or D-R#)
WDNR 24k Flowline
Existing Culvert
Construction Entrance
Parcel Boundary

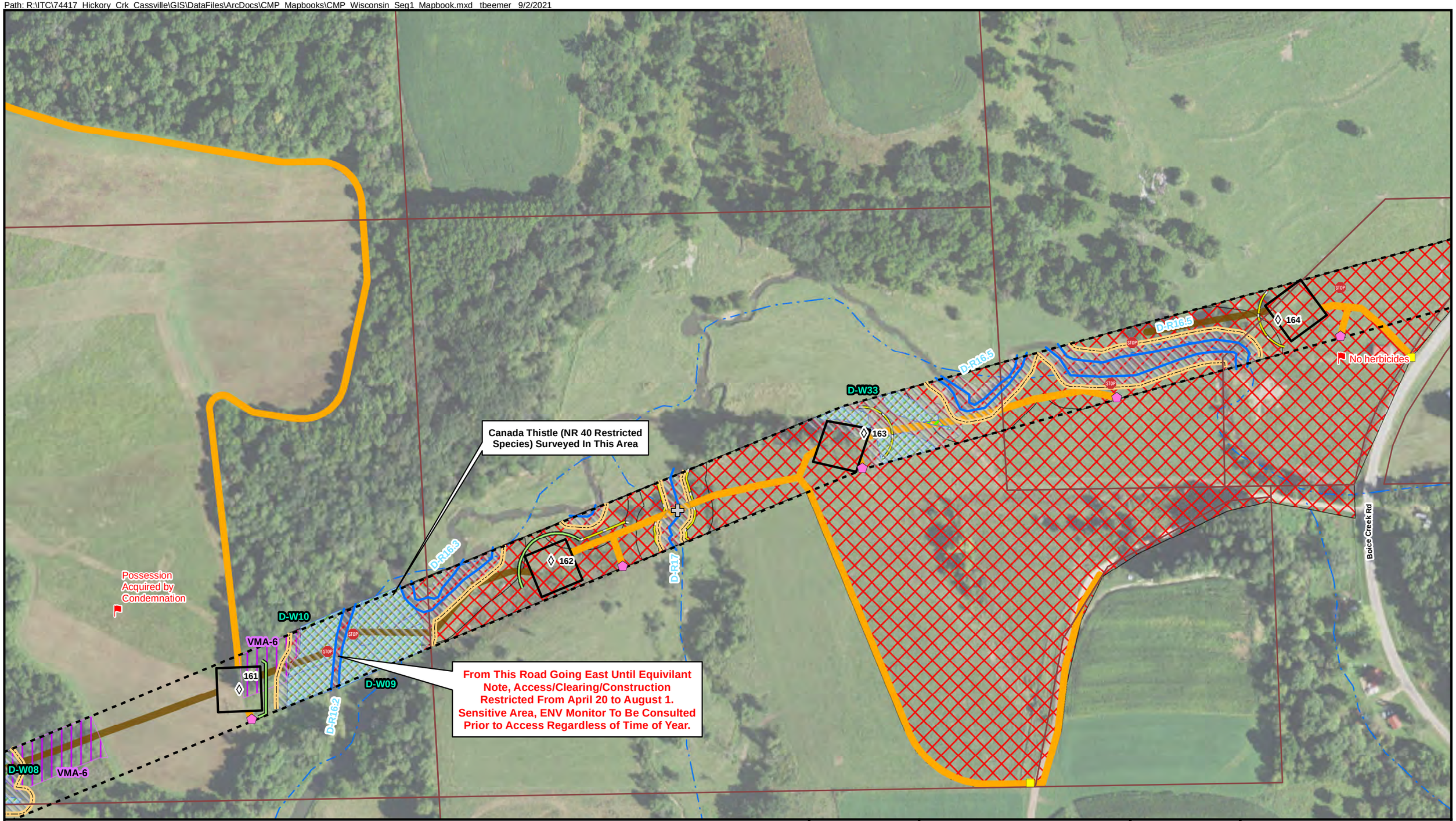
NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland Matting
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
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- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Silt Fence
- Temporary Clear Span Bridge
- Sensitive Area
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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Construction Access
JCG Landowner Note
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

Boice Creek Rd

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

Sensitive Area, ENV Monitor To Be Consulted Prior To Access

From This Road Going West Until Equivilant Note, Access/Clearing/Construction Restricted From April 20 to August 1. Sensitive Area, ENV Monitor To Be Consulted Prior to Access Regardless of Time of Year.

No herbicides

No herbicides

D-R18.2

D-W11

D-R18.1

D-R19

165

166

167

168

STOP

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- Wetland/Stream 25ft Buffer Area
- JCG Landowner Note
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- WDNR 24k Flowline
- Sediment Control
- Temporary Clear Span Bridge
- Sensitive Area
- Construction Fence
- Construction Entrance
- Veg Clearing Access
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

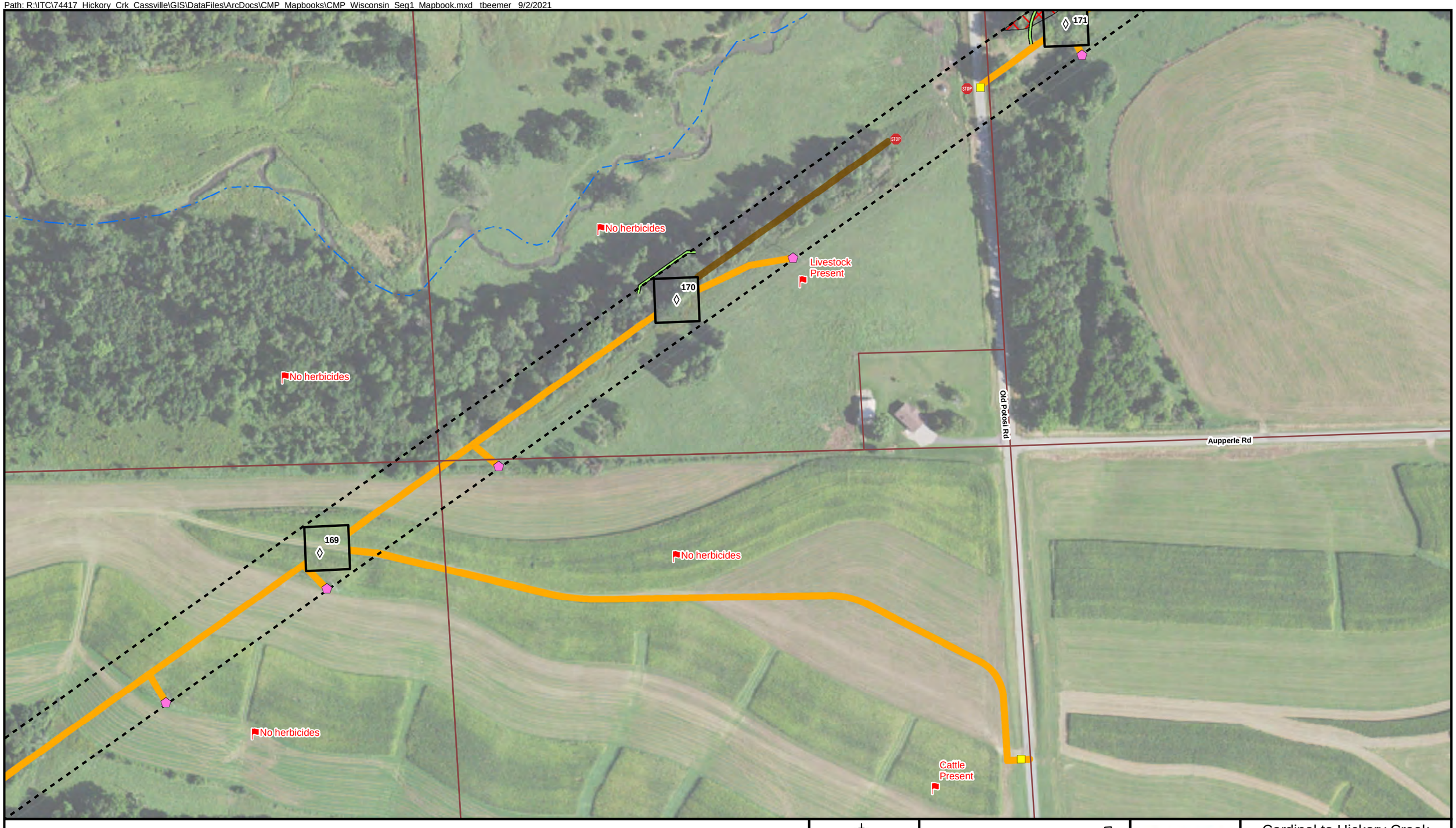
Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021



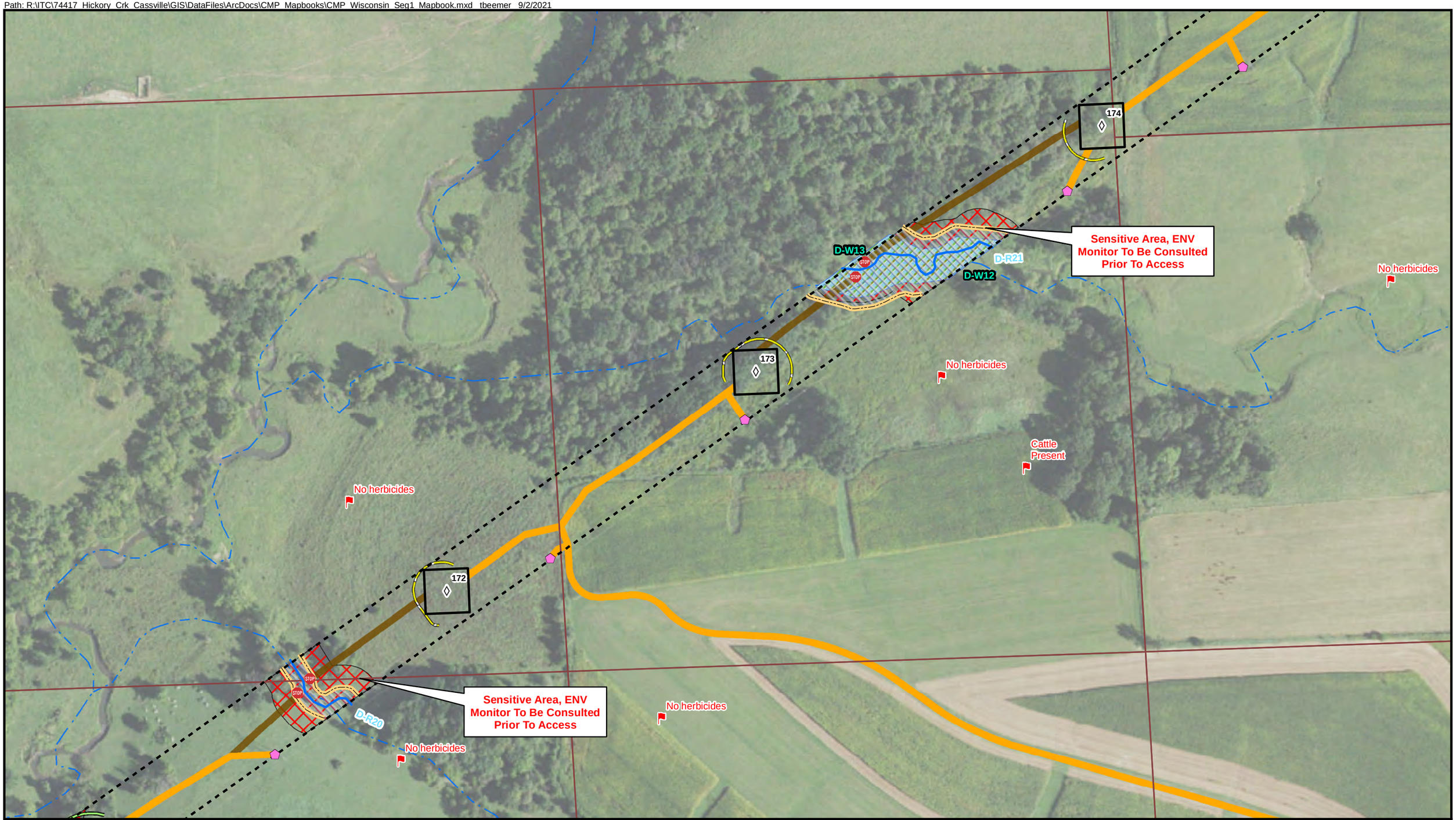
Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Turnaround Points
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Silt Fence
Sensitive Area
Construction Entrance
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek 345-kV Transmission Line Project
Construction Management Plan
Wisconsin Segment W1



Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform

Turnaround Points
Construction Access

Wetland/Stream 25ft Buffer Area
JCG Landowner Note
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)

WDNR 24k Flowline
Sediment Control
Silt Fence
Sensitive Area
Construction Fence
Veg Clearing Access
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

Construction Access
JCG Landowner Note
WDNR 24k Flowline
Construction Entrance
Parcel Boundary

NORTH

0 100 200
Scale in Feet

Map area shown in RED

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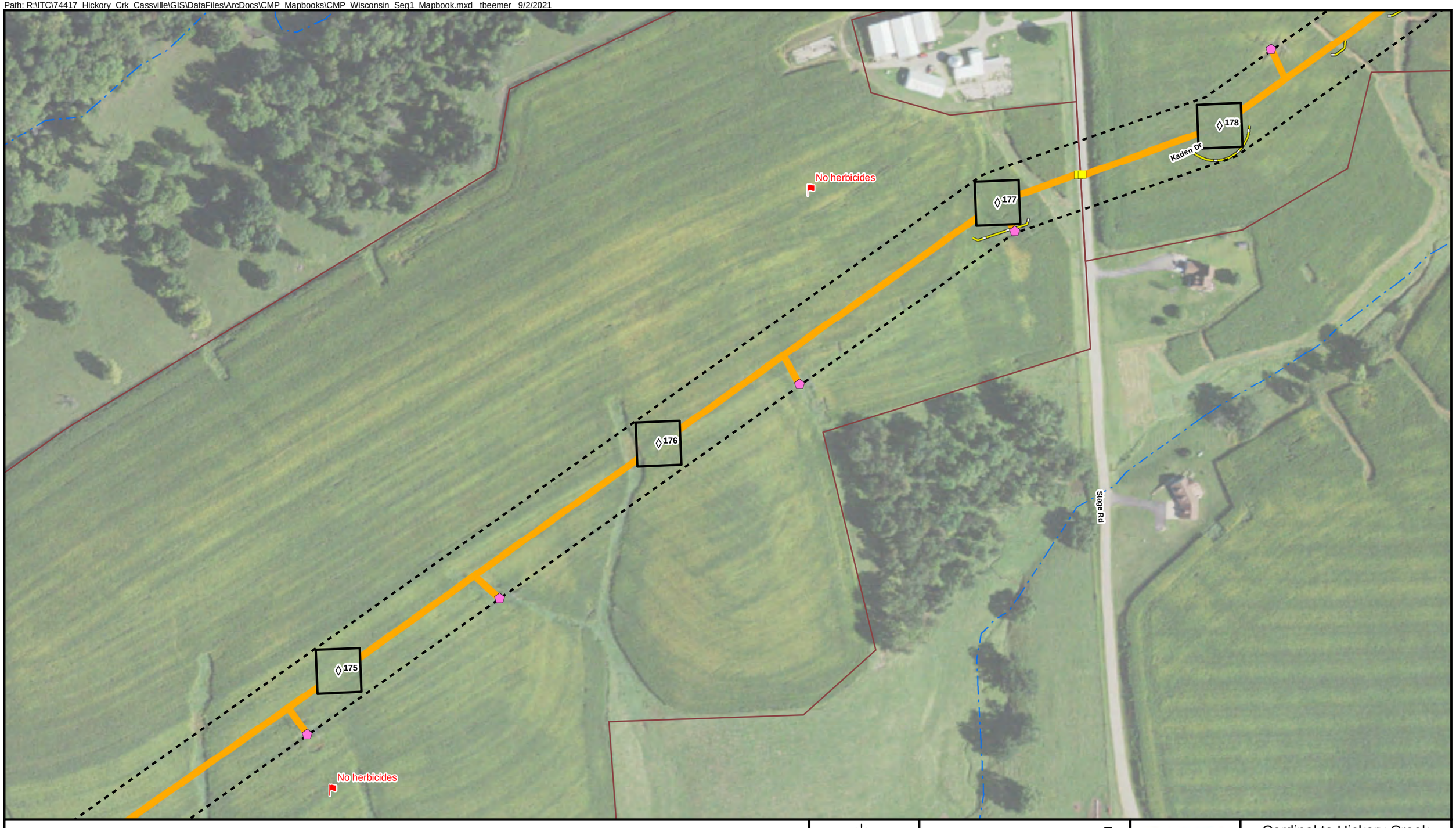
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Construction Access
- JCG Landowner Note
- WDNR 24k Flowline
- Sediment Control
- Construction Entrance
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Possession Acquired by Condemnation

Organic Farm

Possession Acquired by Condemnation

181

State Hwy 81

State Hwy 35

US Hwy 61

180

No herbicides

179

- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Structure Platform
- Turnaround Points
- Construction Access
- JCG Landowner Note
- WDNR 24k Flowline
- Sediment Control
- Construction Entrance
- Parcel Boundary

NORTH

0 100 200

Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY

BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

185
184
183
182
Possession Acquired by Condemnation
Possession Acquired by Condemnation
Possession Acquired by Condemnation
Lancaster Substation
Route in ROW
Cattle Present
State Hwy 129
STOP
STOP

Existing
Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Pull Sites
Turnaround Points
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Sediment Control
Construction Entrance
Parcel Boundary

NORTH
0 100 200
Scale in Feet

Map area shown in RED

ITC A FORTIS COMPANY
BURNS McDONNELL

Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

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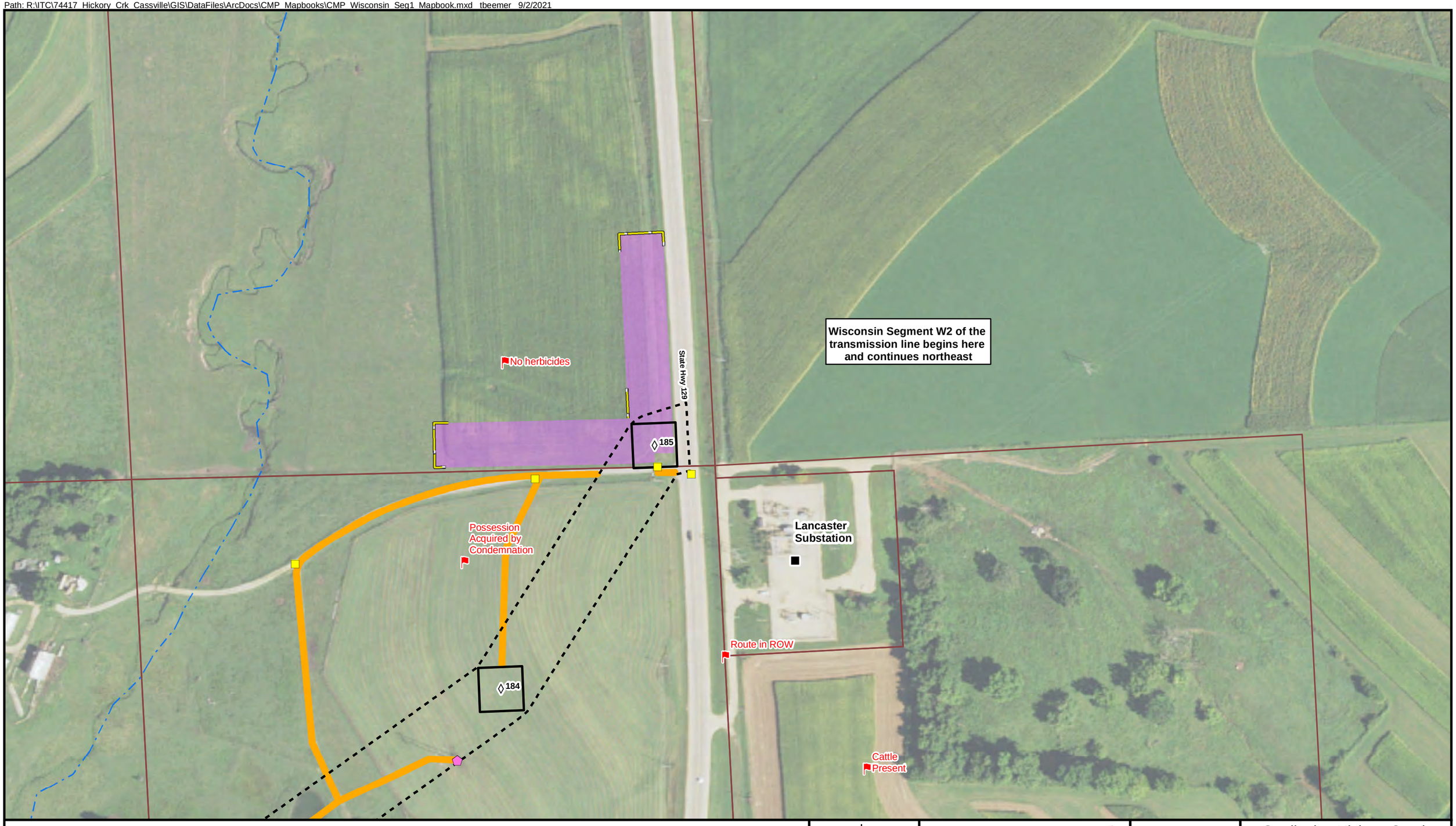

Existing
Proposed Pole
Existing X-16 Structure
Transmission ROW
Structure Platform
Pull Sites
Construction Access
JCG Landowner Note
WDNR 24k Flowline
Sediment Control
Construction Entrance
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NORTH

0 100 200

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ITC A FORTIS COMPANY

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Cardinal to Hickory Creek
345-kV Transmission
Line Project
Construction Management Plan
Wisconsin Segment W1

Issued: 9/2/2021

Attachment G1 - WETLAND SUMMARY TABLE

ATTACHMENT G1 – Wetlands Within Segment W-1

Construction Segment[1]	Wetland ID	Special Designation[2]	Resource Classification[3]	Cowardin Classification	Survey Technique[4]	Wetland Description	Photo
Segment W1	D-OR-W04	Wetland	Wet Meadow	PEM1C	F	**MODIFIED WETLAND AREA FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Small wet meadow wetland surrounding existing transmission pole to be removed. Dominated by reed canary grass. Immediately adjacent to wetland D-W05. Modified to reflect minimized off ROW area needed to access the existing pole to be removed. Photo from 2021, View south.	
Segment W1	D-W01	Wetland	Open water pond	PUBGh	F	A medium open water pond. Photo from 2017, view northeast.	
Segment W1	D-W02	Wetland	Wet Meadow/Farmed Wetland	PEM1C	F	A medium farmed wetland area with signed of routine crop stress and consistent areas of saturation on aerial imagery. Adjacent to waterway D-R03.1 (Rattlesnake Creek). Photo from 2020, view east.	

Construction Segment[1]	Wetland ID	Special Designation[2]	Resource Classification[3]	Cowardin Classification	Survey Technique[4]	Wetland Description	Photo
Segment W1	D-W03	Wetland	Wet Meadow	PEM1C	F	**MODIFIED WETLAND AREA FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – A small wet meadow dominated by reed canary grass. Associated with waterways D-R08 and D-R08.1. This area was updated to encompass wetland D-W04, which has since been removed. D-W04 was a small forested wetland provided in the CPCN application submittal, but was removed based on lack of woody vegetation. Photo from 2020, view north.	
Segment W1	D-W05	Wetland	Wet Meadow	PEM1C	F	A large wet meadow dominated by reed canary grass. Associated with waterway D-R10 and wetlands D-OR-W04 and D-W06. Photo from 2017, view west.	
Segment W1	D-W06	Wetland	Hardwood Swamp	PFO1C	F	**MODIFIED WETLAND AREA FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** –A large forested deciduous wetland dominated by silver maple and reed canary grass. Associated with waterway D-R10 and wetland D-W05. This wetland was slightly expanded further east following a 2020 field survey. Photo from 2020, view northeast.	

Construction Segment[1]	Wetland ID	Special Designation[2]	Resource Classification[3]	Cowardin Classification	Survey Technique[4]	Wetland Description	Photo
Segment W1	D-W07	Wetland	Wet Meadow	PEM1C	F	A very small wet meadow swale dominated by reed canary grass. Photo from 2017, view north.	
Segment W1	D-W08	Wetland	Wet Meadow	PEM1C	F	A medium wet meadow dominated by reed canary grass. Associated with waterway D-R16.1. Photo from 2017, view east.	
Segment W1	D-W09	Wetland	Wet Meadow	PEM1C	F	A large wet meadow dominated by reed canary grass. Associated with waterways D-R16.2 and D-R16.3 and wetland D-W09. Photo from 2017, view north.	

Construction Segment[1]	Wetland ID	Special Designation[2]	Resource Classification[3]	Cowardin Classification	Survey Technique[4]	Wetland Description	Photo
Segment W1	D-W10	Wetland	Hardwood Swamp	PFO1C	F	A large forested deciduous wetland dominated by silver maple and reed canary grass. Associated with waterways D-R16.2 and D-R16.3 and wetland D-W09. Photo from 2020, view south.	
Segment W1	D-W11	Wetland	Shallow Open Water	PUBGh	F	A medium open water pond. Photo from 2020, view east.	
Segment W1	D-W12	Wetland	Wet Meadow	PEM1C	F	A medium wet meadow dominated by prairie cordgrass and reed canary grass. Associated with waterway D-R21 and wetland D-W13. Photo from 2017, view east.	

Construction Segment[1]	Wetland ID	Special Designation[2]	Resource Classification[3]	Cowardin Classification	Survey Technique[4]	Wetland Description	Photo
Segment W1	D-W13	Wetland	Hardwood Swamp	PFO1C	F	A small forested deciduous wetland dominated by eastern cottonwood. Associated with waterway D-R21 and wetland D-W12. Photo from 2020, view north.	
Segment W1	D-W33	Wetland	Wet Meadow	PEM1C	F	**NEW WETLAND AREA FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – A small wet meadow dominated by fox sedge and reed canary grass. Photo from 2021, view east.	

[1] Construction Segment of the ITC Managed portion of the Project.

[2] Designated features refer to wetlands within or immediately adjacent to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI. Admin. Code. None present.

[3] Wetland descriptions are based on Eggers and Reed Classification system.

[4] Survey Technique includes: F = in-field characterization; A = off-site characterization (e.g., aerial photograph interpretation); and V = off-site characterization with limited field verification (e.g., feature viewed from public ROW such as a nearby road)

Attachment G2 - REVISED WDNR TABLE 1 FOR SEGMENT W-1

DNR Revision Date: 3/18/2020

Attachment G2 - Updated DNR Table 1: Wetland and Waterway Impact/Crossing Table

Directions: Complete this table for all of the wetlands and waterways that will be impacted or crossed by any construction activity, including those crossed by equipment access, impacted by any ground disturbing activity, and crossed by utility installation/site placement. There should only be one row for each feature unique ID. Use 1 tab/sheet for each site and/or route, and break up linear routes by segment numbers. Submit this table as Excel format. Any modifications or revisions to this table must be agreed upon by all parties before filing.

