Appendix A. Environmental Assessment Scoping Decision

In the Matter of the Route Permit Application by Northern States Power Company for the Kohlman Lake to Goose Lake 115 kV Transmission Line Project in Ramsey County, Minnesota

ENVIRONMENTAL ASSESSMENT SCOPING DECISION
PUC DOCKET NO. E002/TL-12-1151

The above matter has come before the deputy commissioner of the Department of Commerce (Department) for a decision on the scope of the environmental assessment (EA) to be prepared for the Kohlman Lake to Goose Lake 115 kV transmission line project proposed by Northern States Power Company.

Project Description

Xcel Energy proposes to replace an existing single circuit 115 kV transmission line with a new double circuit 115 kV line between the Kohlman Lake substation and the Goose Lake substation in northeast Ramsey County. The proposed route for the project is approximately 2.8 miles in length and follows an existing transmission line and railroad corridor. The new double circuit 115 kV line will be built, to the extent possible, on the same alignment as the existing line which it will replace.

Xcel Energy is requesting a 200 foot route width for the project. Xcel Energy proposes to use existing rights-of-way for the majority of the project and new right-of-way in two locations. In the areas where new right-of-way is necessary, Xcel Energy is proposing a right-of-way (easement) of 75 feet for the project. In addition to the new double circuit 115 kV line, the Kohlman Lake and Goose Lake substations will be modified and new equipment installed. All modifications will occur within the existing footprint of the substations.

Xcel Energy indicates in its route permit application that as the project utilizes existing transmission line right-of-way, it did not consider other route alternatives.

Purpose

Xcel Energy indicates in its route permit application that the project is needed to meet North American Electric Reliability Corporation (NERC) planning standards. Electrical loads in northeast Ramsey County are served generally from three sources – the Chisago County, Kohlman Lake, and Riverside substations. Absent the proposed project, an outage at one of these substations would result in the inability to maintain electrical service in the area. The new double circuit 115 kV line will provide a redundant power source such that electrical service can be maintained should an outage occur.

Regulatory Background

A route permit application for the project was filed by Xcel Energy on January 17, 2013, and accepted as complete by the Minnesota Public Utilities Commission (Commission) on March 15, 2013. The route permit application will be reviewed under the alternative permitting process,

pursuant to the Power Plant Siting Act (Minnesota Statues 216E) and Minnesota Rules 7850.2800 to 7850.3900.

Scoping Process

Scoping is the first step in the alternative permitting process after application acceptance. The scoping process has two primary purposes: (1) to ensure that the public has a chance to participate in determining what routes and issues are studied in the EA, and (2) to help focus the EA on impacts and issues important to a reasoned route permit decision. This scope identifies potential human and environmental issues that will be addressed in the EA. The scope also presents an anticipated schedule of the environmental review process.

Public Scoping Meeting

Commission and Department staff held a joint public information and environmental assessment scoping meeting on April 23, 2013, in White Bear Lake, Minnesota. The meeting provided members of the public an opportunity to learn about the proposed project and the state's permitting process, ask questions, provide comments, and identify potential impacts and route alternatives to be considered in the scope of the environmental assessment. Four members of the public attended the meeting. One citizen expressed concern about the electric and magnetic fields that would be produced by the project. Another citizen, a representative from the Metropolitan Council, related concerns of the Council regarding wastewater sewers in the project area.

Public Comments

A comment period, ending on May 10, 2013, provided the public an opportunity to submit comments to Department staff on issues and route alternatives for consideration in the scope of the EA. Three comment letters were received by the close of the comment period.

The Metropolitan Council commented that Xcel Energy's proposed route runs very near existing wastewater sewers ("interceptors"), and requested that Xcel Energy coordinate with the Council on placement of new transmission line structures.

The Minnesota Department of Natural Resources (DNR) commented that a threatened species – the Blanding's Turtle – is present in the project area and that mitigative measures should be taken to protect this species. The DNR also noted that a license to cross public lands and waters may be required for the project.

The Minnesota Department of Transportation (MnDOT) commented that road crossing permits, consistent with MnDOT's utility accommodation policy, would be required for the project. MnDOT requested that Xcel Energy coordinate with MnDOT staff on final design of all crossings. MnDOT also noted that Highway 61 is a house moving route and that appropriate transmission line clearances would be required to accommodate this purpose.

Scoping comments are available for viewing on the Department's energy facilities permitting website at: http://mn.gov/commerce/energyfacilities/Docket.html?Id=33013 and on the eDockets website at: https://edockets.state.mn.us/EFiling/search.jsp (enter "12" for year and "1151" for number).

Commission Review

On May 28, 2013, Department staff provided the Commission with a summary of the EA scoping process. The summary indicated that Department staff would be recommending to the deputy commissioner of the Department that the scoping decision for the project include only that route proposed by Xcel Energy in its route permit application for evaluation in the EA. On June 20, 2013, the Commission considered what action, if any, it should take with respect to the route alternatives to be considered in the EA; the Commission took no action.

HAVING REVIEWED THE MATTER, consulted with Department staff, and in accordance with Minnesota Rule 7850.3700, I hereby make the following scoping decision:

MATTERS TO BE ADDRESSED

The issues outlined below will be identified and described in the environmental assessment (EA) for the proposed Kohlman Lake to Goose Lake project. The EA will describe the project and the human and environmental resources of the project area. It will also provide information on the potential impacts the proposed project could have as they relate to the topics outlined in this scoping decision, including possible mitigation for identified impacts, identification of irretrievable commitment of resources, and permits from other government entities that may be required.

I. GENERAL DESCRIPTION OF THE PROJECT

- A. Project Description
- B. Project Purpose
- C. Route Description
  1. Route Width
  2. Right-of-Way
- D. Project Costs

II. REGULATORY FRAMEWORK

- A. Certificate of Need
- B. High Voltage Transmission Line Route Permit
- C. Environmental Review Process

III. ENGINEERING AND DESIGN

- A. Transmission Line Structures
- B. Transmission Line Conductors

IV. CONSTRUCTION

- A. Right-of-Way Acquisition
- B. Construction
- C. Restoration
- D. Operation and Maintenance

V. AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

A. Environmental Setting
B. Socioeconomics
C. Human Settlements
    1. Noise
    2. Aesthetics
    3. Displacement
    4. Property Values
    5. Public Services
        a) Roads and Highways
        b) Utilities
        c) Emergency Services
    6. Electronic Interference
        a) Radio
        b) Television
        c) Wireless Phone / Internet Services
D. Public Health and Safety
    1. Electric and Magnetic Fields
    2. Implantable Medical Devices
    3. Stray Voltage
    4. Induced Voltage
    5. Air Quality
E. Land Based Economies
    1. Agriculture
    2. Forestry
    3. Mining
    4. Recreation and Tourism
F. Archaeological and Historic Resources
G. Natural Environment
    1. Water Resources
        a) Surface Waters
        b) Groundwater
        c) Wetlands
    2. Soils
    3. Flora
    4. Fauna
H. Threatened / Endangered / Rare and Unique Natural Resources
I. Zoning and Land Use Compatibility
    1. Use of Existing Rights-of-Way
J. Adverse Impacts Which Cannot Be Avoided
K. Irreversible and Irretrievable Commitments of Resources

VI. ALTERNATIVE ROUTES TO BE EVALUATED IN THE ENVIRONMENTAL ASSESSMENT

The route proposed by Xcel Energy in its route permit application will be evaluated in the EA (see attached map). No other routes or route alternatives will be evaluated in the EA.

VII. IDENTIFICATION OF PERMITS

The EA will include a list and description of permits from other government entities that may be required for the proposed project.

ISSUES OUTSIDE THE SCOPE OF THE ENVIRONMENTAL ASSESSMENT

The EA for the Kohlman Lake to Goose Lake project will not consider the following:

A. No-build alternative.
B. Issues related to project need, size, type, or timing.
C. Any route alternative not specifically identified in this scoping decision.
D. Policy issues surrounding whether utilities or local governments should be liable for the cost to relocate utility poles when roadways are widened.
E. The manner in which land owners are paid for transmission right-of-way easements, as that is outside the jurisdiction of the Commission.

SCHEDULE

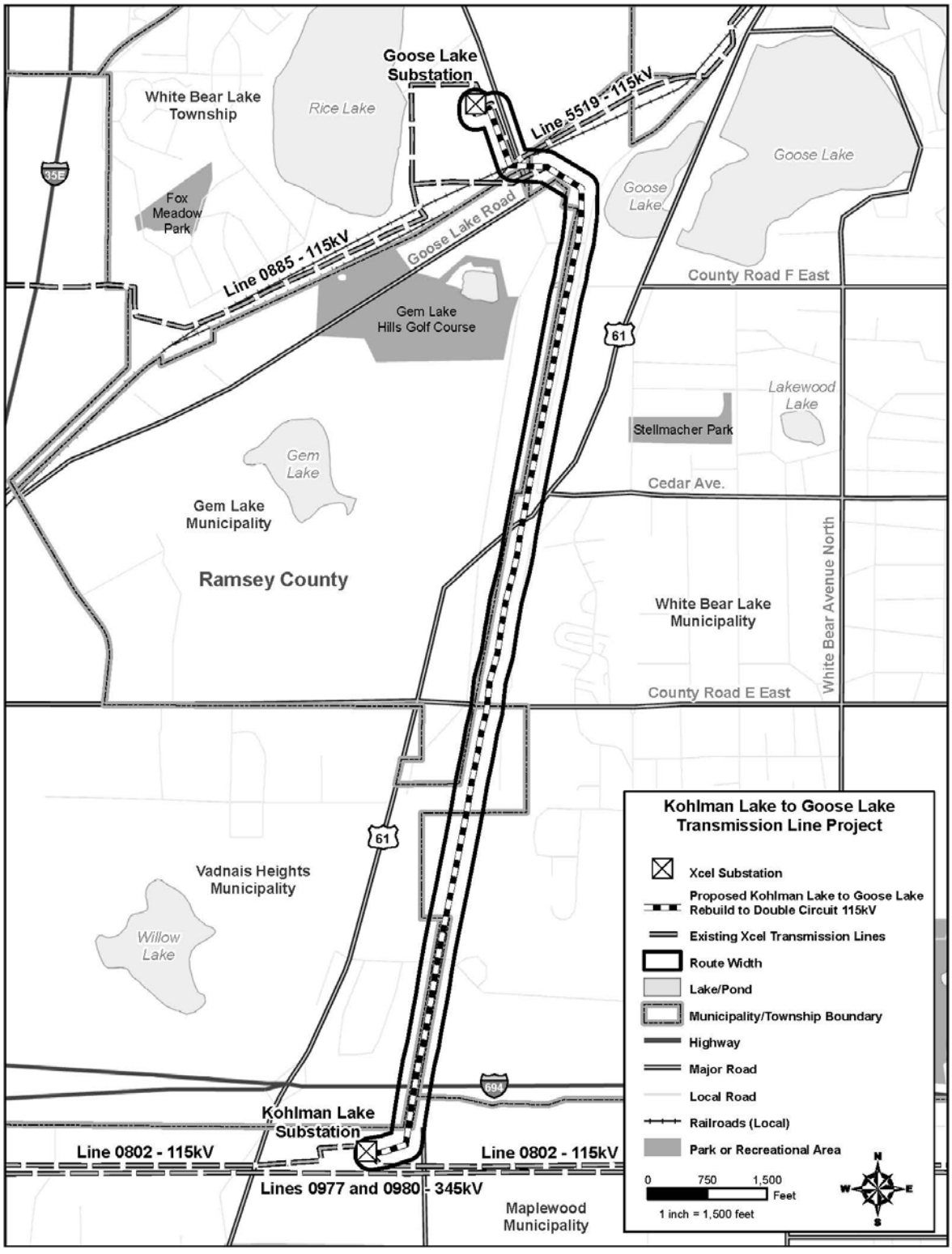
The environmental assessment is anticipated to be completed and available in September 2013. A public hearing will be held in the project area after the environmental assessment has been issued and notice served.

Signed this 26th day of June, 2013

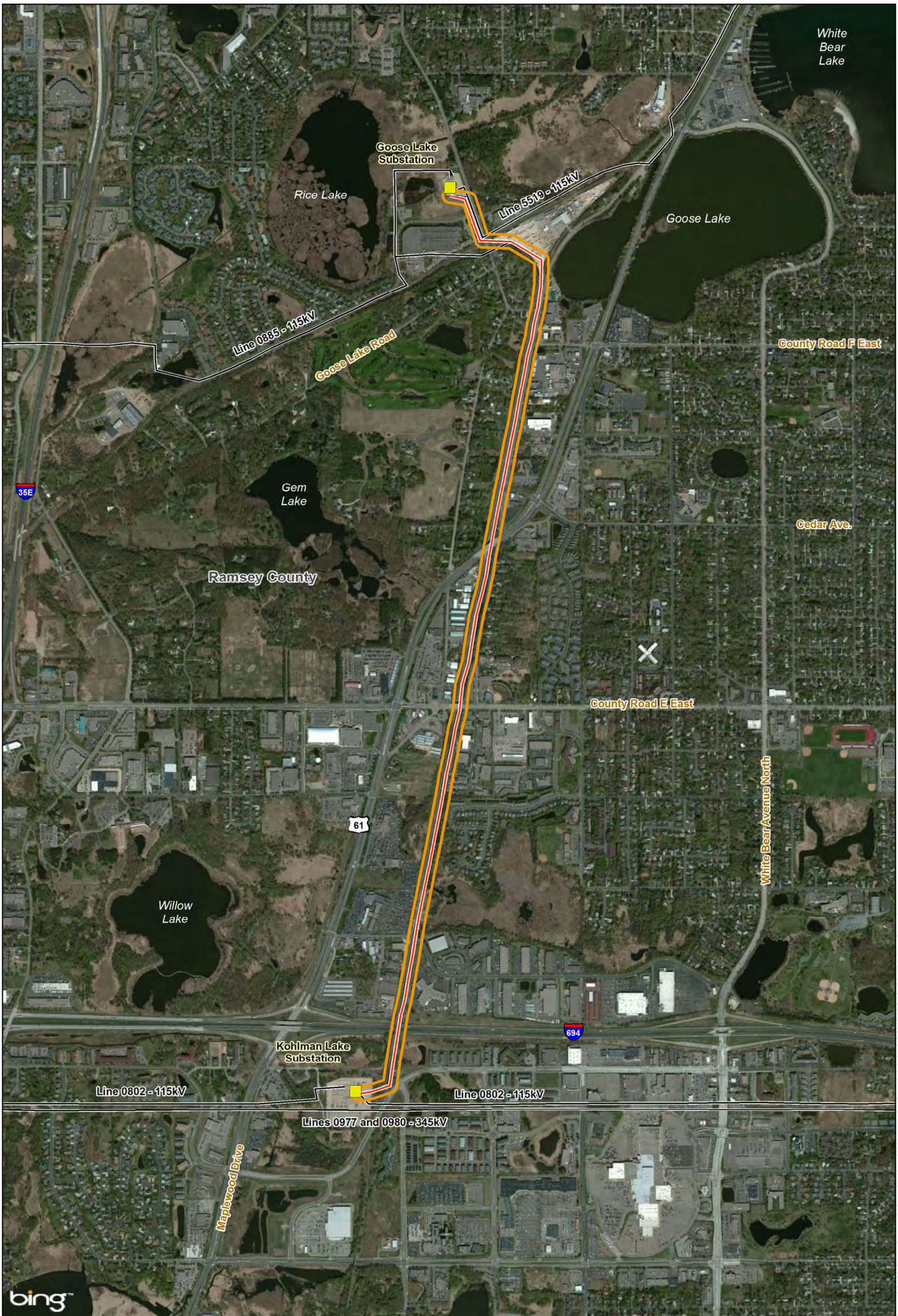
STATE OF MINNESOTA
DEPARTMENT OF COMMERCE

William Grant, Deputy Commissioner

Kohlman Lake to Goose Lake 115 kV Transmission Line Project
Route to be Evaluated in Environmental Assessment



Appendix B. Maps



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

N

Source: Aerial provided by ESRI
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

