CR 104/60th Ave West Highway Corridor

OLMSTED COUNTY ROAD 104/60TH AVENUE CORRIDOR PRESERVATION PRE-NEPA STUDY SUMMARY

Final
Draft
MAY 2007

PREPARED BY:
SRF Consulting Group, Inc.

TABLE OF CONTENTS

I. INTRODUCTION

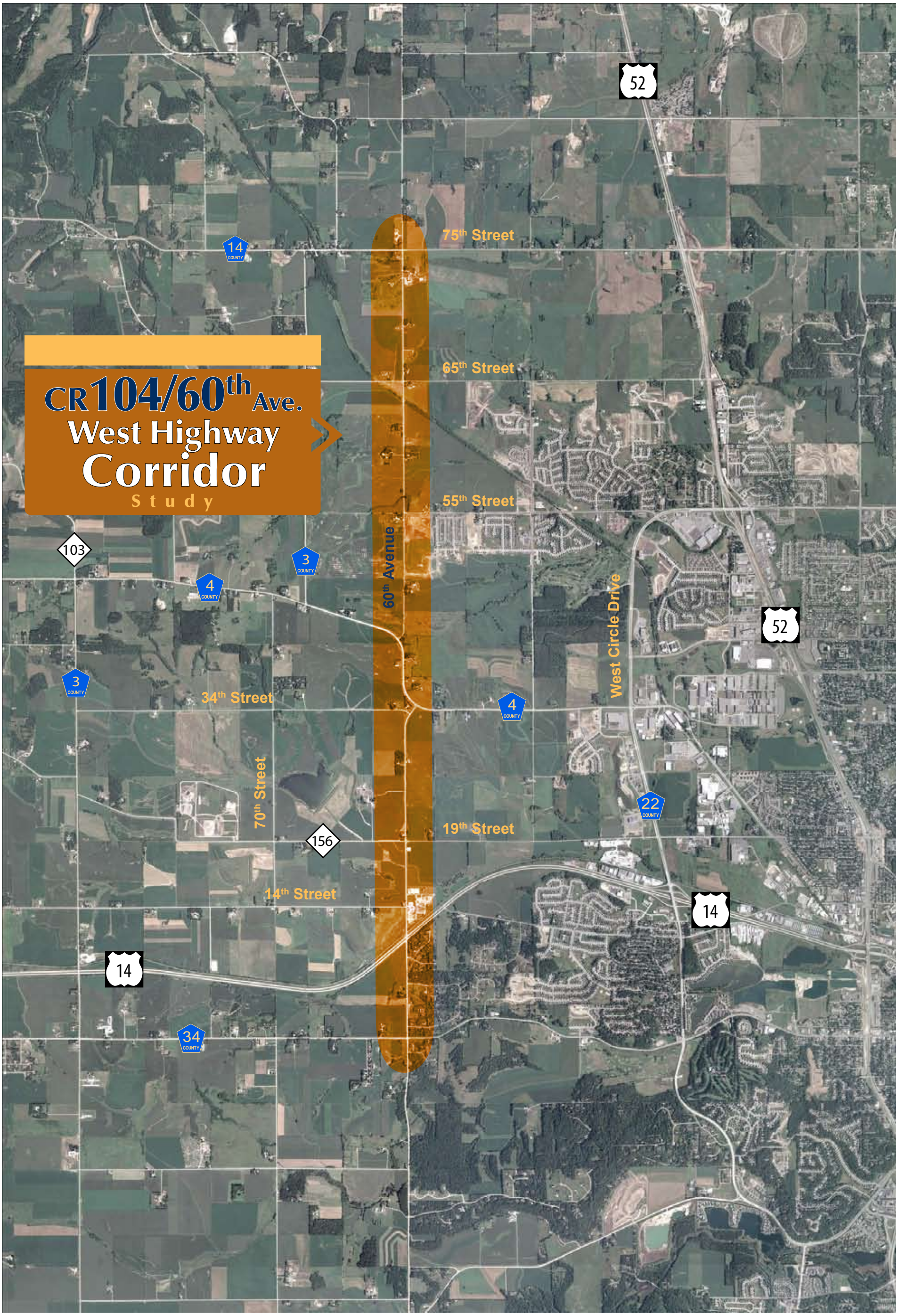
A. BACKGROUND

The County Road (CR) 104/60th Avenue NW Corridor Preservation Project is the first in a series of corridor preservation projects funded by the Olmsted County Board of Commissioners as part of a Highway Corridor Preservation Program (HCPP) that was begun in 2006. The purpose of the HCPP is to put in place an Official Map and other strategies to preserve right of way for long term development of major arterial corridors. Four critical corridors were identified for incorporation into an initial five-year HCPP. Corridors targeted are currently beyond the funding horizon of the Transportation Improvement Program (TIP)/County Capital Improvement Program.

In addition to the County's HCPP, the ROCOG *2035 Long Range Transportation Plan* (LRTP), adopted in 2005, recommended the implementation of a process termed the "Early Environmental Project Development" (EEPD) process. ROCOG's vision for the EEPD process was to establish a means to address MEPA/NEPA elements such as Purpose and Need, identification and screening of alternatives and of environmental issues/community concerns as part of a process integrating corridor planning with the early phases of project development. The key objective of the County's EEPD process was to support corridor preservation/protection efforts based on decisions related to system development, scoping of key environmental issues and the identification of tentative right-of-way (ROW) needs which will be formalized through the adoption of an Official Right-of-Way Map. Therefore, the County's desire for the combination of corridor preservation through the County's HCPP and planning-level environmental clearance through EEPD, led to the initiation of the CR 104/60th Avenue NW Corridor Preservation Project.

B. STUDY PURPOSE

In June 2006, Olmsted County and the Rochester-Olmsted Council of Governments (ROCOG) initiated the CR 104/60th Avenue NW Corridor Preservation Study. This study was designed to focus on the western segment of a future strategic urban arterial route planned to be part of an outer beltway system around the Rochester urban area. County Road (CR) 104/60th Avenue NW was identified as the future urban arterial route to be studied through several previous planning efforts by Olmsted County and ROCOG. The CR 104/60th Avenue corridor is shown in Figure 1. The corridor is located near the outer limits of the western boundary of the City of Rochester's future 25-year urban service area boundary. Project limits are CSAH 34 on the south to CSAH 14 on the north.



PROJECT LOCATION

Figure 1

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

The CR 104/60th Avenue NW Corridor Preservation Study was focused on identifying and evaluating different corridor treatments for the CR 104/60th Avenue NW corridor and, through a screening and analysis process, identifying alternatives which could be dismissed (due to not meeting the purpose, need, goals or objectives), as well as identifying a preferred alternative.

The key goal of the corridor preservation project was to identify tentative right of way needs for future corridor improvements through a process that incorporated the National Environmental Policy Act (NEPA) process through development of an Environmental Assessment (EA) and concluded with preparation of an Official Right-of-Way Map for adoption by the local jurisdictions.

The following chapters of this summary report document the information collected, analyzed and evaluated and the public involvement undertaken as part of this pre-NEPA study which culminated in the identification of a preferred alternative for the CR 104/60th Avenue corridor.

II. EXISTING CONDITIONS

Olmsted County and ROCOG began the CR 104/60th Avenue NW Corridor Preservation Study with the intention of studying CR 104/60th Avenue NW due to previous past planning efforts that identified this roadway as the location of a future urban arterial. However, early in the study process, Mn/DOT and FHWA requested Olmsted County review and evaluate both 50th Avenue NW and 70th Avenue NW in addition to CR 104/60th Avenue NW in determining the preferred corridor for this future north/south arterial roadway around the City of Rochester.

This section documents the previous planning efforts, project goals and objectives, purpose and need framework, and corridor evaluation process and recommendations based upon the study of 50th Avenue NW, CR 104/60th Avenue NW and 70th Avenue NW.

A. PREVIOUS PLANNING EFFORTS

Several short- and long-range documents have been completed which provide context and planning direction for the future transportation system needs in Olmsted County and the City of Rochester. These plans were prepared in response to expected population and employment growth in this area, reflecting the adopted long range land use plan for the Rochester urban area, and to serve as a guide to the identification of arterial highway corridors which should be the focus of future preservation and project development efforts.

A key component in planning for a future north/south arterial corridor on the west side of Rochester is its connection to TH 14, a Medium Priority Interregional Corridor (IRC) within the identified statewide IRC system. Adopted plans addressing

this system improvement need include the ROCOG *2035 Long Range Transportation Plan* (LRTP), the *60th Avenue NW/CSAH 14 Expressway Corridor Management Plan* (CMP) and the *Trunk Highway (TH) 14 West Sub Area Study*. These plans are outlined below and were developed with FHWA and Mn/DOT input as well as input from the public.

- ***ROCOG 2035 Long Range Transportation Plan***

The 2035 ROCOG LRTP identifies the need for a strategic urban arterial beltway system around the City of Rochester. Based upon the 2035 and 2050 traffic forecasts developed for the ROCOG LRTP and anticipated future development in this area, the CR 104/60th Avenue NW corridor was identified as the location of the future strategic urban arterial due to spacing with other north-south routes, its ability to provide significant continuity north and south of TH 14, and its ability to serve future land uses in the region.

County Road 104/60th Avenue passes in and out of the federal urban area boundary for federal functional classification and therefore its current functional classification switches between urban and rural. The current Federal Functional Classification is as follows:

- CSAH 34 to TH 14: Rural Major Collector
- TH 14 to 65th Street: Urban Minor Arterial
- 65th Street to CSAH 14: Rural Major Collector

In addition, it has been identified as a future strategic urban arterial in the ROCOG Long Range Thoroughfare Plan. The Plan defines a strategic arterial as a roadway with "regional importance, carrying high volumes of higher speed traffic, including through traffic, with limited service to abutting land and design characteristics such as medians and limited traffic signalization to enhance traffic flow." Its connectivity between TH 14 and CSAH 14 (and east along CSAH 14 to an interchange at TH 52), combined with its spacing between CSAH 22 and CSAH 3, which generally defines the western boundary of the ultimate Rochester Urban Service Area, were driving factors in the designation of this corridor as a strategic arterial and part of the future outer beltway system surrounding the Rochester Urban Service Area (RUSA).
(The ROCOG 2035 LRTP is available online at http://www.co.olmsted.mn.us/planning/transportation/plans.asp)

- ***60th Avenue NW/CSAH 14 Expressway Corridor Management Plan (CMP)***

built This plan is built upon the LRTP's identification of this corridor as a future strategic urban arterial and provides further clarification of the planning direction for the CR 104/60th Avenue NW corridor. The 60th Avenue NW/CSAH 14 CMP provides policy direction in terms of expected level of access that will be provided, cross-section, design speed, accommodation of modal uses, and principles for development of lands adjacent to the corridor.

Emerging growth along the 60th Avenue corridor within the urban service area east of the corridor, coupled with prospects for future growth west of the corridor resulting

from execution of an Orderly Annexation Agreement between the City of Rochester and Kalmar Township in 2003, led to development of the CMP to consider the long-term implications of this growth to the transportation system. These long-term implications include the following anticipated changes to 60th Avenue's role in the transportation system:

a) Traffic volumes on the corridor will increase as a result of new development;

b) Whereas most auto travel in the study area has historically been predominantly east – west into the more urban portion of the Rochester area, the pattern of automobile trips generated as a result of future development along and west of the corridor is expected to change traffic patterns and impact major intersections along the corridor including 60th Avenue's intersections with CSAH 14, 65th Street, 55th Street, CSAH 4 and the TH 14/CR 104 intersection;

c) Land development and increased traffic volumes in the area will change the function of this corridor to one that serves a primary north-south travel need, which is anticipated to require an expressway design to provide an adequate level of service for an area on both sides of the corridor extending to the western limits of the future Rochester Urban Service Area;

d) Land development will create a need for safe non-motorized travel options that will likely include trails along the 60th Avenue corridor and compact intersection design to facilitate the crossing of the corridor; and

e) Urban density development will lead to demand for transit services, which can be more successful if consideration is given to the development of transit amenities such as park and ride lots, signal pre-emption capabilities or queue jumper lanes along the corridor to facilitate express and local transit service.

Based on network development needs, projected traffic forecasts and public input, the CMP identified that this roadway should be a four-lane divided expressway with turn lanes at intersecting public streets and featuring a rural-type cross section with a depressed grass median and rural side ditch sections. Historically a typical cross section utilized for this type of roadway in the Rochester area has been 200 feet. Future traffic volumes vary throughout the corridor and may dictate additional capacity needs (i.e., six-lanes) near major intersections such as TH 14. The CMP recommended that at-grade crossings should be limited in number with an interchange likely at TH 14. The CMP acknowledged that design details would need to be developed with input from many agencies and the public and would need to consider the balance of traffic demands and environmental impacts.

