

Direct Testimony and Schedule
William P. Smith, AICP

STATE OF MINNESOTA

OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE ROUTE
PERMIT APPLICATION FOR
CAPX2020

DIRECT TESTIMONY OF

WILLIAM P. SMITH

On Behalf of

INTERVENOR

ORONOCO TOWNSHIP

May 20, 2011

PUC Docket No. ET2/TL-09-1448
OAH Docket No. 7-2500-20283-2
Smith Direct

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2
3 **Q. STATE YOUR NAME AND BUSINESS ADDRESS.**

4 A. My name is William P. Smith, and my business address is 79 13th Avenue Northeast,
5 Minneapolis, Minnesota 55413.

6
7 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?**

8 A. I am employed by Biko Associates, Inc., a firm providing professional consultant
9 services in land use and transportation planning, urban design and landscape architecture.
10 I am principal-in-charge of the firm's planning studio.

11 Biko Associates' market focus includes the Upper Midwestern states of
12 Minnesota, South Dakota, Iowa, and Wisconsin. Our client base in these states includes
13 public sector agencies and private sector developers and non-profit organizations.

14 In addition to my work at Biko Associates, I am also an adjunct faculty member at
15 the University of Minnesota in the Urban Studies Program, a program in the Geography
16 Department. I have instructed courses in the Urban Studies Program since 2008.

17
18 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND
19 PROFESSIONAL EXPERIENCE.**

20 A. I graduated from Wesleyan University in 1972 with a Bachelor of Arts degree in bio-
21 psychology. After graduation I worked as a research analyst with the Connecticut Citizen
22 Action Group (CCAG) in Hartford, Connecticut. CCAG is a private, non-profit
23 consumer and environmental advocacy organization. While there I conducted research

1 on Investor Owned Utilities' (IOUs') depreciation practices and rate increase requests
2 that went before the state's Public Utilities Commission (PUC).

3 I moved from research at CCAG to community organizing and helped mobilize
4 residents to become involved in rate increase request cases before the PUC; specifically
5 cases involving Northeast Utilities.

6 In 1984, I began graduate studies in urban and regional planning at the University
7 of Iowa and earned a Master of Arts degree in 1986. I was immediately hired by BRW,
8 Inc., a multi-disciplinary consultant firm providing services in architecture, engineering,
9 planning, landscape architecture and urban design. I worked for BRW on land use and
10 transportation planning projects. After meeting the requirements for certification, I was
11 accepted in the American Institute of Certified Planners (AICP) in 1988.

12 During my time with BRW, I prepared various elements of state- and federal-
13 level environmental studies (EAWs, EAs, AUARs, and DEIS/FEIS documents). I
14 additionally prepared land use and development/redevelopment plans for municipalities
15 in the Twin Cities metropolitan area, Greater Minnesota, and in Arizona, Iowa and
16 Michigan.

17 I left BRW in 1994 and founded Biko Associates that same year with four
18 partners. Since then I have been involved with land use and transportation planning and
19 design studies. As the principal of the firm's planning studio, my responsibilities include
20 marketing, project management, research and analysis, and staff supervision. I supervise
21 a staff of four planners. As the firm's president, I supervise one administrative support
22 person.

23 My personal resume is attached as **Exhibit 1**.

1 **Q. DO YOU HAVE DIRECT KNOWLEDGE OF LAND-USE AND ZONING ISSUES**
2 **THAT ARE RELEVANT TO THIS PROCEEDING?**

3 A. Yes. Examples of my experience in these areas include the firm's recent projects in
4 Isanti County, specifically in the City of Isanti, and comprehensive land-use and
5 development planning projects in:

- 6 • Wabasha County
- 7 • Koochiching County
- 8 • Athens Township, Isanti County
- 9 • Isanti County
- 10 • Redwood County

11

12 **Q. WHY HAVE YOU CITED THESE PROJECTS AS RELEVANT TO THIS**
13 **PROCEEDING?**

14 A. These particular projects are relevant to the instant case, because they each concerned
15 expansion of an urban service boundary, suburban style development, agricultural land
16 use, and/or rezoning agricultural land use to residential.

17

18 **Q. FOR WHOM ARE YOU TESTIFYING?**

19 A. I am providing testimony for Intervenor Oronoco Township, which is opposed to
20 Applicant's placement of the 345 kV transmission line on the Modified Preferred Route.

21

22 **Q. WHAT EXHIBITS ARE ATTACHED TO YOUR TESTIMONY?**

23 A. **Exhibit 1:** Personal Resume of William P. Smith.

- 1 **Exhibit 2:** Map of the Impact Analysis Area
- 2 **Exhibit 3:** Tables 1, 2, and 3 showing the number of affected structures at various
3 distances from the centerline on the Alternate Route, Route Option, and
4 Modified Preferred Route.
- 5 **Exhibit 4:** Table 4—Impact on Human Settlement (Impact on Structures), by Route.
- 6 **Exhibit 5:** Oronoco Township Land Use Plan (Feb. 28, 2002).
- 7 **Exhibit 6:** Oronoco Township Zoning Ordinance (effective Feb. 28, 2008; updated
8 Feb. 11, 2011).
- 9 **Exhibit 7:** Subdivision Ordinance for Oronoco Township Minnesota (May 7, 2007).
- 10 **Exhibit 8:** City of Rochester Future Land-Use Plan Map and Olmsted County Future
11 Land-Use Plan Map.
- 12 **Exhibit 9:** Table 5—Comparative Estimated Market Value Summary for Green
13 Acres Land in Local Jurisdictions in Olmsted and Wabasha Counties;
14 Table 6—Comparative Estimated Market Value Summary for Class 2a
15 Agricultural Land in Local Jurisdictions in Olmsted and Wabasha
16 Counties.
- 17 **Exhibit 10:** Composite of City of Rochester and Olmstead County Land-Use Plans and
18 Alternative Alignments.
- 19 **Exhibit 11:** Table 7—Impact of Three Route Options at Various Distances from the
20 Centerline of the Right of Way (Acres of Affected Land)
- 21 **Exhibit 12:** Wabasha County Comprehensive Land-Use Plan Map.

1 **II. SCOPE OF TESTIMONY**

2

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

4 A. The purpose of my testimony is to provide information on land use-related environmental
5 impacts, focusing on:

- 6 • Effects on human settlement, including displacement, noise, aesthetics, and
7 recreation; and
- 8 • Effects on land-based economics.

9

10 **Q. ARE YOU INTENDING TO PROVIDE TESTIMONY IN SUPPORT OF A**
11 **PARTICULAR ROUTE?**

12 A. Yes. My testimony has been prepared to demonstrate the degree to which Oronoco
13 Township will experience impacts to human settlement as a result of the Applicant
14 Northern State Power Company's ("Applicant") Modified Preferred Route (3P). My
15 testimony compares the impacts of the Modified Preferred Route to impacts that would
16 result from the other two alignment options, the Alternative Route (3A) and the Route
17 Option (3P-Zumbro-N). As will be demonstrated through my testimony:

- 18 • The Modified Preferred Route, by comparison to the Alternative Route and the
19 Route Option, is measurably more disruptive on human settlement (both existing
20 and planned future); and
- 21 • The Route Option is measurably more disruptive than the Alternative Route.

22 As a result, my testimony supports a selection of the Alternative Route and a rejection of
23 the Modified Preferred Route and the Route Option.

1 **III. COMPARATIVE IMPACTS ON HUMAN SETTLEMENT**

2

3 **Q. HOW DID YOU ACCOUNT FOR AND MEASURE IMPACTS TO HUMAN**
4 **SETTLEMENT?**

5 A. The approach for measuring impacts to human settlement differs from the approach taken
6 by the Applicant in the DEIS, (CapX Hampton-Rochester-LaCrosse 345kV and 161kV
7 Transmission Lines Project: Draft Environmental Impact Statement (Mar. 21, 2011),
8 although it was informed by the DEIS.

9 According to Minnesota Rule 7850.4100, FACTORS CONSIDERED, “Effects on
10 human settlement, including but not limited to, displacement, noise, aesthetics, cultural
11 values, recreation and public services” should be considered in determining whether to
12 issue a permit for a large electric power generating plant or high voltage transmission
13 line. Minn. R. 7850.4100(A). In assessing impacts to human settlement, the Applicant
14 considered the number of residences at various distances from the centerline of the
15 proposed routes. These distances are:

- 16 • 0 to 40 feet (within the right-of-way from the route centerline)
- 17 • 0 to 75 feet
- 18 • 75 to 150 feet
- 19 • 150 feet to 300 feet
- 20 • Density (residences/linear mile within 300 feet)

21 The approach taken in my analysis of impacts on human settlement considered
22 different distances from the centerline of the right-of-way (r-o-w).

- 23 • 0 to 75 feet

- 1 • 75 to 175 feet
- 2 • 175 to 1,350 feet
- 3 • Density (residences/linear mile at each of the distances listed above)

4 The rationale for selecting these distances is based on Federal Housing
5 Administration (“FHA”) and Department of Housing and Urban Development
6 (“DHUD”) Handbook, which prohibits the FHA and DHUD from providing loans to
7 acquire property that is within the fall distance of any pole, tower or support structure of
8 a high voltage transmission line. Specifically, the Handbook states:

9 *Abstracts from Chapter 2: SITE ANALYSIS*

10 2-0 INTRODUCTION

11 This Chapter addresses the site requirements for FHA-insured mortgages.
12 Before the valuation process can begin, subject properties must meet
13 specific site requirements. The appraisal process is the lender’s tool for
14 determining if a property meets the minimum requirements and eligibility
15 standards for a FHA-insured mortgage. In addition, these standards
16 provide a context for the appraiser in performing the physical inspection
17 of the property.

18 ***

19 2-2 SPECIAL NEIGHBORHOOD HAZARDS AND NUISANCES

20 Physical conditions in some neighborhoods are hazardous to the personal
21 health and safety of residents and may endanger physical improvements.
22 These conditions include unusual topography, subsidence, flood zones,
23 unstable soils, traffic hazards and various types of grossly offensive

1 nuisances. When reporting the appraisal, consider site hazards and
2 nuisances.

3 ➤ If site hazards exist and cannot be corrected but do not meet the
4 level of unacceptability, the appraisal must be based upon the current
5 state.

6 ➤ If the hazard and/or nuisance endangers the health and safety of the
7 occupants or the marketability of the property, mark “YES” in VC-1 and
8 return “the” unfinished appraisal to the lender.

9 ➤ The lender, who is ultimately responsible for rejecting the site,
10 relies on the appraiser’s site analysis to make this determination.
11 Guidelines for determining site acceptability follow. The appraiser is
12 required to note only those *readily observable* conditions.