To be Completed by Applicant:
PSC Docket Number: 5-CE-146
Created/Revised On: 9/1/2021
Route/Site Name: **Segment W-1 - ITC Managed Portion of the Cardinal-Hickory Creek Transmission Line Project**

RESOURCE INFORMATION						CONSTRUCTION CROSSING METHOD/IMPACT ACTIVITY															RESOURCE IMPACT LOCATION			RESOURCE IMPACT TOTALS			Comments
						Waterways					Wetlands																	
Segment	Project Component [1]	Wetland Type [2] or Waterway Name [3]	Feature Unique ID [4]	Navigability Determination Requested [5]	Fish Spawning Timing Restriction Waiver Requested [6]	Equipment Crossing Method [7]	Trench [8] (indicate length and width of trench in feet)	Plow (yes/no)	HDD/Bore (yes/no)	Other Activities [9]	Matting [10] (square feet)	Trench [8] (indicate length and width of trench in feet)	Trench (square feet)	Location of Spoils [11]	Wetland Spoils [12] (square feet)	Plow (yes/no)	HDD/Bore (yes/no)	Bore Pits (square feet)	Grading [13] (square feet)	Other Temporary impact [14] (square feet)	Comments on Other Temporary Impact [15]	Permanent Structure/Fill Placement (square feet) [16]	County	Latitude Coordinates [17]	Longitude Coordinates [17]	Temporary Wetland Fill (square feet)	Permanent Wetland Fill (square feet)	Wetland Conversion [18] (square feet)	
Wetlands																													
Segment 1	Transmission Line ROW	Open water pond	D-W01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.7385183	-90.9687185	0	0	0	
Segment 1	Transmission Line ROW	Wet meadow	D-W02	Yes -See Note In Last Column	N/A	N/A	N/A	N/A	N/A	N/A	2,743	-	-	-	-	No	No	-	-	-	-	95	Grant	42.7631612	-90.910207	2,743	95	0	Wetland D-W02 is not requested for a navigability determination, however a 24k Hydro Flowline is associated with this wetland. As matting is proposed throughout this wetland, a navigability request was provided to WDNR, who determined that the area was not navigable.
Segment 1	Transmission Line ROW	Wet meadow	D-W03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.7797257	-90.8615188	0	0	0	Wetland D-W03 has been updated since the CPCN submittal via expanding into the area where D-W04 was previously.
Segment 1	Transmission Line ROW	Wet meadow	D-W05	Yes -See Note In Last Column	N/A	N/A	N/A	N/A	N/A	N/A	7,054	-	-	-	-	No	No	-	-	-	-	0	Grant	42.7903628	-90.8118323	7,054	0	0	Wetland D-W05 is not requested for a navigability determination, however a 24k Hydro Flowline is associated with this wetland. As matting is proposed throughout this wetland, a navigability request was provided to WDNR, who determined that the area was not navigable.
Segment 1	Transmission Line ROW	Forested deciduous wetland	D-W06	Yes -See Note In Last Column	N/A	N/A	N/A	N/A	N/A	N/A	15,816	-	-	-	-	No	No	-	-	-	-	95	Grant	42.7908197	-90.8106213	15,816	95	55,800	Wetland D-W06 is not requested for a navigability determination, however a 24k Hydro Flowline is associated with this wetland. As matting is proposed throughout this wetland, a navigability request was provided to WDNR, who determined that the area was not navigable.
Segment 1	Transmission Line ROW	Wet meadow	D-W07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.7986926	-90.783401	0	0	0	
Segment 1	Transmission Line ROW	Wet meadow	D-W08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.8065112	-90.756073	0	0	0	
Segment 1	Transmission Line ROW	Wet meadow	D-W09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.8073343	-90.7527274	0	0	0	
Segment 1	Transmission Line ROW	Forested deciduous wetland	D-W10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.8074328	-90.752916	0	0	15,008	
Segment 1	Transmission Line ROW	Open water pond	D-W11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.8101281	-90.7403698	0	0	0	
Segment 1	Transmission Line ROW	Wet meadow	D-W12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.819581	-90.7152726	0	0	0	
Segment 1	Transmission Line ROW	Forested deciduous wetland	D-W13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	-	-	-	-	No	No	-	-	-	-	0	Grant	42.819521	-90.7198507	0	0	5,116	
Segment 1	Transmission Line ROW	Wet meadow	D-W33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,164	-	-	-	-	No	No	-	-	-	-	0	Grant	42.808654	-90.748288	2,164	0	0	**New wetland as of 2021 field delienation**
Segment 1	Off ROW Access Road	Wet meadow	D-OR-W04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	562	-	-	-	-	No	No	-	-	-	-	0	Grant	42.7903037	-90.8112228	562	0	0	Wetland D-OR-W04 has been updated since the CPCN submittal due to change in off ROW area.
						Wetland Impact Totals:					28,338	N/A	0	N/A	0	N/A	N/A	0	0	0	N/A	190	N/A	N/A	N/A	28,338	190	75,924	
Waterways																													
Segment 1	Transmission Line ROW	Mississippi River	A-R01	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7274418	-91.0074211	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	Furnance Branch	A-R02	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7291553	-90.992206	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Rattlesnake Creek	D-R01	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7501209	-90.9402007	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Rattlesnake Creek	D-R02	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7594308	-90.9152576	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	Rattlesnake Creek	D-R03.1	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7618477	-90.9134972	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R03), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Rattlesnake Creek	D-R03.2	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7640256	-90.9076431	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R03), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Rattlesnake Creek	D-R03.3	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7676994	-90.9000672	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R03), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	UNT to Rattlesnake Creek	D-R04	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7697897	-90.8979244	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Grant River	D-R05	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7724982	-90.8875451	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Grant River	D-R06	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7731838	-90.884796	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	Beetown Branch	D-R07	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7762812	-90.8741648	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Grant River	D-R08	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7797636	-90.861466	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Grant River	D-R08.1	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7798852	-90.8616067	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Transmission Line ROW	Grant River	D-R09.1	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7840581	-90.842516	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Grant River	D-R09.2	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7847604	-90.8371035	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Grant River	D-R09.3	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7855255	-90.8348135	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Grant River	D-R09.4	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7905115	-90.8325499	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Grant River	D-R09.5	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7859973	-90.831237	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Grant River	D-R09.6	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7853178	-90.8299154	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R09), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R10	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7899012	-90.8127567	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R11	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7925363	-90.8045771	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R12	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7936684	-90.80012	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R13	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8030365	-90.7695844	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R14	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8045371	-90.7631178	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R15	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8058287	-90.7543214	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	Pigeon Creek	D-R16.1	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8066822	-90.756164	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R16), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R16.2	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8076112	-90.7527894	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R16), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R16.3	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8078212	-90.7517123	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R16), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R16.4	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8081215	-90.7508176	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R16), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R16.5	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8089175	-90.7459993	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R16), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R17	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8081164	-90.7500117	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	Pigeon Creek	D-R18.1	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8097627	-90.7488956	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R18), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	Pigeon Creek	D-R18.2	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8099333	-90.7396393	N/A	N/A	N/A	This waterway was previously combined into one larger feature (D-R18), but has been further broken apart to account for separate portions within the ROW.
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R19	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8108847	-90.7350784	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R20	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8169686	-90.7205048	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Pigeon Creek	D-R21	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.8195461	-90.7152626	N/A	N/A	N/A	
Segment 1	Transmission Line ROW	UNT to Furnance Branch	D-R40	Yes	Yes	Matting or Culvert	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7410444	-90.9628197	N/A	N/A	N/A	**New waterway as of 2021 field delienation.** WDNR determined this is not a navigable water under state rules. Crossing will be matting and/or culvert.
Segment 1	Transmission Line ROW	UNT to Rattlesnake Creek	D-R43	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7564771	-90.9247781	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Transmission Line ROW	UNT to Rattlesnake Creek	D-R44	No	No	-	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7489955	-90.9412786	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Off ROW Access Road	Rattlesnake Creek	D-OR-R04	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7670804	-90.9057378	N/A	N/A	N/A	Waterway D-OR-R04 has been updated since the CPCN submittal due to change in off ROW area.
Segment 1	Off ROW Access Road	Rattlesnake Creek	D-OR-R05	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7627415	-90.9181362	N/A	N/A	N/A	Waterway D-OR-R05 has been updated since the CPCN submittal due to change in off ROW area.
Segment 1	Off ROW Access Road	UNT to Rattlesnake Creek	D-OR-R20	No	Yes	TCSB	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7603231	-90.9186177	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Off ROW Access Road	UNT to Pigeon Creek	D-OR-R22	No	No	Existing Culvert	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7992749	-90.7450221	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Off ROW Access Road	UNT to Grant River	D-OR-R23	No	No	Existing Culvert	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7888703	-90.8307088	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Off ROW Access Road	UNT to Grant River	D-OR-R24	No	Yes	TCSB - Shared w/D-OR-R25	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.776135	-90.8604574	N/A	N/A	N/A	**New waterway as of 2021 field delienation**
Segment 1	Off ROW Access Road	UNT to Grant River	D-OR-R25	No	Yes	TCSB - Shared w/D-OR-R24	-	N/A	N/A	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Grant	42.7762834	-90.8606512	N/A	N/A	N/A	**New waterway as of 2021 field delienation**

Footnotes (the applicant can add additional footnotes for additional explanation, but an applicant cannot modify existing footnotes 1-18):

[1] Identify what component of the project is associated with the crossing/impact (e.g. transmission line ROW, pipeline ROW, temporary easement, off-ROW access road, laydown yard, substation,solar array, turbine, fence installation, collection line, temporary access road, permanent access road, O&M building, etc.)

[2] For wetlands, state the wetland type using the Eggars and Reed classification system.

[3] For waterways, indicate the name of the waterway (i.e. Silver Creek), if unnamed, indicate where water flows (i.e. UNT to Silver Creek).

[4] Insert the name or label used in application (e.g. W-3, S-27). For **wetland complexes,** individual wetland types should each be listed in a separate row to indicate each wetland type, but be named to clearly show they are part of a larger complex (e.g. if complex W-3 is composed of 3 wetland types, each type should have its own row and be named something like: W-3A for shallow marsh, W-3B for wet meadow, and W-3C for shrub carr). For **waterways**, provide a feature unique ID for each DNR mapped waterway within the project area/route (including all project components), even if the DNR mapped waterway was not identified during field surveys, and for all field identified waterways. For waterways that parallel the ROW and meander in and out of the ROW, a separate ID should be provided to account for each time a section of that waterway enters the ROW (e.g. if stream S-1 meanders in and out of the ROW 3 times, there should be 3 separate rows, S-1A, S-1B, and S-1C.

[5] All waterways mapped in the WDNR 24k hydrolayer (surface waters in surface water dataviewer) and any additional field identified waterways are considered navigable unless determined non-navigable by WDNR. Navigability determinations can only be conducted by DNR staff. Enter "yes" if a navigability determination is requested for any DNR mapped waterway not field identified, or for any field identified waterways that were observed to potentially not meet the definition of navigable. A separate submittal is required.

[6] To protect fish spawning habitat, any in-water work (such as dredging, placement of structures in waterways, placing equipment in waterways or driving on the bed of waterways, including the use of existing fords, etc.) **and** placement or removal of structures across waterways (e.g. TCSB, permanent bridges, etc.) is prohibited during certain time frames. If the applicant wishes to perform any of these regulated activities in or across waterways during the applicable timing restriction, enter "yes" indicating a waiver is requested. A separate submittal is required.

[7] Indicate how each waterway feature unique ID will be traversed by equipment (i.e. placement of TCSB's, driving on the bed, placement of temporary culvert, placement of permanent culvert, placement of ford, placement of permanent bridge, use of existing ford/culvert/bridge, etc.).

[8] For underground line placement only: Indicate the length and width (e.g. 10' by 5') of wetland or waterway to be open-cut trenched. This is limited to the trench itself and does not include grading or stockpiling of soils.

[9] Use this column to textually identify any other regulated activities occuring in waterway feature unique ID's, such as placement of power poles in this waterway, placement of temporary bore tracking cables in this waterway, channel relocation of this waterway, placement of riprap in this waterway, placement of construction matting on this waterway bed, construction of a pond within 500 feet of this waterway, fence crossing of this waterway, etc.

[10] If construction matting (e.g. timber, composite, etc.) will be placed in wetland for vehicle/equipment access or under soil stockpiles , indicate the area (length by width) of matting to be placed in wetland (temporary fill)

[11] Indicate if spoils for each trenched wetland feature unique ID will be placed in upland, in wetland or on mats. If on mats in wetland account for matting square footage in matting column.

[12] If exacavated soil will be sidecast in wetlands and will not be placed on construction mats, indicate the amount of temporarily stockpiled soil here. If excavated soil will be sidecast in wetlands will be placed on mats, include the stockpile matting area under the matting column.

[13] Indicate the amount of grading in wetlands not associated with trenching, such as topsoil stripping outside of trench, non-matted vehicle access that results in disturbance, etc.

[14] Use this column to indicate any other activities occuring in wetlands resulting in temporary wetland fill that do not have their own column, such placement of temporary gravel for staging areas, placement of temporary poles or temporary junction boxes in wetland, etc.

[15] Complete this column to textually identify what construction activities are associated with the "other activities" proposed in wetlands resulting in temporary wetland fill.

[16] If permanent structures or permanent fill will be placed in wetland (e.g. power pole structures, concrete fence footings, substations or other permanent buildings, permanent road fill, permanent land alteration such as grading that permanently converts wetlands to uplands, etc.), indicate the amount of permanent fill.

[17] Provide the lat/long coordinates in decimal degress at the location of the resource impact.

[18] Conversion refers to vegetative clearing of forested and/or shrub type wetlands, resulting in an herbaceous wetland, for the purposes of construction. Mowing of pre-construction herbaceous wetland types should not be included in this column.

Attachment H1 - WATERWAY SUMMARY TABLE WITH PHOTOS

Attachment H1 – Waterways Within Segment W-1

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
A-R01	Waterway	Mississippi River	721000	42.721418	-91.007421	Grant	Shown on WDNR 24K hydro layer; OHWM width = 1,200 ft, OHWM height = 20 ft, bank width = 1,200 ft, bank height = 25 ft, approach slope is slight (15%); dominant riparian vegetation includes tall fescue and Kentucky bluegrass. Photo from 2017, view southwest.	
A-R02	Waterway	Furnace Branch	965000	42.729153	-90.992206	Grant	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 1 ft, bank width = 6 ft, bank height = 8 ft, approach slope is moderate (45%); dominant riparian vegetation includes tall fescue and northern red oak. Photo from 2017, view south.	
D-OR-R04	Waterway	Rattlesnake Creek	957300	42.767080	-90.905738	Grant	**MODIFIED WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 30 ft, OHWM height = 4 ft, bank width = 40 ft, bank height = 6 ft, approach slope is steep (50%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Updated from CPCN submittal per modified off ROW access change. Photo from 2021, view southwest.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-OR-R05	Waterway	Rattlesnake Creek	957300	42.76276	-90.918136	Grant	**MODIFIED WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 30 ft, OHWM height = 3 ft, bank width = 40 ft, bank height = 5 ft, approach slope is moderate (40%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Updated from CPCN submittal per modified off ROW access change. Photo from 2020, view west.	
D-OR-R20	Waterway	UNT to Rattlesnake Creek	5039700	42.760323	-90.918618	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 8 ft, OHWM height = 2 ft, bank width = 12 ft, bank height = 4 ft, approach slope is moderate (35%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Added since CPCN submittal due to new off ROW access. Photo from 2021, view north.	
D-OR-R22	Waterway	UNT to Pigeon Creek	960300	42.79927	-90.745022	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 2 ft, bank width = 2 ft, bank height = 2 ft, approach slope is moderate (30%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Added since CPCN submittal due to new off ROW access. Photo from 2021, view south.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-OR-R23	Waterway	UNT to Grant River	5039087	42.788870	-90.830709	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 1 ft, bank width = 2 ft, bank height = 2 ft, approach slope is slight (15%); dominant riparian vegetation includes smooth brome grass and giant foxtail. Added since CPCN submittal due to new off ROW access. Photo from 2021, view north.	
D-OR-R24	Waterway	UNT to Grant River	959300	42.776135	-90.860457	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 3 ft, OHWM height = 0.5 ft, bank width = 5 ft, bank height = 0.5 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and common hedgenettle. Associated with D-OR-R25. Added since CPCN submittal due to new off ROW access. Photo from 2021, view north.	
D-OR-R25	Waterway	UNT to Grant River	N/A	42.776283	-90.860651	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 1 ft, bank width = 3 ft, bank height = 3 ft, approach slope is steep (50%); dominant riparian vegetation includes reed canary grass, and common hedgenettle. Associated with D-OR-R24. Added since CPCN submittal due to new off ROW access. Photo from 2021, view northwest.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R01	Waterway	UNT to Rattlesnake Creek	5039767	42.750121	-90.940200	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2.5 ft, OHWM height = 1 ft, bank width = 2.5 ft, bank height = 4 ft, approach slope is moderate (25%); dominant riparian vegetation includes smooth brome and wild parsnip. Photo from 2017, view north.	
D-R02	Waterway	UNT to Rattlesnake Creek	5039700	42.759438	-90.918258	Grant	Shown on WDNR 24K hydro layer; OHWM width = 10 ft, OHWM height = 3 ft, bank width = 10 ft, bank height = 12 ft, approach slope is moderate (35%); dominant riparian vegetation includes smooth brome, multiflora rose, and hickory. Photo from 2017, view north.	
D-R03.1	Waterway	Rattlesnake Creek	957300	42.761848	-90.913497	Grant	Shown on WDNR 24K hydro layer; OHWM width = 35 ft, OHWM height = 3 ft, bank width = 40 ft, bank height = 6 ft, approach slope is steep (50%); dominant riparian vegetation includes Jerusalem artichoke, common cowparsnip, and marsh hedgenettle. “D-R03” was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID’s have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view west.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R03.2	Waterway	Rattlesnake Creek	5039633	42.764026	-90.907643	Grant	Shown on WDNR 24K hydro layer; OHWM width = 35 ft, OHWM height = 3 ft, bank width = 40 ft, bank height = 6 ft, approach slope is steep (50%); dominant riparian vegetation includes Jerusalem artichoke, common cowparsnip, and marsh hedgenettle. "D-R03" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2017, view south.	
D-R03.3	Waterway	Rattlesnake Creek	957300	42.767699	-90.900767	Grant	Shown on WDNR 24K hydro layer; OHWM width = 35 ft, OHWM height = 3 ft, bank width = 40 ft, bank height = 6 ft, approach slope is steep (50%); dominant riparian vegetation includes Jerusalem artichoke, common cowparsnip, and marsh hedgenettle. "D-R03" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2017, view south.	
D-R04	Waterway	UNT to Rattlesnake Creek	N/A	42.768789	-90.897924	Grant	OHWM width = 1 ft, OHWM height = 1 ft, bank width = 3 ft, bank height = 3 ft, approach slope is steep (70%); dominant riparian vegetation includes reed canary grass, boxelder, and marsh hedgenettle. Photo from 2017, view south.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R05	Waterway	UNT to Grant River	5039335	42.772498	-90.887545	Grant	Shown on WDNR 24K hydro layer; OHWM width = 1 ft, OHWM height = 0.5 ft, bank width = 3 ft, bank height = 2 ft, approach slope is slight (15%); dominant riparian vegetation includes Kentucky bluegrass and black walnut. Photo from 2017, view southeast.	
D-R06	Waterway	UNT to Grant River	5039226	42.773184	-90.884796	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft and bank height = 3 ft, approach slope is moderate (20%); dominant riparian vegetation includes tall fescue and Kentucky bluegrass. Photo from 2017, view south.	
D-R07	Waterway	Beetown Branch	959200	42.776281	-90.874165	Grant	Shown on WDNR 24K hydro layer; OHWM width = 8 ft, OHWM height = 1 ft, bank width = 8 ft, bank height = 10 ft, approach slope is moderate (35%); dominant riparian vegetation includes tall fescue and alfalfa. Photo from 2017, view south.	

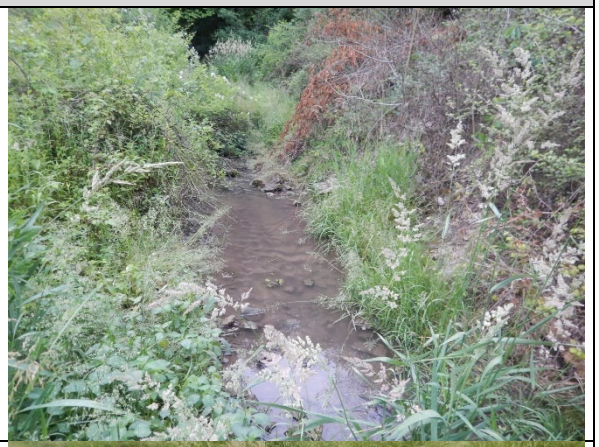
Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R08	Waterway	UNT to Grant River	959300	42.779701	-90.861495	Grant	Shown on WDNR 24K hydro layer; OHWM width = 4 ft, OHWM height = 0.25 ft, bank width = 4 ft, bank height = 5 ft, approach slope is moderate (45%); dominant riparian vegetation is reed canary grass. Associated with D-W03 and D-W04. Photo from 2017, view south.	
D-R08.1	Waterway	UNT to Grant River	N/A	42.779885	-90.861607	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 2 ft, bank width = 2 ft, bank height = 2 ft, approach slope is moderate (30%); dominant riparian vegetation includes Virginia creeper and reed canary grass. Delineated as new waterway in 2020 field survey. Photo from 2020, view southeast.	
D-R09.1	Waterway	Grant River	956000	42.784058	-90.842516	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2017, view south.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R09.2	Waterway	Grant River	956000	42.784792	-90.837103	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view south.	
D-R09.3	Waterway	Grant River	956000	42.785525	-90.834814	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view south.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R09.4	Waterway	Grant River	956000	42.785511	-90.832550	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view south.	
D-R09.5	Waterway	Grant River	956000	42.785997	-90.831237	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view east.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R09.6	Waterway	Grant River	956000	42.786318	-90.829916	Grant	Shown on WDNR 24K hydro layer; OHWM width = 45 ft, OHWM height = 3 ft, bank width = 50 ft, bank height = 20 ft, approach slope is very steep (75%); dominant riparian vegetation includes Jerusalem artichoke, wild hops, reed canary grass, and common hedgenettle. "D-R09" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view southeast.	
D-R10	Waterway	Pigeon Creek	959600	42.789901	-90.812757	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 2 ft, bank width = 20 ft, bank height = 5 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. Associated with D-W05 and D-W06. Photo from 2017, view southwest.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R11	Waterway	UNT to Pigeon Creek	5039181	42.792536	-90.804577	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft, bank height = 3 ft, approach slope is moderate (45%); dominant riparian vegetation includes cow parsnip and reed canary grass. Photo from 2017, view southeast.	
D-R12	Waterway	UNT to Pigeon Creek	959800	42.793668	-90.800119	Grant	Shown on WDNR 24K hydro layer; OHWM width = 6 ft, OHWM height = 1 ft, bank width = 6 ft, bank height = 7 ft, approach slope is moderate (35%); dominant riparian vegetation includes reed canary grass and tall fescue. Photo from 2017, view west.	
D-R13	Waterway	UNT to Pigeon Creek	5039126	42.803039	-90.768584	Grant	Shown on WDNR 24K hydro layer; OHWM width = 1.5 ft, OHWM height = 0.5 ft, bank width = 1.5 ft, bank height = 2 ft, approach slope is moderate (20%); dominant riparian vegetation includes cow parsnip and Kentucky bluegrass. Photo from 2017, view south.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R14	Waterway	UNT to Pigeon Creek	5039082	42.804537	-90.763118	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2.5 ft, OHWM height = 0.5 ft, bank width = 2.5 ft, bank height = 4 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and wild parsnip. Photo from 2017, view south.	
D-R15	Waterway	UNT to Pigeon Creek	5039114	42.805829	-90.758321	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft,bank height = 4 ft, approach slope is moderate (30%); dominant riparian vegetation includes tall fescue and reed canary grass. Photo from 2017, view south.	
D-R16.1	Waterway	Pigeon Creek	959600	42.806682	-90.756164	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 1.5 ft, bank width = 18 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R16" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2017, view east.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R16.2	Waterway	Pigeon Creek	959600	42.807611	-90.752789	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 1.5 ft, bank width = 18 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R16" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2020, view west.	
D-R16.3	Waterway	Pigeon Creek	959600	42.807821	-90.751723	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 1.5 ft, bank width = 18 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R16" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view west.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R16.4	Waterway	Pigeon Creek	959600	42.808121	-90.750817	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 1.5 ft, bank width = 18 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R16" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view west.	
D-R16.5	Waterway	Pigeon Creek	959600	42.808917	-90.745999	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 1.5 ft, bank width = 18 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R16" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2020, view west.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R17	Waterway	UNT to Pigeon Creek	960300	42.808116	-90.750012	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes Canada goldenrod, riverbank grape, and tall fescue. Photo from 2021, view south.	
D-R18.1	Waterway	Pigeon Creek	959600	42.809763	-90.740696	Grant	Shown on WDNR 24K hydro layer; OHWM width = 10 ft, OHWM height = 1 ft, bank width = 10 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. “D-R18” was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID’s have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2017, view west.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R18.2	Waterway	Pigeon Creek	959600	42.809933	-90.739639	Grant	Shown on WDNR 24K hydro layer; OHWM width = 10 ft, OHWM height = 1 ft, bank width = 10 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. "D-R18" was submitted in the CPCN application as a single feature that occurred multiple times in the ROW. The ID's have been updated to reflect this, but spatial data remains unchanged from the CPCN submittal. Photo from 2021, view east.	
D-R19	Waterway	UNT to Pigeon Creek	960500	42.810885	-90.735078	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes cow parsnip and reed canary grass. Photo from 2017, view east.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R20	Waterway	UNT to Pigeon Creek	5038892	42.816969	-90.720505	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft, bank height = 3 ft, approach slope is slight (15%); dominant riparian vegetation includes tall fescue, reed canary grass, and Canada goldenrod. Photo from 2017, view southeast.	
D-R21	Waterway	UNT to Pigeon Creek	960700	42.819546	-90.715261	Grant	Shown on WDNR 24K hydro layer; OHWM width = 1.5 ft, OHWM height = 0.5 ft, bank width = 1.5 ft, bank height = 2 ft, approach slope is moderate (30%); dominant riparian vegetation is reed canary grass. Photo from 2017, view east.	
D-R40	Waterway	UNT to Furnance Branch	5039763	42.741044	-90.962820	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 1 ft, bank width = 2 ft, bank height = 1 ft, approach slope is slight (15%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. Delineated as new waterway in 2020 field survey. Photo from 2020, view northwest.	

Feature Unique ID	Feature Type, Name and Designation[1]	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics	Photos
				Latitude	Longitude			
D-R43	Waterway	UNT to Rattlesnake Creek	5039649	42.75647	-90.924781	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 4 ft, OHWM height = 2 ft, bank width = 5 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes riverbank grape and reed canary grass. Delineated as new waterway in 2021 field survey. Photo from 2021, view north.	
D-R44	Waterway	UNT to Rattlesnake Creek	5039739	42.749096	-90.942729	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 5 ft, OHWM height = 2 ft, bank width = 5 ft, bank height = 4 ft, approach slope is steep (50%); dominant riparian vegetation includes riverbank grape and reed canary grass. Delineated as new waterway in 2021 field survey. Photo from 2021, view north.	

[1] Designated features refers to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI. Admin. None are present.