As part of the development of this plan, public meetings were held with corridor residents to identify issues and review the proposed planning direction for the corridor. The City of Rochester, Olmsted County, and ROCOG adopted the CMP. *(The 60th Avenue NW/CSAH 14 Expressway Corridor Management Plan is available at http://www.co.olmsted.mn.us/planning/transportation/plans_asp)*

- ***TH 14 West Sub Area Study***

This study was conducted during 2003-2004 and was managed by Mn/DOT on behalf of multiple project partners, which included the cities of Kasson, Byron and Rochester and Olmsted and Dodge Counties. The study focused on updating the future planning vision for TH 14 between Rochester and Kasson that had first been articulated in the 1997 Access Management Plan for the corridor. The 2003 effort expanded on the 1997 work by focusing not only future access locations directly on TH 14 but also looked at developing a plan for a supporting roadway network to better distribute regional traffic flow demands. While there was much disagreement with access and supporting roadway system elements in the core of the study area centered on Byron, there was a consensus among study partners reflected in final study documents regarding a proposed future interchange location at TH 14 and CR 104.

B. CORRIDOR CONDITIONS

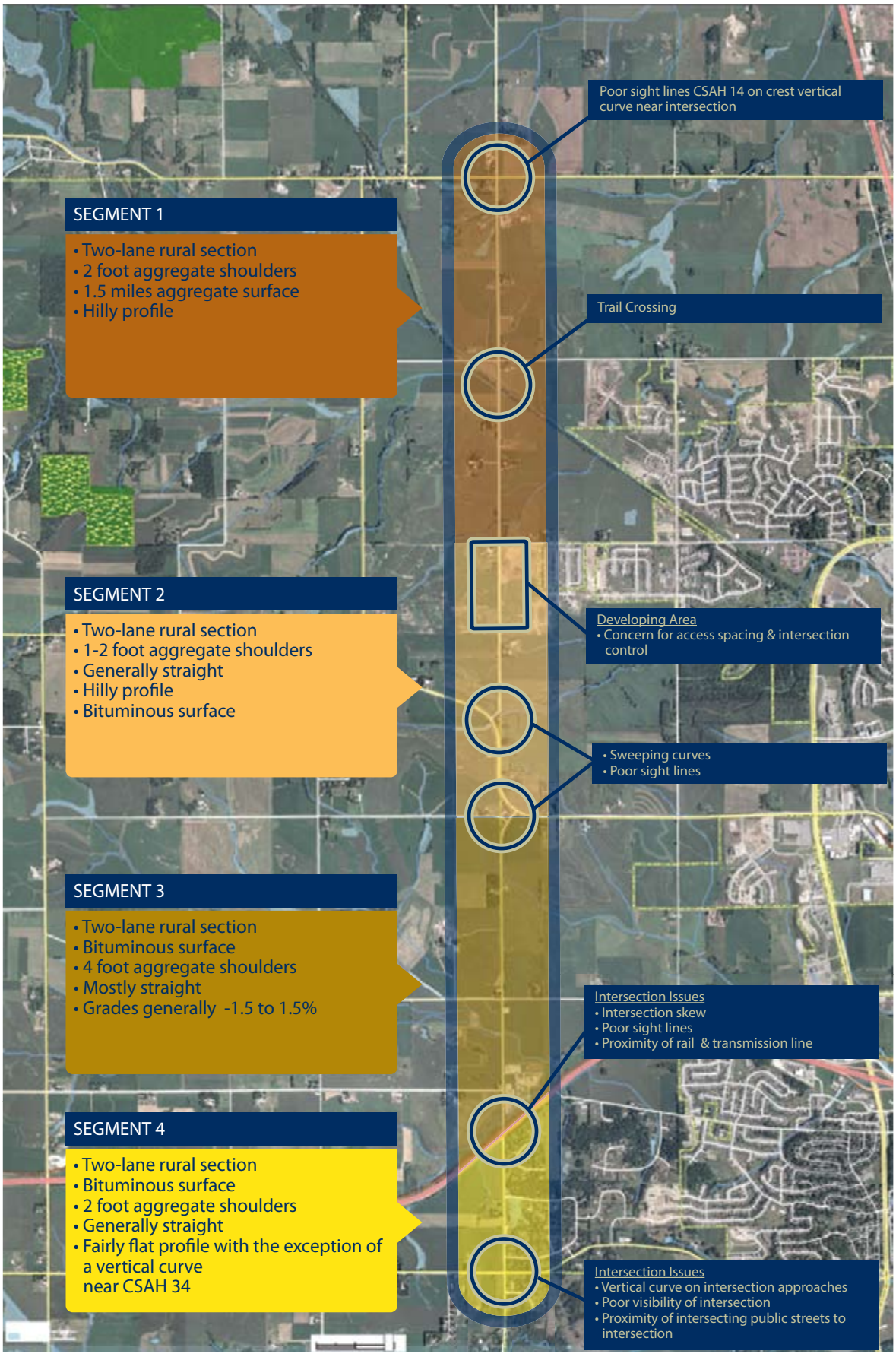
The CR 104/60th Avenue corridor can be divided into four segments in order to better describe current conditions (see Figure 2):

- Segment 1: CSAH 14 to 55th Street
- Segment 2: 55th Street to South leg of CSAH 4
- Segment 3: South leg of CSAH 4 to TH 14
- Segment 4: TH 14 to CSAH 34

Segment 1

The first segment of CR 104/60th Avenue extends from CSAH 14 to 55th Street. This is a north/south two-lane bituminous roadway that changes to aggregate surface one-half mile north of 55th Street and has one to two-foot aggregate shoulders. There are eleven residential drives. The area is primarily farmland. This segment has a hilly profile with grades generally ranging from -4 percent to 4 percent. The Douglas Trail crosses 60th Avenue at a 45 degree angle approximately 500 feet south of 65th Street. Geometric and safety issues along this segment of this corridor include:

- Douglas Trail connection with skewed alignment to 60th Avenue
- 60th Avenue/CSAH 14 intersection located on a crest vertical curve – sight lines below recommended minimum
- Aggregate surface on a portion of the roadway



EXISTING CONDITIONS

Figure 2

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

Segment 2

The second segment of CR 104/60th Avenue extends from 55th Street to the South leg of CSAH 4. This is also a north/south two-lane bituminous rural roadway with one to two-foot aggregate shoulders. There are currently four residential drives. The area is primarily farmland near the south end and urban-density residential near the north end. This segment has a hilly profile with grades that generally range from -4 percent to 4 percent. The alignment of the roadway is generally straight with the exception of the curve that ties 60th Avenue into CSAH 4. Geometric and safety issues along this segment of the corridor include:

- 60th Avenue and CSAH 4 intersection skew – poor sight lines
- Sweeping curve on CSAH 4 as it approaches 60th Avenue
- Configuration of intersecting local roadways and intersection control

Along this segment of the corridor the first urban density development is occurring, with the Kingsbury residential subdivision under development and the Pebble Creek mixed use development in the final planning stages.

Segment 3

The third segment of CR 104/60th Avenue extends from the South leg of CSAH 4 to TH 14. This segment of the corridor is a north/south two-lane bituminous rural roadway with four-foot aggregate shoulders. Three residential drives and four commercial drives are located in this area. The land use is a mix of farm land and commercial/manufacturing properties (see Land Use section for additional details).

The Dakota, Minnesota & Eastern (DM & E) Railroad runs parallel to TH 14, approximately 100 feet north of the TH 14 right of way. The Southern Minnesota Municipal Power Agency (SMMPA) has a 161Kv high voltage transmission line that lies between TH 14 and the DM & E rail line. This segment consists of a fairly flat profile with grades generally ranging from -1.5% to 1.5%. The alignment of the roadway in this area is straight with the exception of the sweeping curve near the south leg of CSAH 4. Geometric and safety issues in this segment are:

- TH 14 and CR 104 intersection skew – poor sight lines
- Proximity of railroad and transmission line to the intersection of TH 14 and CR 104
- Sweeping curve on CR 104 as it approaches CSAH 4
- CSAH 4 and CR 104 intersection skew – poor sight lines

Segment 4

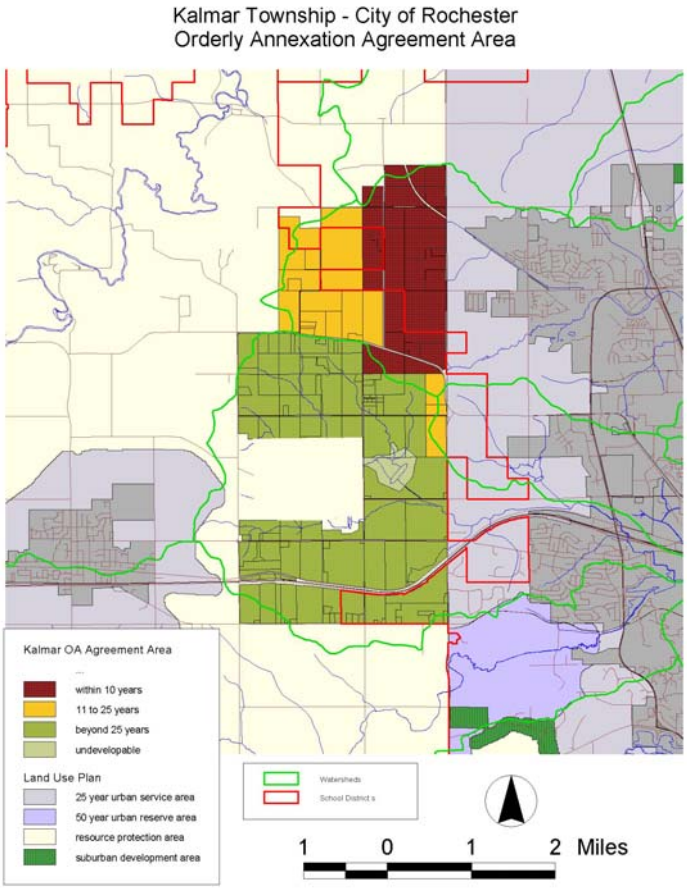
The fourth segment of CR 104/60th Avenue being studied extends from TH 14 to CSAH 34. This segment of the corridor is a north/south two-lane bituminous rural roadway with two- foot aggregate shoulders. Two residential drives and three intersecting public streets are located in this area. The land use is a mix of farm land

and suburban residential development. This segment consists of a fairly flat profile with a small vertical curve on either side of the intersection with CSAH 34. The alignment of the roadway in this area is generally straight. Geometric and safety issues in this segment include:

- CR 104 and TH 14 intersection skew – poor sight lines
- Vertical curve on CR 104 on approaches to CSAH 34 intersection – poor visibility of intersection
- Proximity of intersecting public streets to intersection of CR 104 and CSAH 34

C. ROCHESTER URBAN SERVICE AREA

The Olmsted County General Land Use Plan (OCLUP) and the City of Rochester Urban Service Area Land Use Plan (RUSA) identify future expansion areas and show the pattern of growth that will be encouraged by the policies of the city and county. Development of the GLUP is a cooperative effort between Olmsted County and local jurisdictions intended to identify the boundary of primary land use areas such as urban and rural service areas and policies defining the general character of the land use within those service areas. Local land use plans, such as the RUSA, are intended to refine the GLUP by identifying within these primary land use areas the more specific character of subareas through designation of commercial, industrial, residential and other land use classifications. The current GLUP was adopted in 1995 and has been amended periodically to reflect landowner initiated land use changes in small areas; it is currently undergoing a major update which is expected to be completed in 2007. Concurrently, work is underway on a major update of the RUSA also expected to be completed in 2007.



County Road 104 and 60th Avenue has historically defined the western boundary of the Rochester urban service area between CSAH 34 at the south end of the study area and CSAH 14 at the north end of the study area. Areas east of the corridor have been included in what was defined as the Rochester 25-year urban service area in the 1995 GLUP. Since that time, the

City of Rochester has annexed and zoned area near 19th St, 55th St and 65th St NW along the east side corridor that are now within the existing city limits.

In 2005 the City of Rochester and Kalmar Township, which lies west of 60th Ave, completed an Orderly Annexation agreement setting out a timetable for the annexation of an area of over 5700 acres into the City of Rochester. Of this area, approximately 4 square miles (2500+ acres) was designated as eligible for annexation within a 25 year time horizon. The results of this agreement will be reflected in the updates of the GLUP and RUSA that are currently underway.

D. EXISTING LAND USE

While existing land use along the CR 104/60th Avenue corridor is primarily rural in nature, areas along 60th Avenue near 55th Street and 65th Street are rapidly changing from rural to urban density residential with the extension of sewer and water to serve these lands.

Sections of the CR 104 and 60th Avenue corridor pass through four different watersheds, with sewer service to each area dependent upon the extension or upsizing of different trunk sewer lines. Existing sewer and water facilities are in place currently to support development along corridor from approximately CSAH 4 to north of 65th St NW. Funding to provide service in the area from TH 14 to CSAH 4 is programmed in the City Capital Improvement Program for construction by the Year 2010.

In the area that can be currently serviced north of CSAH 4, there are three developments that are either in the planning and/or development stages near the intersection of 60th Avenue and 55th Street at this time. These include the Kingsbury development in the southeast quadrant, the Harvestview development in the northeast quadrant, and the Pebble Creek development in the southwest quadrant. There is approximately 2,000 housing units planned in the construction of these three developments. In addition, the Ridgeview development (126 units) is currently under way along 65th Street NW east of the corridor and will also contribute traffic to this area.