13 ***

14 J. OVERHEAD HIGH-VOLTAGE TRANSMISSION LINES

15 No dwelling or related property improvement may be located within the
16 engineering (designed) fall distance of any pole, tower or support structure
17 of a high-voltage transmission line, radio/TV transmission tower,
18 microwave relay dish or tower or satellite dish (radio, TV cable, etc.). For
19 field analysis, the appraiser may use tower height as the fall distance.

20 For the purpose of this Handbook, a High-Voltage Electric
21 Transmission Line is a power line that carries high voltage between a
22 generating plant and a substation. These lines are usually 60 Kilovolts
23 (kV) and greater, and are considered hazardous. Lines with capacity of

1 12-60 kV and above are considered high voltage for the purpose of this
2 Handbook. High voltage lines do not include local distribution and
3 service lines.

4 Low voltage power lines are distribution lines that commonly
5 supply power to housing developments and similar facilities. These lines
6 are usually 12 kV or less and are considered to be a minimum hazard.
7 These lines may not pass directly over any structure, including pools, on
8 the property being insured by HUD.

9 U.S. Dept. of Housing and Urban Dev., Handbook 4150.2: Valuation Analysis for Single
10 Family One- to Four- Unit Dwellings, ch. 2 (Jun. 1999), available at
11 <http://www.hud.gov/offices/adm/hudclips/handbooks/hsg/4150.2/41502c2HSGH.doc>
12 (emphasis added). Based on this Handbook, the 150 foot-wide right-of-way (75 feet on
13 either side of the centerline) proposed by the Applicant is not adequate, as the height of a
14 175 foot-high pole would exceed the right-of-way by 100 feet.

15
16 **Q. HOW LIKELY IS IT THAT HIGH VOLTAGE TRANSMISSION POLES**
17 **ACTUALLY FALL?**

18 A. It was learned through a literature search that the number of occurrences where high
19 voltage transmission poles collapse and even fall is higher than one may expect. Recent
20 examples are:

- 21 • FEMA Disaster #1674, where in December 2006, small and large ice storms in
22 the 57 counties between Pierce County and Furnas County, Nebraska, led to the
23 accumulation of four inches of ice on power lines. When combined with high

1 winds, these conditions caused lower voltage distribution poles to snap and higher
2 voltage lattice structures to collapse.

- 3 • December 2010 in eastern Travis County, Texas, where a 110 foot-high
4 transmission pole fell, bringing down power lines and causing three lattice
5 transmission towers, ranging in height from 110 feet to 140 feet, to collapse. It is
6 believed the 110 foot-high pole fell due to structural failure. This event occurred
7 in December, only three months after the pole was put in place in September and
8 two months after the initial power line was strung, tensioned, and clipped. No
9 power was running through the power line when it came down to the ground.
- 10 • April, 25-28, 2011, in states throughout the southern, Midwestern and
11 northeastern United States that were hit by a string of tornados. These conditions
12 led to downed high voltage transmission poles in Clark County, Ohio. The same
13 system of storms severely damaged the Tennessee Valley Authority's ("TVA")
14 power grid for transmitting electricity throughout the region. More than 300
15 power transmission towers, 120 feet to 150 feet high, were destroyed in the
16 storms. Some collapsed and folded. These towers supported some 90
17 transmission lines, a mixture of 500Kv and 161Kv lines.

18 In one of these cases, the power line came down with the pole. As proposed, the
19 Applicant's Modified Preferred Route will include poles that are as far apart as 1,000
20 feet. If a power line were to come down with a 175 foot-high pole, the influence zone
21 could be as much as 1,175 feet or as little as 675 feet, assuming the power line snapped in
22 half at 500 feet.

1 The engineers who design high voltage transmission poles will likely claim that
2 this is a highly unlikely scenario and that: a) the poles are designed, manufactured, and
3 set in place to withstand incredibly high forces; b) poles are regularly inspected and
4 maintained to prevent corrosive forces from degrading their structural integrity; and (c)
5 power lines never snap and, in fact, act as guylines to prevent poles from falling. In most
6 cases, they would be correct. However, one need only review the literature to find
7 examples where severe storms, ice, wind, tornados, and structural failures have proven
8 them wrong.

9
10 **Q. ARE YOU SUGGESTING THAT THE PROJECT SHOULD NOT GO**
11 **FORWARD BECAUSE OF CIRCUMSTANCES AND CONDITIONS THAT ARE**
12 **BEYOND THE CONTROL OR PREDICTIVE CAPABILITIES OF THE**
13 **APPLICANT AND ITS ENGINEERS AND DESIGNERS?**

14 A. No. What I am suggesting is that, if the project goes forward, it should be placed as far
15 away from human settlements as possible. Who could have predicted the tornados that
16 occurred in April 2011 or even the earthquake and tsunami that struck Japan in March
17 2011? Yet these events occurred, and the impacts to humans and human settlements
18 wrought by these events were horrific.

19 There are many reasons for locating high voltage overhead transmission lines as
20 far away from human settlements as possible. One of these reasons is our inability to
21 predict every conceivable circumstance and develop sufficient fail-safes and back-up
22 systems.

1 **Q. WHY DOES YOUR APPROACH INCLUDE A DISTANCE OF 1,350 FEET?**

2 A. Research on the subject of how high voltage overhead transmission lines affect
3 residential property values brought forward a lot of contradictions. A few things were
4 clear, however. One is that there is a negative impact on residential property values. The
5 extent to which values are impacted varies, however, based on a number of factors.
6 Among these are: regional location in the United States, the size of the lot, the size of the
7 home, whether the homes are custom-designed and built or part of a tract housing
8 development, the number of poles, and whether buyers and sellers are aware of potential
9 health and safety risks. Another indisputable finding is that proximity to high voltage
10 transmission towers, poles, and lines (collectively, referred to as “infrastructure”) is a
11 factor, and being able to see the infrastructure has a negative impact on residential
12 property values.

13 The natural environment within the project area consists of rolling hills, rolling
14 grasslands, bluffs above the Zumbro River, rivers/creeks, and wooded areas. Trees
15 making up the wooded areas are deciduous trees that will grow to a maximum height of
16 45 to 55 feet. The height of the trees and leaves during the late spring and summer
17 months could have the effect of screening the infrastructure from view. During the fall,
18 winter, and early spring months when deciduous trees are without leaves, there will be no
19 screening, and the infrastructure will be in plain sight.

20 Field reconnaissance activities indicated 1,350 feet is the effective distance at
21 which one can see the infrastructure and clearly discern that it is a high voltage
22 transmission pole. At closer distances, the power lines can clearly be seen and identified
23 as infrastructure.

1 **Q. ARE THERE OTHER DIFFERENCES BETWEEN YOUR APPROACH TO**
2 **MEASURING IMPACTS TO HUMAN SETTLEMENT AND THE APPLICANT'S**
3 **APPROACH?**

4 A. Yes. There is one additional important difference. Again, citing the FHA and DUUD
5 Handbook, the concern is not just residences, i.e., dwelling units, but also “related
6 property improvements.” In response to this broadened definition, my analysis includes a
7 larger range of structures than the Applicant’s. Where the Applicant only considered the
8 number of residences, my analysis further considered additional structures on a property.

9
10 **Q. WHAT ARE THE GEOGRAPHIC LIMITS OF YOUR ANALYSIS?**

11 A. In the interest of my client, Oronoco Township, it was important to focus on impacts that
12 would affect the township’s citizens and property owners and ability to enact its goals
13 and policies. To the extent possible, I wanted to be able to compare the alignment
14 options on an equal basis and sought to identify a common start point and a common end
15 point. The common start point was identified where each of the three alignment options
16 crosses Highway 52. The common end point was identified where each alignment
17 crosses Trunk Highway 63. **Exhibit 2**, which is attached to my testimony, illustrates
18 these geographic limits and the area I studied.

19
20 **Q. WHAT ARE KEY FINDINGS FROM YOUR ANALYSIS?**

21 A. There are many examples of “human settlement.” In my analysis, “human settlement” is
22 interpreted to be the built environment: i.e., structures. In summary, the impacts of the
23 Applicant’s Modified Preferred Route on structures, and thus human settlement, far

1 outweigh those on the Alternate Route and the Route Option. Tables 1, 2, and 3 on
2 **Exhibit 3** summarize these comparative impacts.

3 As shown in Table 3 on **Exhibit 3**, the Modified Preferred Route would impact a
4 total of eight structures (three residences and five residential out-buildings) within 75 feet
5 of the centerline of the 150 foot-wide r-o-w. By comparison, the Alternative Route
6 would impact one industrial structure (the White River Dam and Operations House),
7 which is located less than 75 feet from the centerline of the r-o-w, and the Route Option
8 would affect four structures (a residence and two residential out-buildings and one non-ag
9 industrial structure). (See **Exhibit 3**, Tables 1-2.) As the properties described above are
10 within the proposed r-o-w, they would have to be acquired, and it is apparent that the
11 Applicant's Modified Preferred Route would have the most severe impact on human
12 settlement between 0 and 75 feet of the centerline of the 150 foot-wide r-o-w.

13 Based on the FHA and DHUD Handbook, I have considered impacts on human
14 settlement between 75 feet and 175 feet, as neither FHA nor DHUD loan guarantees can
15 be made available to acquire properties (neither dwelling nor related property
16 improvements) within the 175 foot-fall zone of a high voltage pole. The route option
17 with the most severe impacts to structures within this distance range is the Route Option,
18 where a total of 48 structures would be impacted; essentially made inaccessible to
19 borrowers who would seek mortgages with FHA and/or DHUD loan guarantees. (Id. at
20 Table 2.)

21 The Applicant's Modified Preferred Route would have the second most severe
22 impact on human settlement with a total of seven structures within a transmission pole's
23 fall zone. (Id. at Table 3.) Finally, the route option with the fewest impacts to structures

1 within the fall zone is the Alternative Route, where one residential out-building would be
2 impacted. (Id. at Table 1.)

3 It should be mentioned that, while the proposer would be required to acquire
4 properties that are within 75 feet of the centerline of the 150 foot-wide r-o-w, there is no
5 such requirement that properties or structures within the fall zone should be acquired.

6 The visual impact of the project detailed in **Exhibit 3** only considers views from
7 residential (both homestead and farmstead) structures. As shown, the Applicant's
8 Modified Preferred Route has, by far, a more severe visual impact on human settlement
9 than the other two alternatives. The infrastructure would be within the view shed of 76
10 residences along the Modified Preferred Route. (Id. at Table 3.) By comparison there are
11 only 35 residences along the Route Option and 34 along the Alternative Route that would
12 have line-of-sight views of the high voltage overhead transmission infrastructure. (Id. at
13 Tables 1-2.)

