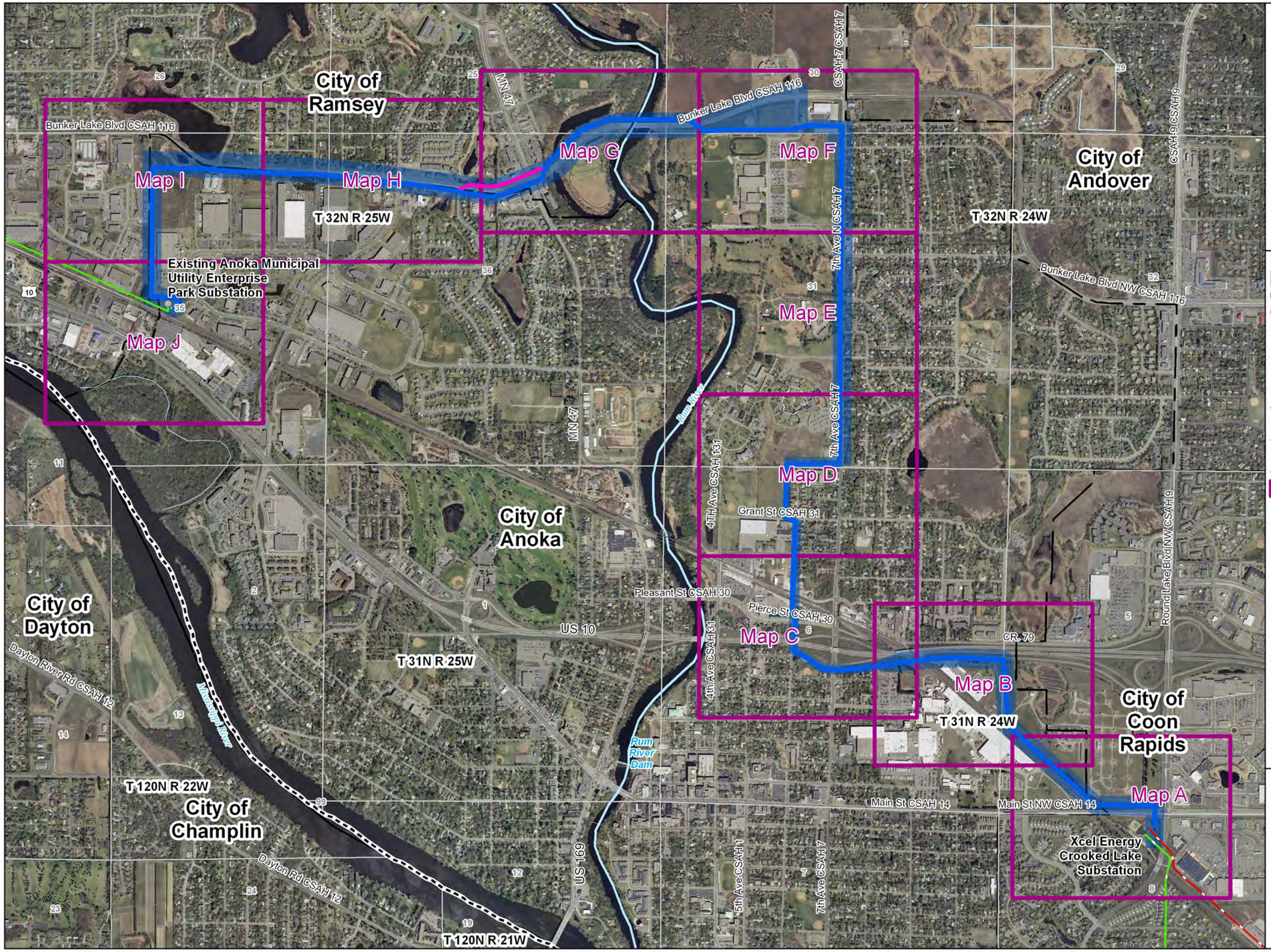


GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

Great River Energy
- Proposed Route
- Conceptual Alignment
- Conceptual Alternate Alignment

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line
- Map Key

0 1,000 2,000 Feet

N

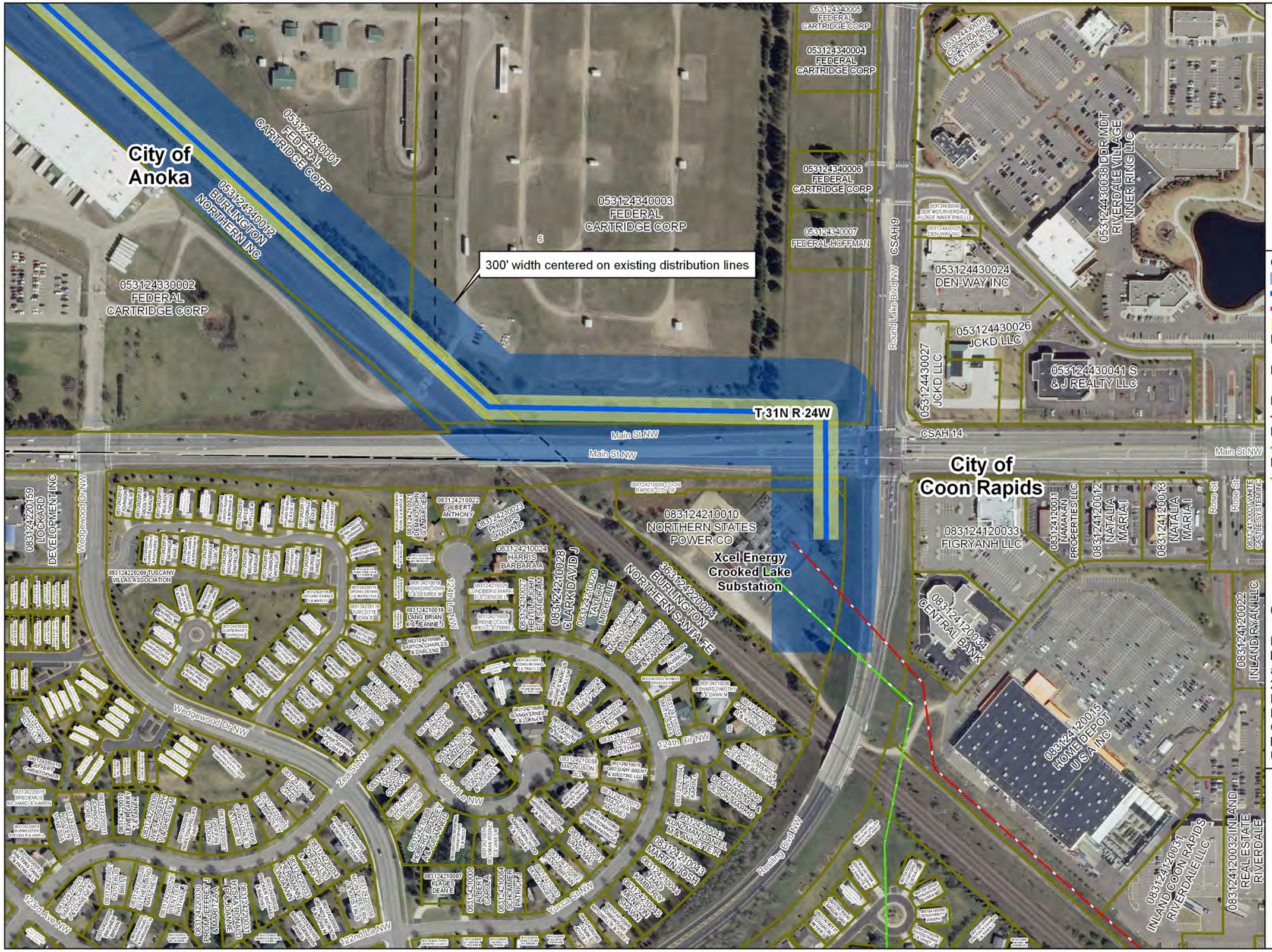
Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.

Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project Figure 4-1

Proposed Route Map Key

Updated: 9/30/2011



GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

Great River Energy
- Proposed Route
- Conceptual Alignment
- Conceptual Alternate Alignment
- Easement Area (70 ft)

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

0 100 200 300 400 Feet

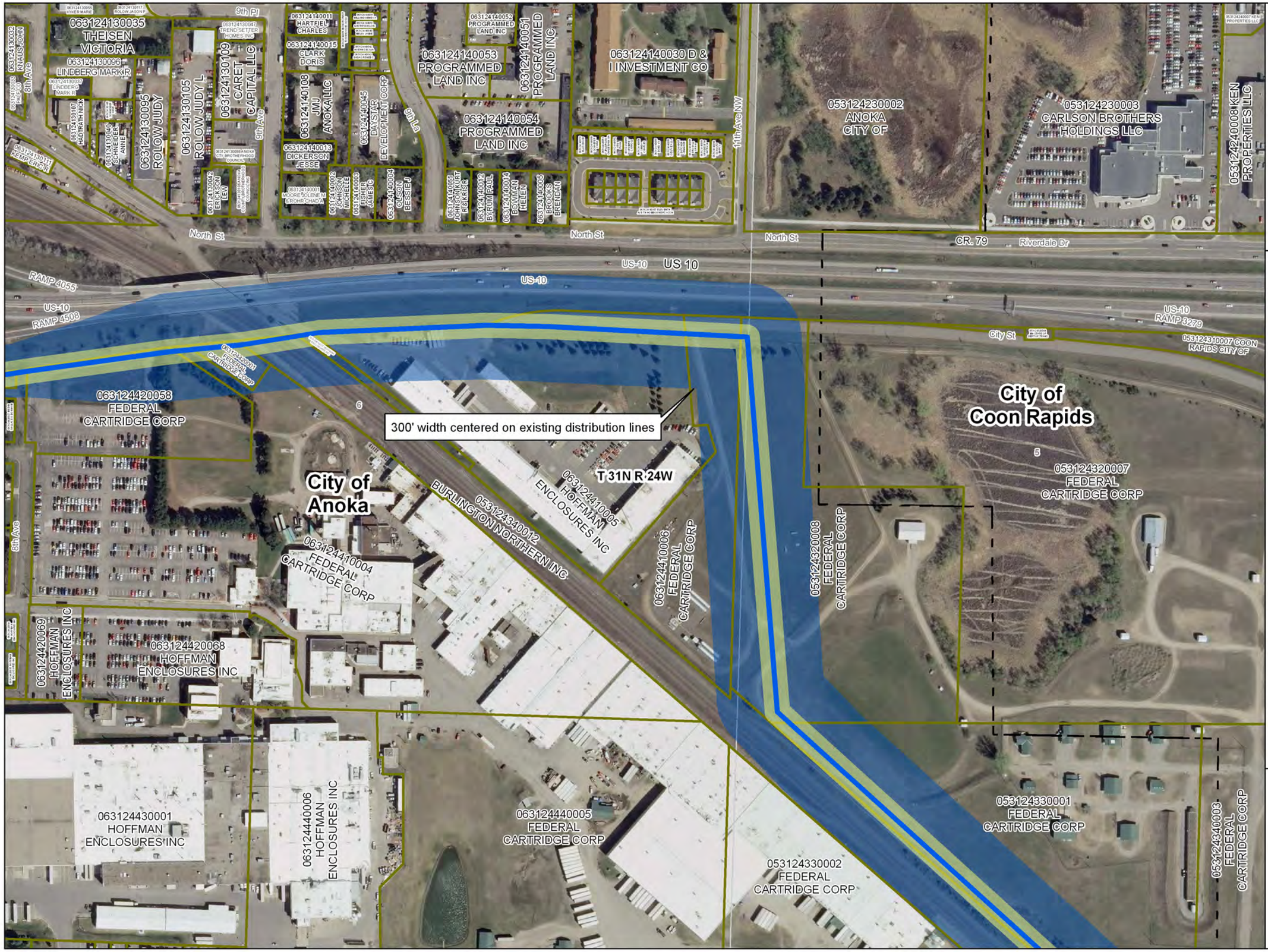
N

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1A

Proposed Route Map A

Updated: 9/30/2011



GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route
- Conceptual Alignment
- Conceptual Alternate Alignment
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Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

N

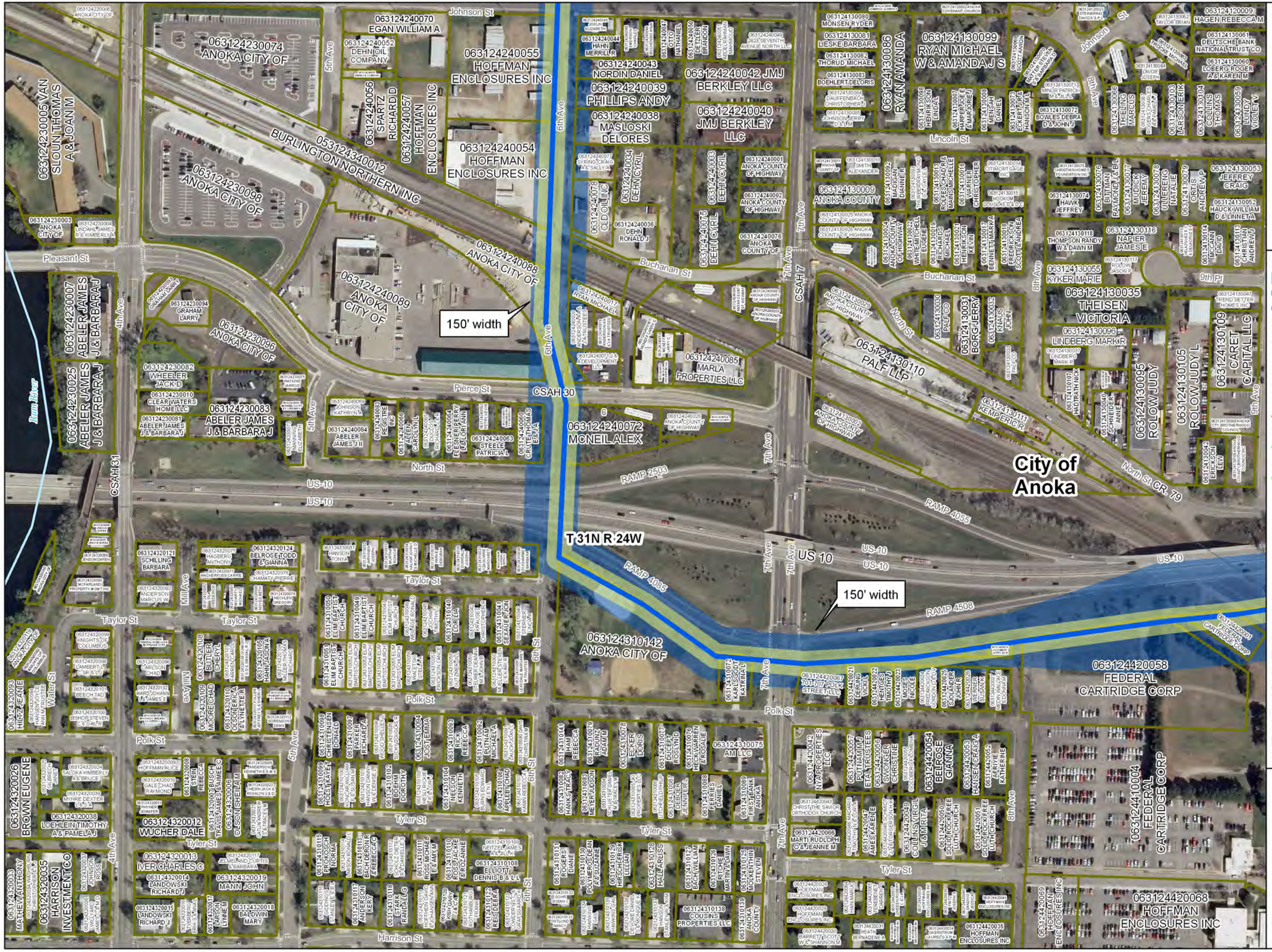
0 100 200 300 400 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1B