The remainder of the County Road 104/60th Avenue corridor is still primarily rural in nature with agricultural uses, cultivated fields and woodlands dominating the majority of the corridor landscape. However, there is a small industrial park along the east side of the roadway near the intersection with Trunk Highway (TH) 14. In addition, south of TH 14 along the east side of the corridor are suburban residential subdivisions featuring two to five acre homesites, with additional land near the intersection of CSAH 34 zoned for additional suburban residential (one unit per five acres) development. These developments act as a buffer between the urban density developments along CSAH 22, just east of this area, to the rural nature of the land west of CR 104.

Other key land uses along the CR 104/60th Avenue corridor include (see Figures 3 and 4):

a) Douglas Trail (a Minnesota Department of Natural Resources State Trail) crossing 60th Avenue north of 55th Street
b) A Rochester Public Utilities (RPU) electrical substation located in the southeast quadrant of the CR 104 intersection with 19th Street NW
c) An Aquila natural gas system substation co-located with the RPU electrical substation on the same site in the southeast quadrant of the CR 104 and 19th ST intersection
d) Three City of Rochester flood control reservoirs – located within one mile of CR 104 on both the east and west sides of the roadway between 34th Street NW and 14th Street NW
e) An unnamed tributary stream to Cascade Creek crosses CR 104 between 19th Street and 14th Street. This tributary currently provides an outlet to the Flood Control Structure KR-7 located west of the corridor and is shown on the Olmsted County Public Waters Inventory Map.
f) Two small unnamed tributary streams in close proximity to the unnamed tributary stream to Cascade Creek are also located near CR 104 between 19th Street and 34th Street on the west side of the corridor. These tributary streams are also shown on the Olmsted County Public Waters Inventory Map.
g) The Kalmar Landfill is located along 19th Street NW (CR 156) approximately 1.5 miles to the west of CR 104
h) Dakota, Minnesota & Eastern (DM&E) Railroad – runs east/west adjacent to TH 14 and crosses CR 104 approximately 100 feet north of the westbound mainline of TH 14
i) The SMMPA high voltage transmission line runs between TH 14 and the DM&E Railroad
j) An area near the intersection of CR 104 and 19th Street is included in the State Game Refuge that encompasses all the lands within the City of Rochester
k) A proposed new elementary school site is identified on the north side of 55th Street, near its intersection with 60th Avenue
l) A proposed Rochester Public Utilities high voltage transmission line project is still in scoping stage; however, one of the alignments being considered is along the CR 104/60h Avenue corridor.

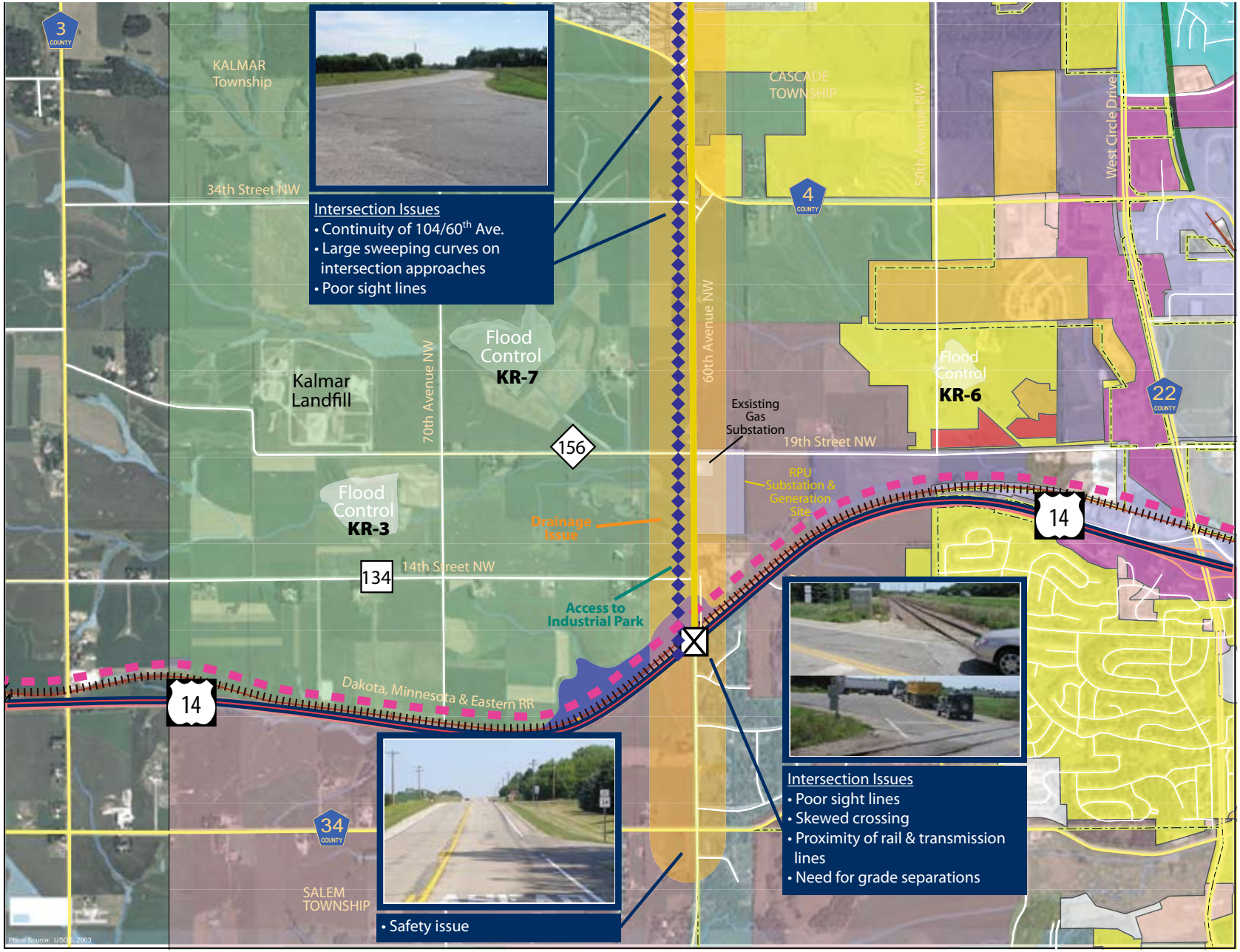
Each of the above land uses will be addressed in further detail in the EA process. Additional information will be obtained through agency coordination and the public input process.

ISSUES IDENTIFICATION (NORTH)

Figure 3

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07



ISSUES IDENTIFICATION (SOUTH)

Figure 4

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

E. URBAN INFLUENCE AREA

Currently the GLUP and the RUSA define, for land use planning purposes, a 25 Year Urban Service Area and a 50-year Urban Reserve Area as part of the Rochester Urban Service Area Plan. However, while the RUSA reflects areas where it is anticipated that urban infrastructure services such as sewer and water will be available, the 25/50 year boundary does not encompass all watershed areas that could potentially be served via extension of the municipal gravity flow sanitary sewer system by the city of Rochester.

To account for the inherent uncertainty in the RUSA line due to the flexibility afforded by the nature of gravity flow sewer service and the desire on the part of ROCOG to establish a planning horizon that reflects the long term nature of roadway and bridge investments, ROCOG identified an Urban Influence Area (UIA) for use in transportation network planning for the Rochester growth area. The UIA represents an area including and abutting the RUSA that within a 100-year timeframe could be converted to or highly influenced by urban development. Definition of this land use area relied heavily upon watershed delineations, reflecting where gravity flow sewer service is possible. The UIA designation was defined to provide:

- flexibility in transportation network planning to accommodate possible shifts in development patterns resulting from unanticipated changes in sewer service availability;
- to assist in planning for right of way needs and corridor preservation that may be the result of long term development beyond a 25-50 year development horizon;
- to assess the potential impacts of future concepts such as extension of arterial grid road system or development of an outer circumferential beltway system in the future into areas beyond the 25 and 50 Year Urban Service areas

Therefore, ROCOG used the RUSA (defining the 25 and 50 Year growth areas) and the UIA boundary (conceptually defining areas most likely for development beyond 50 years) to develop assumptions in the Long Range Transportation Plan about short and long term transportation system development using the following approach:

a) Projected 2035 population and employment were used to identify residential and non-residential land needs for the next 30 years, which were used to identify baseline system improvements that would be needed assuming current development patterns held into the future.
b) Remaining undeveloped areas within the RUSA not needed to meet Year 2035 development demands were evaluated to determine, if market preferences, ownership patterns, and infrastructure costs shift the direction of growth over time, what roadway infrastructure would be needed in those areas to meet potential travel demand needs.

c) Beyond the RUSA but within the UIA, generalized corridor protection needs were identified and an assessment was conducted to evaluate the potential traffic impact that could result from development of lands in the UIA outside of the RUSA. The purpose of this assessment was to more definitively define right of way protection needs within the RUSA area that could result from the development of lands in the UIA.

d) The overall size of a 100-year UIA was established by studying historic growth of the City in terms of land area expansion, adjusting for unusual or one-time expansion events such as annexation of the Rochester Airport. Based on this analysis, it was estimated that a total of 50 square miles would be a reasonable working estimate of expansion needs for the next 100 years, including undeveloped lands in the current RUSA. An analysis of watersheds sewer service feasibility and other potential development constraints was completed to define the final boundary of the UIA. Other factors, such as lands in the Kalmar Orderly Annexation Areas outside of the RUSA, were also accounted for in this analysis.

Analysis of the UIA helped ROCOG identify the need for and location of arterial roadway system improvements, and potential future traffic volumes on these corridors if development eventually occurred in the UIA. County Road 104/60th Avenue was chosen as part of the outer expressway beltway system in the ROCOG Long Range Transportation Plan because the use of the UIA for system development and forecasting purposes showed this corridor to be appropriately located to serve the future development pattern with the desired spacing and connectivity between other major arterial roadways due to its location between CSAH 22 and CSAH 3 and its connections to Trunk Highways 14 and 52 (via CSAH 14). 50th Avenue NW and 70th Avenue West have similar spacing to CR 104/60th Avenue between other north/south arterials; however, they lack the connectivity to TH 14 and TH 52.

F. TRAFFIC AND SAFETY

Existing traffic volumes along the CR 104/60th Avenue corridor were obtained from Mn/DOT's 2002 Olmsted County Traffic Volume maps and 2006 Olmsted County traffic counts. ROCOG supplied future traffic forecasts developed for 2035 and 2050. Crash data from 2001 to 2005 was obtained from Mn/DOT. The traffic volume and crash data will assist in identifying existing travel patterns and safety issues to ensure the proposed design solution addresses traffic and safety concerns in the region.

1. Traffic

2004 average annual daily traffic volumes for the segment of TH 14 intersecting CR 104 were 19,200. Traffic volumes on the segment of CSAH 4 intersecting CR 104/60th Avenue were 3,800 east of CR 104 and 2,650 west of 60th Avenue in 2004. Olmsted County conducted traffic counts in September 2006 for the corridor. Traffic

volumes from the 2006 count ranged from 425 near the north end of the corridor, to 3210 north of TH 14 near 14th St NW.

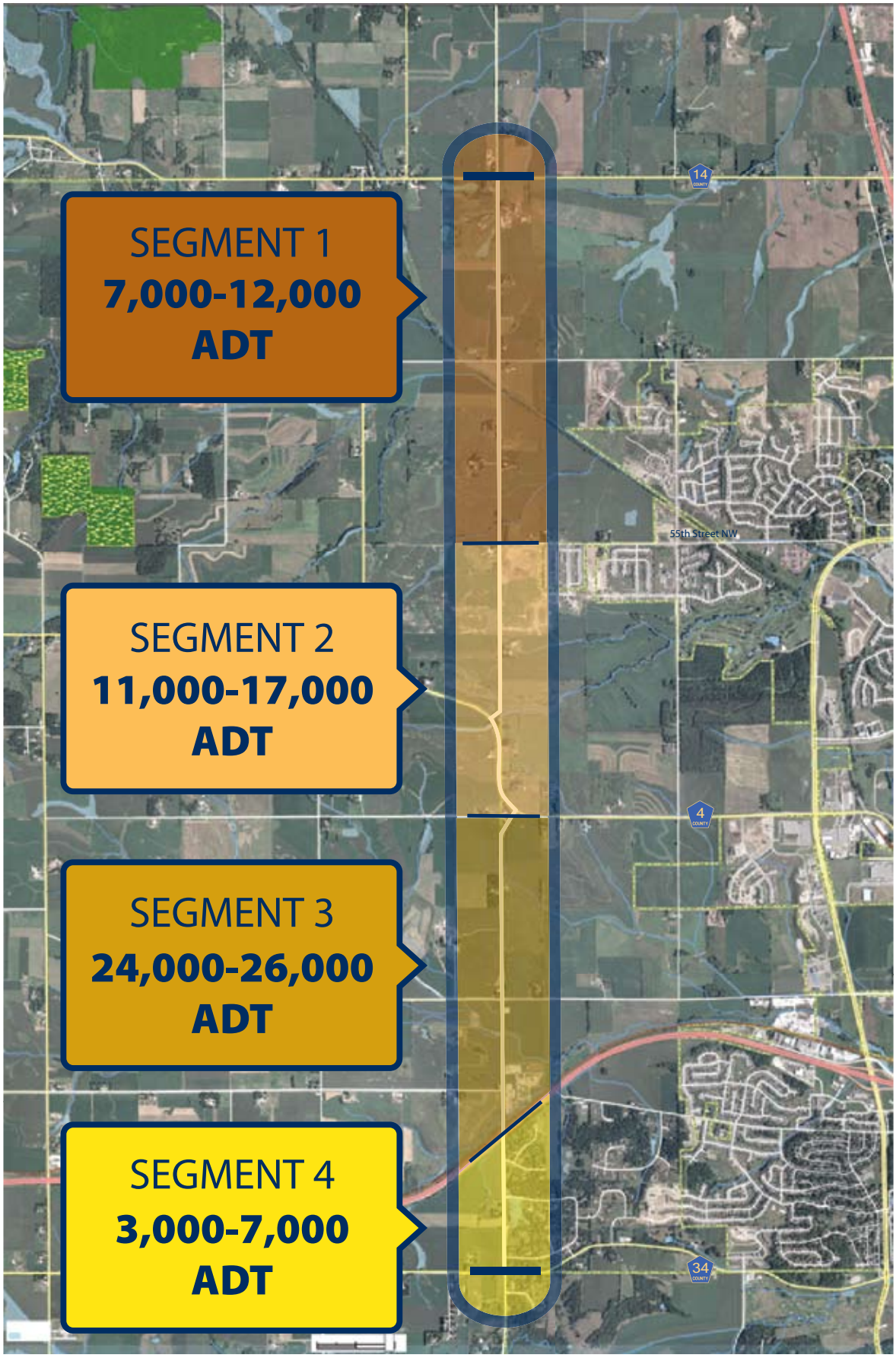
ROCOG supplied future traffic forecasts for 2035 which support the ROCOG Long Range Transportation Plan (see Figure 5). The 2035 forecasts showed the following volume ranges along the corridor:

