Vegetation Management Plan

PILOT KNOB TO BURNSVILLE 115-KV TRANSMISSION LINE REBUILD AND UPGRADE PROJECT IN DAKOTA COUNTY, MINNESOTA

MPUC DOCKET NO. ET2/TL-23-410

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Acronyms and Abbreviations

BMP	best management practice
BWSR	Minnesota Board of Soil and Water Resources
dbh	diameter at breast height
ERO	Electric Reliability Organization
General Permit	Construction Stormwater General Permit
FERC	Federal Energy Regulatory Commission
kV	kilovolt
MDA	Minnesota Department of Agriculture
MDNR	Minnesota Department of Natural Resources
MnDOT	Minnesota Department of Transportation
MPCA	Minnesota Pollution Control Agency
MPUC	Minnesota Public Utilities Commission
NERC	North American Electric Reliability Corporation
NPDES	National Pollutant Discharge Elimination System
NWIS	noxious weeds and invasive species
Plan	Vegetation Management Plan
PLS	Pure Live Seed
Project	Pilot Knob to Burnsville 115-kV Transmission Line Rebuild and Upgrade Project
ROW	right-of-way
SWPPP	Stormwater Pollution Prevention Plan
USFWS	United States Fish and Wildlife Service

1 PROJECT SUMMARY

On December 27, 2024, the Minnesota Public Utilities Commission (MPUC) issued Great River Energy a Route Permit for its Pilot Knob to Burnsville 115-kV Transmission Line Rebuild and Upgrade Project in Dakota County, Minnesota (Project) in Docket No. ET2/TL 23-410. The Project will replace the existing 69-kilovolt (kV) high voltage transmission lines connecting the Pilot Knob, Deerwood, River Hills, and Burnsville Substations with new transmission lines and structures capable of operating at 115 kV. The Project will generally follow the alignment of the existing 69-kV line, except for an alignment change around the intersection of Blackhawk Road and Interstate 35E.

2 PLAN OVERVIEW

Great River Energy has developed this Vegetation Management Plan (Plan) for the Project to address the Route Permit condition for the Project related to vegetation management.

The primary goal of this Plan is to construct the Project and maintain the Project right-of-way (ROW) in a manner that ensures a safe and reliable transmission line. In addition to the primary goal of ensuring a safe and reliable transmission line, this Plan addresses the following goals:

- Develop and maintain cooperative relationships with landowners along the ROW to accommodate reasonable requests and preferences related to ROW vegetation management.
- Comply with applicable requirements in federal, state, and local permits, licenses, and/or easements.
- Prevent the introduction and spread of noxious weeds and invasive species (NWIS) due to the Project.

This Plan reflects vegetation management practices which are consistent with applicable North American Electric Reliability Corporation (NERC) requirements, as well as requirements set by the MPUC. This Plan also incorporates, where applicable, the Minnesota Department of Commerce's Generic Vegetation Establishment and Management Plan Guidance.

3 SITE DESCRIPTION

3.a Existing conditions

The Project area consists largely of suburban residential and commercial land use patterns. Land cover along the Proposed Route is developed and urban. Elevations range from 860 to 1,090 feet with the lowest elevation located toward the northeast portion of the route and the highest elevation located toward the southwest portion of the route. The terrain is generally flat with gradual to rolling hills; steeper hills are located where the Project crosses interstate highway exchanges.

The majority of the Project's ROW is comprised of numerous privately owned suburban residential parcels, privately owned commercial properties, and road ROW that includes sidewalks and bike

lanes. The Project will cross the Highline Trail/Thomas Lake Park, Carnelian Park, and Terrace Oaks West.

The Project will be constructed in three phases. Each phase has one or more Minnesota Department of Transportation (MnDOT) crossings that will require their review and permitting. Permitting for each phase will occur just prior to construction of that phase. MnDOT staff will typically identify appropriate seed mixes for their properties during those permitting phases.

There are no Minnesota Department of Natural Resource (MDNR) lands, Sites of Biological Diversity, native plant communities, or calcareous fens impacted by the Project.

3.b Project components

3.b.i Transmission line ROW

The transmission line ROW is generally 35 feet either side of the transmission line centerline for a total width of 70 feet; in some locations, a right-of-way of 100 feet will be acquired depending on site-specific circumstances. Where the transmission line parallels roads, Great River Energy will typically seek approximately 40 feet of ROW from landowners. The landowner will be compensated for the ROW as part of the easement acquisition process. Minimal to no guying is anticipated for the Project; however, if guying becomes necessary, additional ROW will be acquired as necessary to incorporate the guy wires and stakes that are located outside of the ROW.

3.b.ii Temporary construction areas

Temporary construction workspaces typically include stringing equipment setup areas and equipment and material staging areas. Landowner easements are acquired for these stringing and staging areas. Great River Energy will seek existing disturbed lots or yards to use as equipment and material staging areas. Because the ROW is located parallel to public roads, the need for new or improved off-ROW access roads or approaches is anticipated to be limited.

4 MANAGEMENT OBJECTIVES

4.a Construct the Project and maintain the Project ROW in a manner that ensures a safe and reliable transmission line

Great River Energy's primary goal is to construct the Project and then operate and maintain the Project and its ROW in a manner that ensures a safe and reliable transmission line.

In response to widespread outages in the United States in the early 2000s, Congress enacted the Energy Policy Act of 2005, which authorized the Federal Energy Regulatory Commission (FERC) to certify an Electric Reliability Organization (ERO) to create mandatory, enforceable reliability standards; the standards are subject to FERC review and approval. FERC subsequently designated NERC as the ERO tasked with developing and enforcing standards to ensure the reliability of the transmission system in North America. NERC's standards are developed using a results-based approach that focuses on performance, risk management, and entity capabilities, and using an American National Standards Institute-accredited process that ensures the process is open to all

persons directly and materially affected by the reliability of the North American bulk power system.[1]

More specifically, NERC developed its Reliability Standard FAC-003-4 Transmission Vegetation Management and began enforcement of that standard in 2007. In recognition of the fact that failure to address vegetation requirements can cause major power outages and injury, NERC is authorized to assess regulatory penalties for non-compliance. This standard is updated from time to time and is reviewed and approved by FERC, just like other NERC reliability standards. NERC has determined that, "[m]ajor outages and operational problems have resulted from interference between overgrown vegetation and transmission lines located on many types of lands and ownership situations," and that adhere to standard requirements, "will reduce and manage this risk."[2] The purpose of the NERC standard is:

> *To maintain a reliable electric transmission system by using a defense- in-depth[-]strategy to manage vegetation located on transmission ROWs and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.* [3]

For transmission lines subject to NERC standards, compliance with these standards is required. And, even for transmission lines which are not subject to NERC standards, ensuring safe and reliable construction and operation is paramount. While the Project is not subject to NERC standards, it is Great River Energy's general practice to follow the standards for its 115-kV transmission lines. The purpose of this Plan is to meet the objective of a safe and reliable transmission line, consistent with applicable laws, permits, and other requirements, while also minimizing human and environmental impacts associated with vegetation management to the extent possible.

In sum, to ensure safe construction of the Project, Great River Energy will clear the ROW of woody vegetation in advance of construction. Additional detail regarding the ROW preparation and construction process is included in **Section 5**. After construction, Great River Energy will restore the ROW as discussed in **Section 9**. Thereafter, safe operation of the transmission line is the priority. Great River Energy will annually inspect the ROW for vegetation management purposes to ensure safe and reliable operations and will implement "wire/border zone" practices as discussed in more detail in **Section 12**.

Safety and reliability are Great River Energy corporate imperatives, and every Great River Energy employee and contractor is required to adhere to these imperatives. In the short term, i.e., during construction and restoration, the onsite project construction representative is primarily responsible for overseeing the work in a manner that follows them. Upon completion of the construction, these imperatives continue to apply for the life of the transmission line, and every employee and

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1 North American Electric Reliability Corporation (NERC). *Standards*. Available online at https://www.nerc.com/pa/Stand/Pages/default.aspx. Accessed September 2024.

2 NERC. *FAC-003-4 Transmission Vegetation Management*. Available at https://www.nerc.com/pa/Stand/Reliability%20Standards/FAC-003-4.pdf. Accessed September 2024.

3 Id.

contractor is again required to adhere to them. Great River Energy's supervising manager of the vegetation management department is specifically responsible for the vegetation management in our ROW in a manner that is supportive of these imperatives.

4.b Landowner Preferences

4.b.i Develop and maintain cooperative relationships with landowners along the ROW to accommodate reasonable requests and preferences related to ROW vegetation management

Great River Energy works cooperatively with landowners before, during, and after the construction process regarding easements, ROWs, structure locations, restoration, and maintenance (see **Sections 5.a**, **6, 8, 9, and 12**). This coordination and cooperation are in recognition of the fact that, in most locations under private ownership, Great River Energy has an easement for the Project – it does not own the property in fee simple – and, in large part, the landowners' use of their property, including the ROW, will continue after the Project is constructed and operational. The only land owned by Great River Energy is associated with its substations interconnected to the Project.

For example, land that is in agricultural production will likely return to agricultural production; similarly, landowners with mowed turf grass will typically want the ROW restored with turf grass that the landowner can mow, just like the rest of the parcel. In this way, a transmission line ROW is distinct from vegetation management for other types of energy infrastructure (for example, a solar farm where the project operator has exclusive control of the premises).

This Plan acknowledges that Great River Energy does not have exclusive access to the easement and that the landowner can and will continue to use the easement in a manner that does not interfere with the safe and reliable operation of the Project and is otherwise lawful. As such, this Plan reflects that Great River Energy will coordinate with landowners regarding restoration and maintenance, which means that restoration is likely to be consistent with pre-existing conditions and use, where practicable and consistent with safe and reliable transmission line operation (see **Section 4.a**). When coordinating with landowners regarding restoration and maintenance practices, Great River Energy will also discuss the use of native and/or pollinator vegetation with landowners, where desired and practicable.

Great River Energy's supervising manager of the vegetation management department is specifically responsible for vegetation management in our rights-of-way, including working with the landowner, for the life of the transmission line.

This Project has numerous residential parcels where some landowners have created and maintained the landscape. Others have simply relied on turf grasses and whatever trees or brushes naturally establish, including invasive species such as buckthorn. The landowners will have the ultimate say on what final seeding and landscaping will be done. In Great River Energy's experience, very few, if any landowners, are able to envision a future landscaping scenario for their property until after the ROW is cleared and the transmission line is installed. Accordingly, most seeding and landscaping plans cannot be developed until after construction activities are completed. Great River Energy is committed to working with each landowner to develop a seeding or landscaping plan consistent with our negotiated easements once construction is completed.

4.b.ii Comply with applicable requirements in federal, state, and local permits, licenses, and/or easements

In addition to the Route Permit, the Project is required to comply with other applicable federal, state, and local statutes, laws, permits, licenses, and/or easements. Where those statutes, laws, permits, licenses, or easements conflict with this Plan, they shall take precedent over this Plan to the extent they do not violate any other route permit condition. For example:

- **Road ROW permits:** Where the Project will impact road ROWs, Great River Energy will follow the vegetation management requirements and guidelines of the appropriate road authority. For example, the MnDOT has guidelines regarding seeding methods and mixes for its rights-of-way that are typically addressed when Great River Energy applies for its required permits.

- **Construction Stormwater General Permit:** As a requirement of the National Pollutant Discharge Elimination System (NPDES) permit program administered by the Minnesota Pollution Control Agency (MPCA), coverage under the Construction Stormwater General Permit (General Permit) is required if a construction activity[4] results in land disturbance equal to or greater than one acre. The General Permit also requires the preparation of a Stormwater Pollution Prevent Plan (SWPPP) that outlines the procedures that will be implemented to minimize erosion, and to mitigate sediment transport during and after construction activities. The SWPPP covers, among other things, temporary erosion and sediment controls best management practices (BMPs). Whether or not a Construction General Stormwater Permit is required for a project, Great River Energy commits to implementing stormwater management BMPs on all of its projects to avoid erosion and sedimentation.

- **State and Federal Protected Species Statutes and Laws:** Great River Energy will comply with Minnesota's Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) which prohibit take of threatened or endangered species without a permit. Great River Energy will also comply with the Federal Endangered Species Act which prevents take of federally listed species with concurrence from the United States Fish and Wildlife Service (USFWS) or a permit.

4.b.iii Prevent the introduction and spread of NWIS due to the Project

During all phases of Project activities, including clearing, construction, operation and maintenance, the Project will minimize the introduction and spread of NWIS along the ROW by

[4] "Construction Activity" means activities including clearing, grading, and excavating, that result in land disturbance of equal to or greater than one acre, including the disturbance of less than one acre of total land area. (Minn. R. 7090)

implementing BMPs that discourage the spread of identified species, and routine cleaning of equipment to remove dirt and plant debris. See **Section 7** below for further detail.

4.c Vegetative Cover

Great River Energy's goal is to establish sufficient permanent vegetative cover as expeditiously as possible after the Project construction activities are complete to minimize erosion potential. Consistent with the General Permit, stabilization will be achieved once disturbed soils have 70 percent permanent vegetative cover.[5] Where appropriate, Great River Energy will apply supplemental seed using BMPs as discussed further in **Sections 9 and 10**.

Native seed mixes can take two to three years to fully germinate depending on soil, site, weather conditions and the time of year that the seeds were installed. During the first year, native plants will grow to only about 1 to 3 inches tall. By the second year, some native grasses, sedges, and flowers may reach mature height, and some may flower, alongside many first-year native seedlings as well. Many of the native plants will mature and start flowering by the third year. Depending on the seed mix, other plants will not appear or mature for several years.

5 ROW PREPARATION AND CONSTRUCTION

5.a Landowner notification

Landowners will be notified prior to clearing activities, as required by applicable permit conditions (typically 14 days). Among other things, the notification letter will inform landowners:

- The ROW will be staked indicating the extent of clearing activities.
- Landowners can request to keep any of the timber and materials. Requested wood will be cut to no less than 10-foot segments. Requested whole trees, trunks, wood chips or mulch will be placed just outside of the ROW.
- All unwanted materials will be removed from the landowner's property.
- Herbicides to prevent regrowth of woody vegetation may be used, the method of application, and the opportunity for them request that no herbicides be used. See **Section 6**.

5.b Initial ROW clearing

The ROW will be surveyed and marked in advance of tree clearing to identify the extent of Project

[5] "Permanent Cover" means surface types that will prevent soil failure under erosive conditions. Examples include gravel, concrete, perennial cover, or other landscaped material that will permanently arrest soil erosion. Permittees must establish a uniform perennial vegetative cover (i.e., evenly distributed, without large bare areas) with a density of 70 percent of the vegetative cover native to local undisturbed areas on all areas not covered by permanent structures, or equivalent permanent stabilization measures. Permanent cover does not include temporary BMPs such as wood fiber blanket, mulch, and rolled erosion control products (Minnesota Rules 7090).

activities.

Staging and lay-down areas will be limited to previously disturbed areas where practicable and will avoid wetlands.

Vegetation clearing will be limited to the permanent ROW, temporary construction workspaces, danger trees off ROW, and off-ROW access.

BMPs will be used to minimize the spread of NWIS. See **Section 7**.

Where Project schedule allows and in compliance with applicable permits and authorizations, vegetation clearing will be conducted on firm or frozen ground to minimize rutting and soil erosion. If schedules or weather do not support firm ground, low ground pressure equipment will be used and/or construction mats will be installed to minimize erosion.

Mechanical equipment such as feller bunchers or brush cutters may be used for clearing. In areas where clearing with large equipment is not viable, clearing will be done with hand tools such as chain saws or other hand tools.

Vegetation within the ROW will be cut at or slightly above the ground surface. Any tree stumps or surface roots in managed turf grasses will be ground to slightly below grade and the hole backfilled with local soils and seeded with a similar turf grass mixture. Any stumps outside of managed turf grass areas will typically be cut or ground such that no more than 2 inches remain above grade. Great River Energy does not typically grub stumps or roots to minimize soil impacts and erosion potential.

Trees, trunks, and/or limbs cut on private property are typically cut to approximately 10-foot lengths unless the landowner requests longer lengths.

Trees (greater than or equal to 3 inches diameter at breast height [dbh] or greater than 20 feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands. The Project crosses only approximately 30 feet of a wetland along Pilot Knob Road / CR 31.

Brush within a wetland may be cut with a brush mower or similar device as long as the chips or mulch will not exceed one inch in depth. If sufficient brush is present such that debris will exceed 1-inch, sufficient brush will be hauled out for processing in an upland area.

All materials a landowner has requested to keep will be stacked outside the ROW. All materials a landowner does not wish to keep will be stacked inside the ROW for further processing and disposition.

Any materials a landowner does not wish to keep will be removed from their property. These unwanted materials may be offered to other landowners, offered for sale, placed in a composting site, or disposed of at landfill. The balance of materials will likely be disposed of at the St. Paul District Energy plant or another appropriate location.

5.c Erosion and sediment control BMPs

Erosion and sediment control methods and BMPs will be utilized to minimize runoff during line construction. Such BMPs may include, but are not limited to the installation of sediment barriers (silt fence, straw bales, bio-logs), filter socks, mulch, upslope diversions, slope breakers. As described in **Section 9**, exposed soils will also be revegetated as soon as possible to minimize erosion.

Work will comply with the SWPPP developed for the Project. The SWPPP will define BMPs for erosion and sedimentation prevention and mitigation. Excavating in steeply sloped areas will be avoided to the extent practicable. Due to entanglement issues with small animals, use of erosion control blanket shall be limited to "bio-netting" or "natural netting" types and specifically not products containing plastic mesh netting or other plastic components.[6]

After construction activities are complete, Great River Energy will continue to inspect the ROW where seeding and sediment and erosion control BMPs have been implemented and will follow up with reseeding measures where vegetative cover by the specified seed mix, or revegetation by the local, native seed source, is inadequate to provide final stabilization. Great River Energy will inspect the ROW until permanent cover is achieved.

5.d ROW preparation and construction at public water crossings

No MDNR Public Waters are crossed by the Project.

ROW clearing within no less than 30 feet of a non-MDNR jurisdictional stream or wetland will be conducted to protect all non-invasive vegetation. Brush species will be left across a majority of the ROW, except brush in the wire zone (see **Section 12.c**) will be removed to facilitate ROW access. No trees that could grow to over 15 feet tall are allowed in the ROW.

6 HERBICIDES

Landowners, operators of organic farms on adjacent parcels, and bee apiary operators within 3 miles will be notified 14 days in advance if herbicides will be used on the ROW. There are seven registered apiaries within three miles of the Project.[7] The notice will indicate what herbicides will be used and the methods of application (e.g., broadcast, selective spot treatment, or basal treatment).

Unless a landowner has specified that no herbicides are to be used on their property, herbicides may be used to treat tree and brush stumps to prevent regrowth, and/or to control NWIS (see **Section 7**). If organic farming is being practiced on adjacent property, see **Section 8** for additional

[6] See MPCA Construction Stormwater Permit Section 7.4 "The U.S. Fish & Wildlife Service recommends using types of netting practices that are considered "wildlife friendly," including those that use natural fiber or 100 percent biodegradable materials and that use a loose weave with a non-welded, movable jointed netting. Products that are not wildlife friendly include square plastic netting that are degradable (e.g., photodegradable, UV-degradable, oxo-degradable), netting made from polypropylene, nylon, polyethylene, or polyester."

[7] Minnesota Department of Agriculture. No Date. Bee Check. Available online at: https://mn.beecheck.org/map. Accessed August 2024.

requirements.

Any weed control spraying will be in accordance with State of Minnesota regulations. Herbicides will be used in accordance with manufacturer's specifications and all applicable federal and state regulations.

Herbicides used within or near wetlands or waterbodies must be:

- designed for use in wet areas as designated by manufacturer's specifications and federal and state regulations, and
- be used in accordance with manufacturer's specifications as well as all applicable federal and state regulations.

Areas of high public exposure such as rivers, creeks, streams, and U.S. and state highways will be treated with a selective basal or backpack application. Approximately 30 to 300 feet on each side of the crossing shall be treated in this manner.

Herbicides will not be used on any state or federal lands without approval of the agency having authority over such land.

Great River Energy may use herbicides on land owned by Great River Energy (e.g., substation facilities). Great River Energy will work with adjacent landowners, if requested, on weed control activities.

7 NOXIOUS WEEDS & INVASIVE SPECIES

Terrestrial plant invasive and noxious species in Minnesota are regulated by the Minnesota Department of Agriculture (MDA).[8] The MDNR also manages terrestrial plant invasive and noxious species on public lands and at public waters. The MDNR maintains a geospatial dataset of terrestrial invasive and noxious species observations;[9] according to this dataset, known invasive and noxious species that are regulated and within the Project Area include buckthorn, Canada thistle, common tansy, honeysuckle, leafy spurge, plumeless thistle, spotted knapweed, wild parsnip,[10] and curly leaf pondweed.[11]

During all phases of Project activities including clearing, construction, operation and maintenance, Great River Energy will manage documented NWIS occurrences that are listed as "eradicate" or "control" under the "Prohibited Noxious Weed" category by the MDA located within the ROW and temporary construction workspaces. During construction and maintenance, Great River

[8] MDNR. 2023. *Invasive Species in Minnesota.* Available online at: https://www.dnr.state.mn.us/invasives/index.html. Accessed September 2023.

[9] Minnesota Geospatial Commons. 2023. *Terrestrial Invasive Species Observations.* Available online at: https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs. Accessed September 2023.

[10] Minnesota Geospatial Commons. 2023. *Terrestrial Invasive Species Observations*. Available online at: https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs. Accessed September 2023.

[11] Minnesota Geospatial Commons. 2023. *Terrestrial Invasive Species Observations*. Available online at: https://gisdata.mn.gov/dataset/env-invasive-terrestrial-obs. Accessed September 2023.

Energy will implement the following BMPs to prevent the spread of NWIS:

- Limiting grading and excavation to areas surrounding pole structure foundations, and only as needed along access roads and workspace areas for a level and safe working area.
- Equipment will be cleaned before it is used in Project ROW and temporary construction workspaces, between equipment use in a known infested area and a non-infested area, and prior to entering and exiting the Project ROW or temporary construction workspace. Cleaning will consist of scraping or blowing to remove visible dirt and weed debris from machinery and trailers, including tracks and wheels.
- Only weed-free materials (e.g., straw bales, bio-rolls, mulch) will be used in erosion control
- Equipment and clothing will be inspected for invasive materials.
- Collected invasive materials will be secured and disposed of at an offsite location to avoid dispersal.
- Minimally disturbed areas will be allowed to restore naturally.
- All disturbed areas will be revegetated using seed mixes labelled "Noxious Weeds; None Found" in accordance with regulations and will utilize yellow tag seed when available.
- Compliance with the General Permit, including stabilization requirements, and inspection, maintenance and repair of erosion and sediment control BMPs. Certified weed-free straw or weed-free hay will be used for erosion and sediment control BMPs.
- Major infestation areas may be treated with the recommended herbicides (if approved by the landowner) or by mechanical methods such as mowing or burning. The contractor will be required to obtain the necessary permits and/or certifications for the use of applicable herbicides.

It is important to note that there may be NWIS already existing on private parcels along the ROW. While this does not preclude Great River Energy from the responsibility of managing the spread of NWIS to the greatest extent possible, this ability may be limited by pre-existing conditions. For example, an NWIS infestation adjacent to the ROW may result in NWIS also spreading into the ROW; however, Great River Energy does not have the authority to treat NWIS outside of its ROW. Where land outside of the ROW contains significant amounts of NWIS clearly visible from the ROW, Great River Energy and its contractors will attempt to notify landowners about them and control options they may want to consider.

As discussed in **Section 5.c**, Great River Energy will continue to inspect the ROW where seeding

and sediment and erosion control BMPs have been implemented and will follow up with reseeding measures where vegetative cover by the specified seed mix, or revegetation by the local, native seed source, is inadequate to provide final stabilization. Great River Energy will inspect the ROW until permanent cover is achieved. Revegetation in non-agricultural areas will be considered successful when the cover of acceptable vegetation is dominant and non-NWIS species density is less than or similar to surrounding lands that have not been affected by the Project. If monitoring indicates a higher density of NWIS, the Project will take appropriate measures to control NWIS. See also **Section 4.c.**

8 ORGANIC FARMS

There are no known or registered organic farms within or adjacent to the Project ROW according to the MDA[12] or the United States Department of Agriculture Organic Integrity Database.[13] However, if Great River Energy encounters a farm that is working toward certification or a landowner considers its farm to be organic, even if they are not certified, Great River Energy will work with the landowner to minimize impacts. Special practices would be adhered to within and adjacent to these organic agricultural lands.

If Great River Energy became aware of an existing or developing, unregistered organic farm within or adjacent to the ROW, Great River Energy would work with the organic farmer to develop acceptable maintenance practices potentially including:

- Working with the landowner to identify site-specific maintenance and/or construction practices that would minimize the potential for decertification; once these are developed, the specific measures would be followed. Possible practices may include:
    - Equipment cleaning
    - Planting a deep-rooted cover crop in lieu of mechanical decompaction
    - Application of composted manure or rock phosphate
    - Restricting the use of tobacco use (cigarettes and smokeless) to prevent the introduction of disease vectors
    - Restoration and replacement of beneficial bird and insect habitat
    - Maintenance of organic buffer zones

[12] Minnesota Department of Agriculture. 2024. *Organic Farm Directory by County*. Available online at: https://www.mda.state.mn.us/organic-farm-directory-county.

[13] U.S. Department of Agriculture. 2023. *Organic Integrity Database*. Available online at: https://organic.ams.usda.gov/integrity/.

- Use of organic seeds for any cover crop

- Prohibited substances would not be applied onto organic agricultural land. No herbicides, pesticides, fertilizers or seed would be applied unless requested and approved by the landowner.

- No refueling, fuel or lubricant storage or routine equipment would be allowed on organic agricultural land. If these prohibited substances are used on land adjacent to organic agricultural land, they would be used in such a way to prevent them from entering the organic agricultural land.

- Topsoil and subsoil layers that are removed during work on these lands for temporary road impacts would be stored separately and replaced in the proper sequence after work is complete.

- Erosion control methods on organic agricultural land would be consistent with the Organic System Plan to the extent feasible. Adjacent to these lands, erosion control procedures would be designed so sediment from non-organic land would not flow into the organic agricultural lands.