Proposed Route Map B

Updated: 9/30/2011


150' width
150' width
City of Anoka
T 31N R 24W
CSAH 7
CSAH 30
CSAH 31
US-10
US 10
RAMP 2503
RAMP 4055
RAMP 4065
RAMP 4508
Rum River
Pleasant St
Pierce St
North St
Buchanan St
Lincoln St
Johnson St
Taylor St
Polk St
Tyler St
Harrison St
Water St
Mill Ave
4th Ave
5th Ave
6th Ave
7th Ave
8th Ave
9th Pl
North St CR 79
063124230074 ANOKA CITY OF
063124230098 ANOKA CITY OF
063124230089 ANOKA CITY OF
063124230096 ANOKA CITY OF
063124230005 VAN SLOUN THOMAS A & JOAN M
063124230007 ABELER JAMES J & BARBARA J
063124230025 ABELER JAMES J & BARBARA J
063124230083 ABELER JAMES J & BARBARA J
063124230082 WHEELER JACK D
063124230010 CLEAR WATERS HOME LLC
063124230081 ABELER JAMES J & BARBARA J
063124230094 GRAHAM LARRY
063124230095 GRAHAM DAVEY
063124230003 ANOKA CITY OF
063124230004 MCFARLAND MICHAEL JAMES & KIMBERLY A
063124230070 EGAN WILLIAM A
063124240052 DEHN OIL COMPANY
063124240056 SPARTZ RICHARD D
063124240057 HOFFMAN ENCLOSURES INC
063124240055 HOFFMAN ENCLOSURES INC
063124240054 HOFFMAN ENCLOSURES INC
063124340012 BURLINGTON NORTHERN INC
063124240088 ANOKA CITY OF
063124240072 MCNEIL ALEX
063124240085 MARLA PROPERTIES LLC
063124240043 NORDIN DANIEL
063124240039 PHILLIPS ANDY
063124240038 MASLOSKI DELORES
063124240042 JMJ BERKLEY LLC
063124240040 JMJ BERKLEY LLC
063124240041 2823 SEVENTH AVENUE NORTH LLC
063124240034 DEHN CYRIL
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063124240036 DEHN RONALD J
063124240008 DEHN CYRIL
063124240076 DEHN CYRIL
063124240001 ANOKA COUNTY OF HIGHWAY
063124240002 ANOKA COUNTY OF HIGHWAY
063124240076 ANOKA COUNTY OF
063124240017 RYAN MICHAEL
063124240007 JVL DEVELOPMENT LLC
063124240006 ANOKA COUNTY OF HIGHWAY
063124240027 ANOKA COUNTY OF HIGHWAY
063124240069 JOHNSON KATHRYN A
063124240084 ABELER JAMES J II
063124240083 REGISTRE LLC
063124240066 ABELEN CAROLYN L
063124240064 ANDERSON ROBERT & LORI ANN
063124240063 STEELE PATRICIA L
063124240060 CRUTE THOMAS E & M A
063124240028 ANOKA COUNTY OF HIGHWAY
063124130080 MONSEN RYDER
063124130081 LIESKE BARBARA
063124130082 THORUD MICHAEL
063124130083 BOEHLERT DELORIS
063124130084 DAUFFENBACH CHRISTOPHER
063124130085 JOHNSON TERRY D & MJ
063124130086 RYAN AMANDA
063124130099 RYAN MICHAEL W & AMANDA J S
063124130098 HENRIKSON LINDA L
063124130097 HARPER JOE E & MARJORIE J
063124130088 MENSAH DANIEL
063124130073 ECKERT JIRA HANSON M L
063124130071 MINOR PATRICK M & LULU
063124130072 BOWLES DEBRA D & JOHN J
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063124130090 [illegible]
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063124130104 COLLINS THOMAS
063124130069 LUNDY VIOLET V
063124120009 HAGEN REBECCA M
063124130062 TAYLOR BRIAN
063124130061 DEUTSCHE BANK NATIONAL TRUST CO
063124130060 LOBERG ROGER A & KAREN M
063124130009 ANOKA COUNTY
063124130010 SMITH ALEXANDER
063124130011 HADIGAN DIANNE R
063124130001 ROLFES CHAD R & MARIS MICHELLE
063124130019 WARNER CHRISTOPHER
063124130014 STIMMONS CAGES INC
063124130013 HOOKOM SHOOKOM DDS
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063124130052 HAUCK WILLIAM D & LINNET A
063124130074 HAVIK JEFFREY
063124130076 BITTMAN RAYMOND J & BIL
063124130077 MUDICK JEREMY
063124130078 ULLERICH NATALIE
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063124130118 THOMPSON RANDY W & DAWN M
063124130116 NAPIER JAMES E
063124130117 ROLOW JASON P
063124130055 KYKER MARIE
063124130035 THEISEN VICTORIA
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063124130107 HADRATH NICK
063124130040 SCHREIDER ANNE
063124130095 ROLOW JUDY
063124130105 ROLOW JUDY L
063124130109 CARET CAPITAL LLC
063124130047 TREND SETTER HOMES INC
063124130110 PALF LLP
063124130039 PALF CO
063124130031 BORG JERRY
063124130032 KNAUS JOHN
063124130111 KEMPER IC R
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063124130024 ANOKA COUNTY OF HIGHWAY
063124130025 ANOKA COUNTY OF HIGHWAY
063124130022 WHITE MITCHELL EUGENE
063124130021 RICHARDS KEVIN
063124130020 BENNETT MARK A
063124130018 FREDRICKSON SCOTT & ANDREA
063124130017 BENNETT MARK A
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063124130113 CHRISTIAN ANDREW J
063124310142 ANOKA CITY OF
063124310075 AM LLC
063124310076 RADUNZ ADAM M
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063124310128 COUSINS PROPERTIES LLC
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063124310126 HALL ARJUSS
063124310123 HIRSCHFERICK LILLIAN
063124310122 ROGERS DIANE
063124310121 ANDERSON KERY
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063124320019 MANN JOHN
063124320015 LANDOWSKI RICHARD J
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063124320035 HARRISON INVESTMENT CO
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063124420067 701707 POLK STREET LLC
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063124420022 MEYER TODD
063124420023 MOSER NICOLE
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063124420063 HOFFMAN ENCLOSURES INC
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063124420068 HOFFMAN ENCLOSURES INC
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063124420004 ANOKA CITY OF
063124420002 ANOKA CITY OF
063124420003 ANOKA CITY OF
063124420005 ANOKA CITY OF
063124420006 ANOKA CITY OF
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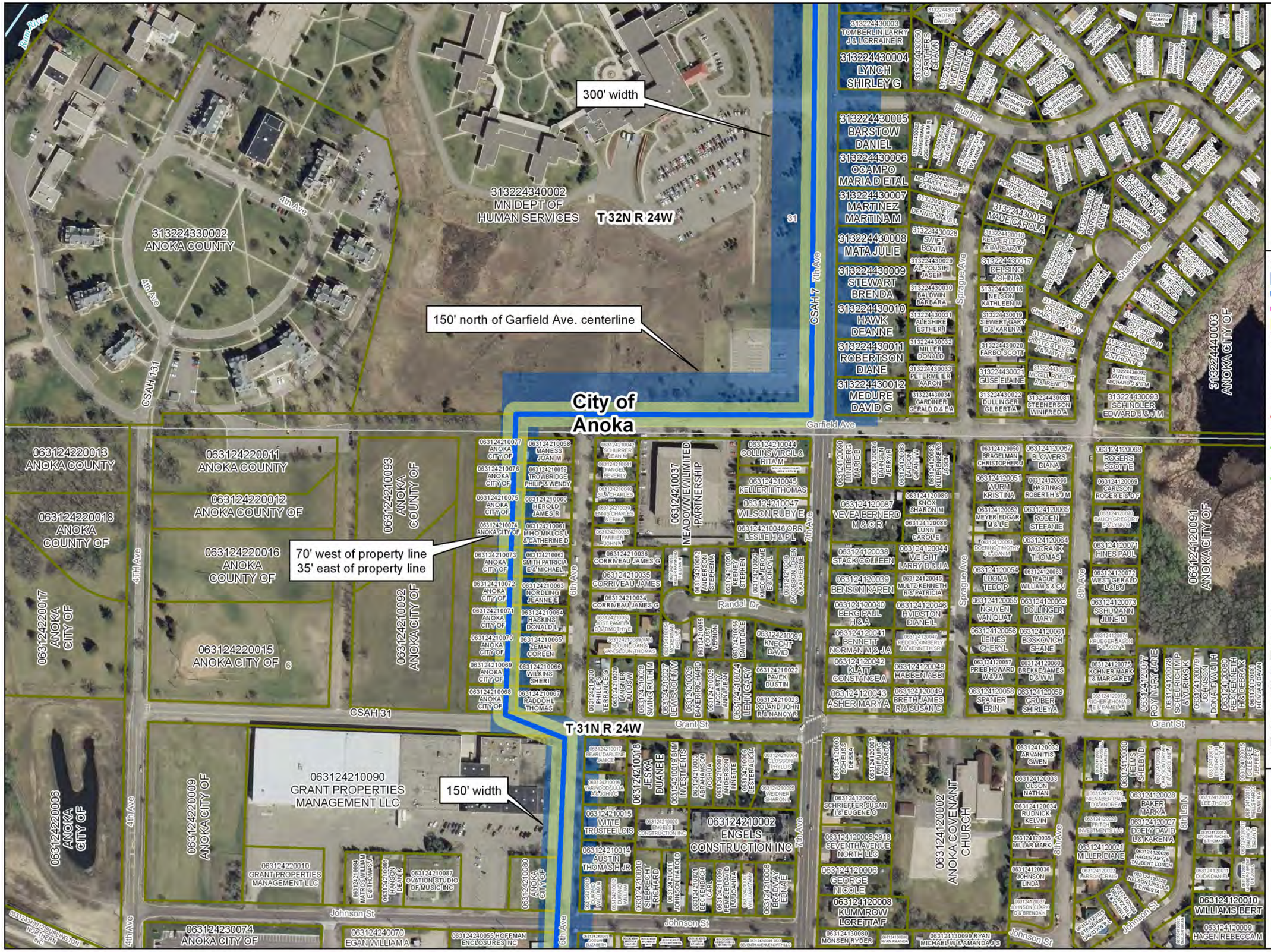

GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

Great River Energy
- Proposed Route
- Conceptual Alignment
- Conceptual Alternate Alignment
- Easement Area (70 ft)

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

0 100 200 300 400 Feet

N

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project Figure 4-1D

Proposed Route Map D

Updated: 9/30/2011

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- Transmission Substation

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- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

N

0 100 200 300 400 Feet

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2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1E

Proposed Route Map E

Updated: 9/30/2011

200' north of 116th and
follows the parcel line on the south

75' north of existing driveway centerline

150' south of existing driveway centerline
and 150' west of 7th Avenue

50' from the west edge of the proposed roadway

T 32N R 24W

City of Andover

City of Anoka

303224340005
ANOKA COUNTY

303224340006
ANOKA CITY OF

303224430001
SONSTEBY
ROSELLA B

303224330002
ANOKA
CITY OF

303224340002
ANOKA AREA ICE
ARENA ASSN INC

303224340003
ANOKA
CITY OF

303224330003
ANOKA
CITY OF

313224210002
ANOKA

313224230001
MINNESOTA
STATE OF

313224240001
MINNESOTA
STATE OF

6th Ave

CSAH 7

CSAH 116 Bunker Lake Blvd

Bunker Lake Blvd

30

Service Rd

7th Ave NW

7th Ave N

41st Ave

40th La

38th La

CSAH 17

303224430004
FEDERAL HOME LOAN
MORTGAGE CORP

313224120003
KVILLE
SHANE

313224120008
GOLDEN EARL
C & MARY J

313224120002
BROCK LOIS

313224120004
RUSTAD
DAWNELL K

313224120007
SHASKY
ALMA

313224120009
ABRAHAMSON
ASHLEE

313224120011
WELLMAN D A
& J B & HAGE J

313224120012
LORENDO
BETTY

313224120013
NURNBERGER
JAMES M & E A

313224120029
RUTH
JEFFREY A & TERI J

313224120081
RIPPLE BONNIE

313224120022
KNOOP
KENNETH L & M J

313224120021
BATSCHE PAUL
G & KIMBERLY A

313224130020
HOSNA
HIROE

313224130019
NEGLESS
GAYLEN G & R R

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JORGES
ARLENE

313224120024
OMAN KEVIN

313224120025
BECKER JEREMY
P & MARIE A

313224120026
BERNDT DAVID
W & G A

313224120027
SCHMITZ
ALOIS C & L C

313224120010
PIERSON
REBECCA A

313224120019
DIETZEL WALNER

313224120020
FERRARIO DUANE

313224120030
REILLY KEITH

313224120031
GRANT GERALD
L & JANE

313224120032
TUTTLE
JONATHAN

313224120033
PHELPS CHARLES
H & FRANCES N

313224120034
MCDANIEL PAUL
A & SANDRA I

313224120035
FOSS LAWRENCE
J & J I

313224120036
KOIVISTO
LILA S

313224120037
HOFMEISTER
DAVID A & SUSAN

313224120038
DRYDEN JR ROBERT
& DRYDEN VICKI

313224120039
JENSON SHERYL &
CHAMBERLAIN P

313224130024
RYDEN RONALD
W & LINDA M

313224130025
HIRSCH
SHANNON

313224130026
OMAN ROSE

313224130027
MANSON KELLEY
CJR & MICHELLE

313224120072
OLSON
ARLEEN

313224120058
WALESCH KENNETH
N & ARLENE

313224120059
JOHNSON
SHERRI LYNN

313224120060
DAVIS
DEENA M

313224120063
GRIFFIN
CRAIG

313224120064
JOSLYN DAVID
R & KATHRYN L

313224120065
LARSON
CAROL

313224120066
HOENIE ROBERT
L & DEBORAH S

313224120074
CRANDALL
JASON

313224120076
VANDERMEER
PAUL & JAMIE

313224120057
PHILLIPS TRUSTEE
BERNADINE

313224120055
TARTER WILLIS
G & BETTY J

313224120054
WITT DANIEL

313224120053
SCHERLE JOHN
M JR & ELAINA

313224120052
SIMONS TIMOTHY
A & KIMBERLY K

313224120051
GITUMA
ANNE

313224120050
LARKIN
LINDA C

313224120049
TCHIDA
ROGER T

313224130002
ALTO JOHN MARK

313224130023
DELRICH
JEFFREY M

313224130022
SHOLTZ
CHERYL

313224130021
CHOCK
RICHARD

313224130031
BOYER
JANET

313224130030
AUSPOS
THERESA

313224130029
MCDONALD
SHANNON

313224130028
ERICKSON ROBERT
D & KRISTINE

313224130027
OLSON DENNIS
R & KAREN K

313224130026
HOLTE JAMES
A & DOROTHY

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- 115 kV Transmission Line

N

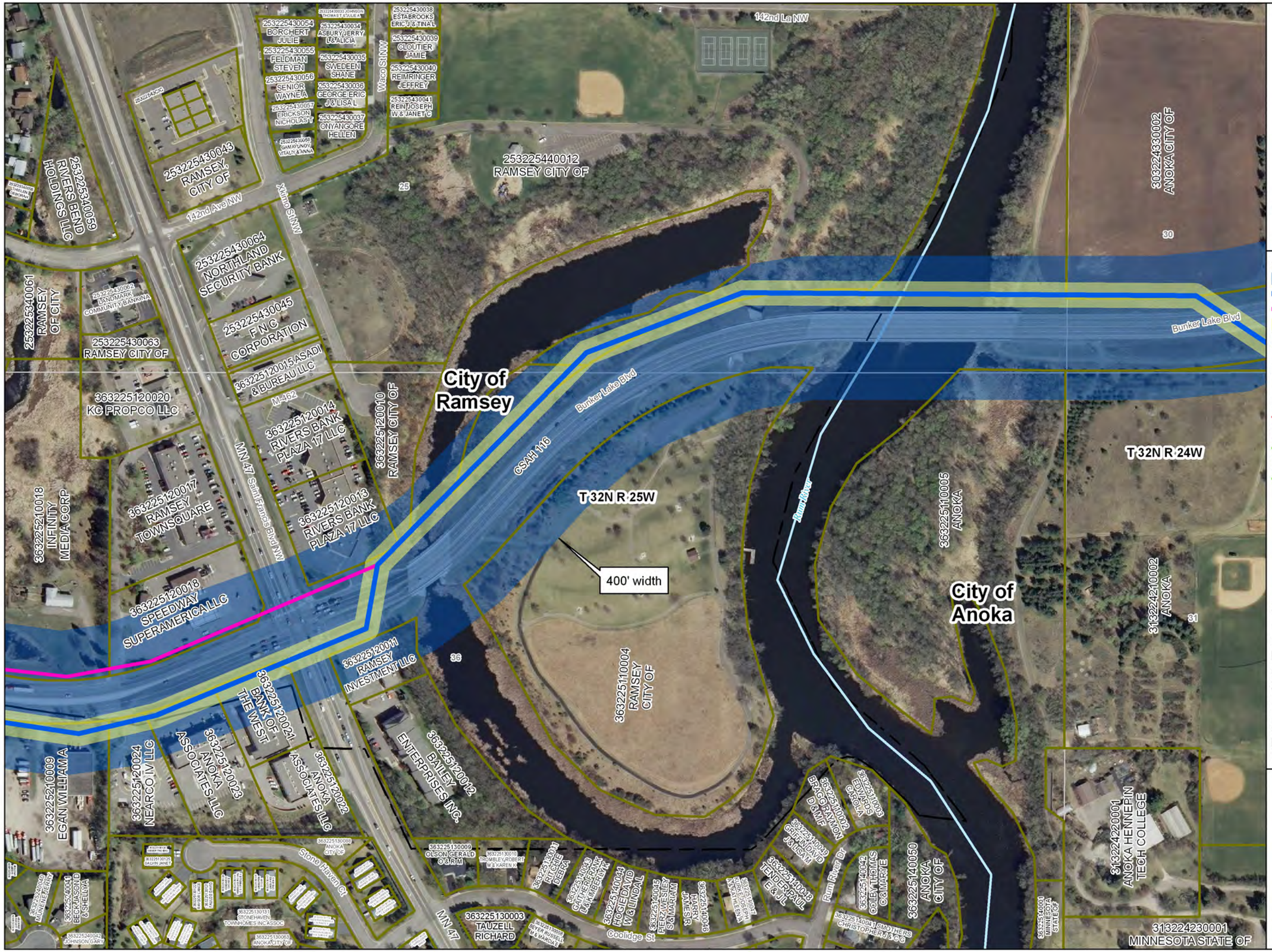
0 100 200 300 400 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1F

Proposed Route Map F

Updated: 9/30/2011



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- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