- Segment 1 (CSAH 14 to 55th Street): 7,000 to 12,000 ADT
- Segment 2 (55th Street to the South leg of CSAH 4): 11,000 to 17,000 ADT
- Segment 3 (South leg of CSAH 4 to TH 14): 24,000 - 26,000 ADT
- Segment 4 (TH 14 to CSAH 34): 3,000 to 7,000 ADT

ROCOG also supplied future traffic forecasts for 2050. These forecasts reflect 30 years after proposed construction (2020) of the corridor. 2050 forecasts show the following traffic volume ranges along the corridor:

- Segment 1 (CSAH 14 to 55th Street): 11,000 to 22,000 ADT
- Segment 2 (55th Street to the South leg of CSAH 4): 19,000 to 28,000 ADT
- Segment 3 (South leg of CSAH 4 to TH 14): 35,000 - 37,000 ADT
- Segment 4 (TH 14 to CSAH 34): 11,000 to 13,000 ADT

Based on the future traffic forecasts, lane needs were identified along the corridor in the ROCOG Long Range Transportation Plan and Olmsted County's 60th Avenue/CSAH 14 Corridor Management Plan. These plans identified a four-lane arterial roadway along the majority of the CR 104/60th Avenue corridor. Due to the wide range in volumes along the corridor, additional capacity needs (i.e., six-lanes) may be required near higher volume areas such as the TH 14 intersection.



2035 FUTURE TRAFFIC VOLUME FORECAST

Figure 5

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

2. Safety

Crash data was obtained from Mn/DOT and crashes from 2001 to 2005 were reviewed to determine any safety issues. The crash data indicates no significant safety issues along the corridor at this time. However, it is important to note that the existing geometric deficiencies have the potential to cause safety issues in the future as traffic volumes on this roadway continually increase. The majority of crashes occurred at major intersections along the corridor such as at CSAH 14, CSAH 4, TH 14 and CSAH 34. Several of these crashes appear to reflect design deficiencies as they occur near sharp curves or skews related to intersections. Sixty-seven percent of the crashes occurred at the CR 104 intersection with TH 14. This intersection accounted for 36 of the 54 crashes within the five year period. There were no fatalities reported during this period. The majority of crashes were either property damage (68 percent) or non-incapacitating injury (19 percent).

The ROCOG Long Range Transportation Plan included a countywide analysis of crash rates for road segments and intersections for the period of 1996 to 2001. County Road 104 from CSAH 4 to TH 14 was found to have average crash rates, while CSAH 4 from CR 104 to 60th Avenue had below average crash rates. County Road 104 south of TH 14 to CSAH 34 was found to have above average crash rates. At the writing of this document, Olmsted County was in the process of completing a Road Safety Audit (RSA) at the intersection of CSAH 34 and CR 104 which is the south end of the section found to have high crash rates south of TH 14.

Preliminary data from the RSA noted there were four crashes in this location within the past six years. Three of the four crashes were right angle crashes. In two of the three right angle crashes that occurred, the driver failed to stop at the intersection. The following recommendations were presented for the CSAH 34/CR 104 intersection as part of the Road Safety Audit:

- Extend the no passing zone through the intersection in both directions
- Provide an intersection advisory for eastbound CSAH 34
- Install intersection lighting
- Trim the vegetation in the northeast quadrant of the intersection to improve sight distance
- Conduct a traffic study with pneumatic tubes to determine if traffic is stopping at or rolling through intersection
- If traffic patterns change in the future, flip the stop condition to CSAH 34.

Another important factor in the safety of this corridor is its intersection with the DM & E Railroad corridor. The DM & E Railroad runs parallel to TH 14 and crosses the CR 104 corridor just north of TH 14, approximately 100 feet off the TH 14 mainline. The DM & E Railroad is a Class II regional railroad operating approximately 1,100 miles of track, principally in Minnesota and South Dakota. Currently, approximately three trains per day, varying greatly in length, travel through the project area.

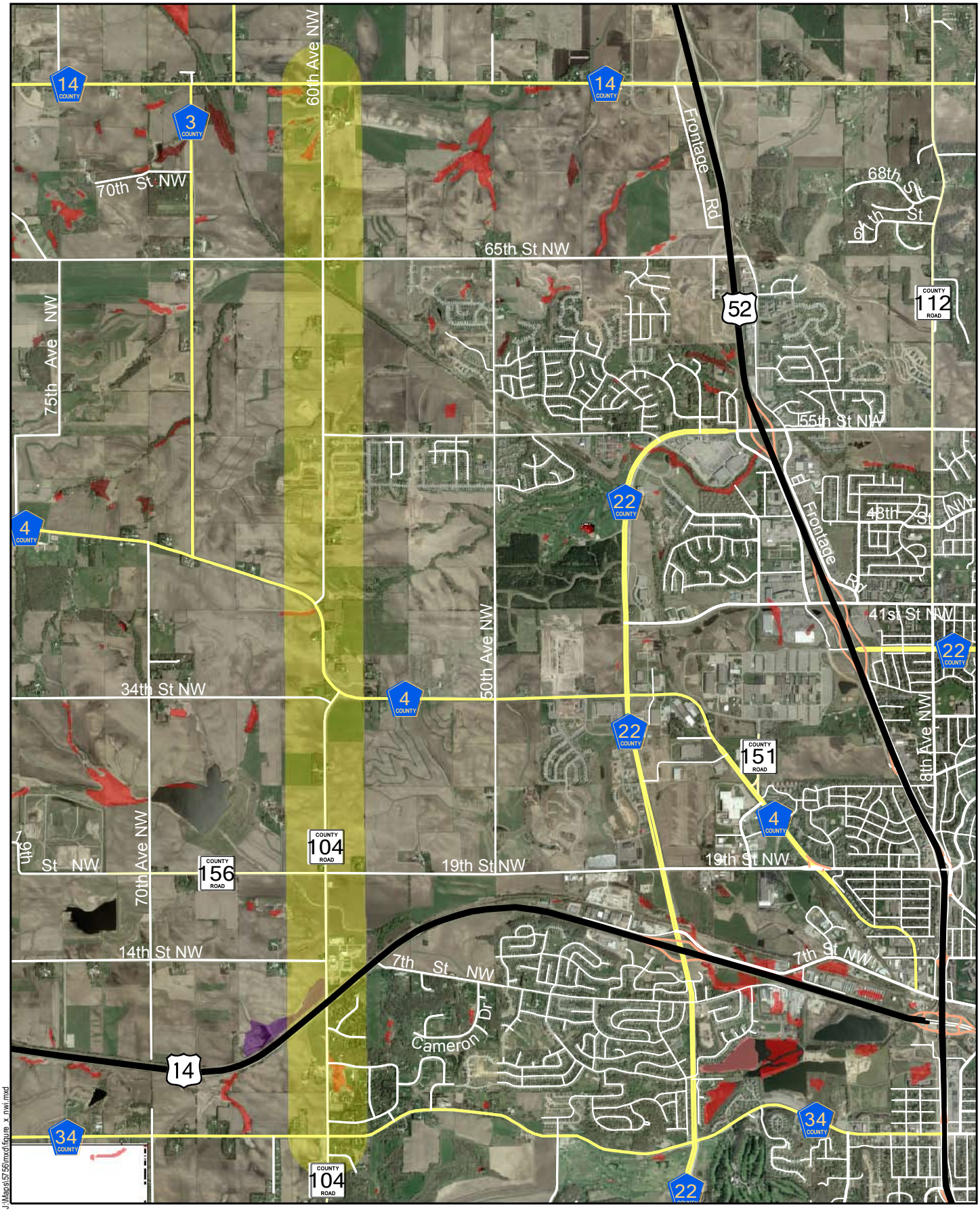
G. SOCIAL, ENVIRONMENTAL, ECONOMIC AND ENERGY CONCERNS

The SEE issues will be addressed in greater detail during the EA process, which is estimated to take place from February 2007 through August 2007. Additional information will be obtained through agency coordination and the public input process. Preliminary information on archaeological sites, natural areas, wetlands and floodplains, parks and trails, utilities, and population growth in the project area has been obtained and is summarized below:

- A Cultural Resource Phase I Survey will be conducted, with oversight from Mn/DOT Cultural Resources Unit, during the Environmental Assessment.
- Information on wetlands and floodplains within the project area was collected from FEMA and MnDNR (see Figure 6) in order to conduct a planning-level review. The National Wetlands Inventory map identified potential wetlands within the project area. Forested wetlands are located sporadically throughout the corridor. A shallow marsh wetland is located near the intersection of St. Mary's Drive and CR 104, south of TH 14.

  The CR 104/60th Avenue corridor is located within an unmapped floodplain area and therefore FEMA floodplain boundaries have not been identified. In unmapped areas, Olmsted County relies on soils information to delineate floodplain boundaries and establish development requirements on these lands. There are tributary streams crossing the corridor that are potential floodprone areas where it will be important to ensure that these waterways continue to be maintained. One of the drainage courses is the outlet to flood control structures KR-3 and KR-7 located near CR 156 in sections 25 and 26 of Kalmar Township. These drainage courses are shown on the Olmsted County Public Waters Inventory Map as unnamed tributary streams to Cascade Creek. In addition, two other unnamed tributary streams are located in close proximity to this outlet and are also shown on the Olmsted County Public Waters Inventory Map. Rochester has prepared a Master Stormwater Management Plan that encompasses a portion of this area which will be reviewed to determine what type of stormwater control is recommended, consistent with anticipated urban development and proposed roadway improvements.

- The Minnesota Natural Heritage Database was reviewed to identify any Minnesota threatened and endangered species (see Figure 7). There were no threatened and endangered species identified within the project area. A small area of vascular plants was identified west of the project area, along the TH 14 corridor's intersection with 70th Avenue.
- The Douglas State Trail is a 12.5 mile, multiple use state trail developed on an abandoned railroad grade. One treadway is paved for bicyclists, hikers, in-line skaters and skiers; the other is a natural surface for horseback riders and snowmobilers. The trail begins in northwestern Rochester, travels through the small town of Douglas (for which the trail is named) and terminates in Pine Island.