- Weed control methods would be consistent with the Organic System Plan to the extent feasible.

9 RESTORATION

9.a Overview of restoration process

Once construction ceases, the ROW will be inspected to identify areas impacted by Project activities. Typical impacts might include rutting, soil compaction, soil exposure, and damage to native vegetation, all to varying degrees. Areas of minimal disturbance (e.g., where erosion is limited to disperse areas and surrounding existing vegetation provides control of sediments, existing vegetation is matted down due to vehicle traffic, areas where drilling spoils are raked into existing vegetation), which will be identified at the time of restoration, will be allowed to regenerate naturally.

All conditions as specified in the local, state, and federal permits and private landowner agreements for final restoration and cleanup will be met. Revegetation and restoration of disturbed areas associated with Project activities are intended to protect wetland and water resources from issues associated with sedimentation, to protect wildlife habitat, and reduce the movement of NWIS species within the ROW.

Restoration work will be coordinated with each individual landowner by the restoration contractor and/or Great River Energy's land agent. Finally, each landowner will be mailed a letter asking if they have any outstanding restoration concerns.

Restoration activities may, as needed, include:

- Collecting and disposal of all work-related debris and trash.
- Discing or grading to repair rutting.
- Regrading areas disturbed by construction or clearing to reflect pre-construction conditions.
- Applying temporary seed and temporary stabilization to minimize erosion potential to the extent practicable.
- Permanent seeding non-agricultural areas disturbed by transmission line construction and installing temporary stabilization to prevent erosion.
- Unless timber, slash or chips have been requested by the landowner, all residual vegetation materials will be removed and properly disposed of off-site. Great River Energy may request a burning permit from state or local jurisdictions to burn residuals.
- Trees (greater than or equal to 3 inches dbh or greater than 20 feet tall) cut from a wetland will be moved outside of the wetland. If the materials will be chipped or shredded, that work will be completed outside of wetlands.
- Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed one inch in depth and the work will not cause rutting or compaction in the wetland. If sufficient brush is present such that debris will exceed 1 inch, sufficient brush will be hauled out for processing in an upland area.
- In accordance with easements, Great River Energy's land agent will work with any farmers to repair any damages to cropped fields through discing or planting of deep- rooted crops, and compensate them for any crop damage, consistent with the requirements of Great River Energy's easements (which generally require that landowners receive compensation for construction-related crop damages) and any related landowner agreements.
- Temporary access routes, if any, may be left intact with landowner agreement unless otherwise restricted by federal, state, or local regulations. If a temporary access road is to be removed, the land will be returned to its previous use and restored to pre-construction conditions to the extent practicable unless the landowner requests differently.
- Within wetlands, all construction matting will be removed and vegetation will be allowed to regenerate naturally.

9.b Temporary restoration

Temporary cover and/or seeding may be used as a quick means to minimize soil erosion and reducing the potential for the establishment of NWIS. Temporary seed mixes are considered a cover crop and are made up of annual grasses, have rapid germination, and provide quick ground cover. These seed mixes are not intended to provide multi-year cover. Unless specifically requested by landowners or regulatory agencies, the Project will not establish temporary vegetation on cultivated land or in areas of open water.

Temporary restoration activities will include the repair of rutted surfaces and an even broadcast-seeding of the temporary cover-crop seed mix at the recommended rate for that particular seed mix (see **Table 10-1**). Temporary vegetation establishment may be expected to be successful between April 1 and September 30. Establishment of temporary vegetation is unlikely to be successful outside of this time window. Temporary use of mulch to stabilize soils may be applied outside of the April 1 through September 30 window.

Straw or wood chip mulch may be used to help stabilize areas of bare soils during the establishment of temporary vegetation or during the period between October 1 and April 1 (winter), except that mulch in wetland areas cannot exceed one inch thick. The contractor will apply mulch during the establishment of temporary vegetation as requested by the landowner or specified in licenses or permits. Wood chip mulch free of soil material and derived from on-site sources, may be used to protect areas where bare soils have been exposed due to tree clearing and construction activities. In winter situations, wood chips may be used to provide protection for bare soils exposed due to Project activities if out of season seeding is not applicable. Wood chip mulch derived from on-site locations may be spread up to 6 inches deep in upland areas to provide ground protection along access paths. Straw mulch may be used outside of the seeding window as a temporary erosion control measure, followed by temporary or permanent seeding at the earliest possible time consisting with specific seed mixes in **Section 10.**

9.c Permanent restoration.

Allowing for and encouraging native species to naturally re-establish temporarily disturbed area is a primary BMP for this Project. Appropriate vegetative cover of the ROW will be required along the entire length of the Project. In most cases, natural revegetation by early successional species following tree clearing and construction is expected to occur. In areas where native species revegetate the corridor, active restoration may not be required.

Permanent seed mixes for the Project include native seed varieties commonly found and/or available from local seed distributors. The permanent seed mixes are designed to augment the natural colonization of bare ground by local, native seed sources.

Great River Energy will consider the inclusion of pollinator species based on availability of local genotypes, appropriateness for the location/site, and landowner preference. For example, even if a site would otherwise support pollinator habitat, if the landowner intends to instead plant and maintain turf grass, the parcel would be restored in accordance with the landowner's preference. Similarly, if a parcel is in agricultural production, depending on the timing of restoration, a cover crop may be planted to minimize erosion in the short-term, but pollinator or native species would

not be planted in recognition of the fact that the parcel will return to agricultural production.

In wetlands, the preferred method for revegetation of disturbed areas is reliance on revegetation by resident plant communities. Great River Energy, in consultation with the appropriate regulatory agencies, will determine whether disturbed areas will require the use of the temporary cover crop only, or seeding with a wetland-specific mix. In areas where the wetland plant community is dominated by native species with rhizomatous root systems that will likely recolonize areas of limited disturbance, bare soils will be broadcast-seeded with the seasonally appropriate temporary cover-crop seed mix. Large bare soil disturbance areas are defined as greater than 50 square feet of exposed soils that is greater than 2 feet wide. These areas are large enough to preclude revegetation from the local, native seed source. Large bare soil areas will be seeded using wetland seed mix.

Potential seed mixes are identified in **Section 10.b,** below.

10 SEEDING.

10.a Preparation.

Seedbed preparation and seeding are to occur following completion of construction activities and site cleanup in any given location and consistent with seasonal conditions (e.g., snow cover or frozen ground may preclude effective grading and seeding). Where construction activities have resulted in erosion or rutting, surface grade will be restored prior to seeding.

In order to minimize ground disturbance along the entire corridor, forested areas are being cleared, but roots and stumps are being left in place. Within areas of cleared forest, it may not be practical to access large areas of ground with seeding and seedbed preparation equipment. In these areas, smaller vehicles may be required to perform tasks such as smoothing ruts, preparing seedbeds with small rakes, and surface packing after seeding. Fertilizers and other soil amendments are not recommended and will only be applied as requested by and agreed to in ROW negotiations with individual landowners.

10.b Seed mixes.

Great River Energy will strive to use seed mixes which are native to Minnesota. The following restoration areas and vegetation types are present in and adjacent to the ROW:

- Residential turf grasses
- Wooded and shrubbed areas
- Road ROW

Seed mixes are based on regionally appropriate state seed mixes that are recommended by the

Minnesota Board of Soil and Water Resources (BWSR) [14] and the MnDOT. [15] The mixes are listed in **Table 10-1** and are reflective of the Project location within existing transmission line ROW that parallels or shares road ROWs for the entirety of the route in an urban and residential area. **Attachment A** includes maps of seeding locations for the proposed Project seed mixes based on the site conditions; the Contractor may modify which seed mixes are used at specific locations based on conditions at the time of restoration. Great River Energy will work with landowners to identify the preferred seed mixes to be used on exposed soils on their property. Those seed mixes that meet pollinator habitat requirements are identified in Table 10-1.

The identified seed mixes are examples of suitable mixes for each site and replacements are likely to be needed based on availability at the time of construction. Seed mixes were not selected for wetland areas because it is expected that these areas would regenerate naturally. If re-seeding is required in wetlands, those wetlands will be individually assessed to determine the appropriate seed mix.

Table 10-1

Proposed Project Seed Mixes

Seeding Area	Seed Mix Name (State Seed Code)	Purpose	Rate (Pure Live Seed)
General	Cover Crop: Winter Wheat (WW) or Oats (O)	Short term stabilization for spring and summer (O) and fall (WW)	100 lbs/ac.
Small areas (less than one acre)	Patch Mix (PM)	Reseeding small areas (<1acre) due to disturbance, maintenance, utility work, etc. Also for 2-5 year soil stabilization.	30 lbs/ac.
Commercial Areas	Southern Boulevard (SB)	Boulevards and other urban roadsides where low-maintenance and salt-tolerant turfgrass is needed.	160 lbs/ac.
Private turf	Residential Turfgrass (RT) or sod	Boulevards and other urban roadsides where low-maintenance.	200 lbs/ac.
Mesic General Roadside	Mesic Inslope (MI)	Inslopes within 15 feet of shoulder and medians ≤55 feet wide; roads with <30,000 cars per day	65 lbs/ac.
Mesic General Roadside	High-traffic Inslope (MTI)	Inslopes within 15 feet of shoulder and medians ≤55 feet wide; roads with ≥30,000 cars per day.	60 lbs/ac.
Sandy General Roadside	Sandy Inslope (SI)	Inslopes within 15 feet of shoulder and medians ≤55 feet wide; areas with sandy soils.	65 lbs/ac.
Wet Roadside Ditches	Wet Ditch (WD)	Wet ditches and some stormwater plantings; sites with wet soils mowed once per year or less. Meets pollinator habitat requirements.	20 lbs/ac.

[14] BWSR. Undated. Seed Mixes. Available online at: https://bwsr.state.mn.us/seed-mixes. Accessed September 2024.

[15] MnDOT, 2024. Guide to the New 2024 MnDOT Seed Mixes. Available online at: https://dot.state.mn.us/environment/erosion/vegetation.html. Accessed September 2024.

Table 10-1 **Proposed Project Seed Mixes**			
Seeding Area	Seed Mix Name (State Seed Code)	Purpose	Rate (Pure Live Seed)
Upland Roadside Native Vegetation	Southern Shortgrass Roadside (SSR)	Inslopes and medians when native vegetation is required; sites with dry soils mowed twice per year or less. Meets pollinator habitat requirements.	26 lbs/ac.
Mesic Roadside Native Vegetation	Southern Tallgrass Roadside (STR)	Backslopes and dry ditch bottoms; sites with moderate moisture mowed once per year or less. Meets pollinator habitat requirements.	26 lbs/ac.

10.c Seeding methods

Broadcast seeding may be used at all disturbed areas where exposed soil is created. Seed is to be uniformly distributed by a mechanical, hand-operated seeder, or in small seeding areas, by hand. Following seeding, the surface will be raked with a cultipacker, harrow, or hand rake. The bed will be firmed as appropriate to site conditions.

Hydroseeding without any plastic materials may be used at all disturbed upland areas where exposed soil is created. Hydroseeding is not approved in wetland locations. Seed will be applied in a broadcast, hydromulch slurry. The hydromulch seed mix will allow the contractor to see where application has taken place, ensuring uniform coverage of the seeding area. The hydroseeder must provide for continuous agitation of slurry and provide for a uniform flow of slurry. Hydroseed slurry is not to be held in the tank for more than one hour prior to application.

Seed drilling may be used in areas where stumps have been removed and a prepared seed bed can be created. However, these areas are expected to be infrequent and may not occur on the Project. Drilled seed will be sown at a depth of 0.25 inches. Seeding equipment will be able to accommodate and uniformly distribute different sizes of seed at the required depth. Feeding mechanisms will be able to evenly distribute different seed types at the rates specified. Seedbed soil is to be suitably firmed immediately following seed drilling.

The appropriate seeding rate will be used for the specified method based on the mixture tabulation for the specified mix and will be based on Pure Live Seed (PLS) weight (not bulk weight).

10.d Timing

Seeding periods for application of the permanent seed mixes are most successful in the spring or fall. Spring plantings will be completed between April 1 and June 30 or when soil temperatures are at least 60 degrees Fahrenheit or higher. Fall seedings will occur when soil temperatures have fallen below 50 degrees Fahrenheit for a consistent period of time, usually around November 1. Frost seedings may also occur if the snow cover is shallow, ice-free and winds are calm. The seed rates may be increased by 25-50 percent for frost seedings. Outside of these time windows, the cover crop seed mixes will be applied according to temporary cover crop seed mix specifications,

as shown above in **Section 10.b**.

11 MONITORING

After construction, the Permittee will continue to inspect areas where seeding and temporary erosion and sediment control BMPs are in place in accordance with the General Permit. Great River Energy will implement corrective actions where low germination or establishment, and/or high NWIS competition is identified. Great River Energy will continue to inspect the ROW until permanent cover is established in accordance with the General Permit. The Project ROW will be monitored for up to three growing seasons unless permanent cover is achieved sooner.

12 OPERATION AND MAINTENANCE

12.a Routine inspections

Great River Energy will conduct aerial and/or ground visual inspections of the ROW every year to ensure a safe and reliable corridor and to ensure access for maintenance activities or emergencies. Maintenance work will be based on the findings of those inspections.

12.b Routine maintenance

Great River Energy will periodically clear vegetation from the existing ROW to maintain a safe and apparent corridor, and to allow access for maintenance activities or emergencies. The clearing will be done consistent with wire/border zone practices (see **Section 12.c** for more detail on wire/border zone). Clearing typically includes brushing equipment traveling down the ROW, which may consist of tracked or rubber-tired equipment to cut brush and trees, hand-held saws, or other manual methods. Small cuttings will be left in place and non-merchantable timber or slash will be disposed of where it originates, hauled off-site, or chipped and evenly spread on the ROW. If burning is proposed, Great River Energy will consult with landowners, as well as applicable authorities to obtain necessary authorization or permits.

Project-specific maintenance techniques and mitigation measures include:

- If the surface is unstable such that rutting, soil compaction, or soil mixing may occur, low ground-pressure equipment will be used or maintenance equipment will be operated from construction mats that will be removed upon completion of the work.

- Steep slopes and slopes leading to waterbodies will be cleared by hand, leaving adequate herbaceous or low shrub cover to avoid erosion. Trees and shrubs will not be grubbed; all roots will be left intact.

- Vegetation management requirements stipulated in federal, state, or local licenses or permits will be followed.

- Temporary work areas (such as staging areas and additional spoil storage areas) will be located outside of wetland boundaries, where topographic

conditions permit. If topographic conditions do not permit, an alternate location or matting will be used to minimize impacts, and Great River Energy will obtain the required permit or authorization.

Due to the typically unstable nature of soils in wetlands, and to preserve wetland hydrology and function, special practices are necessary for some operations and maintenance activities as follows:

- Heavy equipment passage through wetlands will be limited to only when necessary to complete the operations and maintenance activity.
- Great River Energy will attempt to complete maintenance clearing during frozen conditions. When frozen conditions are not practicable, maintenance will be done using low ground pressure equipment, on temporary construction mats, or with hand tools.
- Brush within a wetland may be cut with a brush mower or similar device as long as the chips/mulch will not exceed 1 inch in depth. If sufficient brush is present such that debris will exceed 1-inch, sufficient brush will be hauled out for processing in an upland area.
- Wetlands generally revegetate naturally. If no standing water is present, Great River Energy will seed with the appropriate seed mix from **Table 10-1** or as specified by the applicable permit or authorization (see **Section 10.b**). No fertilizer or lime will be applied in wetlands.

12.c Wire/border zone

Great River Energy uses the wire/border zone methodology in maintaining the ROW. The wire zone, or clear zone, is generally defined as the area that extends 15 feet outside of the area directly below the outermost conductors of the transmission line[16] (see **Figure 12-1**). For example, where conductors are located on both sides of a structure, the horizontal distance between 115-kV conductors is approximately 15 feet, which would result in a wire zone width of 45 feet. Narrower total widths might be viable if the conductors are located only on one side of the structure depending on terrain conditions and equipment accessibility. Great River Energy encourages all landowners to contact Great River Energy regarding any plans to plant or construct within the ROW.[17]

The border zone extends from the edge of the wire zone to the edge of the easement ROW.

The wire zone is maintained free of any vegetation that would inhibit Great River Energy from accessing the ROW with its equipment or limit its ability to use equipment, such as bucket trucks,

[16] In areas where sloped, rocky, or other complex terrain characteristics limit equipment access on one side of the transmission centerline or where the transmission line angles, the wire zone may need to be extended further out than 15 feet on one side of the transmission centerline.

[17] Great River Energy. 2024. *Power line projects FAQs: Easements and rights of way.* Available online at: https://greatriverenergy.com/transmission-and-delivery/power-line-project- faqs/easements-and-rights-of-way/.

to maintain or quickly repair the transmission line. No trees or shrubs are allowed to establish within the wire zone. Stumps or roots that could impede equipment travel will be removed by cutting or grinding them at or slightly below the surface.

Within the border zone, landowners may plant lower growing tree species or shrubs if the species does not exceed a height as depicted in **Figure 12-1** unless other ROW conditions prevent vehicle access. Trees that lie outside of the easement but have branches and/or foliage that lie within the border zone, as depicted in **Figure 12-1**, may be pruned or removed. In the border zone, allowed woody vegetation can have increasing heights moving away from the wire zone up to a maximum mature height of 15 feet. Again, Great River Energy encourages landowners to contact Great River Energy regarding any planting within the ROW.

Danger trees are designated by a certified arborist and are typically any tree that is leaning, damaged, having poor root structure, or showing signs of internal decay such that Great River Energy's ROW inspectors believe all or portions of the tree may fall into the transmission line. Great River Energy's easements authorize the removal of danger trees outside of the ROW. Danger tree removal is a critical aspect of ensuring transmission line reliability and fire prevention.

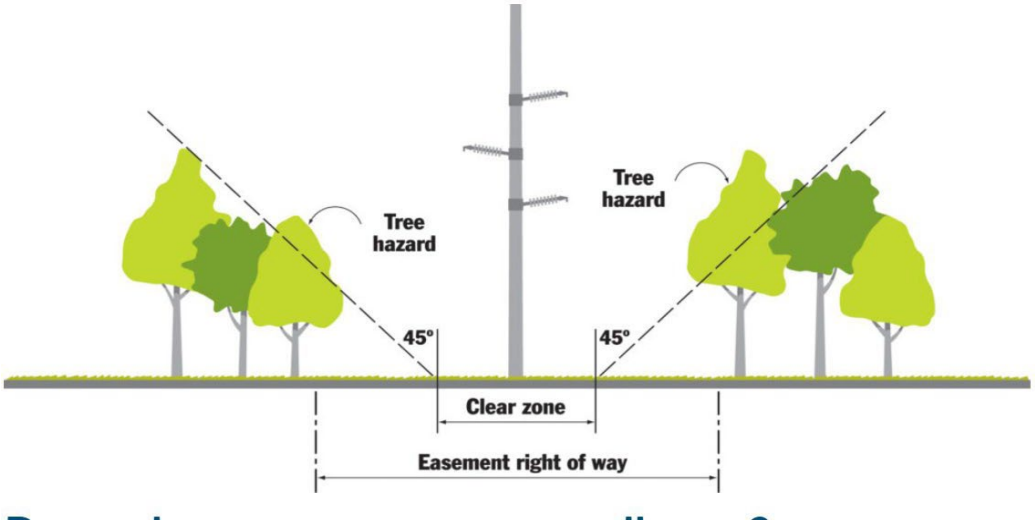


Figure 12-1 **Wire/Border Zone**[18]

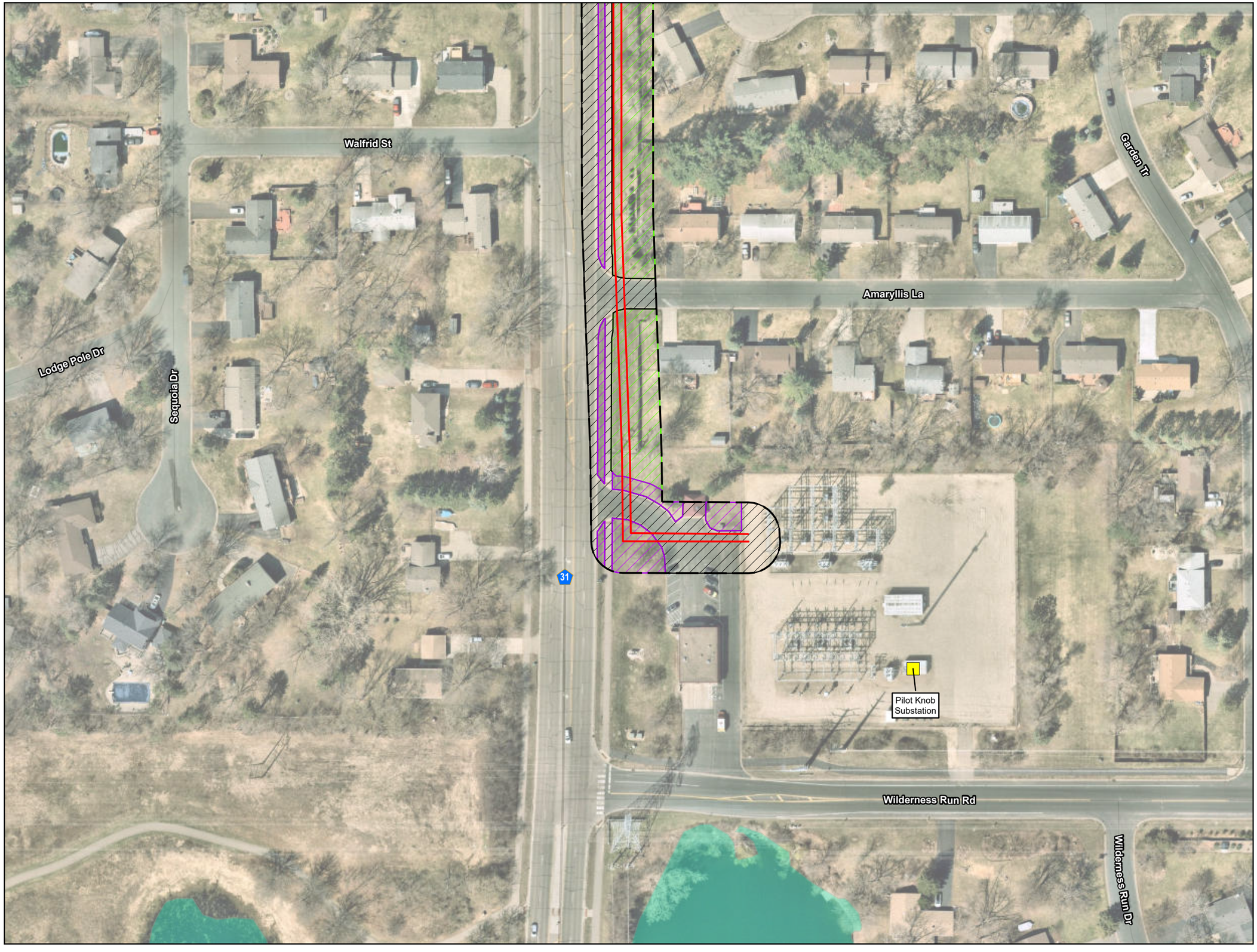
12.d Emergencies

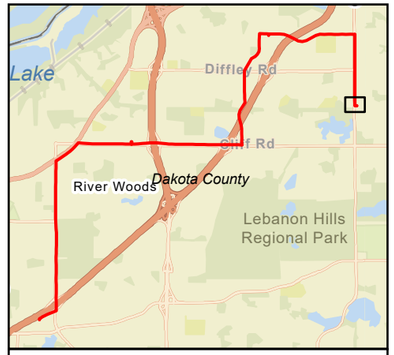
It may be necessary for Great River Energy to cut, trim, or remove vegetations due to damage caused by weather events or accidents. Such work is typically done to facilitate restoring services on the line. Staff will attempt to notify the landowner prior to entering the property.

[18] Not to scale.