N

0 100 200 300 400 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1G

Proposed Route Map G

Updated: 9/30/2011

GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

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- Proposed Route
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- Conceptual Alternate Alignment
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- 115 kV Transmission Line

0 100 200 300 400 Feet

N

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project Figure 4-1H

Proposed Route Map H

Updated: 9/30/2011

GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

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- Proposed Route
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- Easement Area (70 ft)

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- 69 kV Transmission Line

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- 115 kV Transmission Line

0 100 200 300 400 Feet

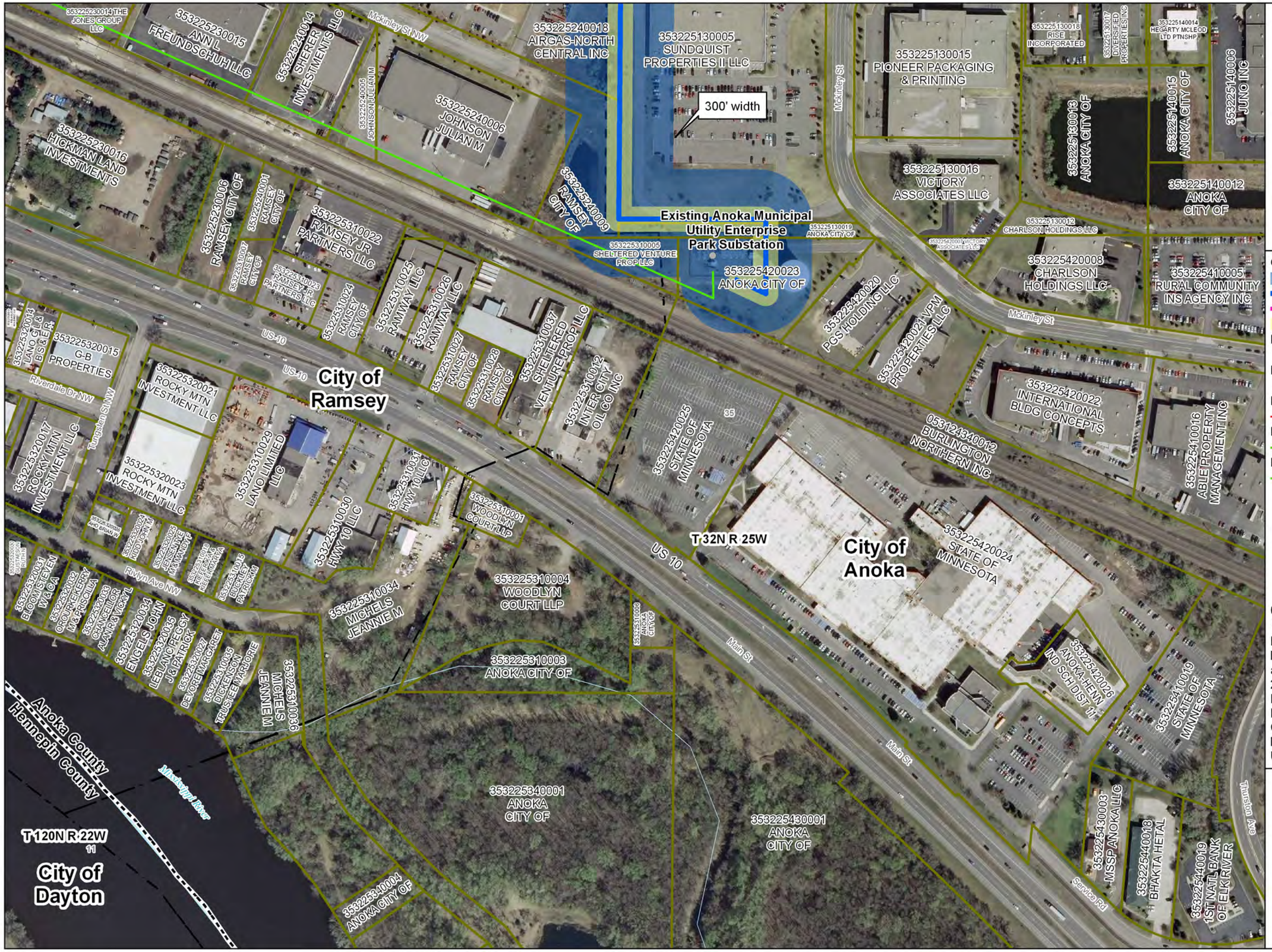
N

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1l

Proposed Route Map I

Updated: 9/30/2011



GREAT RIVER ENERGY®

A Touchstone Energy® Cooperative

Great River Energy
- Proposed Route
- Conceptual Alignment
- Conceptual Alternate Alignment
- Easement Area (70 ft)

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

0 100 200 300 400 Feet

N

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.
Parcel Data from Anoka County GIS.
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-1J

Proposed Route Map J

Updated: 9/30/2011

Rejected Route Segment 8

City of Ramsey

Bunker Lake Blvd CSAH 116

Rejected Route Segment 9

T 32N R 25W

Proposed Great River Energy 115 kV Transmission Route

Existing Anoka Municipal Utility Enterprise Park Distribution Substation

Rejected Route Segment 2

Rejected Route Segment 1

City of Anoka

City of Dayton

T 120N R 22W

T 31N R 25W

City of Champlin

Rum River Dam

Rejected Route Segment 7

T 32N R 24W

City of Andover

Rejected Route Segment 3

Rejected Route Segment 6

Rejected Route Segment 4

Rejected Route Segment 5

City of Coon Rapids

T 31N R 24W

Existing Xcel Energy Crooked Lake Transmission Substation

CR 57

Sunfish Lake Blvd NW CSAH 57

CSAH 7

7th Ave N CSAH 7

CSAH 9

Bunker Lake Blvd NW CSAH 116

US 10

MN 47

Grant St CSAH 31

4th Ave CSAH 31

Pleasant St CSAH 30

Pierce St CSAH 30

CR 79

Round Lake Blvd NW CSAH 9

Main St CSAH 14

Main St NW CSAH 14

US 169

5th Ave CSAH 1

Dayton River Rd CSAH 12

Dayton Rd CSAH 12

Mississippi River

Rum River

GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route
- Rejected Route 1
- Rejected Route 2
- Rejected Route 3
- Rejected Route 4
- Rejected Route 5
- Rejected Route 6
- Rejected Route 7
- Rejected Route 8
- Rejected Route 9

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

N

0 1,000 2,000 Feet

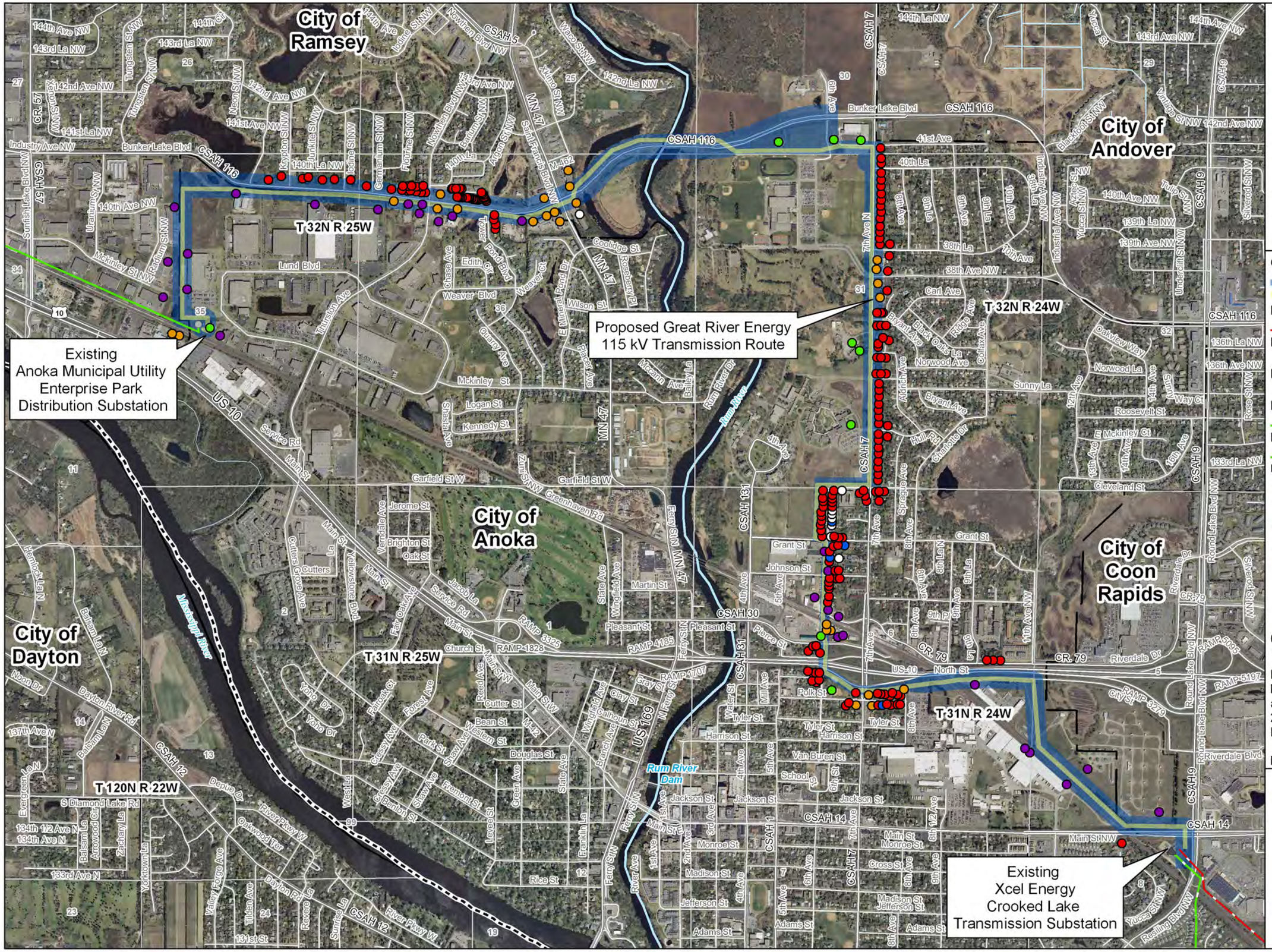
Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
2010 Color Orthophotos from Farm Services Administration.

Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project
Figure 4-2

Rejected Routes

Updated: 8/26/2011



GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route
- Easement Area (70 ft)

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

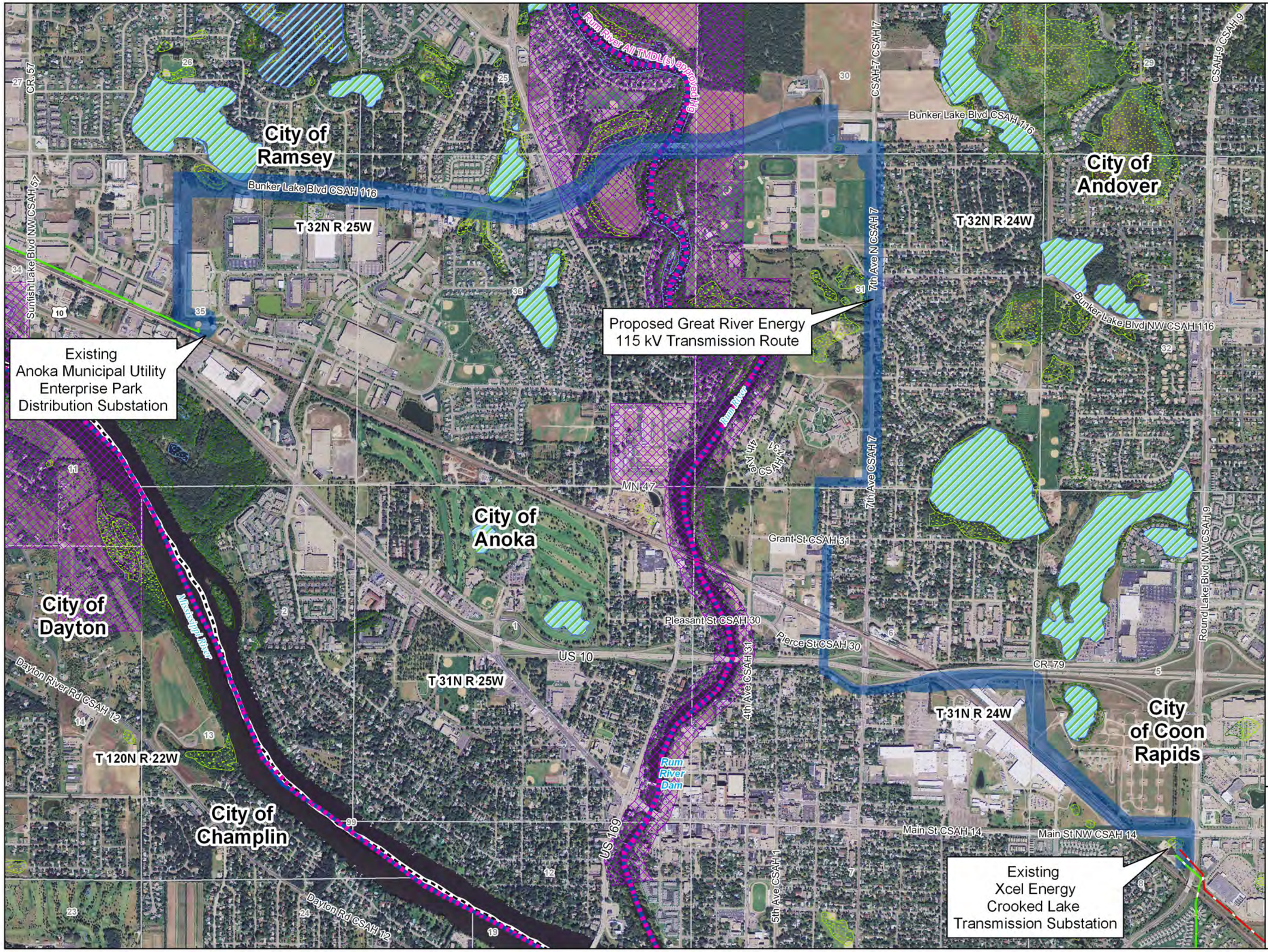
Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

BuildingPoints Residential / Commercial
- Apartments
- Commercial
- Exempt
- Industrial
- Residential Duplex
- Residential Single Family

Enterprise Park 115-kV Project Figure 8-1 Residences and Businesses Within the Project Area

Updated: 10/3/2011



GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
- Distribution Substation

Existing Xcel Energy (XE)
- Transmission Substation

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- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

NWI Wetlands
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub
- Freshwater Pond
- Riverine

PWI LAKES
- Public Water Basin
- Public Water Wetland

PWI River

Impaired Waters
- Impaired Lakes
- Impaired Streams
- MN Wild and Scenic River

N

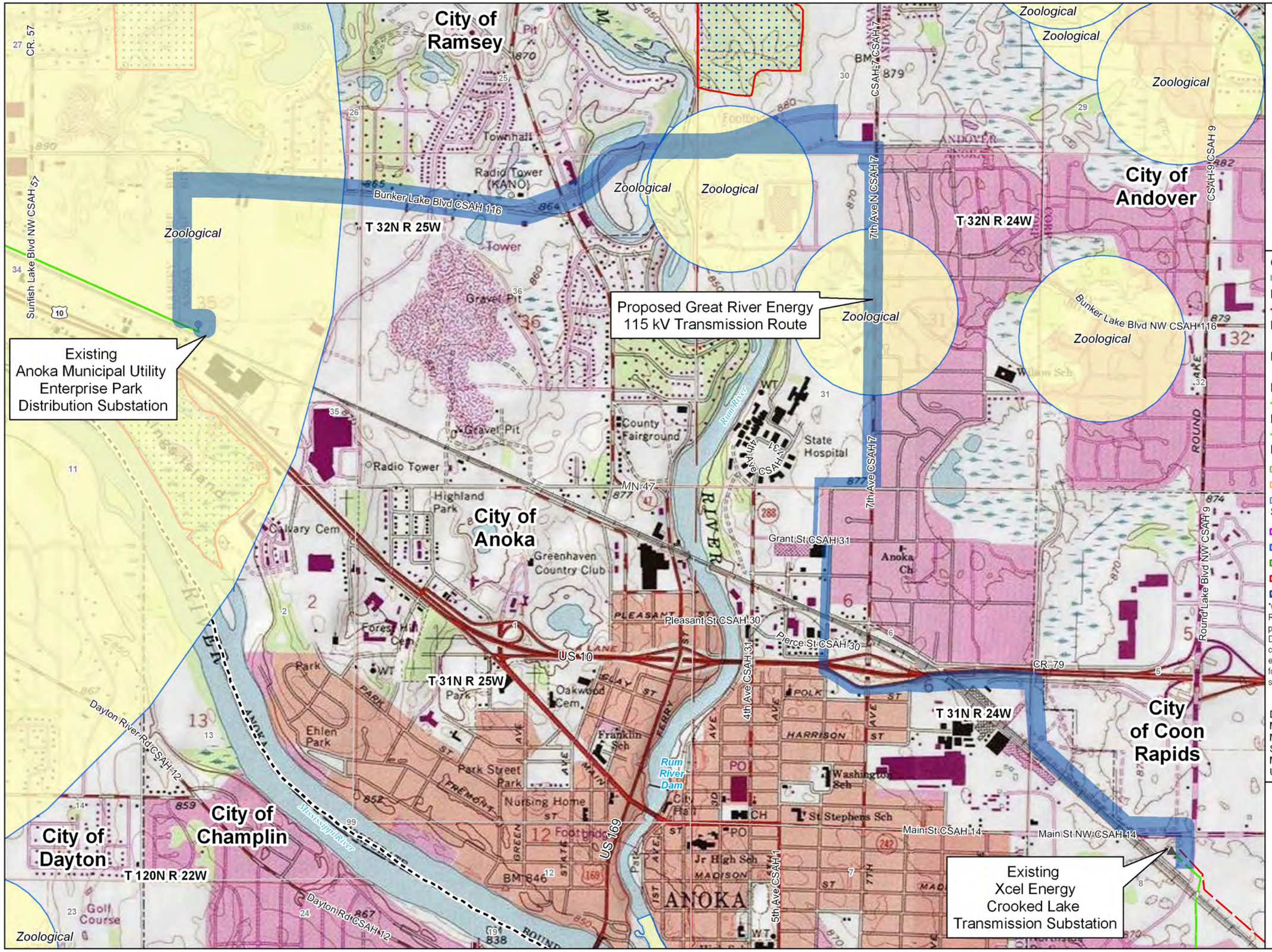
0 1,000 2,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
NWI Wetlands & PWI from MNDNR.
Impaired Waters from MN Pollution Control Agency (MPCA).
2010 Color Orthophotos from Farm Services Administration (FSA)
Map Projection: UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project