14
15 **Q. WHY ARE THESE FINDINGS SIGNIFICANT?**

16 A. These findings demonstrate that the Applicant's Modified Preferred Route is proposed to
17 be located closer to human settlements than the other two options are. As shown, the
18 most severe impacts on human settlement are associated with the Modified Preferred
19 Route, followed by the Route Option. The option with the fewest impacts on human
20 settlement is the Alternative Route.

21 As described in Table 1 on **Exhibit 3**, the Alternative Route option would impact a
22 total of 167 structures, and of these: (a) only one non-agriculture industrial structure
23 would be impacted within 75 feet of the 150 foot-wide r-o-w; (b) only one residential

1 out-building within the pole fall zone (75 feet to 175 feet); and (c) 165 structures within
2 the 175 feet to 1,350 feet range.

3 Tables 2 and 3 in **Exhibit 3** also show the number of structures that would be
4 impacted at various distances for the Route Option and the Modified Preferred Route.
5 First, by comparison, the number of impacts to structures is higher with both the Route
6 Option and the Modified Preferred Route. Table 4 on **Exhibit 4** shows that 218
7 structures would be impacted by the Route Option, and 334 would be impacted by the
8 Modified Preferred Route. Further, where it matters most (in relative close proximity to
9 the infrastructure), 0.5 percent of the impact to structures would occur along the
10 Alternative Route, while 1.8 percent and 2.5 percent of the impacts would occur along the
11 Route Option and Modified Preferred Route, respectively. (**Exhibit 4**.)

12 Table 4 on **Exhibit 4** also shows that when the three routes are analyzed in
13 aggregate, a total of 719 impacts to structures would occur. (Id.) As explained in Table
14 4, the majority of impacted structures (334/719 or 47 percent) lie along the Applicant’s
15 Modified Preferred Route. (Id.) By comparison, 218/719 or 30 percent lie along the
16 Route Option, and only 167/719 or 23 percent would be associated with the Alternative
17 Route. (Id.)

18 Findings presented in Tables 1 through 4 show that the Modified Preferred Route
19 would result in more impacts on human settlement than the other two route options.
20 (**Exhibits 3-4**.) The Modified Preferred Route’s selection as the Applicant’s preferred
21 route does not concur with one of the fundamental principles of route selection—i.e., to
22 avoid proximity to human settlements—especially where other options are available.
23 According to the Minnesota Power Plant Siting Act (“PPSA”) and Minnesota Rule

1 7850.4000, no route permit may be issued in violation of site selection criteria and
2 standards found in Minnesota Statutes or Public Utilities Commission Rule, and power
3 line permits must be consistent with state goals to minimize environmental impacts and
4 conflicts with human settlement and other land use. Minnesota Rule 7850.4100 sets out
5 the factors to be considered when determining whether to issue a route permit for a high
6 voltage transmission line. At the top of the list of factors to be considered are the “effects
7 on human settlement, including, but not limited to, displacement, noise, aesthetics,
8 cultural values, recreation, and public service.”
9

10 **IV. LAND USE AND DEVELOPMENT CONSIDERATIONS**

11
12 **Q. ARE THERE FURTHER IMPACTS ON HUMAN SETTLEMENT?**

13 A. Yes. These further impacts relate to growth and development trends and land-use
14 regulations.
15

16 **Q. HAS ORONOCO TOWNSHIP PLANNED FOR GROWTH AND
17 DEVELOPMENT?**

18 A. Yes. The township adopted a land-use plan, which became effective on February 28,
19 2002. The following is one of the goals of the Oronoco Township Land-Use Plan:

20 1. Subdivide the township into one of the following areas:

21 B. Agricultural protection area;

22 C. Suburban development area;

23 D. Urban development area;

- 1 E. Commercial development area;
2 F. Water resource area; or
3 G. Development sensitive area.

4 (Exhibit 5, p.3.)
5

6 **Q. WAS THE TOWNSHIP'S LAND-USE PLAN APPROVED AND ADOPTED BY**
7 **OLMSTED COUNTY?**

8 A. Yes. It was adopted by the county.
9

10 **Q. WHAT ADDITIONAL STEPS HAS THE TOWNSHIP TAKEN TO PLAN FOR**
11 **GROWTH AND DEVELOPMENT?**

12 A. The township adopted a Zoning Ordinance in February 2002 and updated it in February
13 2011. (Exhibit 6.) It also adopted a Subdivision Ordinance in May 2007. (Exhibit 7.)
14

15 **Q. WERE THESE ORDINANCES APPROVED AND ADOPTED BY OLMSTED**
16 **COUNTY?**

17 A. Yes, they were.
18

19 **Q. WHAT ARE KEY ELEMENTS OF THESE DOCUMENTS?**

20 A. The land-use plan identifies areas within the township where agricultural land should be
21 protected and other areas where growth and development can occur. Specifically, the
22 land use plan identified the following areas for future development:

- 23
 - Suburban Development Area;

- Urban Development Area; and
- Commercial Development Area.

(Exhibit 5, p. 3.)

The Zoning Ordinance identified minimum lot sizes for various residential development types within the Suburban Development Area, and the Subdivision Ordinance required conformance with the Zoning Ordinance. These lot sizes are:

- two acres for the R1 Low Density Residential District; and
- 10 dwelling units per acre for the R2 Mixed Low Density Residential District.

(Exhibit 6, p. 70 ¶C(2), pp. 72-73 ¶ C(4)(a); Exhibit 7, Art. V.)

Q. HOW WAS THE SUBURBAN DEVELOPMENT AREA IDENTIFIED?

A. A rational process was used by the Oronoco Planning Advisory Committee (“OPAC”), which served as an advisory commission to the Township Board, to identify all designated areas in the land use plan. Factors considered in OPAC’s analysis were specific land features (topography, hydrology, soil assessments, wooded acreage, etc.), historic uses within the township, demographic data, survey data, and community input to ensure that the interests and desires of the residents of Oronoco Township were taken into account.

Q. WERE OTHER FACTORS CONSIDERED?

A. Yes. Additionally considered was development pressure coming from the south, the City of Rochester. According to the City of Rochester’s Future Land-Use Plan, and as witnessed by recent development trends, growth is planned to occur around the edges of

1 the city. By far, the greatest opportunities for the city to grow are to the north and west,
2 along the Highway 52 corridor. Maps of the City of Rochester Future Land-Use Plan and
3 the Olmsted County Land-Use Plan are presented as **Exhibit 8**, which illustrates Oronoco
4 Township's growth plan. Comparing the two plans, it is obvious why Oronoco Township
5 has prepared itself to address growth and development in an orderly manner. (See
6 **Exhibit 8**.)

7
8 **Q. WHAT CAN BE DISCERNED FROM AN EXAMINATION OF THE TWO LAND**
9 **USE PLANS?**

10 A. The City of Rochester Future Land-Use Plan shows a large area along the Highway 52
11 corridor where growth will be directed to occur. (Id.) The Olmsted County Future Land-
12 Use Plan shows areas along its border with Wabasha County (in large part, Oronoco
13 Township) and area along Highway 52 where growth will be directed to occur. (Id.)
14 Together the two land-use plans allow for a push from the south to be welcomed with
15 land in the north that is designated for future growth. (See id.)

16
17 **Q. IS THERE ADDITIONAL EVIDENCE TO SUPPORT THE ASSERTION THAT**
18 **ORONOCO TOWNSHIP IS EXPERIENCING DEVELOPMENT PRESSURE?**

19 A. Yes. Market value data collected and reported by the University of Minnesota,
20 Department of Applied Economics, demonstrates recent changes in values in Oronoco
21 Township (and to a lesser extent, in Oronoco City) that can best be explained by demand
22 forces in the residential market. The data shows that, while market values in Oronoco
23 Township and Oronoco City are increasing, values in Wabasha County are practically

1 standing still. Data used for analytical purposes by the Department of Applied
2 Economics is obtained from the Minnesota Department of Revenue, the Minnesota Board
3 of Water and Soil Resources, the University of Minnesota's Department of Soil, Water
4 and Climate, and the USDA Natural Resources Conservation Service, and is published by
5 Minnesota Land Economics.

6 Tables 5 and 6 on **Exhibit 9** present market values for Green Acres and Class 2a
7 Agricultural land classifications in Oronoco City, Oronoco Township, and neighboring
8 townships in Wabasha County. (**Exhibit 9.**) Analysis of data presented in these two
9 tables indicates where development pressure is occurring. Market values in Oronoco
10 City and Oronoco Township are dramatically higher than those in townships in Wabasha
11 County, just a few miles to the north and demonstrate the impact of having a large,
12 growing city just miles to the south. (Id.)

13 Of particular interest is the sharp increase in market value of Class 2a Agricultural
14 land in Oronoco City and Oronoco Township between 2009 and 2010. (See id. at Table
15 6.) During this period, the market value of Class 2a Agricultural land increased in
16 Oronoco City by 254 percent and by 107 percent in Oronoco Township. By comparison,
17 market values in Mazeppa and Hyde Park Townships did not change during the same
18 period.

19
20 **Q. WHAT HAS BEEN ORONOCO TOWNSHIP'S RESPONSE TO THIS**
21 **PRESSURE?**

22 A. The township, in cooperation with Olmsted County, has identified designated transition
23 areas that would allow for orderly expansion of current developed urban neighborhoods

1 and will encourage further suburban development between current city boundaries and
2 existing suburban developments.

3 In order to ensure that future development would not overburden existing
4 infrastructure systems, the township, in cooperation with Olmsted County, took steps to
5 define responsibilities for developing infrastructure (roads, ditches, culverts, black
6 topping, etc.) to serve new residential development and establish mechanisms to allocate
7 these costs to responsible parties, in order to protect the township from financial risks.

8 Environmental concerns were also part of the township's ordinance, and language
9 is included in the land use plan and ordinances to encourage new utility technologies as
10 they become available, such as shared water and shared septic; and suburban
11 development plans that are mindful of environmental concerns. For example, language is
12 provided to require all suburban developments to include cooperatively owned "open
13 space" areas that preserve and enhance the integrity of the developed and surrounding
14 lands.

15 This detail demonstrates the thoughtfulness and level of conscious planning that
16 have gone into Oronoco Township's land-use plan and ordinances.

17
18 **Q: WHAT CAN BE INFERRED FROM THE MARKET VALUE INCREASES THAT**
19 **HAVE BEEN EXPERIENCED IN ORONOCO TOWNSHIP?**

20 A: It is my professional opinion that the increases reflect purchasers' demand for the land. It
21 is also my opinion that land being purchased at such high prices is not being purchased
22 for agricultural purposes. If the intent of a purchaser was to engage in agricultural

1 pursuits, he or she would purchase less expensive land; for example, land just to the north
2 in Wabasha County.