ATTACHMENT A

SEEDING MAPS





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- Existing Substation
- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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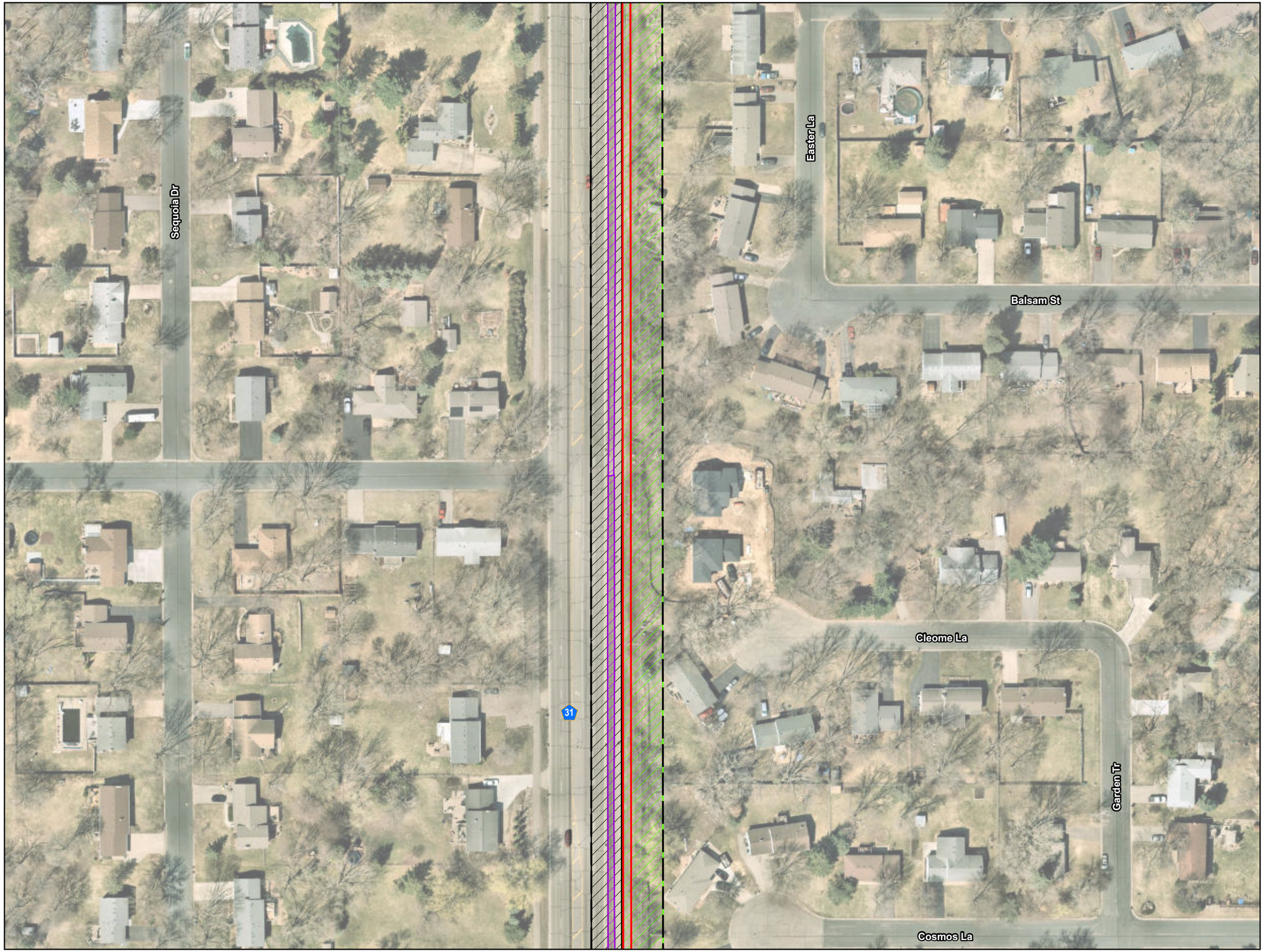
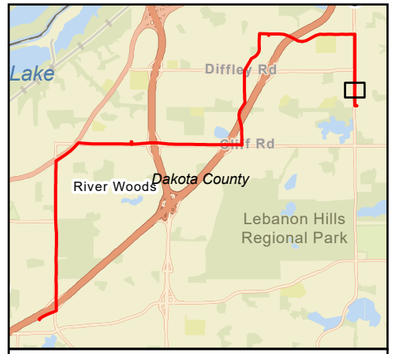
Source: 11/14/2024





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Private Turf

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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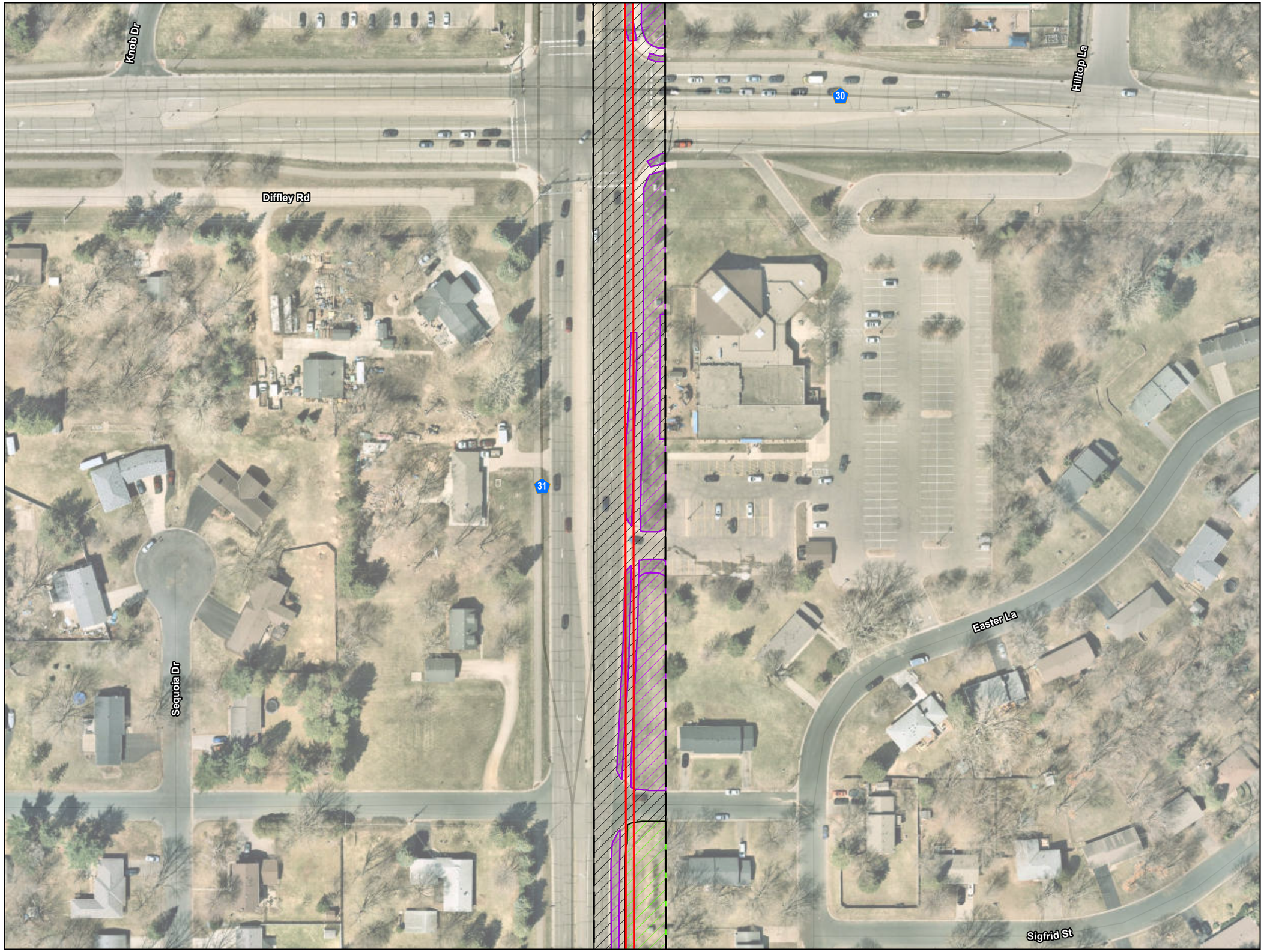

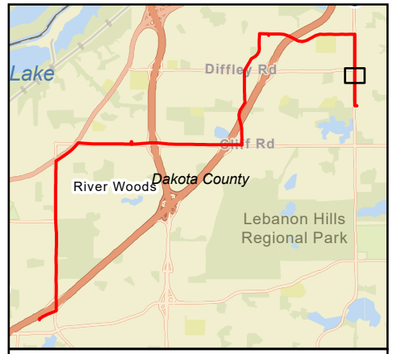

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Private Turf

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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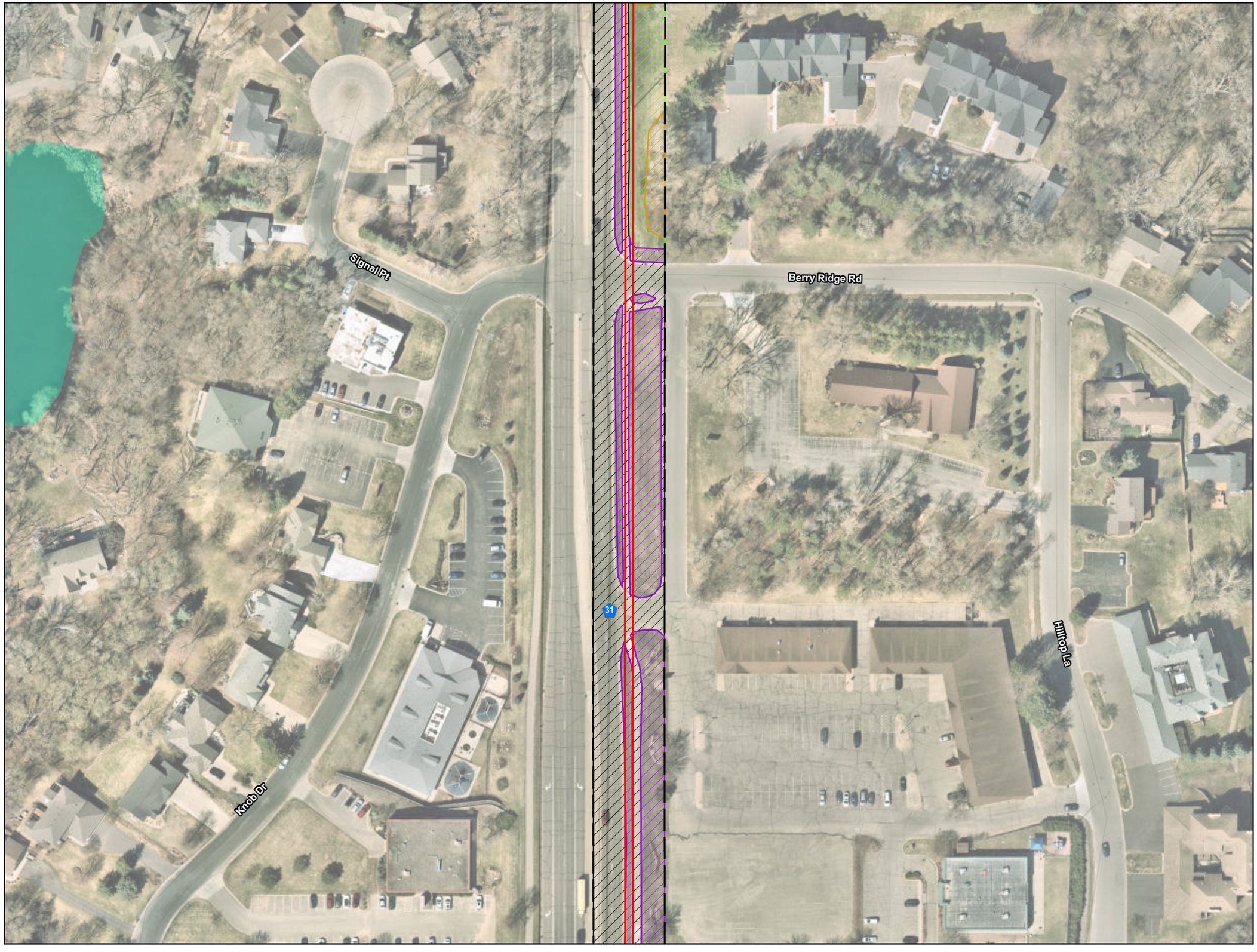

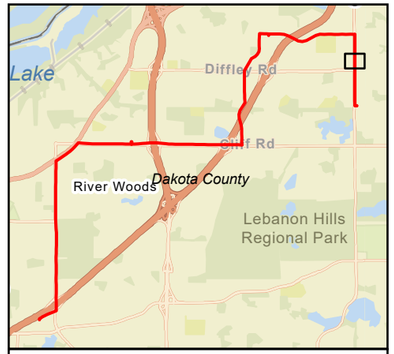

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
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- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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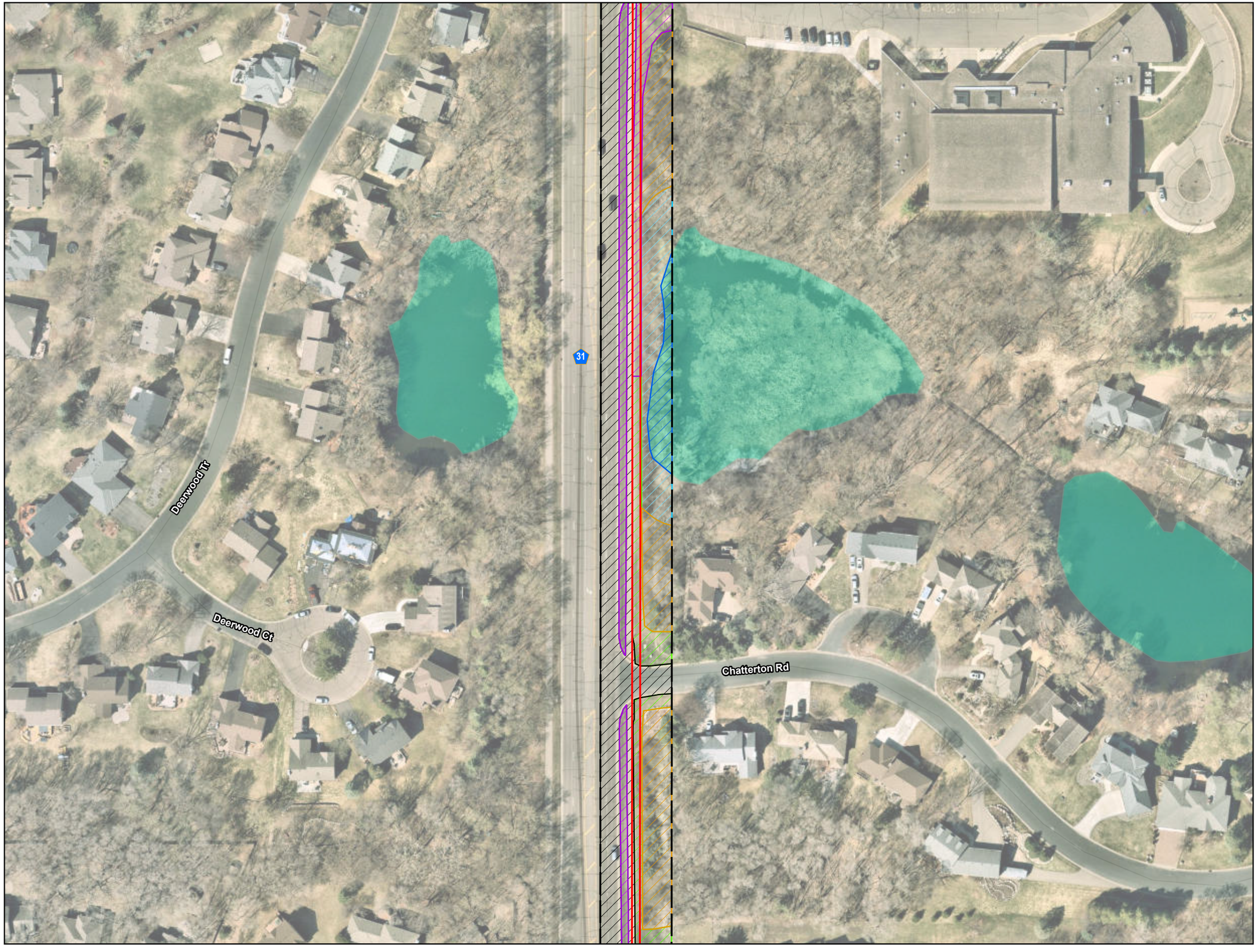

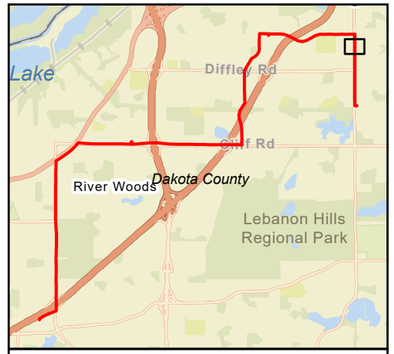

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding
- Wet Roadside Ditches
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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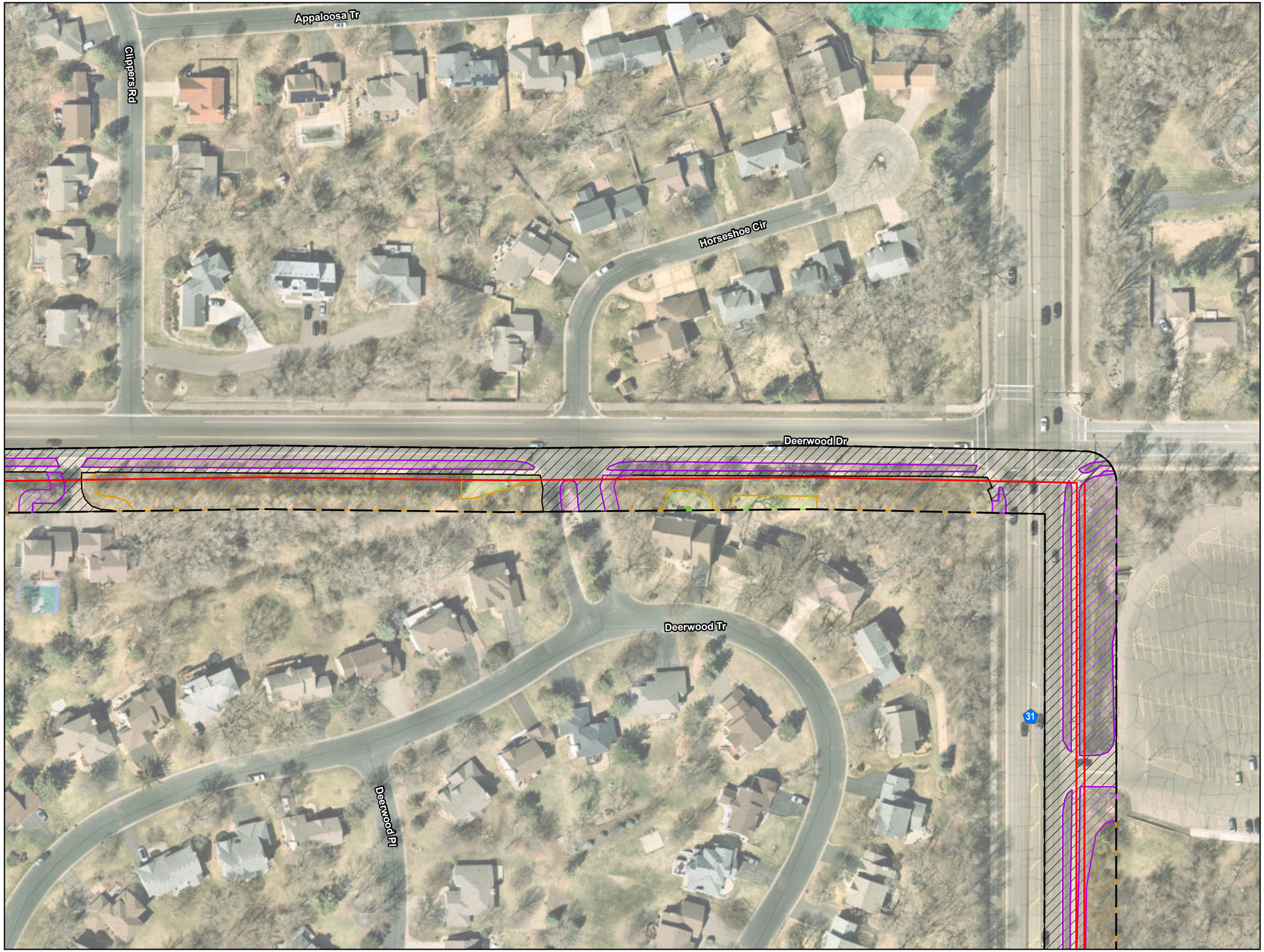

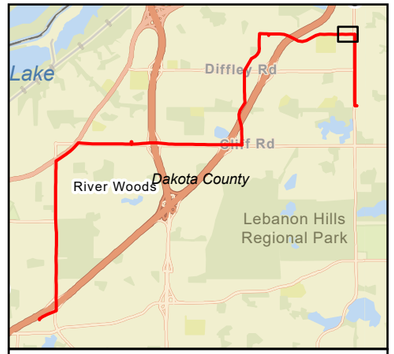

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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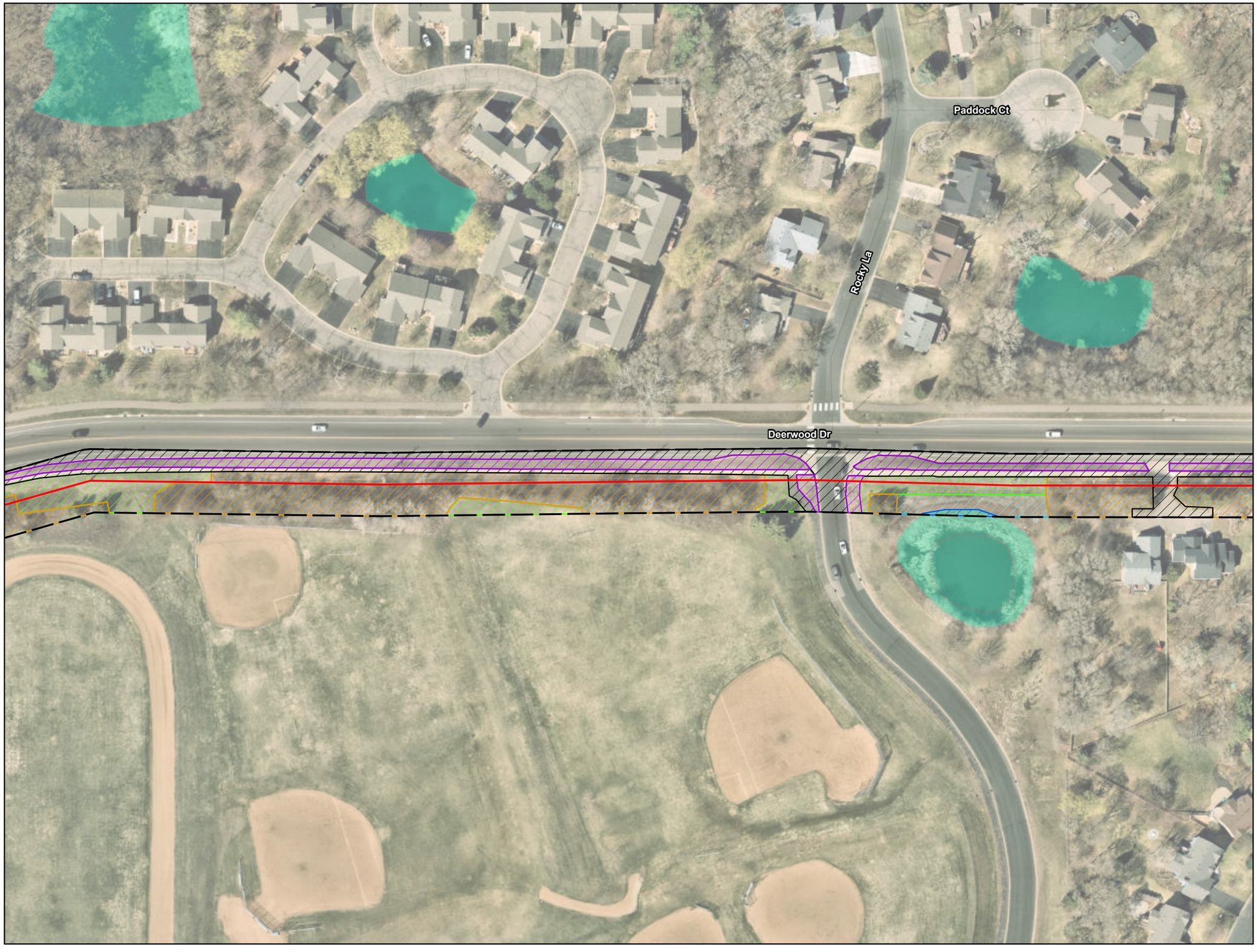

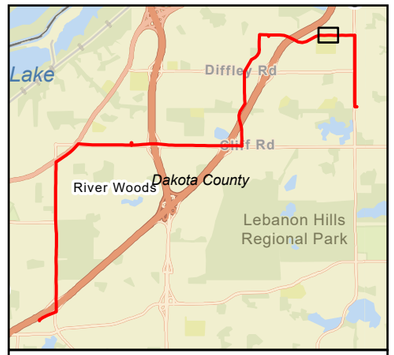

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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding
- Wet Roadside Ditches
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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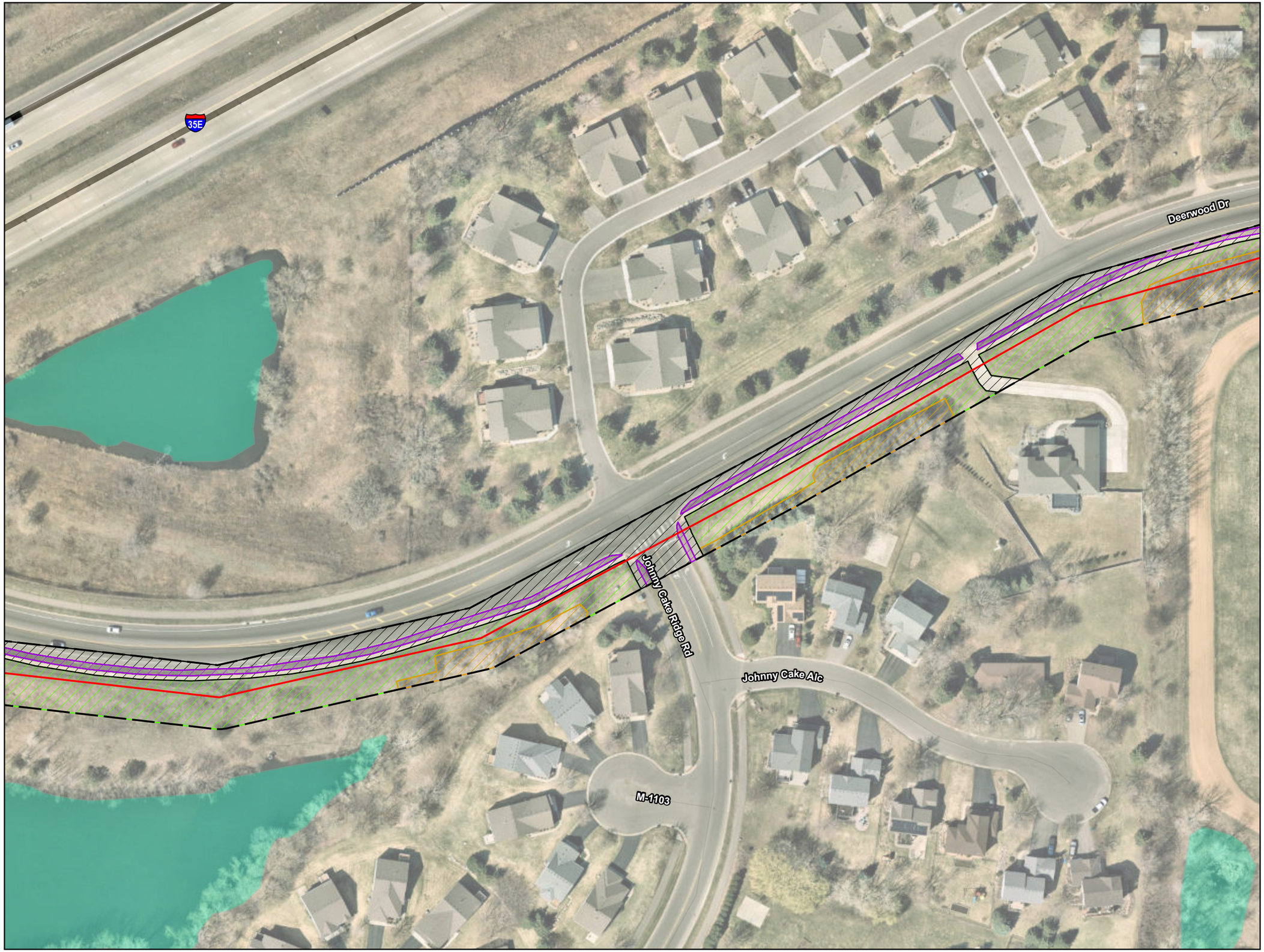