J:\Maps\5756\mxd\figure_x_nwi.mxd

WETLANDS

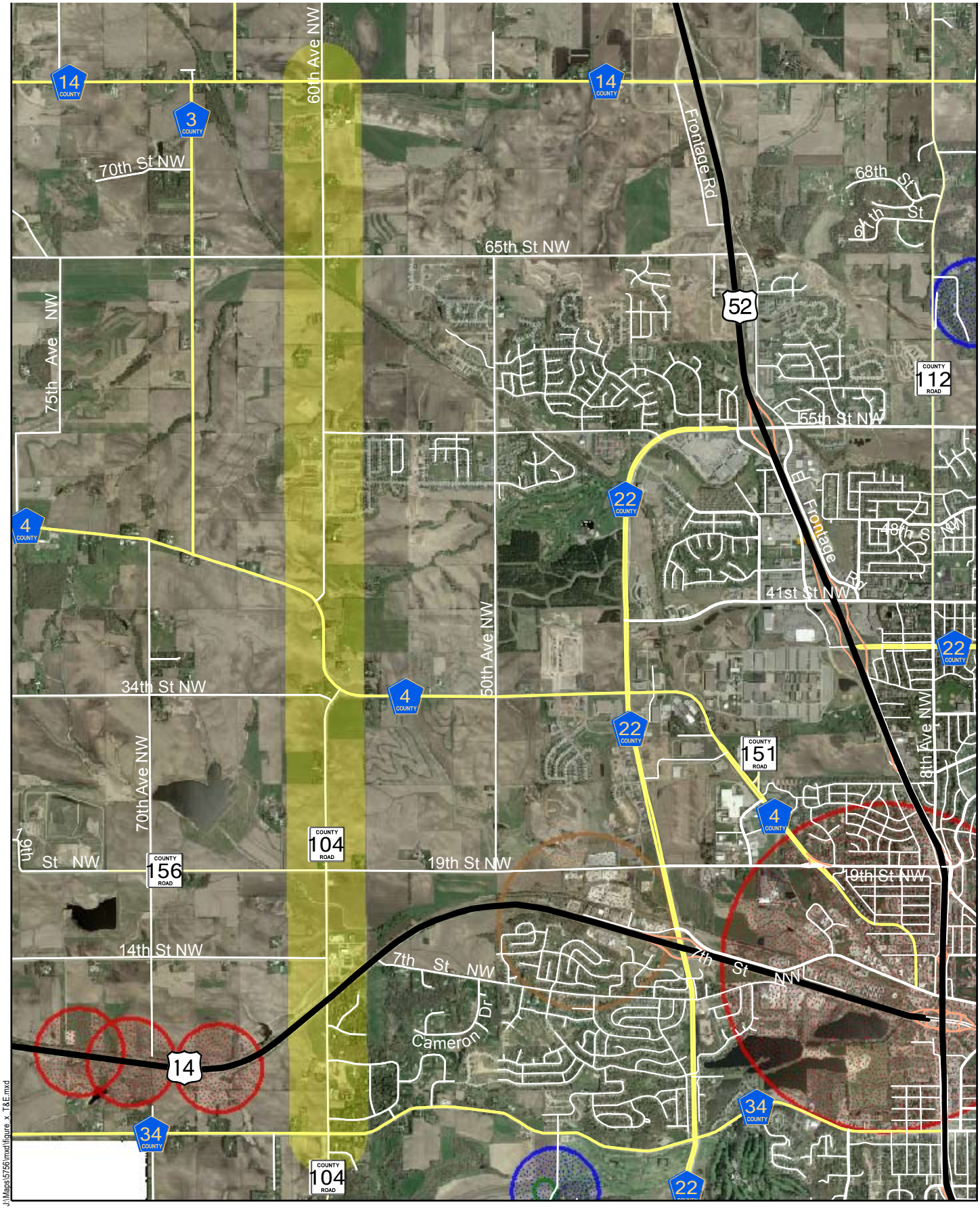
CR 104/60th AVE NW PRE-NEPA
CORRIDOR SUMMARY REPORT
Olmsted County
0065756 05/23/07

CR 104 / 60th Ave Corridor
BWSR Mitigation Site
Littoral
Limnetic
Unconsolidated Bottom
Shallow Marsh / Fresh Meadow
Forested Wetland
Shrub Scrub
Rocky Shore

0 0.5 1 Miles

N

Figure 6



J:\Maps\5756\mxd\figure x_T&E.mxd

THREATENED AND ENDANGERED SPECIES

Figure 7

CR 104/60th AVE NW PRE-NEPA
CORRIDOR SUMMARY REPORT
Olmsted County
0065756 05/23/07

- CR 104 / 60th Ave Corridor
- Vertebrate Animal
- Community
- Invertebrate Animal
- Nonvascular Plant, Fungus
- Vascular Plant
- Animal Assemblage
- Geologic

0 0.5 1 Miles

N

The Douglas State Trail crosses the CR 104/60th Avenue corridor approximately 500 feet south of 65th Street. The trail currently crosses the corridor at a 45 degree angle to the roadway. A Section 4(f) evaluation will be prepared to address impacts to the Douglas State Trail, potential avoidance measures (i.e. grade separation) and replacement requirements resulting from the Section 6(f) conversion will also be addressed in the EA.

- Demographic information for the project area will be reviewed to identify potential low income and/or minority populations and the potential for disproportionate impacts during the EA process.

- A natural gas substation owned by Aquila Corporation and a high-voltage transmission line owned by SMMPA are currently located near the CR 104/60th Avenue corridor The high-voltage transmission line runs parallel to TH 14 between the highway and the railroad. The gas substation is co-located in the southeast quadrant of the CR 104 and 19th Street intersection along with an electrical substation owned by RPU. Accommodation of these utilities will be a factor in the ultimate design of the CR 104/TH 14 intersection.

RPU is evaluating transmission line expansion options in Northwest Rochester and has engaged in a routing study. RPU owns 50 acres near the existing natural gas substation at CR 104 and 19th Street. Expansion of the site to accommodate generation and load serving capabilities is expected. The substation will require two transmission lines built on separate structures and preferably in completely separate corridors. RPU will investigate acquiring right-of-way along the following routes to accommodate these future transmission lines:

  - 1st Circuit – planning to exit north from the substation and run east along 19th Street for approximately ¾ mile, then heads northeast around the Flood Control reservoir to 50th Avenue. The route ends near the intersection of 50th Avenue and CSAH 4.

  - 2nd Circuit – planning to exit north from the substation and run along CR 104/60th Avenue to the Douglas State Trail and then turns southeast on Douglas State Trail and runs to the Northern Hills substation (55th Street and 50th Avenue intersection). The route could also branch west on CSAH 4 to CSAH 3 and then run north on CSAH 3 to 65th Street.

In addition to the information discussed above, additional data and information on existing conditions will be collected on an ongoing basis. Additional information on development plans, growth concepts, and social and environmental concerns will be discovered through agency coordination and the public input process.

III. CORRIDOR STUDY FRAMEWORK

A. PROJECT GOALS AND OBJECTIVES

Early in the study process the Project Steering Committee identified the following project goals and objectives for the development of this western arterial roadway.

Project Goal: To confirm the location and general design for a strategic urban arterial facility that will serve the future access and mobility needs in planned growth areas of west Rochester, consistent with the intent of previous studies and plans (i.e, 60th Avenue NW/CSAH 14 Expressway Corridor Management Plan and the ROCOG 2035 Long Range Transportation Plan), and to complete the necessary environmental documentation for the corridor that will support adoption of right of way preservation mechanisms including an Official Right of Way Map

Project Objectives:

1. Confirm the location for a future north-south strategic urban arterial consistent with the vision and function identified in the ROCOG *2035 Long Range Transportation Plan*, which includes providing connectivity and continuity between key transportation corridors and future urbanizing areas in the region with a system of properly spaced urban arterial roadways in accordance with accepted planning principles.

2. Coordinate the highway corridor study with the study of needs for a major electrical transmission line on the west side of Rochester proposed by Rochester Public Utilities, to minimize public investment and impact through, where feasible, the joint usage of corridors for transportation and electrical service.

3. Develop a plan addressing long-term safety needs along the future corridor that will eliminate unsafe roadway geometrics, correct existing roadway deficiencies, provide appropriate planning for major intersection crossings, and provide for safe non-motorized travel.

4. Plan a facility with adequate capacity to serve the transportation demand that will be generated by expected and planned land use development on the west side of Rochester.

5. Plan a future facility that accommodates multi-modal needs as identified in the ROCOG *2035 Long Range Transportation Plan*.

6. Identify and prepare an environmental document that meets state and federal rules and regulations.

7. Establish future right-of-way needs, identify land use and zoning strategies supporting implementation of the preferred plan, and identify steps necessary to protect areas identified for future roadway infrastructure with Official Mapping.

8. Obtain the consent of the project partners on a preferred alternative that will be utilized in implementing near term corridor preservation strategies and actions.

B. PURPOSE AND NEED FRAMEWORK

Although the full purpose and need statement will be developed in the Environmental Assessment phase of study, the Project Steering Committee did identify a purpose and need framework outlining the basic purpose for the project and needs in the western area of Rochester. The following outlines the purpose and need framework identified as part of this corridor study.

The purpose of the County Road (CR) 104/60th Avenue NW Corridor Preservation Study is to identify and plan for a safe, reliable and efficient strategic urban arterial transportation route west of the City of Rochester for both motorized and non-motorized travel that will serve an expanding urban area centered on Rochester as part of a highly connected arterial highway system. The primary transportation needs this project must address include:

- development of a corridor that can serve a high level of traffic demand at a high level of mobility;
- is well spaced in relation to other urban arterial facilities to provide an effective network for moving regional traffic and major intra-urban traffic flows efficiently; and
- provides significant system continuity and connectivity.

In addition, this facility needs to be able to accommodate future multi-modal transportation opportunities for users, a high level of safety features and should be designed with appropriate limitations on access to facilitate its function. In the design of the project, impacts to the area's social, economic, cultural, and natural environment should be avoided where possible, and minimized or mitigated where unavoidable.

Preliminary project area issues and needs are summarized below to provide a basis for establishing the purpose and need. The purpose and need statement serves as a basis for developing and evaluating alternatives, and for the selection of a preferred alternative. A clearly defined purpose and need statement allows project decision-makers to identify alternatives that are reasonable, practical, and that best respond to the project purpose. Additional elements may be included in the final purpose and need statement that will be part of the Environmental Assessment, as other issues may be identified during the project process.

System Linkage
The ROCOG 2035 Long Range Transportation Plan identified the need for a future outer expressway beltway system around the City of Rochester. The CR 104/60th Avenue corridor was identified as part of this outer beltway system due to its importance in connecting local area trips to the major thoroughfare system as well as serving as a key linkage in providing circulation within and around the Rochester urbanized area. Its connectivity between TH 14 and CSAH 14 (and easterly to TH 52) and its spacing between CSAH 22 and CSAH 3 were driving factors in the designation of this corridor as a strategic arterial and part of the future outer beltway system surrounding the Rochester Urban Service Area (RUSA).

Safety
Crash data was obtained from Mn/DOT and crashes from 2001 to 2005 were reviewed to determine any safety issues. It is important to realize that due to the low volumes currently on this corridor, there are no significant safety issues at this time. However, due to the future increase in traffic volumes on this corridor, current safety issues and geometric deficiencies have the potential to become problematic in the future.

Under existing conditions, the majority of crashes occurred at major intersections along the corridor such as at CSAH 14, CSAH 4, TH 14 and CSAH 34. Several of these crashes appear to reflect design deficiencies as they occur near sharp curves or skews related to intersections. Sixty-seven percent of the crashes occurred at the CR 104 intersection with TH 14. This intersection accounted for 36 of the 54 crashes within the five year period. There were no fatalities reported during this period on any segment of the corridor. The majority of crashes were either property damage (68 percent) or non-incapacitating injury (19 percent).

Roadway Deficiencies
The following existing roadway deficiencies and/or geometric and safety issues were identified along the corridor and as mentioned previously will become problematic as traffic volumes along the corridor increase:

- Poor sight lines at the intersection of TH 14 and CR 104 due in large measure to the intersection skew
- Proximity of the DM&E railroad corridor and Southern Minnesota Municipal Power Agency transmission line to the at-grade intersection of TH 14 and CR 104
- Sweeping curves on both CR 104 and CSAH 4 at the intersection of these two roadways
- Poor sight lines at the intersection of CSAH 4 and CR 104 intersection due to intersection skew
- Configuration of intersecting local roadways and intersection control
- Douglas Trail connection and skewed intersection with 60th Avenue
- 60th Avenue/CSAH 14 intersection located on a crest vertical curve with poor sight lines

- Aggregate surface near north end of corridor

In addition to the above roadway deficiencies, the DM& E Railroad has the potential for significant safety issues if train traffic volumes increase as a result of the proposed Power River Basin Project . The Powder River Basin Project has the potential to significantly increase train traffic in the Rochester area. Currently, approximately three trains per day, varying greatly in length, travel through the project area. If the Powder River Basin Project proceeds, the potential for up to 30, mile-long unit coal trains could be traveling through the project area daily.

Capacity
As a future strategic arterial, CR 104/60th Avenue's role in the roadway system will change. According to the ROCOG Long Range Transportation Plan, a strategic arterial is a roadway with regional importance, carrying high volumes of higher speed traffic, including through traffic, with limited service to abutting land and design characteristics such as medians and limited traffic signalization to enhance traffic flow.

ROCOG supplied future traffic forecasts for the corridor for 2035 and 2050. The 2035 forecasts showed volumes ranging from up to 12,000 average daily traffic (ADT) near the north end of the corridor to 26,000 ADT along the south end of the corridor near TH 14. As the forecasts show, TH 14 has a major influence on the range of traffic volumes associated with this corridor. Again, the emerging urban development in the area in addition to the corridor's connectivity between TH 14 and TH 52 (via CSAH 14), as well as its spacing between other important north-south arterial corridors such as CSAH 22 and CSAH 3, will require increased capacity and mobility along this roadway in the future.

Social and Economic Development
The City of Rochester has been one of the fastest growing mid-sized communities in the Upper Midwest within the last decade. From 1990-2000, Rochester grew 50 percent faster than the state of Minnesota and 30 percent faster than the national growth rate. The 2000 population for Olmsted County was 124,277 and is projected to be 175,000 in 2035, a 41 percent increase. In addition, Olmsted County also serves as a regional employment/output center. The Rochester MSA accounts for 88 percent of the regional output and employment in the area. This is due largely to the presence of the Mayo Medical Center and a significant computer technology industry anchored by IBM- Rochester. The Bureau of Economic Analysis 2000 showed an employment base of 101,468 in Olmsted County. ROCOG's 2035 Long Range Transportation Plan estimated that number would increase by 50 percent (or 152,100) by the year 2035.