0 1,000 2,000 Feet

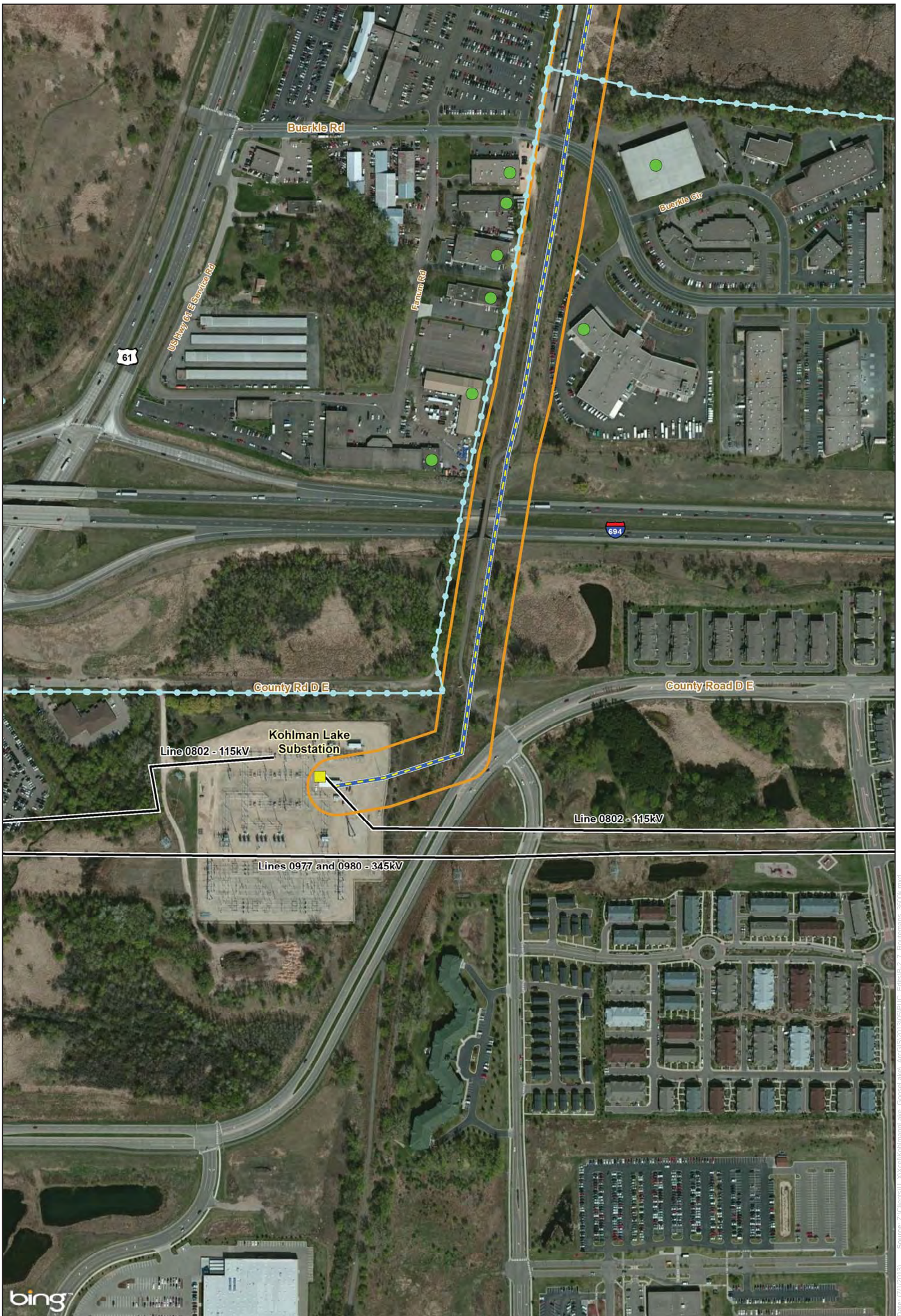
Project Overview Map

Map B-1

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_X\Xcel\Kohlman\Lake_GooseLake_ArcGIS\2013\05\PUC_Edits\EA_Map_B1.mxd

Date: (5/31/2013)



Existing Xcel Energy Substation

New Double Circuit
(Circuit #1 and Circuit #2)

New Double Circuit
(Circuit #2 and Existing Line 5519)

Existing Xcel Energy
Transmission Lines

Route Width - 200 Feet

Sewer System

0 150 300 Feet

Residences: 0-100 Feet

Residences: 100-200 Feet

Residences: 200-300 Feet

Businesses within 300 Feet

N

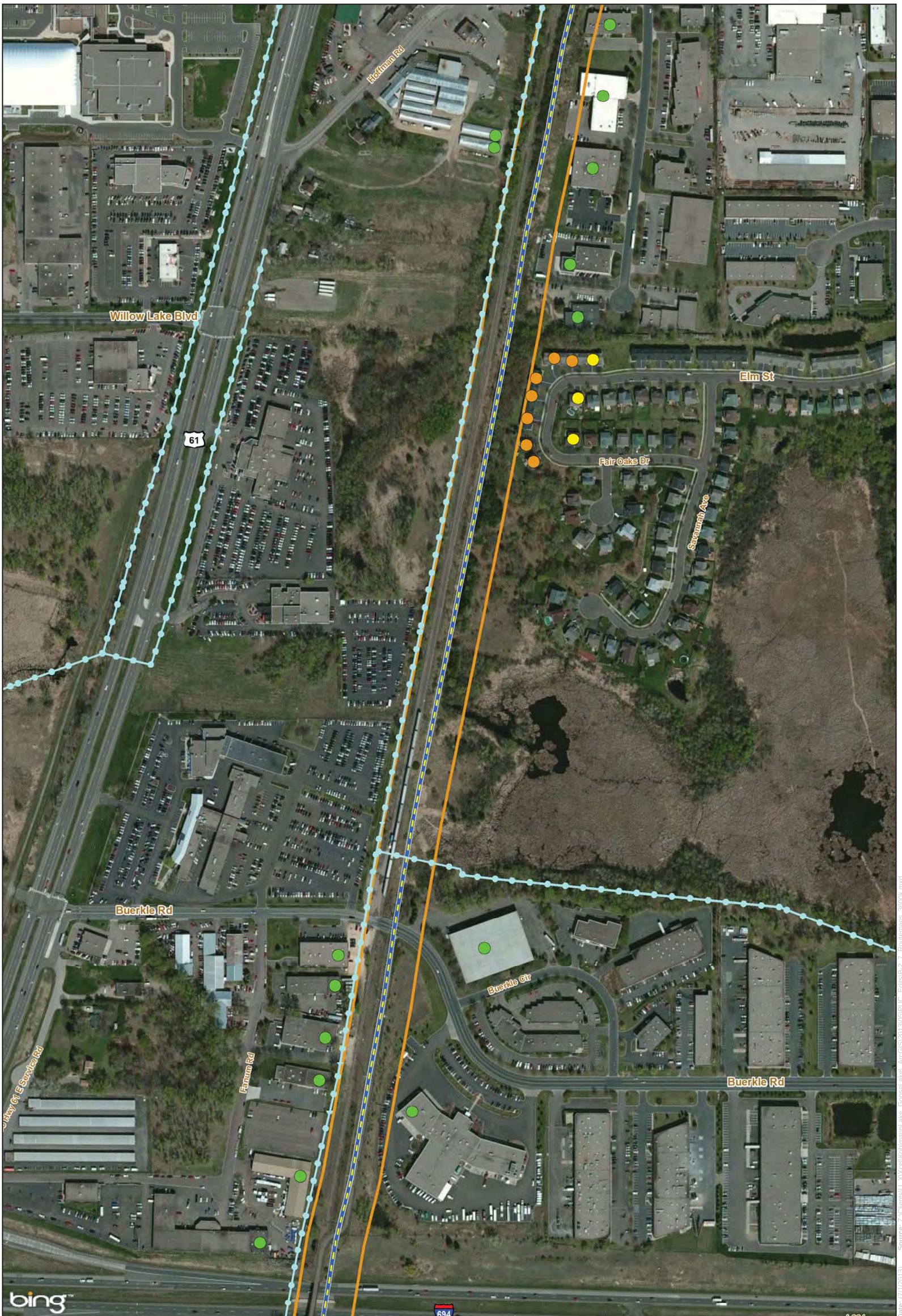
Project Route Map

Map B-2

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_A\Xcel\Kohlman Lake_Goose Lake_AllGIS\2013\05\PUC_Ellis\Bt-2_7_Routemaps_3600k.mxd

Date: (7/1/2013)



Existing Xcel Energy Substation

New Double Circuit
(Circuit #1 and Circuit #2)

New Double Circuit
(Circuit #2 and Existing Line 5519)

Existing Xcel Energy
Transmission Lines

Route Width - 200 Feet

Sewer System

0 150 300 Feet

Residences: 0-100 Feet

Residences: 100-200 Feet

Residences: 200-300 Feet

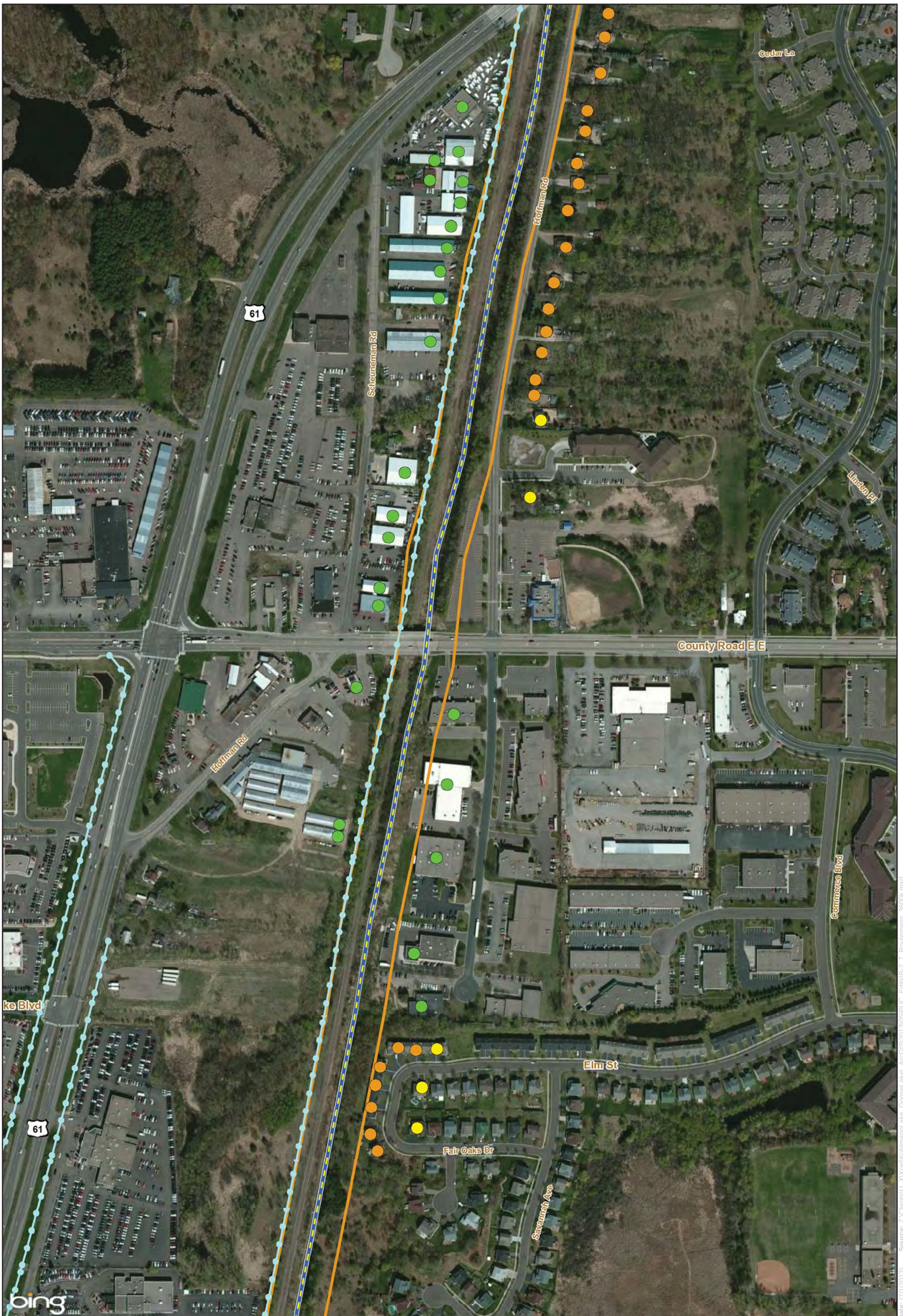
Businesses within 300 Feet

N

Project Route Map

Map B-3

Kohlman Lake to Goose Lake 115 kV Project



Existing Xcel Energy Substation
New Double Circuit (Circuit #1 and Circuit #2)
New Double Circuit (Circuit #2 and Existing Line 5519)
Existing Xcel Energy Transmission Lines
Route Width - 200 Feet
Sewer System

0 150 300 Feet

Residences: 0-100 Feet
Residences: 100-200 Feet
Residences: 200-300 Feet
Businesses within 300 Feet

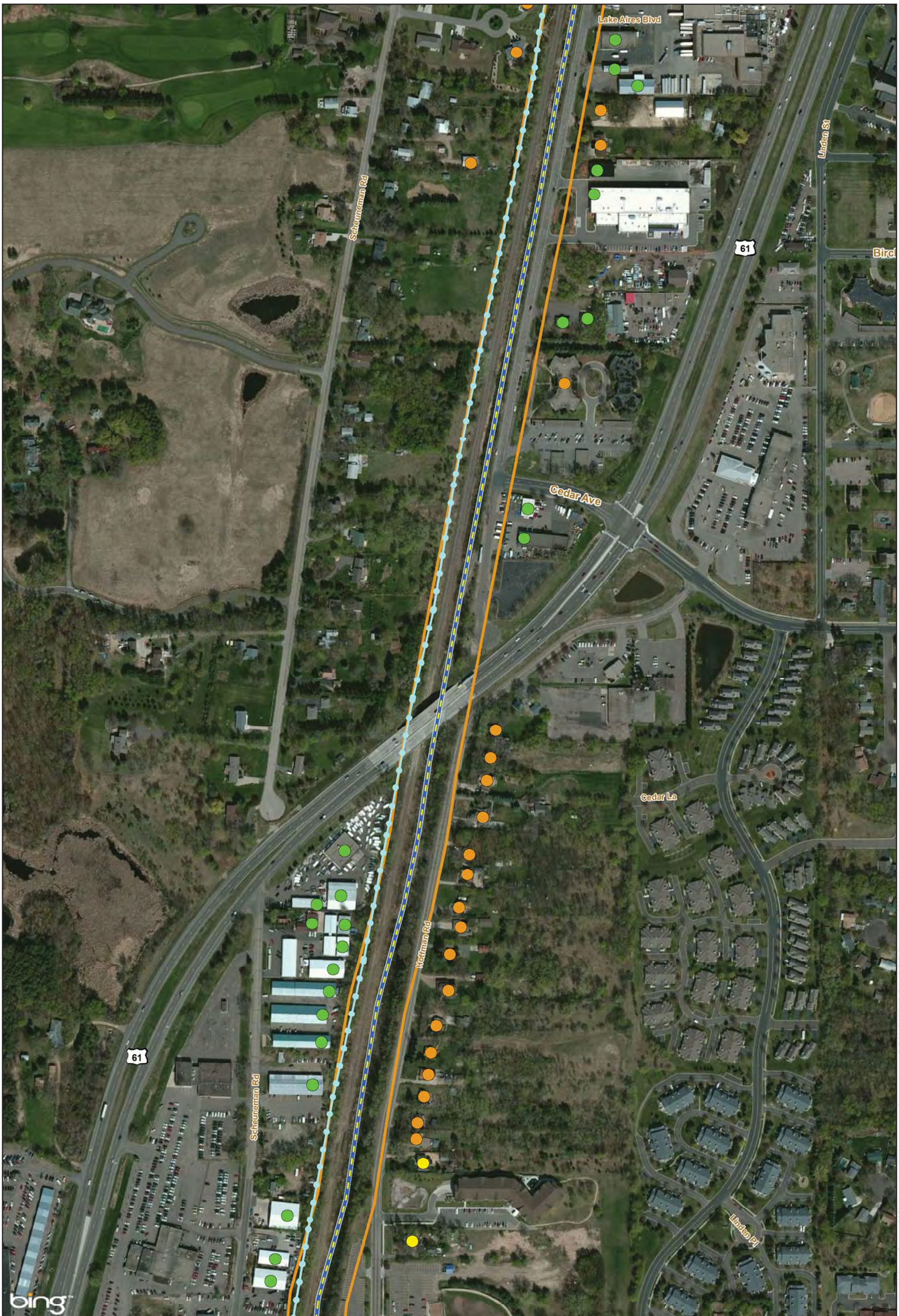
N

Project Route Map

Map B-4

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_AX\Xcel\KohlmanLake_GooseLake_AltGIS\2013\05PUC_EditsBE-2_7_Routemaps_3600k.mxd
Date: (7/2/2013)



Existing Xcel Energy Substation

New Double Circuit
(Circuit #1 and Circuit #2)

New Double Circuit
(Circuit #2 and Existing Line 5519)

Existing Xcel Energy
Transmission Lines

Route Width - 200 Feet

Sewer System

0 150 300 Feet

Residences: 0-100 Feet

Residences: 100-200 Feet

Residences: 200-300 Feet

Businesses within 300 Feet

N

Project Route Map

Map B-5

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\Xcel_AFC\GIS\2013\05\PUC_Ellis\B-2_7_Routemaps_3600k.mxd

Date: (7/3/2013)

Existing Xcel Energy Substation

New Double Circuit
(Circuit #1 and Circuit #2)

New Double Circuit
(Circuit #2 and Existing Line 5519)

Existing Xcel Energy
Transmission Lines

Route Width - 200 Feet

Sewer System

0 150 300 Feet

Residences: 0-100 Feet

Residences: 100-200 Feet

Residences: 200-300 Feet

Businesses within 300 Feet

N

Project Route Map

Map B-6

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_A\Xcel\Kohlman Lake_Goose Lake_AltGIS\2013\05\PUC_Edits\BE-2_7_Routemaps_3600k.mxd

Date: (7/3/2013)