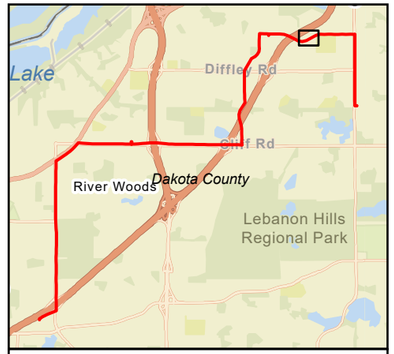

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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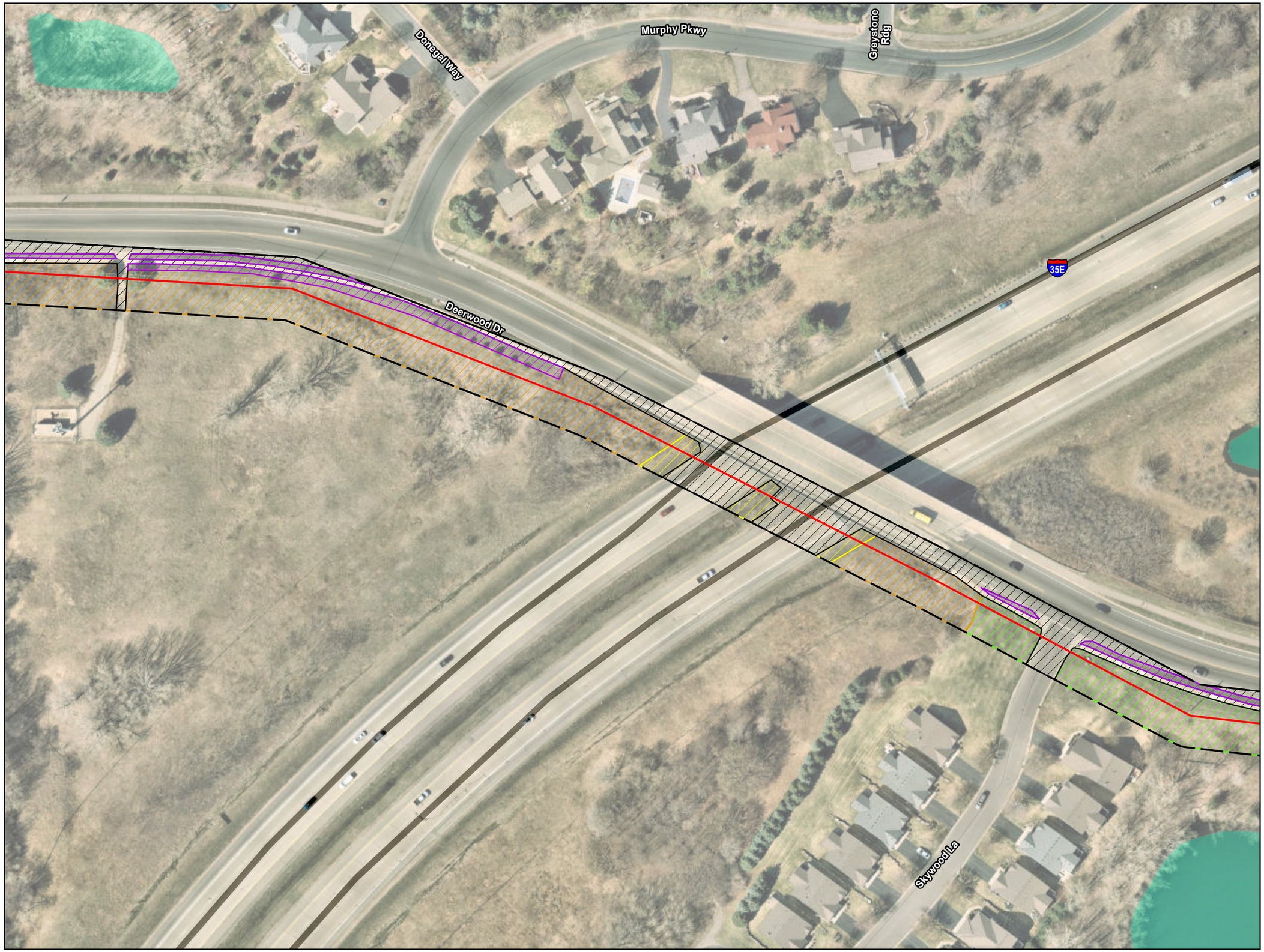

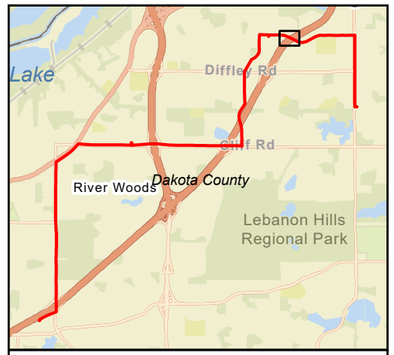

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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic General Roadside
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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For Environmental Review Purposes Only

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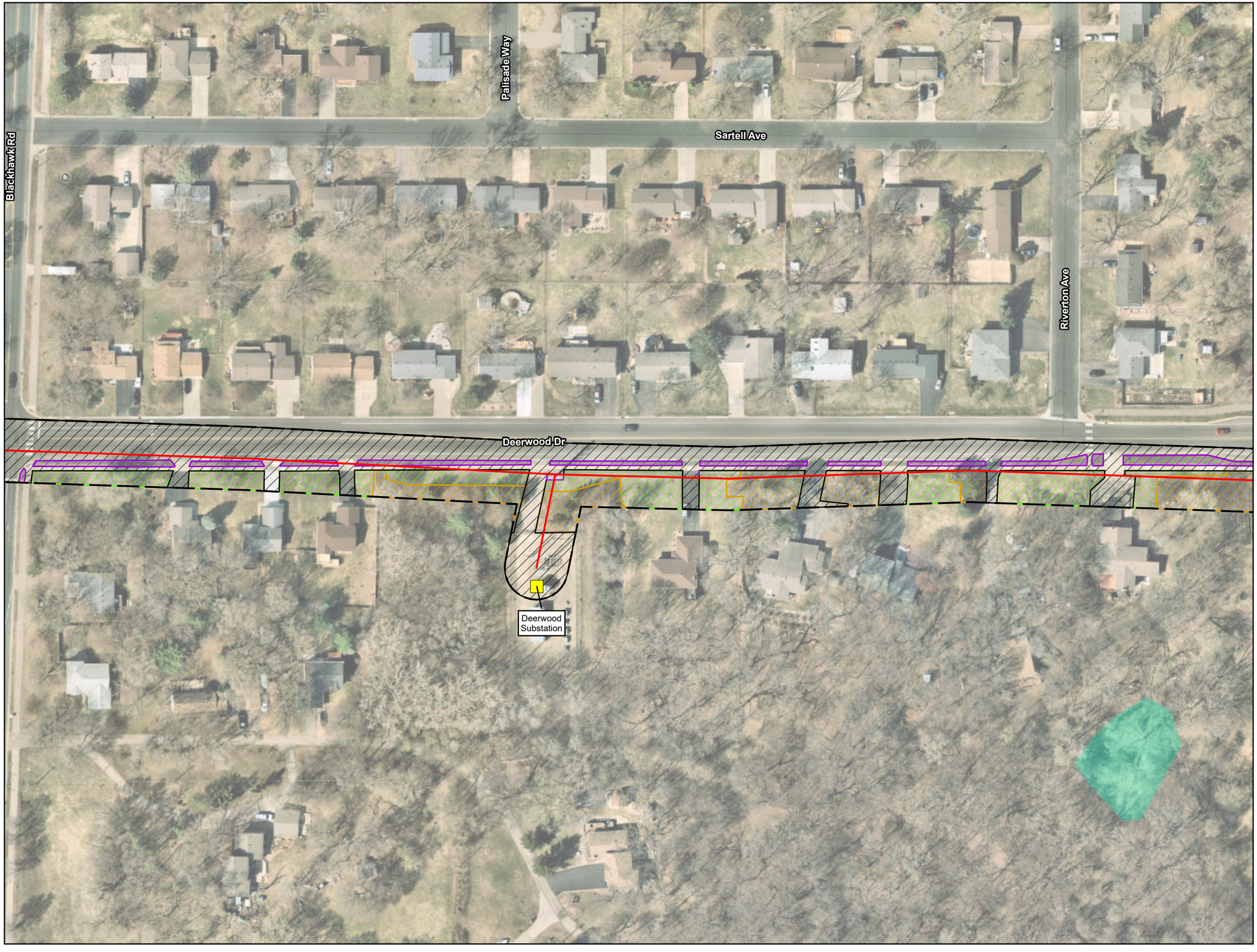

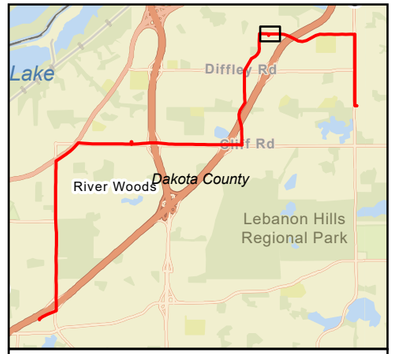

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Existing Substation
Proposed Alignment
Proposed 70' Right-of-Way

Seeding Area
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- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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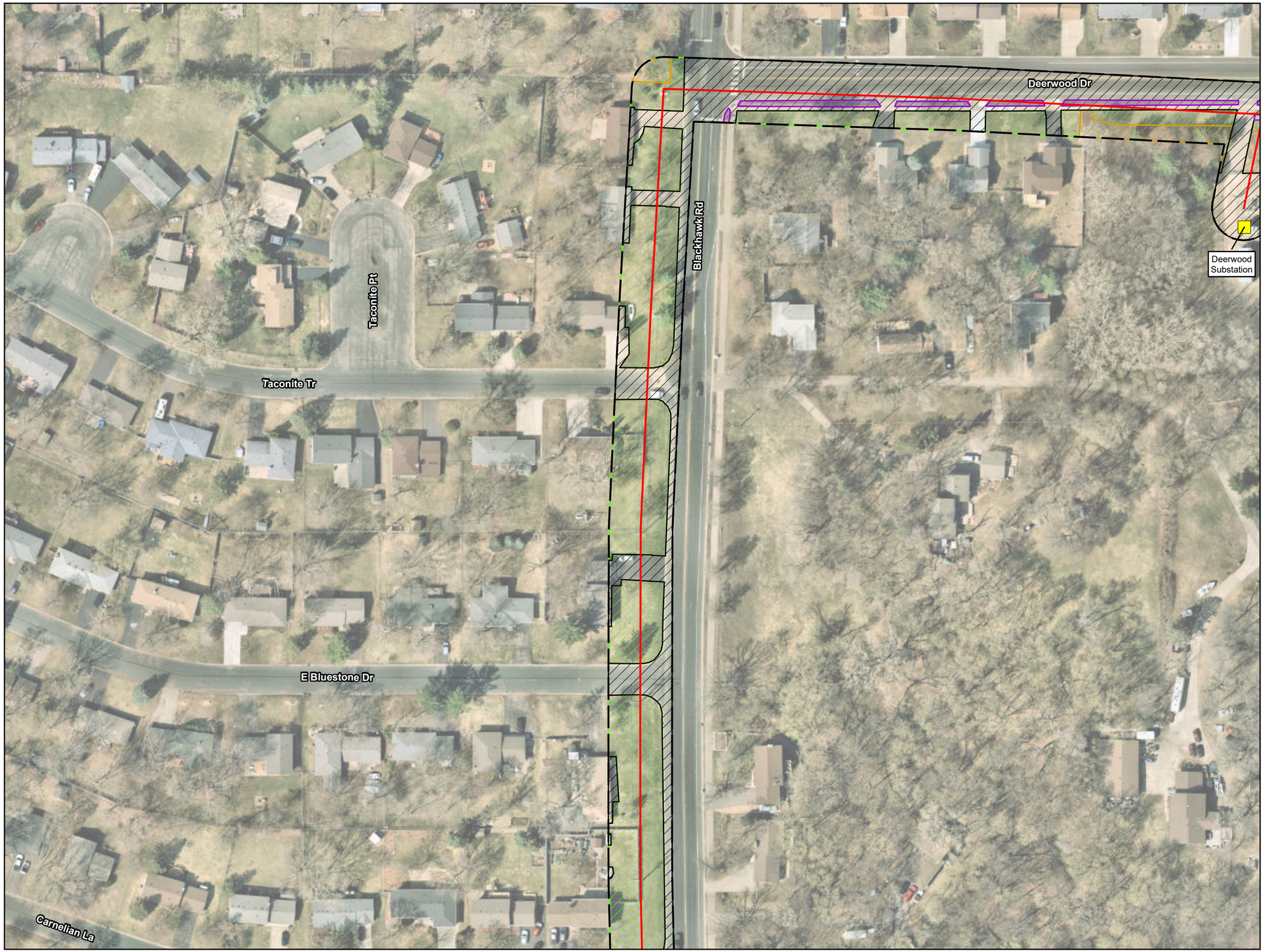
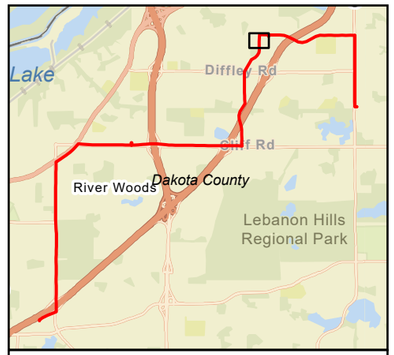
Source: 01/14/2024

For Environmental Review Purposes Only





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Existing Substation

Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Private Turf

Mesic Roadside Native Vegetation

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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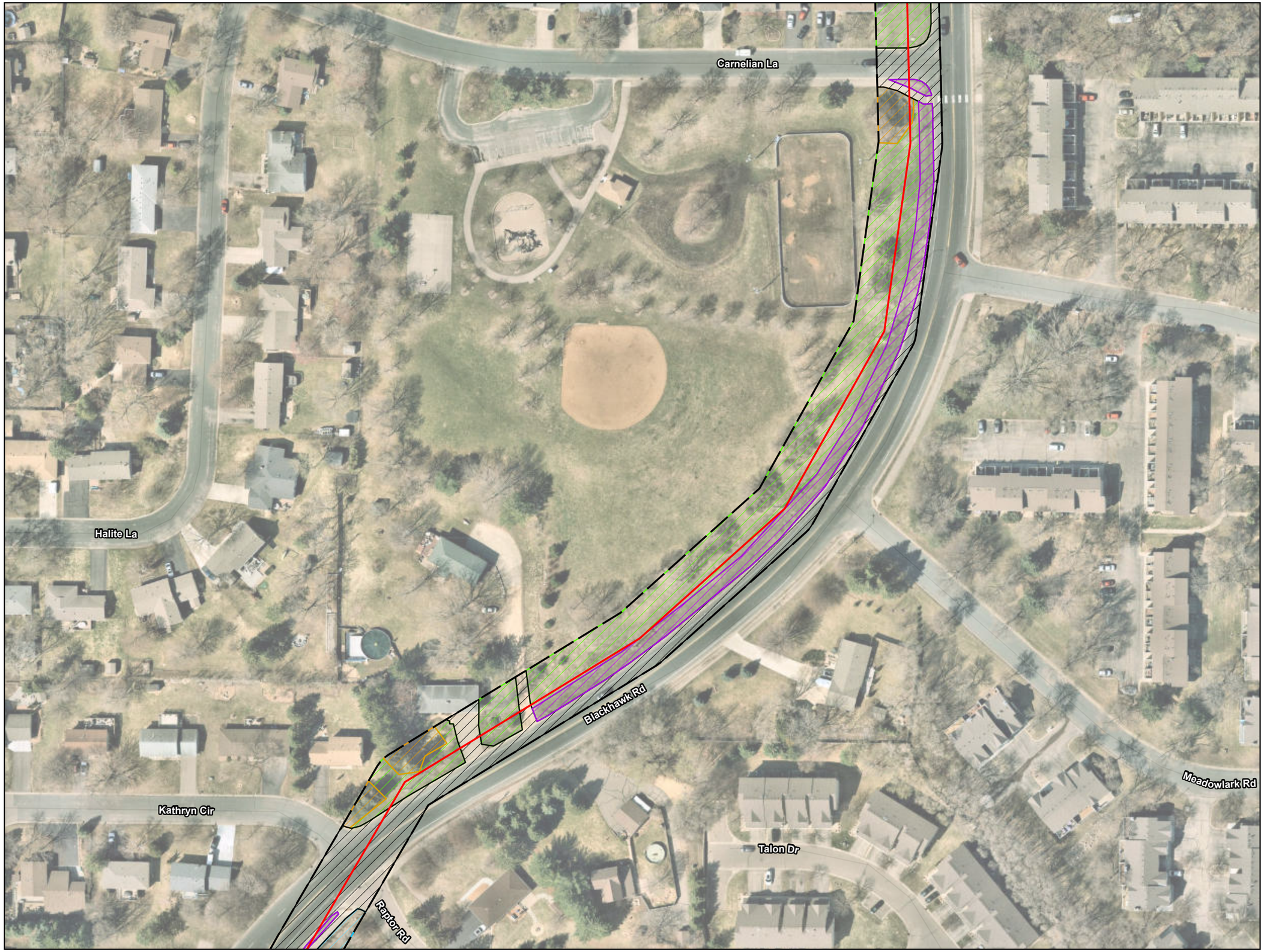
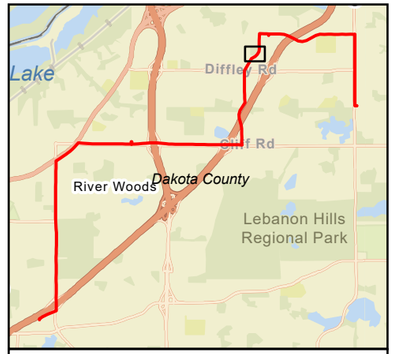
Source: (11/14/2024)

For Environmental Review Purposes Only





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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- Wet Roadside Ditches

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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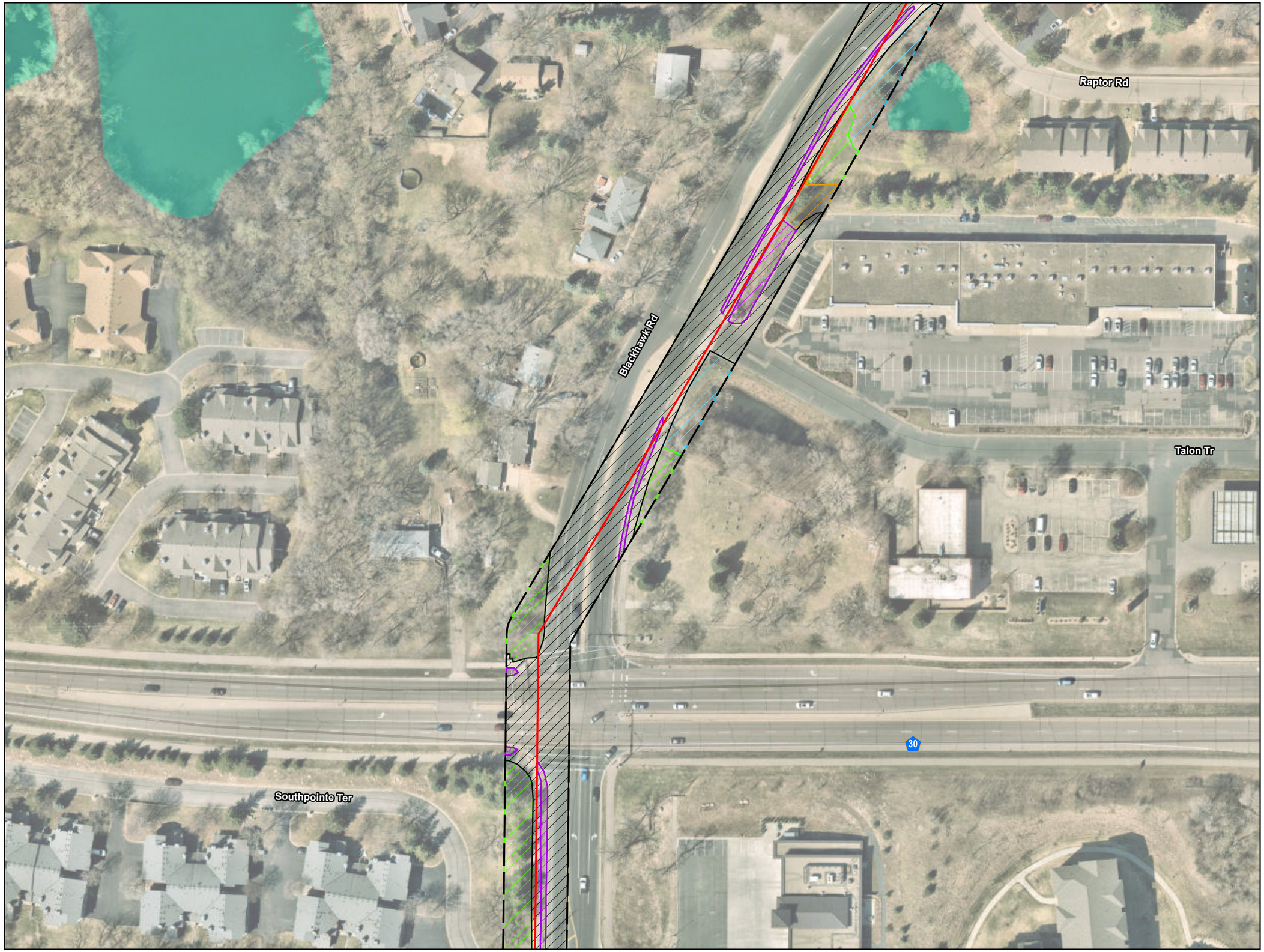
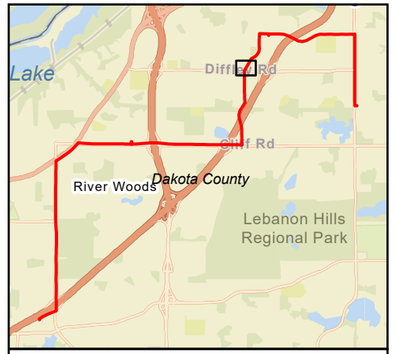
Sources: Esri, 10/14/2024

For Environmental Review Purposes Only





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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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Source: (01/14/2024)

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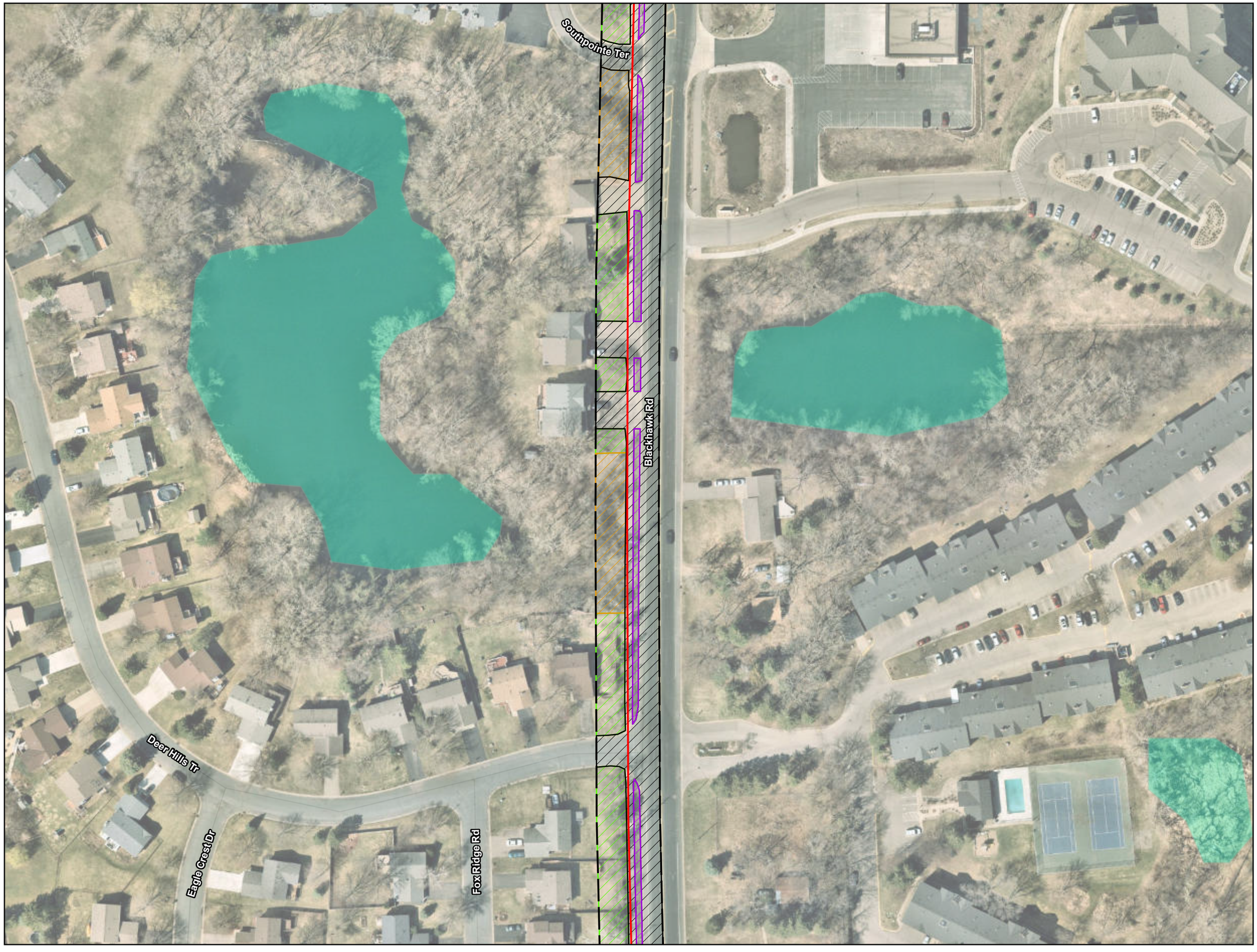