Attachment H2 - FISHERIES WAIVER PACKAGE

Attachment H2:

Request Form
Waiver of Timing Restrictions for Utility Project Waterway Permits

This form shall be used to request a waiver from the time period restrictions in NR 320 through NR 345, Wis. Admin. Code, for utility projects that qualify for a General Permit or Individual Permit under Chapter 30, Wis. Statutes. The completed waiver form shall be submitted to the Department's Office of Energy, where the applicant seeks a waiver from the applicable permit conditions that places time period restrictions on the project, such as temporary clear span bridge (TCSB) placement and/or removal and in-water work. The Department signature on this form only waives the time period restrictions, and does not constitute a permit, approval, or other concurrence with the proposed project.

The following information shall be submitted with this request form:

- A typical figure/drawing of the TCSB, or construction plans for the in-water work
- Photos of each waterway
- A short narrative with information on:
    - When the in-water work or TCSB placement and/or removal will occur
    - Erosion controls that will be utilized
    - How the TCSB placement and/or removal will occur (i.e. carried in and placed with equipment, assembled on site), or details on how the in-water work will be conducted
    - Description of any bed or bank disturbance that will occur, if any

---

[1] FOR THE APPLICANT TO COMPLETE

Applicant name: ITC Midwest, LLC

Project name: Cardinal to Hickory Creek Transmission Line Project: Segment W-1 - Cassville to Lancaster

Project description:

American Transmission Company LLC, by its corporate manager, ATC Management Inc. (ATC), ITC Midwest, LLC (ITC), and Dairyland Power Cooperative (DPC) were granted a Ch. 30.025 utility permit by the Wisconsin Department of Natural Resources (WDNR) for work in and adjacent to wetlands and waterways for the Cardinal - Hickory Creek 345 kV Transmission Line Project (Permit #IP-SC-2019-25-03588).

As the Project Construction Manager for Segment W-1 of the Project (Cassville to Lancaster), ITC is requesting a waiver of seasonal restrictions for placement and removal of seven Temporary Clear Span Bridges (TSCBs). A seasonal waiver is being requested as the Project has a large, complex layout and long periods of construction activities. Based on these complexities, TCSBs are proposed to be placed and removed more than once during the course of the Project based on location specific needs .By waiving the timing restriction, it allows ITC to work as efficiently and safe as possible.

Waterways will be crossed using a TCSB to avoid in-stream disturbance and allow unimpeded flow throughout construction. TCSBs will utilize timber mats or other similar material to allow safe and reliable access over waterways. Matting will be placed above the ordinary high water mark (OHWM) on the banks of the waterway to avoid in-stream disturbance. Stormwater best management practices (BMPs) will be installed to protect the banks of the waterway and minimize sedimentation overtime.

[1] For multiple bridge locations, the information requested can alternatively be provided in a supplemental spreadsheet.

The TCSB will be in place until construction has been completed in the general area such that access is no longer needed. At that time, the TCSB and all associated materials will be removed and restoration will commence as needed, including regrading to pre-existing contours, reseeding, etc. Design sheets of the two different TCSB designs proposed for these crossings is provided at the end of this Attachment H2 and discussed further in Section H of the CMP text.

Project/TCSB location(s), including coordinates and County(s):

The summary table provided as an attachment provides the proposed TCSB locations.

Name of Waterway(s):

The summary table provided as an attachment provides the names of the waterways.

[2] Waterway designations, if any:

None of the waterways shown in the summary table have special designations, such as ASNRI.

Waterway characteristics (i.e. width, depth, substrate type, etc.) if known:

The summary table provided as an attachment provides waterway characteristics.

FOR DNR FISHERIES BIOLOGIST TO COMPLETE

The applicant listed above has provided information about their proposed project in navigable waters. Based on their project description, plans, and other existing information available to me, I find that **(check all applicable boxes)**:

- ☐ there may be suitable habitat at or near the proposed project,
- ☐ there is no suitable habitat at or near the proposed project,
- ☐ there may be an impact on spawning fish or spawning activities,
- ☐ there will be no impact on spawning fish or spawning activities.

Consequently, the time period restrictions of the applicable administrative code **(check one box)**:

- ☐ are not necessary to protect fish spawning for the proposed project, and I approve this waiver, **or**
- ☐ are necessary to protect fish spawning for the proposed project, and I deny this waiver

Additional comments:

Signed by:

_____ _____

Department Fisheries Biologist Date

[2] See the DNR's Surface Water Data Viewer website: https://dnr.wi.gov/topic/surfacewater/swdv/, Fisheries Management layer

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-OR-R04	Rattlesnake Creek	957300	42.76708034	-90.9057378	Grant	**MODIFIED WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 30 ft, OHWM height = 4 ft, bank width = 40 ft, bank height = 6 ft, approach slope is steep (50%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Updated from CPCN submittal per modified off ROW access change. TCSB Design #1 proposed for this waterway crossing, allowing a minimum of five vertical feet clearance between the ordinary high-water level and bottom of each TCSB for potential recreational vessels to safely pass under the TCSB throughout construction.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-OR-R05	Rattlesnake Creek	957300	42.7627615	-90.9181362	Grant	Shown on WDNR 24K hydro layer; OHWM width = 30 ft, OHWM height = 3 ft, bank width = 40 ft, bank height = 5 ft, approach slope is moderate (40%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. TCSB Design #1 proposed for this waterway crossing, allowing a minimum of five vertical feet clearance between the ordinary high-water level and bottom of each TCSB for potential recreational vessels to safely pass under the TCSB throughout construction.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-OR-R20	UNT to Rattlesnake Creek	5039700	42.7603231	-90.9186177	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 8 ft, OHWM height = 2 ft, bank width = 12 ft, bank height = 4 ft, approach slope is moderate (35%); dominant riparian vegetation includes Kentucky bluegrass and reed canary grass. Added since CPCN submittal due to new off ROW access. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-OR-R24	UNT to Grant River	959300	42.7761350	-90.8604574	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 3 ft, OHWM height = 0.5 ft, bank width = 5 ft, bank height = 0.5 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and common hedgenettle. Associated with D-OR-R25. Added since CPCN submittal due to new off ROW access. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-OR-R25	UNT to Grant River	N/A	42.7762834	-90.8606512	Grant	**NEW WATERWAY FROM DATA PROVIDED IN THE CPCN APPLICATION SUBMITTAL** – Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 1 ft, bank width = 3 ft, bank height = 3 ft, approach slope is steep (50%); dominant riparian vegetation includes reed canary grass, and common hedgenettle. Associated with D-OR-R24. Added since CPCN submittal due to new off ROW access. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-R10	Pigeon Creek	959600	42.7899012	-90.8127567	Grant	Shown on WDNR 24K hydro layer; OHWM width = 15 ft, OHWM height = 2 ft, bank width = 20 ft, bank height = 5 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

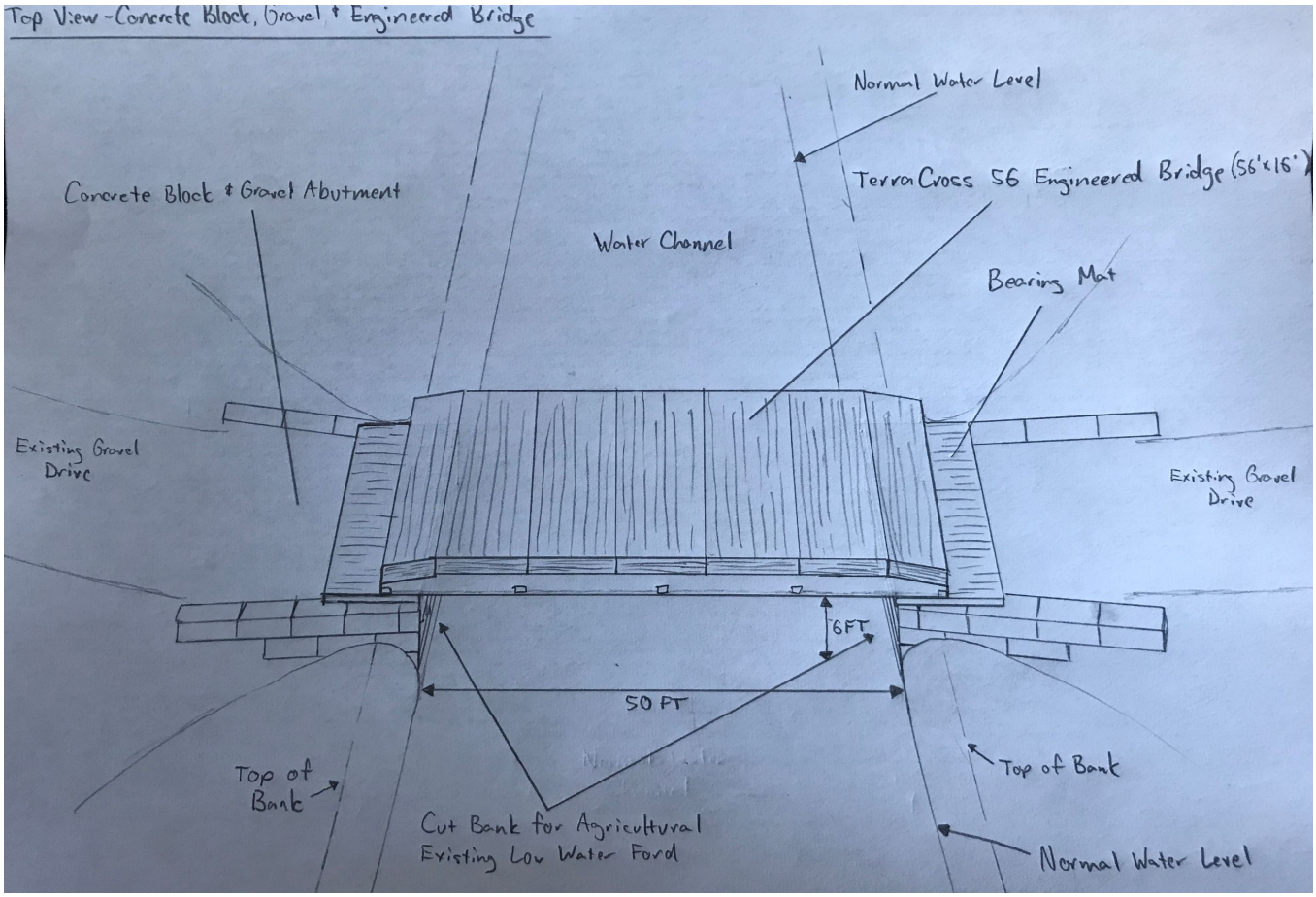
Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

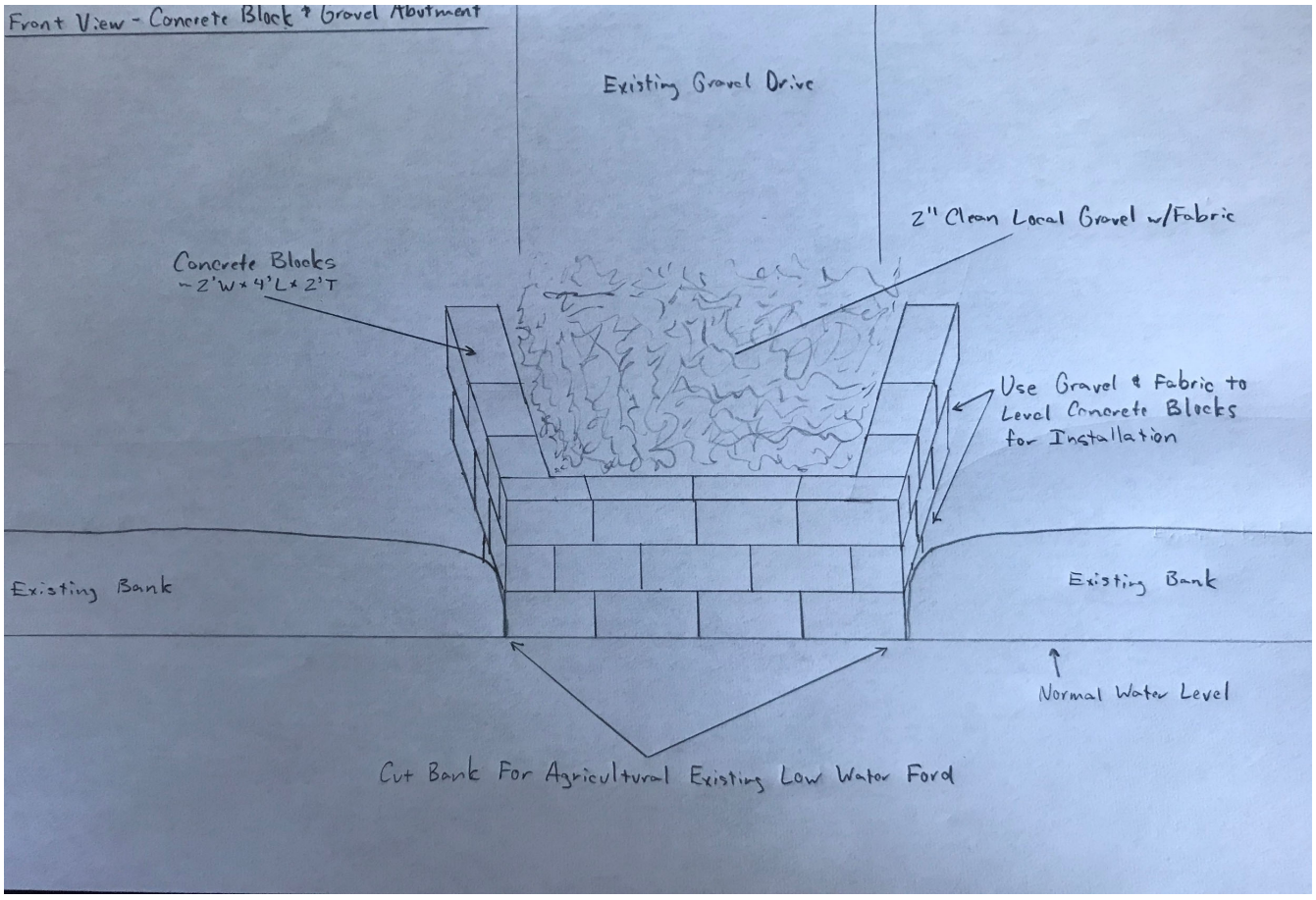
Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-R17	UNT to Pigeon Creek	960300	42.8081164	-90.7500117	Grant	Shown on WDNR 24K hydro layer; OHWM width = 2 ft, OHWM height = 0.5 ft, bank width = 2 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes Canada goldenrod, riverbank grape, and tall fescue. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – Waterways with Proposed TCSB Crossings, Requesting Fish Timing Restrictions Waiver

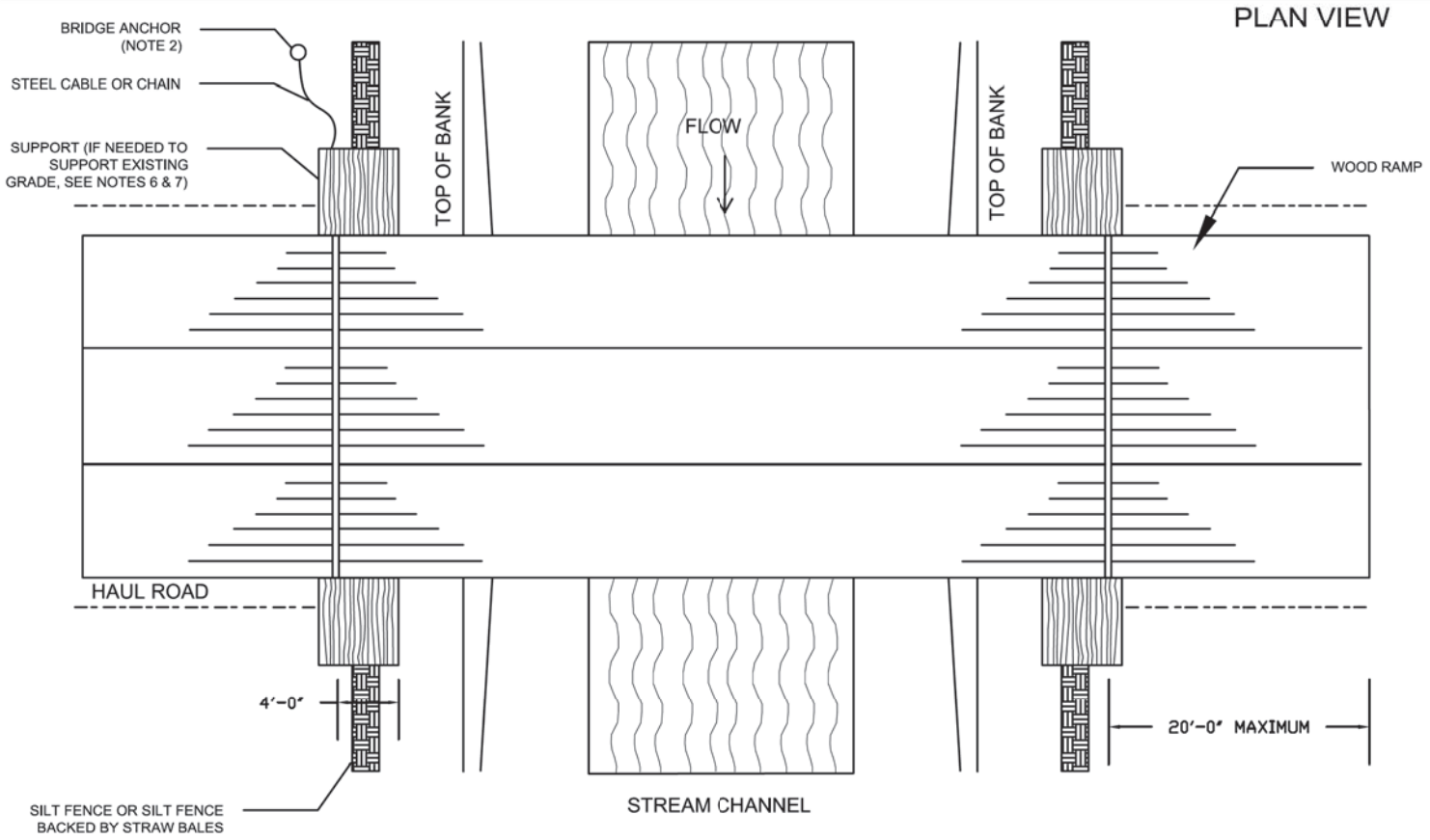
Waterway Unique ID	Resource Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Waterway Characteristics & TCSB Design Type	Photos
			Latitude	Longitude			
D-R18.1	Pigeon Creek	959600	42.8097627	-90.7406955	Grant	Shown on WDNR 24K hydro layer; OHWM width = 10 ft, OHWM height = 1 ft, bank width = 10 ft, bank height = 3 ft, approach slope is moderate (30%); dominant riparian vegetation includes reed canary grass and Kentucky bluegrass. TCSB Design #2 proposed for this waterway crossing, attempting to maintain five feet of vertical clearance between the ordinary high-water level and bottom of the TCSB, but it is requested that the WDNR allow less than five feet of clearance. This request is based on impracticable recreational use of the small waterway that also does not have any known history of regular public use.	 View Upstream  View Across

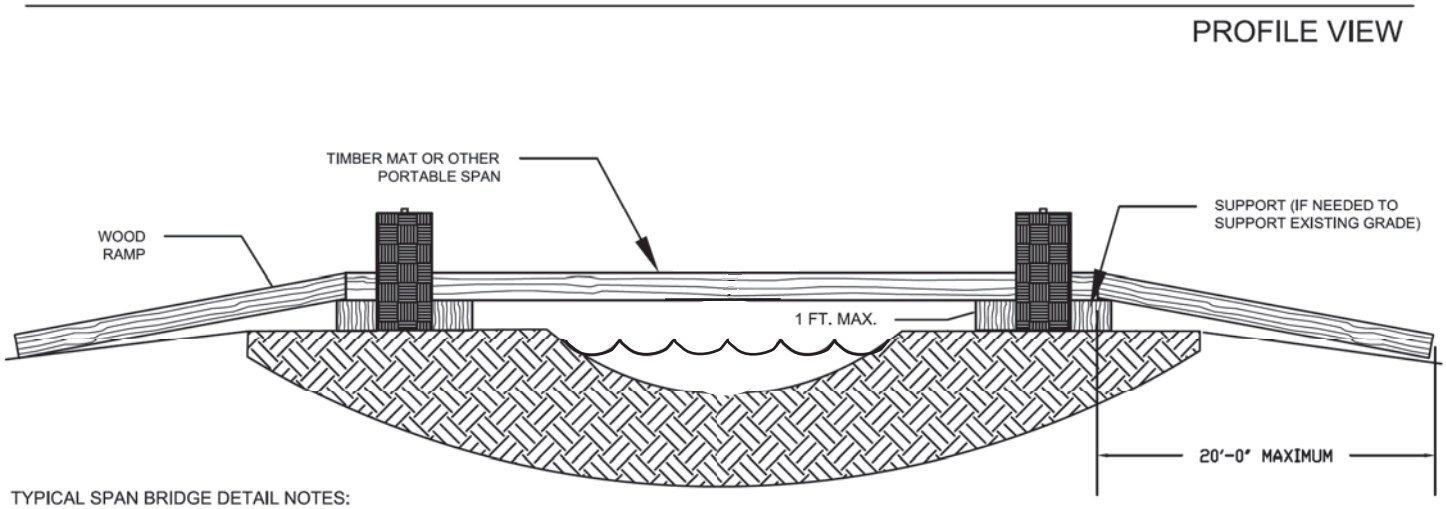
TCSB DESIGN #1





TCSB DESIGN #2





TYPICAL SPAN BRIDGE DETAIL NOTES:

1. THE BRIDGE MUST SPAN FROM TOP OF BANK TO TOP OF BANK.
2. THE BRIDGE MUST BE FIRMLY ANCHORED TO PREVENT IT FROM BEING TRANSPORTED DOWNSTREAM DURING HIGH FLOW. (FOR EXAMPLE: A STEEL POST DRIVEN TO A MINIMUM DEPTH OF 30").
3. THE BRIDGE SHOULD REMAIN IN PLACE UNTILL ALL WORK AT THAT LOCATION IS COMPLETED UNLESS OTHERWISE REQUIRED BY PERMIT CONDITION.

5. INSPECT BRIDGE OPENING PERIODICALLY AND FOLLOWING RAINFALLS OF OVER 0.5". REMOVE ANY DEBRIS RESTRICTING FLOWS AND DEPOSIT IT IN AN UPLAND SITE OUTSIDE THE FLOODPLAIN.
6. INSPECT THE BRIDGE ELEVATION SO THE BRIDGE REMAINS SUPPORTED ABOVE HIGH BANK AND DOES NOT SINK INTO THE BANK.
7. ADDITIONAL SUPPORT MUST BE ADDED ON TOP OF BANK AND UNDER SPAN IF INITIAL SUPPORT STARTS TO SETTLE.
8. ALL RESTORATION SHALL CONFORM TO WDNR APPROVED RESTORATION PLANS.
9. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH EROSION CONTROL REQUIREMENTS SPECIFIED WITHIN PERMIT CONDITIONS.

SPAN BRIDGE - TYPICAL
WITHOUT INSTREAM SUPPORT

DRAWN BY: RLDV
DATE: 2010-10-29

NOT TO SCALE

Attachment L - REVEGETATION & MONITORING PLAN

Attachment L:

Revegetation, Restoration, and Monitoring Plan

Cardinal-Hickory Creek 345kV Transmission Line Project

Prepared for:

ITC Midwest LLC

123 5th St SE

Cedar Rapids, IA 52401

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LIST OF ACRONYMS

BMP	Best management practices
CP-42	Conservation Practice 42
CMP	Construction Management Plan
CPCN	Certificate of Public Convenience and Necessity
CRP	Conservation Reserve Program
ECP	Erosion control plan
EM	Environmental Monitors
ITC	ITC Midwest LLC
Project	Cardinal-Hickory Creek 345kV Transmission Line Project – Segment W1
PSC	Public Service Commission
RMP	Revegetation and Monitoring Plan
ROW	Rights-of-way
TCSB	Temporary Clear Span Bridges
USDA	U.S. Department of Agriculture
WDNR	Wisconsin Department of Natural Resources

1.0 INTRODUCTION

To comply with the Wisconsin Department of Natural Resources (WDNR) Utility Permit (IP-SC-2019-25-03588) and the Public Service Commission (PSC) Order (Docket # 5-CE-146) for the Cardinal-Hickory Creek 345kV Transmission Line Project, ITC Midwest LLC (ITC) will implement this revegetation and monitoring plan (RMP) for Segment W1 of the project, where ITC is the lead manager (Project). This RMP serves to establish protocols for construction and environmental crews to comply with during and post construction of the Project.

2.0 POST CONSTRUCTION REVEGETATION

Where construction activities disturb the ground surface and existing vegetation, revegetation best management practices (BMPs) serve to minimize erosion, stabilize existing plant communities, and promote seed growth. The following sections describe different revegetation BMPs for general guidance.

2.1 Erosion Control

To comply with the Wisconsin Pollution Discharge Elimination System, a Project specific erosion control plan (ECP) will be created to address active measures to prevent and minimize stormwater water runoff, erosion, and sedimentation. Specific BMPs to be considered in the ECP include temporary timber matting, temporary clear span bridges (TCSB), construction entrances, sediment control log, silt fence, turn around points, and construction fencing. The ECP also addresses stabilization measures following active construction involving revegetation protocols.

As required by the Public Service Commission of Wisconsin's Project approval, an Environmental Monitor (EM) will be present throughout construction and post construction activities to inspect BMPs and the ECP implementation. The EM will file routine reports to ITC and their contractors, denoting where corrective measures are needed. Inspections will occur until final stabilization is met throughout all applicable areas of Segment W-1, at which time the WDNR will be provided final documentation to illustrate suitable stabilization has been achieved.

2.2 Management of Woody Debris

As the proposed Project partially parallels an existing utility Rights of Way (ROW), the remaining portion not within an existing ROW will need vegetation clearing to allow for construction access and long-term space requirements for the proposed Project ROW. Accordingly, where trees and shrubs intersect with the proposed Project ROW and require clearing, resulting woody debris may be chipped, spread, and left in place if it does not exceed an approximate depth of two inches. Wherever feasible, wood debris will not be deposited in wetland and floodplain areas. Where infeasible, woody debris spread within wetland and floodplain areas will be monitored to verify the depth of debris does not exceed two inches and future revegetation efforts are not impeded. If revegetation growth in wetlands becomes impeded from woody debris placement, ITC will provide a plan to the WDNR that details how revegetation will be addressed in these areas. All chipped wood debris greater than two inches in depth will be removed from the ROW and disposed of offsite. Where practicable, ITC will allow compatible woody species to regrow within ROW, particularly along the edge of existing forests or natural areas.

2.3 Seed Installation

As discussed throughout the Construction Management Plan (CMP), various efforts were made to limit Project area ground disturbance to the extent practicable. Post construction seeding of these minimized disturbed areas will serve as the primary means of revegetation for the Project. Some areas anticipated to be minimally disturbed may not require seeding if the overall ground and existing vegetation are deemed sufficiently capable of returning to pre-construction conditions without further modifications. Accordingly, the EM will assist ITC and their contractors in determining which areas are disturbed to an extent to warrant seeding. Similarly, based on erosion potential and/or time of year conditions, the EM may determine a temporary, quick growth cover crop is beneficial before reseeding

with a permanent seed mix at a later date. Ideally, permanent seeding will occur during the spring (complete snow thaw to mid-June) and fall (November to first snow cover).