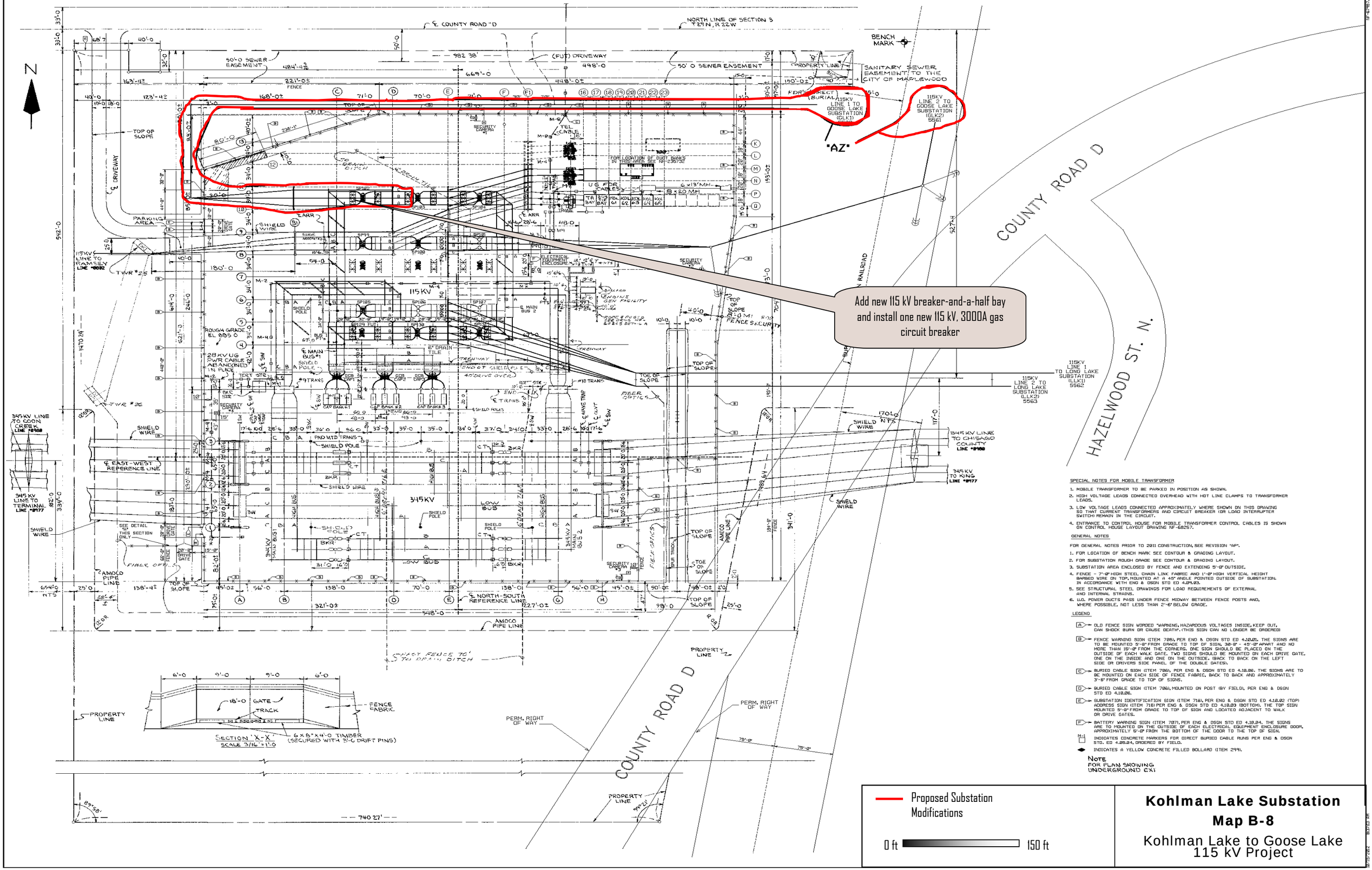
Existing Xcel Energy Substation
New Double Circuit (Circuit #1 and Circuit #2)
New Double Circuit (Circuit #2 and Existing Line 5519)
Existing Xcel Energy Transmission Lines
Route Width - 200 Feet
Sewer System
0 150 300 Feet
Residences: 0-100 Feet
Residences: 100-200 Feet
Residences: 200-300 Feet
Businesses within 300 Feet
N

Project Route Map

Map B-7

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_Xx\Xcel\Kohlman\Lake_Goose\Lake_Alt\GIS\20130305\PUC_Edits\Bt-2_7_Routemaps_3600k.mxd
Date: (7/2/2013)



SPECIAL NOTES FOR MOBILE TRANSFORMER

1. MOBILE TRANSFORMER TO BE PARKED IN POSITION AS SHOWN.
2. HIGH VOLTAGE LEADS CONNECTED OVERHEAD WITH HOT LINE CLAMPS TO TRANSFORMER LEADS.
3. LOW VOLTAGE LEADS CONNECTED APPROXIMATELY WHERE SHOWN ON THIS DRAWING SO THAT CURRENT TRANSFORMERS AND CIRCUIT BREAKER (OR LOAD INTERRUPTER SWITCH) REMAIN IN THE CIRCUIT.
4. ENTRANCE TO CONTROL HOUSE FOR MOBILE TRANSFORMER CONTROL CABLES IS SHOWN ON CONTROL HOUSE LAYOUT DRAWING NF-68267.

GENERAL NOTES

FOR GENERAL NOTES PRIOR TO 2011 CONSTRUCTION, SEE REVISION "AP".

1. FOR LOCATION OF BENCH MARK SEE CONTOUR & GRADING LAYOUT.
2. FOR SUBSTATION ROUGH GRADE SEE CONTOUR & GRADING LAYOUT.
3. SUBSTATION AREA ENCLOSED BY FENCE AND EXTENDING 5'-0" OUTSIDE.
4. FENCE - 7'-0" HIGH STEEL CHAIN LINK FABRIC AND 1'-0" HIGH VERTICAL HEIGHT BARBED WIRE ON TOP, MOUNTED AT A 45° ANGLE POINTED OUTSIDE OF SUBSTATION. IN ACCORDANCE WITH ENG & DSGN STD ED 4.09.03.
5. SEE STRUCTURAL STEEL DRAWINGS FOR LOAD REQUIREMENTS OF EXTERNAL AND INTERNAL STRAINS.
6. U.G. POWER DUCTS PASS UNDER FENCE MIDWAY BETWEEN FENCE POSTS AND, WHERE POSSIBLE, NOT LESS THAN 2'-6" BELOW GRADE.

LEGEND

- (A) → OLD FENCE SIGN WORDED "WARNING, HAZARDOUS VOLTAGES INSIDE, KEEP OUT, CAN SHOCK BURN OR CAUSE DEATH". (THIS SIGN CAN NO LONGER BE ORDERED)
- (B) → FENCE WARNING SIGN (ITEM 708), PER ENG & DSGN STD ED 4.10.01. THE SIGNS ARE TO BE MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN, 30'-0" - 45'-0" APART AND NO MORE THAN 15'-0" FROM THE CORNERS. ONE SIGN SHOULD BE PLACED ON THE OUTSIDE OF EACH WALK GATE. TWO SIGNS SHOULD BE MOUNTED ON EACH DRIVE GATE, ONE ON THE INSIDE AND ONE ON THE OUTSIDE, (BACK TO BACK ON THE LEFT SIDE OR DRIVERS SIDE PANEL OF THE DOUBLE GATES).
- (C) → BURIED CABLE SIGN (ITEM 708), PER ENG & DSGN STD ED 4.10.08. THE SIGNS ARE TO BE MOUNTED ON EACH SIDE OF FENCE FABRIC, BACK TO BACK AND APPROXIMATELY 3'-6" FROM GRADE TO TOP OF SIGNS.
- (D) → BURIED CABLE SIGN (ITEM 708), MOUNTED ON POST (BY FIELD), PER ENG & DSGN STD ED 4.10.06.
- (E) → SUBSTATION IDENTIFICATION SIGN (ITEM 710), PER ENG & DSGN STD ED 4.10.02 (TOP) ADDRESS SIGN (ITEM 710) PER ENG & DSGN STD ED 4.10.03 (BOTTOM). THE TOP SIGN MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN AND LOCATED ADJACENT TO WALK OR DRIVE GATES.
- (F) → BATTERY WARNING SIGN (ITEM 707), PER ENG & DSGN STD ED 4.10.04. THE SIGNS ARE TO MOUNTED ON THE OUTSIDE OF EACH ELECTRICAL EQUIPMENT ENCLOSURE DOOR, APPROXIMATELY 5'-0" FROM THE BOTTOM OF THE DOOR TO THE TOP OF SIGN.
- M-1 → INDICATES CONCRETE MARKERS FOR DIRECT BURIED CABLE RUNS PER ENG & DSGN STD. ED 4.05.04, ORDERED BY FIELD.
- ◆ INDICATES A YELLOW CONCRETE FILLED BOLLARD (ITEM 299).

NOTE
FOR PLAN SHOWING UNDERGROUND EXT

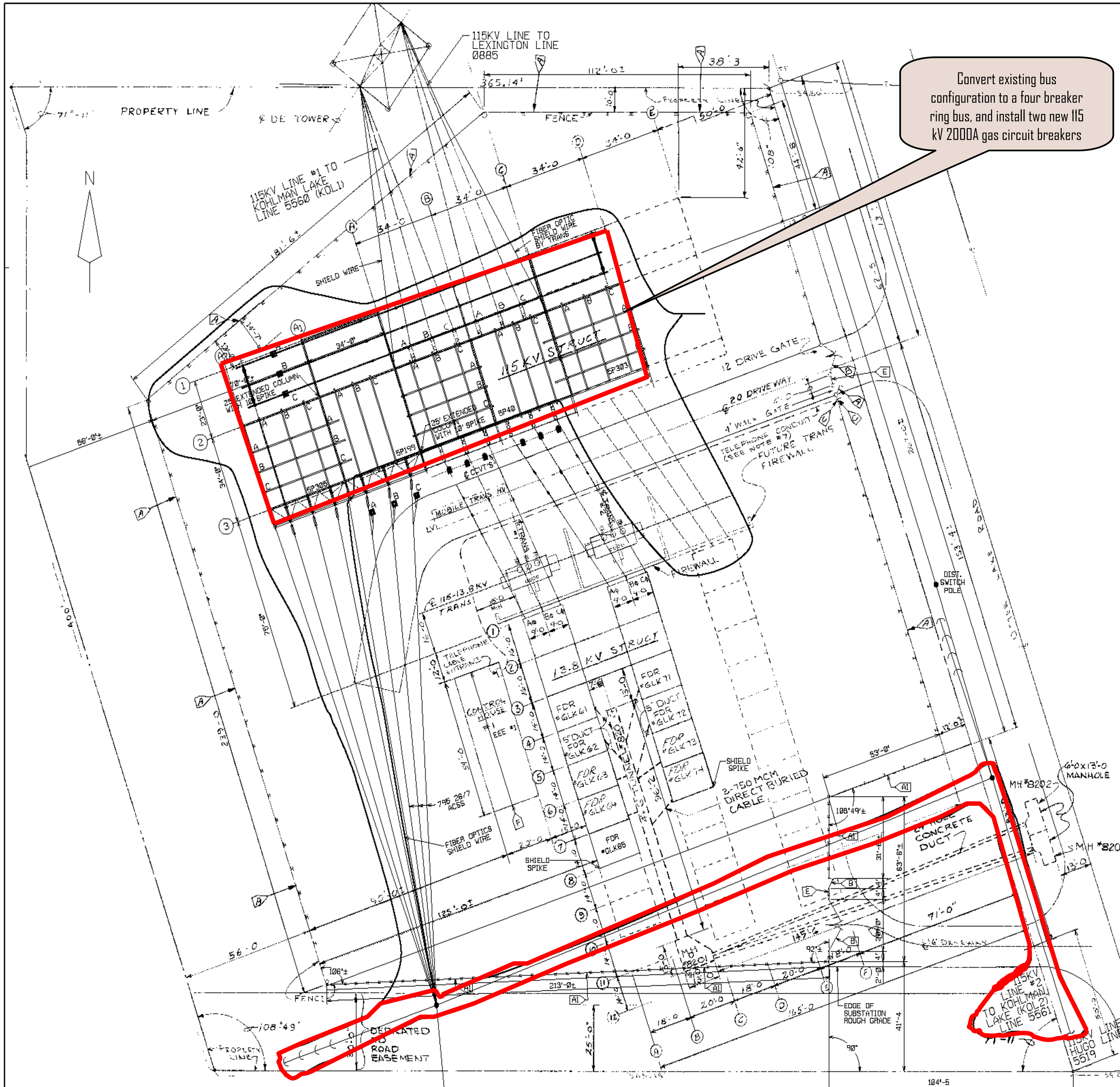
Proposed Substation Modifications

0 ft — 150 ft

Kohlman Lake Substation

Map B-8

Kohlman Lake to Goose Lake 115 kV Project



Proposed Substation Modifications	**Goose Lake Substation**
0 ft — 50 ft	**Map B-9**
	Kohlman Lake to Goose Lake 115 kV Project

GENERAL NOTES

FOR GENERAL NOTES PRIOR TO 2012 CONSTRUCTION, SEE REVISION 'AD'.

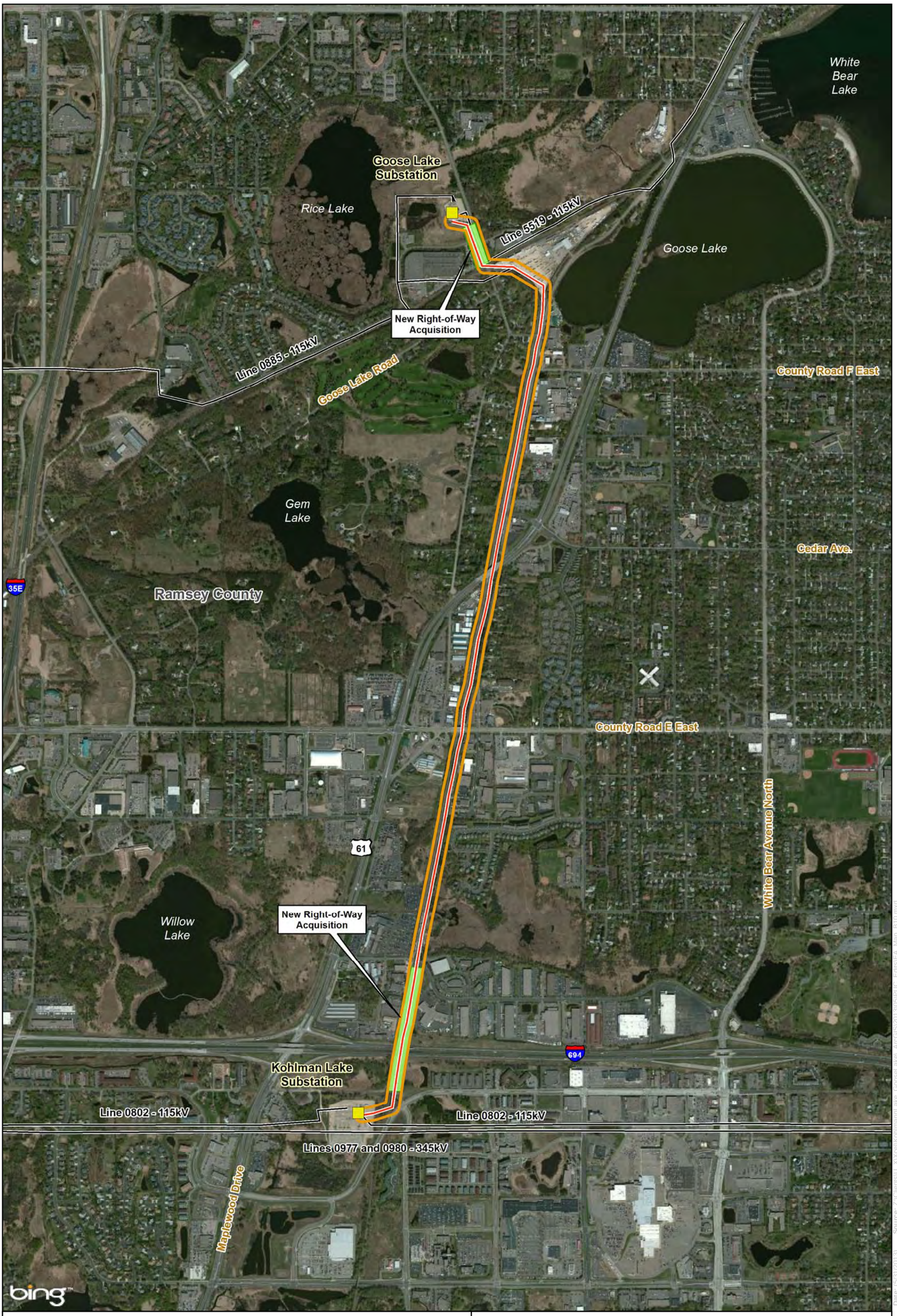
1. FOR LOCATION OF BENCH MARK SEE CONTOUR & GRADING LAYOUT.
2. FOR SUBSTATION ROUGH GRADE SEE CONTOUR & GRADING LAYOUT.
3. SUBSTATION AREA ENCLOSED BY FENCE AND EXTENDING 5'-0" OUTSIDE.
4. FENCE - 7'-0" HIGH STEEL CHAIN LINK FABRIC AND 1'-0" HIGH VERTICAL HEIGHT BARBED WIRE ON TOP, MOUNTED AT A 45° ANGLE POINTED OUTSIDE OF SUBSTATION. IN ACCORDANCE WITH ENG & DSGN STD ED 4.09.03.
5. SEE STRUCTURAL STEEL DRAWINGS FOR LOAD REQUIREMENTS OF EXTERNAL AND INTERNAL STRAINS.
6. U.G. POWER DUCTS PASS UNDER FENCE MIDWAY BETWEEN FENCE POSTS AND, WHERE POSSIBLE, NOT LESS THAN 2'-6" BELOW GRADE.
7. TELEPHONE CONDUIT (PVC) WILL BE USED FROM 90° ELBOW AT THE CONTROL HOUSE TO 2'-0" OUTSIDE THE FENCE AT APPROXIMATELY 1'-6" BELOW GRADE.