3 It is my professional opinion that, given the comparatively high market value of
4 land in Oronoco Township, the adoption of a township land-use plan (that guides toward
5 Suburban Residential development) and the adoption of zoning and subdivision
6 ordinances (that specifically speak to regulations that will control Suburban Residential
7 development), purchasers are buying (or will buy) land in Oronoco Township with the
8 intent of developing it for residential use; if not for immediate development, for future
9 development when the housing market turns around and homes are once again being
10 built.

11 Beginning in 2002, at least five residential developments were approved and/or
12 implemented in Oronoco Township. These include:

- 13 • Zumbro Haven, an 11-unit townhome development with six outlots in the
14 southeast quadrant of Highway 12 and the White Bridge (already constructed);
- 15 • Zumbro Sound, a seven-unit, single family development with two outlots, 1.25
16 miles north of Highway 12 (already constructed);
- 17 • The Landings at Sandy Point, an 11-unit development with one outlot, north of
18 Highway along Lake Zumbro
- 19 • Charf's Subdivision, a 58-unit development approximately one mile north of
20 Highway 12 (29 Phase 1 units are completed, and 29 Phase 2 units have been
21 approved); and

- 1 • Wonsil’s Subdivision, an 80-unit development that has been approved but not yet
2 been constructed one mile north of Highway 12 on the bluffs overlooking Lake
3 Zumbro.

4 Homes described above that have been constructed are each valued at \$300,000 or more.

5
6 **Q. HOW DOES THE APPLICANT’S MODIFIED PREFERRED ROUTE AFFECT**
7 **ORONOCO’S GROWTH AND DEVELOPMENT PLANS?**

8 A. The Modified Preferred Route runs across the area designated for Suburban
9 Development. (See **Exhibit 10**.) Assuming the centerline of the Modified Preferred
10 Route is located as shown on **Exhibit 10**, the proposed project would take approximately
11 550 acres of land within the Suburban Residential Area off the market. This only
12 accounts for land within the 150 foot-wide r-o-w and does not take into account land that
13 is within the fall zone of a high voltage transmission pole or land within line of sight of
14 the project’s infrastructure.

15 Table 7 on **Exhibit 11** details findings of a comparative analysis that was
16 conducted to quantify similar impacts for all the alignment options.

17 As shown by Table 7, the Modified Preferred Route, because it is the longest of
18 the three options, affects more acreage than the other two options, at the 0 to 75 foot-wide
19 distance, the 75 foot- to 175 foot-wide distance, and the 175 foot- to 1,350 foot-wide
20 distance. This alone is significant. As shown, when the three routes are analyzed in
21 aggregate, the Modified Preferred Route accounts for 39 percent of the land that would
22 be affected, compared to the Alternative Route at 31 percent and the Route Option at 30
23 percent. (**Exhibit 11**.)

1 An even more significant finding is divulged when the affected land use types are
2 analyzed. Where the land that would be affected in Oronoco Township is land that has
3 been zoned for Suburban Residential development, the land that would be affected in
4 Wabasha County, with the Alternative Route and Route Option, is zoned Agricultural.
5 Analysis of **Exhibit 2**, which illustrates the study area for my analyses, and the Wabasha
6 County Comprehensive Plan Map, **Exhibit 12**, shows that the majority of land that would
7 be affected by the Alternative Route and Route Option is zoned Upland Agricultural. To
8 date, neither Wabasha County, nor the affected townships within Wabasha County, has
9 sought to rezone these areas to include suburban style residential developments. Thus, it
10 is likely that these areas will largely remain in agricultural use, except for rural residential
11 developments that would be sporadically developed.

12
13 **Q. ARE YOU SUGGESTING THAT AGRICULTURAL LAND CAN TOLERATE**
14 **HIGH VOLTAGE OVERHEAD TRANSMISSION INFRASTRUCTURE MORE**
15 **EASILY THAN LAND THAT IS DEVELOPED WITH RESIDENTIAL USES?**

16 A. Yes. I want to point out that I am not only making this suggestion, but the State of
17 Minnesota has made the avoidance of human settlement a major criterion in the site
18 selection process. I refer, again, to Minnesota Rule 7850.4100, which lists as its first
19 criterion the avoidance of impacts to human settlement.

20 It is appreciated that agricultural impacts do exist. With construction of high
21 voltage overhead transmission infrastructure across agricultural land, farmers have to
22 deal with easements, electromagnetic fields that interfere with the operation of farm
23 equipment, stray voltage that can lead to electric charges that can affect livestock, etc.

1 They can, however, continue to grow crops under the transmissions lines and they can
2 negotiate their losses with utility companies to compensate them for the loss of land and
3 even inconvenience. On the other hand, land within the r-o-w cannot be used for
4 residential purposes, and, thus, the cost to homeowners is more than mere inconvenience.

5 A study prepared by Thomas O. Jackson and Jennifer Pitts in 2010, which
6 compiled and examined literature and research on the effects of electric transmission
7 lines on property values that had been conducted since 1964, found that inconvenience is
8 the major complaint associated with agricultural land. Jackson and Pitts, The Effects of
9 Electric Transmission Lines on Property Values: A Literature Review (Texas A&M
10 University, College Station, Texas, 2010.) On the other hand, the complaints associated
11 with residential land are more extensive. According to Thomas and Pitts, there is a real
12 reduction in residential property values that is both time and distance sensitive. Major
13 factors contributing to the reduction in value are:

- 14 • Longevity in the affected area—People who live through the conversion of their
15 surroundings to accommodate and accept high voltage overhead transmission
16 lines and poles are more sensitive than newcomers to the area.
- 17 • Education—People who are informed and knowledgeable about the potential
18 health risks are more sensitive than those who are not.
- 19 • Line of sight—People who can see the infrastructure are more sensitive than those
20 who cannot.
- 21 • Custom-designed versus tract housing—People who reside in custom-designed
22 homes are more sensitive than those who live in tract housing developments.

**TRANSPORTATION PLANNER/
COMMUNITY INVOLVEMENT**

Bill Smith is a founder and principal in-charge of Biko Associates' planning studio and community organizing projects. Mr. Smith draws on his experiences as a professional community organizer (1975 to 1984) to involve residents in planning and design processes to address local, neighborhood, community, and regional transportation and land use issues.

EDUCATION

Master of Urban & Regional Planning
University of Iowa
(Iowa City, Iowa)

B.A. Bio-Psychology
Wesleyan University
(Middletown, Connecticut)

EMPLOYMENT EXPERIENCE

1994 – present
Principal/Owner
Biko Associates, Inc.

2008-present
Adjunct Faculty
Urban Studies Program
University of Minnesota

1986 – 1993
Transportation Planner
BRW, Inc.

ASSOCIATIONS

Certified Planner,
Member AICP since 1986

American Planning Association

Institute of Transportation Engineers
since 1990

East Side Neighborhood Services
Board Member

Transit for Livable Communities
Board Member

Urban Boat Builders
Board Member

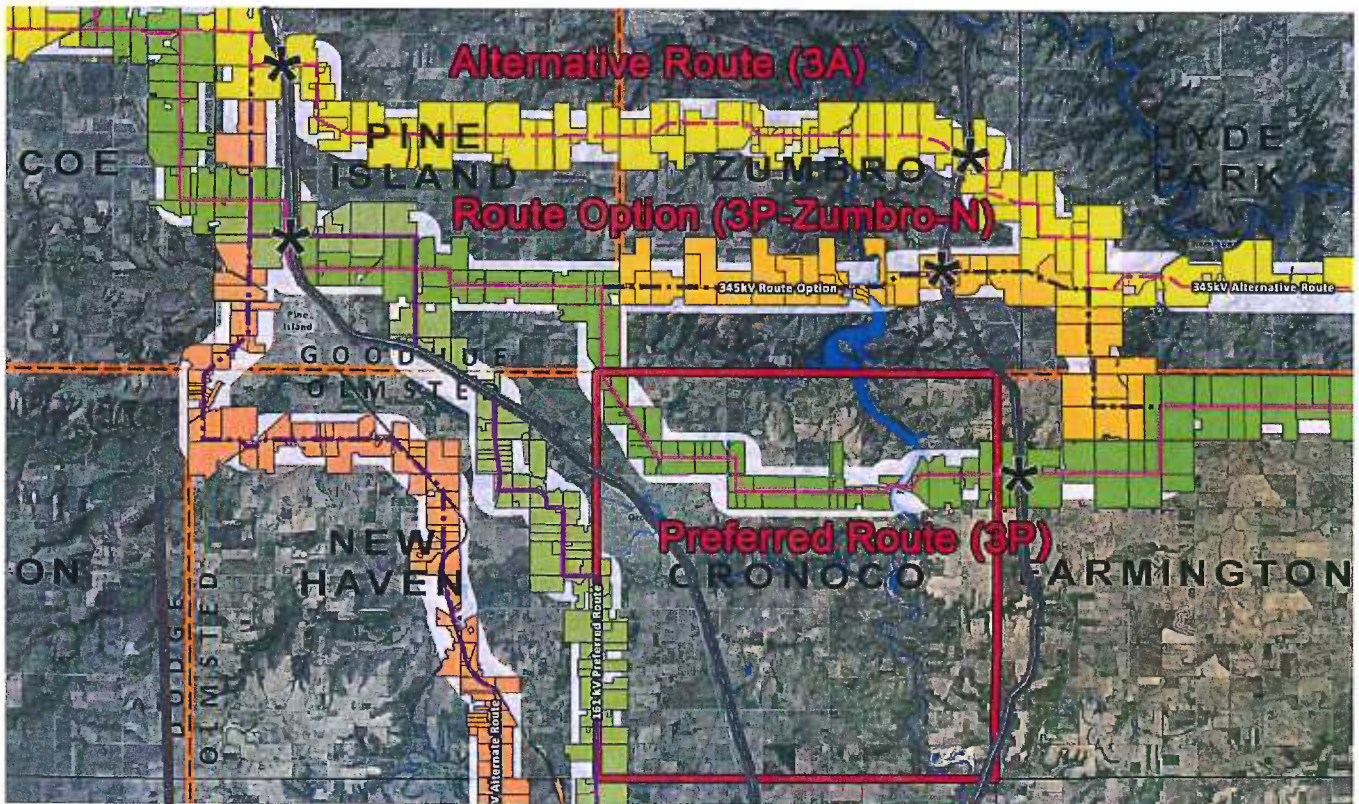
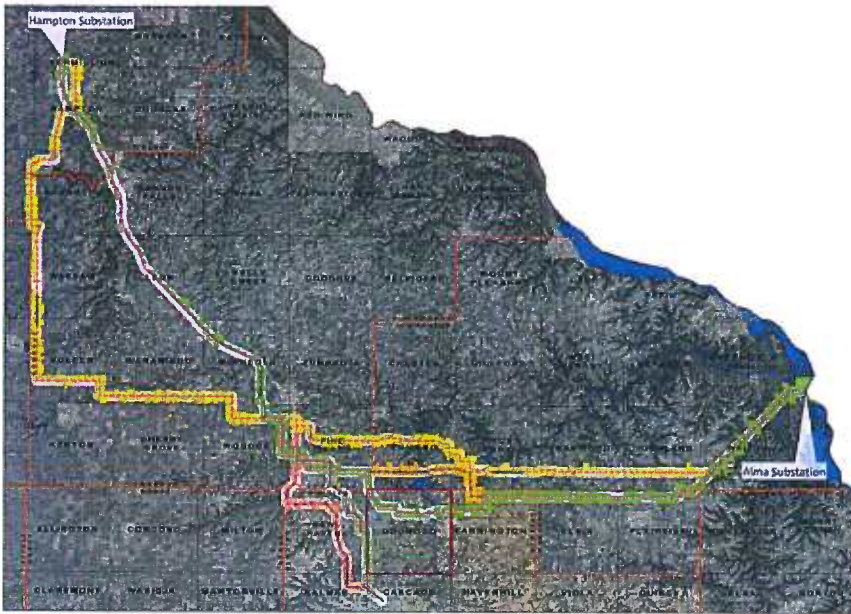
PROJECT EXPERIENCE

Mr. Smith has experience in the following areas of transportation and land use planning.