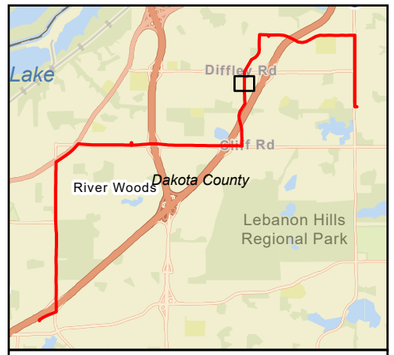

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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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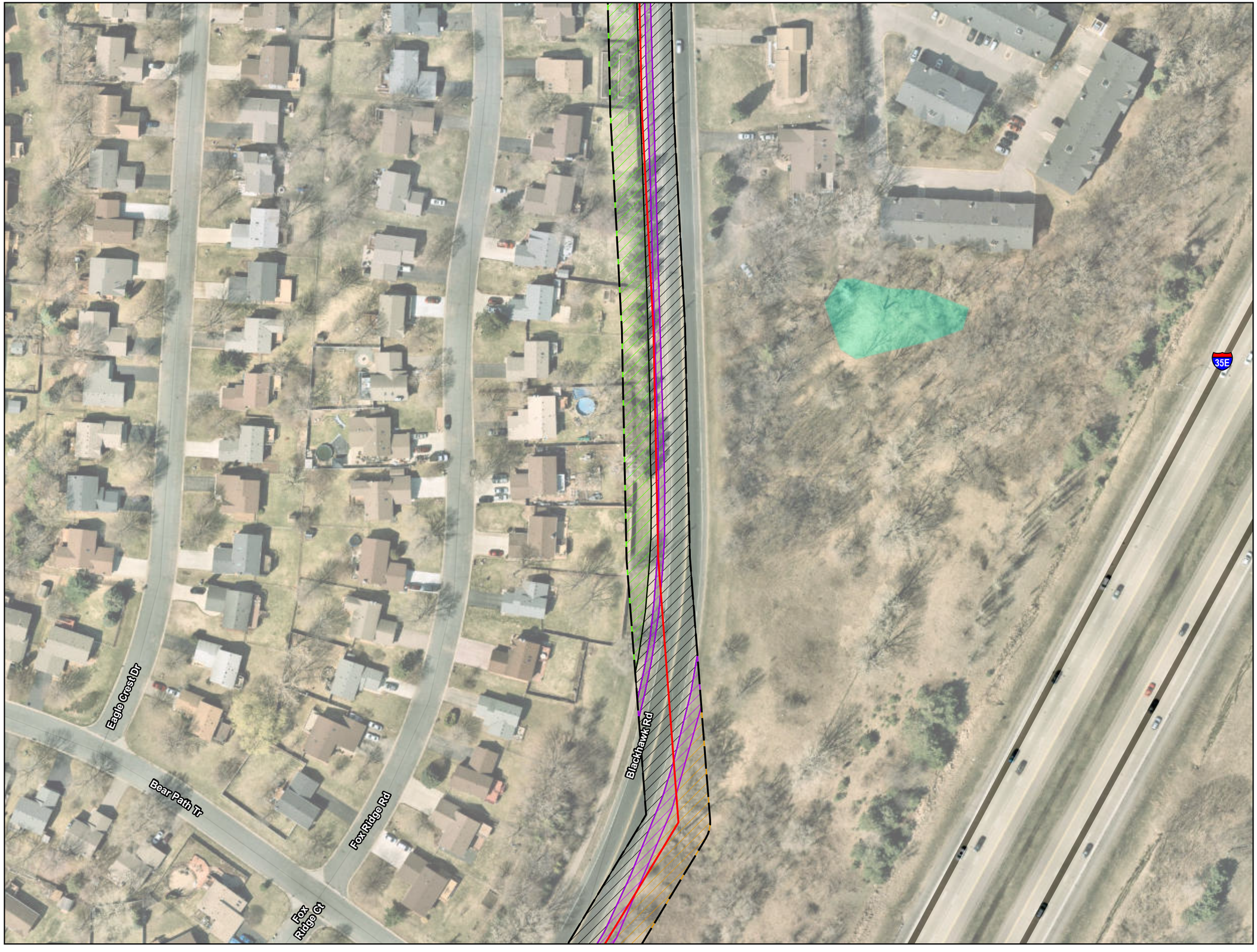
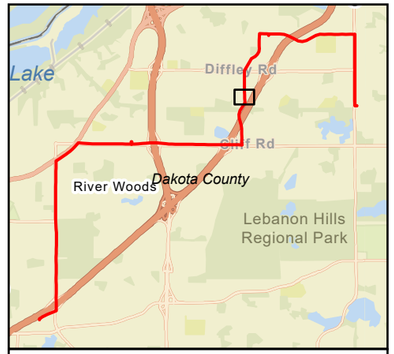
For Environmental Review Purposes Only

Source: [illegible] (01/14/2024)





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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Sources: 11/14/2024

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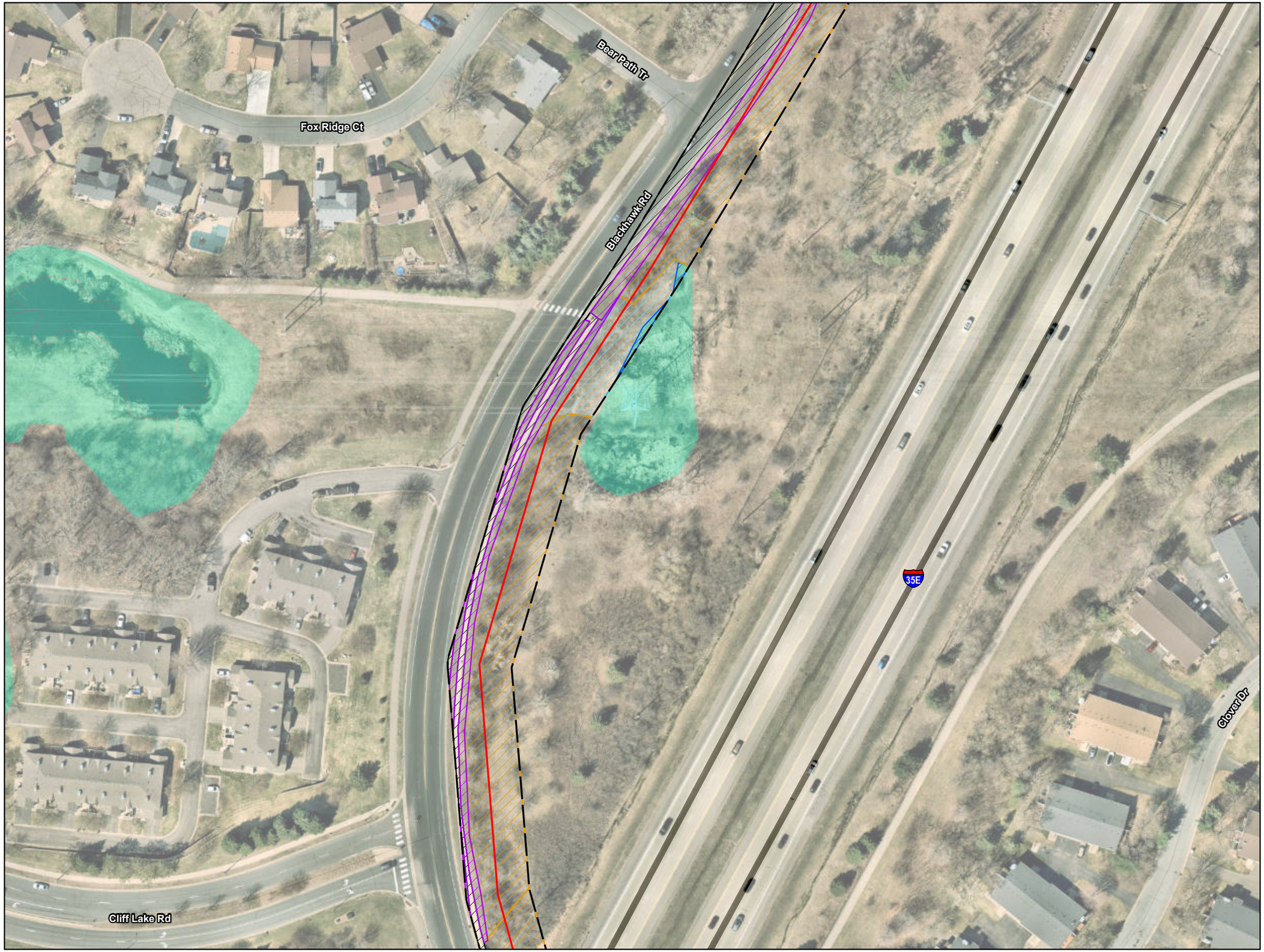

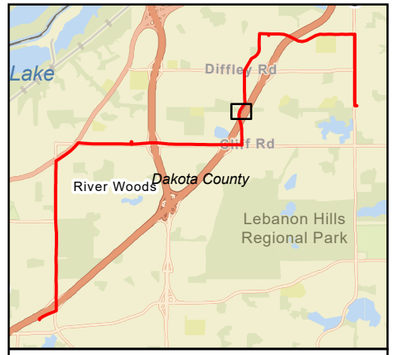

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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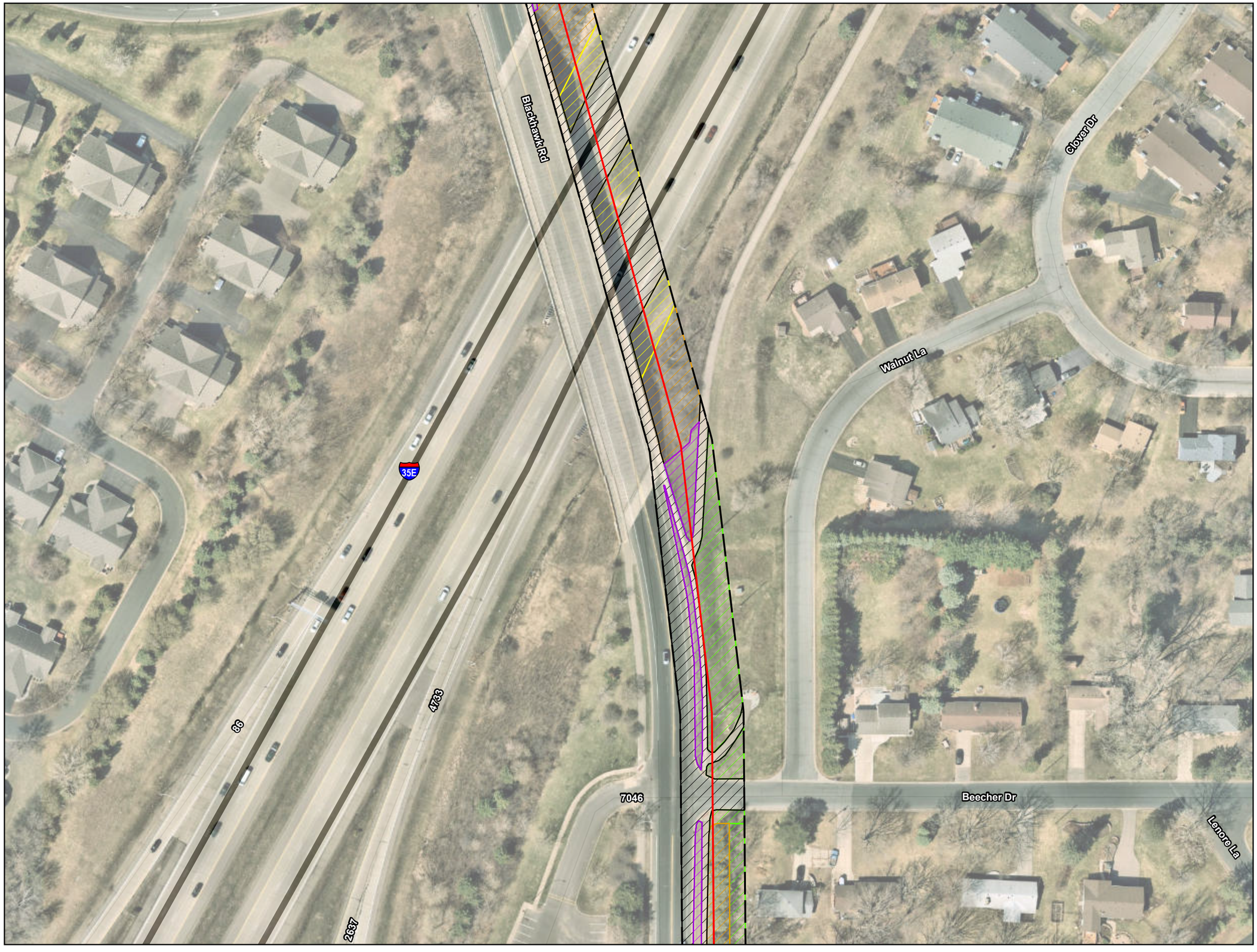

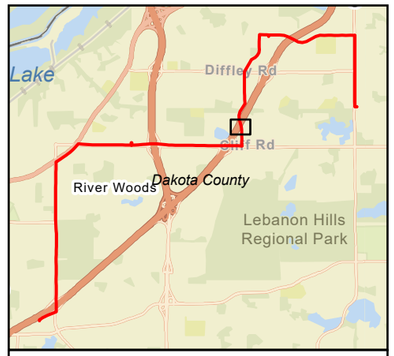

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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Source: [illegible] 11/14/2024

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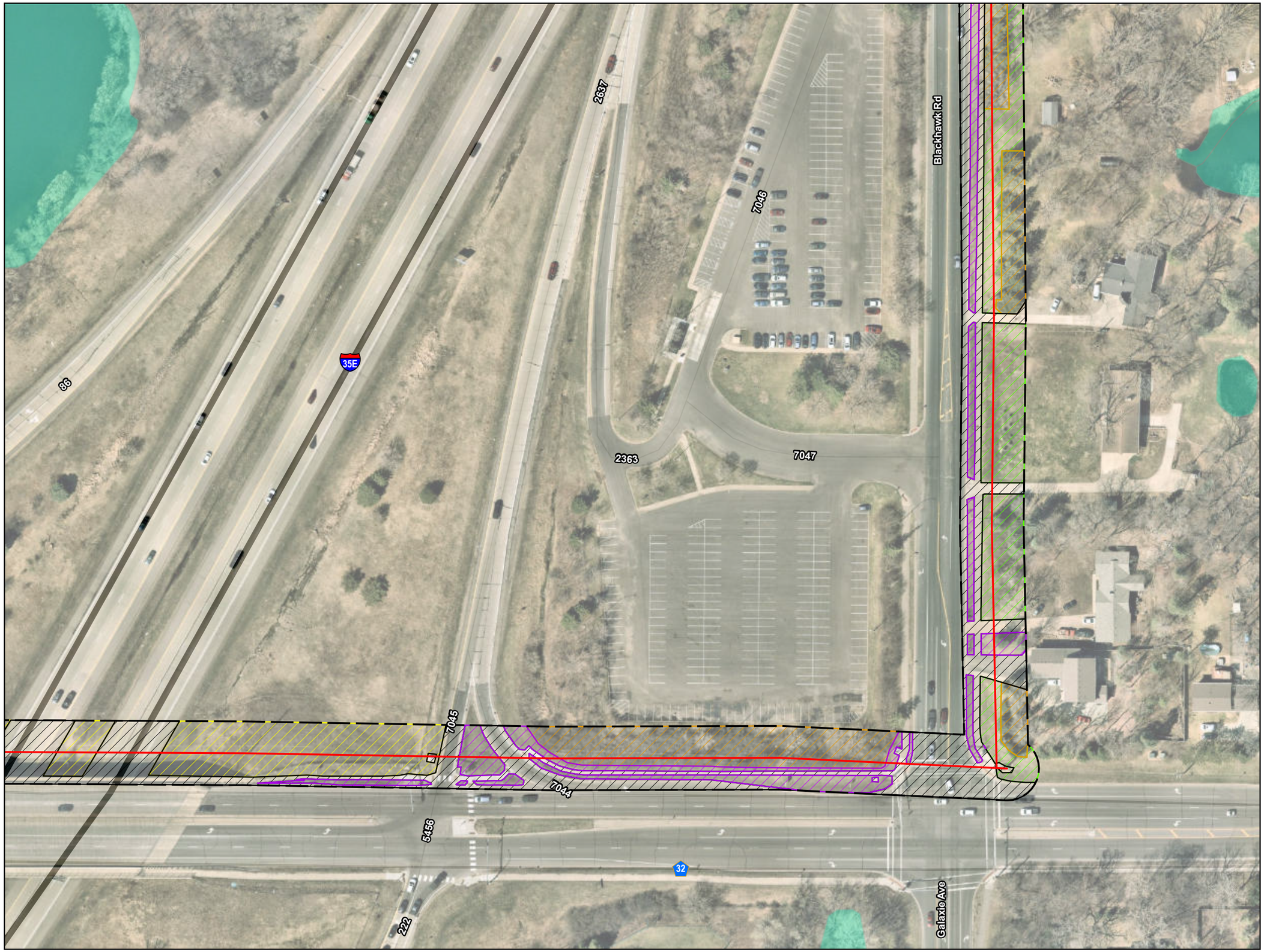

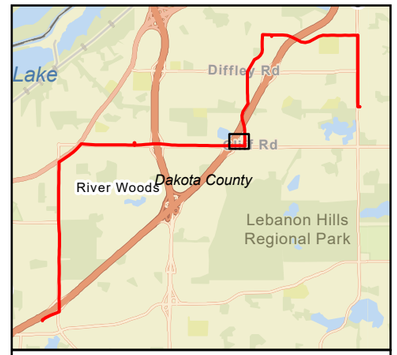

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Proposed Alignment

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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Source: (01/14/2024)

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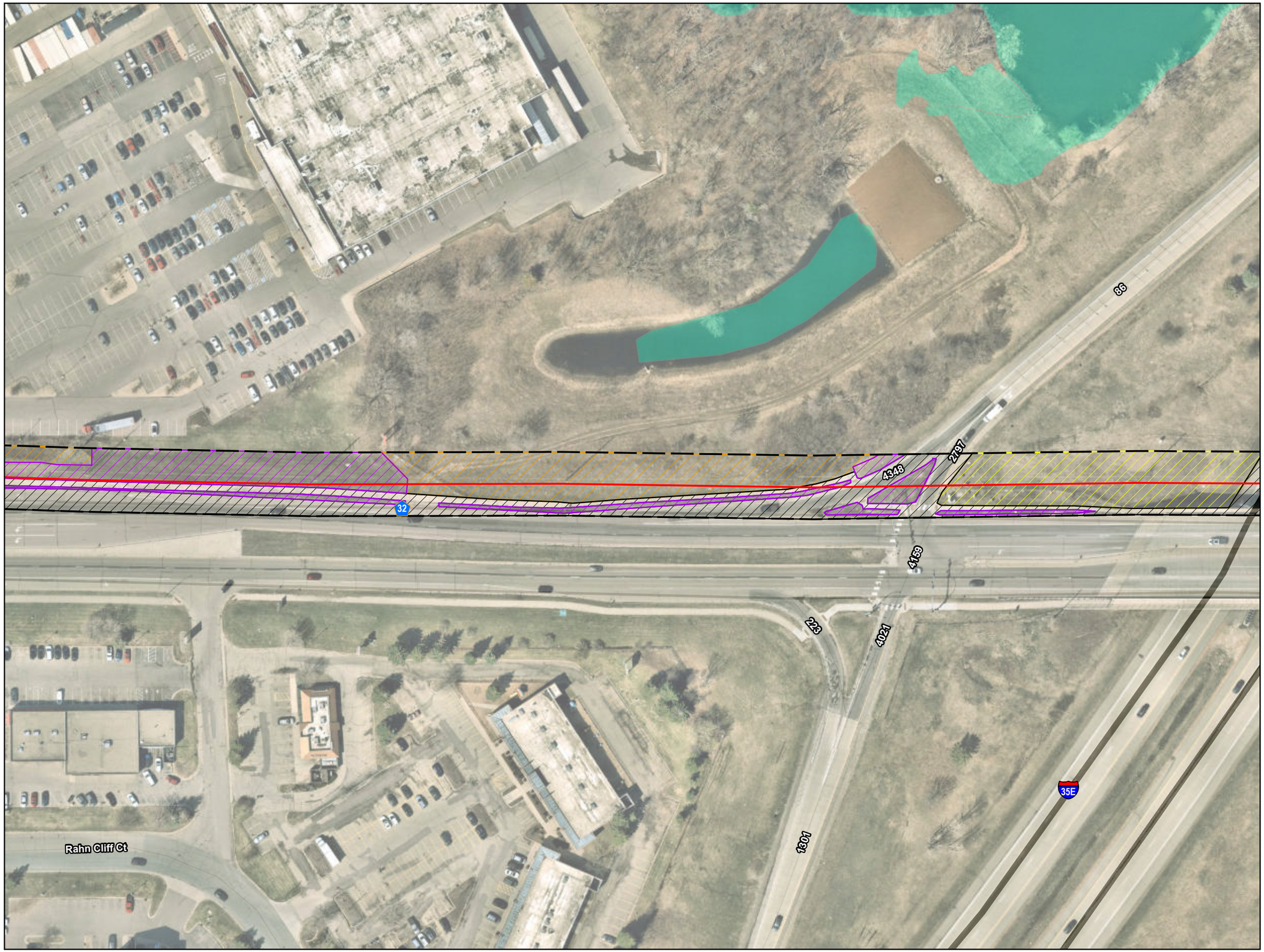

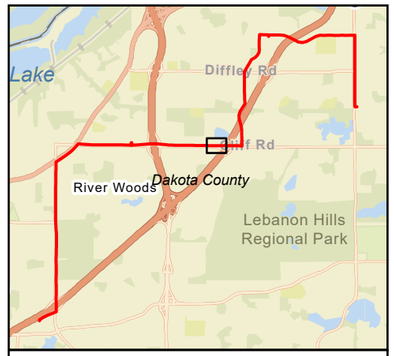

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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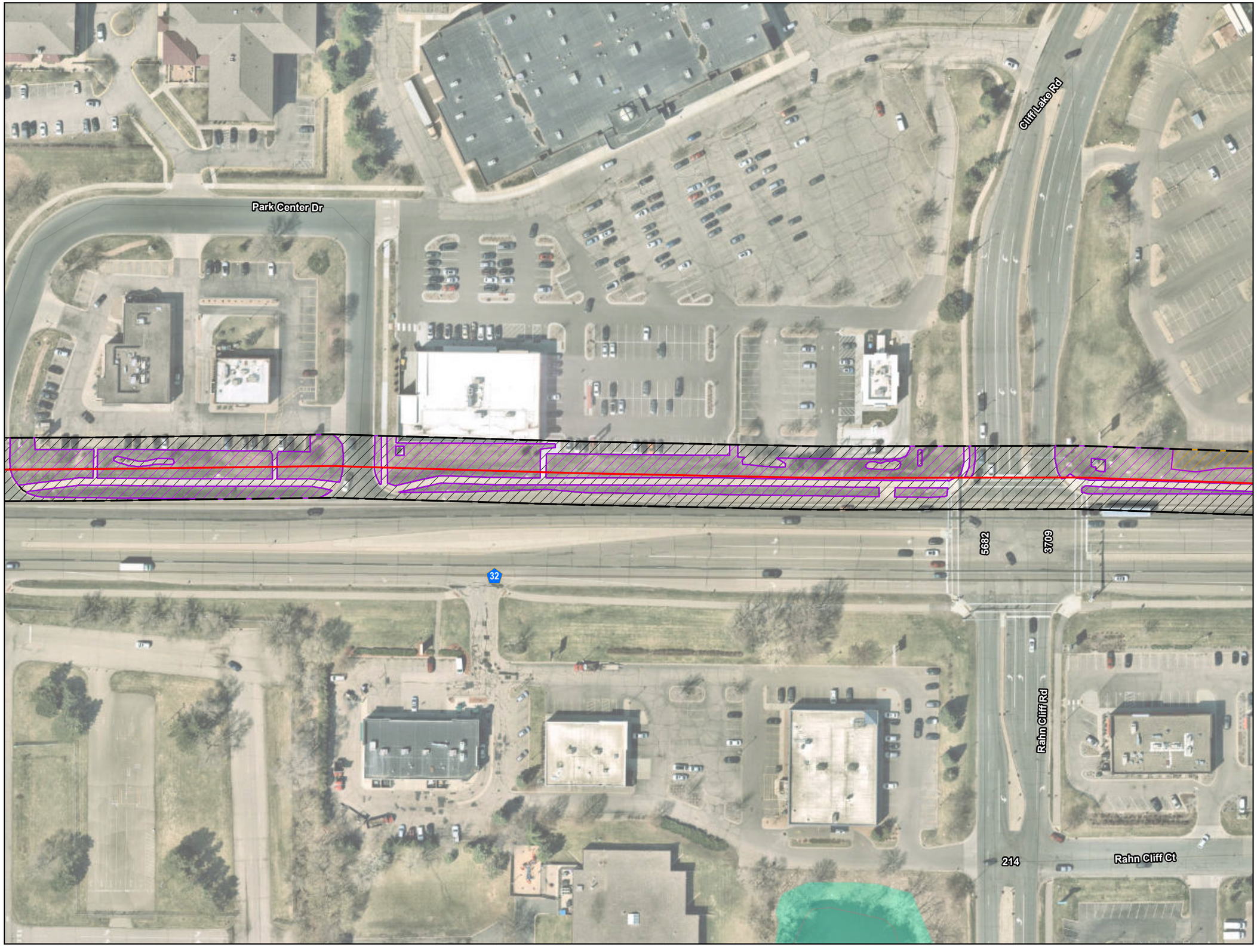