LEGEND

- A — OLD FENCE SIGN WORDED "WARNING, HAZARDOUS VOLTAGES INSIDE, KEEP OUT, CAN SHOCK BURN OR CAUSE DEATH". (THIS SIGN CAN NO LONGER BE ORDERED)
- B — FENCE WARNING SIGN (ITEM 708), PER ENG & DSGN STD ED 4.10.01. THE SIGNS ARE TO BE MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN, 30-0" - 45'-0" APART AND NO MORE THAN 15'-0" FROM THE CORNERS. ONE SIGN SHOULD BE PLACED ON THE OUTSIDE OF EACH WALK GATE. TWO SIGNS SHOULD BE MOUNTED ON EACH DRIVE GATE, ONE ON THE INSIDE AND ONE ON THE OUTSIDE. (BACK TO BACK ON THE LEFT SIDE OR DRIVERS SIDE PANEL OF THE DOUBLE GATES).
- C — BURIED CABLE SIGN (ITEM 706), PER ENG & DSGN STD ED 4.10.06. THE SIGNS ARE TO BE MOUNTED ON EACH SIDE OF FENCE FABRIC, BACK TO BACK AND APPROXIMATELY 3'-6" FROM GRADE TO TOP OF SIGNS.
- D — BURIED CABLE SIGN (ITEM 706), MOUNTED ON POST (BY FIELD), PER ENG & DSGN STD ED 4.10.06.
- E — SUBSTATION IDENTIFICATION SIGN (ITEM 718), PER ENG & DSGN STD ED 4.10.02 (TOP) ADDRESS SIGN (ITEM 716) PER ENG & DSGN STD ED 4.10.03 (BOTTOM). THE TOP SIGN MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN AND LOCATED ADJACENT TO WALK OR DRIVE GATES.
- F — BATTERY WARNING SIGN (ITEM 707), PER ENG & DSGN STD ED 4.10.04. THE SIGNS ARE TO MOUNTED ON THE OUTSIDE OF EACH ELECTRICAL EQUIPMENT ENCLOSURE DOOR, APPROXIMATELY 5'-0" FROM THE BOTTOM OF THE DOOR TO THE TOP OF SIGN.
- M-1 — INDICATES CONCRETE MARKERS FOR DIRECT BURIED CABLE RUNS PER ENG & DSGN STD. ED 4.05.04, ORDERED BY FIELD.
- ◆ — INDICATES A YELLOW CONCRETE FILLED BOLLARD (ITEM 299).
- A1 — INDICATES NO TRESPASSING SIGNS WORDED "WARNING/HAZARDOUS VOLTAGES INSIDE/KEEP OUT/CAN SHOCK BURN OR CAUSE DEATH". THIS SIGN IS NSP STOCK NO. 16-0092. (NSP STD. DWG. - NO-160200). THESE SIGNS ARE TO BE MOUNTED ON THE OUTSIDE OF THE FENCE FABRIC APPROXIMATELY 4'-6" FROM FINISHED GRADE TO THE CENTER OF SIGN AND EVERY 50'-0" AROUND THE FENCE PERIMETER.

SPECIAL NOTES FOR MOBILE SUBSTATION

1. MOBILE SUBSTATION TO BE PARKED IN POSITION AS SHOWN.
2. HIGH VOLTAGE LEADS CONNECTED WITH HOT LINE CLAMPS TO OVERHEAD TRANSFORMER LEADS.
3. LOW VOLTAGE LEADS CONNECTED APPROXIMATELY WHERE SHOWN ON THIS DRAWING.



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

Approximate Area of New ROW Acquisition

0 1,000 2,000 Feet

N

Source: Parcel Boundary Data from Xcel
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

Areas of New Right-of-Way Acquisition

Map B-10

Kohlman Lake to Goose Lake 115 kV Project

Date: (6/3/2013) Source: Z:\Clients\U_XX\Xcel\Kohlman\Lake_Goose\Lake_ArcGIS\2013\05\PDC_Edits\EA_Map_B10.mxd

Table 1

Common Tree Species	Average Regrowth after trimming (feet) 4 year cycle
Ash	12
Linden	10
Box-Elder	24
American Elm	20
Black Locust	27
Silver Maple	22
Sugar Maple	14
Red Oak	10
Weeping Willow	24
Cottonwood	24

Table 2

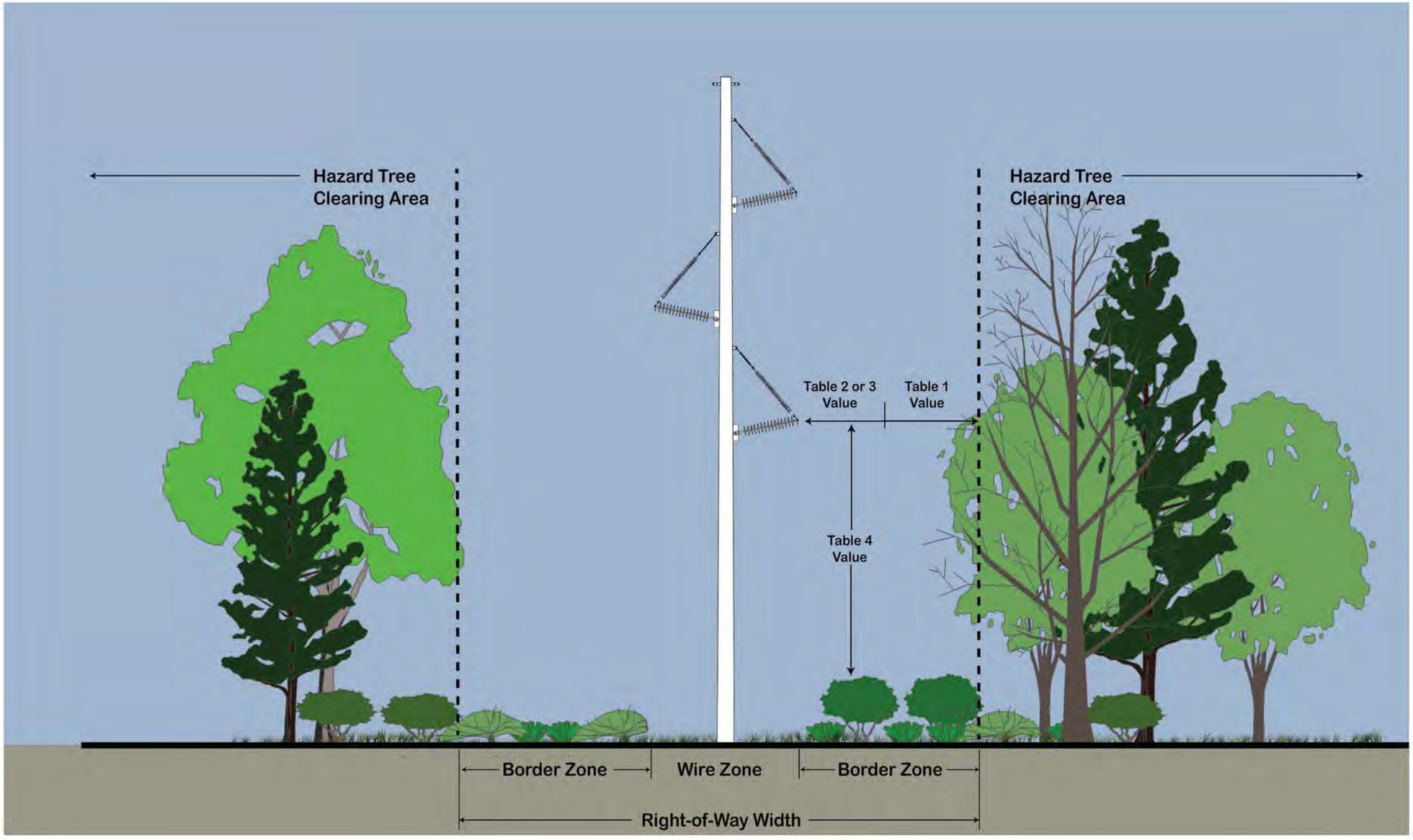
Voltage kV	Horizontal Maintained Tree Clearance at Structure	
	400' span	800' span
69	11 ft	11 ft
115	12 ft	12 ft
161	14 ft	14 ft
345	21 ft	21 ft

Table 3

Voltage kV	Horizontal Maintained Tree Clearance at Lowest Sag Point	
	400' span	800' span
69	11 ft	15 ft
115	12 ft	20 ft
161	14 ft	20 ft
345	21 ft	29 ft

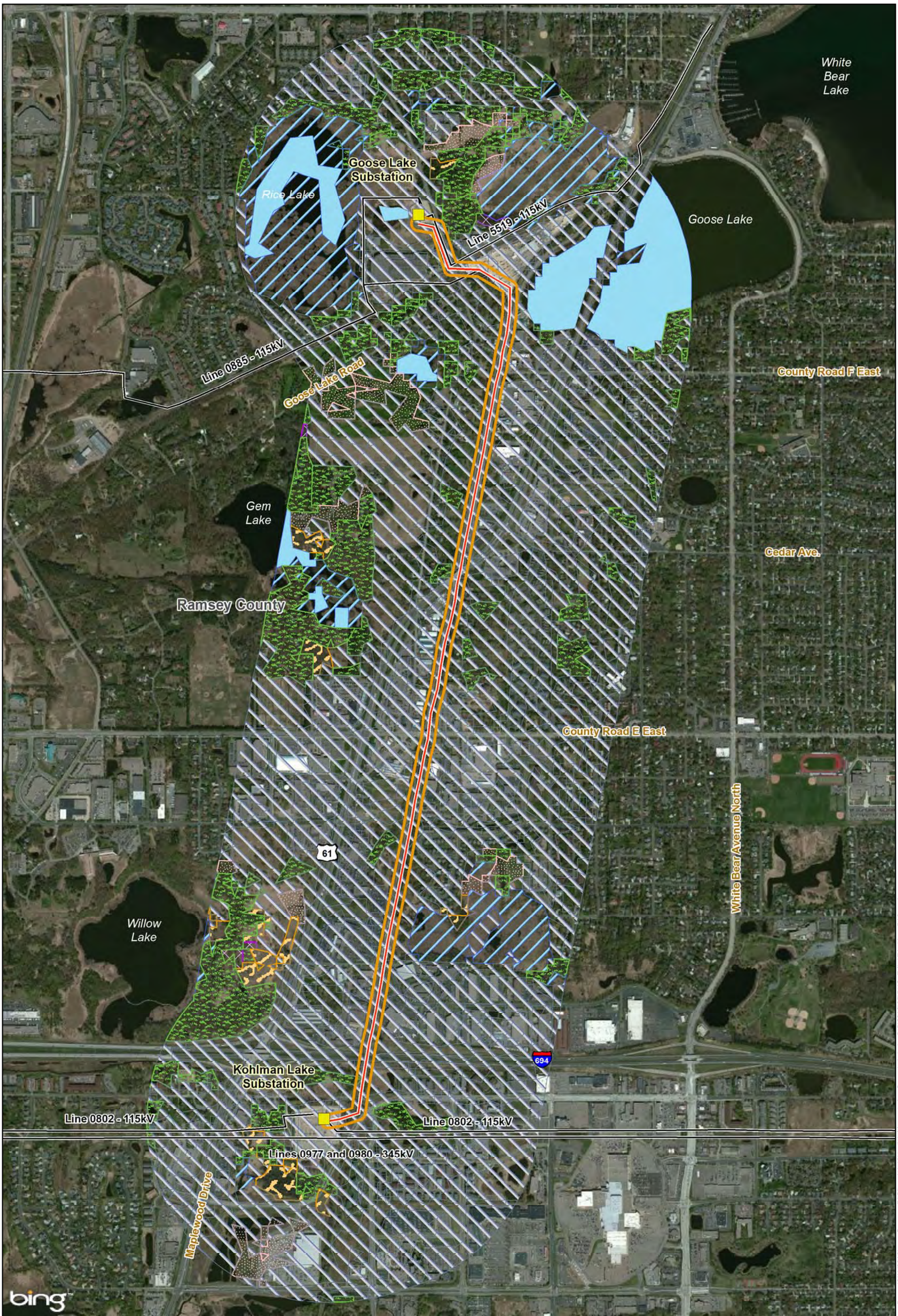
Table 4

Voltage kV	Vertical Maintained Tree Clearance at Lowest Sag Point	
	400' span	800' span
69	14 ft	18 ft
115	16 ft	20 ft
161	17 ft	21 ft
345	23 ft	27 ft



Data Source(s): Xcel Energy (2010) and Westwood (2010).

Vegetation Management Schematic
Map B-11
Kohlman Lake to Goose Lake 115 kV Project



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

Source: Land Use Land Cover from USDA/NRCS 2006
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

Land Use/Land Cover Classification

- Forest
- Developed
- Wetland
- Open Water
- Grassland/Herbaceous
- Pasture/Hay
- Shrub/Scrub

N

0 1,000 2,000 Feet

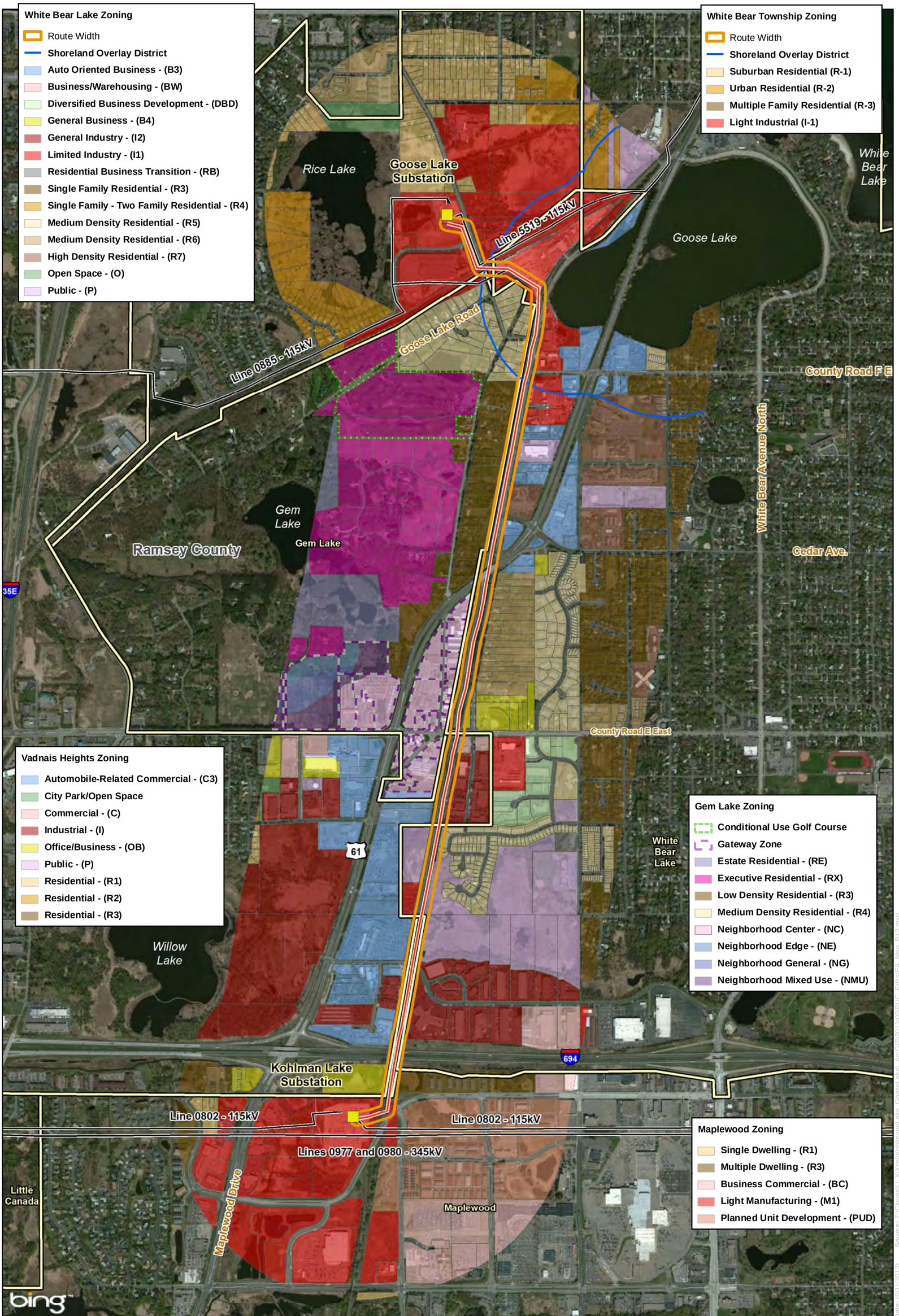
Land Use

Map B-12

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\D_XX\ed\KohlmanLake_GooseLake_ArcGIS\2013\05\PUC_Edits\EA_Map_B12.mxd

Date: (6/12/2013)