- Land use market research
- Infrastructure assessment and valuation
- Traffic Impact Analysis
- Origin/Destination data collection and analysis
- Travel demand forecasting
- Transportation element of county and municipal comprehensive plans
- Downtown traffic circulation and parking
- Neighborhood-level transportation and land use planning and traffic calming
- Bicycle and pedestrian planning and design

Mr. Smith's project experience includes:

- **Project Manager for the Saint Paul Downtown Bicycle Transportation Master Plan study**
This study, completed in spring 2008, identified a bicycle system for downtown Saint Paul, including bicycle streets, locations for support facilities such as racks and lockers, and bike stations. The implementation plan identified immediate and long-term projects and described how bicycling in downtown Saint Paul can successfully be linked to transit and future LRT facilities and services.
- **Project Manager for the City of Kimball Comprehensive Plan**
Biko Associates is currently preparing the City of Kimball's first ever, comprehensive plan. Issues to be addressed in the plan include:
 - resource protection
 - decreased bond rating
 - tax base expansion
 - future growth and development options
 - implementation
- **Project Manager for the Redwood County Comprehensive Plan**
Biko Associates completed a year-long study in December 2007 that resulted in an update to Redwood County's comprehensive plan. The previous plan was adopted in 1979. Because of changes in the county's demographic, social, and economic conditions, the previous plan was no longer relevant and did not provide necessary guidance for sustainable growth and development in this largely rural and agricultural county.
- **Project Manager for Northstar Corridor Station Area Planning (TOD Opportunities Analysis)**
Biko Associates led a team of planners, architects, landscape architects, economist, and market researchers to prepare station area plans for three Northstar Commuter Rail stations in Anoka County. Mr. Smith served as project director on this project, which was prepared for the Northstar Corridor Development Authority. The plans were informed by socio-demographic, economic, real estate, and land use analyses. Findings were documented in a report that was prepared to meet FTA requirements for New Starts.



Legend

- North
- Route Terminus
- Alternative Route (3A)
- Route Option (3P-Zumbro-N)
- Preferred Route (3P)

Impact Analysis Area

TABLE 1
PROPOSER'S ALTERNATE ROUTE - 3A

Distance from Centerline	STRUCTURE							Residential Line of Sight	
	Residential	Residential Out Bldgs.	Ag-Residential	Ag. Out Bldgs.	Park/Rec Out Bldgs.	Park/Recreational	Non-Ag Industrial	Yes	No
Width of Buffer									
0' - 75' 150'								1	0
75' - 175' 350'		1						0	
175' - 1,350' 2,700'	26	39	8	91			1	34	
Grand Total	26	40	8	91			2	34	

TABLE 2
PROPOSER'S ROUTE OPTION - 3P-ZUMBRO-N

Distance from Centerline	STRUCTURE							Residential Line of Sight	
	Residential	Residential Out Bldgs.	Ag-Residential	Ag. Out Bldgs.	Park/Rec Out Bldgs.	Park/Recreational	Non-Ag Industrial	Yes	No
Width of Buffer									
0' - 75' 150'	1	2					1	1	
75' - 175' 350'	5	13	3	27				8	
175' - 1,350' 2,700'	15	31	11	100	7	2		26	
Grand Total	21	46	14	127	7	2	1	35	

TABLE 3
PROPOSER'S PREFERRED ROUTE - 3P

Distance from Centerline	STRUCTURE							Residential Line of Sight	
	Residential	Residential Out Bldgs.	Ag-Residential	Ag. Out Bldgs.	Park/Rec Out Bldgs.	Park/Recreational	Non-Ag Industrial	Yes	No
Width of Buffer									
0' - 75' 150'	3	5						3	
75' - 175' 350'	2	5						2	
175' - 1,350' 2,700'	54	56	17	190			2	71	
Grand Total	59	66	17	190			2	76	

Source: Biko Associates, Inc., May 20, 2011.

**TABLE 4
IMPACT ON HUMAN SETTLEMENT (IMPACT ON STRUCTURES), BY ROUTE**

Route Option	Total # of Structures	% of all Structures	Distance from Centerline of Right-of-Way					
			0 to 75'		75' to 175'		175' to 1,350'	
			# of Structures	% of Total	# of Structures	% of Total	# of Structures	% of Total
Alternative Route	167	23 %	1	0.5 %	1	0.5 %	165	99 %
Route Option	218	30 %	4	1.8 %	48	22 %	166	76 %
Modified Preferred Route	334	47 %	8	2.5 %	7	2.4 %	319	95 %
Total Structures Impacted by all three Alignments	719	100 %						

Source: Biko Associates, Inc., May 20, 2011.

Oronoco Township

Land Use Plan

COUNTY OF OLMSTED

STATE OF MINNESOTA

REVISION 1.0

EFFECTIVE DATE: February 28, 2002

Introduction & Background

Introduction & Background

In October, 1999, the Oronoco Township supervisors adopted Ordinance #97-2, establishing the Oronoco Planning Advisory Committee (OPAC). This is an advisory commission to the Township Board.

The Oronoco Planning Advisory Committee has prepared this Oronoco Township Land Use Plan (The Plan) as an aid for guiding the Township's zoning and land use decisions. The Plan is based upon specific land features and historic uses among other considerations, including available demographic and survey information. The Plan is intended to generally represent the interests and desires of the residents of Oronoco Township and will be periodically reviewed and revised.

The implementation of this Land Use Plan and its associated ordinances is meant to be done in partnership with Olmsted County and surrounding municipalities.

Oronoco Township

The following members were serving on their respective boards during the development of this plan.

Oronoco Township Board of Supervisors

- John Koenigs
- Richard Lyke
- Neil Stolp

Oronoco Planning Advisory Commission

- Kathy Adams Hayward
- Charlie Brannon
- Kevin Collins
- Georgie Decker
- Jay Hodge
- Bill Markham
- Steve Roth

Purpose of the Land Use Plan

By State law every Township Zoning Ordinance must be at least as restrictive as the County's. Therefore, any land use prohibited by the County Land Use Plan remains prohibited in Oronoco Township. The primary purpose of this Plan is to identify those areas where the long-term best interests of Oronoco Township are served by considering additional restrictions for certain uses.

A major purpose of this Land Use Plan is to provide goals and policies specific to Oronoco Township that will guide any future growth and development within Oronoco Township and provide a basis for land use decisions. The Plan will also balance the inevitable pressures for land development with the fiscal, environmental, land resource, and public infrastructure impacts which result from development.

The Plan provides the public, and particularly Oronoco Township land owners, with guidance so that they can anticipate the positions which Oronoco Township officials will take in relation to land use issues.

The plan also provides the framework from which the Oronoco Township Zoning code will be created and interpreted

Land use planning is a dynamic process and while this plan represents carefully considered goals for the long-term benefit of Oronoco Township, The Plan anticipates periodic reviews and occasional updates will be required.

Goals

The following are the overall goals of the Oronoco Township Land Use Plan:

1. Identify the following areas within the township:
 - B. Agricultural protection area
 - C. Suburban development area
 - D. Urban development area
 - E. Commercial development area
 - F. Water resource area
 - G. Development sensitive area

And establish land use policies consistent with each of these zones.

1. Manage environmental issues to preserve the physical beauty of Oronoco Township;
2. Identify, protect, and preserve historical and archeological sites in the township;

Policies and Action Steps

This section of the document will identify the policies and action steps recommended to achieve the goals described in the previous section.

Goal:

- I. Subdivide the township into one of the following areas:
 - B. Agricultural protection area
 - C. Suburban development area
 - D. Urban development area
 - E. Commercial development area
 - F. Water resource area
 - G. Development sensitive area

based on a subjective assessment of the following considerations:

- Existing soil maps, NRCS photos, topographical maps, and other planning resources;
- Expert environmental input;
- Historical land uses;
- Township supervisors;
- Area residents;

The current subdivision of the township into these areas is shown in Appendix A.