In general, disturbed upland areas that warrant seeding (including forested areas cleared within the ROW) are anticipated to be completed following construction. Within temporarily disturbed wetland areas that warrant seeding, post construction seeding will occur when there is no standing water. The remaining Project areas that are either have no or minimal ground disturbance are anticipated to revegetation naturally to pre-construction conditions. Seeding within agricultural lands is not anticipated unless requested by individual landowners following construction.

ITC and their contractors will comply with WDNR Conservation Practice Standard 1059, Seeding for Construction Site Erosion Control for all Project seeding. Installation method for seeding (broadcast, hydroseeding, drilling, etc) will be determined on a case-by-case basis by the EM and ITC. Installation of seed will be completed by an experienced contractor with oversite from the EM. All seed to be used will be obtained from a reputable, regional plant nursery and free of noxious weeds.

General seed mixes are discussed below, and specific composition and application rates of seed mixes are included at the end of this RMP.

2.3.1 Temporary Cover Crop

Where permanent seed installation is not yet warranted due to erosion concerns or time of year limitations, a quick growth temporary cover crop may be used in disturbed soils immediately following construction activities. The EM will assist ITC and their contractors on a case-by-case basis in determining where and when a temporary cover crop may be needed. Common locations that benefit from the use of a temporary cover crop include exposed/disturbed steep slopes and riparian areas along waterways. Temporary cover crop seed mix to be applied in upland areas in spring and summer will generally be comprised of weed-free common oats and annual rye, with common oats only within wetland areas. Temporary cover crop seed mix to be applied in both upland and wetlands areas in late summer or fall will generally be comprised of weed-free winter wheat. Seeding rates will vary depending on whether the temporary cover crop is being installed with a permanent seed mix or is stand-alone.

2.3.2 Permanent Seed Mixes

Permanent seed mixes will be used in lieu of, in conjunction with, or after the use of temporary cover crop as determined by the EM and ITC. Permanent seed mixes are designed to revegetate disturbed areas to the same or better pre-construction vegetative condition. Project specific seed mixes have been developed to meet regulatory requirements and will be use throughout the entire Project area, including non-ITC segments. These seed mixes are comprised of regional species that generally establish quickly and develop sufficient vegetative cover. Four permanent seed mixes will be used as needed within the Project area: Pasture Mix, Hybrid Stabilization Mix, Prairie Mix, and Wetland Mix. These seed mixes have been designed to include a variety of grasses and forbs to meet the use of native seed and pollinator enhanced seed mix requirements of PSC Order numbers 30, 31, and 33, detailed below:

> PSC Order #30. *The applicants shall implement pollinator-enhanced seed mixes in grassland areas to the greatest extent practicable. The applicants shall work with WDNR and Commission staff when determining where and when to use these seed mixes, and the contents of the mixes.*
>
> PSC Order #31. *In upland areas that are not agricultural crops, or road ROW, the applicants shall use a seed mix comprised of native grasses and forbs to minimize the spread of non-native plants and maintain species diversity. Pollinator-enhanced seed mixes shall be considered in these areas. The applicants shall*

work with WDNR and Commission staff when determining where and when to use these seed mixes, and the contents of the mixes.

PSC Order #33. *The applicants shall revegetate ROW with appropriate seed mixes, include native species to the greatest extent practicable, and select plant species with season-long sources of pollen and/or nectar to ROWs for declining pollinator species.*

Additionally, the Prairie Mix and Wetland Mix meet the criteria of the U.S. Department of Agriculture (USDA) Conservation Reserve Program (CRP) Conservation Practice 42 (CP-42) Pollinator Habitat. CP-42 requires nine species of pollinator-friendly wildflowers with at least three species blooming in the following periods: April-June 15, June 15-July, and August-October. Grass is not required, but if it is included, it must be native to the area. The Hybrid Stabilization Mix is a cross between the Pasture and Prairie Mixes. While it does not meet the CP-42 criteria, it does provide flowering species across the three blooming periods noted in CP-42, while also including species that will establish quickly and with good coverage.

The Hybrid Stabilization and Prairie seed mixes are intended to be installed within grassland areas identified as higher quality within the Certificate of Public Convenience and Necessity (CPCN) application for the Project and areas of community conversion (clearing of forest or shrub communities)

Converted areas (those with prior forested or shrub communities requiring permanent woody vegetation removal by the Project) will be seeded with one of the three permanent upland seed mixes to allow for revegetation of the herbaceous layer following clearing and disturbance. Forested communities, including wooded streambanks, with a previously dense tree or shrub cover will require quick native species revegetation where the loss of canopy may increase the potential for erosion or invasive species establishment.

Project seed mixes are discussed in more detail below and can be found in Appendix A. Species substitutions and rate adjustments to the seed mixes may be made on a case-by-case basis as determined by the EM.

Pasture Mix

The Pasture Mix is comprised of grasses that provide forage for livestock and help stabilization. This seed mix is generally anticipated for use within existing pastures and along farm field edges but will ultimately be at the discretion of the EM and ITC on a case-by-case basis.

Hybrid Stabilization Mix

The Hybrid Stabilization Mix is comprised of native and non-native species designed to germinate more quickly than the Prairie Mix, providing faster stabilization of disturbed soils while still providing species diversity and pollinator-friendly habitat. This mix is modeled after specific Minnesota Department of Transportation mixes and contains both native prairie grasses and forbs, as well as a few non-native pasture grasses (smooth brome, perennial rye, and Timothy grass) and non-native forbs that establish quickly and provide nectar for pollinators (red clover and alsike clover). The short-lived perennials in the mix (slender wheat grass, Canada wild rye, and Timothy grass) and intended to be replaced by longer-lived perennials such as big bluestem and switchgrass over time. This seed mix is generally anticipated for use within grassland areas and cleared upland forest areas but will ultimately be at the discretion of the EM and ITC on a case-by-case basis.

Prairie Mix

The Prairie Mix is comprised of prairie species that are native to southwestern Wisconsin, diversified to both provide sufficient stabilization and provide pollinator-friendly habitat. This mix has high rates of native grasses to provide stabilization to disturbed soils while also meeting pollinator-friendly habitat by having at

least two native bunch grasses and a minimum of three forbs species that bloom during each of the three blooming periods. This mix is proposed in areas of existing prairie/prairie remnants and high-quality upland forests. This seed mix is generally anticipated for use within existing prairie/prairie remnants and high-quality cleared upland forests but will ultimately be at the discretion of the EM and ITC on a case-by-case basis.

Wetland Mix

The Wetland Mix is comprised of native hydrophytic species that are suited for areas that are seasonally inundated and support hydric soils. This seed mix provides pollinator-friendly habitat by having at least two native bunch grasses and sedges, and a minimum of three forbs species that bloom during each of the three blooming periods. This seed mix is generally anticipated for use within disturbed wetland areas not dominated by pre-construction invasive species but will ultimately be at the discretion of the EM and ITC on a case-by-case basis.

Appendix B provides a mapbook of areas within the ROW of Segment W-1 where specific seed mixes are recommended for post construction restoration. However, it will ultimately be at the discretion of ITC, their contractors, and EM to determine where specific seed mixes should be used within Segment W-1.

2.4 Wetland Restoration and Revegetation Plan

Specific wetland community characteristics and details within the Project area are provided Attachment G1 of the CMP. All wetlands within the Project area were field delineated between 2017 and 2021. Wetland communities present within the Project include wet meadow, hardwood swamp, shallow open water, open water pond, and farmed wetland. All of the delineated wetland communities are degraded to a degree where one or more invasive species are present. There are no relatively large or substantial wetland complexes crossed by the Project. Construction protocols within wetland areas will be utilized as provided in the ECP. A summary of wetland restoration and revegetation guidelines for the Project is provided below:

- Temporary mats will be used where construction access through wetland areas is unavoidable. When temporary mats are removed from wetland areas following construction activities, the ground surface will be inspected to identify ruts, depressions, or other ground disturbance. Where applicable, ground disturbances in wetlands we be regraded to pre-construction contours prior to revegetation activities.
- Where the EM or ITC determine that significant rutting has occurred in wetland areas, regarding will be completed using hand tools, back dragging, or other appropriate means to restore topography while minimizing additional ground disturbance.
- Where the EM or ITC determine that ground disturbance is avoided or otherwise greatly minimized in wetland areas, seeding may be omitted in favor of natural revegetation. These locations will be monitored to determine if supplemental seeding is necessary.
- As deemed necessary, a temporary cover crop (weed-free common oats) will be installed within wetland areas during the spring or summer months. If temporary cover crop seeding is required in late summer or fall, winter wheat will be installed within wetland areas.
- Seeding in farmed wetlands will not occur due to active crop production activities to restart following construction.
- Disturbed wetlands that were wholly or primarily dominated by invasive species before construction, such as reed canary grass, will not be reseeded and left to revegetate naturally.

- If the EM and ITC determine that a wetland is of high quality prior to construction activities (less than 10% cover of invasive species), seeding after construction may be avoided if it is determined that the native seedbank will self-restore native wetland vegetation.
- Prior to clearing in forested wetland areas, the EM and ITC will determine if post construction seeding is anticipated based on pre-construction herbaceous vegetative cover. Areas with sparse herbaceous cover or lacking cover by species able to tolerate full sun conditions will be seeded to minimize invasive species establishment.
- Temporary cover, such as straw mulch, may be applied in wetland areas after seeding to help stabilize ungerminated seed. All erosion control measures utilized will conform to WDNR Technical Standards.
- BMPs installed within and adjacent to wetland areas will be maintained until the disturbed areas are permanently stabilized.

3.0 MONITORING PLAN

The Monitoring Plan serves as a guide for the EM and ITC during post-construction restoration and monitoring.

3.1 Upland Monitoring

In upland areas, monitoring will be limited to those areas identified for seeding with either the Hybrid Stabilization Mix or the Prairie Mix. Monitoring of these areas will begin no later than the first post-construction growing season and continue for a minimum of three total growing seasons (as required by PSC Order Point #20). During monitoring, the EM will denote the presence of invasive species that may be the result of Project activities and document further mitigation effort as applicable. Monitoring will be conducted via meander surveys to adequately document plant communities. Each survey location will be photographed at established pre-construction points and will document any bare ground, dominant species by areal percentage, and invasive species concerns. Areas determined to need corrective action will be photographed and summarized to ITC and their contractors to address. As determined by the EM and ITC, all upland areas that had disturbed ground surface or degraded by invasive species prior to construction will not be monitored beyond the requirements contained within NR216. Invasive species are defined as those in Wisconsin Administrative Code NR40 as restricted or prohibited species. During post-construction monitoring, invasive species will be categorized based on percent cover within each pre-determined plot area as follows:

- “Present” - 1-2% cover of invasive species
- “Scattered” - 2-5% cover of invasive species
- “Common” - 5-20% cover of invasive species
- “Abundant” - 20-50% cover of invasive species
- “Dominant” - >50% cover of invasive species

The above categories will be used to compare yearly post-construction monitoring for determining where invasive species are present and potentially increasing overtime as a result of the Project.

3.2 Wetland and Waterway Monitoring

Similar to uplands, wetland and waterway monitoring will begin the first growing following construction activities. Wetland and waterway monitoring will be conducted annually for five year or until sufficient restoration is met per

the performance standards provided in Section 3.3. Based on proposed minimal ground impact measure within wetland and waterway areas during construction, it is anticipated that sufficient restoration will be completed before five growing seasons of monitoring. Only those wetlands and waterways that are determined by the EM and ITC to have been impacted by construction activities will be monitored for revegetation, excluding farmed wetland areas and wetland/waterway areas that were wholly or primarily dominated by invasive species before construction.

Monitoring will be conducted via meander surveys to adequately document wetland and waterway plant communities. Each survey location will be photographed at established pre-construction points and will document any bare ground, dominant species by areal percentage, and invasive species concerns. Areas determined to need corrective action will be photographed and summarized to ITC and their contractors to address.

3.3 Wetland and Waterway Performance Standards

The wetland and waterway performance standards listed below have been extracted from the WDNR Utility Permit, Restoration Conditions 86-89:

- WDNR Utility Permit Condition #86: *Final site stabilization in wetlands that were non-forested prior to construction and not identified as high quality wetland, and on stream banks, requires re-establishment of vegetation at least 70 percent of the type, density, and distribution of the vegetation that was documented in the area prior to construction. If 70 percent of the type, density, and distribution of the vegetation that was documented in the area prior to construction does not vegetate naturally within 30 days, then an approved comprehensive seed mix and restoration practices must be used to reach the 70 percent cover. All temporary and final stabilization activities shall comply with NR 151.11(8) Wisconsin Administrative Code.*

- WDNR Utility Permit Condition #87: *Final site stabilization in wetlands that were forested prior to construction shall include an approved comprehensive seed mix and must achieve a revegetation density of at least 70 percent cover.*

- WDNR Utility Permit Condition #88: *In wetlands identified as high quality, a cover crop and/or native seed mix shall be used to prevent the establishment of invasive species.*

- WDNR Utility Permit Condition #89*: After the site is 70% stabilized, all temporary erosion control measures must be removed and disposed of properly.*

4.0 REPORTING

Following each growing season of monitoring, a restoration monitoring report will be provided to WDNR annually until the performance standards in Section 3.3 are met and approved by WDNR in accordance with Post-Construction Monitoring Conditions #93 and 94 of the WDNR Utility Permit. The annual restoration monitoring report must be submitted for WDNR review no later than December 31st of each year. WDNR Utility Permit Condition #95 requires the following by included in each restoration monitoring report:

- Photographs of existing site conditions at wetlands and waterways before construction activities, taken from pre-determined photo points

- Photographs of site conditions at waterways and wetlands after construction activities, taken from the same pre-determined photo points

- A wetland and waterway summary table showing the type(s) of impact within each wetland and waterway (such as clearing, matting, permanent structure installation, TCSB, etc.), WDNR classification type, description of pre and post construction quality, and photo number

- Documentation of post-construction monitoring plan compliance, permit compliance, restoration status, corrective actions taken, and proposed correction actions

The monitoring report will also document monitoring results of post-construction seeded upland areas, including where invasive species status per the protocols discussed in Section 3.1. Per WDNR Utility Permit Condition #20c, the restoration monitoring report will include three growing seasons of monitoring results in applicable upland areas.

Attachment A – Seed Mixes

Temporary Cover Seed Mix[1,2,3]

Scientific Name	Common Name	Installation Timing	Installation Rate w/o Permanent Seed (lbs/acre)
Avena sativa	Common Oats	Mid-April-August	80.00
Lolium multiflorum	Annual Rye	Year Round[4]	15.00
Triticum aestivum	Winter Wheat	August-April[5]	100.00

[1] Seed mix is designed for 1 acre.

[2] Temporary cover rates are stand-alone rates intended for areas where permanent seed is not being installed at the time of seeding. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.

[3] Seed mix is not suitable for areas with standing water.

[4] Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

[5]August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

Pasture Mix - 40 lbs/acre

Scientific Name	Common Name	lbs/ac
Dactylis glomerata	Orchard Grass	14.00
Festuca sp.	Tall Fescue – Endophyte Free	14.00
Festulolium sp.	x Festulolium	4.00
Lolium sp.	Tetraploid Perennial Ryegrass	4.00
Lolium sp.	Intermediate Ryegrass	4.00
	Total	**40.00**

Temporary Cover with Timing[1,2]

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed (lbs/acre)
Avena sativa	Common Oats	Mid-April-August	35.00
Lolium multiflorum	Annual Rye	Year Round[3]	5.00
Triticum aestivum	Winter Wheat	August-April[4]	45.00

[1] Seed mix is designed for 1 acre.

[2] Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.

[3] Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.
[4] August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

Hybrid Stabilization Mix[1,2,3]

Scientific Name	Common Name	oz/acre	lbs/acre
Grasses			
Andropogon gerardii	Big Bluestem	24.00	1.50
Bromus inermis[4]	Smooth Brome	18.00	1.13
Elymus canadensis	Canada Wild Rye	36.00	2.25
Elymus trachycaulus	Slender Wheat Grass	36.00	2.25
Lolium perenne[4]	Perennial Rye	160.00	10.00
Panicum virgatum	Switch Grass	12.00	0.75
Phleum pratense[4]	Timothy	16.00	1.00
Forbs			
Asclepias syriaca	Common Milkweed	2.00	0.13
Chamaecrista fasciculata	Partridge Pea	4.00	0.25
Heliopsis helianthoides	False Sunflower	3.00	0.19
Monarda fistulosa	Wild Bergamot	0.50	0.03
Rudbeckia hirta	Black-eyed Susan	3.00	0.19
Solidago nemoralis	Old Field Goldenrod	0.50	0.03
Tradescantia ohiensis	Ohio Spiderwort	0.50	0.03
Trifolium hybridum[4]	Alsike Clover	32.00	2.00
Trifolium pratense[4]	Red Clover	80.00	5.00
	Total	**427.50**	**26.72**

Spring Bloomers (April-May)
Summer Bloomers (June-August)
Fall Bloomers (September-October)

[1]Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).

[2]Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop / nurse crop based on timing of installation.

[3]Seed Mix is designed for upland areas and consists of a mix of native and non-native species that provide quick establishment and stabilization. The seed mix contains pollinator-friendly forbs but does not meet the CRP CP42 Pollinator Habitat Criteria due to the presence of non-native species and less than three early blooming forbs.

[4]Indicates a species non-native to Wisconsin.

Temporary Cover with Timing[1,2]

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed	
			oz/ac	lbs/acre
Avena sativa	Common Oats	Mid-April-August	560.00	35.00
Lolium multiflorum	Annual Rye	Year Round[3]	112.00	7.00
Triticum aestivum	Winter Wheat	August-April[4]	720.00	45.00

[1] Seed mix is designed for 1 acre.

[2] Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.

[3] Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

[4] August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

Prairie Mix[1,2,3]

Scientific Name	Common Name	oz/acre	lbs/acre
Grasses			
Andropogon gerardii	Big Bluestem	24.00	1.50
Bouteloua curtipendula	Side oats Grama	18.00	1.13
Elymus canadensis	Canada Wild Rye	36.00	2.25
Elymus trachycaulus	Slender Wheat Grass	36.00	2.25
Panicum virgatum	Switch Grass	12.00	0.75
Schizachyrium scoparium	Little Bluestem	32.00	2.00
Sorghastrum nutans	Indian Grass	16.00	1.00
Sedges & Rushes			
Carex molesta	Field Oval Sedge	2.00	0.13
Forbs			
Asclepias syriaca	Common Milkweed	2.00	0.13
Chamaecrista fasciculata	Partridge Pea	4.00	0.25
Dalea purpurea	Purple Prairie Clover	2.00	0.13
Heliopsis helianthoides	False Sunflower	3.00	0.19
Heuchera richardsonii	Prairie Alumroot	0.10	0.01
Monarda fistulosa	Wild Bergamot	1.00	0.06
Penstemon digitalis	Foxglove Beardtongue	1.00	0.06
Ratibida pinnata	Yellow Coneflower	1.00	0.06
Rudbeckia hirta	Black-eyed Susan	3.00	0.19
Solidago nemoralis	Old Field Goldenrod	0.60	0.04
Symphyotrichum laeve	Smooth Blue Aster	0.75	0.05
Tradescantia ohiensis	Ohio Spiderwort	1.50	0.09
Zizia aurea	Golden Alexanders	1.00	0.06
	Total	**196.95**	**12.31**

Spring Bloomers (April-May)
Summer Bloomers (June-August)
Fall Bloomers (September-October)

[1] Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).

[2] Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop based on timing of installation.

[3] Seed Mix is designed for upland areas, consists of species native to Dane and/or Iowa Counties, WI, and meet pollinator criteria of having at least two native bunch grasses and a minimum of three species blooming during each of the three blooming periods (spring, summer, and fall).

Temporary Cover with Timing[1,2]

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed	
			oz/ac	lbs/acre
Avena sativa	Common Oats	Mid-April-August	560.00	35.00
Lolium multiflorum	Annual Rye	Year Round[3]	80.00	5.00
Triticum aestivum	Winter Wheat	August-April[4]	720.00	45.00

[1] Seed mix is designed for 1 acre.
[2] Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.
[3] Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.

Wetland Mix[1,2,3]

Scientific Name	Common Name	oz/acre	lbs/acre
Grasses			
Calamagrostis canadensis	Blue Joint Grass	1.00	0.06
Elymus virginicus	Virginia Wild Rye	16.00	1.00
Glyceria striata	Fowl Manna Grass	2.00	0.13
Panicum virgatum	Switch Grass	6.00	0.38
Sedges & Rushes			
Carex scoparia	Lance-fruited Oval Sedge	1.50	0.09
Carex stipata	Common Fox Sedge	2.00	0.13
Carex vulpinoidea	Brown Fox Sedge	3.00	0.19
Juncus effusus	Common Rush	0.50	0.03
Scirpus atrovirens	Dark-green Bulrush	1.00	0.06
Scirpus cyperinus	Wool Grass	0.50	0.03
Schoenoplectus tabernaemontani	Softstem Bulrush	1.00	0.06
Forbs			
Alisma subcordatum	American Water Plantain	2.00	0.13
Anemone canadensis	Canada Anemone	1.00	0.06
Asclepias incarnata	Swamp Milkweed	2.00	0.13
Bidens cernua	Nodding Bur Marigold	1.00	0.06
Epilobium coloratum	Cinnamon Willow Herb	0.20	0.01
Eupatorium perfoliatum	Boneset	1.00	0.06
Euthamia graminifolia	Grass-leaved Goldenrod	0.50	0.03
Helenium autumnale	Sneezeweed	1.00	0.06
Lobelia siphilitica	Great Blue Lobelia	0.20	0.01
Ranunculus sceleratus	Annual Buttercup	0.50	0.03
Symphyotrichum lanceolatum	Panicled Aster	0.50	0.03
Symphyotrichum novae-angliae	New England Aster	0.50	0.03
Verbena hastata	Blue Vervain	3.00	0.19
Zizia aurea	Golden Alexanders	1.50	0.09
	Total	**49.40**	**3.09**

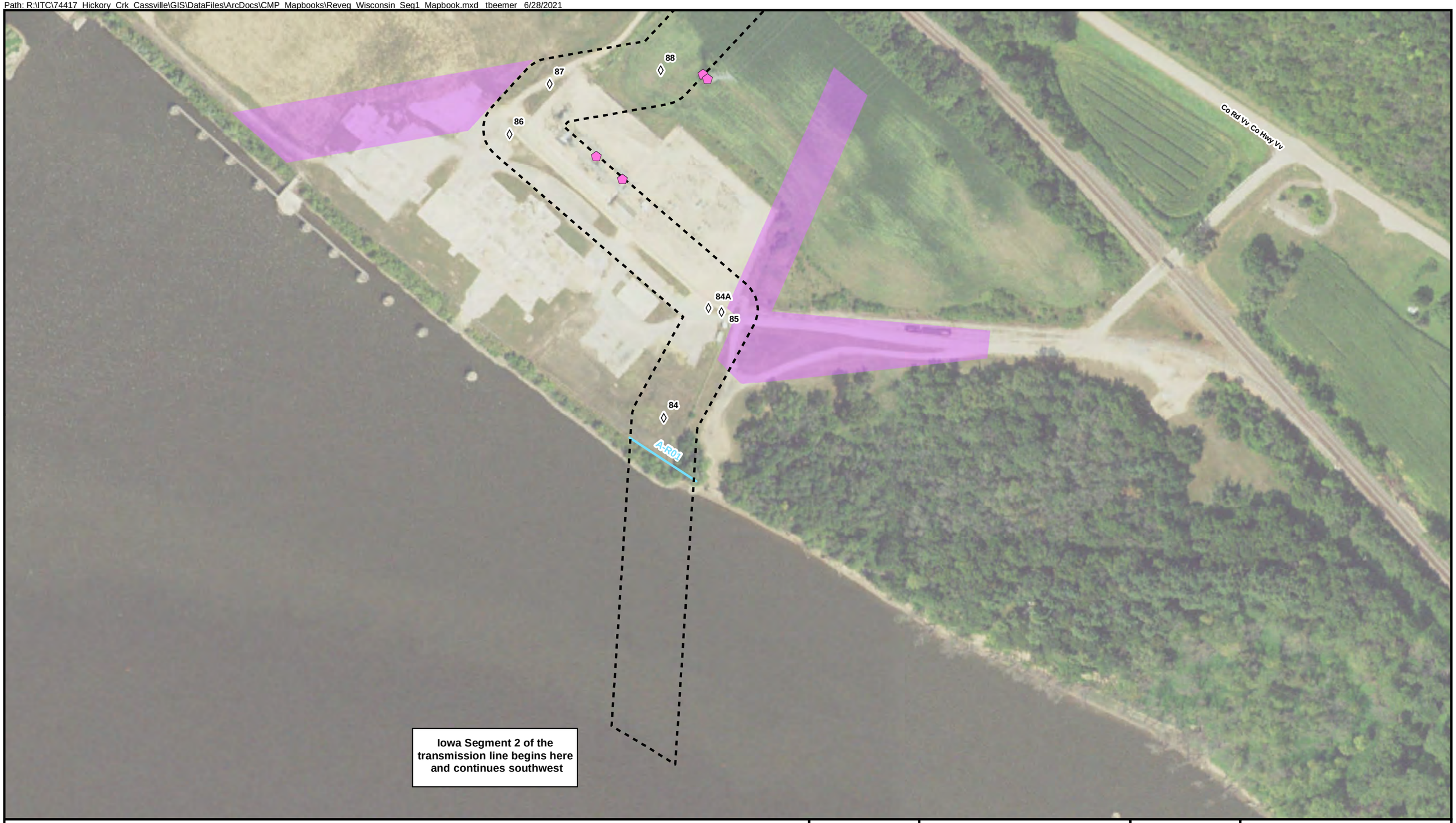
Spring Bloomers (April-May)
Summer Bloomers (June-August)
Fall Bloomers (September-October)

[1]Species information regarding blooming period and mature height were obtained from the Prairie Moon Nursery 2020 Cultural Guide and the Illinois Wildflowers webpage (http://www.illinoiswildflowers.info/index.htm).
[2]Seed mix is designed for 1.0 acre. This seed mix should be installed with an appropriate temporary cover crop / nurse crop based on timing of installation.
[3]Wetland Seed Mix is intended for weltand or wetland perimeter areas with shallow seasonal inundation to seasonal saturation. It should not be applied over standing water.