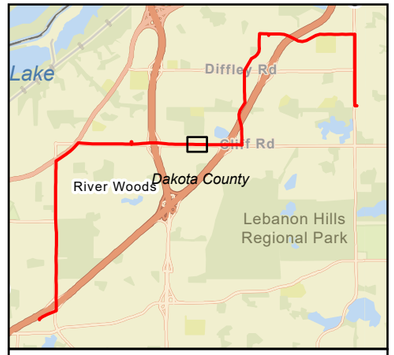

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Proposed Alignment

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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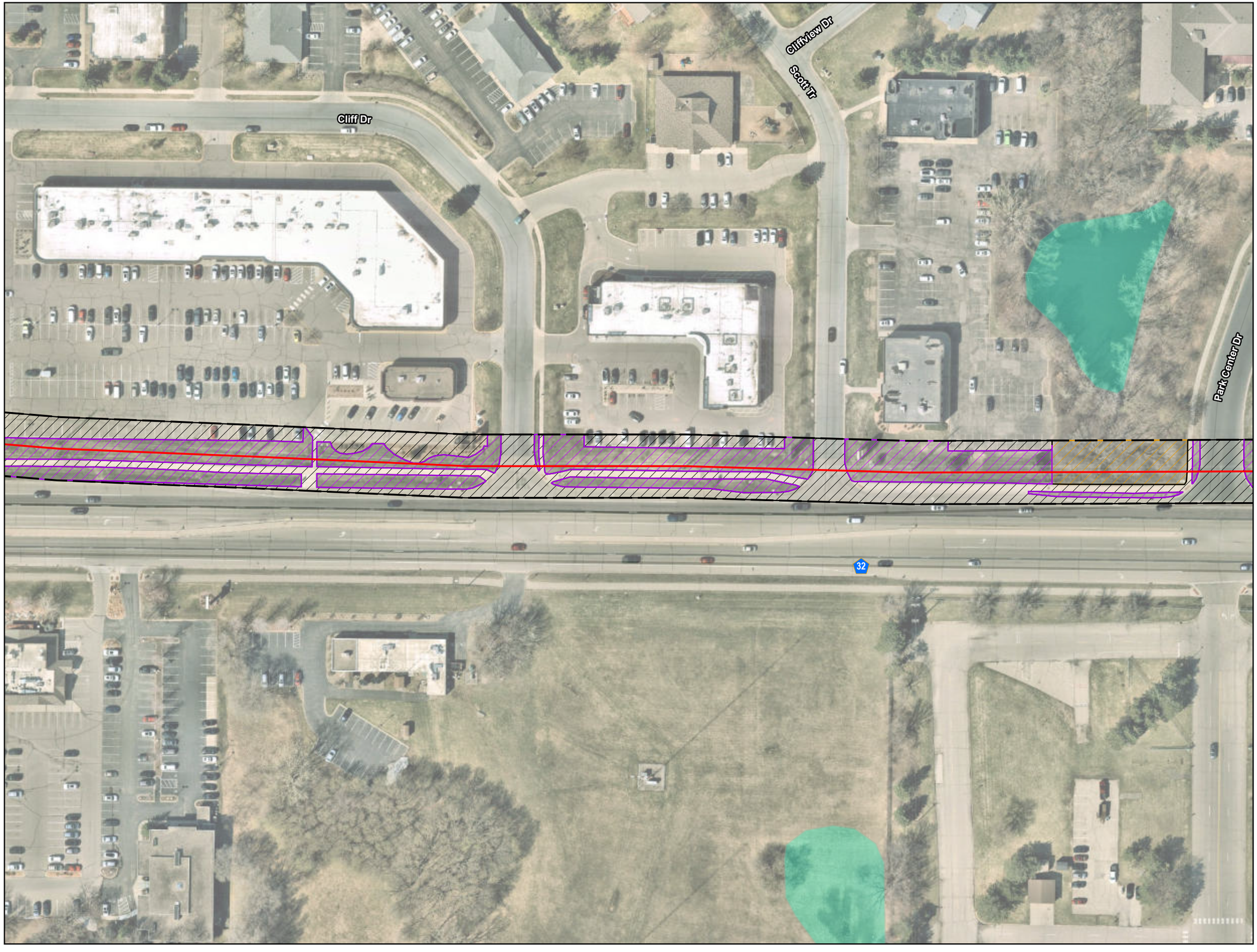

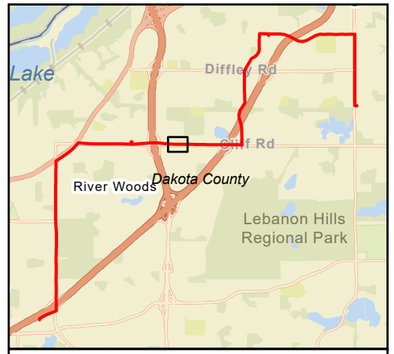

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Proposed Alignment

Proposed 70' Right-of-Way

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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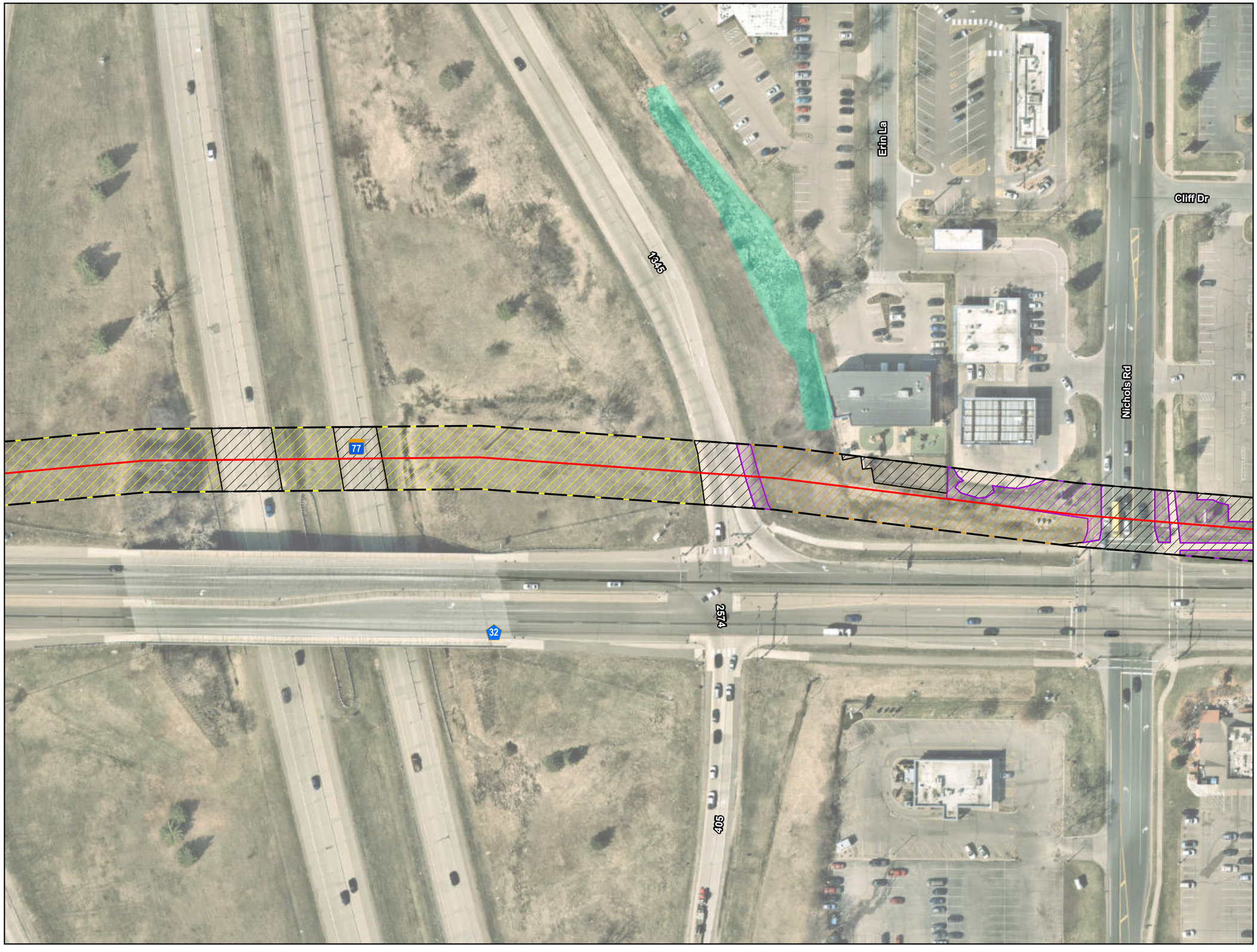
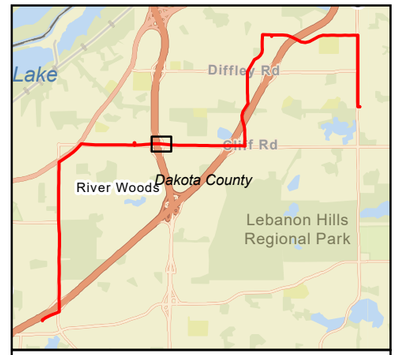
For Environmental Review Purposes Only

Source: 11/14/2024





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

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- Mesic General Roadside
- Mesic Roadside Native Vegetation
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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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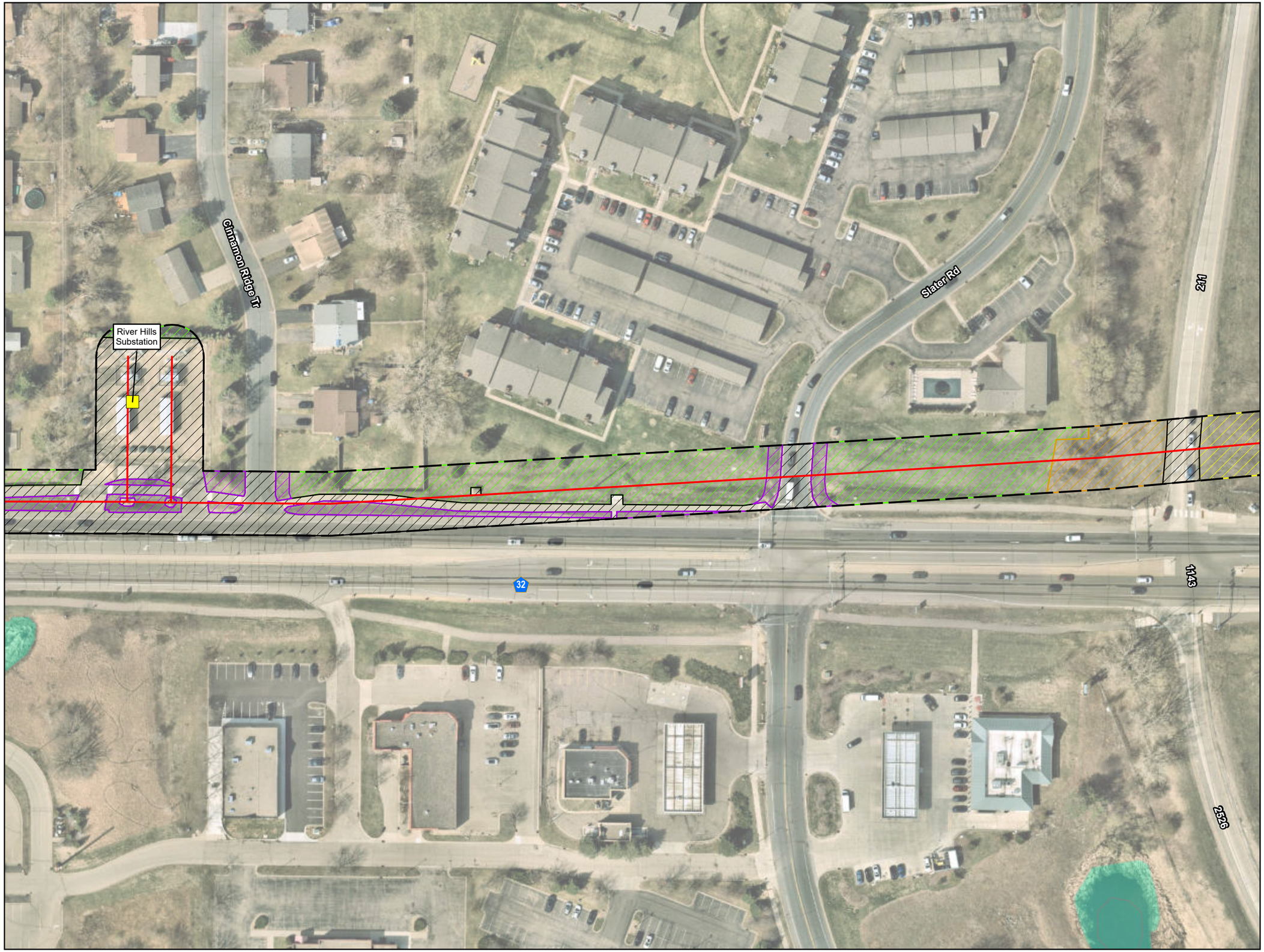
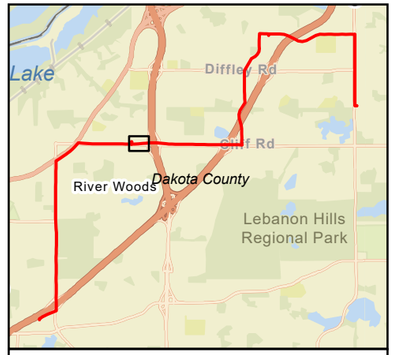
Source: [illegible] (11/14/2024)

For Environmental Review Purposes Only





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N W E S

- Existing Substation
- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic General Roadside
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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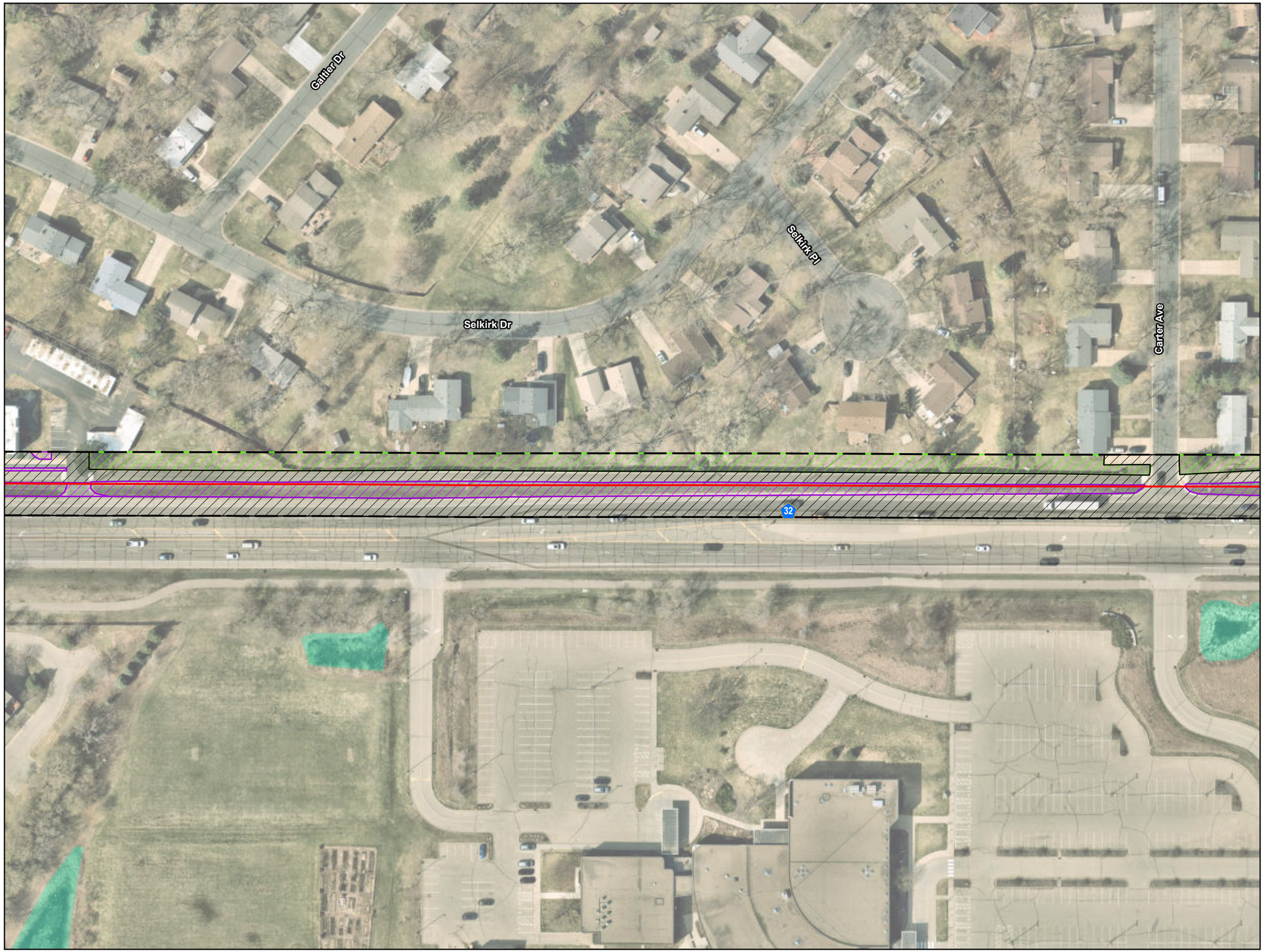
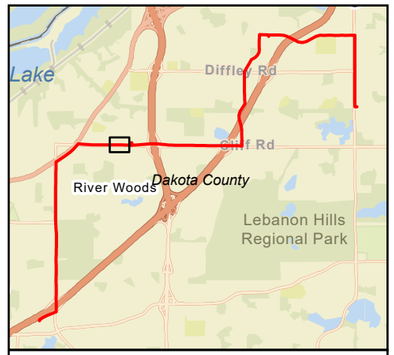
Source: [illegible] (2024)

For Environmental Review Purposes Only





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- Proposed Alignment
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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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Sources: 11/14/2024

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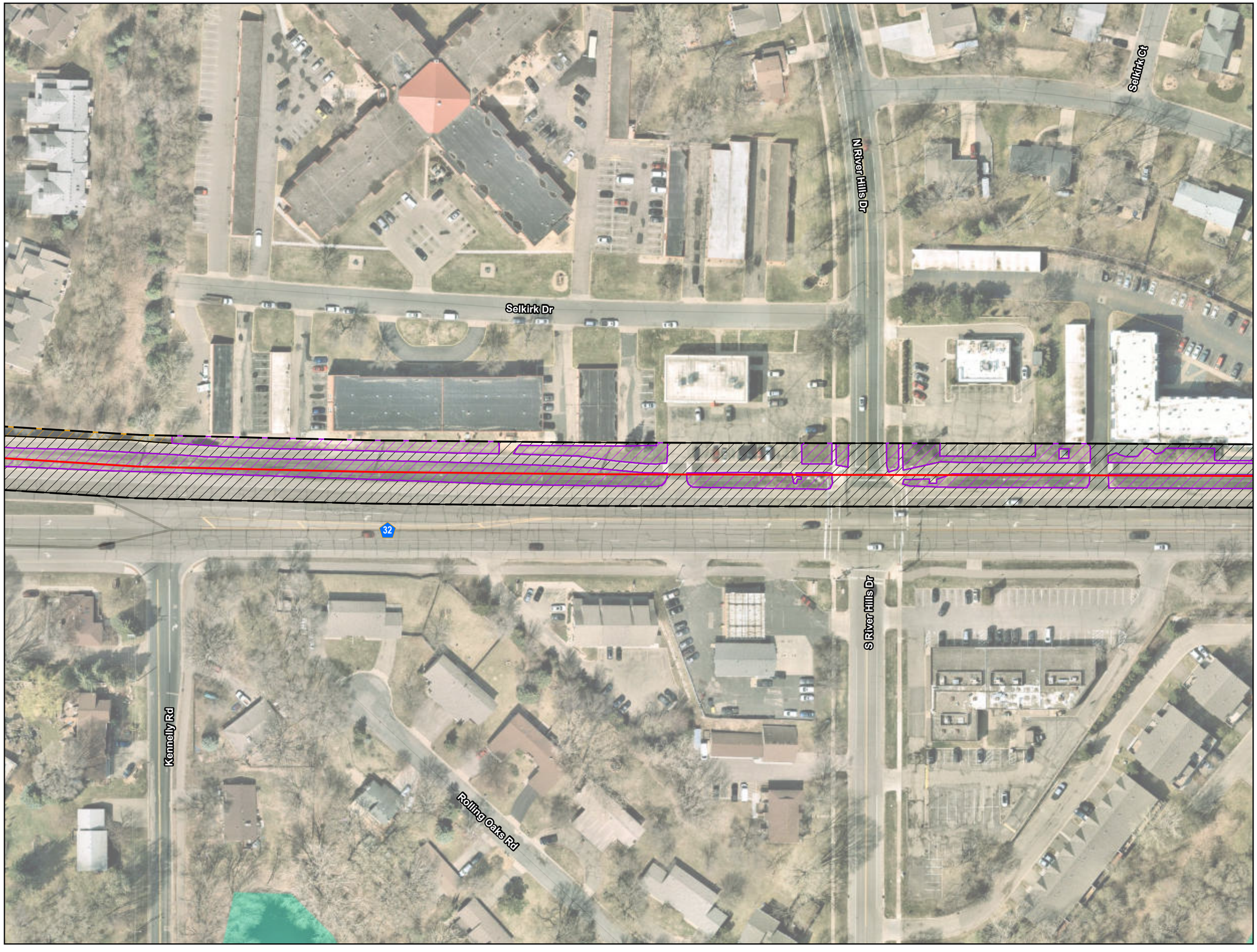

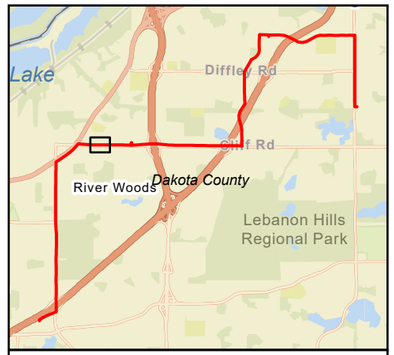

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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For Environmental Review Purposes Only

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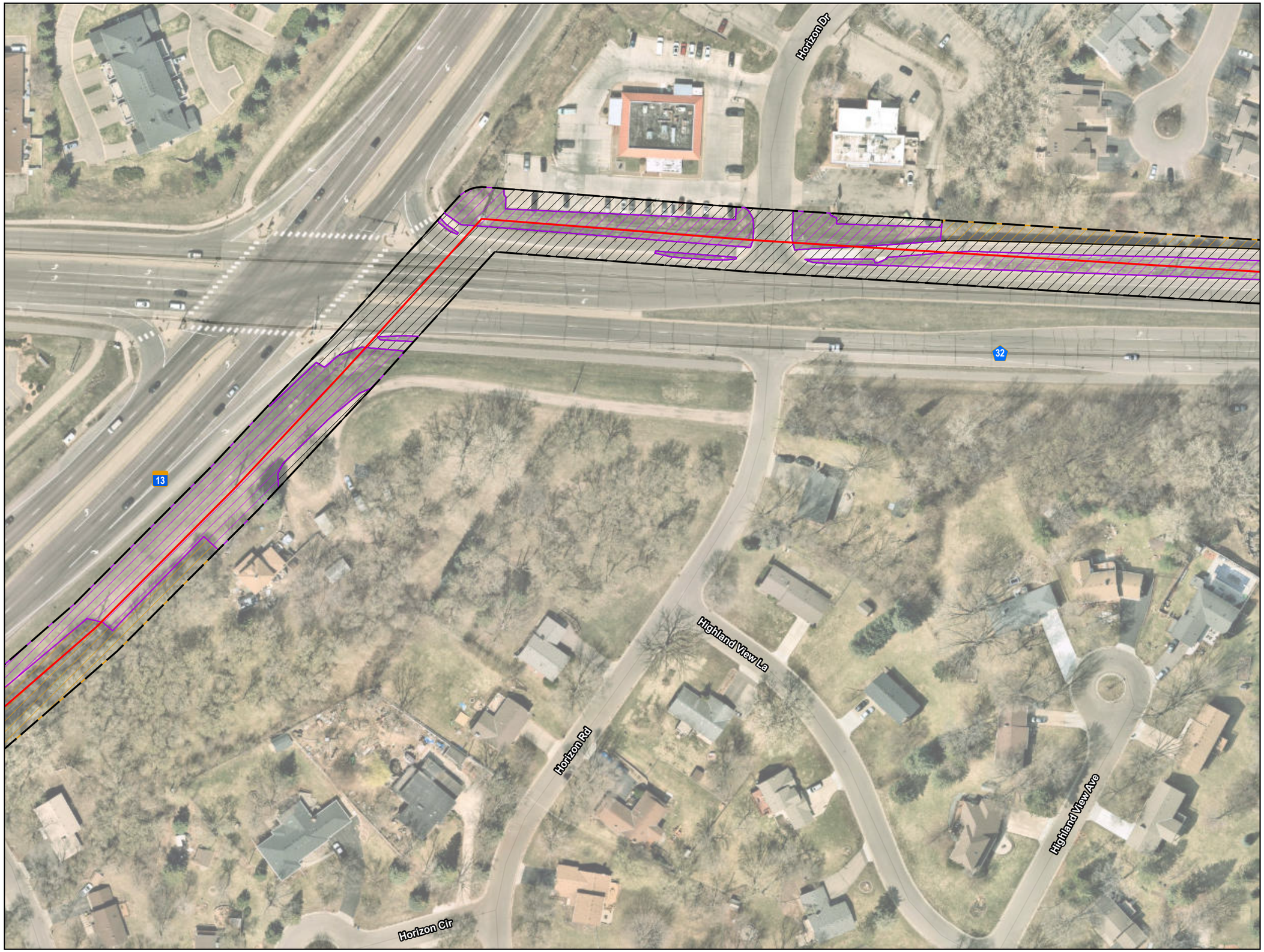