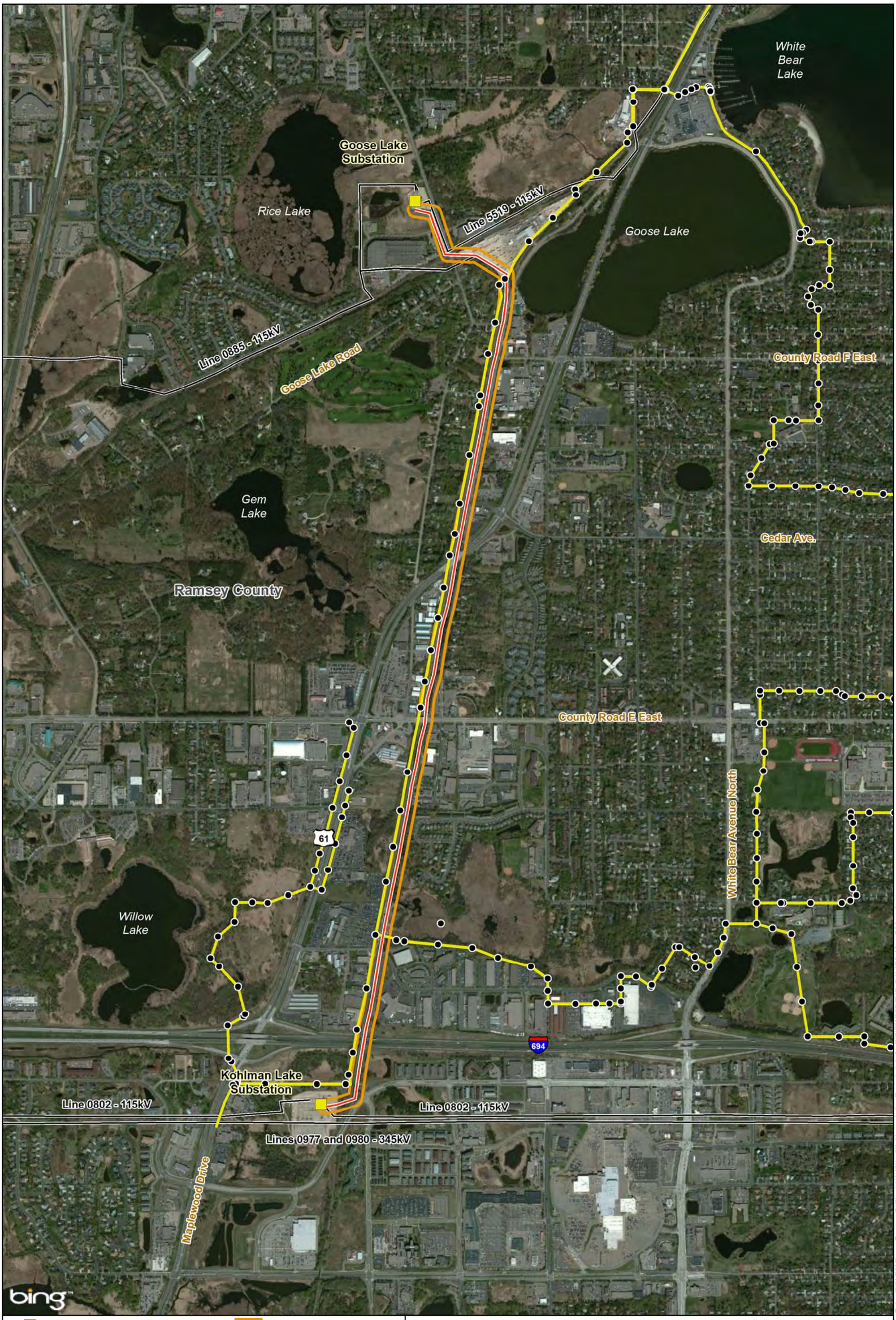
Zoning

Map B-13

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_XX\Kohlman\Lake_Goose\Lake_ArcGIS\2013\05\PUC_Edits\EA_Map_B13.mxd

Date: (6/17/2013)



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

Manhole

Sewer System

Source: Park and Rec Data obtained from City of White Bear Lake, White Bear Township, City of Maplewood, and Ramsey County
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

0 1,000 2,000 Feet

N

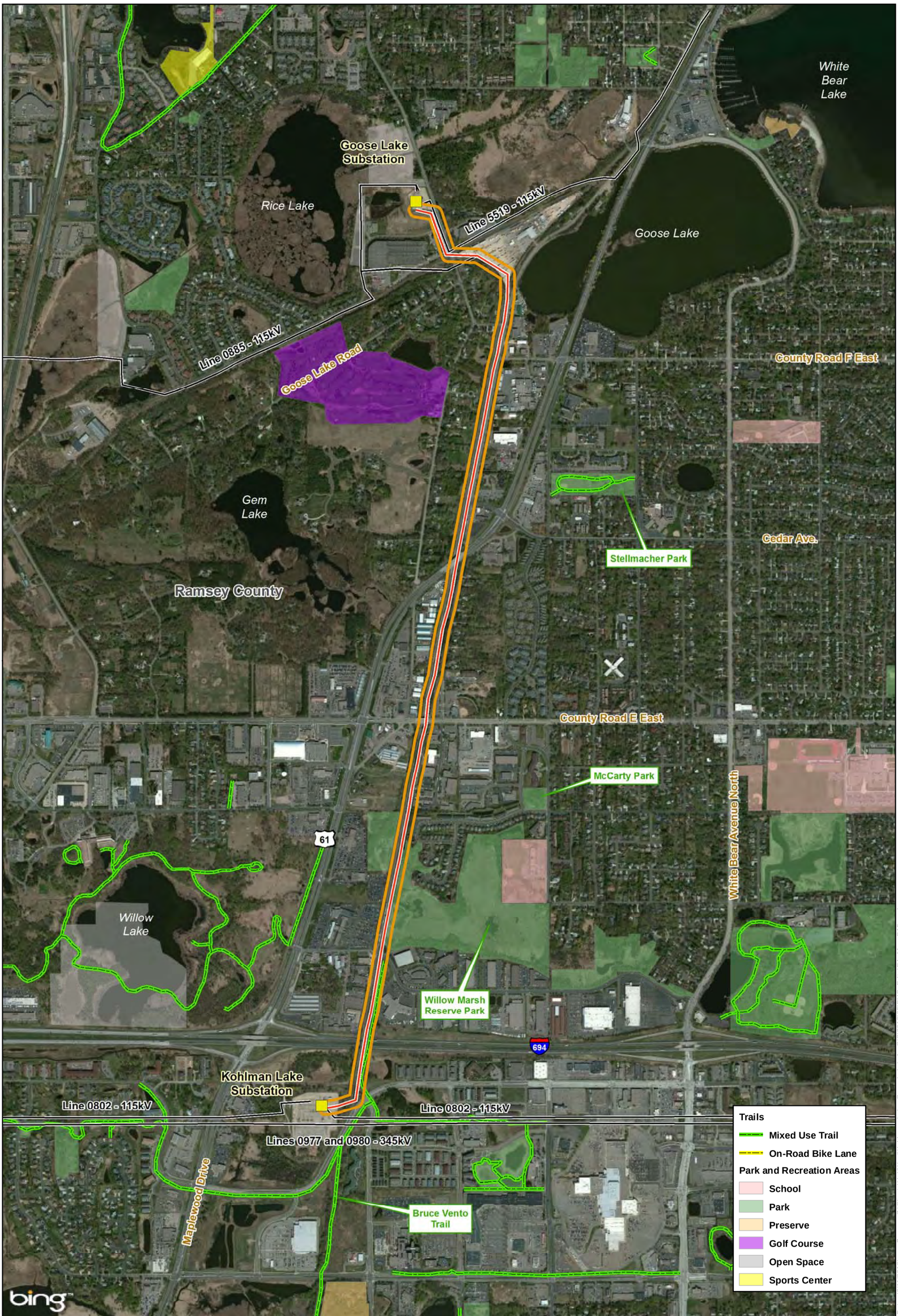
Metropolitan Council Sanitary Sewer System

Map B-14

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\SD_AXcel\Kohlman\Lake_GooseLake_ArcGIS\2013\05\PIC_Edits\EA_Map_B14.mxd

Date: (5/31/2013)



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

N

0 1,000 2,000 Feet

Source: Park and Rec Data obtained from City of White Bear Lake, White Bear Township, City of Maplewood, and Ramsey County
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

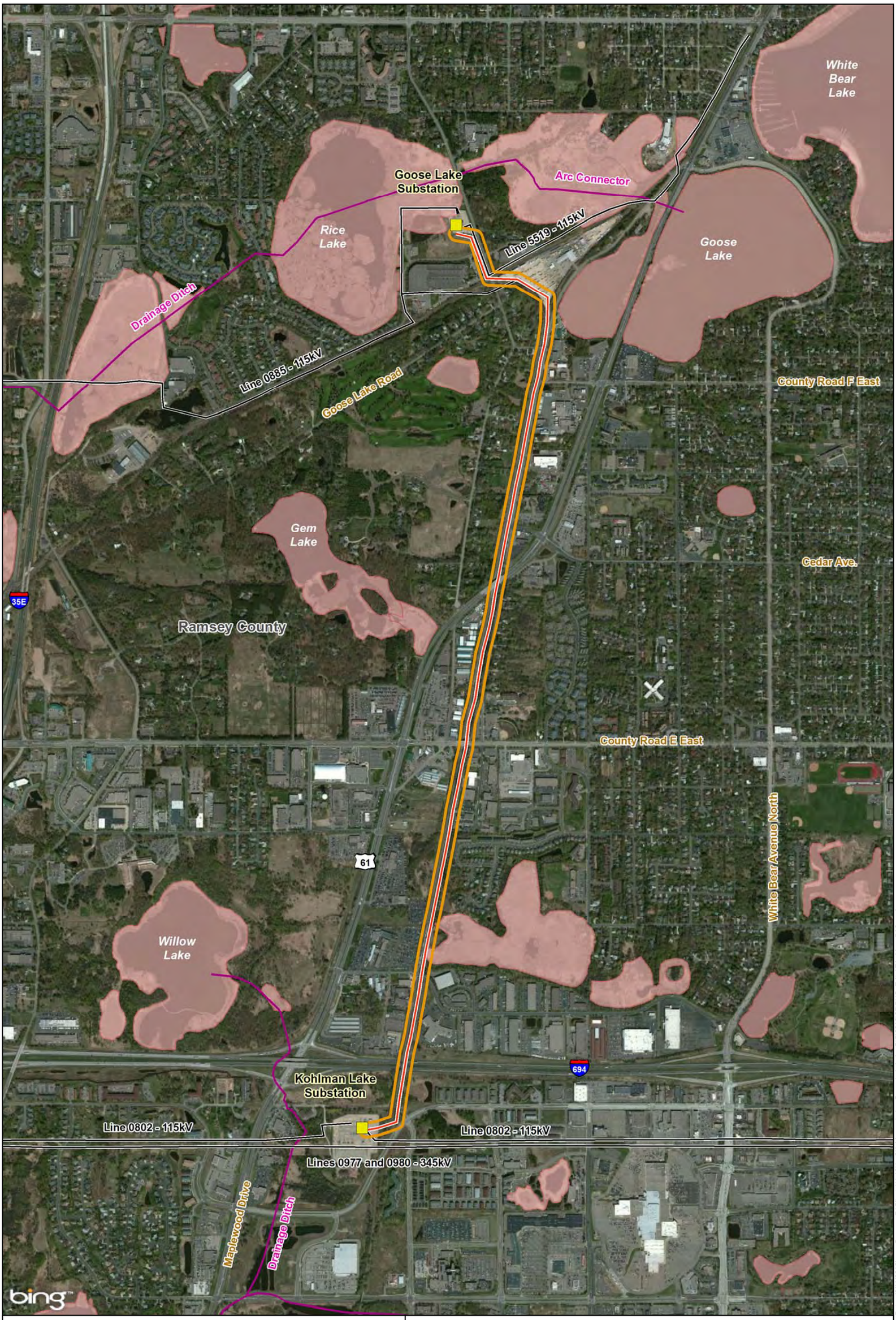
Parks and Recreational Areas

Map B-15

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\SO_Xcel\Kohlman\Lake_GooseLake_ArcGIS\2013\GSPOC_Edits\EA_Map_B15.mxd

Date: 6/11/2015



Xcel Energy Substation
Proposed Kohlman Lake to Goose Lake
Rebuild to Double Circuit 115kV
Existing Xcel Energy Transmission Lines
Route Width
Public Water Streams
Public Water Lakes and Wetlands

N

0 1,000 2,000 Feet

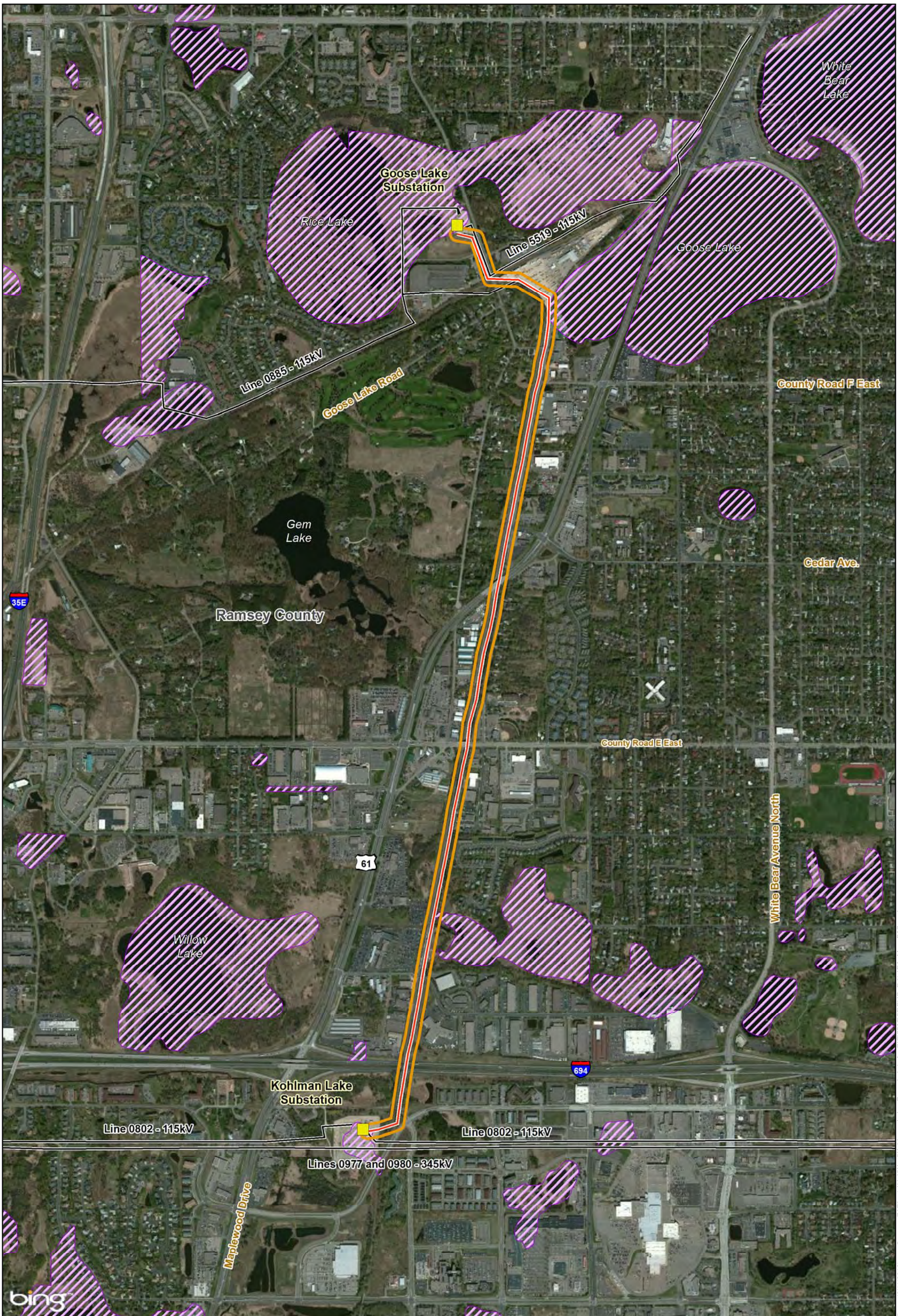
Source: Public Waters Inventory provided by the MN DNR
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

Lakes and Streams

Map B-16

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_XX\Xcel\Kohlman\Lake_Goose\Lake_ArcGIS\2013\MSP\UC_Edits\EA_Map_B16.mxd
Date: (6/17/2013)



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

FEMA Floodplain - 100 Year

N

0 1,000 2,000 Feet

Source: FEMA Floodplain from MN DNR
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