Policies

The following policies have been developed for each of these six areas:

Agricultural Protection Area

- A. Discourage or prevent the splitting of prime agricultural land into small parcels with accompanying home sites, which hinder many agricultural uses. In particular, the present Olmsted County A-2 Zoning allows one quarter of one quarter section into 5/35 acre splits and often results in very large lot suburban housing and hobby farms. This is not a desirable land use for prime agricultural land in Oronoco Township;
- B. Establish an Oronoco Township feedlot ordinance, with regard to state regulations. Any proposal for establishing or expanding feedlots should take into account the impact on ground water, air quality, and odor nuisance, noise, and the proximity to residential populations;
- C. Discourage roadways on prime agricultural land where reasonable alternatives for access exist;

Suburban Development Area

- A. Designate transition areas which would allow for orderly expansion of current developed urban neighborhoods, and which would encourage further suburban development between current city boundaries and existing suburban developments;
- B. Assure that approved suburban development includes sufficient transportation infrastructure so as not to create risk of significant financial burden on the Township, including facets such as grading, ditches, culverts, and black-topping.;

- C. Encourage new utility technologies as they become available, such as shared water and shared septic;
- D. Encourage suburban development plans that are mindful of environmental concerns;
- E. All suburban development will be required to include cooperatively owned Open Space areas that preserves and enhances the integrity of the developed and surrounding lands;

Urban Development Area

- A. Identify undeveloped parcels in close proximity to the City of Rochester and the City of Oronoco which are likely to be subject to development pressures, and designate them transition zones. To the extent development is permitted, concentrate such development in those transition zones;
- B. Encourage surrounding municipalities to concentrate urban development within the present municipal boundaries;
- C. Encourage technologies which enable urban developments to use city water and sewer hookups if and when they become available;
- D. Encourage urban development on lands adjacent to existing urban developments;

Commercial Development Area

- A. Any request for commercial development will be considered in its effect on the Township as a whole, and the principal goal of preserving the rural character of most Township land;
- B. Recognize and accommodate existing land uses currently permitted within the Township and be open to new districts, including but not limited to, Rural Service Districts, Agricultural/Commercial Districts, Historical Districts, and Special Districts;
- C. Exercise control over types of commercial operations undertaken in Oronoco Township, for the benefit of adjacent land owners and the community as a whole, particularly as commercial uses involve noise, odor, and environmental concerns;
- D. Require setbacks and/or bufferyards to separate commercial operations from neighboring properties classified as urban and suburban development areas;

Water Resource Area

- A. Preserve existing water resources through thoughtful development practices (e.g., shared wells, septic).
- B. Promote plans that clearly account for existing water resource protection mechanisms (e.g., the Shoreland District of the Olmsted County Zoning Ordinance).
- C. Encourage cluster and other development approaches that employ appropriate runoff prevention techniques such as rain gardens.
- D. Open areas within development should emphasize uses that are compatible with wildlife and in keeping with preservation of water resources. Examples include: trail systems, park areas, wildlife observation stations, etc.
- E. Prohibit incompatible commercial land uses such as:
 - a. Quarries
 - b. Feedlots
 - c. Dumps
 - d. Racetracks
 - e. Manure Storage Areas

- f. Salvage yards
- g. Hazardous waste storage areas
- h. Recycling facilities

Development sensitive area

- A. Manage areas with pre-existing conditions (e.g., former dump sites) that may require special consideration for future development decisions.
-

Goal:

- 2. Manage environmental issues to preserve the physical beauty of Oronoco Township.

Policies:

- A. Encourage or require setbacks between tilled land and waterways, creeks, and rivers;
 - B. Discourage any further public or private roads in the township, and discourage developments which would require driveways on prime agricultural land or wetlands where reasonable alternatives for driveway placements exist;
 - C. In any development project, encourage the preservations of open space and park lands;
 - D. Adopt policies that help to preserve and/or minimize impact to areas such as:
 - Natural Drainage areas;
 - Wildlife corridors;
 - Lake Zumbro / Zumbro River;
 - Land Trusts;
 - Natural preserves (prairie grasses, etc.)
-

Goal:

- 3. Identify, protect and preserve historical and archeological sites in the township

Policies:

- A. Complete a thorough survey of sites in the Township which may deserve historical designation or protection;
- B. When historical sites are part of potential development areas, incorporate them into the development plan so that they are protected and preserved for the future;
- C. Limit uses of historical sites which destroy or degrade the site.

Execution / Administration

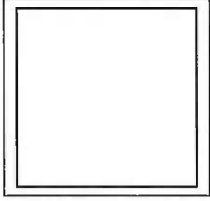
1. Maintain an economic base sufficient to support the present essential services provided to Township residents.
 - a. Any development plan or request for zoning variance or conditional use permit should be evaluated for both its short-term and long-term impact on the Township's financial resources. This should include not just obvious demands like roadways and utilities, but also the economic effect of the changed land use and its impact on neighboring properties and their land uses;
 - b. Recognize that other services such as schools and emergency services are affected by development and need long-term stability and predictability;

2. Assure that any development projects undertaken within the Township follow, and are consistent with, The Plan and with due consideration to their effect on the larger community.
 - a. Land development efforts which are undertaken without regard to their effect on the larger community are sometimes later recognized as inefficient, expensive and wasteful of community and natural resources. Any land use decision made by Oronoco Township must consider the long-term effect on the entire Township;
 - b. Assist with informing and educating present and future residents and landowners in Oronoco Township of the Land Use Plan, and the community-wide benefits afforded by any restraints on land use imposed by the Plan;

3. Coordinate planning and zoning issues with Olmsted County, the City of Rochester, the City of Oronoco, and all townships in the county.
 - a. Maintain a professional relationship with the joint Olmsted County/City of Rochester Planning Department, and find areas of cooperation and common purpose.

4. The Oronoco Planning Advisory Commission should locate an organization to act as Zoning Administrator for Oronoco Township and propose this administrator to the Oronoco Township Board for approval.

Appendix A
Area Map for Oronoco Township





***ORONOCO
TOWNSHIP
ZONING
ORDINANCE***

*Effective February 28, 2002
Updated February 11, 2011*

*Copies of the Oronoco Township Zoning Ordinances may be obtained from the
Rochester-Olmsted Planning Department
2122 Campus Drive SE – Suite 100
Rochester, MN 55904
(507) 328-7100*

This document is also provided at the following website:
<http://www.co.olmsted.mn.us/planning/ordinances/Pages/OCmanuals.aspx>

This document is modified and adopted from the
Olmsted County Zoning Ordinance
Recorded Document #A-1107536

6. Lot Width Regulations:

- a) Each lot shall have a minimum width of one hundred fifty (150) feet at the front building line.

E. Wind Energy Conversion System Standards :

- A. The height of the WECS including the blades shall be limited to 120 feet.
- B. The setback is established in Section 10.50(C)(1). The wind turbine is not permitted to be located in a front or side street side yard.
- C. No lighting shall be permitted on the wind turbine, unless required by the Federal Aviation Administration.
- D. The wind turbine shall meet the standards set forth in Section 10.50(E).

Section 6.02 **R-1 LOW DENSITY RESIDENTIAL DISTRICT:**

The purpose of this district is to provide a limited amount of low density residential development in those areas described as "Suburban Subdivision Area" within the Comprehensive Plan that have suitable soils for long-term private sewage systems and those areas classified Low Density Residential within the Urban Service Area served by Public or other centralized sewage collection and treatment system.

A. Permitted Uses:

- 1. One single-family detached dwelling per lot.
- 2. Home occupation as regulated in Section 10.02.
- 3. A state licensed group home or foster home serving six or fewer mentally retarded or physically handicapped persons.
- 4. Accessory structures and uses customarily incidental to any of the above permitted uses when located on the same property.
- 5. The raising of a maximum of ten (10) chickens as regulated in Section 10.52, as long as it is an accessory use to a single-family detached dwelling.

B. Conditional Uses: (Also see Section 4.02, Conditional Uses.)

- 1. Private or public facilities including but not limited to schools, churches, cemeteries, parks, and community buildings.
- 2. Public utility buildings such as substations, transformer stations, and regulator stations without service or storage yards.
- 3. Supervised living facilities for the mentally retarded or physically handicapped, provided that the facility is family-like as determined by: 1) family-style appearance of the building; 2) central housekeeping; 3) designated adult(s) in charge at all times; and a maximum of sixteen (16) mentally retarded or physically handicapped persons in residence.

4. Accessory structures and uses customarily incidental to any of the above conditional uses when located on the same property.
5. Small non-utility wind energy conversion system.

C. General District Regulations:

1. Height Regulations:

- a) No residential buildings used for dwellings shall hereafter be erected or structurally altered to exceed thirty-five (35) feet in height.
- b) Public or semi-public buildings, churches, cathedrals, temples or schools may be erected to a maximum height of fifty-five (55) feet. When such buildings exceed thirty-five (35) feet in height, the setback requirements shall increase at a rate of one (1) foot for each foot of height exceeding 35 feet.

2. Lot Area Regulations:

- a) There shall be a minimum lot size of two (2) acres per new residential dwelling unit, except when additional lot area is required by the County Health Department to meet the Board of Health regulations.
- b) When a new lot is proposed to be served by a public or other centralized sewage treatment system and is located within an area identified as Urban Service Area in the General Land Use Plan, the minimum lot area shall be determined by a special district established under the provisions of Section 8.10 in accordance with the standards in the General Land Use Plan for interim development.
- c) When a new lot is proposed to be served by a public or other centralized sewage treatment system and is located within an area identified as Suburban Development Area in the General Land Use Plan, the minimum lot area shall be determined by a special district established under the provisions of Section 8.10 in accordance with the standards in the General Land Use Plan for suburban development.

3. Front Yard Regulations:

- a) A minimum front yard depth of not less than forty-five (45) feet shall be provided on all lots adjoining federal, state, and county roads.
- b) A minimum front yard depth of not less than thirty (30) feet shall be provided on lots adjoining local roads and streets.

4. Side Yard Regulations:

- a) A minimum side street yard width of not less than forty-five (45) feet shall be provided on all lots adjoining federal, state, and county roads.

- b) A minimum side street yard width of not less than thirty (30) feet shall be provided on all lots adjoining local roads and streets.
- c) A minimum interior side yard width of not less than eight (8) feet shall be provided.

5. Rear Yard Regulations:

- a) A minimum rear yard depth of not less than twenty-five (25) feet shall be provided.

6. Lot Width Regulations:

- a) Each lot shall have a minimum width of one hundred (100) feet at the front building line, except when the lot is served by public or centralized sewage collection and treatment system, then sixty (60) feet shall be the minimum lot width at the front building line.

D. Wind Energy Conversion System Standards:

- A. The height of the WECS including the blades shall be limited to 200 feet.
- B. The setback is established in Section 10.50(C)(1). The wind turbine is not permitted to be located in a front or side street side yard.
- C. No lighting shall be permitted on the wind turbine, unless required by the Federal Aviation Administration.
- D. The wind turbine shall meet the standards set forth in Section 10.50(E).

Section 6.04 **R-2 MIXED LOW DENSITY RESIDENTIAL DISTRICT:**

The purpose of this district is to provide a limited amount of mixed low density residential development that would not exceed ten (10) dwelling units per acre in areas served by public or centralized sewage collection and treatment system and identified as "Mixed Use Residential" in the Comprehensive Plan.

A. Permitted Uses:

- 1. One single-family detached dwelling.
- 2. Two-family dwellings.
- 3. Single attached dwellings of two (2) dwelling units.
- 4. A state licensed group home or foster home serving six (6) or fewer mentally retarded or physically handicapped persons.
- 5. A home occupation as regulated in Section 10.02.
- 6. Accessory structures and uses customarily incidental to any of the above permitted uses when located on the same property.
- 7. The raising of a maximum of ten (10) chickens as regulated in Section 10.52, as long as it is an accessory use to a single-family detached dwelling.