The growing population and employment will have an impact on the transportation system in the City of Rochester and Olmsted County. The labor force in the Rochester MSA is drawn from a significant geographic area that extends well beyond the boundary of Olmsted County. Commuting has been a substantial factor in

meeting the needs of employers in Olmsted County and has been growing steadily over the course of the last 35 years. This trend is expected to continue into the future as well as evidenced by ROCOG's traffic forecast model which predicts an increase in vehicle miles traveled (VMT) and vehicle hours traveled (VHT) by 92 percent and 102 percent, respectively by the year 2035.

Project Status
The City of Rochester and the ROCOG completed a 60th Avenue/CSAH 14 Corridor Management Plan in 2003. The purpose of the corridor management plan was to establish guidelines to direct future private and public sector development along the corridor so that the risk of creating obstacles to the future upgrading of the corridor to a strategic arterial could be minimized. This policy recognized that growth is quickly emerging in this area and the critical time for corridor preservation is now. Strategies including adoption of an Official Map delineating anticipated right of way needs, and other zoning strategies to preserve the future right of way are anticipated.

IV. CORRIDOR STUDY AREA SELECTION/JUSTIFICATION

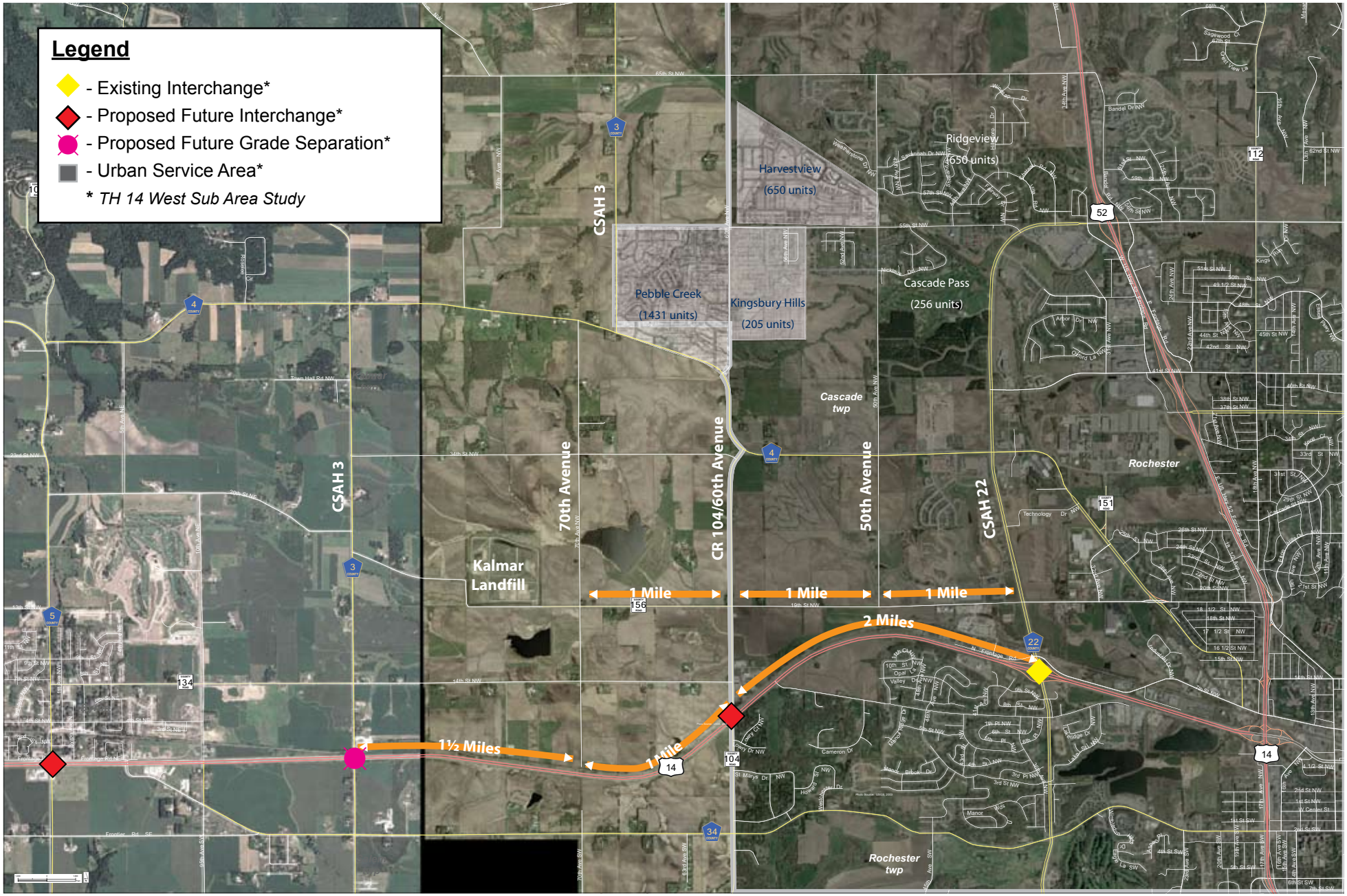
The following is a summary of the key planning factors that address the feasibility of 50th Avenue NW, CR 104/60th Avenue NW and 70th Avenue NW as the preferred location for a north-south strategic urban arterial corridor on the west side of Rochester. Figure 8 shows the location of these three corridors in reference to the Rochester urban service area and in relationship to each other.

A. 50TH AVENUE NW

50th Avenue NW is located approximately one mile east of the CR 104/60th Avenue NW alignment. Key factors relative to the 50th Avenue NW corridor that have been identified include:

- **Network Continuity/Connectivity:** 50th Avenue NW fails to provide urban arterial network continuity or connectivity south of TH 14. Providing such continuity would impose major impacts to existing residential areas, a significant factor deemed by local agencies to be a fatal flaw to this alternative.
- **Arterial Spacing:** The ROCOG 2035 LRTP recommends major high-speed and high capacity roads in developing areas be spaced every two to three miles[1]. Since 50th Avenue NW is located approximately one mile from the existing high speed/high capacity corridor of CSAH 22/West Circle Drive, it would not meet ROCOG's arterial spacing guideline.
- **Interchange Spacing:** The location of 50th Avenue NW approximately one mile west of the TH14/CSAH 22/West Circle Drive interchange would be inconsistent with the stated guideline found in the TH 14 West Sub Area

[1] ROCOG LRTP, Chapter 4B page 4-26.



CORRIDOR SPACING

Figure 8

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

Study report, which called for a minimum of two-mile spacing of interchanges along TH 14 in this area.

- **Geometric Issues:** The development of an intersection/interchange if 50th Avenue NW was extended to intersect with TH 14 would run into design issues related to the skew between the two roadways that would be amplified by the curvature of the road around the Country Club Manor area.

- **Interchange Design Issues:** While not a fatal flaw, this area shares similar design issues with the 60th and 70th Avenue NW locations related to skew issues, proximity of railroad line to TH 14, and presence of an overhead high-voltage transmission lines parallel to TH 14 that would affect future interchange design, along with floodplain issues.

- **Transportation Utility:** The existing and planned development along 50th Avenue NW, along with the corridor's proximity to CSAH 22/West Circle Drive, lends its role to serve primarily local traffic. However, the desired function of the western beltway is to have a high level of mobility to serve both local and through traffic.

- **Land Use:** 50th Avenue NW is currently experiencing development pressure in the proximity of 55th Street NW to 65th Street NW. The recent development in this area is not consistent with LRTP's direction of the need for a high mobility, limited access beltway corridor. The existing residential developments in the area have several accesses onto 50th Avenue NW which would degrade the desired function of the expressway corridor. In addition, several of the recent developments are built in close proximity to the existing roadway. It is likely that establishing the right of way needed for an expressway corridor would require numerous property takings.

- **Consistency with Local Plans:** The ROCOG 2035 LRTP shows 50th Avenue NW as a major urban arterial, defined as a route that carries lower volumes, serving trips of shorter distances, with a higher degree of property access. This designation is not consistent with the function needed to serve as a western beltway corridor to the Rochester urban service area. In addition, using 50th Avenue NW as the beltway corridor is not consistent with the major utility service plans (RPU and telecommunications).

- **Modal Relationships:** 50th Avenue NW is an important corridor for local transit service. 50th Avenue NW does currently have connections to the Douglas Trail as well as an overhead pedestrian bridge for the trail over 50th Avenue NW. Currently planned upgrades to 50th Avenue NW from 51st Street NW to CSAH 4 include dual off-road pedestrian/bicycle paths as well. In addition, bus transit service is currently available on 50th Avenue NW.

B. CR 104 60TH AVENUE NW

CR 104/60th Avenue NW is located two miles west of CSAH 22/West Circle Drive. Key factors that have been identified relative to this corridor are:

- **Network Continuity/Connectivity:** CR 104/60th Avenue NW provides the best opportunity to establish future urban arterial connectivity and continuity between key transportation corridors on an existing alignment that can be extended to the north and south to provide the system linkages envisioned by the ROCOG LRTP;
- **Arterial Spacing:** This location meets desired spacing guidelines between major arterial corridors as established in the Long Range Transportation Plan and provides a complementary north/south route to CSAH 22/West Circle Drive that will serve to limit the growth of traffic on CSAH 22 and the routes (19th St NW, CSAH 4, 41st St NW) that feed traffic into CSAH 22 more effectively than a strategic urban arterial along 70th Avenue NW would.
- **Interchange Spacing:** The TH 14 West Subarea Study recommended a two-mile spacing of interchanges along TH 14. CR 104/60th Avenue NW is approximately two miles west of the existing CSAH 22/West Circle Drive interchange, thereby meeting this guideline. In addition, the TH 14 West Sub Area Study recommended an interchange at the CR 104/60th Avenue NW interchange with TH 14.
- **Geometric Issues:** The intersection of CR 104/60th Avenue NW and TH 14 is skewed. The skew in addition to the proximity to the railroad and overhead power lines create design challenges for an interchange at this location.
- **Interchange Design Issues:** The location is similar to 50th Avenue NW and 70th Avenue NW as it relates to design issues created by the location and proximity of the railroad and the overhead transmission lines. It also crosses TH 14 at a skew, has a Board of Water and Soil Resources (BWSR) Wetland Mitigation Site in the northwest quadrant of CR 104/TH 14 intersection and a large rural residential development in the southeast quadrant of the same intersection.
- **Transportation Demand:** The location of CR 104/60th Avenue NW located within the planned Rochester urban service area will provides service for intra-urban trips from lands on both sides of the corridor which is a function the 70th Avenue NW, being located outside or along the outer boundary of the urban service, is unlikely to provide. This effect is documented in Figure 9a which illustrates the results from the analysis of travel patterns indicated by the regional traffic model.
- **Land Use:** Existing land use along the corridor is primarily rural with the exception of developing residential areas near 55th Street NW and 65th Street NW, a small industrial park near TH 14 and a large rural residential development south of TH 14. Development of an expressway beltway corridor along CR 104/60th Avenue NW corridor would be consistent with

existing and planned land use. The existing developing areas have been planned to limit access to the corridor. The treatment of the CR 104/TH 14 intersection may have some impacts to the industrial and rural residential areas in close proximity to TH 14.

- **Consistency with Local Plans:** CR 104/60th Avenue NW is shown as a strategic urban arterial roadway in the ROCOG LRTP. This corridor is also identified as part of an strategic beltway corridor planned for Rochester's urbanized area. The development of this corridor as a strategic urban arterial would improve accessibility to planned areas of urban development identified in the LRTP and would promote development within the designated growth area. In addition, utilizing this corridor as the beltway location is also consistent with RPU's planned facility upgrades of major transmission corridor.
- **Modal Relationships:** Upgrading the CR 104/60th Avenue NW corridor is consistent with the intra-urban transit needs of the community. Provisions for accommodations such as park and ride facilities and off-road pedestrian/bicycle paths are consistent with the upgrade of this corridor.