Figure 8-2 Hydrologic Features

Updated: 8/26/2011



GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route

Existing Great River Energy (GRE)
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- Transmission Substation

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

Rare Natural Features Polygons
- Botanical
- Ecological
- Zoological

Sites of Biodiversity Significance
- Outstanding
- High
- Moderate
- Below
- Native Plant Community

N

"Copyright (2011), State of Minnesota, Department of Natural Resources. Rare features data included here were provided by the Division of Ecological Resources, Minnesota Department of Natural Resources (DNR), and were current as of (04-19-2011). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present."

0 1,000 2,000 Feet

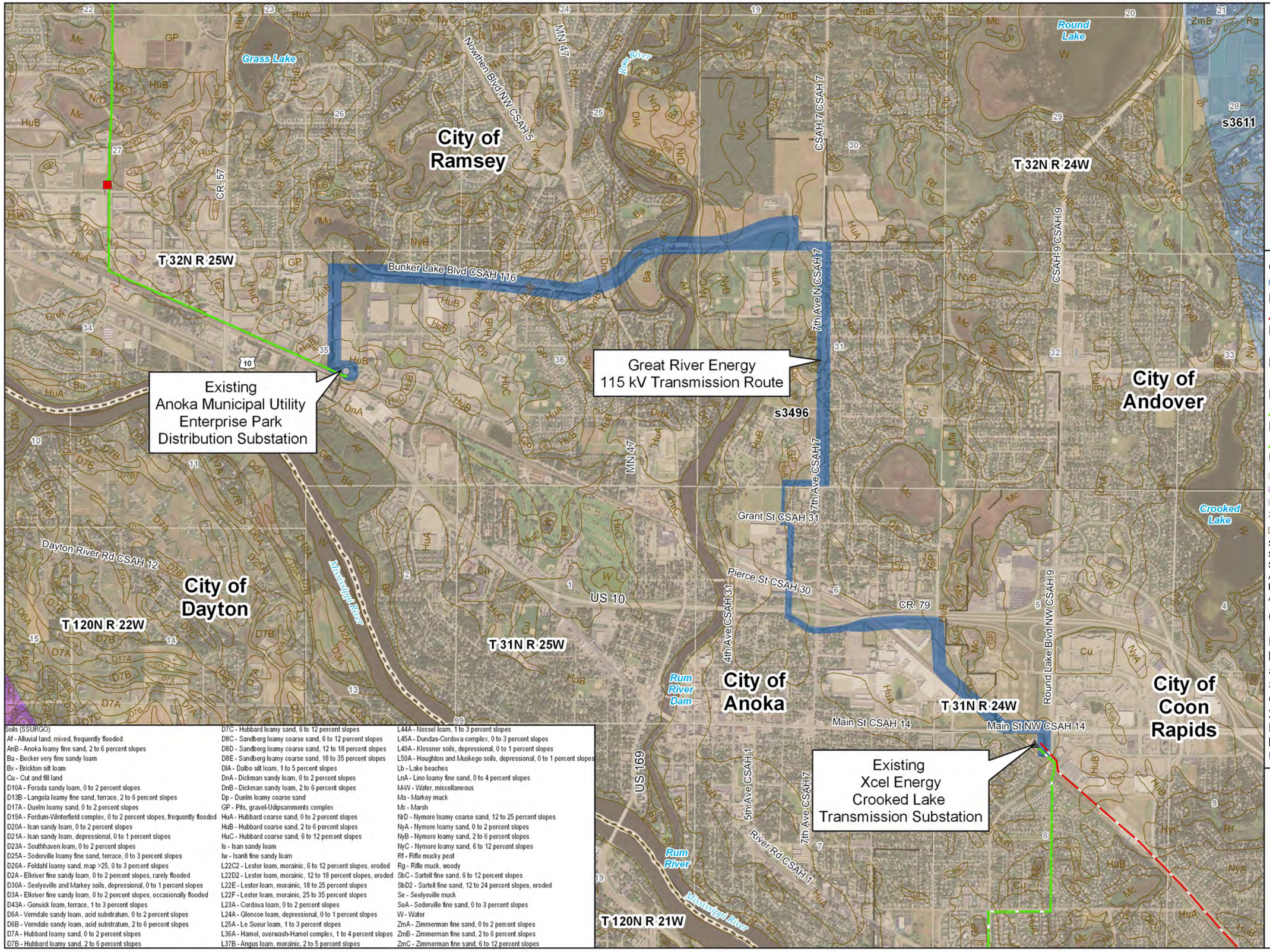
Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy. Topographic Maps from ESRI Basemap &National Geographic Society.

Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project

Figure 8-3 Rare Features

Updated: 8/26/2011



Soils (SSURGO)	D7C - Hubbard loamy sand, 6 to 12 percent slopes	L44A - Nessel loam, 1 to 3 percent slopes
Af - Alluvial land, mixed, frequently flooded	D8C - Sandberg loamy coarse sand, 6 to 12 percent slopes	L45A - Dundas-Cordova complex, 0 to 3 percent slopes
AnB - Anoka loamy fine sand, 2 to 6 percent slopes	D8D - Sandberg loamy coarse sand, 12 to 18 percent slopes	L49A - Klossner soils, depressional, 0 to 1 percent slopes
Ba - Becker very fine sandy loam	D8E - Sandberg loamy coarse sand, 18 to 35 percent slopes	L50A - Houghton and Muskego soils, depressional, 0 to 1 percent slopes
Bx - Brickton silt loam	DlA - Dalbo silt loam, 1 to 5 percent slopes	Lb - Lake beaches
Cu - Cut and fill land	DnA - Dickman sandy loam, 0 to 2 percent slopes	LnA - Lino loamy fine sand, 0 to 4 percent slopes
D10A - Forada sandy loam, 0 to 2 percent slopes	DnB - Dickman sandy loam, 2 to 6 percent slopes	MW - Water, miscellaneous
D13B - Langola loamy fine sand, terrace, 2 to 6 percent slopes	Dp - Duelm loamy coarse sand	Ma - Markey muck
D17A - Duelm loamy sand, 0 to 2 percent slopes	GP - Pits, gravel-Udipsamments complex	Mc - Marsh
D19A - Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded	HuA - Hubbard coarse sand, 0 to 2 percent slopes	NrD - Nymore loamy coarse sand, 12 to 25 percent slopes
D20A - Isan sandy loam, 0 to 2 percent slopes	HuB - Hubbard coarse sand, 2 to 6 percent slopes	NyA - Nymore loamy sand, 0 to 2 percent slopes
D21A - Isan sandy loam, depressional, 0 to 1 percent slopes	HuC - Hubbard coarse sand, 6 to 12 percent slopes	NyB - Nymore loamy sand, 2 to 6 percent slopes
D23A - Southhaven loam, 0 to 2 percent slopes	Is - Isan sandy loam	NyC - Nymore loamy sand, 6 to 12 percent slopes
D25A - Soderville loamy fine sand, terrace, 0 to 3 percent slopes	Iw - Isanti fine sandy loam	Rf - Rifle mucky peat
D26A - Foldahl loamy sand, map >25, 0 to 3 percent slopes	L22C2 - Lester loam, morainic, 6 to 12 percent slopes, eroded	Rg - Rifle muck, woody
D2A - Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded	L22D2 - Lester loam, morainic, 12 to 18 percent slopes, eroded	SbC - Sartell fine sand, 6 to 12 percent slopes
D30A - Seelyeville and Markey soils, depressional, 0 to 1 percent slopes	L22E - Lester loam, morainic, 18 to 25 percent slopes	SbD2 - Sartell fine sand, 12 to 24 percent slopes, eroded
D3A - Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded	L22F - Lester loam, morainic, 25 to 35 percent slopes	Se - Seelyeville muck
D43A - Gonvick loam, terrace, 1 to 3 percent slopes	L23A - Cordova loam, 0 to 2 percent slopes	SoA - Soderville fine sand, 0 to 3 percent slopes
D6A - Verndale sandy loam, acid substratum, 0 to 2 percent slopes	L24A - Glencoe loam, depressional, 0 to 1 percent slopes	W - Water
D6B - Verndale sandy loam, acid substratum, 2 to 6 percent slopes	L25A - Le Sueur loam, 1 to 3 percent slopes	ZmA - Zimmerman fine sand, 0 to 2 percent slopes
D7A - Hubbard loamy sand, 0 to 2 percent slopes	L36A - Hamel, overwash-Hamel complex, 1 to 4 percent slopes	ZmB - Zimmerman fine sand, 2 to 6 percent slopes
D7B - Hubbard loamy sand, 2 to 6 percent slopes	L37B - Angus loam, morainic, 2 to 5 percent slopes	ZmC - Zimmerman fine sand, 6 to 12 percent slopes