Temporary Cover with Timing[1,2]

Scientific Name	Common Name	Installation Timing	Installation Rate w/ Permanent Seed	
			oz/ac	lbs/acre
Avena sativa	Common Oats	Mid-April-August	400.00	25.00
Lolium multiflorum	Annual Rye	Year Round[3]	80.00	5.00
Triticum aestivum	Winter Wheat	August-April[4]	400.00	25.00

[1] Seed mix is designed for 1 acre.
[2] Install temporary cover with permanent seed mix. Select appropriate species from table above based on timing of installation. Annual rye will either be installed with common oats or winter wheat.
[3] Spring (April - May) and late summer (August-early September) preferred for annual rye, but may be established in summer or a dormant seeding as seed will overwinter.
[4]August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Pull Sites
Delineated Waterway (A or D-R#)

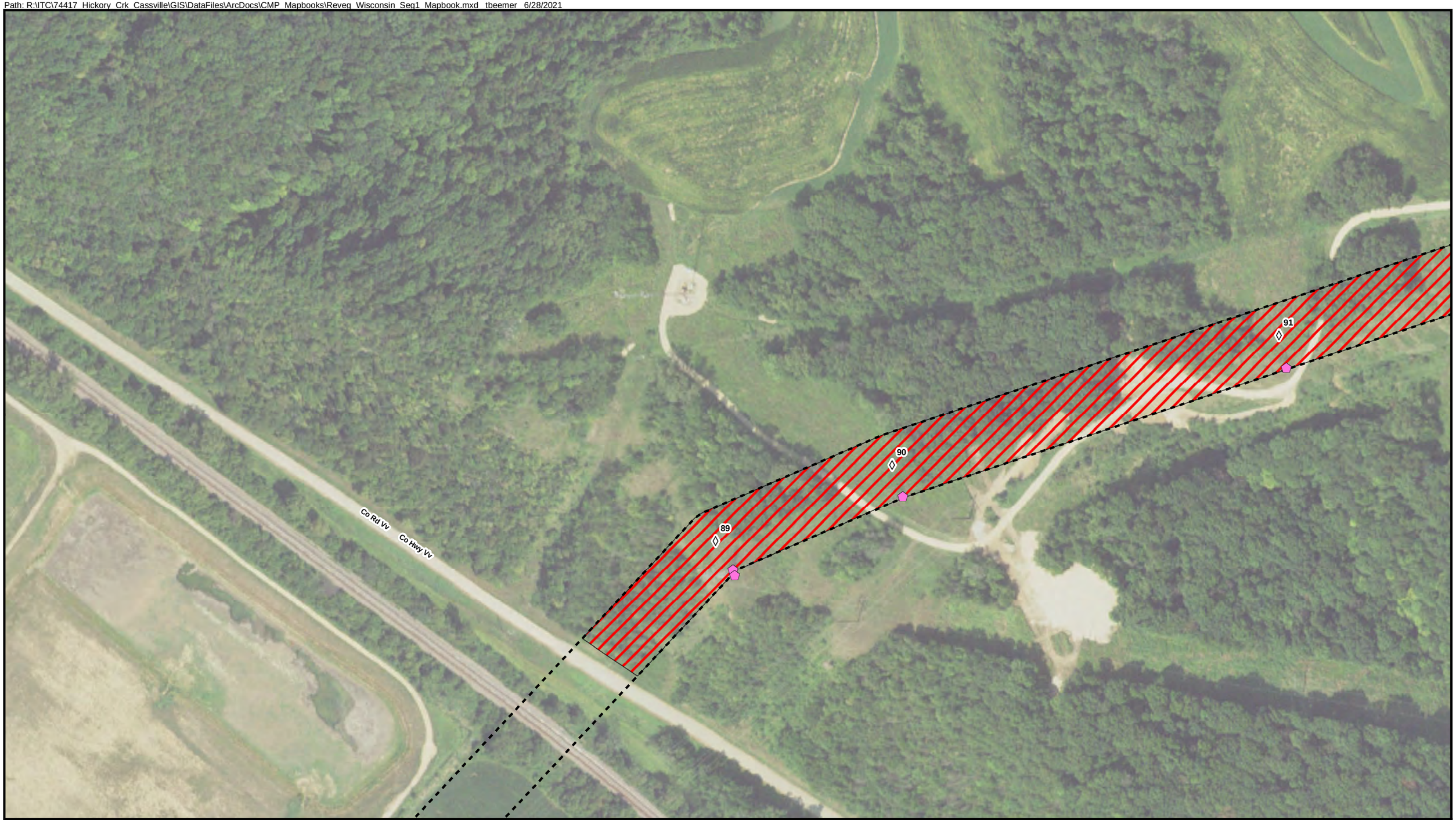
* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 1 of 32



Proposed Pole
Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Hybrid Stabilization Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
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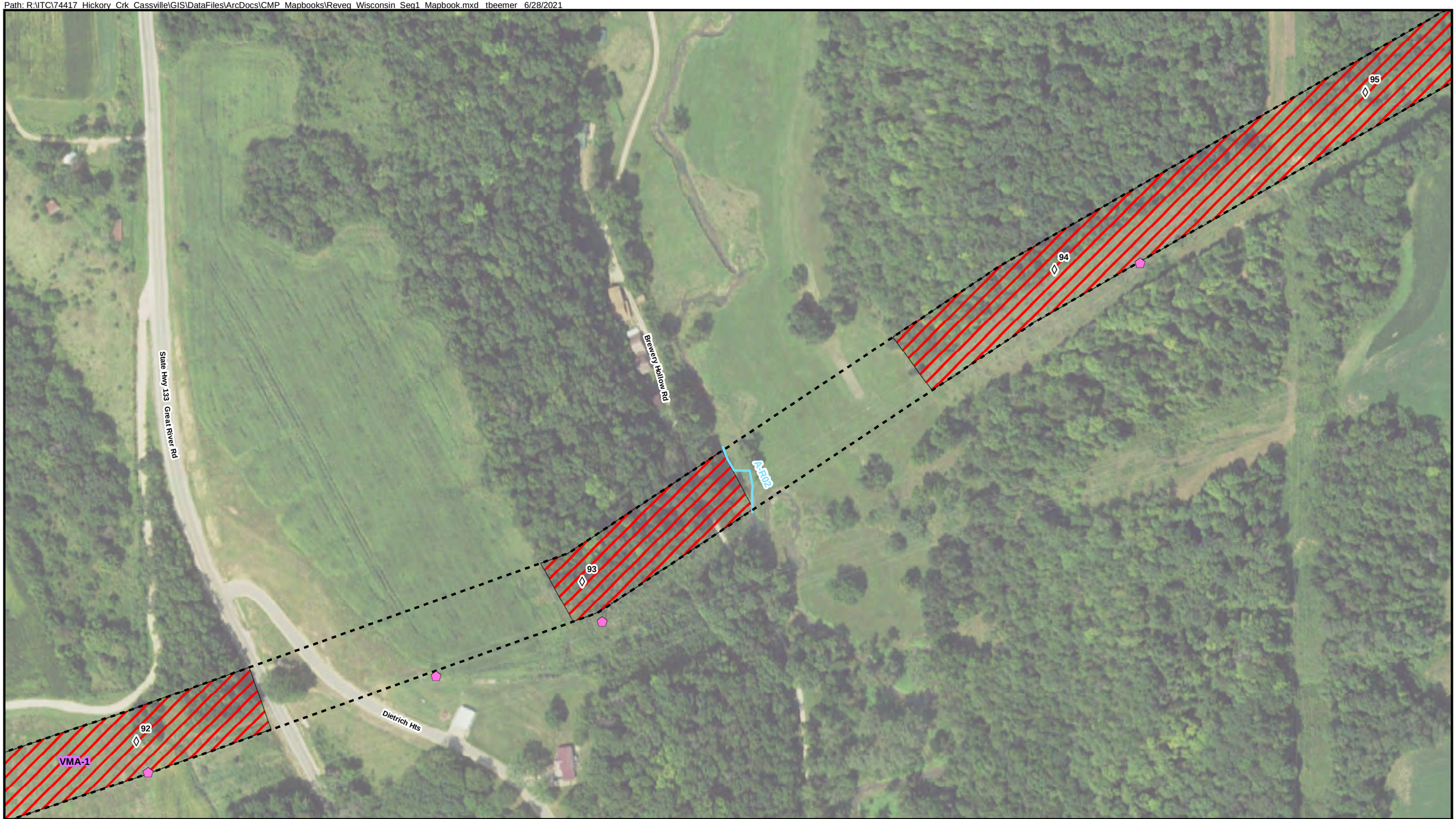

◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
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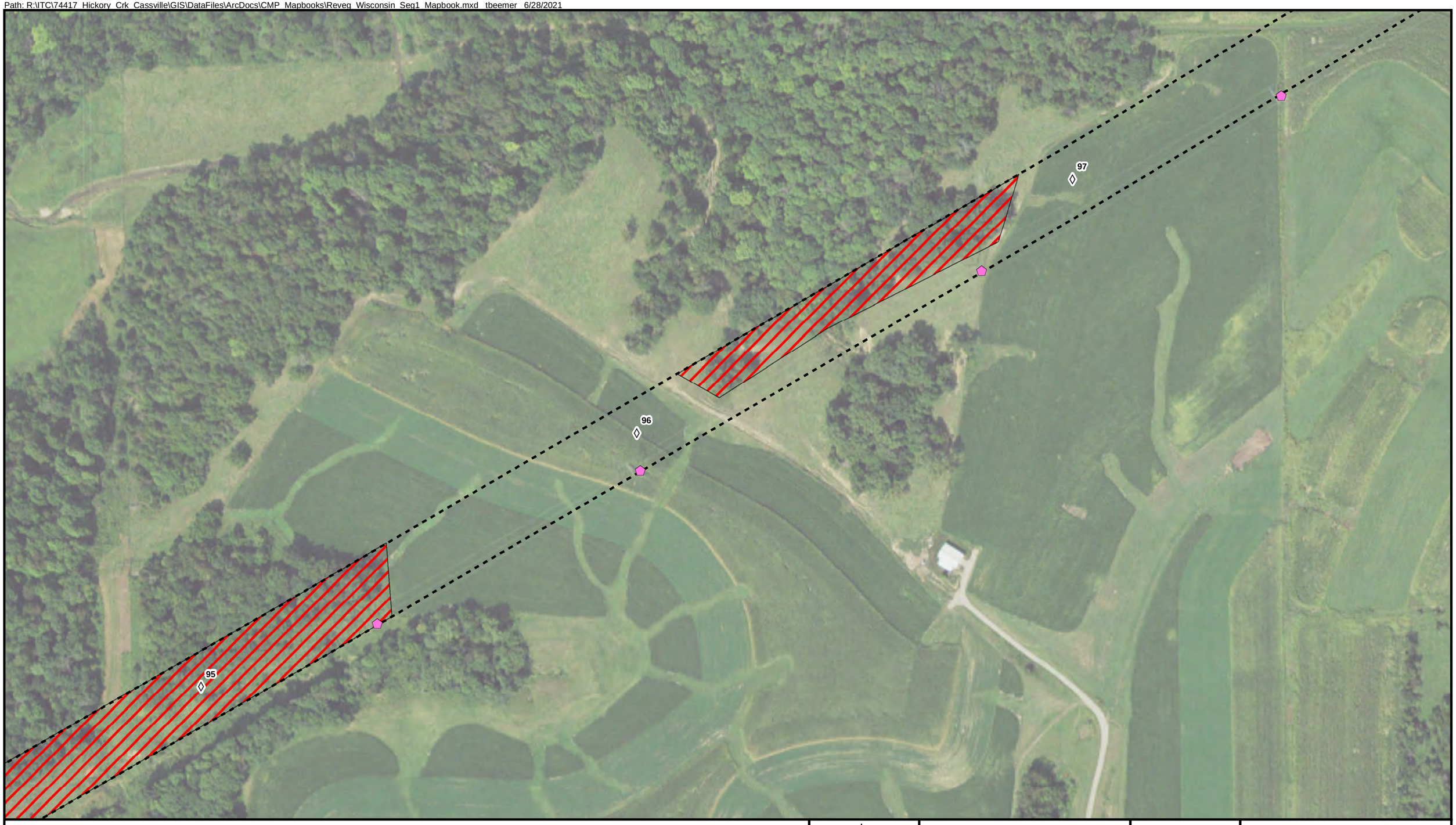

◊ Proposed Pole
⬠ Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Hybrid Stabilization Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 4 of 32

◊ Proposed Pole

⬟ Existing X-16 Structure

▭ Transmission ROW

Proposed Seed Mix

Hybrid Stabilization Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

NORTH

0 100 200

Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
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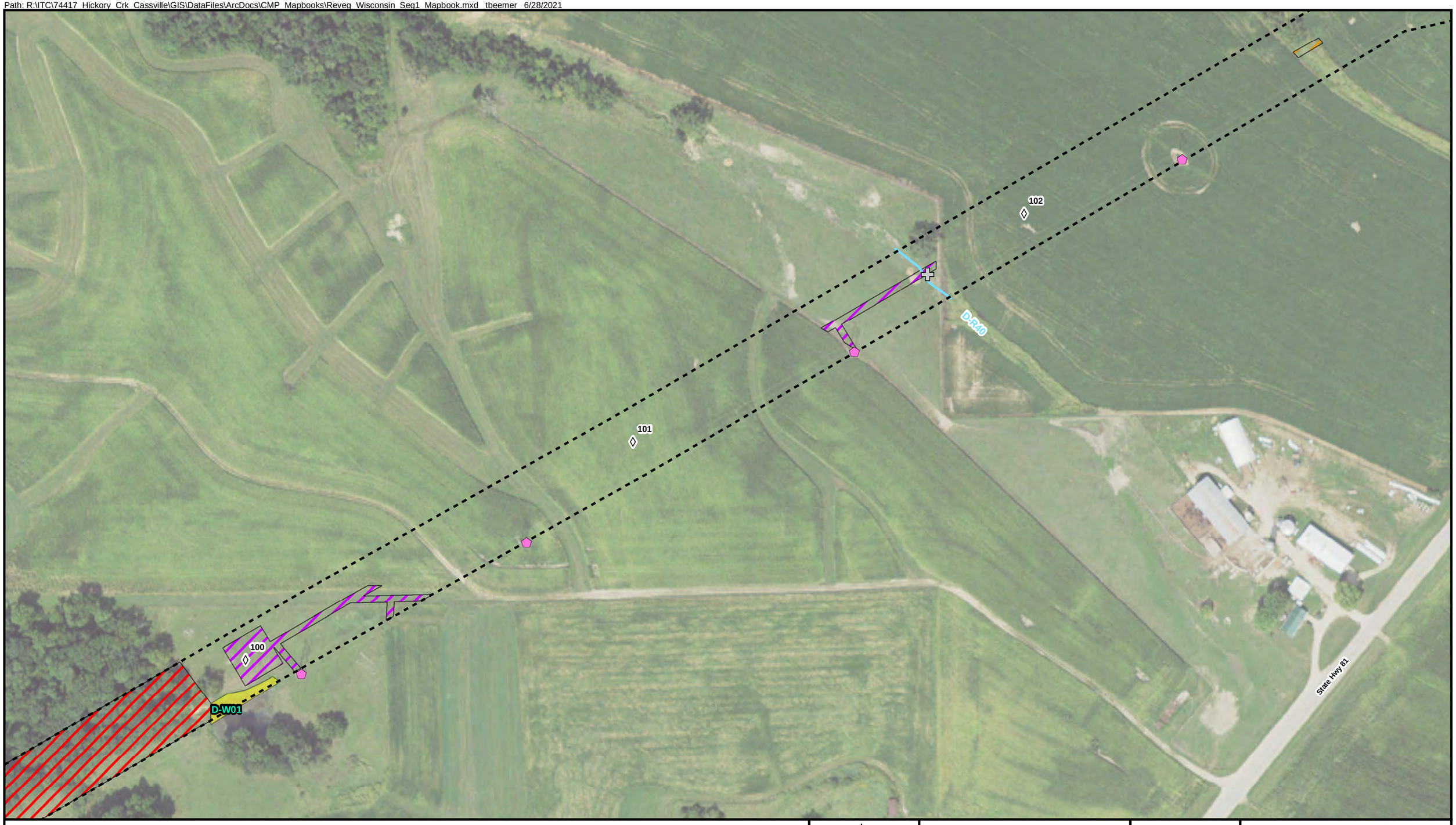


Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)
Temporary Clear Span Bridge

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix
Prairie Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

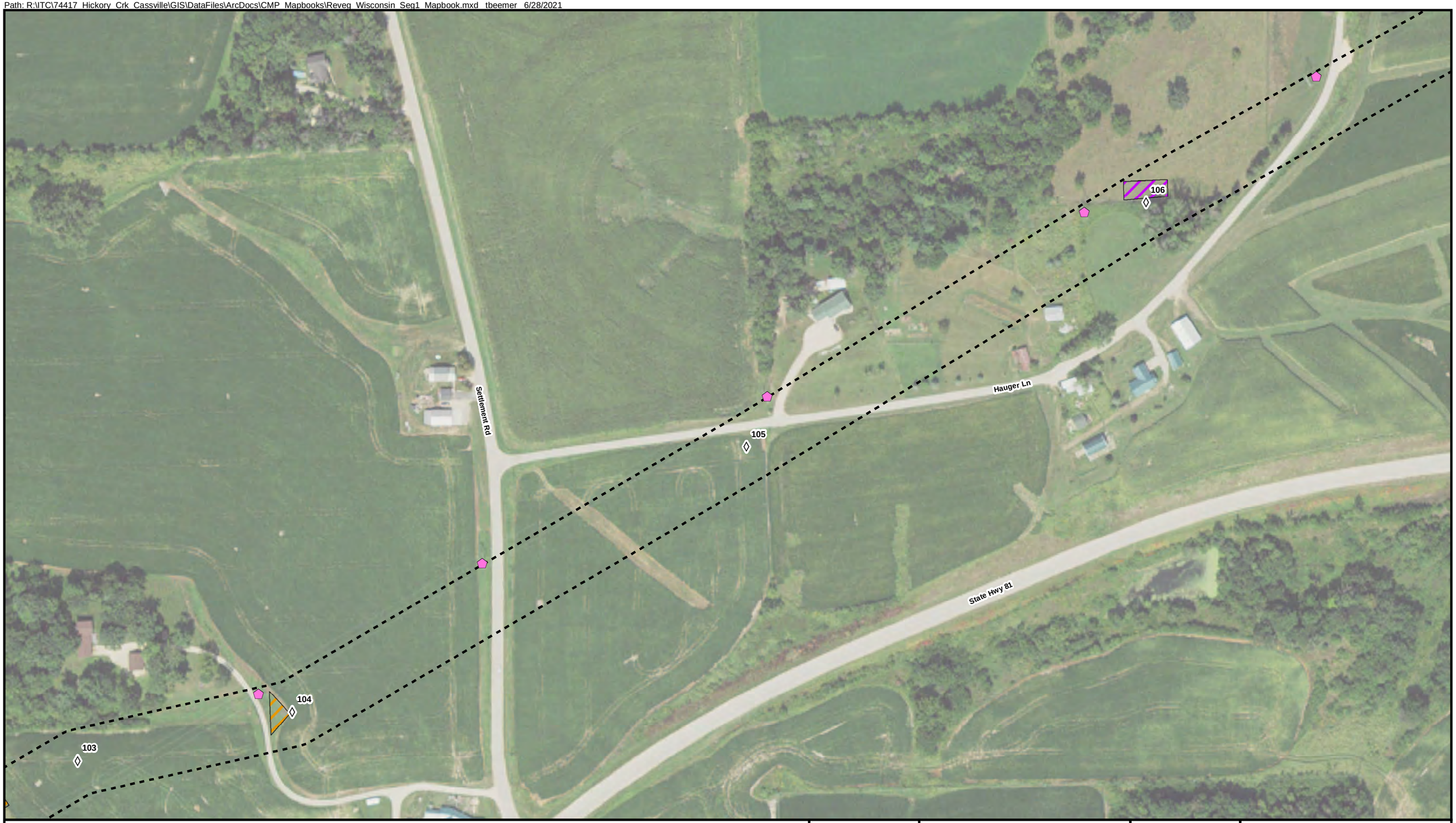
NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021



Proposed Pole
Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Pasture Mix
Prairie Mix

* The areas and seed mixes provided in this map are for general reference use within the ROW. Seed mixes and the applicable areas for reseeding will be at the descretion of ITC and Environmental Monitors.

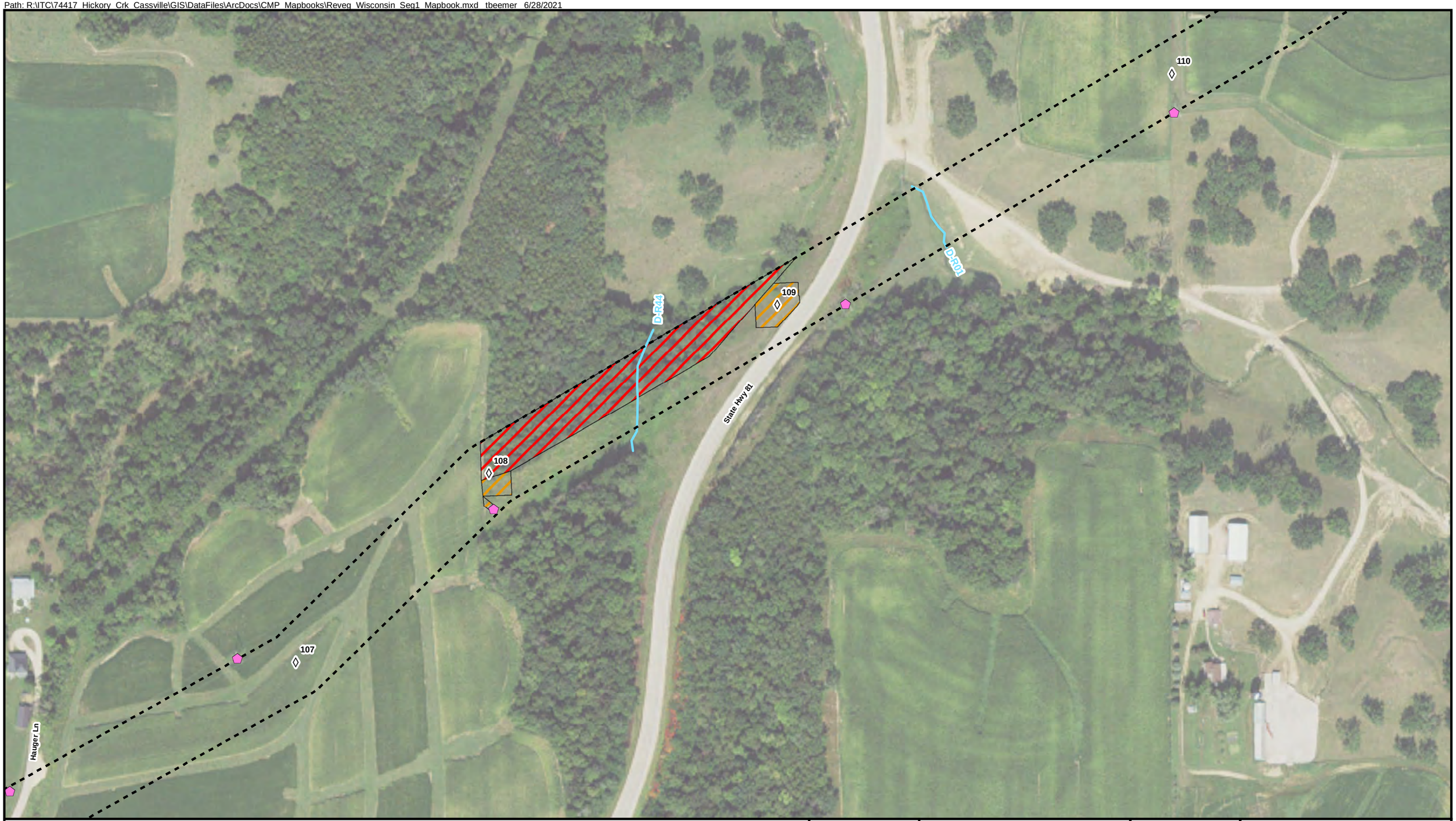
NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021



◊ Proposed Pole
⬠ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix
Prairie Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 8 of 32

◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix

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NORTH
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Scale in Feet

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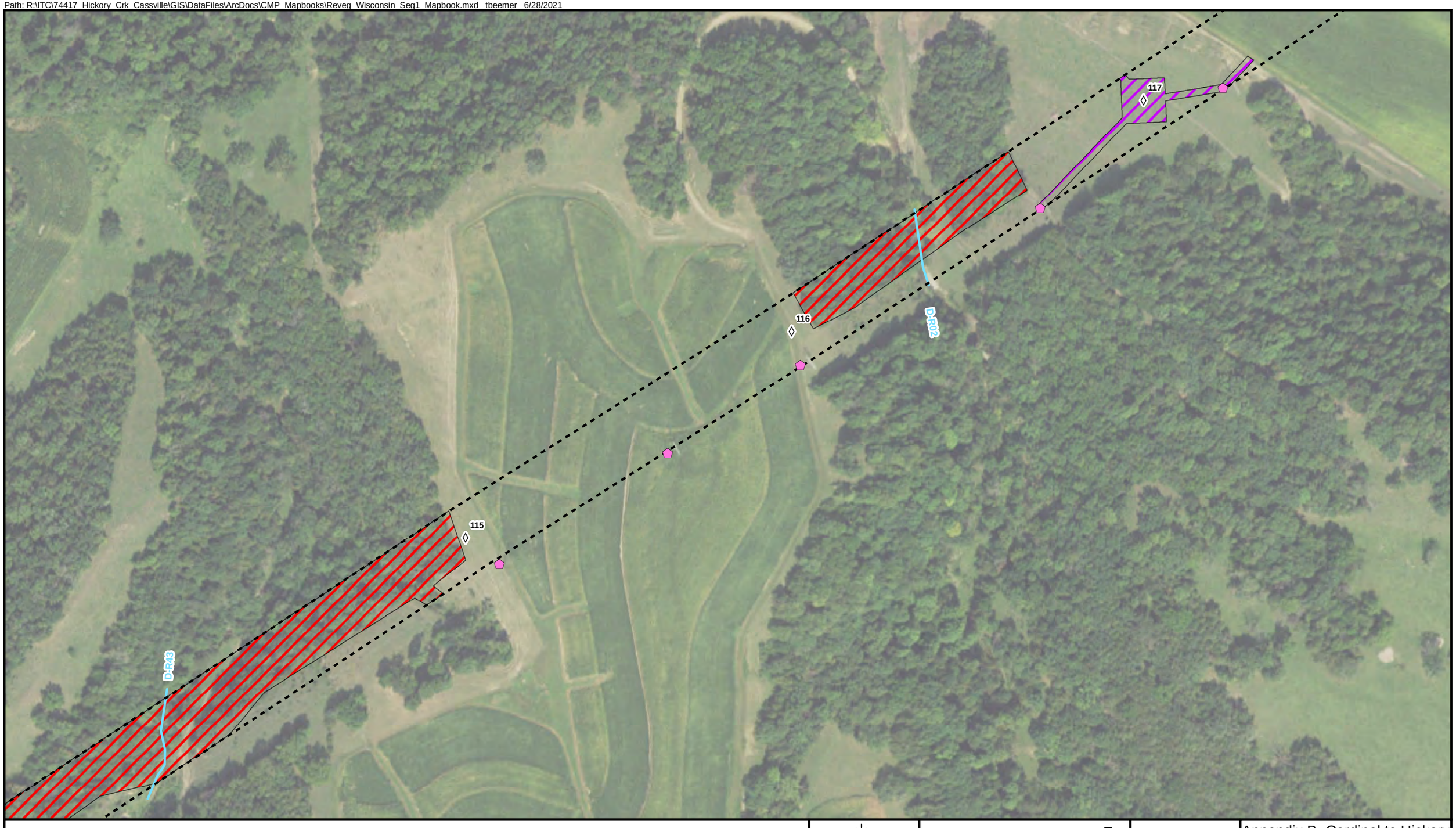
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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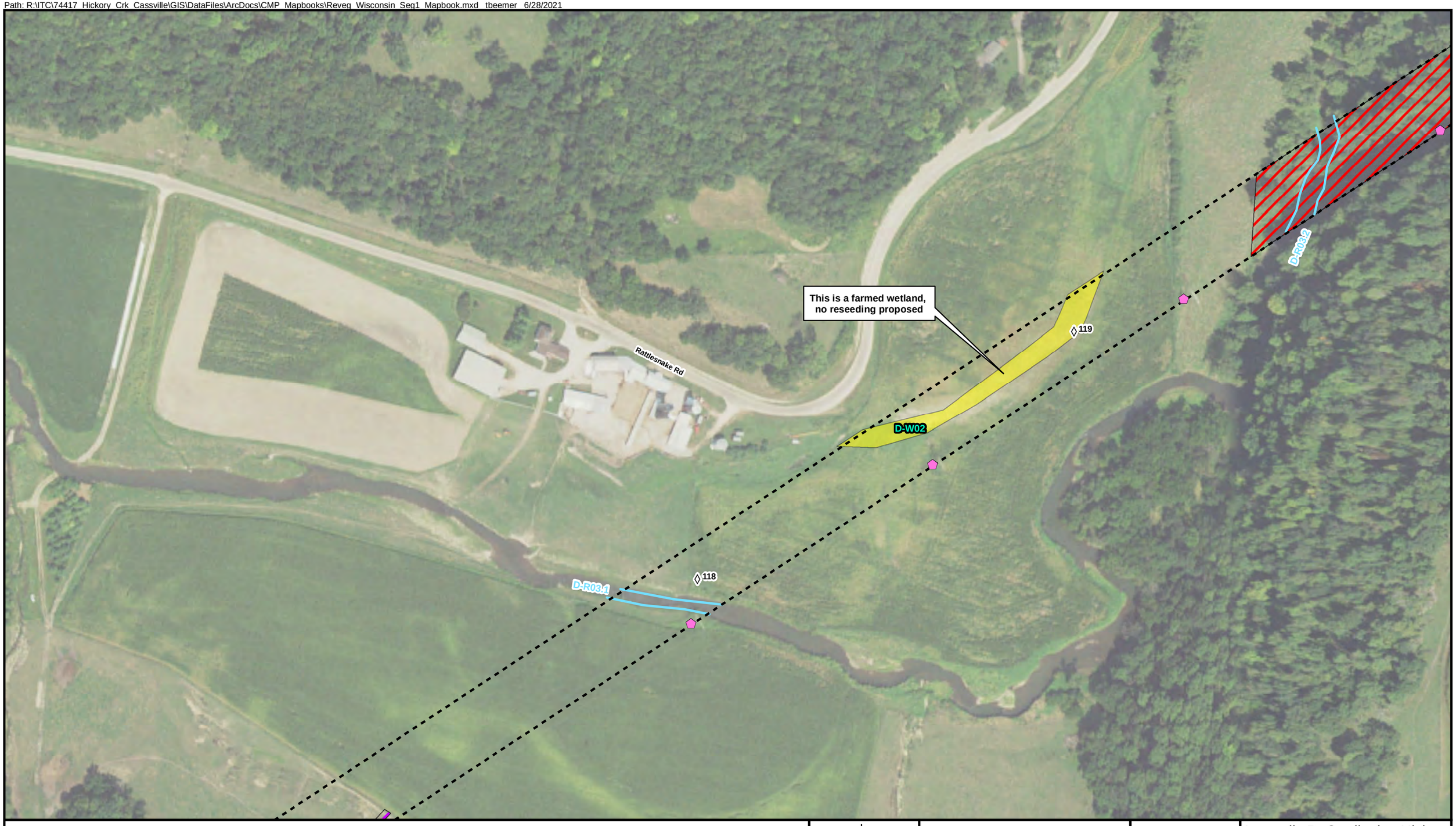
Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 10 of 32