C. 70TH AVENUE NW

70th Avenue NW is approximately one mile west of CR 104/60th Avenue NW or three miles west of CSAH 22/West Circle Drive. Key factors that have been identified relative to this corridor are:

- **Network Continuity/Connectivity:** Establishing urban arterial system continuity and connectivity on 70th Avenue NW south of TH 14 will require the procurement of right of way and development of a facility on an alignment that traverses a planned agricultural protection area that lies a minimum of one mile beyond any planned urban or suburban development area. (See Figure 10) This has the potential to create indirect development impacts in an area planned for protection as a long term rural agricultural area. Establishing connections between the western and southern segments of a planned outer beltway system through this area will require construction on new alignment for some portion of beltway facility, creating significant impacts in a planned agricultural protection area.
- **Arterial Spacing:** Developing 70th Avenue NW as a strategic urban arterial west of CSAH 22 raises concerns relative to the location and spacing of arterial facilities. This facility is located three miles west of CSAH 22/West Circle Drive, along the outer limits of the planned urban service area (See Figure 1). With major urban activity areas all lying east of the corridor, the ability of the corridor to attract any major intra-urban traffic flow, a function of a strategic urban arterial, will be limited, as demonstrated in the completed selected link analysis illustrated in Figure 9b.
- **Interchange Spacing:** As previously noted, the TH 14 West Sub Area Study recommended a minimum of two-mile interchange spacing along TH 14. 70th

Graphic illustrating primary source of trips on alternative corridors under different interchange location assumptions

FIGURE 9

Figure 9a
60th Ave Interchange
Sources of trips on 60th Ave between 14th and 19th St
(from Select Link Analysis)

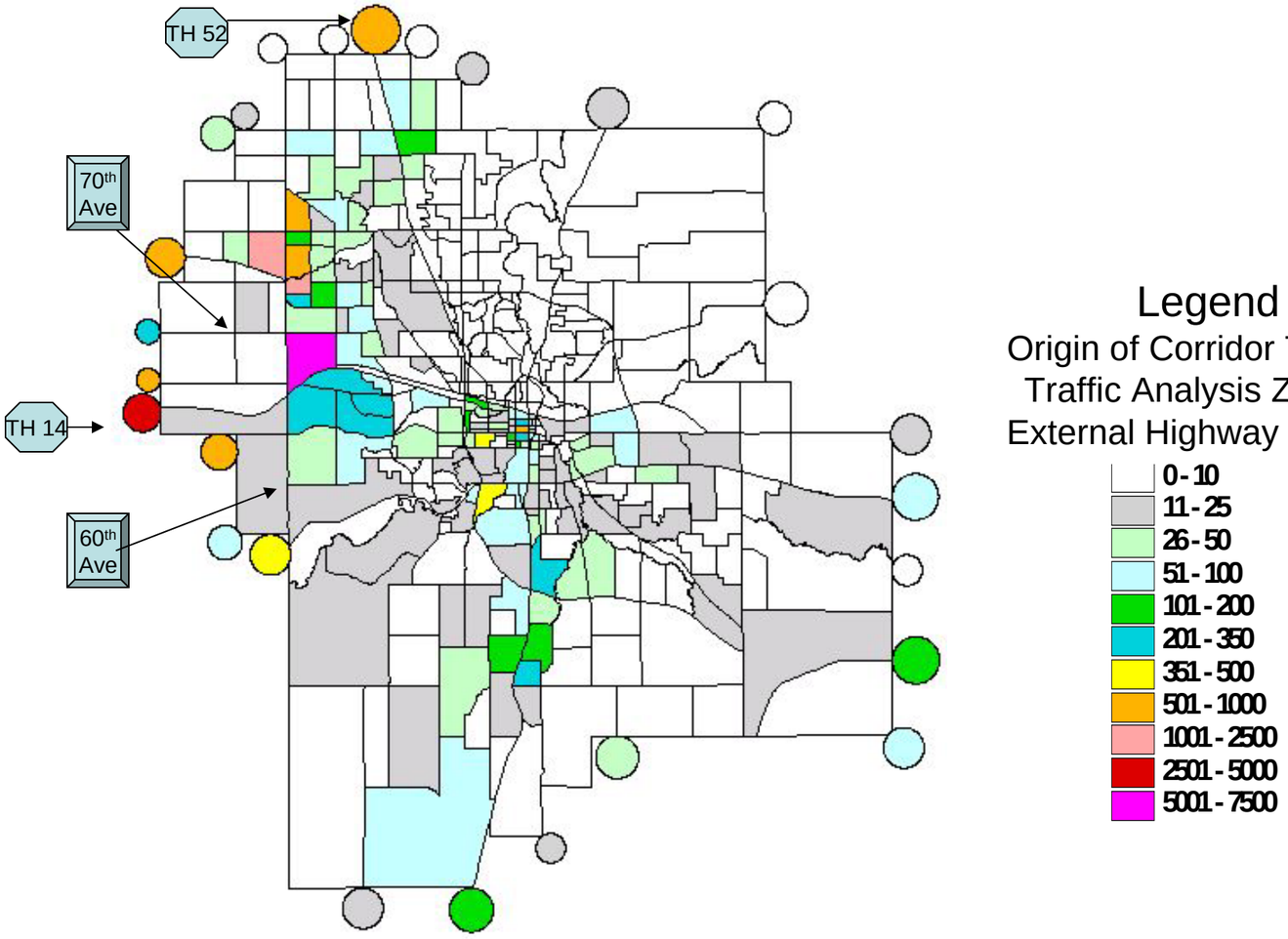


Figure 9a illustrates that the primary source of trips (purple, red & gold polygons) on 60th Ave with an interchange at 60th Ave. Trip service provided to externally generated traffic on TH 14, CSAH 4 and 34 and TH 52 North, but the level of internal traffic served is significantly higher. Also notice that areas in the Rochester CBD and Apache Mall area show up more prominently, indicating the greater role 60th will play in major intra-urban traffic movements as compared to a 70th Ave interchange

Figure 9b
70th Ave Interchange
Sources of trips on 70th Ave between 14th and 19th St
(from Select Link Analysis)

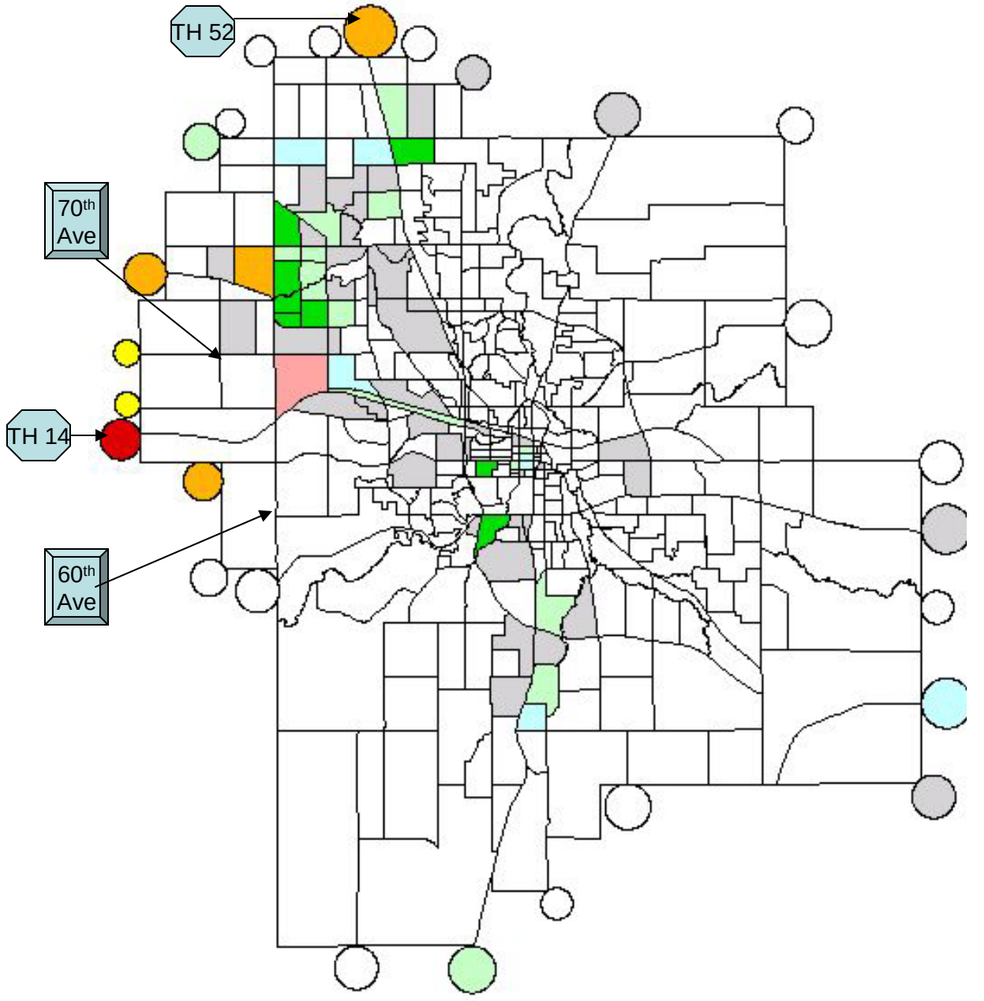
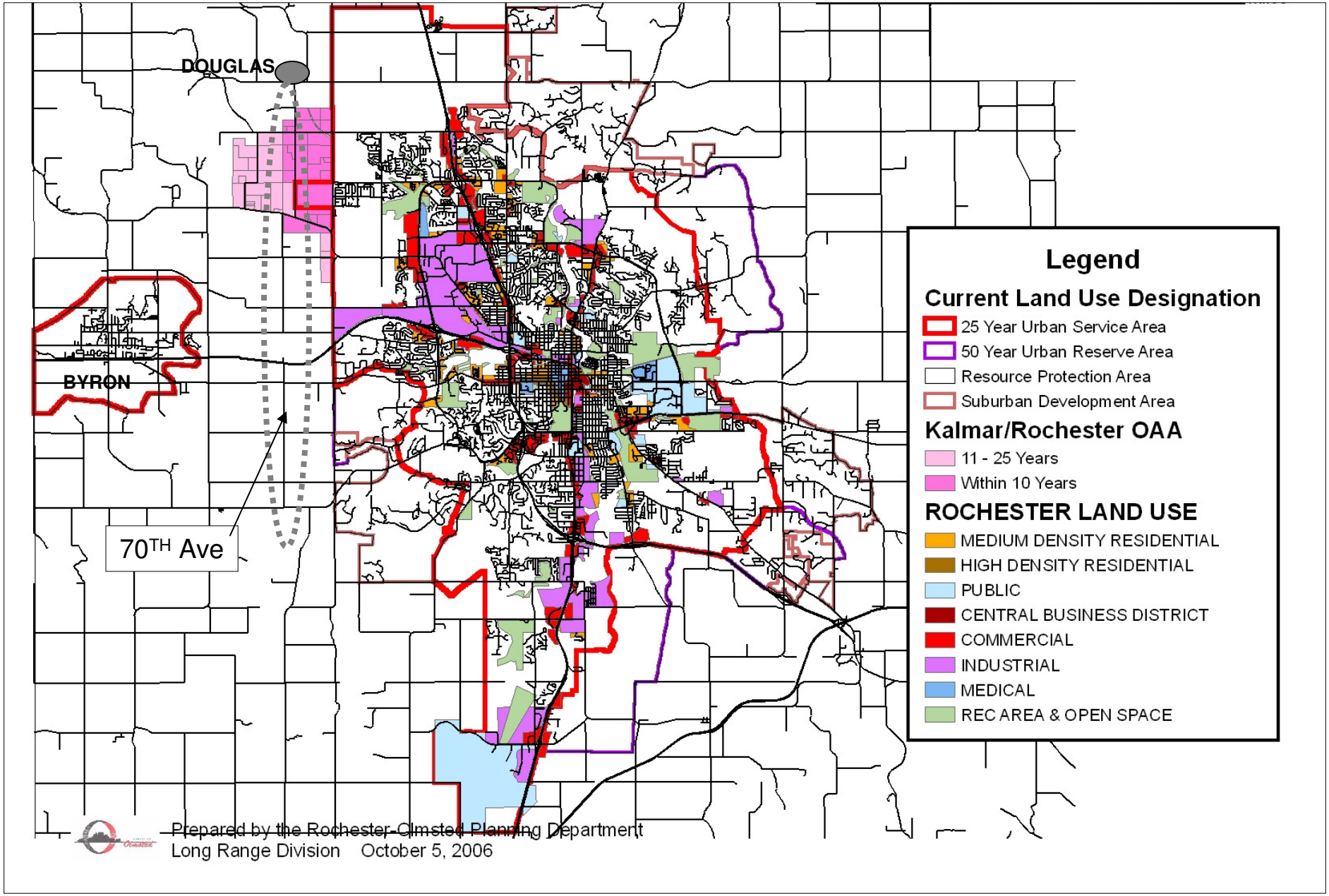


Figure 9b illustrates that the primary source of trips (red & gold polygons) on 70th Ave with an interchange at 70th Ave is externally generated traffic on TH 14, CSAH 4 and 34 and TH 52 North. Very little traffic is generated from internal Traffic Analysis Zone areas along 70th Ave, with internal traffic on the corridor primarily generated from 60th Ave area

FIGURE 10

Relationship of 70th Ave Corridor Alignment to Planned Rochester Urban Service Area