GREAT RIVER ENERGY®

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Great River Energy
Proposed Route
Existing Great River Energy (GRE)
115 kV AC Transmission
Existing Anoka Municipal Utility (AMU)
Distribution Substation
Existing Xcel Energy (XE)
Transmission Substation
Existing Anoka Municipal Utility (AMU)
69 kV Transmission Line
Existing Xcel Energy (XE)
115 kV Transmission Line

U.S. General Soil Map Coverage
Isan-Hubbard-Duelm (s3496)
Nessel-Hayden-Hamel-Cordova (s3587)
Zimmerman-Sartell-Rifle-Lino-Isanti (s3611)

Soils (SSURGO)
Soil Survey Geographic Database

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Anoka & Hennepin County, MN. Available online at http://soildatamart.nrcs.usda.gov. Accessed 08/25/11.

N

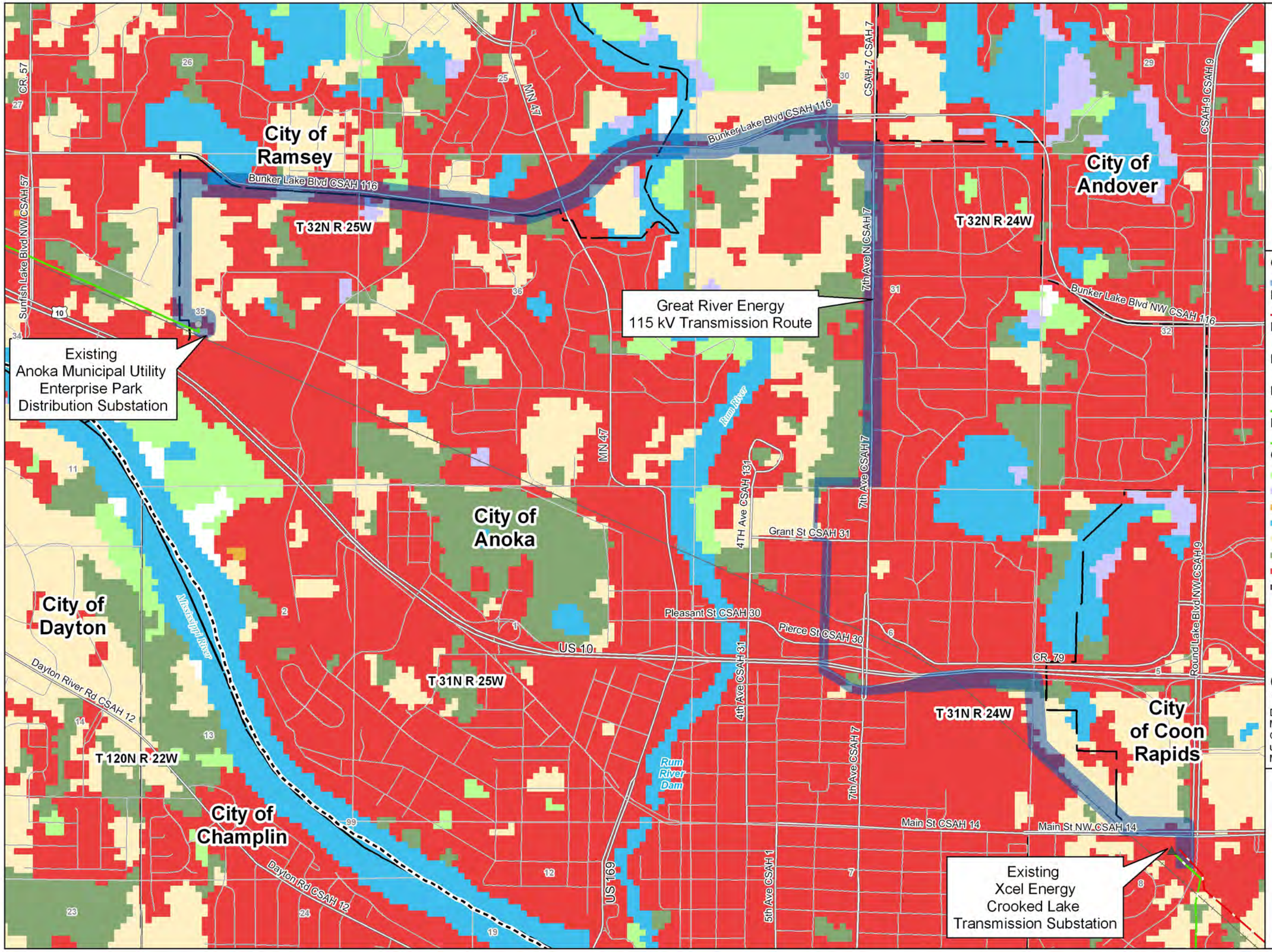
0 1,000 2,000 3,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
Soil Data from Natural Resources Conservation Service (NRCS)
2010 Color Orthophotos from Farm Services Administration.
Map Projection:
UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project

Figure 8-4 Soils

Updated: 8/26/2011



GREAT RIVER ENERGY®

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Great River Energy
- Proposed Route

Existing Great River Energy (GRE)
- 115 kV AC Transmission

Existing Anoka Municipal Utility (AMU)
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- Transmission Substation

Existing Anoka Municipal Utility (AMU)
- 69 kV Transmission Line

Existing Xcel Energy (XE)
- 115 kV Transmission Line

GAP Land Cover (1991-1993)
- Forested Area
- Shrub Land
- Barren
- Water/Wetlands
- Cropland
- Grassland
- Urban
- Transportation

N

0 1,000 2,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
GAP Land Cover data downloaded from MNDNR updated 1991-1993. http://deli.dnr.state.mn.us
Map Projection : UTM, NAD83, Zone15, Meters

Enterprise Park 115-kV Project

Figure 8-5 Land Use

Updated: 8/26/2011

GREAT RIVER ENERGY®

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Great River Energy
Proposed Route
Existing Great River Energy (GRE)
115 kV AC Transmission
Existing Xcel Energy (XE)
Transmission Substation
Existing Anoka Municipal Utility (AMU)
69 kV Transmission Line
Existing Xcel Energy (XE)
115 kV Transmission Line
Anoka County Zoning
Residential
Commercial Golf Courses
Industrial
Agricultural
Railroad
Exempt
Tax Forfeit
Utility Property
Service Station

N

0 1,000 2,000 Feet

Data Sources Vary Between MNDOT, MNDNR, MNGEO and Great River Energy.
Zoning Data from Anoka County.
2010 Color Orthophotos from Farm Services Administration.
Map Projection:
UTM, NAD83, Zone15, Meters

Great River Energy 115 kV Transmission Route

Existing Anoka Municipal Utility Enterprise Park Distribution Substation

Existing Xcel Energy Crooked Lake Transmission Substation

City of Ramsey

City of Anoka

City of Dayton

City of Andover

City of Coon Rapids

T 32N R 25W

T 32N R 24W

T 31N R 25W

T 31N R 24W

T 120N R 22W

CSAH 116

CSAH 5

CSAH 7

CSAH 9

CSAH 30

CSAH 31

CSAH 1

CSAH 14

CSAH 12

CSAH 57

CR 57

CR 79

MN 47

US-10

US 169

M-462

M-610

M-42

RAMP 3325

RAMP 1828

RAMP 4185

RAMP 1707

RAMP 4508

RAMP 3279

RAMP 5095

RAMP 5197

Rum River

Rum River Dam

Mississippi River

Enterprise Park 115-kV Project

Figure 8-6 Zoning Map

Updated: 8/26/2011