B. Conditional Uses: (Also see Section 4.02, Conditional Uses.)

1. Single family attached dwellings of over two (2) dwelling units.
2. Mobile home parks and subdivision as regulated in Section 10.42.
3. Multiple family dwellings.
4. Other state licensed group homes or supervised living facilities.
5. Accessory structures and uses customarily incidental to any of the above conditional uses when located on the same property.

C. General District Regulations:

1. **Height Regulations:** No building shall exceed thirty five (35) feet in height.
2. **Lot Regulations:** For each lot to be developed for building purposes that is within an Urban Service Area as designated on the Olmsted County General Land Use Plan proposed to be served by a public or centralized sewage collection and treatment system, development regulations shall be determined by a special district established under the provisions of Section 8.10 in accordance with the standards in the General Land Use Plan for interim development. For lots located outside Urban Service Areas as designated on the General Land Use Plan and proposed to be served by a public or centralized sewage collection and treatment, development regulations shall be determined by a special district established under the provisions of Section 8.10 in accordance with the standards in the General Land Use Plan for suburban development.
3. **Lot Area Regulations:** The minimum lot area for each type of residential dwelling is as follows:
 - a. 6,000 square feet-one family dwelling;
 - b. 9,000 square feet-two family dwelling;
 - c. 4,500 square feet-single family attached dwelling consisting of only two buildings;
 - d. The lot area for other single family attached dwellings and multiple family dwellings need not meet a specific minimum lot area, providing the following criteria are satisfied:
 - 1) The density limit for the district is not exceeded.
 - 2) Land included in the development site that is not proposed to be included as a private lot area is preserved as open space, subject to Section 10.38.
 - 3) The maximum lot coverage of all structures does not exceed forty (40%) percent of the entire development site.
4. **Density:**
 - a. The density for any development in the district shall not exceed ten (10) dwelling units per acre. The density shall be a net density (gross acreage of the development site minus the road

right of ways).

5. Front Yard Regulations:

- a. A minimum front yard depth of not less than forty five (45) feet shall be provided on all lots adjoining federal, state, and county roads.
- b. A minimum front yard depth of not less than twenty five (25) feet shall be provided on all lots adjoining local roads and streets.

6. Side Yard Regulations:

- a. A minimum side street yard width of not less than forty five (45) feet shall be provided on all lots adjoining federal, state, and county roads.
- b. A minimum side street yard width of not less than twenty five (25) feet shall be provided on all lots adjoining local roads and streets.
- c. A minimum interior side yard width of not less than ten (10) feet shall be provided.

7. Rear Yard Regulations:

- a. A minimum rear yard depth of not less than twenty five (25) feet shall be provided.

8. Lot Width Regulations: The minimum lot width for each type of dwelling is as follows:

- a. 60 feet - one and two family
- b. 45 feet - single family attached consisting of only two (2) buildings.

9. Lot Coverage Regulations:

- a. The maximum lot coverage of all structures does not exceed forty (40%) percent of the lot.

10. Development Site Regulations: The development site regulations for single family attached dwellings involving three or more buildings and for multiple family dwellings are regulated by the following:

- a. Minimum size of a development site - 13,000 square feet.
- b. Minimum width of a development site - 80 feet;
- c. **Yards within a development site:** The yard regulations established in Section 6.04 (C, 5, 6 & 7) shall apply to the outer boundaries of a development site and shall be applied within a development site 1) along any public or private road, and 2) along any lot line other than one which divides two attached dwellings.

D. Wind Energy Conversion System Standards:

1. The height of the WECS including the blades shall be limited to 120 feet, except as specified in the RC district.

2. The setback is established in Section 10.50(C)(1). The wind turbine is not permitted to be located in a front or side street side yard.
3. No lighting shall be permitted on the wind turbine, unless required by the Federal Aviation Administration.
4. The wind turbine shall meet the standards set forth in Section 10.50(E).

**SUBDIVISION
ORDINANCE**

FOR

**ORONOCO TOWNSHIP
MINNESOTA**

Adopted May 7, 2007

EXHIBIT 7

ARTICLE V

SUBDIVISION DESIGN STANDARDS

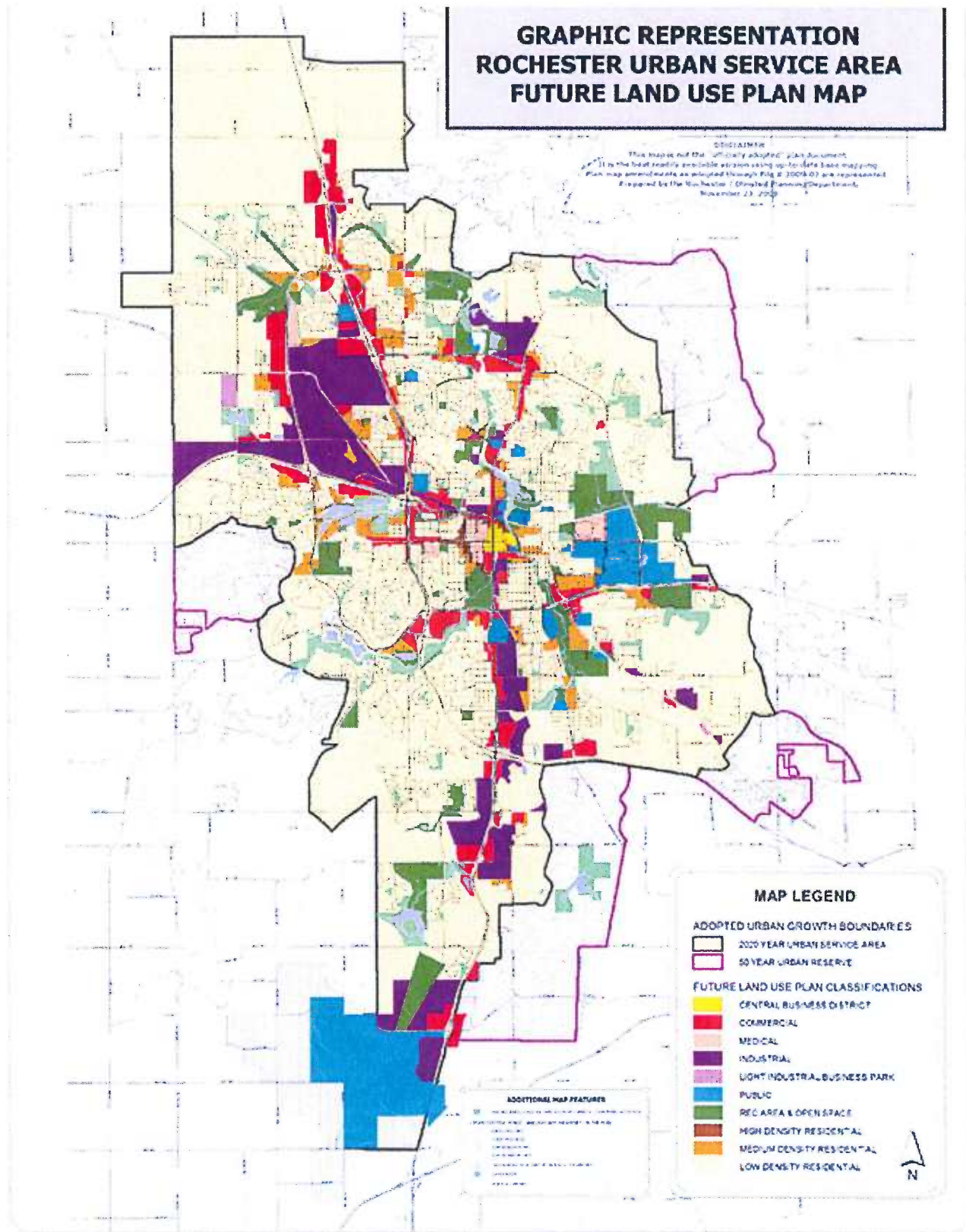
The subdivision design standards contained in this ordinance are to assure that the style, character and form of new developments will conform to minimum requirements promoting the health, safety and general welfare of the public. In addition to these regulations and to insure that future developments are consistent with the growth objectives and goals of the community, subdivisions shall conform to the Comprehensive Development Plan of Olmsted County or any part thereof, the Official Map, Zoning Ordinance, County Health Department Regulations and any other applicable ordinances of Olmsted County.

Section 5.0 GENERAL – STREETS/ROADS.

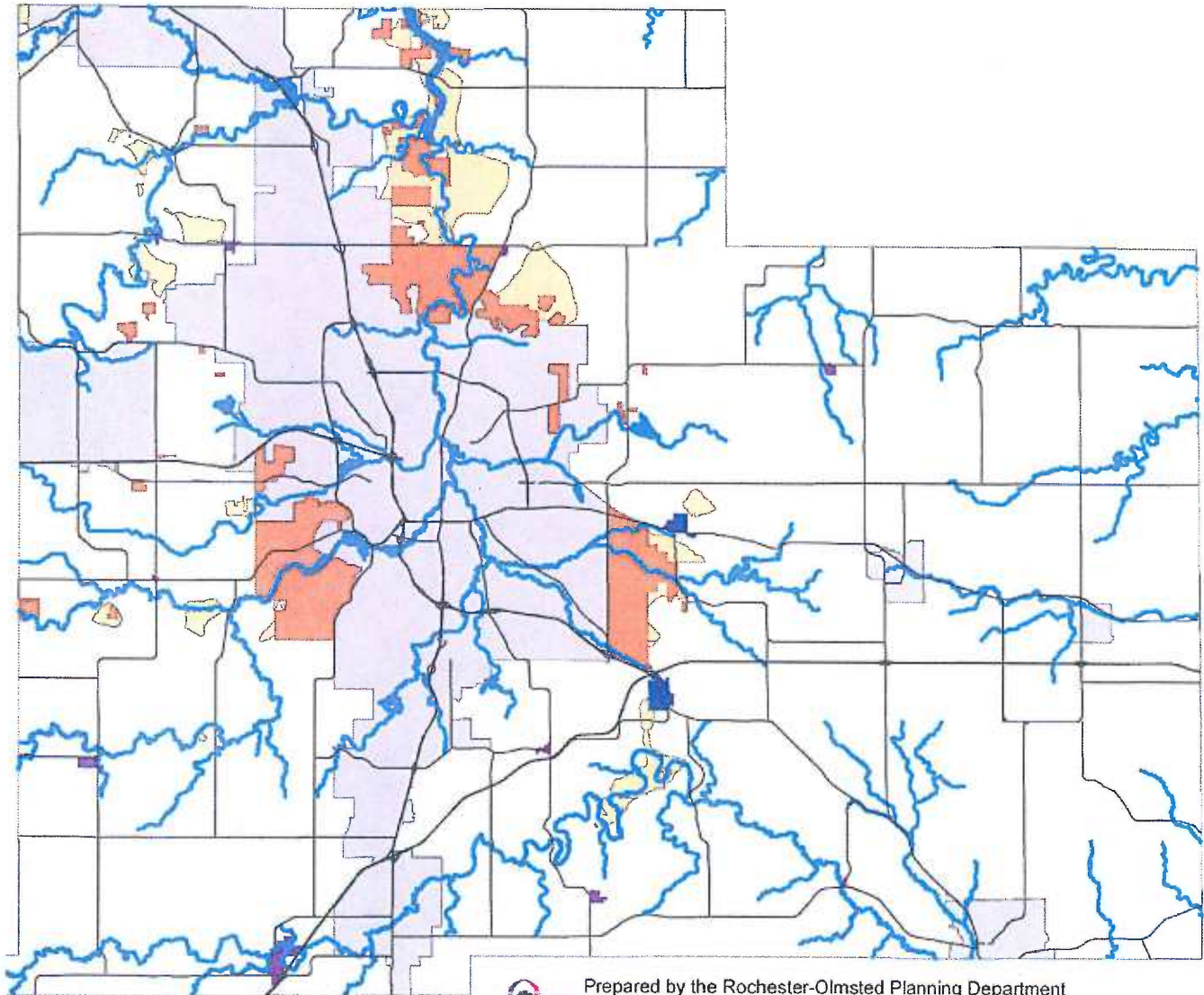
The street system of a proposed subdivision shall be designed to facilitate adequate traffic circulation from the subdivision to adjacent areas. Street arrangements, character, width, grade, location, sight distance and surface material shall be related to existing or planned streets, topography, convenience and safety, and their intended ultimate function.