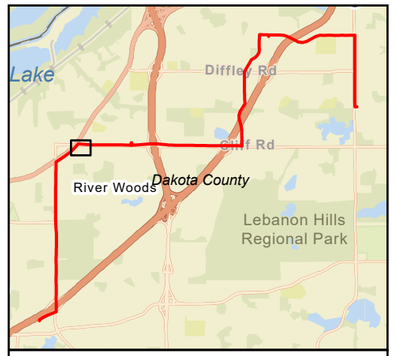

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Proposed Alignment

Proposed 70' Right-of-Way

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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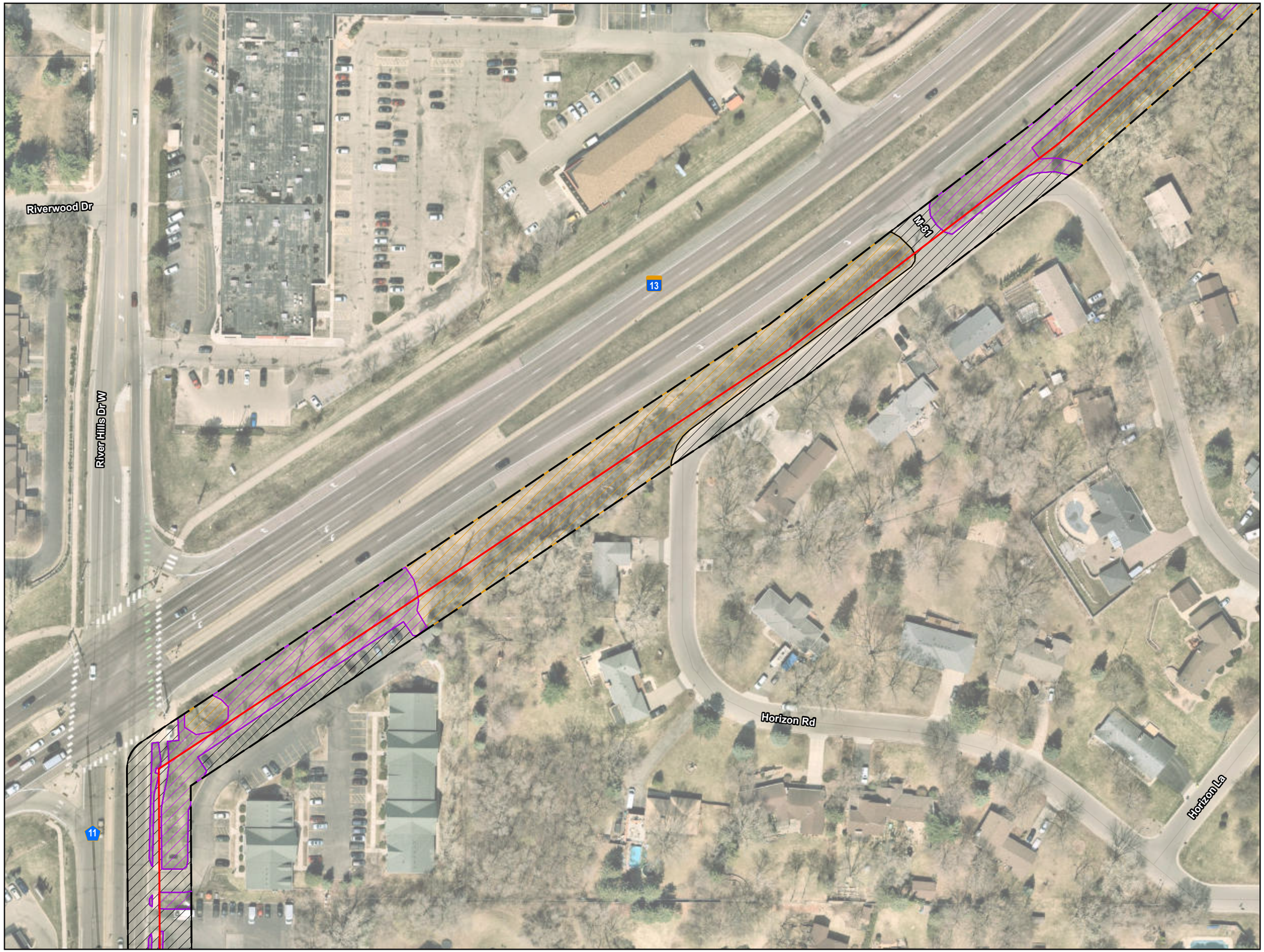

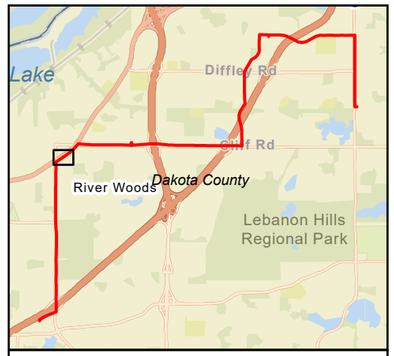

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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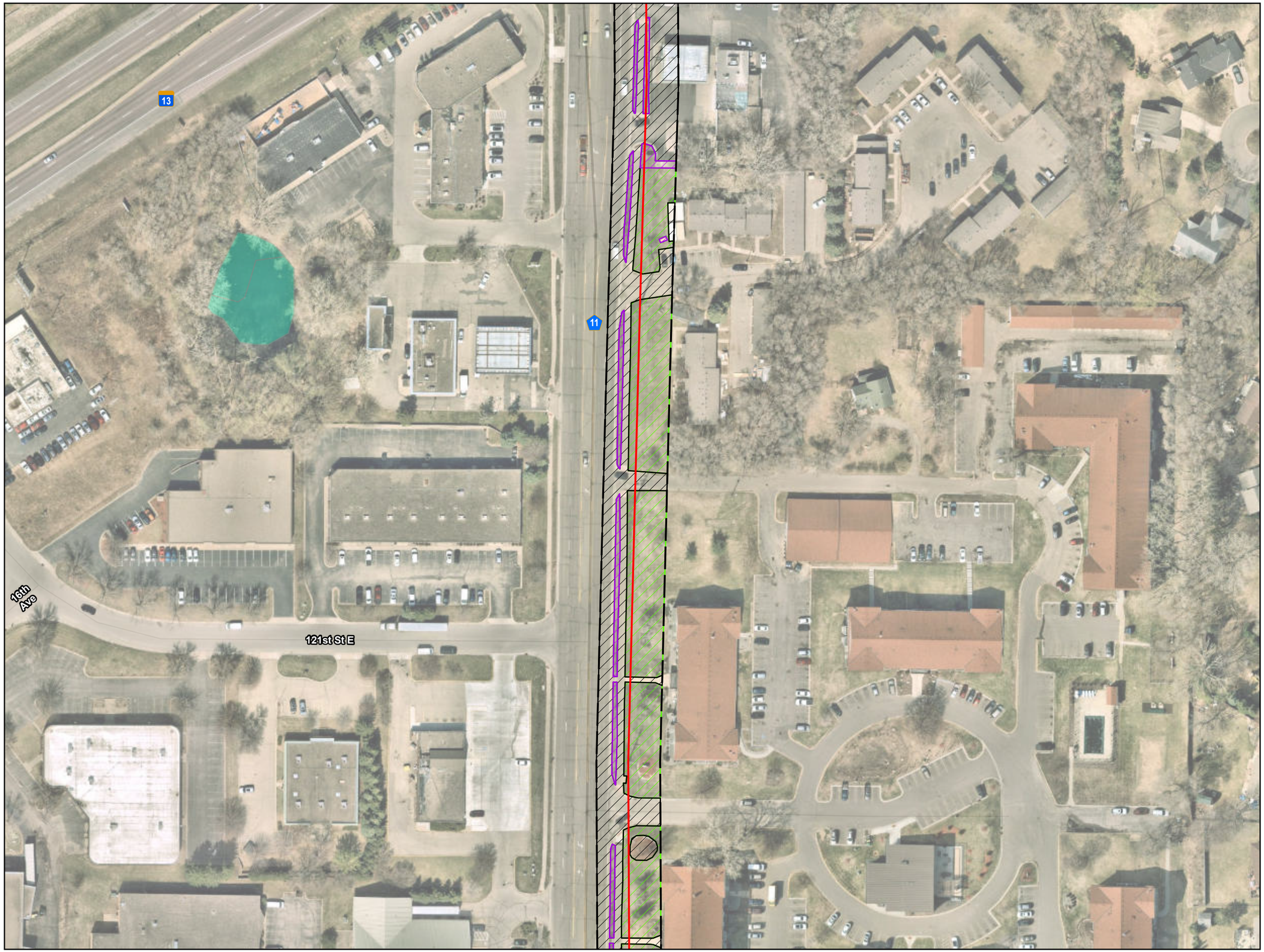

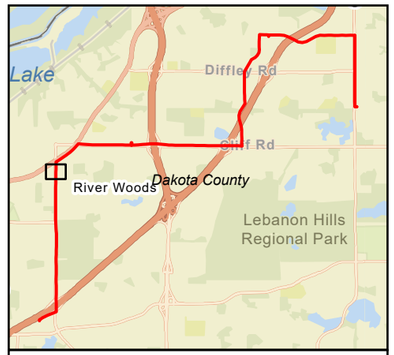

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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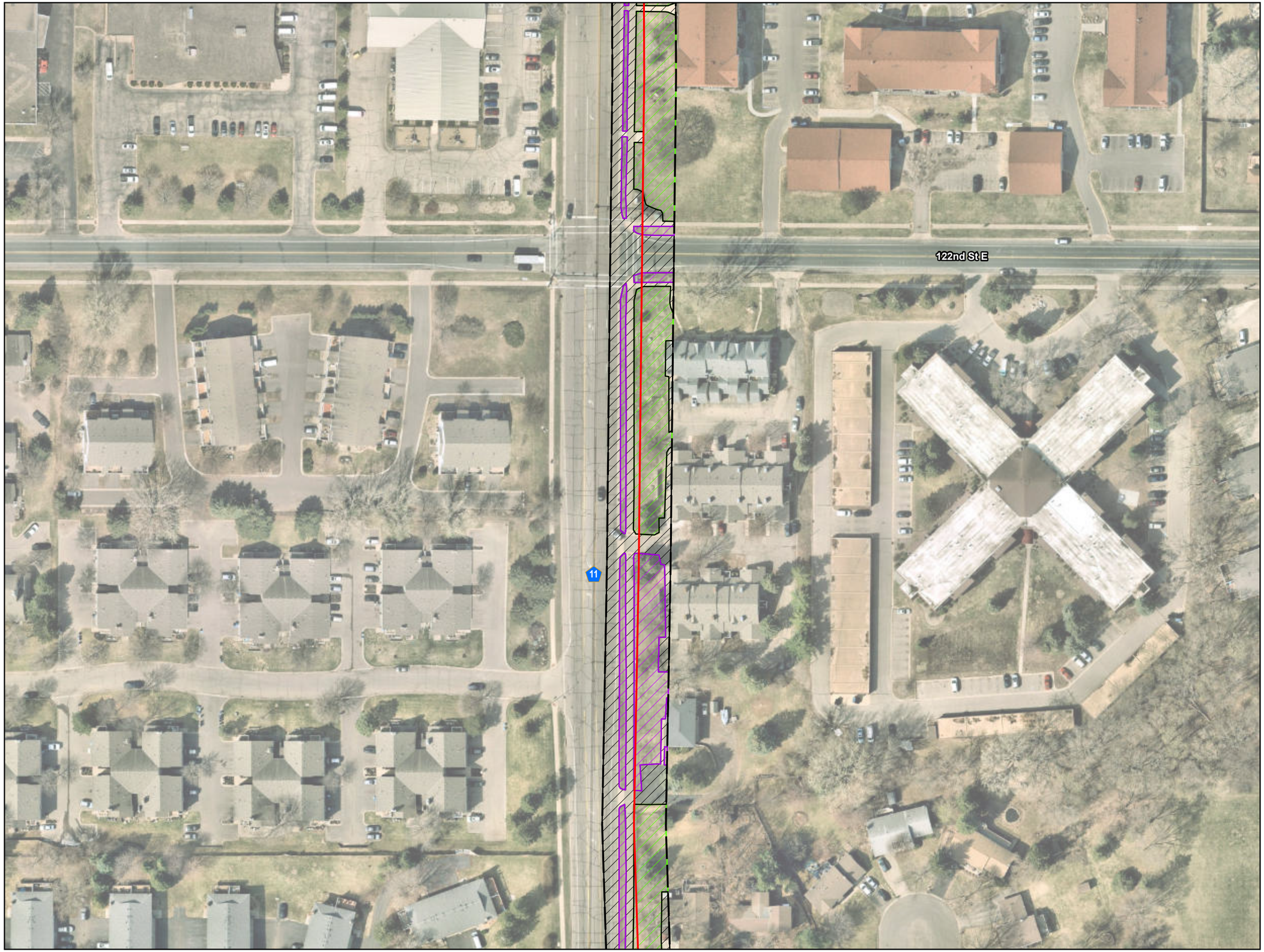

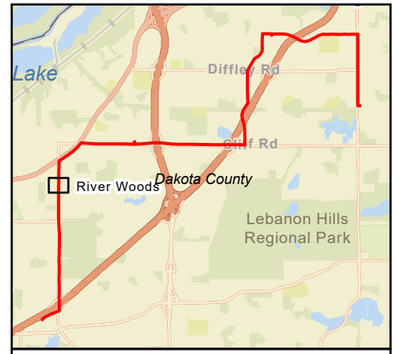

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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Private Turf

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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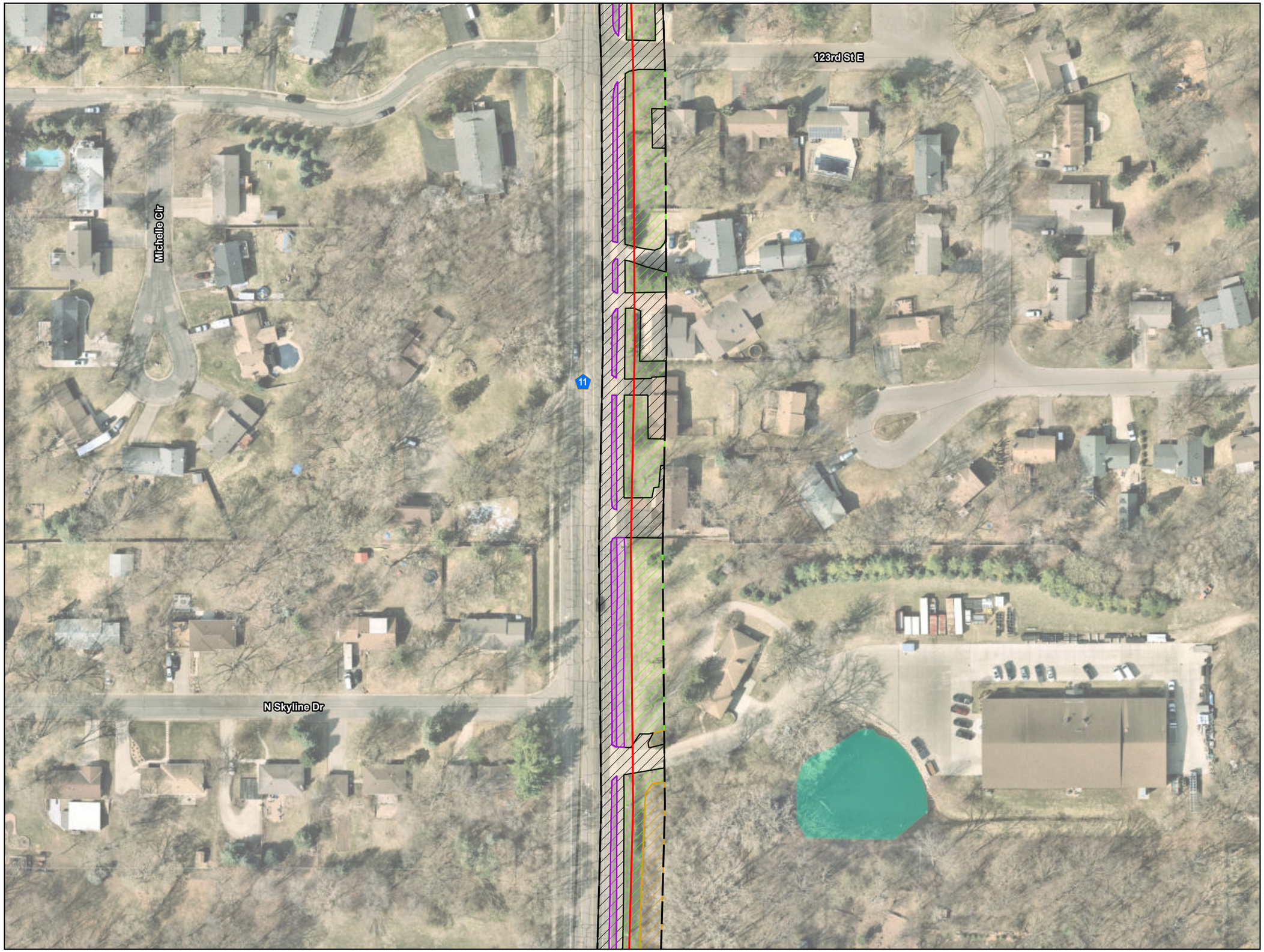
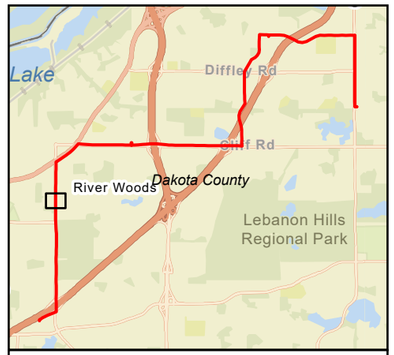
For Environmental Review Purposes Only

Source: (10/14/2024)





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Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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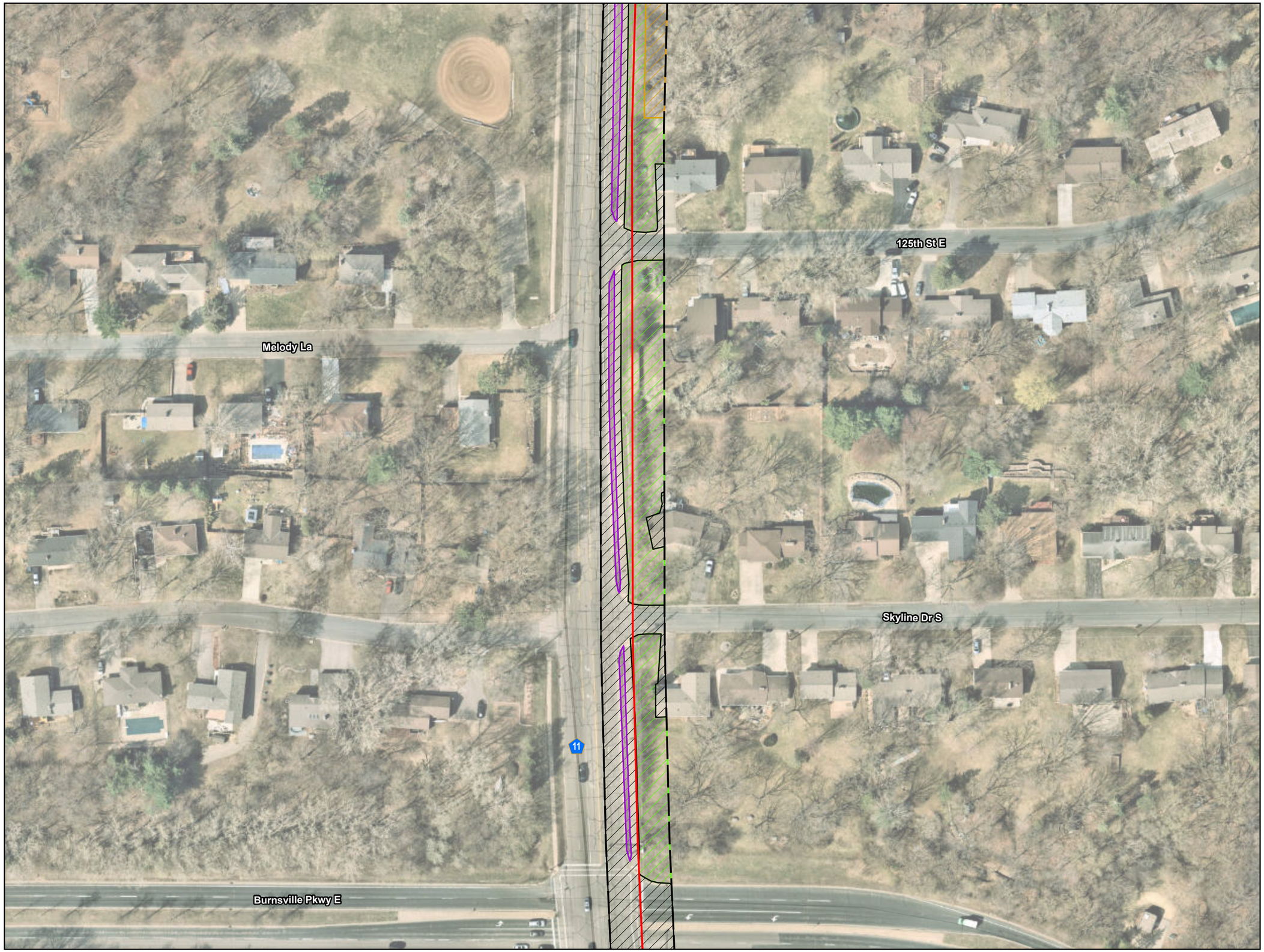
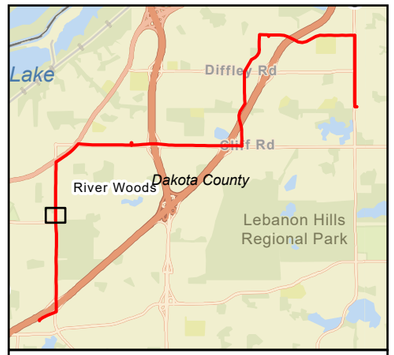
For Environmental Review Purposes Only





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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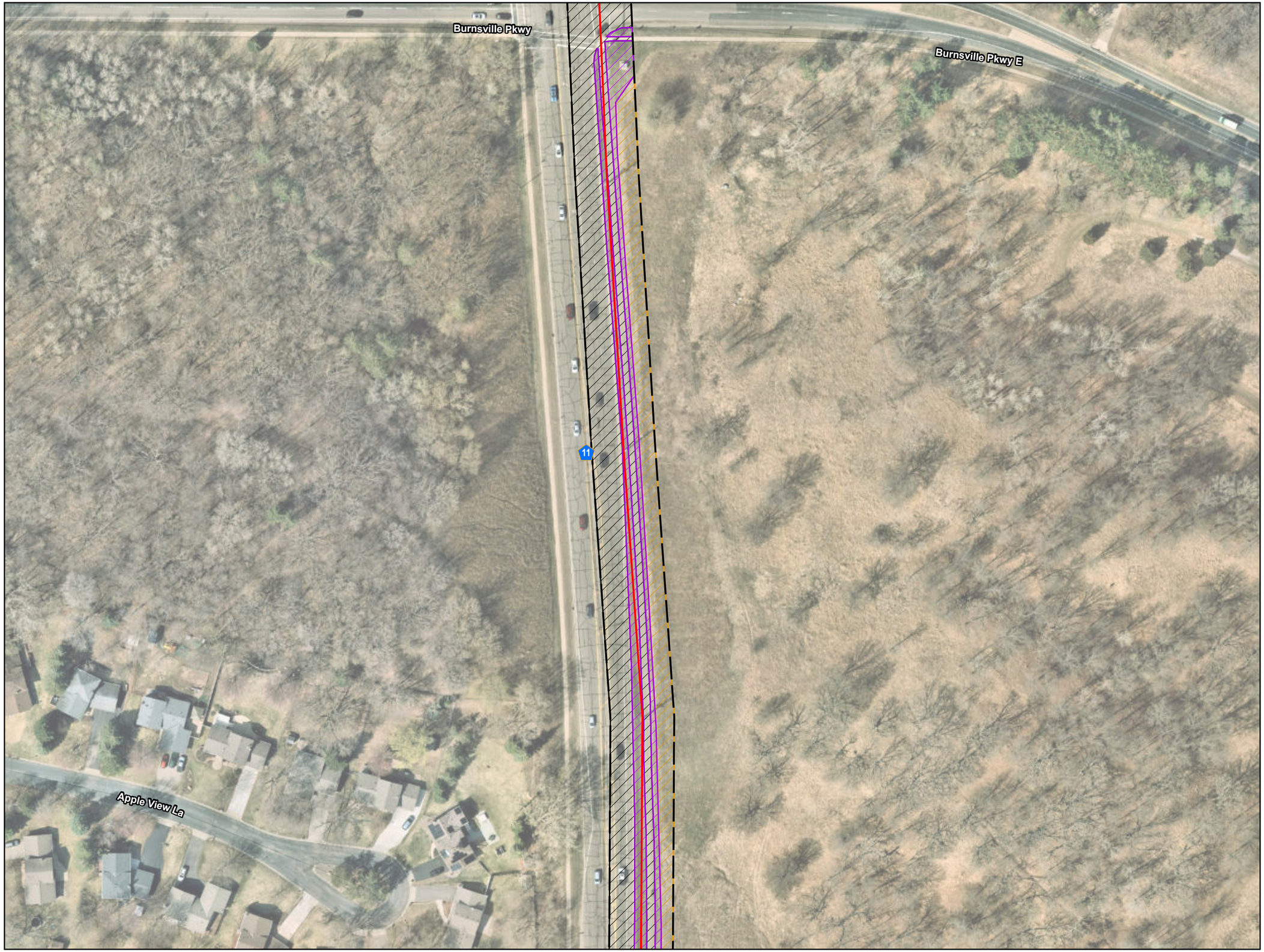
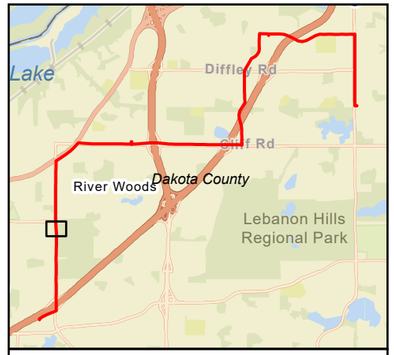
Source: 10/14/2024

For Environmental Review Purposes Only





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Mesic Roadside Native Vegetation