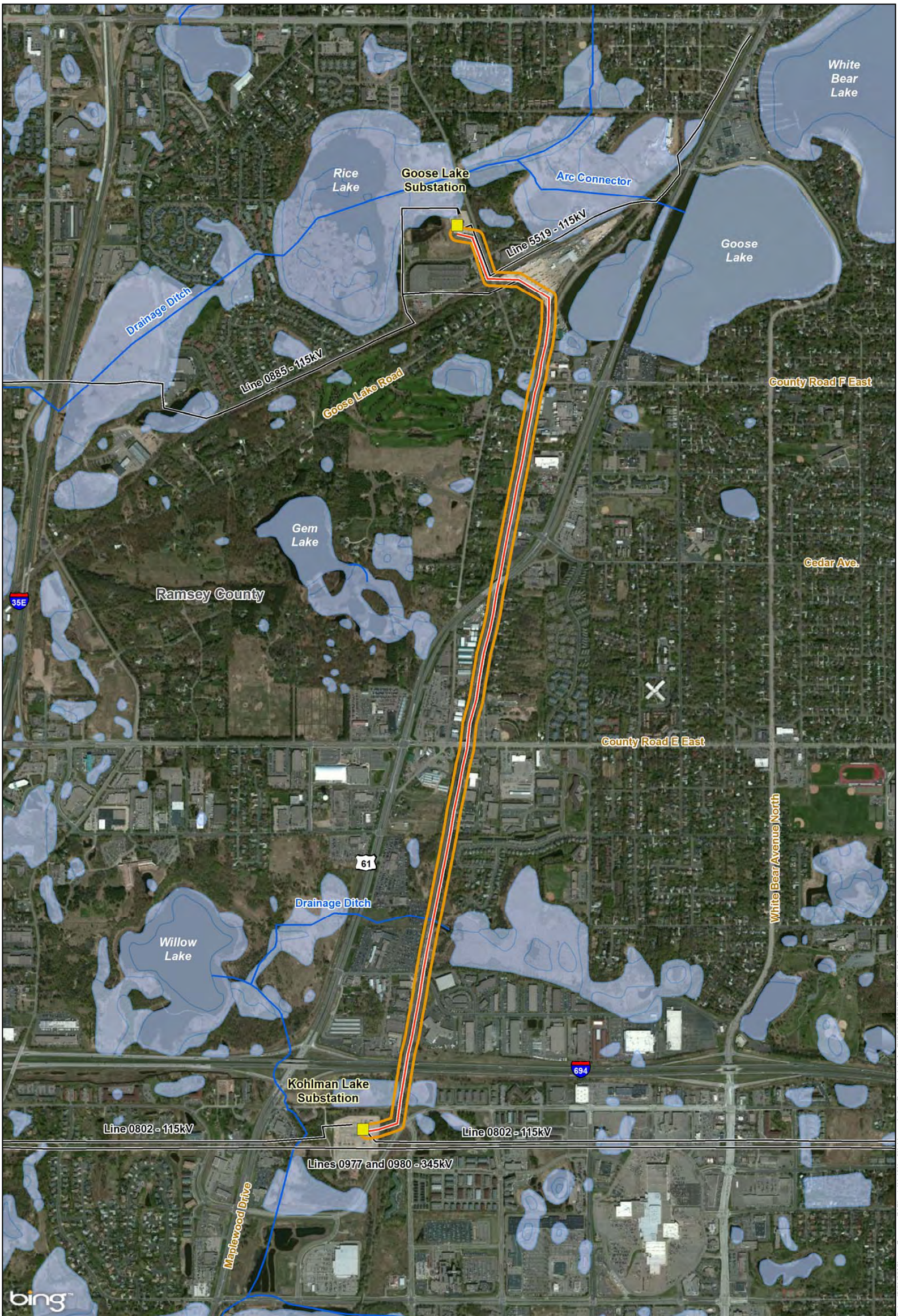
Floodplains

Map B-17

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_X\Xcel\KohlmanLake_GooseLake_ArcGIS\2013\MSP\UC_Edits\EA_Map_B17.mxd

Date: (6/17/2013)



Xcel Energy Substation

Proposed Kohlman Lake to Goose Lake Rebuild to Double Circuit 115kV

Existing Xcel Energy Transmission Lines

Route Width

Waterbody

NWI Wetland

N

Source: NWI and Waterbody Data Provided by the MN DNR
All other data from Xcel Energy, ESRI, and Merjent
This information is for environmental review purposes only.

0 1,000 2,000 Feet

Wetlands

Map B-18

Kohlman Lake to Goose Lake 115 kV Project

Source: Z:\Clients\U_Xcel\Kohlman\Lake_Goose\Lake_ArcGIS\2013\05\PUC_Edits\EA_Map_B18.mxd

Date: (5/31/2013)

Appendix C. Transmission Line Route Permit Example

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION LINE AND ASSOCIATED FACILITIES

IN DAKOTA COUNTY

ISSUED TO
NORTHERN STATES POWER COMPANY, A MINNESOTA CORPORATION

PUC DOCKET NO. E002/TL-11-795

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

NORTHERN STATES POWER COMPANY, A MINNESOTA CORPORATION

Northern States Power Company, a Minnesota corporation is authorized by this route permit to construct approximately 4.2 miles of new 115 kilovolt (kV) double circuit transmission line and to remove two existing 115 kV single circuit transmission lines in Dakota County, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit, as portrayed on the official route maps, and in compliance with all other conditions specified in this permit.

Approved and adopted this _3rd_ day of _May_ 2013

BY ORDER OF THE COMMISSION

_____

Burl W. Haar
Executive Secretary

This document can be made available in alternative formats (i.e., large print or audio) by calling 651.296.0406 (voice). Persons with hearing or speech disabilities may call us through Minnesota Relay at 1.800.627.3529 or by dialing 711.

CONTENTS

ATTACHMENTS

Compliance Filing Procedures for High Voltage Transmission Lines
Permit Compliance Filings
Complaint Handling Procedures for High Voltage Transmission Lines

ROUTE MAPS

1 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Northern States Power Company, a Minnesota corporation (permittee or Xcel Energy) pursuant to Minnesota Statute 216E.03 and Minnesota Rule 7850. This permit authorizes the permittee to construct approximately 4.2 miles of new 115 kV double circuit transmission line and associated facilities in Dakota County, Minnesota, as identified in the attached route permit maps, hereby incorporated into this document.

2 PROJECT DESCRIPTION

The permittee is authorized to construct a new 115 kV double circuit transmission line, as a replacement for two existing 115 kV single circuit transmission lines (Xcel Energy lines 0844 and 0861), and associated facilities, described as follows:

- Construction of a new 115 kV double circuit transmission line, approximately 4.2 miles in length, from the Black Dog substation (the substation directly adjacent to the Black Dog generating plant) to structure 31A, just east of the Savage substation;

- Construction of two new 115 kV single circuit transmission lines, approximately 0.4 miles in length, to facilitate connection of the new 115 kV double circuit line to the Black Dog substation;

- Reconductoring of one 115 kV single circuit transmission line (Xcel Energy line 0844) between structure 36 and the Savage substation; and

- Removal of the two existing 115 kV single circuit transmission lines (Xcel Energy lines 0844 and 0861) which currently connect the Black Dog substation and structure 31A.

2.1 Project Location

The project is located in the city of Burnsville in Dakota County, Minnesota. The project is located in Sections 22, 23, 27, 28, 32, 33, and 34 of Township 27 North, Range 24 West.

2.2 Associated Facilities and Substations

No new or modified facilities or substations are required for the project. Access to the Black Dog substation and the Savage substation will be required for the connection of transmission lines to existing substation infrastructure.

2.3 Structures and Conductors

The permittee shall use steel, self-weathering, monopole structures for the project. For the 115 kV single circuit transmission lines, the permittee shall use Y-frame structures. For the 115 kV double circuit transmission line, the permittee shall use delta structures for that portion of the line east of Interstate 35 West (I-35W), and davit arm structures for that portion of the line west of I-35W. For the crossing of I-35W (structures 19 and 20), the permittee shall use specialty arch-shaped structures (N-structures).

For that section of the line west of I-35W where the permittee uses davit arm structures, the permittee shall use specialized davit arms. The permittee shall confer with the city of Burnsville as to the davit arm shape for these structures and shall use a shape which is agreeable to the city and the permittee for this section of the line.

The permittee shall underbuild or place underground the existing distribution line that runs along the western end of 118th St. and along Golf Drive.

The conductor for all new transmission lines and reconductoring shall be 795 26/7 aluminum conductor steel supported (ACSS) or its equivalent.

All transmission lines shall be equipped with protective devices to safeguard the public if an accident occurs.

All transmission lines shall be designed to meet or exceed local and state codes, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearance to ground, clearance to crossing utilities, clearance to buildings, clearance to vegetation, strength of materials, clearances over roadways, right-of-way widths, and permit requirements.

The permittee shall confer with the Minnesota Department of Transportation (MnDOT) as to the proper clearance for the new 115 kV double circuit line over I-35W and shall meet or exceed all clearance requirements.

3 DESIGNATED ROUTE

The designated route and anticipated alignment are shown on the route maps attached to this permit and further described as follows:

Two new 115 kV single circuit transmission lines would exit the Black Dog substation proceeding westward approximately 0.4 miles, where these lines would join on a double circuit structure. The line would then proceed, as a double circuit, westward along the northern edge of Black Dog Lake and along I-35W to a crossing of I-35W (approximately 2.4 miles). After crossing I-35W, the line would proceed westward along 118th Street and the northern edge of Kraemer quarry for approximately 1.2 miles. At the intersection of 118th Street and Golf Drive, the line would turn southward and follow Golf Drive for approximately 0.6 miles to its termination at structure 31A.

The reconductoring of Xcel Energy line 0844 would occur within the existing right-of-way and on the existing structures for the line between structure 36 and the Savage substation.

3.1 Route Width and Alignment

The designated route width for the new 115 kV double circuit transmission line shall be 750 feet for that portion of the line east of I-35W, and 400 feet for that portion of the line west of I-35W.

For that section of the route east of I-35W and along Black Dog Road, the anticipated alignment ~~shall be at least~~is 5 feet south of the road and the city of Burnsville's planned trail right-of-way.

For that section of the route west of I-35W and along 118th Street, the anticipated alignment ~~shall be at least~~is 30 feet south of the city of Burnsville's planned roadway surface. For that section of the route west of I-35W and along Golf Drive, the anticipated alignment ~~shall be at least~~is 47 to 48 feet east of the city of Burnsville's planned roadway surface.

In the event that geotechnical or other engineering considerations require that the final alignment for the project be closer to the city of Burnsville's planned development features than noted above, the permittee shall confer with the city on a feasible alignment for the project (see Section 5.6.3, "Plan and Profile Review").

The route width noted above provides the permittee with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained right-of-way) will be located within this designated route unless otherwise authorized below.

The designated route identifies an alignment that minimizes the overall potential impacts to the factors identified in Minnesota Rule 7850.4100 and which was evaluated in the environmental review and permitting process. Consequently, this permit anticipates that the transmission line right-of-way will generally conform to the alignment shown in the attached maps and described herein, unless changes are requested by individual landowners, unforeseen conditions are encountered, or are otherwise provided for by this permit.

Any alignment modifications within this designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified, documented, and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

Route width variations outside the designated route may be allowed for the permittee to overcome potential site specific constraints. These constraints may arise from any of the following:

1) Unforeseen circumstances encountered during the detailed engineering and design process.

2) Federal or state agency requirements.

3) Existing infrastructure within the transmission line route, including but not limited to roadways, railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.

4) Planned infrastructure improvements identified by state agencies and local government units (LGUs) and made part of the record for this permit.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside the designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment

identified in this permit and shall also be specifically identified, documented, and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

3.2 Right-of-Way Placement

Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minnesota Rule 7850.4100, the requirements of this permit, and – for highways under MnDOT jurisdiction – MnDOT rules, policies, and procedures for accommodating utilities in highway rights-of-way.

3.3 Right-of-Way Width

The new 115 kV double circuit transmission line will require a 100 foot right-of-way, 50 feet on each side of the transmission line centerline. Additional temporary right-of-way may be required from landowners to accommodate construction of the line.

4 GENERAL CONDITIONS

The permittee shall comply with the following general conditions during construction of the transmission line and associated facilities and the life of this permit.

4.1 Plan and Profile

At least thirty (30) days before right-of-way preparation for construction begins on any segment or portion of the project, the permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, transmission structure specifications and locations, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per the permit. The permittee shall submit a plan and profile that is consistent with the Department of Commerce's Plan and Profile Guidance for Transmission Lines, http://mn.gov/commerce/energyfacilities/documents/Plan and Profile Guidance 06142012.pdf

The permittee may not commence construction until the thirty (30) days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intend to make any significant changes in the plan and profile or the specifications and drawings after submission to the Commission, the permittee shall notify the Commission at least five (5) days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

4.2 Construction Practices

The permittee shall follow those specific construction practices and material specifications described in its route permit application to the Commission, dated February 14, 2012, and as described in the environmental assessment and findings of fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

4.2.1 Field Representative

At least fourteen (14) days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, email, and emergency phone number shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change the field representative at any time upon written notice to the Commission.

4.2.2 Local Governments

During construction, the permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services occur, these would be temporary and the permittee will work to restore service promptly.

Where any impacts to utilities have the potential to occur, permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.3 Cleanup

All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minnesota Rule 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.5 Vegetation Removal in the Right-of-Way

The permittee shall minimize the number of trees to be removed in selecting and constructing the transmission line right-of-way, specifically preserving windbreaks, shelterbelts, living snow fences, vegetation near trail and stream crossings, and vegetative screening that minimizes aesthetic impacts, to the maximum extent practicable and to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility may be removed.

In many cases certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation will not pose a threat to the transmission facility or impede construction.

4.2.6 Aesthetics

The permittee shall consider input pertaining to visual impacts from landowners and land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal, and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at a reasonable distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and may cross roads to minimize or avoid impacts.

4.2.7 Erosion Control

The permittee shall follow erosion control measures outlined in Minnesota Pollution Control Agency (MPCA) guidance and best management practices regarding sediment control practice during construction, including protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

The permittee shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect sediment control fences (e.g. biorolls, sandbags, and silt fences), apply mulch (e.g. hay or straw) on exposed soils, and/or use erosion control blankets and turf reinforcement mats to provide structural stability to bare surfaces and slopes.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the permittee shall select specific site characteristic seed, certified to be free of noxious weeds.

Contours shall be graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities shall be returned to their pre-construction condition.

If one acre or more of land is disturbed by the project or as otherwise required by the MPCA, the permittee shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit from the MPCA.

4.2.8 Wetlands and Water Resources

Structures shall be located to span watercourses, wetlands, and floodplains to the extent practicable and consistent with sound engineering principles. Minimal grading of areas

around pole locations may be required to accommodate construction vehicles and equipment.

The permittee shall endeavor to access wetlands and riparian areas using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.

Construction in wetlands and riparian areas shall be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) shall be used to protect wetland vegetation. All-terrain construction vehicles designed to minimize soil impact in damp areas may also be used.

No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. The structures shall be assembled on upland areas before they are brought to the site for installation.

Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area. The permittee shall also utilize erosion control methods identified in Section 4.2.7 of this permit, as warranted. Areas disturbed by construction activities shall be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).

4.2.9 Temporary Work Space

The permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Space shall be selected to limit the removal and impacts to vegetation.

Temporary lay down areas outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas.

4.2.10 Restoration

The permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Practices to restore areas impacted by construction and maintenance activities are also described in Section 4.2.7 of this permit.

Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line.

Within 60 days after completion of all restoration activities, the permittee shall advise the Commission in writing of the completion of such activities. The permittee shall compensate landowners for any yard/landscape, crop, soil compaction, drain tile, or other damages that may occur during construction.

4.2.11 Notice of Permit

The permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.3 Periodic Status Reports

The permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The permittee need not report more frequently than monthly.

4.4 Complaint Procedures

Prior to the start of construction, the permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

4.5 Notification to Landowners

The permittee shall provide all affected landowners with a copy of this permit and the complaint procedures at the time of the first contact with the landowners after issuance of this permit. At the time of first contact, the permittee shall also provide all affected landowners with a copy of the *Rights-of-Way and Easements for Energy Facility Construction and Operation* fact sheet provided by the Department of Commerce.

The permittee shall contact landowners prior to entering the property or conducting maintenance along the route. The permittee shall avoid construction and maintenance practices, specifically the use of herbicides or other pesticides, which are inconsistent with the landowner's or tenant's use of the land (See also, Section 4.2.5).

The permittee shall work with landowners to locate the high-voltage transmission line to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.6 Completion of Construction

4.6.1 Notification to Commission

At least three days before the line is to be placed into service, the permittee shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

4.6.2 As-Builts

Within 60 days after completion of construction, the permittee shall submit copies of all the final as-built plans and specifications developed during the project.

4.6.3 GPS Data

Within 60 days after completion of construction, the permittee shall submit to the Commission, Department of Commerce Energy Facility Permitting staff, and the Minnesota Geospatial Information Office (MnGEO) geospatial information (e.g., ArcGIS compatible map files, shapefiles) for all structures associated with the transmission line, each switch, and each substation connected.

4.7 Electrical Performance Standards

4.7.1 Grounding

The permittee shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes (mA), root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short-circuit current between ground and the object so as not to exceed one mA rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The permittee shall address and rectify any induced current problems that arise ~~during~~ from transmission line operation.

4.7.2 Electric Field

The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems, or other communication devices is caused by the presence or operation of the transmission line, the permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

4.8 Other Requirements

4.8.1 Applicable Codes

The permittee shall comply with applicable requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way widths,

erecting power poles, and stringing of transmission line conductors. The transmission line facility shall also meet NERC reliability standards.

4.8.2 Other Permits

The permittee shall comply with all applicable state rules and statutes. The permittee shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of permits which may be required for the project is included in the route permit application and the environmental assessment. The permittee shall submit a copy of such permits to the Commission upon request.

4.8.3 Pre-emption

Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the permittee and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

4.8.4 Delay in Construction

If the permittee have not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

4.9 Archeological and Historic Resources

If any previously unrecorded archaeological sites are discovered during construction of the project, the permittee shall immediately stop work at the site and shall mark and preserve the site(s) and notify the Commission and the State Historic Preservation Office (SHPO) of the discovery. The Commission and the SHPO shall have three (3) working days from the time the agency is notified to conduct an inspection of the site if either agency chooses to do so. On the fourth day after notification, the permittee may begin work on the site unless the SHPO has directed that work shall cease. In such event, work shall not continue until the SHPO determines that construction can proceed.

If human remains are encountered during construction, the permittee shall immediately halt construction at that location and promptly notify local law enforcement authorities and the State Archaeologist. Construction at the human remains location shall not proceed until authorized by local law enforcement authorities or the State Archaeologist.