- A. The arrangement of major streets in a subdivision shall provide for the continuation or projection of existing streets in adjacent areas; or conform to a plan approved by the Oronoco Planning Advisory Commission where topographic or other conditions make continuance or conformance to existing streets impracticable.
- B. Collector streets shall be properly related to major streets and designed in a manner so as to supplement the major street system, but not to serve in lieu thereof.
- C. Local streets shall be designed to benefit from the topography, to discourage through traffic and to provide the minimum amount of streets necessary for safe access to adjacent properties. The reasonable and intelligent use of curvilinear and cul-de-sac streets is encouraged wherever possible.
- D. Where a subdivision abuts upon, or contains an existing or proposed highway, major thoroughfare, or railroad right-of-way, the Oronoco Planning Advisory Commission may require reverse frontage lots with appropriate screen plantings in the non-access reservation strip; or the provision of suitable access roads parallel to and on either side of said highway, major thoroughfare, or railroad right-of-way providing access to adjacent properties and affording separation of through and local traffic.
- E. Streets designed and laid out so as to have one end permanently closed shall not exceed five-hundred (500) feet in length, except where the Oronoco Planning Advisory Commission has approved additional length due to property limitations.

Rochester Future Land-Use Map



Olmsted County Future Land-Use Map



Prepared by the Rochester-Olmsted Planning Department
Long Range Division March 8, 2011



Legend

- Major Roads
- Public Waters
- Land Use Designation**
- Potential Suburban
- Suburban Development
- Resource Protection
- Rural Mixed Use
- Suburban Mixed Use
- Urban Service Area



**TABLE 5
COMPARATIVE ESTIMATED MARKET VALUE SUMMARY FOR GREEN ACRES
LAND IN LOCAL JURISDICTIONS IN OLMSTED AND WABASHA COUNTIES**

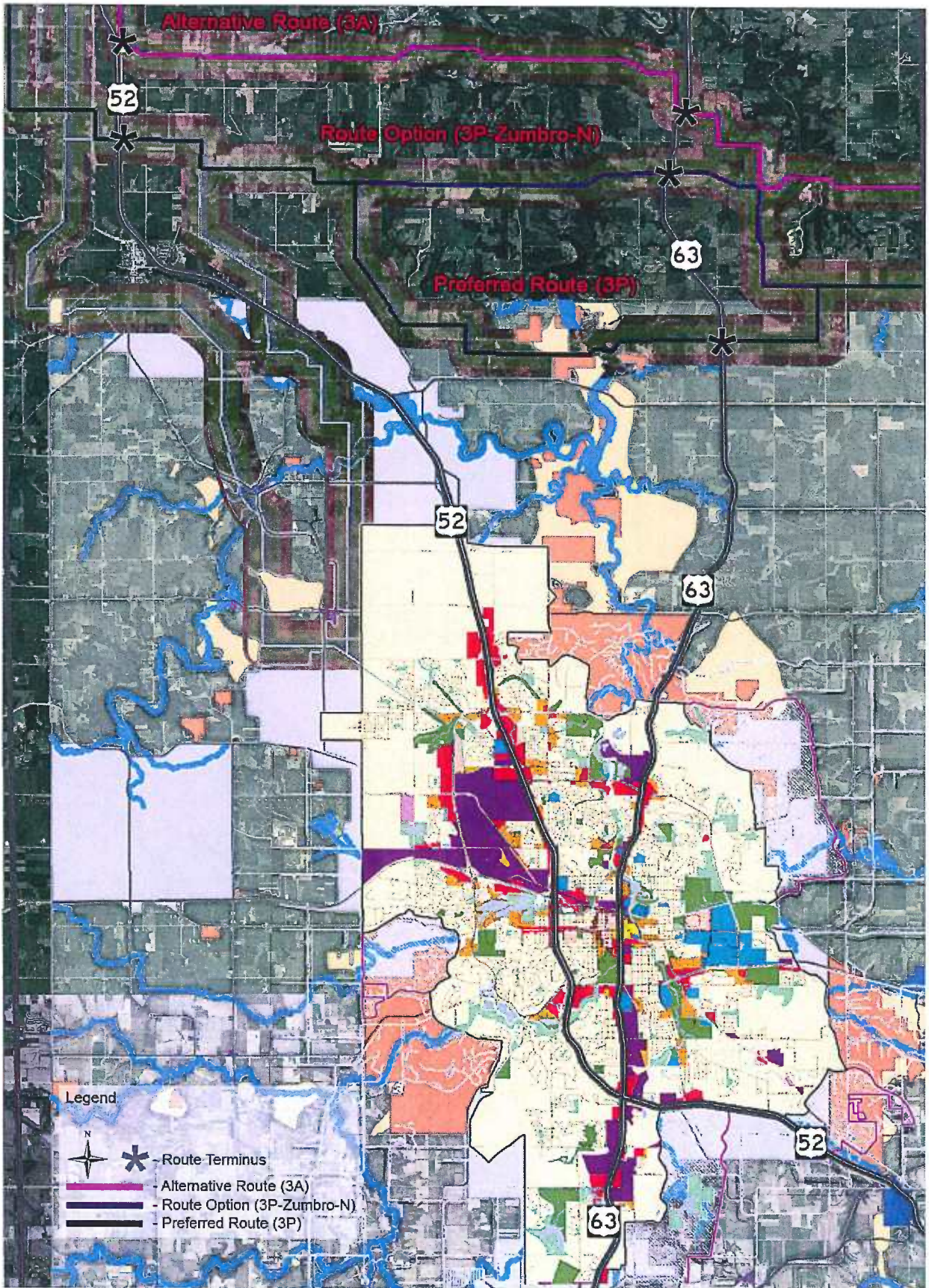
County	Local Jurisdiction	Year	Total Acres	Total Estimated Value	Estimated Value per Acre
Olmsted	Oronoco City	2006	34	\$231,900	\$6821
Olmsted	Oronoco City	2007	83	\$486,800	\$5,865
Olmsted	Oronoco City	2008	90	\$539,300	\$5,992
Olmsted	Oronoco City	2009	90	\$551,050	\$6,123
Olmsted	Oronoco City	2010	91	\$483,400	\$5,312
Olmsted	Oronoco Twnshp	2006	8,614	\$58,402,300	\$6,780
Olmsted	Oronoco Twnshp	2007	9,216	\$63,618,500	\$6,903
Olmsted	Oronoco Twnshp	2008	9,082	\$62,555,700	\$6,888
Olmsted	Oronoco Twnshp	2009	9,457	\$61,556,151	\$6,509
Olmsted	Oronoco Twnshp	2010	9,212	\$53,352,506	\$5,792
Wabasha	Zumbro Twnshp	2009	239	\$627,224	\$2,624
Wabasha	Zumbro Twnshp	2010	239	\$623,228	\$2,608

Source: Department of Applied Economics, University of Minnesota, Minnesota Land Economics, May 5, 2011.

**TABLE 6
COMPARATIVE ESTIMATED MARKET VALUE SUMMARY FOR CLASS 2a
AGRICULTURAL LAND IN LOCAL JURISDICTIONS IN OLMSTED AND
WABASHA COUNTIES**

County	Local Jurisdiction	Year	Total Acres	Total Estimated Value	Estimated Value per Acre
Olmsted	Oronoco City	2009	115	\$247,179	\$2,149
Olmsted	Oronoco City	2010	237	\$1,801,312	\$7,600
Olmsted	Oronoco Twnshp	2009	12,791	\$37,051,645	\$2,897
Olmsted	Oronoco Twnshp	2010	12,355	\$74,186,904	\$6,005
Wabasha	Mazeppa Twnshp	2009	7,718	\$27,508,217	\$3,564
Wabasha	Mazeppa Twnshp	2010	7,656	\$27,279,035	\$3,563
Wabasha	Hyde Prk Twnshp	2009	7,027	\$24,589,863	\$3,499
Wabasha	Hyde Prk Twnshp	2010	6,998	\$24,892,155	\$3,557

Source: Department of Applied Economics, University of Minnesota, Minnesota Land Economics, May 5, 2011.



Composite of City of Rochester and Olmstead County Land-Use Plans and Alternative Alignments



**TABLE 7
IMPACT OF THREE ROUTE OPTIONS AT VARIOUS DISTANCES FROM THE
CENTERLINE OF THE RIGHT OF WAY (ACRES OF AFFECTED LAND)**

Alignment Option	0' to 75'	75' to 175'	175' to 1,350'	Total (Acres)	Percent of Total
	Acres	Acres	Acres		
Alternative Route	425	991	3,830	5,246	31 %
Route Option	422	984	3,790	5,196	30 %
Modified Preferred Route	551	1,286	4,953	6,790	39 %
Total	1,398	3,261	12,573	17,232	100 %

Source: Biko Associates, Inc., May 20, 2011.

Wabasha County Comprehensive Plan Map

- Villages, Towns & Small Cities
- Common Interest Areas
- Selected Public Lands
- Lakes, Streams & Rivers
- Lower Valley
- Upland Agricultural Areas
- Upper Valley
- Major Roads