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)

Proposed Seed Mix

- Hybrid Stabilization Mix
- Pasture Mix

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NORTH

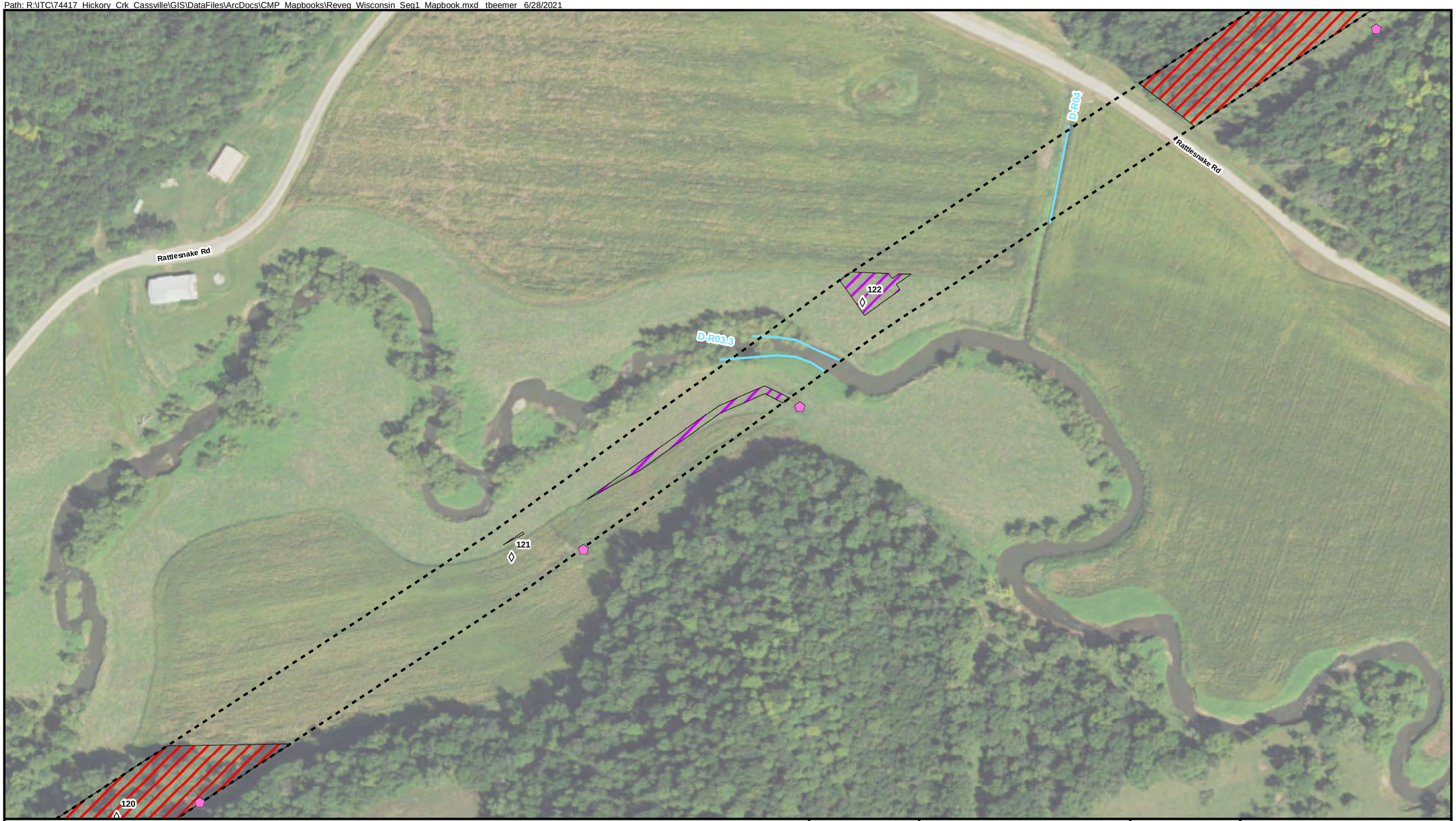
0 100 200

Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 11 of 32



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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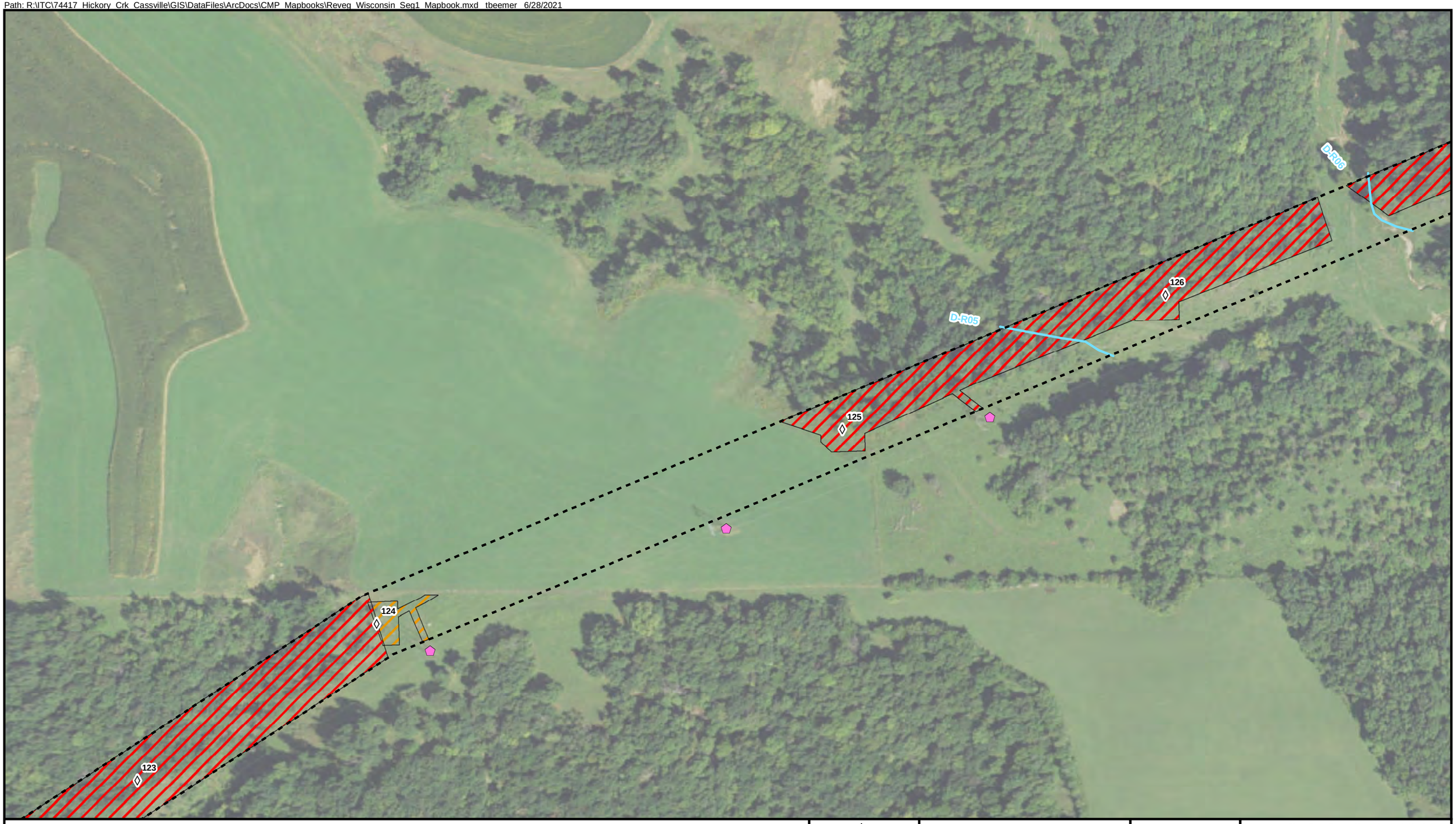
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix
Prairie Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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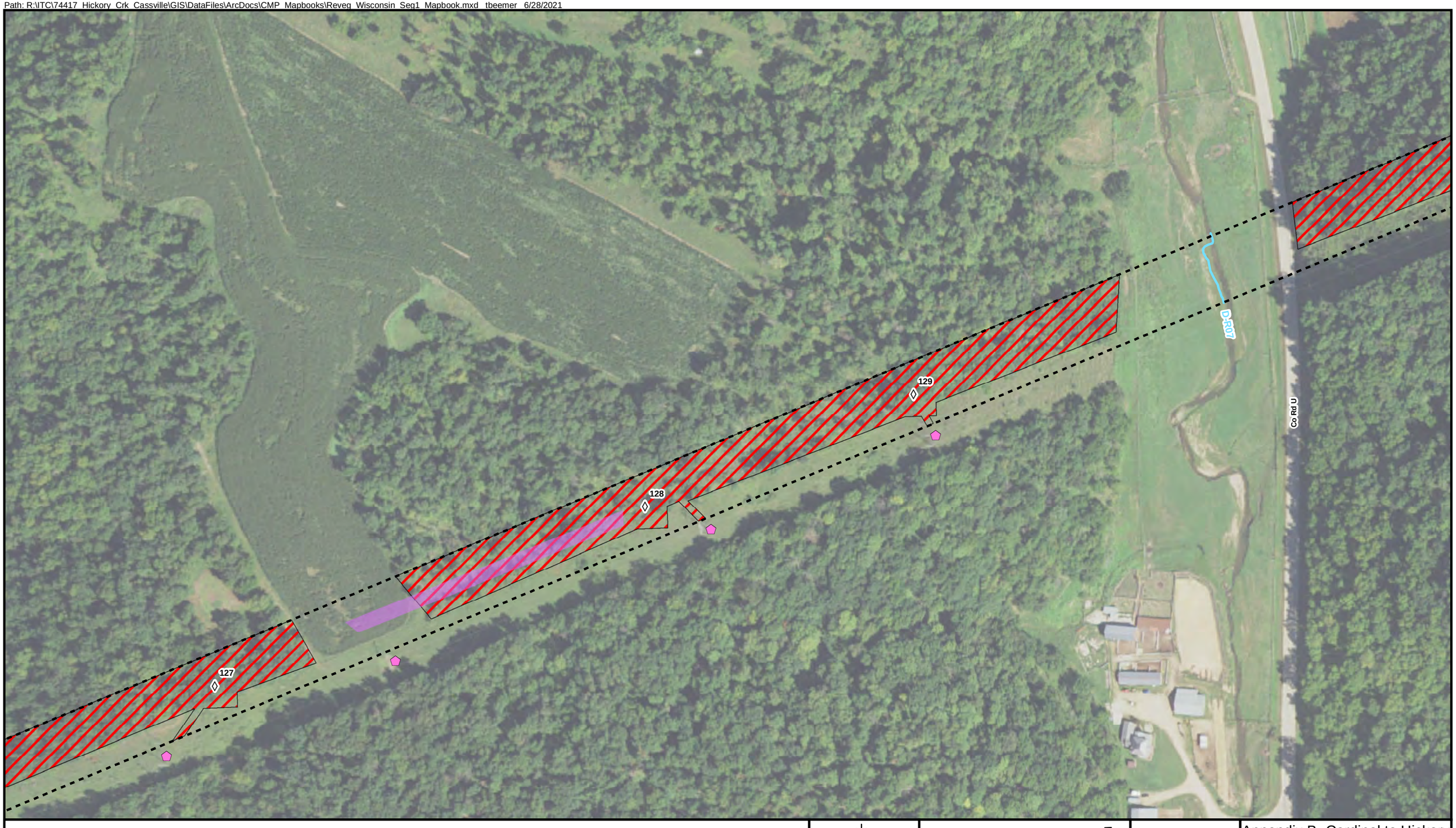
Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 13 of 32



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Pull Sites
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021

◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)

Proposed Seed Mix
Hybrid Stabilization Mix
Prairie Mix
Wetland Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Proposed Pole
Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Hybrid Stabilization Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

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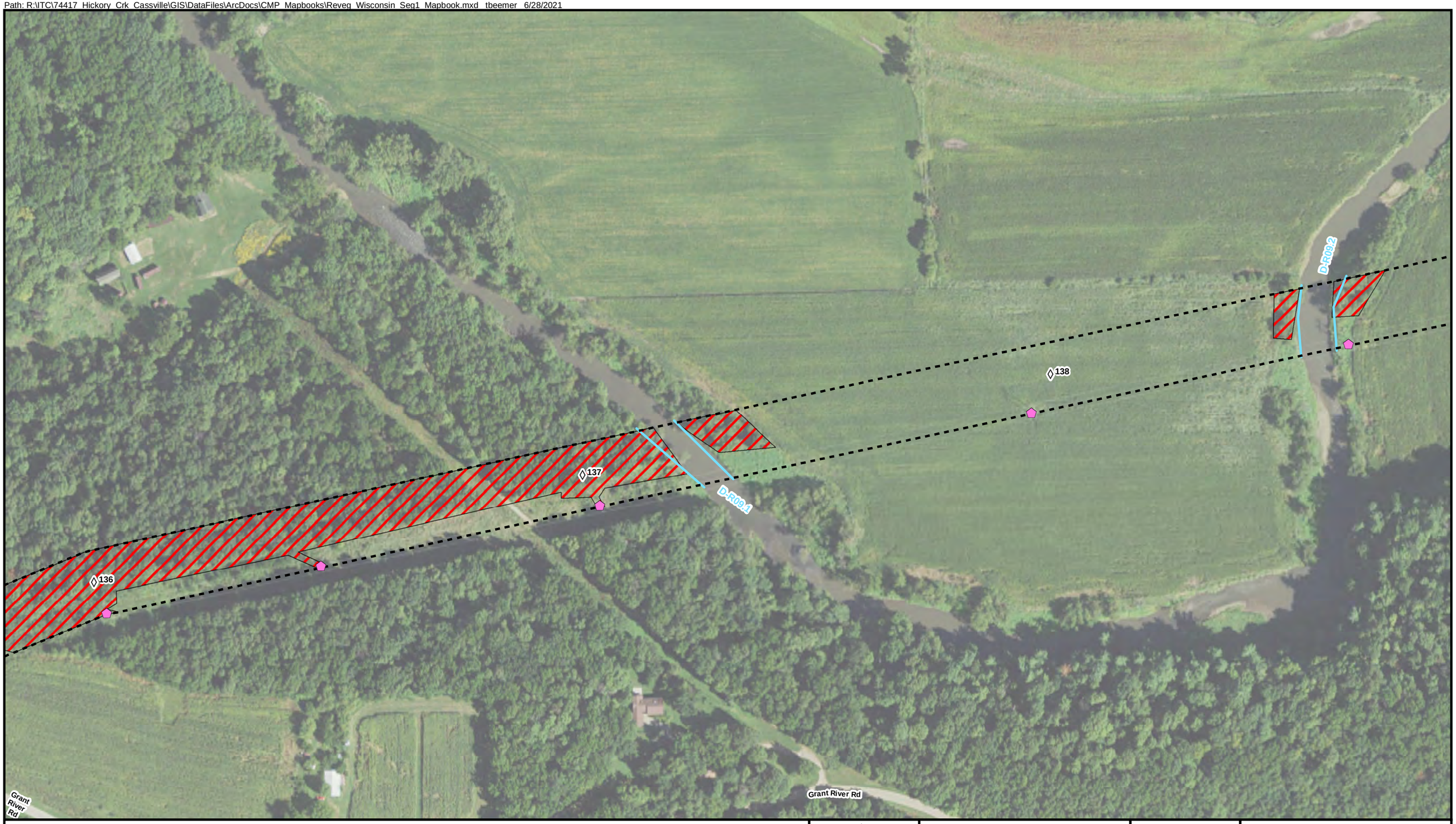

◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Revegetation Plan
Wisconsin Segment W1

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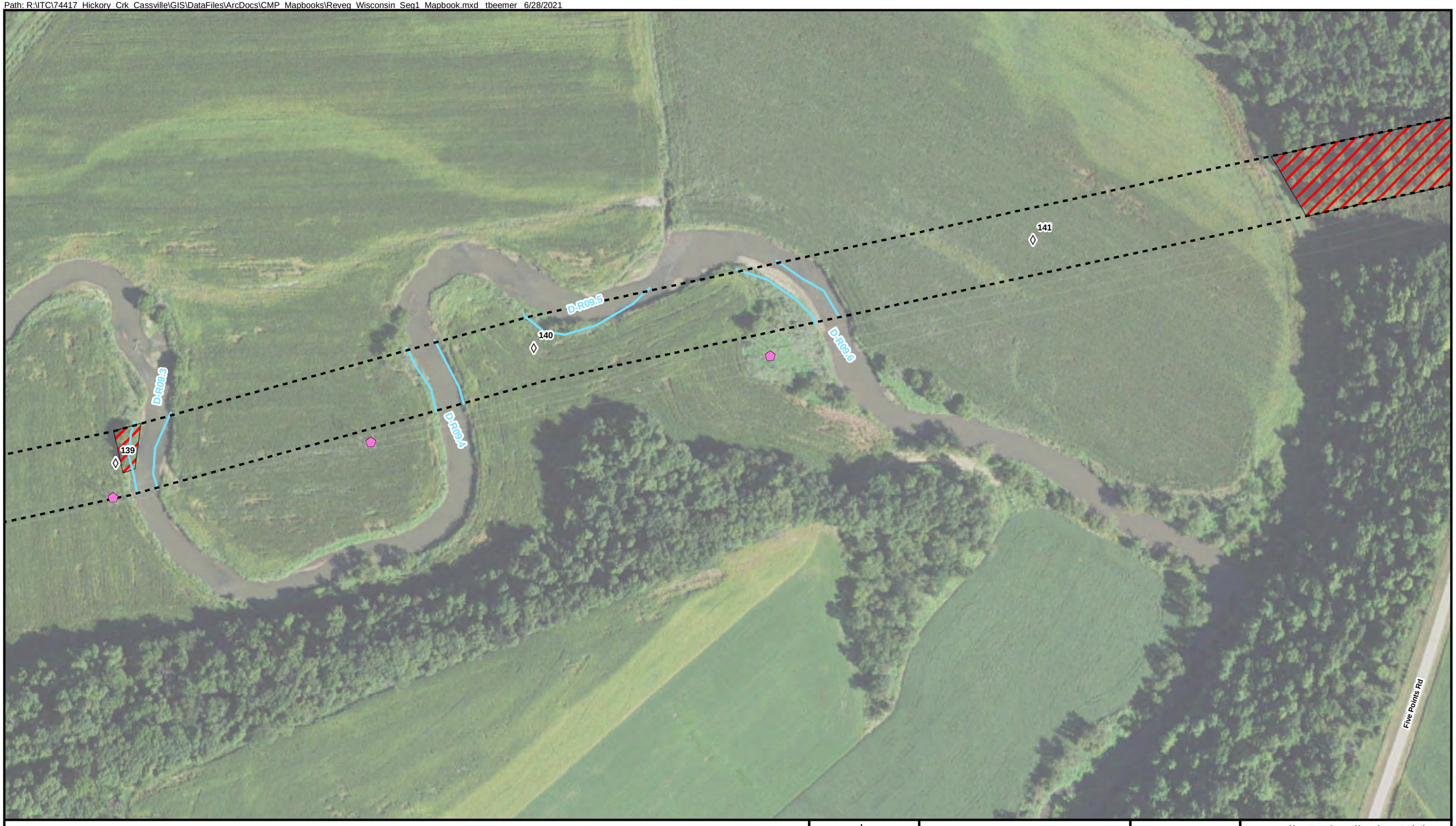

◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 18 of 32

Proposed Pole
Existing X-16 Structure
Transmission ROW
Pull Sites
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)
Temporary Clear Span Bridge
Existing Culvert

Proposed Seed Mix
Hybrid Stabilization Mix
Prairie Mix
Wetland Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Issued: 6/28/2021

◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)

Proposed Seed Mix
Hybrid Stabilization Mix
Wetland Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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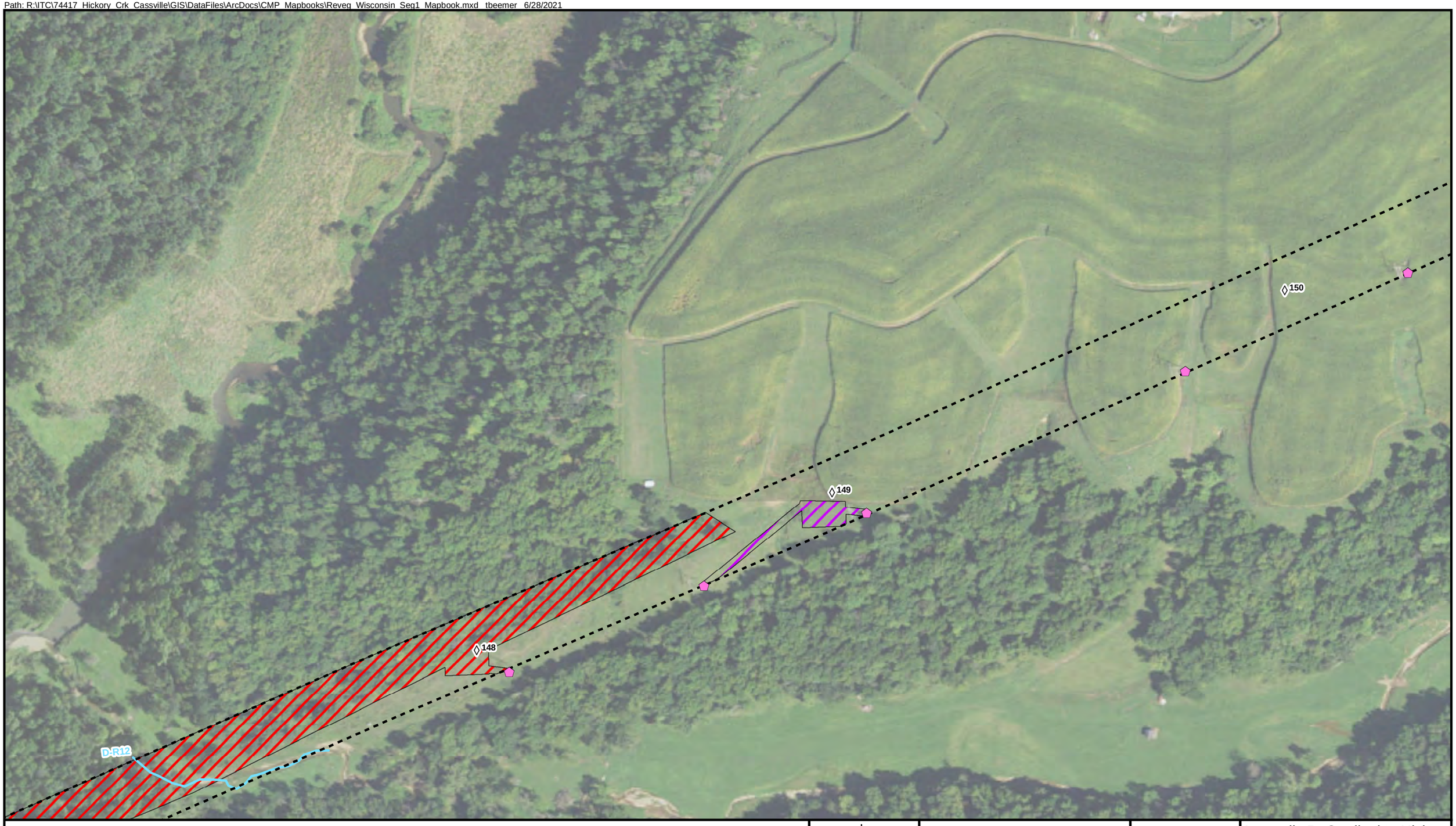
Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 20 of 32