If any federal funding, permit, or license is involved or required, the permittee shall notify the SHPO as soon as possible in the planning process to coordinate section 106 (36 C.F.R. part 800) review.

Prior to construction, construction workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction.

4.10 Avian Mitigation

The permittee's transmission design shall incorporate adequate spacing of conductor(s) and grounding devices in accordance with Avian Power Line Interaction Committee standards to minimize the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

5 SPECIAL CONDITIONS

Special conditions shall take precedence over other conditions of this permit if there should be a conflict between the two.

5.1 Flight Diverters

The permittee shall place bird flight diverters on the overhead static lines along the entirety of the designated route for the 115 kV double circuit transmission line and the 115 kV single circuit connecting lines, excepting that portion of the route which crosses over I-35W. Diverters shall be placed every 40 feet along a transmission line circuit (staggered every 20 feet along the double circuit transmission line).

5.2 Blanding's Turtle

The permittee shall follow the measures and recommendations for avoiding and minimizing impacts to Blanding's turtle populations as outlined in the Minnesota Department of Natural Resources' Environmental Review Fact Sheet for the Blanding's Turtle (http://files.dnr.state.mn.us/natural_resources/animals/reptiles_amphibians/turtles/blandings_turtle/factsheet.pdf). Construction and maintenance personnel shall be made aware of the Blanding's turtle and its habitat during pre-construction meetings.

5.3 Wildlife-friendly Erosion Control Mesh

The permittee shall use wildlife-friendly erosion control mesh for the project.

5.4 Seepage Meadow / Carr Plant Communities

The permittee shall construct that portion of the project which contains Seepage Meadow / Carr plant communities, as this portion is identified in the environmental assessment for project, when the ground is frozen.

5.5 Invasive Species Management Plan

The permittee shall develop an invasive species management plan. The permittee shall file the plan with the Commission fourteen (14) days prior to submitting the plan and profile for the project. The purpose of the plan is to minimize the introduction of invasive species to the project area during construction and maintenance of the project. The plan shall:

a. Document the permittee's coordination with the U.S. Fish and Wildlife Service regarding invasive species and project construction and maintenance practices.
b. Document the permittee's coordination with the Minnesota Department of Natural Resources regarding invasive species, including the permittee's review of invasive

species best management practices provided by the Minnesota Department of Natural Resources (www.dnr.state.mn.us/invasives/dnrlands.html, http://council.wisconsinforestry.org/invasives/transportation/).

c. Identify measures that the permittee will use to avoid and minimize the introduction of invasive species to the project area during construction and maintenance of the project.

5.6 Coordination with the City of Burnsville

5.6.1 Shoreland and Floodplain Ordinances

The permittee shall coordinate with the city of Burnsville and shall supply information required by the city concerning the project, so that the city may review the project for consistency with state and federally mandated floodplain and shoreland requirements. The permittee shall implement, to the extent practicable, those measures identified by the city during its review that would make the project most consistent with these requirements.

5.6.2 Vegetation Removal

The permittee, upon completion of pre-construction surveying and prior to any vegetation removal, shall coordinate with the city of Burnsville and relate the types and locations of vegetation that will be removed for construction of the project. The permittee's coordination shall be documented and included with the permittee's plan and profile submission(s) (Section 4.1).

5.6.3 Plan and Profile Review

The permittee shall consult with the city of Burnsville regarding the plan and profile drawings for the project and shall allow the city to review and comment on the drawings prior to the permittee's submission of the drawings to the Commission. The permittee shall document the city's comments and permittee's responses and shall include them with the permittee's plan and profile submission(s) (Section 4.1).

5.6.4 Wetlands Review

The applicant shall coordinate with the city of Burnsville to determine the proper application of the State of Minnesota's Wetlands Conservation Act (WCA) to the project.

5.7 Coordination on Dump Sites, Fill Sites, and Solid or Hazardous Wastes

The permittee shall notify Dakota County if it encounters dump sites, fill sites, or solid or hazardous waste during construction of the project. The permittee shall coordinate with the county on the management of such sites or waste, should they be encountered during construction of the project.

5.8 Coordination on Regional Greenway Trail

The permittee shall coordinate with the city of Burnsville and Dakota County concerning the alignment of the project along Black Dog Road and the regional greenway trail planned to

parallel Black Dog Road. The permittee shall document this coordination and shall include it with the permittee's plan and profile submission(s) (Section 4.1).

5.9 Coordination on Future 118th St. Interchange / Crossing of I-35W

The permittee shall coordinate with the city of Burnsville, Dakota County, and Minnesota Department of Transportation (MnDOT) metro district planners concerning the alignment of the project and the placement of structures at the project's proposed crossing of I-35W (the potential future site of the 118th St. interchange). The coordination shall be undertaken to minimize the likelihood that the location of the project will constrain future highway improvements, including a potential 118th St. interchange. The permittee shall document this coordination and shall include it with the permittee's plan and profile submission(s) (Section 4.1).

6 PERMIT AMENDMENT

This permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the permittee. The Commission may amend the conditions after affording the permittee and interested persons such process as is required.

7 TRANSFER OF PERMIT

The permittee may request at any time that the Commission transfer this permit to another person or entity. The permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer.

The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new permittee can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the permittee, the new permittee, and interested persons such process as is required.

8 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rule 7850.5100 to revoke or suspend the permit.

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES

1. Purpose

To establish a uniform and timely method of submitting information required by Commission energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

A) The permittee shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Commission's electronic filing system (eDockets). The system is hosted by the Department of Commerce at: https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the website. To eFile a document a permittee must be registered and obtain a user ID and password.

B) All filings must have a cover sheet that includes:

1. Date
2. Name of submitter / permittee
3. Type of permit (site or route)
4. Project location
5. Project docket number
6. Permit section under which the filing is made
7. Short description of the filing

C) Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: (1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and (2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198. Additionally, the Commission may request a paper copy of any eFiled document.

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PERMIT COMPLIANCE FILINGS[1]

PERMITTEE(S): Northern States Power Company
PERMIT TYPE: HVTL Route Permit
PROJECT LOCATION: Dakota County
PUC DOCKET NUMBER: E002/TL-11-795

Filing Number	Permit Section	Description	Due Date
1	4. 1	Plan and profile of right-of-way (ROW)	30 days before ROW preparation for construction
2	4.2.1	Contact information for field representative	14 days prior to construction
3	4.2.10	Restoration complete	60 days after completion of all restoration activities
4	4.3	Periodic status reports	Monthly
5	4.4	Complaint procedures	Prior to start of construction
6	Complaint Handling Procedures	Complaint reports	By the 15th of each month
7	4.5	Notification to landowners	First contact with landowners after permit issuance
8	4.6.1	Notice of completion and date of placement in service	Three days prior to energizing
9	4.6.2	Provide as-built plans and specifications	Within 60 days after completion of construction
10	4.6.3	Provide GPS data	Within 60 days after completion of construction
11	4.9	Notification of previously unrecorded archaeological sites	Upon discovery
12	5.5	Invasive species management plan	14 days prior to submission of plan and profile

[1] This compilation of permit compliance filings is provided for the convenience of the permittee(s) and the Commission. However, it is not a substitute for the permit; the language of the permit controls.

Filing Number	Permit Section	Description	Due Date
13	5.6.2	Coordination with city of Burnsville on vegetation removal	Included with plan and profile submission
14	5.6.3	Coordination with city of Burnsville on plan and profile	Included with plan and profile submission
15	5.8	Coordination on regional greenway trail	Included with plan and profile submission
16	5.9	Coordination on future 118th St. interchange / crossing of I-35W	Included with plan and profile submission

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES
FOR HIGH VOLTAGE TRANSMISSION LINES

1. Purpose

To establish a uniform and timely method of reporting complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup and restoration, operation, and resolution of such complaints.

2. Scope

This reporting plan encompasses complaint report procedures and frequency.

3. Applicability

The procedures shall be used for all complaints received by the permittee.

4. Definitions

Complaint – A statement presented to the permittee by a person expressing dissatisfaction, resentment, or discontent as a direct result of the high voltage transmission line and associated facilities. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint – A written complaint alleging a violation of a specific route permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint – A complaint which, despite the good faith efforts of the permittee and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person – An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

5. Complaint Documentation and Processing

Everyone involved with any phase of the high voltage transmission line is responsible for ensuring expeditious and equitable resolution of all complaints. It is therefore necessary to establish a uniform method for documenting and handling complaints related to this high voltage transmission line project. The following procedures will satisfy this requirement:

A. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:

1. Name of the permittee and project.
2. Name of complainant, address and phone number.
3. Precise property description or parcel number (where applicable).
4. Nature of complaint.
5. Response given.
6. Name of person receiving complaint and date of receipt.
7. Name of person reporting complaint to the Public Utilities Commission and phone number.
8. Final disposition and date.

B. The permittee shall assign an individual to summarize complaints for transmittal to the Commission.

6. Reporting Requirements

The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports – All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Consumer Affairs Office at 1-800-657-3782 or consumer.puc@state.mn.us. Voice messages are acceptable. E-mail Subject Line should read "EFP Complaint" w/ docket. No.

Monthly Reports – By the 15th of each month, a summary of all complaints, including substantial complaints and unresolved complaints, received during the preceding month shall be eFiled with the Commission.

If no Complaints were received during the preceding month, the permittee shall submit (eFile) a summary indicating that no complaints were received.

7. Complaints Received by the Commission or Department of Commerce

Complaints received directly by the Commission or Department of Commerce from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation, and maintenance shall be promptly sent to the permittee.

8. Commission Process for Unresolved Complaints

Initial Screening – Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantive routing permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and the complainant if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the staff

notification. The complaint will be presented to the Commission for a decision as soon as practicable.

Condemnation/Compensation Issues – If the Commission staff's initial screening determines that a complaint raises issues concerning the just compensation to be paid to landowners on account of permittee acquisition of high voltage transmission line easements, staff shall recommend to the Executive Secretary that the matter be resolved under the provisions of Minnesota Statutes, Chapter 117. If the Executive Secretary concurs, he shall so report to the Commission and the matter shall be dealt with in the high voltage transmission line condemnation proceedings as an issue of just compensation.

9. Permittee Contact for Complaints

Ellen Heine
Permitting/Compliance Analyst
Xcel Energy
414 Nicollet Mall, MP-8
Minneapolis, MN 55401
612-330-6073
ellen.l.heine@xcelenergy.com

Any change that is made to the permittee contact for complaint reporting shall be promptly eFiled with the Commission and notification shall be provided to all affected landowners.

Appendix D. Generic Route Permit Template

GENERIC ROUTE PERMIT TEMPLATE

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION LINE AND ASSOCIATED FACILITIES

IN
[*COUNTY*]

ISSUED TO
[*PERMITTEE*]

PUC DOCKET NO. [*Docket Number*]

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

[*PERMITTEE*]

[*Permittee*] is authorized by this route permit to construct [*Provide a description of the project authorized by the Minnesota Public Utilities Commission*].

The transmission line and associated facilities shall be built within the route identified in this permit and as portrayed on the official route maps, and in compliance with the conditions specified in this permit.

Approved and adopted this ____ day of [*Month, Year*]

BY ORDER OF THE COMMISSION

_____

Burl W. Haar,
Executive Secretary

CONTENTS

FIGURES

ATTACHMENTS

1.0 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to [*Permittee Name*] (Permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes the [*Permittee Name*] to construct [*Provide a description of the project as authorized by the Minnesota Public Utilities Commission*], and as identified in the attached route permit maps, hereby incorporated into this document.

2.0 PROJECT DESCRIPTION

[*Provide a description of the project as authorized by the Minnesota Public Utilities Commission*]

2.1 Project Location

[*Describe the location of the project including details such as the county, state, city, and townships, as appropriate*]

County	Township Name	Township	Range	Section

2.2 Associated Facilities and Substations

[*Provide a detailed description of the associated facilities and substations as authorized by the Commission*]

2.3 Structures and Conductors

[*Provide a detailed description of the structures and conductors authorized by the Commission*]

The table below details specifics on the various structure types as presented in the route permit application.

Line Type	Conductor	Structure		Foundation	Height	Span
		Type	Material			

The transmission line and associated facilities shall be designed to meet or exceed all relevant local and state codes, the National Electric Safety Code (NESC), and North American Electric Reliability Corporation (NERC) requirements. This includes standards relating to clearances to

ground, clearance to crossing utilities, clearance to buildings, strength of materials, clearances over roadways, right-of-way widths, and permit requirements.

3.0 DESIGNATED ROUTE

The route designated by the Commission in this permit is the route described below and shown on the route maps attached to this permit. The route is generally described as follows:

[*Provide detailed description of the authorized route including the route widths and any other specifics relevant to each segment. Also include a reference to the relevant route map to be attached to the permit.*]

The identified route widths will provide the Permittee with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

3.1 Right-of-Way

The approved right-of-way width for the project is up to [*number*] feet. This permit anticipates that the right-of-way will generally conform to the anticipated alignment as noted on the attached route permit maps unless changes are requested by individual landowners or unforeseen conditions are encountered or are otherwise provided for by this permit. Any alignment modifications within the designated route shall be located so as to have comparable overall impacts relative to the factors in Minn. Rules, part 7850.4100, as does the alignment identified in this permit, and shall be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to section 4.1 of this permit.

Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minn. Rules, part 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT) rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

4.0 GENERAL CONDITIONS

The Permittee shall comply with the following conditions during construction of the transmission line and associated facilities over the life of this permit.

4.1 Plan and Profile

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the Permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, structure specifications and locations, cleanup, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per this permit.

The Permittee may not commence construction until the 30 days has expired or until the Commission has advised the Permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the Permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

4.2 Construction Practices

The Permittee shall follow those specific construction practices and material specifications described in [*Permittee Name*] Application to the Commission for a route permit for the [*Project Name*], dated [*Date*], unless this permit establishes a different requirement in which case this permit shall prevail.

4.2.1 Field Representative

At least 14 days prior to commencing construction, the Permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the Permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, emergency phone number, and email shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The Permittee may change the field representative at any time upon written notice to the Commission.

4.2.2 Local Governments

During construction, the Permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services or public utilities occur these

would be temporary and the Permittee will restore service promptly. Where any impacts to utilities have the potential to occur the Permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The Permittee shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.3 Cleanup

All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minn. Rules, part 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.5 Vegetation Removal

The Permittee shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences, and vegetation in areas such as trail and stream crossings where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed. Certain low growing species can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

The Permittee shall avoid construction and maintenance practices, particularly the use of fertilizer, herbicides or other pesticides, that are inconsistent with the landowner's or tenant's use of the land.

4.2.6 Aesthetics

The Permittee shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at a distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

4.2.7 Erosion Control

The Permittee shall implement reasonable measures to minimize erosion and sedimentation during construction and shall employ perimeter sediment controls, protect exposed soil by promptly planting, seeding, using erosion control blankets and turf reinforcement mats, stabilizing slopes, protecting storm drain inlets, protecting soil stockpiles, and controlling vehicle tracking. Contours shall be graded as required so that all surfaces provide for proper drainage, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation and prevent erosion. All areas disturbed during construction of the facilities shall be returned to pre-construction conditions.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil the Permittee shall select specific site characteristic seed certified to be free of noxious weeds.

Where larger areas of one acre or more are disturbed or other areas designated by the Minnesota Pollution Control Agency (MPCA), the Permittee shall obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Construction Stormwater permit from the MPCA.

4.2.8 Wetlands and Water Resources

Wetland impact avoidance measures that shall be implemented during design and construction of the transmission line will include spacing and placing the power poles at variable distances to span and avoid wetlands, watercourses, and floodplains. Unavoidable wetland impacts as a result of the placement of poles shall be limited to the immediate area around the poles. To minimize impacts, construction in wetland areas shall occur during frozen ground conditions. When construction during winter is not possible, wooden or composite mats shall be used to protect wetland vegetation. Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area.

Wetlands and riparian areas shall be accessed using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts. No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. Power pole structures shall be assembled on upland areas before they are brought to the site for installation. Areas disturbed by construction activities shall be restored to pre-construction conditions.

All requirements of the U.S. Army Corps of Engineers (wetlands under federal jurisdiction), Minnesota Department of Natural Resources (Public Waters/Wetlands), and County (wetlands under the jurisdiction of the Minnesota Wetland Conservation Act) shall be met.

4.2.9 Temporary Work Space

The Permittee shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Temporary space shall be selected to limit the removal and impacts to vegetation. Temporary easements outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact using the shortest route possible. Construction mats should also be used to minimize impacts on access paths and construction areas.

4.2.10 Restoration

The Permittee shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line. Within 60 days after completion of all restoration activities, the Permittee shall advise the Commission in writing of the completion of such activities.

The Permittee shall fairly compensate landowners for damage to crops, fences, landscaping, drain tile, or other damages sustained during construction.

4.2.11 Notice of Permit

The Permittee shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.3 Periodic Status Reports

The Permittee shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittee need not report more frequently than monthly.

4.4 Complaint Procedures

Prior to the start of construction, the Permittee shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit [*Attachment*].

4.5 Notification to Landowners

The Permittee shall provide all affected landowners with a copy of this permit and, as a separate information piece, the complaint procedures at the time of the first contact with the landowners after issuance of this permit. The Permittee shall contact landowners prior to entering the property or conducting maintenance along the route.