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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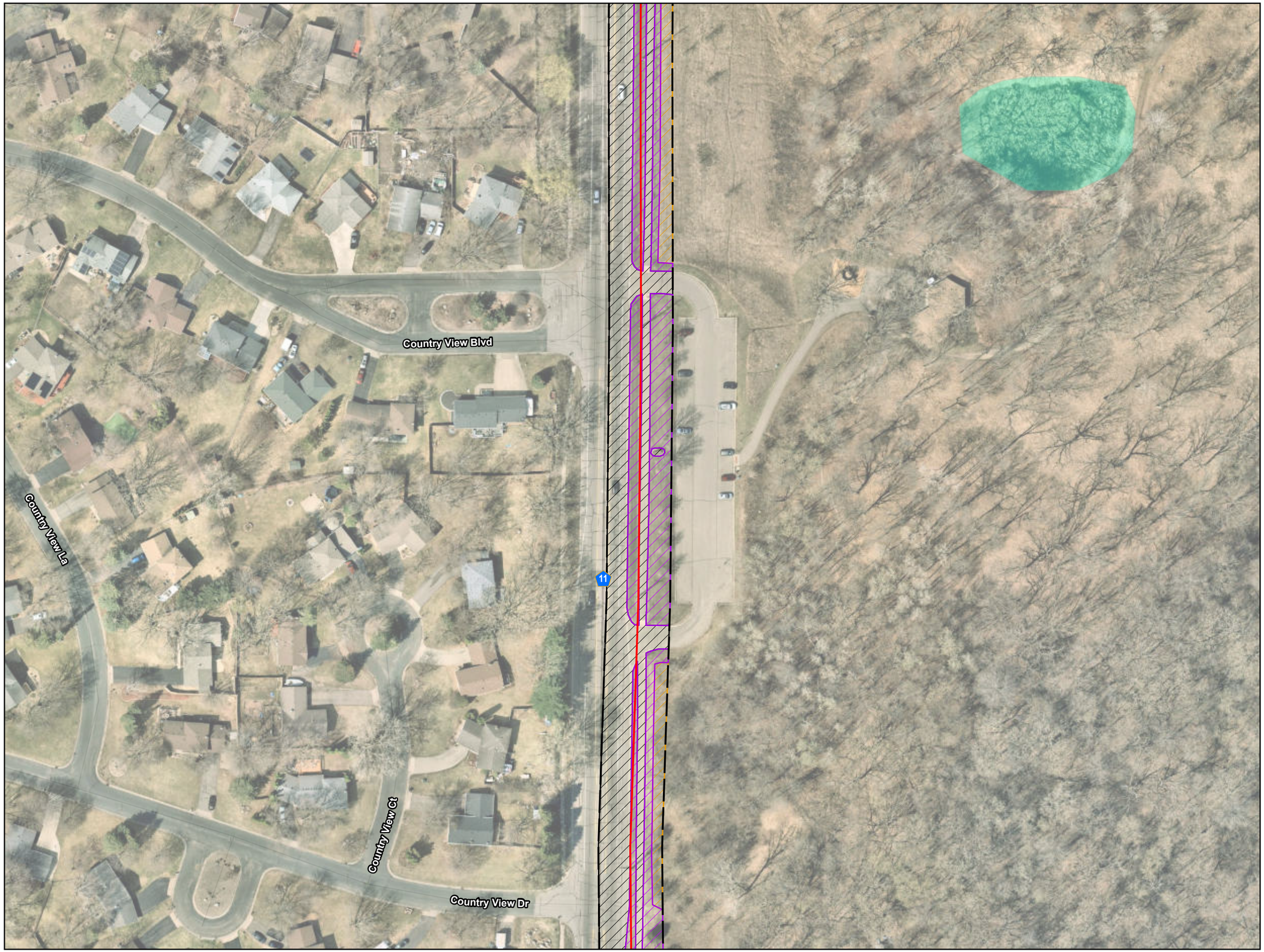
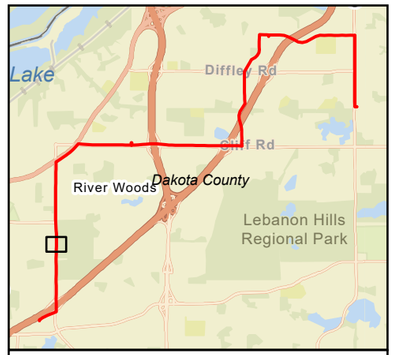
For Environmental Review Purposes Only

Source: (11/14/2024)





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Mesic Roadside Native Vegetation

NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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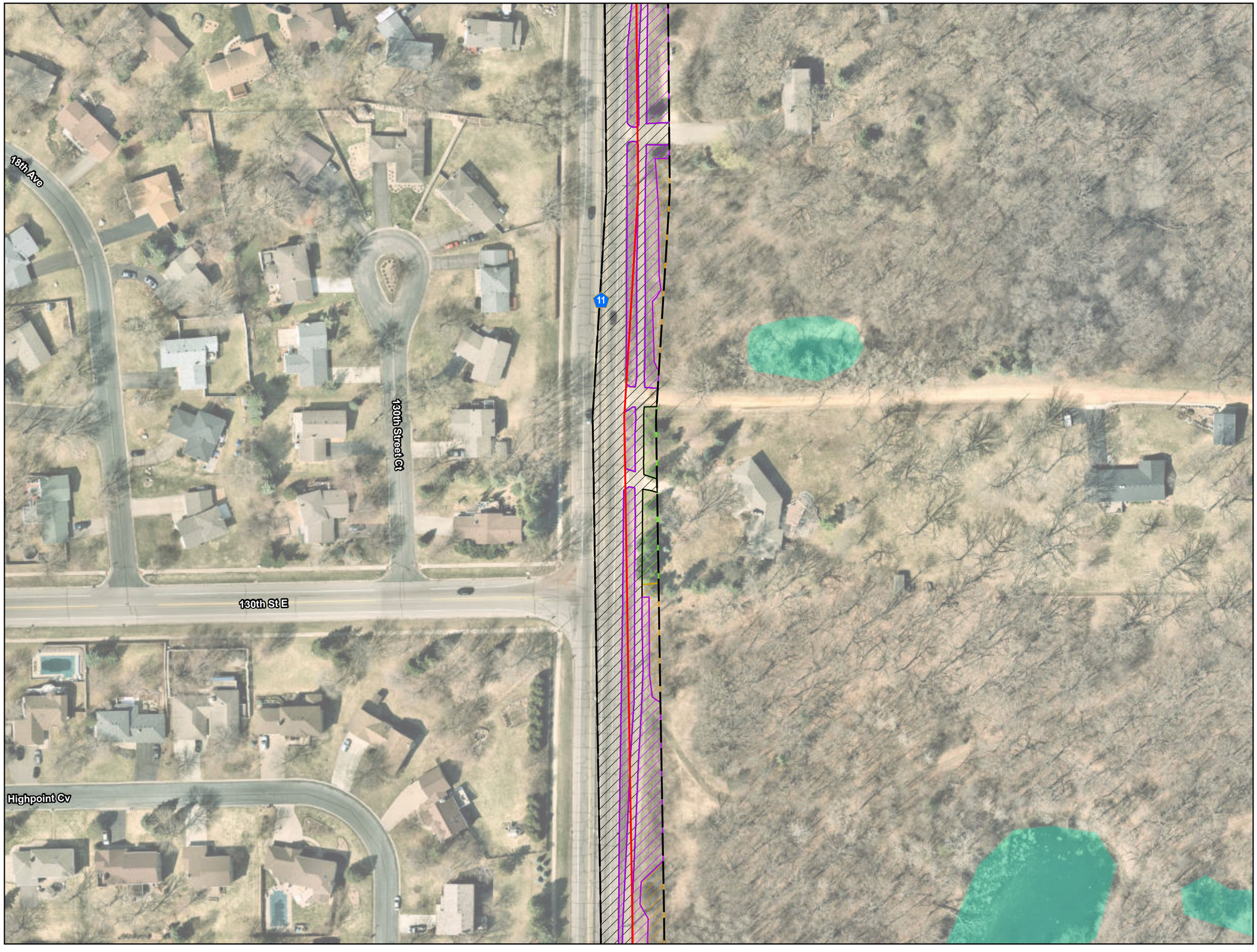
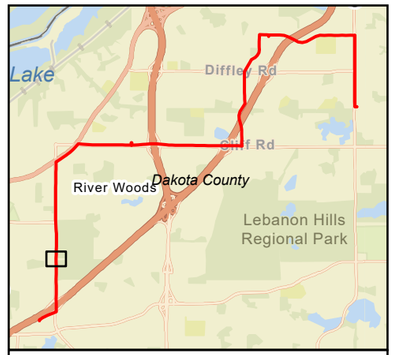
Source: (11/14/2024)

For Environmental Review Purposes Only





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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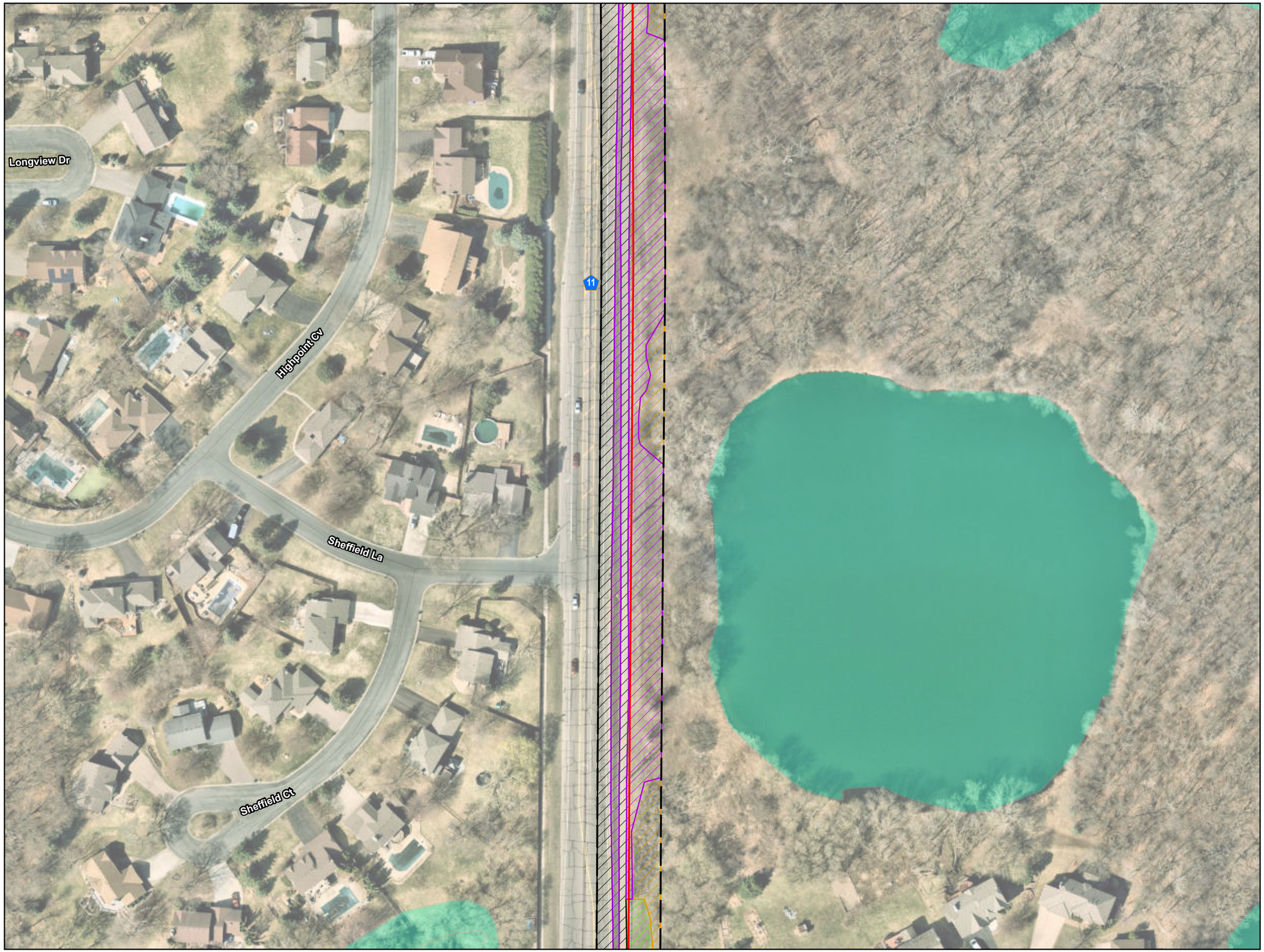
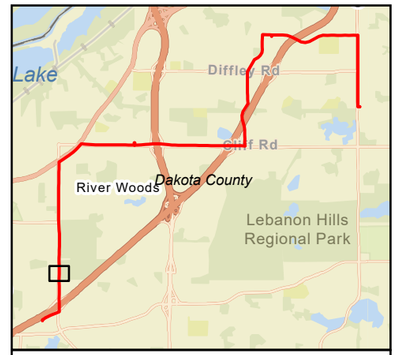
For Environmental Review Purposes Only

Source: 11/14/2024





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Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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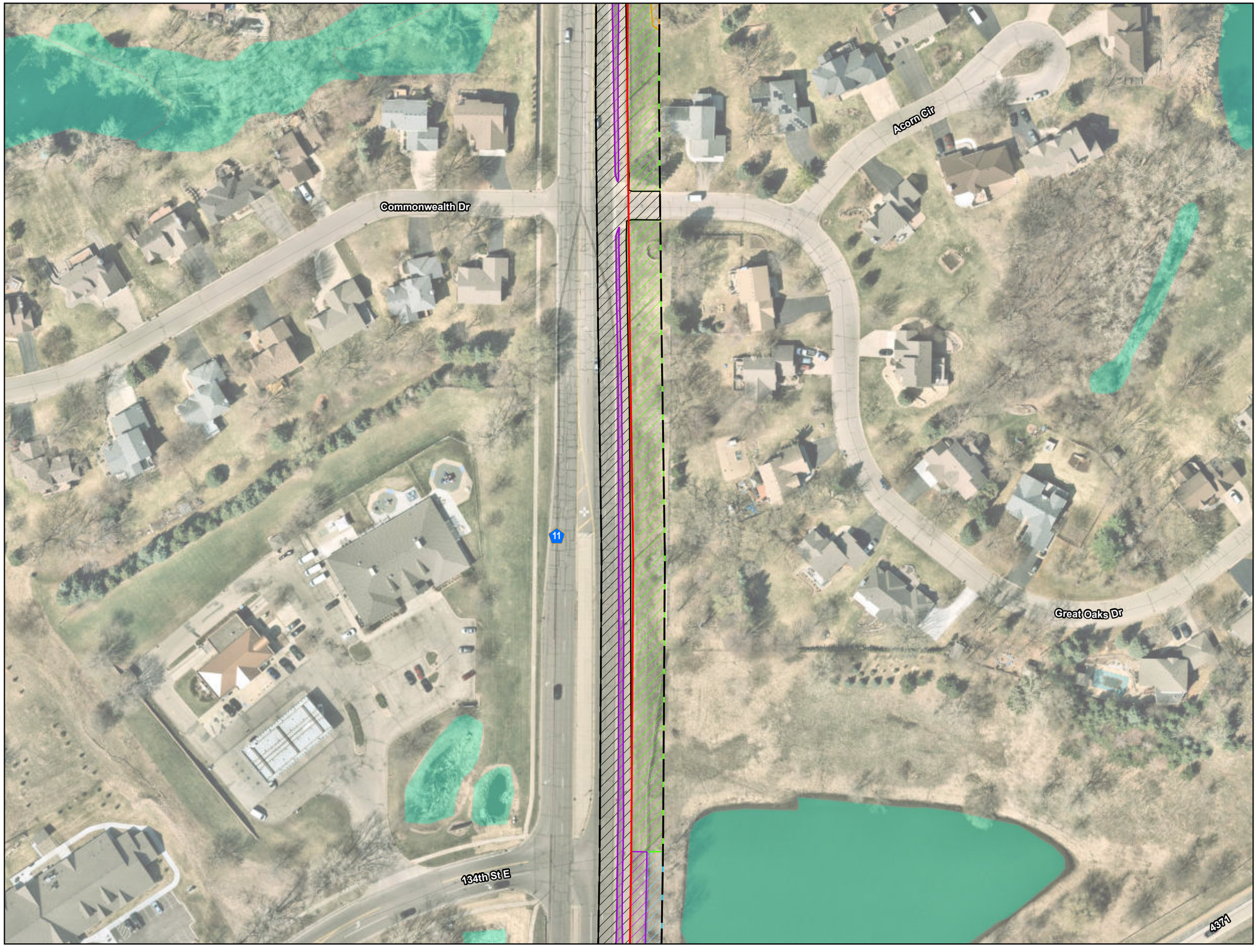
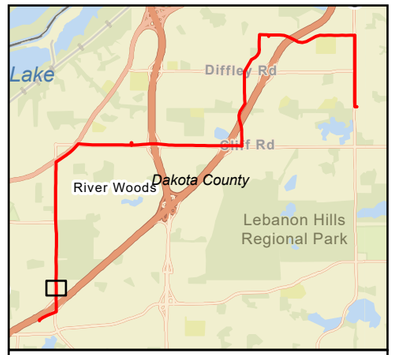
Source: (11/14/2024)

For Environmental Review Purposes Only





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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Private Turf
- Mesic Roadside Native Vegetation
- Wet Roadside Ditches
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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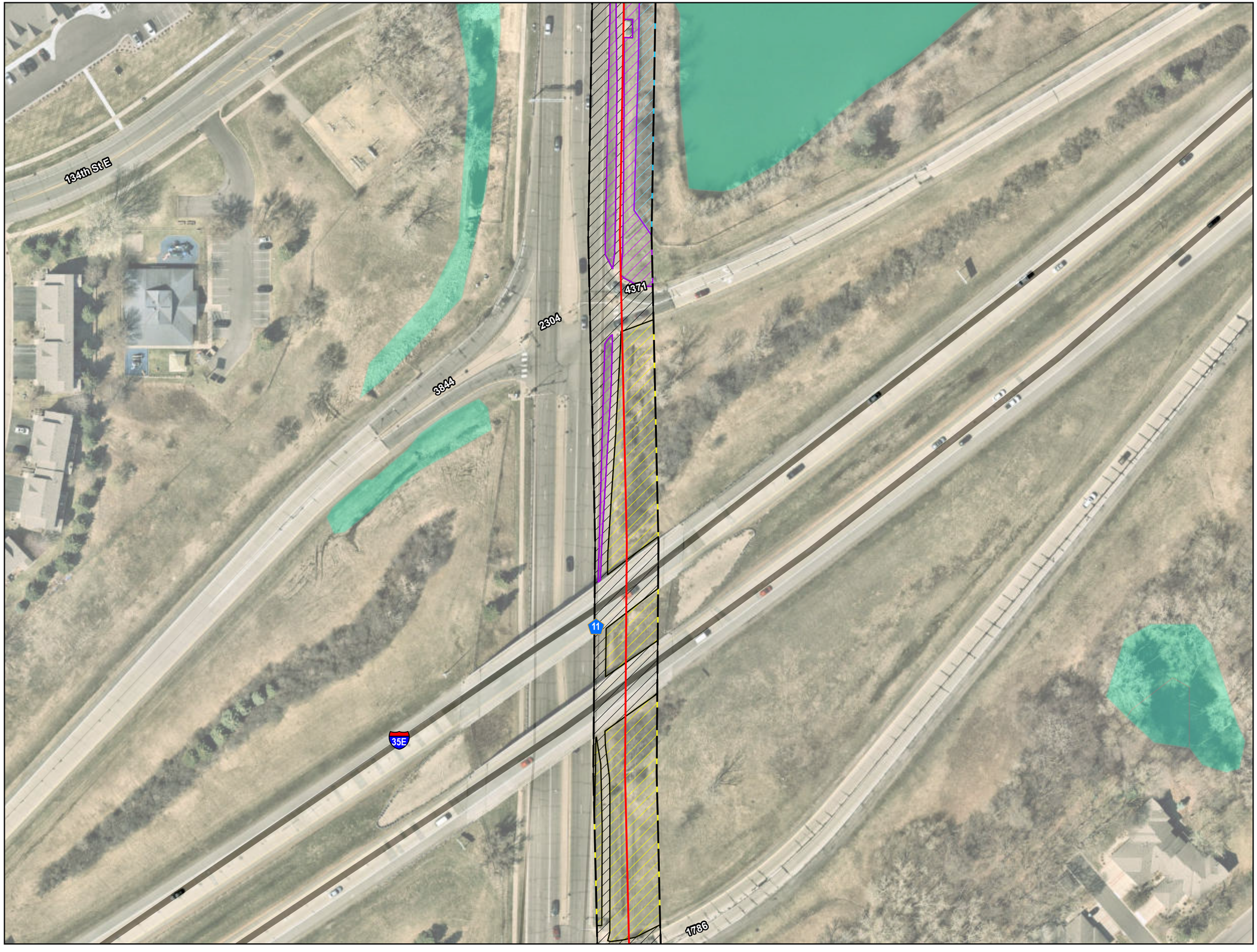
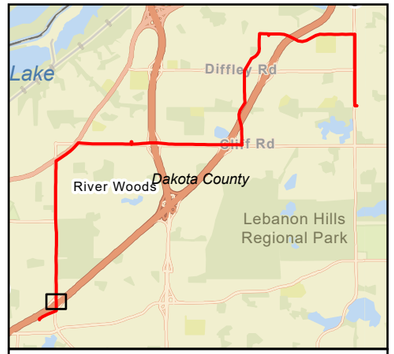
For Environmental Review Purposes Only

Source: [illegible]





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- Proposed Alignment
- Proposed 70' Right-of-Way

Seeding Area

- Developed Area - No Seeding
- Commercial Area
- Mesic General Roadside
- Wet Roadside Ditches
- NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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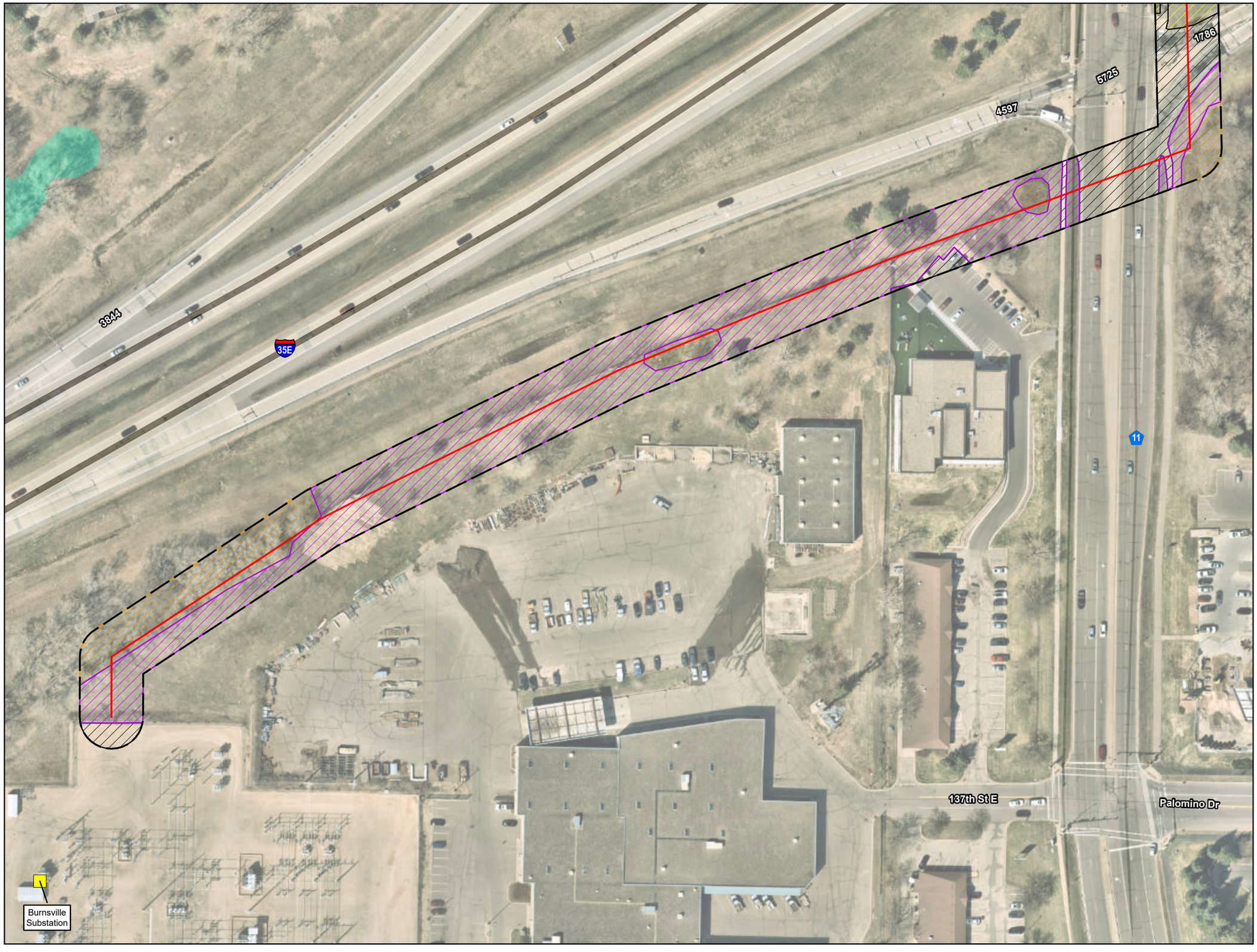
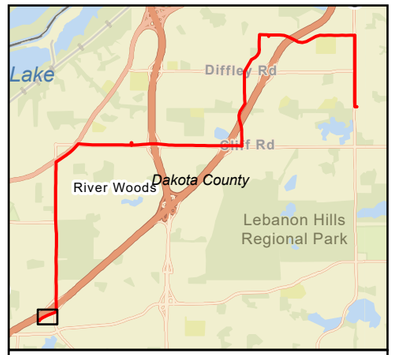
Sources: 11/14/2024

For Environmental Review Purposes Only





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Existing Substation

Proposed Alignment

Proposed 70' Right-of-Way

Seeding Area

Developed Area - No Seeding

Commercial Area

Mesic General Roadside

Mesic Roadside Native Vegetation

NWI Wetland - No Seeding

Pilot Knob to Burnsville Rebuild and Upgrade Project

Seeding Areas

Dakota County, Minnesota

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For Environmental Review Purposes Only

Source: [illegible]