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix

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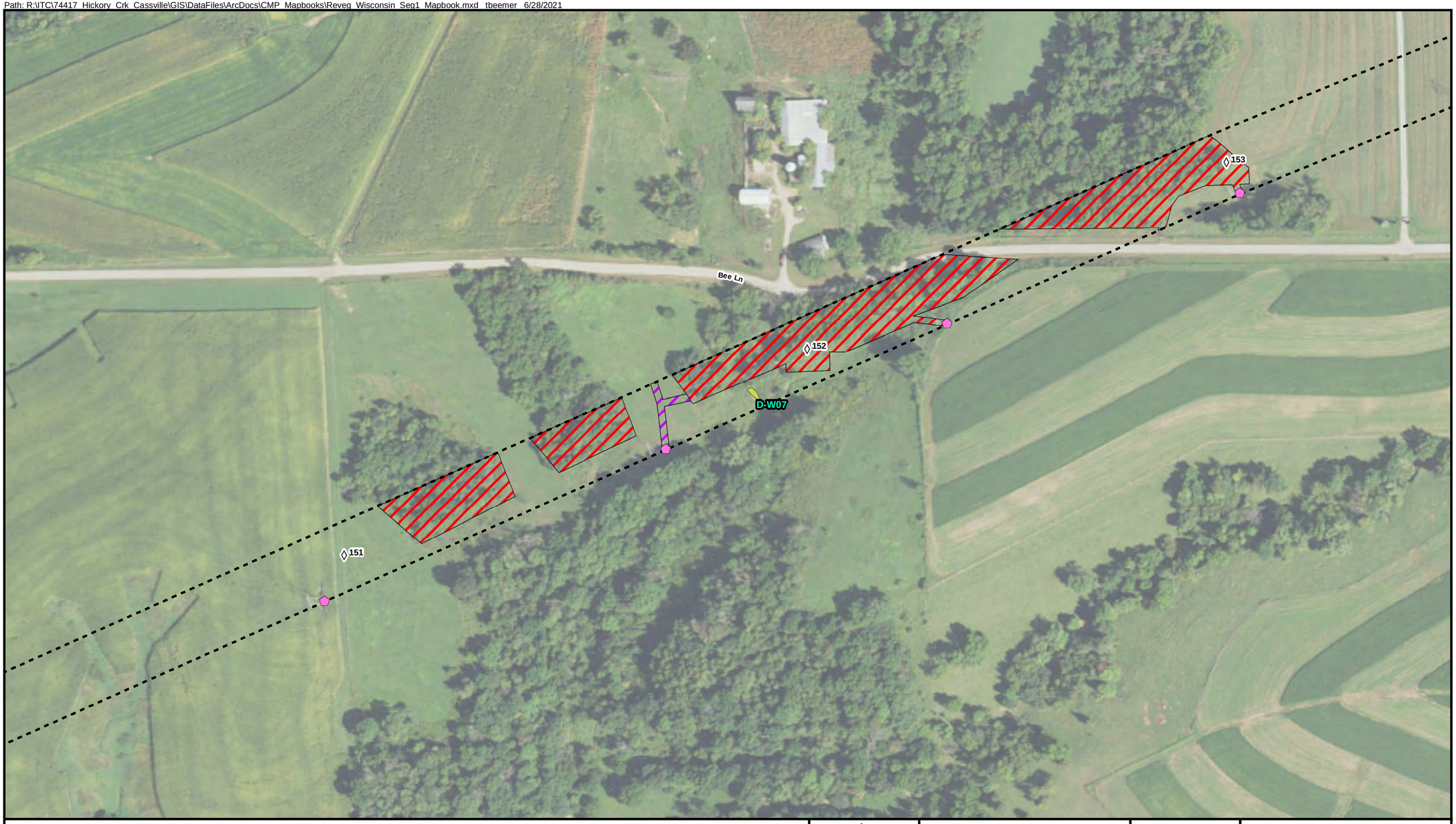
NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 21 of 32



◊ Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Wetlands (D-W#)

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix

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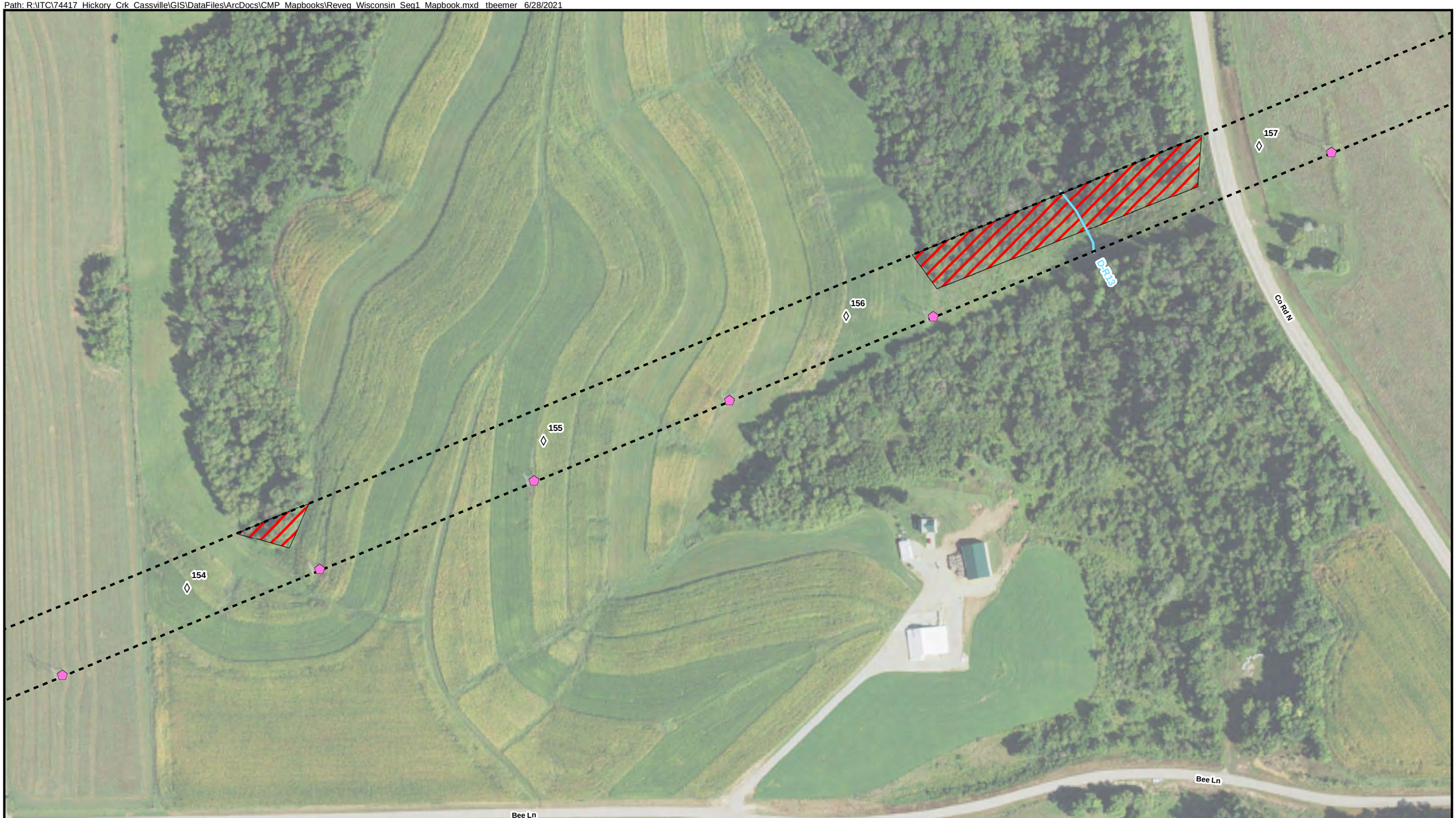
NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 22 of 32

Path: R:\ITC\74417_Hickory_Crk_Cassville\GIS\DataFiles\ArcDocs\CMP_Mapbooks\Reveg_Wisconsin_Seg1_Mapbook.mxd tbeemer 6/28/2021



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Delineated Waterway (A or D-R#)

Proposed Seed Mix

- Hybrid Stabilization Mix

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NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 23 of 32

The information presented in this map document is advisory and is intended for reference purposes only. Facility locations are approximate. Sources: WDNR, Tiger Lines, JCG, ITC Midwest, NAIP Aerial Imagery

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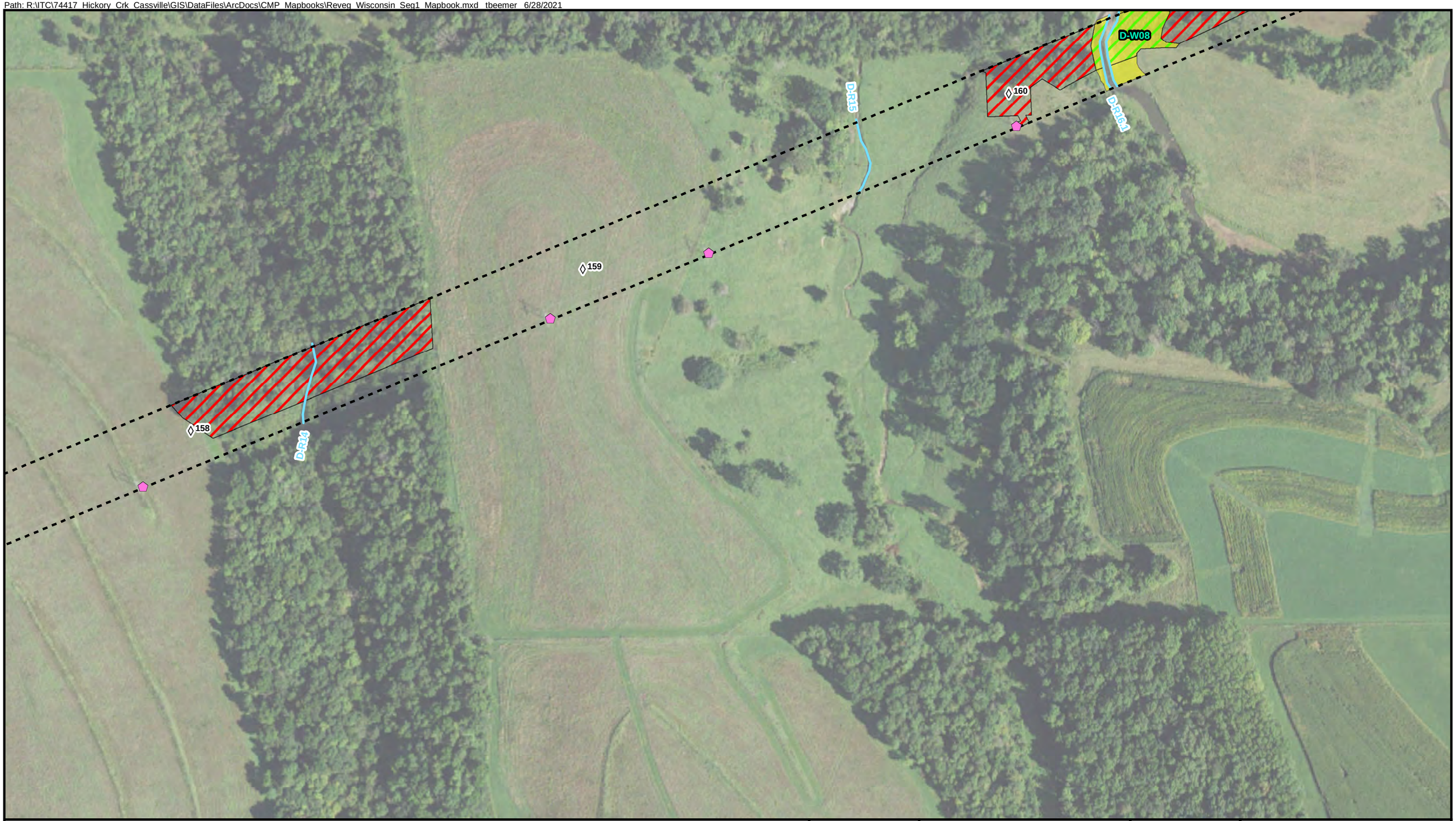

Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)

Proposed Seed Mix
Hybrid Stabilization Mix
Wetland Mix

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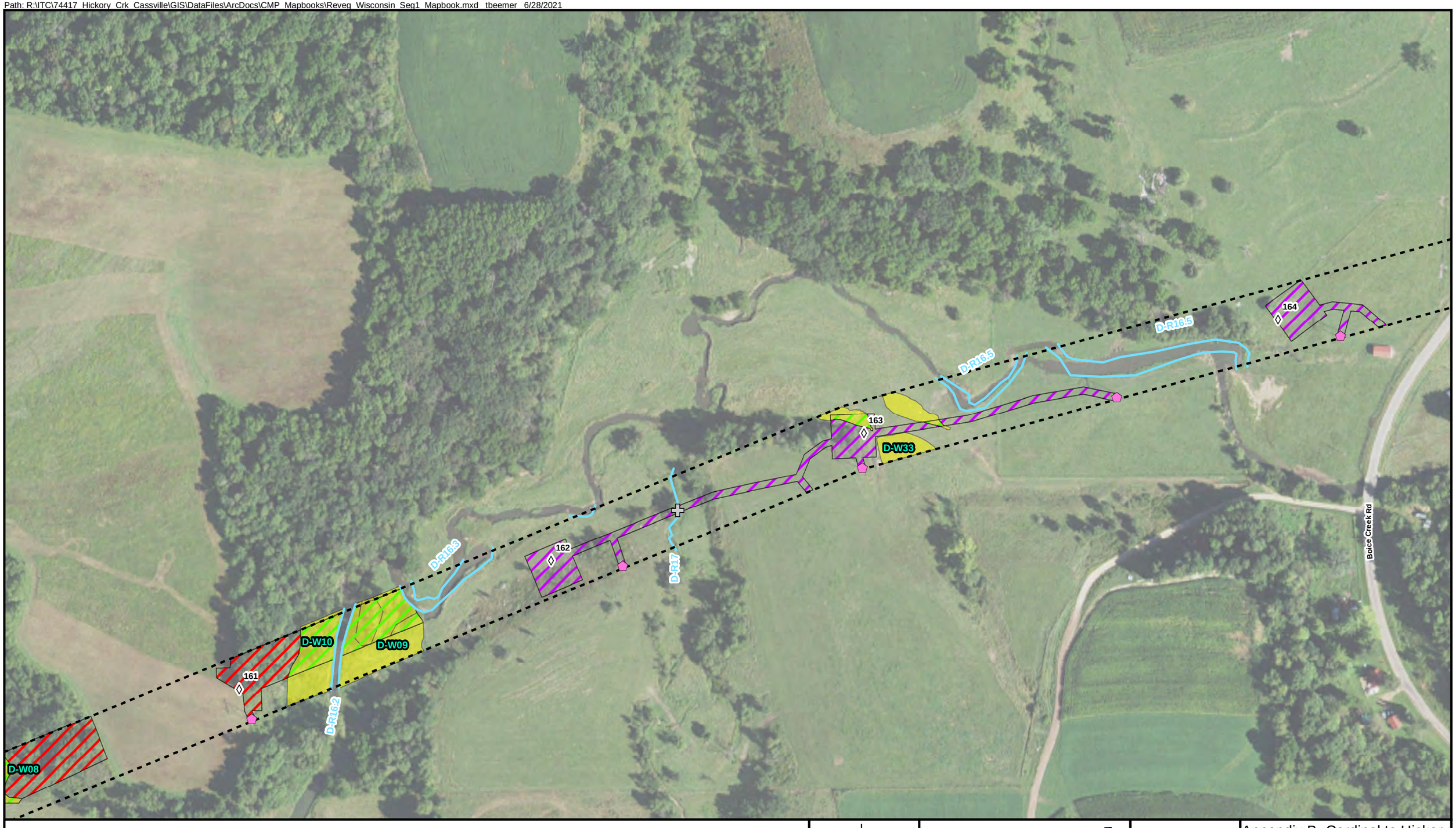
Revegetation Plan
Wisconsin Segment W1



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- Temporary Clear Span Bridge

Proposed Seed Mix

- Hybrid Stabilization Mix
- Pasture Mix
- Wetland Mix

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NORTH

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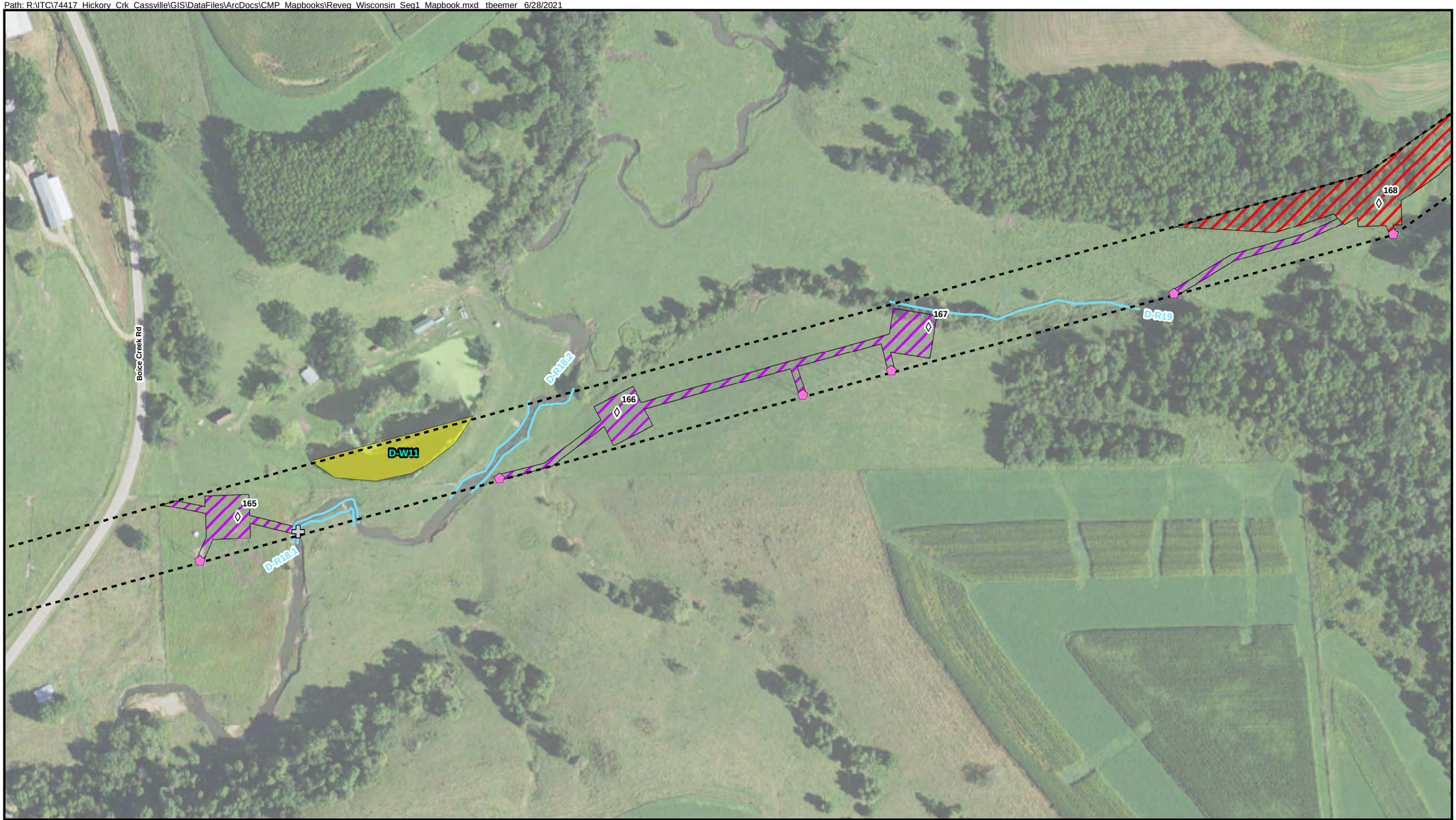
Revegetation Plan
Wisconsin Segment W1



- Proposed Pole
- Existing X-16 Structure
- Transmission ROW
- Delineated Waterway (A or D-R#)
- Delineated Wetlands (D-W#)
- Temporary Clear Span Bridge

Proposed Seed Mix

- Hybrid Stabilization Mix
- Pasture Mix

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NORTH

0 100 200

Scale in Feet

Map area shown in RED

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Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 26 of 32

◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Hybrid Stabilization Mix

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NORTH
0 100 200
Scale in Feet

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Revegetation Plan
Wisconsin Segment W1

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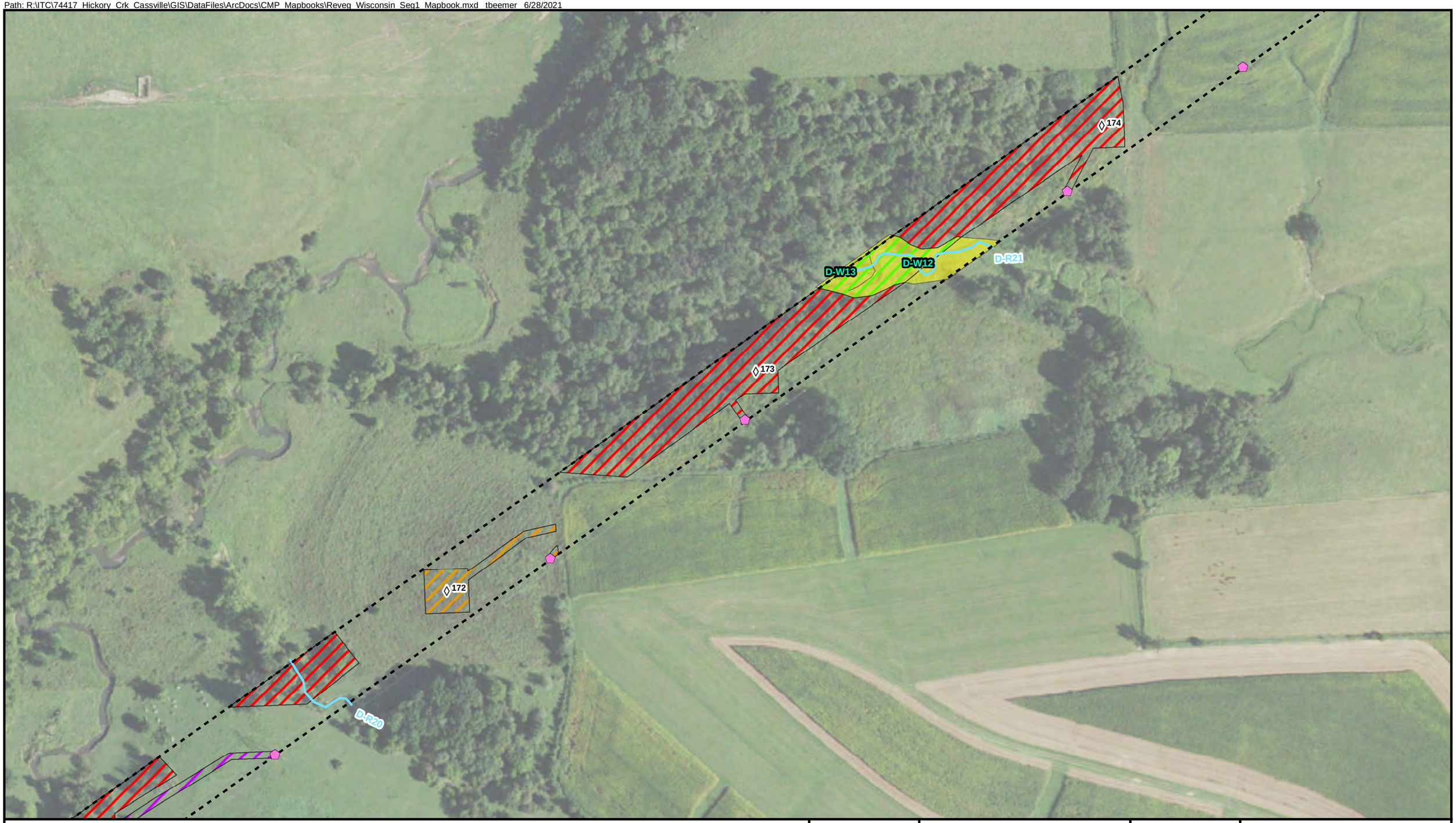

Proposed Pole
Existing X-16 Structure
Transmission ROW
Delineated Waterway (A or D-R#)
Delineated Wetlands (D-W#)

Proposed Seed Mix
Hybrid Stabilization Mix
Pasture Mix
Prairie Mix
Wetland Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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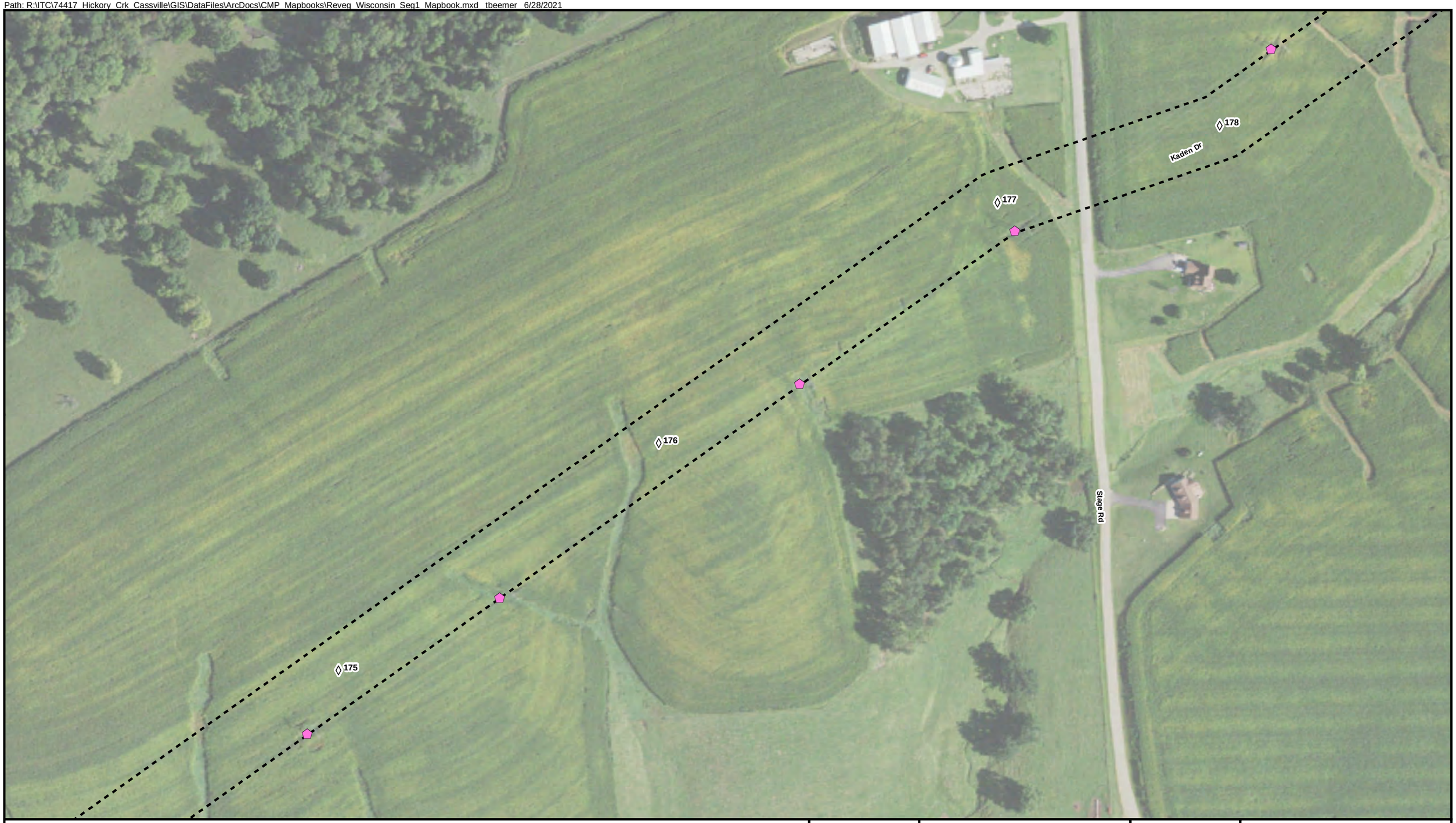
Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1
Page 28 of 32



◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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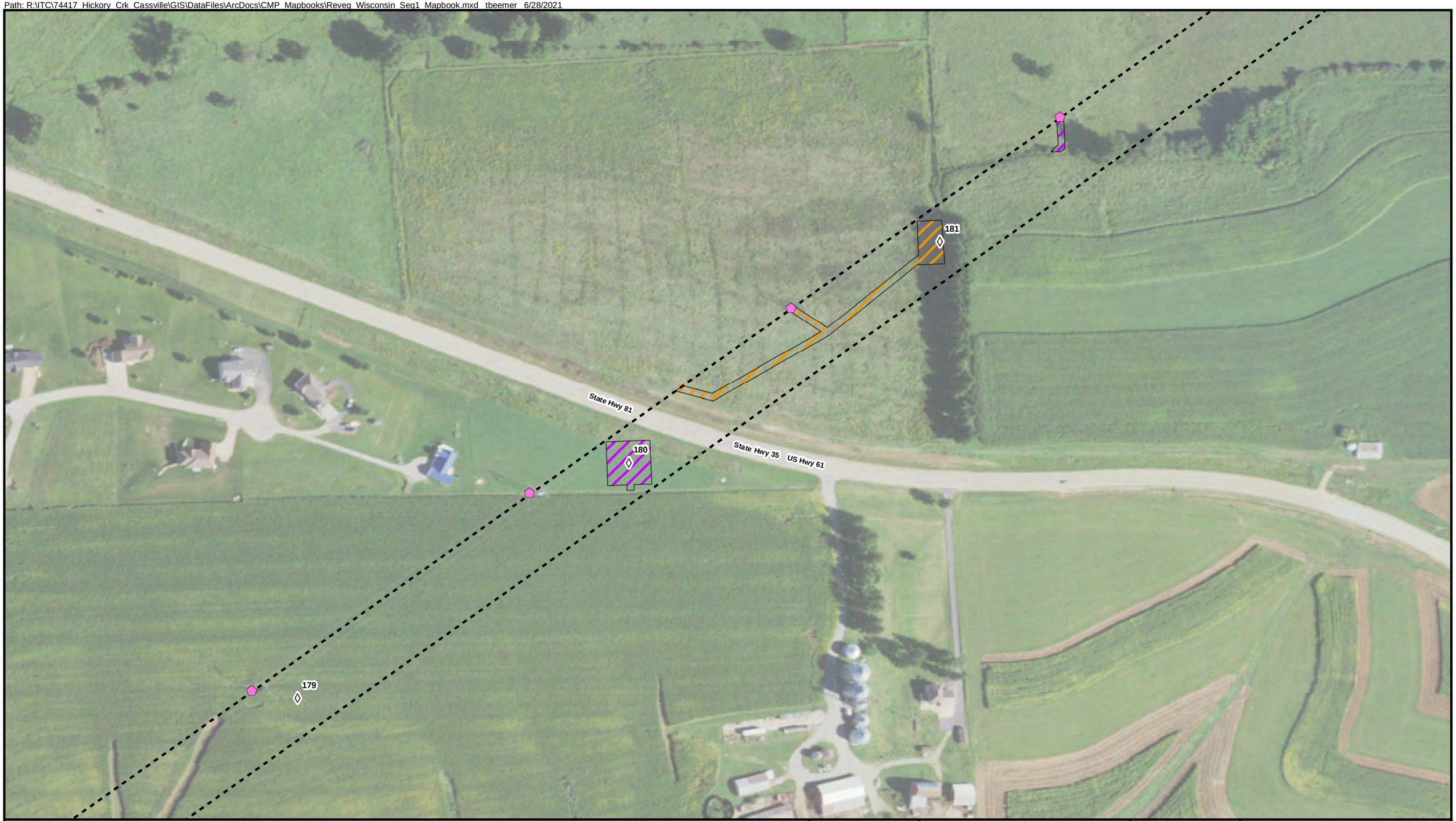
Revegetation Plan
Wisconsin Segment W1



◊ Proposed Pole
⬠ Existing X-16 Structure
Transmission ROW

Proposed Seed Mix
Pasture Mix
Prairie Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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Revegetation Plan
Wisconsin Segment W1

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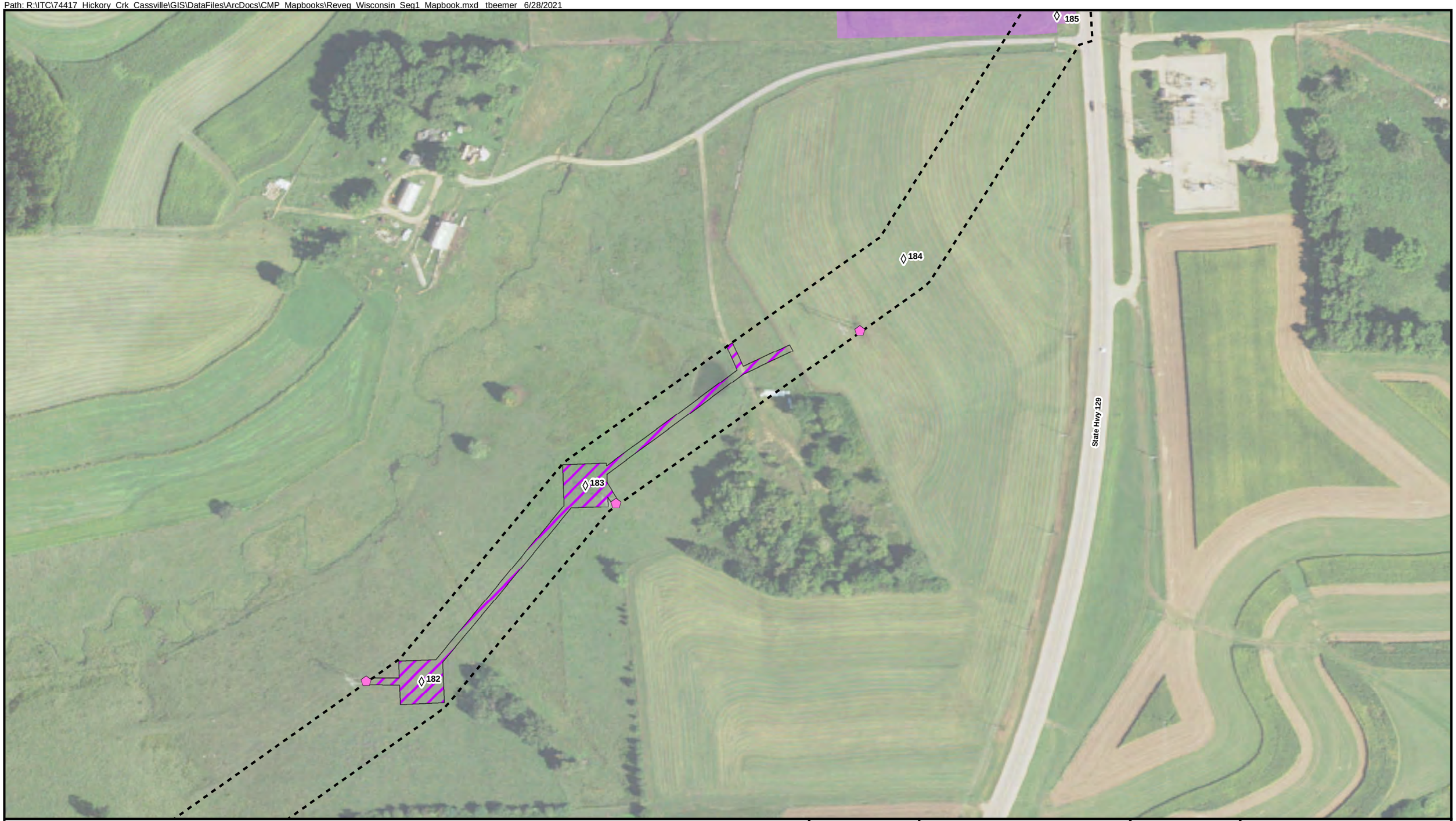

◊ Proposed Pole
⬟ Existing X-16 Structure
Transmission ROW
Pull Sites
Proposed Seed Mix
Pasture Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

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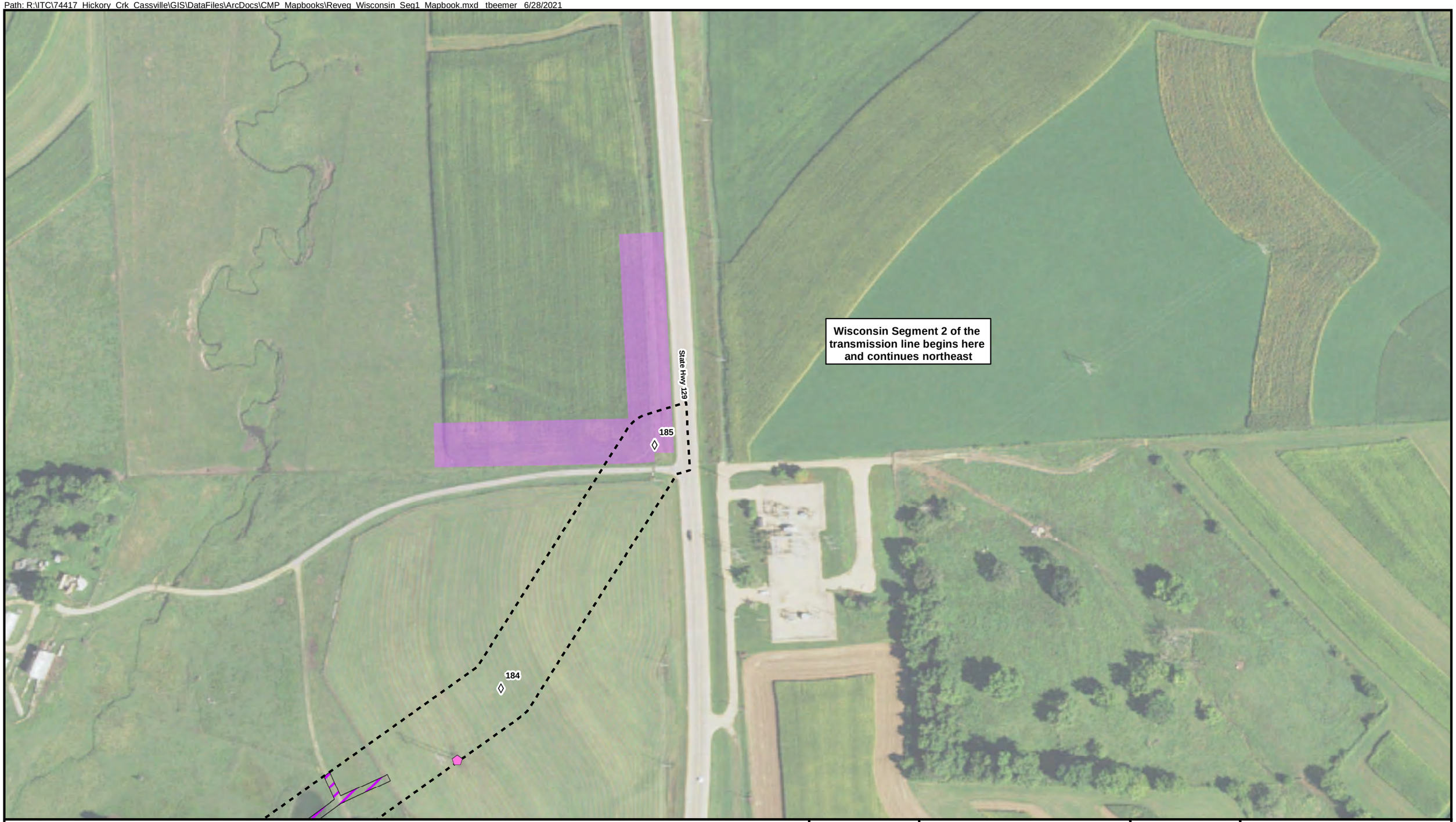
Revegetation Plan
Wisconsin Segment W1



Proposed Pole
Existing X-16 Structure
Transmission ROW
Pull Sites
Proposed Seed Mix
Pasture Mix

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NORTH
0 100 200
Scale in Feet

Map area shown in RED

BURNS McDONNELL

Appendix B- Cardinal to Hickory Creek 345-kV Transmission Line Project
Revegetation Plan
Wisconsin Segment W1

Attachment O - WATERWAY NAVIGABILITY DETERMINATION REQUEST PACKAGE

Attachment O:

Navigability Determination Request for Segment W-1 (Cassville to Lancaster) of the Cardinal to Hickory Creek Transmission Line Project (PSCW Docket # CE-5-146)

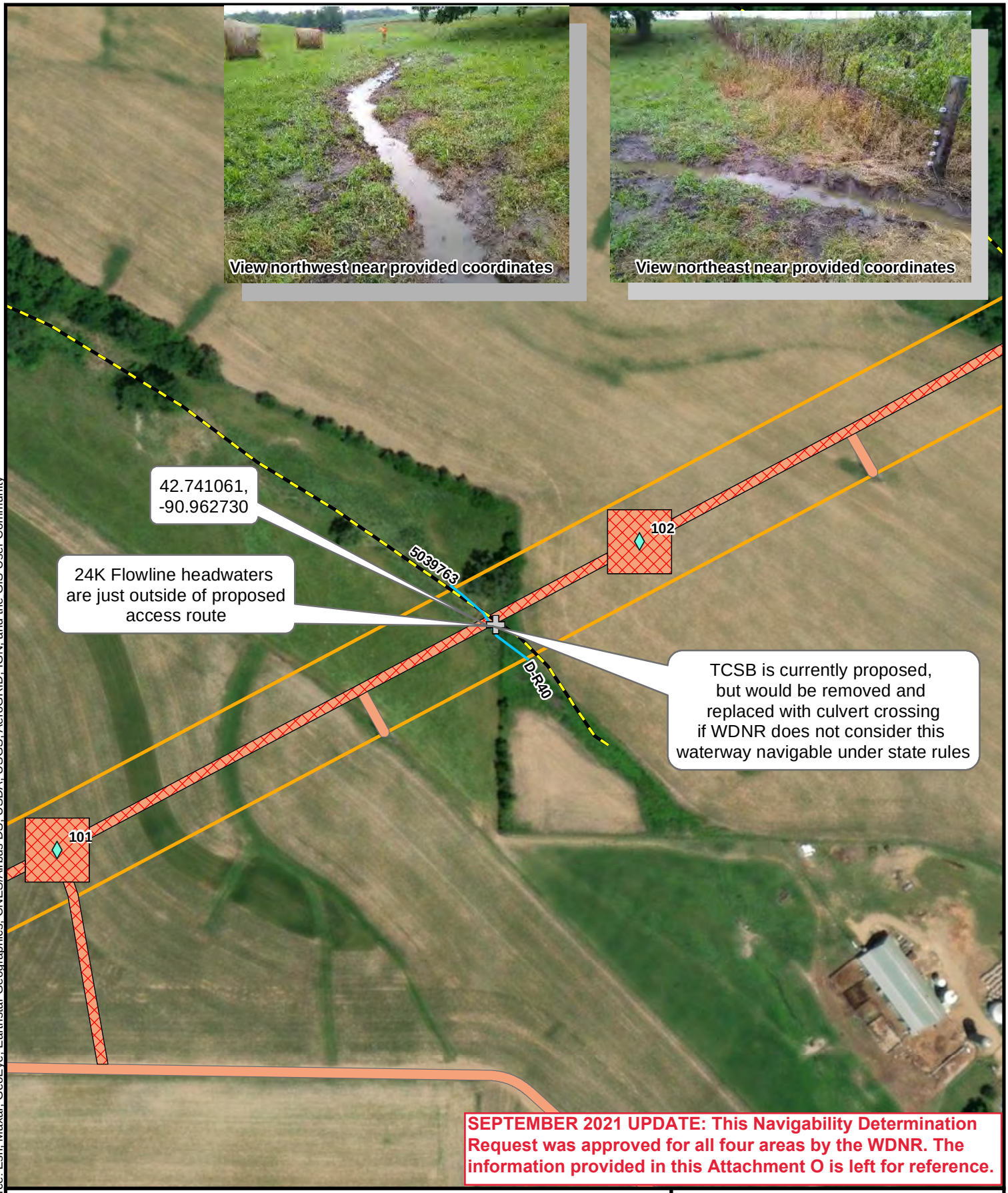
SEPTEMBER 2021 UPDATE: This Navigability Determination Request was approved for all four areas by the WDNR. The information provided in this Attachment O is left for reference.

This document serves as the navigability determination request for Segment W-1 (Cassville to Lancaster) of the Cardinal to Hickory Creek Transmission Line Project (Project), to be constructed and operated by ITC Midwest, LLC (ITC). Between 2017 and 2021, several environmental field surveys were conducted to document and delineate all waterways within the Project area. Accordingly, one area was delineated as an upland swale that partially overlaps with a Wisconsin Department of Natural Resources (WDNR) 24K Hydro Flowline but may not exhibit characteristics to meet the criteria of “navigable” under State Statutes, such as lack of or degraded bed and bank. Similarly, two other areas with WDNR 24K Hydro Flowlines were delineated as being wetland in nature as opposed to waterways. One additional area was delineated as a waterway near the headwaters of a WDNR 24K Hydro Flowline. These areas are provided for a WDNR navigability determination request and general review in the attached summary table, photos, and figures. For any area provided in the summary table that WDNR determines is “navigable” under State Statutes, ITC will either cross using a temporary clear span bridge (TCSB) without support structures below the ordinary high-water mark (OHWM), or not cross that specific area(s) for construction access. Please note that ITC is planning on using several existing waterway culvert or bridge crossings that were previously installed by the landowner prior to construction planning. No additional modifications are proposed for all existing culvert or bridge crossings and therefore are not provided for WDNR review, regardless of overlapping with or otherwise associated with WDNR 24K Hydro Flowlines.

Cardinal to Hickory Creek Transmission Line Project: Segment W-1 (Cassville to Lancaster) – WDNR Navigability Determination Request

Feature Description	WBIC	Coordinates of Waterway Crossing Near Project Centerline		County	Surveyed Characteristics	General Notes
		Latitude	Longitude			
Area #1 - WDNR 24K Hydro Flowline data has this area categorized as an unnamed tributary to Furnace Branch. ITC does not have a feature ID as this area was not delineated as a waterway.	5039763	42.741061	-90.962730	Grant	Ephemeral waterway (shown in the pictures immediately following precipitation). Dominated by *bromus inermis* and *phalaris arundinacea.*	ITC's proposed in-ROW access route overlaps with the near headwater location of this WDNR 24K Hydro Flowline as shown in the below figure and photos. A TCSB is proposed for this waterway, but if WDNR determines it is not navigable, a culvert crossing would likely be used instead.
Area #2 - WDNR 24K Hydro Flowline data has this area categorized as an unnamed tributary to Furnace Branch. ITC does not have a feature ID as this area was not delineated as a waterway.	5039746	42.7423827	-90.9595251	Grant	Vegetated upland swale, no bed or bank identified. Dominated by *bromus inermis.*	ITC's proposed in-ROW access route overlaps with the headwater location of this WDNR 24K Hydro Flowline as shown in the below figure and photos. Based on the delineation results, it is believed this area is likely not navigable under WDNR criteria.
Area #3 - WDNR 24K Hydro Flowline data shows this as Rattlesnake Creek. ITC shows this area as being a farmed wetland (D-W02) without a waterway.	957300	42.7630187	-90.9100572	Grant	Cornfield with saturated soils from likely converted waterway and/or wetland.	This WDNR 24K Hydro Flowline is not accurately located, as Rattlesnake Creek is located approximately 175 feet southeast of the Flowline. Aerial imagery of this location does show occasionally crop stress associated with a linear feature (Wisconsin Wetland Inventory data also overlaps with this area), potentially a waterway prior to row cropping. However, within the Project area there is no indication of a bed or bank. The crop stress/saturated area has been delineated as a farmed wetland area (D-W02) and is proposed to be partially matted for access.
Area #4 - WDNR 24K Hydro Flowline data has this categorized as an unnamed tributary to Pigeon Creek. ITC shows this area as being a wet meadow wetland (D-W05) and forested wetland (D-W06) without a waterway.	5039198	42.7905275	-90.8114045	Grant	Riparian wetland complex dominated by *phalaris arundinacea* and *acer saccharinum.*	This WDNR 24K Hydro Flowline shows a waterway going through these delineated wetland areas (D-W05 and D-W06), but no waterway was found during field surveys. Aerial imagery shows a more defined ditch area further upstream, but where this ditch would likely intersect with the project ROW, only wetland area was identified. Both wetland areas are proposed to be partially matted for access.

SEPTEMBER 2021 UPDATE: This Navigability Determination Request was approved for all four areas by the WDNR. The information provided in this Attachment O is left for reference.



NORTH

0 100 200 Feet

Scale: 1" = 200'

- Proposed ROW
- Proposed Pole
- Proposed Matting
- Proposed Access Route
- WDNR 24k Hydro Flowline
- Delineated Stream
- Delineated Wetland
- Temporary Clear Span Bridge

Area 1 - WDNR Navigability Determination Request

Cardinal to Hickory Creek Transmission Line Project
Segment W-1: Cassville to Lancaster

Path: Z:\Resources\Local\Clients\KCMENS\ITC\128988_ITCCardinalHic\ArcGIS\DataFiles\ArcDocs\CMP_Maps\Navig_Determination_Request\WI_Seg1\Area1.mxd tbeemer 6/24/2021
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: ESRI, WDNR, ITC Midwest LLC, and Burns & McDonnell Engineering, Inc.

Issued: 6/24/2021

5039746

104

103

42.7423827,
-90.9595251

24K Flowline headwaters are just within proposed access route limits

102

5039763

SEPTEMBER 2021 UPDATE: This Navigability Determination Request was approved for all four areas by the WDNR. The information provided in this Attachment O is left for reference.

NORTH

0 100 200 Feet

Scale: 1" = 200'

- Proposed ROW
- Proposed Pole
- Proposed Matting
- Proposed Access Route
- WDNR 24k Hydro Flowline
- Delineated Stream
- Delineated Wetland

Area 2 - WDNR Navigability Determination Request

Cardinal to Hickory Creek Transmission Line Project
Segment W-1: Cassville to Lancaster

Path: Z:\Resources\Local\Clients\KCMENS\ITC\128988_ITCCardinalHic\ArcGIS\DataFiles\ArcDocs\CMP_Maps\Navig_Determination_Request\WI_Seg1\Area2.mxd tbeemer 6/24/2021
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: ESRI, WDNR, ITC Midwest LLC, and Burns & McDonnell Engineering, Inc.

Issued: 6/24/2021

Saturated area of cropfield delineated as wetland (D-W02), no bed and bank identified.

24K Flowline is identified as Rattlesnake Creek, which is further south and east as seen on the aerial background.

42.7630187, -90.9100572

Actual location of Rattlesnake Creek

Rattlesnake Rd

957300

5039633

119

D-W02

118

D-R03.1

SEPTEMBER 2021 UPDATE: This Navigability Determination Request was approved for all four areas by the WDNR. The information provided in this Attachment O is left for reference.

NORTH

0 100 200 Feet

Scale: 1" = 200'

- Proposed ROW
- Proposed Access Route
- Proposed Pole
- Proposed Matting
- WDNR 24k Hydro Flowline
- Delineated Stream
- Delineated Wetland

Area 3 - WDNR Navigability Determination Request

Cardinal to Hickory Creek Transmission Line Project
Segment W-1: Cassville to Lancaster

Path: Z:\Resources\Local\Clients\KCMENS\ITC\128988_ITCCardinalHic\ArcGIS\DataFiles\ArcDocs\CMP_Maps\Navig_Determination_Request\WI_Seg1\Area3.mxd tbeemer 6/24/2021
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: ESRI, WDNR, ITC Midwest LLC, and Burns & McDonnell Engineering, Inc.

Issued: 6/24/2021

SEPTEMBER 2021 UPDATE: This Navigability Determination Request was approved for all four areas by the WDNR. The information provided in this Attachment O is left for reference.

5039072

No waterway was identified within these wetland complexes during field surveys.

42.7905275, -90.8114045

D-W06

145

D-W05

D-OR-W04

D-R10

Waterway would most likely be in this general area, but the provided photos reflect the same conditions here.

009696

5039198

View north near provided coordinates

View south near provided coordinates

NORTH

0 100 200 Feet

Scale: 1" = 200'

- Proposed ROW
- Proposed Access Route
- Proposed Pole
- Proposed Matting
- WDNR 24k Hydro Flowline
- Delineated Stream
- Delineated Wetland

Area 4 - WDNR Navigability Determination Request

Cardinal to Hickory Creek Transmission Line Project
Segment W-1: Cassville to Lancaster

Path: Z:\Resources\Local\Clients\KCMENS\ITC\128988_ITCCardinalHic\ArcGIS\DataFiles\ArcDocs\CMP_Maps\Navig_Determination_Request\WI_Seg1\Area4.mxd tbeemer 6/24/2021

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: ESRI, WDNR, ITC Midwest LLC, and Burns & McDonnell Engineering, Inc.

Issued: 6/24/2021

Attachment Q - STRUCTURE REMOVAL PROCEDURE

Cardinal-Hickory Creek
Attachment Q: Existing Structure Removal Procedure

Upland (non-agricultural areas)

1. Wood poles will be completely removed to the extent possible.
2. If the old poles cannot be accessed by removal equipment the pole may be cut off at or immediately below the ground level.

Wetlands

1. Old poles can be cut off at ground level or removed, depending on equipment access and condition.
2. If poles must be completely removed:
    a. Segregate topsoil as best as possible and set on a barrier (mats or tarp/fabric)
    b. Dig out the sub-soil around the pole base and place on a barrier (mats or tarp/fabric)
    c. Remove the old structure
    d. Back-fill the old holes with gravel. Fill gravel to approximately 1' below ground level.
    e. Cover with saved topsoil
    f. Remove subsoil from the wetland

Agricultural Areas (non-organic) - Poles must be removed to avoid contact with plows

1. Segregate topsoil as best as possible and set aside next to the poles (topsoil placed on topsoil)
2. In the event that subsoil is disturbed or removed around the structure, this subsoil should be segregated from topsoil.
    a. Place disturbed subsoil on a subsoil surface or place it on a barrier (i.e., container, mats or tarp/fabric) to prevent mixing with topsoil.
    b. Subsoil can be placed in the hole as long as there is 12 inches of topsoil at the top.
3. Remove the old structure
4. Back-fill the old holes with gravel. Leaving the top 24 inches for sub-soil and topsoil
5. Back-fill sub-soil over gravel
6. Cover with saved topsoil
7. If topsoil was not able to be saved (i.e. frozen conditions or lack of original topsoil), bring in additional topsoil (of equal or better quality) so that depth of topsoil in impact area matches surrounding conditions

Agricultural Areas (Organic)

Follow same procedure for conventional agricultural fields with the following additions:

1. When ordering gravel, specify the gravel is for an organic farm.
2. Imported topsoil must be from a certified organic location. If possible, source topsoil and other soil materials from the organic farm where it will be used.

Farmed Wetlands

Follow same procedure for conventional agricultural fields with the following exceptions:

1. All stockpiled soil should be placed on a barrier since farmed wetlands are jurisdictional wetlands.
2. Topsoil should not be imported without approval from the environmental monitor as imported topsoil can be considered wetland fill.