The Permittee shall work with landowners to locate the high-voltage transmission line to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.6 Completion of Construction

4.6.1 Notification to Commission

At least three days before the line is to be placed into service, the Permittee shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

4.6.2 As-Builts

Within 60 days after completion of construction, the Permittee shall submit copies of all final as-built plans and specifications developed during the project.

4.6.3 GPS Data

Within 60 days after completion of construction, the Permittee shall submit to the Commission, in the format requested by the Commission, geo-spatial information (e.g., ArcGIS compatible map files, GPS coordinates, associated database of characteristics) for all structures associated with the transmission line and each substation connected.

4.7 Electrical Performance Standards

4.7.1 Grounding

The Permittee shall design, construct, and operate the transmission line in a manner so that the maximum induced steady-state short-circuit current shall be limited to five milliamperes root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short-circuit current between ground and the object so as not to exceed one milliampere rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The Permittee shall address and rectify any induced current problems that arise during transmission line operation.

4.7.2 Electric Field

The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the Permittee shall take whatever action is feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

4.8 Other Requirements

4.8.1 Applicable Codes

The Permittee shall comply with applicable NERC planning standards and requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of way widths, erecting power poles, and stringing of transmission line conductors.

4.8.2 Other Permits

The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of these permits. A list of the required permits is included in the permit application. The Permittee shall submit a copy of such permits to the Commission upon request.

4.8.3 Pre-emption

Pursuant to Minn. Stat. § 216E.10, this route permit shall be the sole approval required to be obtained by the Permittee for construction of the transmission facilities and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

4.8.4 Archaeological and Historic Resources

The Permittee shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. In the event that a resource is encountered, the State Historic Preservation Office should be contacted and consulted; the nature of the resource should be identified; and a determination should be made on the eligibility for listing in the National Register of Historic Places. Where feasible, avoidance of the resource is required.

4.8.5 Avian Mitigation

The Permittee's standard transmission design shall incorporate adequate spacing of conductors and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

4.9 Delay in Construction

If the Permittee has not commenced construction or improvement of the route within four years after the date of issuance of this permit the Permittee shall file a report on the failure to construct

and the Commission shall consider suspension of the permit in accordance with Minn. Rules, part 7850.4700.

4.10 Special Conditions

The Permittee shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following special conditions.

[*Describe any special conditions*]

Examples of special conditions included in permits:

- *Avian Mitigation Plan*
- *Environmental Control Plan*
- *Agriculture Mitigation Plan*
- *Vegetation Management Plan*
- *Property Restrictions*
- *Minnesota Department of Natural Resources Requirements*
- *Minnesota Pollution Control Requirements*
- *Minnesota State Historical Preservation Office Requirements*
- *Minnesota Department of Transportation Requirements*

5.0 PERMIT AMENDMENT

This permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the Permittee. The Commission may amend the conditions after affording the Permittee and interested persons such process as is required.

6.0 TRANSFER OF PERMIT

The Permittee may request at any time that the Commission transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer.

The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittee can comply

with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittee, the new Permittee, and interested persons such process as is required.

7.0 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minn. Rules, part 7850.5100, to revoke or suspend the permit.

Appendix E. Right-of-Way and Easement Fact Sheet

Minnesota Department of Commerce

FACT SHEET

Rights-of-Way and Easements for Energy Facility Construction and Operation

This fact sheet has been developed by Minnesota Department of Commerce, Energy Facility Permitting staff. It is intended for informational purposes only, as a result of and in response to questions and comments made at siting and routing public meetings throughout Minnesota. This document does not constitute legal advice, nor should it be relied on as such. Landowners are encouraged to independently verify any statements made herein.

The Minnesota Department of Commerce provides this fact sheet for landowners who may be affected by construction of energy facilities in the State of Minnesota. Its purpose is to explain the process by which utilities obtain rights-of-way for new energy facilities (i.e., transmission lines and pipelines) and to inform landowners of their rights in negotiating right-of-way agreements.

Public Utilities Commission and Permits for Energy Facilities

The State of Minnesota has established a state policy of locating energy facilities in an orderly manner compatible with environmental preservation, sustainable development, and efficient use of resources. The Minnesota Public Utilities Commission (PUC) has authority to issue permits for certain energy facilities in the state, including power plants, transmission lines, wind farms, and pipelines. When it issues such permits, the PUC must choose sites and routes that minimize adverse human and environmental impacts while ensuring energy system reliability and sufficient energy supplies.

The land required for a specific energy facility may impact multiple landowners. In order to ensure that the particular land and rights-of-way required for an energy facility can be obtained for a project, Minnesota law gives utilities the power of eminent domain. Because the general public interest is enhanced by the addition of necessary energy facilities, the power of eminent domain allows utilities to obtain property rights even if landowners are unwilling to negotiate right-of-way agreements. Thus, Minnesota law gives utilities the power to acquire or "take" property interests (generally easements) by condemnation for constructing energy facilities.

Route Permits: Route permits issued by the PUC for transmission lines and pipelines specify a route width and a right-of-way (ROW) width. The route width is typically larger than the ROW width – providing flexibility in ROW placement within the route to address human and environmental concerns that arise after the permit has been issued. For example, the permitted ROW might be 150 ft. wide for a transmission line, but the permitted route might be 1000 ft. wide. The route is larger than the ROW to provide flexibility in locating and constructing the energy facility. But the route is also specific – it identifies where the energy facility must be placed, i.e. within the route. Thus, the route provides flexibility and predictability; it specifies where the energy facility must go and facilitates best placement of the facility within the route.

Site permits: The PUC typically issues site permits for electric power plants and wind farms. A PUC site permit will specify the site of the energy facility, with limited flexibility for locating and constructing the project. Eminent domain authority is not common for power plant sites, and is not available for wind farms.

Rights-of-way

The right-of-way (ROW) is the physical land area within a route that is needed to construct and operate the energy facility. A utility is interested in having rights to this land area sufficient to meet these uses. These rights may be obtained through one of two means: (1) purchase of an easement for the ROW, or (2) purchase of the land outright (fee simple ownership). An outright land purchase is less common because utilities seek only enough land interests to build and safely operate the facility, and fee simple ownership may not be necessary to accomplish this goal.

A ROW agreement is a private agreement between a landowner and a utility. The PUC does not involve itself with negotiations between landowners and utilities and has no authority over this process. However, the PUC does enforce the permits which it issues, including permit conditions related to design, construction, maintenance, and restoration within the ROW.

Easements

The most common form of right-of-way (ROW) agreement is an easement, which is a legal interest in real property that transfers a partial property right to the holder of the easement (e.g., from a landowner to a utility). The easement agreement specifies restrictions on both the utility's and the landowner's use of the land and specifies the rights of the utility to enter and use the land. It is binding upon the utility, the landowner, and any future owners of the land unless and until the easement is discharged. The easement will be recorded in the county in which it is located in the same manner as other real estate transactions.

Easement agreements allow only what is described by the terms of the easement – e.g., to "build and maintain a 20 inch oil pipeline" or "build and maintain a 115 kilovolt (kV) transmission line." Easements last for as long as the utility uses and maintains the energy facility in the ROW. If the utility abandons or removes the facility, the property interest transferred by the easement may return to the landowner (Minn. Stat. §117.225).

Easements typically describe allowable uses and restricted uses by the landowner. In general, the primary land use restrictions for transmission line ROWs include tall trees and buildings; for pipeline ROWs they include buildings, trees, shrubs, and brush.

ROW maintenance typically includes removing trees and other vegetation as needed within the ROW, and may include application of herbicides. Landowners with requirements for management of their land, e.g., organic certification prohibiting the use of certain pesticides, can discuss these requirements during their easement negotiations with the utility or its agent. Utilities typically notify landowners before beginning maintenance activities in the ROW; notification requirements may be part of the easement agreement. Some general conditions addressing the needs of landowners may be included in the permit issued by the PUC. In addition, the permitting process includes preparation of an Agricultural Impact Mitigation Plan (AIMP) by the Minnesota Department of Agriculture. The AIMP may include provisions dealing with organic farming as well as traditional agricultural uses.

In some instances, utilities require additional space during construction of an energy facility. This additional space is called "temporary work space" and is included in the ROW agreement, but is not part of the permanent easement. As the name implies, this work space is temporary and is typically used to place construction materials or provide operating room for machinery, e.g., room to maneuver and operate a pipeline drill. Unlike an easement, the property interest in the temporary work space reverts back to the landowner upon completion of the described work. A description of temporary work space, its uses, and duration should be part of ROW negotiations.

Negotiating

Almost all parts of the ROW agreement are negotiable, whether it is the purchase of an easement or fee simple ownership. Landowners can negotiate terms in the ROW agreement that will avoid or reduce negative impacts to their property. They can negotiate compensation for the ROW. Utilities, in turn, have an obligation to negotiate terms that meet the needs of their proposed facility. A satisfactory ROW agreement is likely best achieved if the landowner and the utility have reasonable expectations and negotiate in good faith.

Utilities have a statutory incentive to negotiate in good faith – if their last written offer to a landowner is significantly different from the final judgment of an eminent domain proceeding, the landowner can get attorney fees and other reasonable costs reimbursed (Minn. Stat. §117.031).

Typically a utility real estate agent contacts a landowner to purchase an easement for a specific parcel or strip of land that is to be used for a ROW. The utility may offer a standard easement agreement and an amount of money it is willing to pay for the easement. The offer will reflect the utility's assessment of the ROW's impact on the fair market value of the property. Typically a landowner does not sign an easement agreement without first reading it, asking questions, and negotiating terms. A landowner may wish to obtain an independent appraisal of his or her land value, speak to other landowners about possible ROW agreements and conditions, or hire an attorney or other person to negotiate on the landowner's behalf.

Easement and purchase agreements are legal documents and should, to the extent possible, include detailed and precise language. In general, it is a good idea to include in the easement agreement details about the ROW, its uses, and parties' rights and responsibilities. Blanket easements, i.e., easements that do not identify the exact location of the ROW, were common at one time in Minnesota. More contemporary easements identify and define the land area of the ROW.

If a landowner feels confused or overwhelmed during negotiations, he or she may wish to consult an attorney or "take a timeout" from negotiating until they get a better understanding of the process. Generally, time spent negotiating is time well spent – eminent domain proceedings can be time consuming and expensive.

Ultimately, each ROW agreement is unique – reflecting the values and interests of the landowner and the utility. These interests typically are not mutually exclusive and a satisfactory ROW agreement can most often be reached through negotiation.

Determining Value

A common point of negotiation in ROW agreements is the amount of money that a landowner should receive for the ROW, be it an easement or fee simple purchase. By law, landowners are due just compensation for their property. Landowners often have questions regarding what values should be included in this compensation and how these values are calculated.

To begin with, the value of the land itself – the physical length and width of the ROW – should be included. It is possible to estimate the fair market value of this land with established appraisal methods. Fair market value is the amount a willing buyer would pay a willing seller, taking into consideration the highest and best use to which the property can be put. Fair market value is typically estimated in one of four ways: (1) comparing the property to similar properties that have been sold recently, (2) estimating the future income producing capability of the property, (3) estimating the cost to replace an existing structure on the property, and (4) estimating the value of planned development on the property. These methods are not conclusive but can be used to support or defend a particular value.

If the utility is purchasing an easement, it is not purchasing all of the land rights associated with the ROW. Thus, the utility may propose paying a percentage of the fair market value of the property. This percentage is a point of negotiation between the landowner and utility.

Landowners can include damages as part of their compensation – e.g., crop damage or drain tile damage due to construction or maintenance of the energy facility. Landowners can negotiate how this value is calculated. Landowners can also be compensated for loss of a going concern (Minn. Stat. §117.186).

Another value that landowners may desire to include is any change in the value of their property that is not in the ROW, but is adjacent to it. It may be difficult to determine if a ROW and associated energy facility will affect the value of adjoining property, and if so, to what extent. Numerous studies have been conducted on this issue with varying results. Some general trends have been revealed by these studies. First, when negative impacts on property values occur due to establishment of a ROW, they tend to be in the range of a 1 to 10 percent reduction in value. Conversely, in some cases, the impacts can be positive. Second, negative impacts are most often attributed to the unattractiveness of the energy facility, fear of potential health effects, noise (during operation and maintenance, depending on the type of facility), and safety concerns. Third, the presence of the ROW and energy facility is not the primary determinant of property value. Neighborhood characteristics, lot size, schools, land characteristics, and improvements are all better predictors of property value. Fourth, the impact on property value from a ROW decreases the further away the property is from the ROW. Thus, impacts are usually greater for smaller properties than for larger properties.

Studies notwithstanding, every landowner has a unique relationship with his or her property and thus valuing impacts to property adjacent to a ROW can be challenging. If a landowner determines that he or she cannot continue living on property with an energy facility ROW easement, the landowner can, with some limitations, require that the utility purchase the landowner's entire property in fee simple (Minn. Stat. §216E.12).

A value that generally is not included in ROW agreements is the value of the energy moving through the energy facility (e.g., transmission line, pipeline). In contrast, landowners with agreements to allow wind turbines to be placed on their property can receive payments that reflect the wind energy generated on their property. In these cases, the wind farm developer is purchasing a property right that includes a known energy source, the wind. ROW agreements for transmission

lines and pipelines do not anticipate drawing or creating energy from the ROW; thus, there is no energy value to speak of and no energy value appears in the ROW agreement.

Eminent Domain

"Eminent domain" is the power to take privately owned property, particularly land, and convert it to public use, subject to reasonable compensation for the taking. Despite good faith negotiations, it's possible that a landowner and utility will not reach agreement on the terms of a ROW agreement. Under these circumstances, once it obtains the necessary PUC permits, the utility has the right to use eminent domain power to initiate condemnation proceedings. However, until the utility receives the necessary permits, it may not initiate such a proceeding.

Minnesota Statutes Chapter 117 (Minn. Stat. §117, titled "Eminent Domain") describes the procedures to be followed for condemnation proceedings in Minnesota. The intent of Chapter 117 is to determine, through a fair process, what payment is due the landowner for the use of his or her land. Chapter 117 provides protections for landowners. The utility must negotiate in good faith with the landowner, and provide the landowner with a copy of an appraisal of the property before beginning a condemnation proceeding (Minn. Stat. §117.036). The landowner can obtain an appraisal and may be reimbursed, within statutory limits, for the reasonable costs of this appraisal (Minn. Stat. §117.036).

The utility begins a condemnation proceeding by filing a petition with the appropriate District Court. Landowners must receive notice of the petition (Minn. Stat. §117.055). A landowner may object to the granting of the petition and may appeal the issuance of a petition. If the petition is granted, the property interest (i.e., easement or fee simple ownership) is transferred to the utility, and the issue of compensation is taken up. The Court must appoint three impartial commissioners for the condemnation proceeding to ascertain the amount of compensation due to the landowner for the taking of the property (Minn. Stat. §117.075). The commissioners have broad powers to hear and consider "allegations and proofs of all persons interested" (Minn. Stat. §117.085). The commissioners' decision is considered final; however, landowners may appeal the decision and may request a jury trial.

A landowner who chooses not to negotiate a ROW on his or her property and instead requires the utility to use eminent domain power by initiating a condemnation process, would likely benefit from legal counsel. Condemnation proceedings can be time consuming and expensive; however, some landowners may feel this time and expense is necessary and worthwhile**.**

References and Resources

- Minnesota Statutes, Law, and Rules, http://www.revisor.mn.gov/pubs/
- Minnesota Session Laws, 2010, Chapter 288, https://www.revisor.mn.gov/laws/?id=288&doctype=Chapter&year=2010&type=0
- "Eminent Domain: Just Compensation," Minnesota House of Representatives, House Research, http://www.house.leg.state.mn.us/hrd/pubs/ss/clssedjust.htm
- Resources on Minnesota Issues, Eminent Domain, Minnesota Legislative Reference Library, http://www.leg.state.mn.us/lrl/issues/eminentdomain.asp
- "Summary Guide to Eminent Domain," Bruce D. Malkerson, Howard A. Roston, and Patrick B. Steinhoff (2006), available for purchase from Minnesota CLE, http://www.minncle.org
- "Right-of-Way and Easements for Electric Facility Construction," Public Service Commission of Wisconsin, http://psc.wi.gov/thelibrary/publications/electric/electric02.pdf
- "The Effects of Overhead Transmission Lines on Property Values: A Review and Analysis of the Literature," Cynthia A. Kroll and Thomas Priestley, Edison Electric Institute (1992), http://staff.haas.berkeley.edu/kroll/pubs/tranline.pdf
- "Do High Voltage Electric Transmission Lines Affect Property Value?," Stanley W. Hamilton and Gregory M. Schwann, *Land Economics*, Vol. 71, No. 4 (Nov., 1995), p. 436-444
- "The Impact of Transmission Lines on Property Values: Coming to Terms with Stigma," Peter Elliott, David Wadley, *Property Management*, 20(2), (2002), p. 137-152. http://espace.library.uq.edu.au/eserv/UQ:8095/dw_pm_02.pdf
- "Power Lines and Property Values Revisited," Jennifer M. Pitts, Thomas O. Jackson, Appraisal Journal, Fall 2007, http://www.entrepreneur.com/tradejournals/article/171851335.html

Appendix F. Blanding's Turtle Fact Sheet

CAUTION

BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2641); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-280-5070); or St. Paul (651-259-5764).

DESCRIPTION: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

BLANDING'S TURTLES DO NOT MAKE GOOD PETS
IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY

SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

(see Blanding's Turtle Fact Sheet for full recommendations)

- This flyer should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles that are in imminent danger should be moved, by hand, out of harms way. Turtles that are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest and do not allow pets near the nest.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).

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