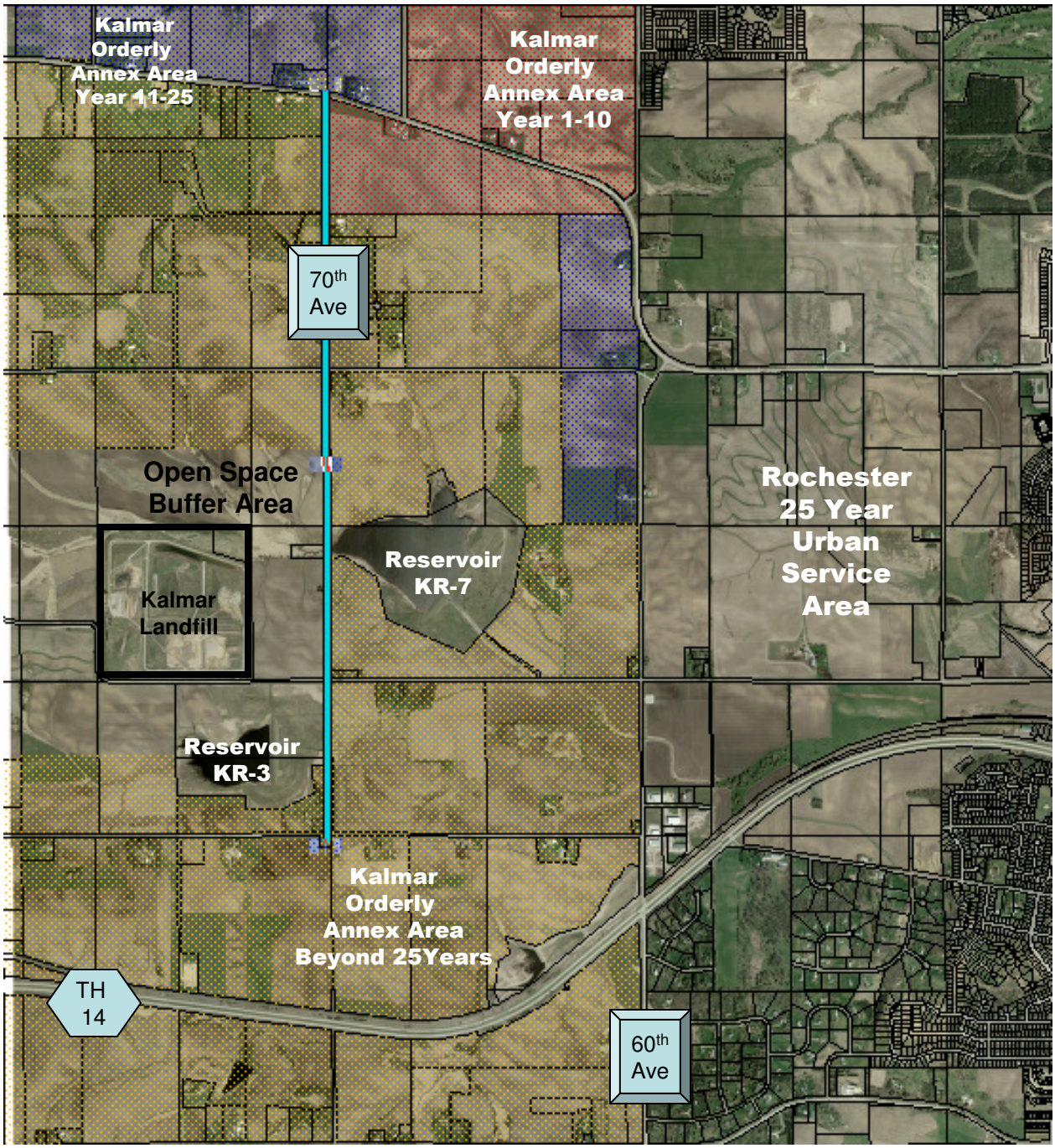


Avenue NW is three miles west of the existing interchange at CSAH 22/West Circle Drive. Therefore, an interchange at 70th Avenue NW would not violate this recommendation; however, the transportation function of the roadway may be less as noted above, therefore, not supporting the investment of an interchange at this location.

- **Geometric Issues:** The intersection of 70th Avenue NW with TH 14 is not skewed; however, the railroad and transmission line proximity to the mainline is similar to the 50th and CR 104/60th Avenue NW intersections with TH 14.
- **Interchange Design Issues:** A potential interchange at 70th Avenue NW has similar design issues to those that exist at 60th and 50th Avenues, including close proximity to railroad, presence of an overhead high-voltage power lines, and a slight (though more limited) skew between the two corridors.
- **Transportation Utilization - Function:** The location of the corridor along the outer boundary of the planned 50-year urban service area for Rochester north of TH 14 and through an agricultural protection area south of TH 14 will limit the usefulness of the facility to serve major intra-urban area movements and relegate its function primarily to serve bypass traffic along with externally generated traffic heading in or out of the urban service on regional arterials including CSAH 4, CSAH 14 and CSAH 34. Service as a beltway connecting planned urban development areas west of 50th Avenue NW with other major nodes of development in the Rochester urban area will be limited due to the indirection of travel (back tracking)created by placement of the facility on the 70th Avenue NW alignment. This effect is illustrated in Figure 9b which highlights the origin of traffic on 70th Avenue when an interchange is provided at that location.
- **Transportation Utilization - Volume:** The location of the 70th Avenue NW corridor north of CSAH 4 attracts a low volume of traffic given it's location relative to major traffic generating areas, raising a question regarding the value of an investment in a strategic urban arterial facility that will see limited use. In the area north of CSAH 4 the corridor will course outside of the planned urban service area and will create indirect impacts on designated rural development areas including the Douglas Rural Service Center. This could lead to undesirable indirect impacts of attracting development to an area not planned for municipal services.

Land Use: The 70th Avenue NW corridor alignment encroaches on major open space land uses in the area between TH 14 and CSAH 4. These include the Flood Control Reservoir KR-7 located in section 25 of Kalmar Township and the Kalmar Landfill open space protection area (see Figure 11). The landfill protection area was specifically excluded from the Kalmar Orderly Annexation Agreement between the City of Rochester and Kalmar Township designating lands in Kalmar Township eligible for long-term annexation to insure that a buffer area around the landfill site would be protected and preserved if future expansion of the site was needed.

FIGURE 11
KALMAR TOWNSHIP
ORDERLY ANNEXATION
AND OPEN SPACE PROTECTION AREAS



- **Consistency with Local Plans:** The ROCOG 2035 LRTP shows 70th Avenue NW as a major urban arterial, defined as a route that carries lower volumes, serving trips of shorter distances, with a higher degree of property access. This designation is not consistent with the function needed to serve as a western beltway for the Rochester urban service area. In addition, using 70th Avenue NW as the beltway corridor is not consistent with the major utility service plans (RPU and telecommunications).
- **Modal Relationships:** Utilizing 70th Avenue NW as the western beltway corridor is not consistent with the intra-urban transit needs of the community. As explained in the transportation utilization sections above, 70th Avenue NW, north of CSAH 4, attracts a low volume of traffic given it's location relative to major traffic generating areas. In addition, its **s**ervice as a beltway connecting planned urban development areas west of 50th Avenue NW with other major nodes of development in the Rochester urban area will be limited due to the indirection of travel (backtracking) created by placement of the facility on the 70th Avenue NW alignment. Based on this transportation function, 70th Avenue NW would not best serve the transit demands of the community.

D. PREFERRED CORRIDOR IDENTIFICATION SUMMARY

The information contained in the assessment of the strengths and weaknesses of the alternative corridor alignments is summarized in Figure 12. This figure shows how the three corridor alternatives compare to one another using the evaluation criterion that supports the project's goals and objectives and purpose and need. Figure 12 shows that 50th Avenue NW and 70th Avenue NW do not meet the project's goals and objectives and purpose and need as well as the CR 104/60th Avenue NW location, and it is proposed that they not be carried forward for further study and consideration. The primary factors in their elimination are:

1. 50th Avenue NW

1. Does not meet desired minimum access spacing requirements on TH 14 (located one mile from existing CSAH 22 / West Circle Drive Interchange) as documented in the TH 14 Sub Area Study.
2. Does not provide the ability to extend the corridor south of TH 14 to establish continuity and connectivity to other urban arterial corridors without major impact to Country Club Manor neighborhood.
3. The proximity of 50th Avenue NW to CSAH 22/West Circle Drive provides inappropriate spacing for development of the next major strategic arterial corridor to serve the western development area of Rochester.

EVALUATION CRITERIA FOR ROCHESTER WESTERN BELTWAY CORRIDOR ALTERNATIVES		50th	60th	70th
1.	Maximize network continuity/connectivity	○	●	○
2.	Provide effective arterial spacing	○	●	◉
3.	Provide adequate interchange spacing	○	●	●
4.	Minimize geometric issues	○	◉	◉
5.	Minimize interchange design issues	○	○	○
	* *Design implications of railroad overpass*	↔	↔	↔
	* *Design implications of high voltage transmission line*	↔	↔	↔
6.	Maximize transportation utilization (function)	◉	●	◉
	* *Importance to serving trips entering and leaving urban area*	↓	↑	↑
	* *Serves major intra-urban area movements such as between central city and outlying residential areas*	↑	↑	↓
	* *Provides continuity to rural arterials intercepting urban area boundary*	↓	↑	↔
7.	Minimize land use impacts	○	●	○
	* *Impact to Agricultural and Resource Protection lands*	↑	↑	↓
	* *Impact to existing residential neighborhoods*	↓	↑	↑
8.	Consistency with local plans	○	●	○
	* *Improves accessiblilty to planned areas of urban development identified in Long Range Land Use plan*	↔	↑	↓
	* *Promotes development within designated growth areas*	↑	↑	↓
	* *Consistency with MPO Long Range Transportation Plan*	↓	↑	↓
	* *Consistency with major utility service plans for electrical (RPU), telecommunications services*	↔	↑	↓
9.	Maximize model relationships	●	●	○
	* *Impact to regional trail/crossing needs*	↔	↔	↔
	* *Importance to transit service*	↑	↑	↓

Legend

Main Criteria	*Sub Criteria*
● *Good*	↑ *Positive*
◉ *Fair*	↔ *Neutral*
○ *Poor*	↓ *Negative*

CORRIDOR EVALUATION CRITERIA

Figure 12

CR 104/60th AVE NW PRE-NEPA CORRIDOR SUMMARY REPORT
Olmsted County

05/23/07

2. 70th Avenue NW

1. Extension of the 70th Avenue NW alignment to provide urban arterial network connectivity and continuity will impact planned agricultural protection and rural development areas south of TH 14 and north of CSAH 4, with the likelihood of creating indirect suburbanization or urbanization impacts in areas planned for rural protection.
2. The service provided by a 70th Avenue NW alignment is limited primarily to bypass traffic and rural traffic entering the urban service area on regional arterials such as CSAH 4 with minor service to major intra-urban traffic flows that would be generated by development in west Rochester. This will shift some traffic burden to other facilities including east-west minor arterials such as 19th St NW, and impact the West Circle Drive / TH 14 Interchange.
3. Upgrading the 70th Avenue NW corridor to a strategic urban arterial facility will likely have impact on open space protection areas associated with the Rochester Flood Control Reservoir KR-7 and the Kalmar Landfill.
4. The spacing of a 70th Avenue NW interchange relative to the next urban arterial corridor (CSAH 22/West Circle Drive) will result in a need to create multiple overpass structures across TH 14 in order to provide an appropriate network for distributing traffic on the urban area minor arterial street system. Locations for overpasses will likely include both 50th Avenue NW and CR 104/60th Avenue NW, whereas with an interchange in a closer-in location such as CR 104/60th Avenue NW, the need for one of the two overpasses is likely minimized.

3. CR 104/60th Avenue NW

The CR 104/60th Avenue NW corridor best meets the overall transportation purpose and need of the project due to the following factors and is recommended for further study and consideration as westside strategic arterial corridor for the Rochester urban area:

1. The corridor meets desirable minimum access spacing requirements on along TH 14 (approximately two miles from CSAH 22).
2. The CR 104/60th Avenue NW corridor utilizes existing roadway corridors that can be developed to provide an urban arterial facility that can be extended north (as far as the Oronoco urban growth area if needed) and south to meet the proposed southern segment of the Rochester beltway without the need for construction on a totally new alignment.
3. The location of CR 104/60th Avenue NW will provide service to lands within the future urban service area that lie on both sides of the corridor and thus will help facilitate major intra-urban traffic needs more effectively than either the 50th or 70th Avenue NW alignments while still providing service to the bypass and rural arterial traffic that is the predominate service provided by a 70th Avenue NW alignment.
4. CR 104/60th Avenue NW is consistent with arterial spacing criteria recommended by FHWA and found in the ROCOG Long Range Plan that is intended to enable the

uniform distribution of trips across the urban arterial network (approximately two miles).

5. Is consistent with RPU utility corridor, providing synergy with other uses of public resources.
6. Further development of the CR 104/60th Avenue NW corridor will build on previous planning efforts such as the ROCOG regional transportation plan and the CR 104/60th Avenue NW Corridor Management Study that has guided development along the corridor and has factored into decisions regarding land use in west Rochester.

Based upon this examination and evaluation of alternative corridors, the Project Steering Committee agreed to focus on and develop additional detail and corridor treatments for the CR 104/60th Avenue NW corridor. This decision was also forwarded to Mn/DOT District 6 State Aid, Mn/DOT State Aid and FHWA for their review and concurrence on January 12, 2007.

V. ALTERNATIVE IDENTIFICATION

Several design alternatives were identified for the CR 104/60th Avenue corridor in pursuit of the identification of a preferred alternative. Because of the length of the corridor and the location of key intersections along CR 104/60th Avenue, the corridor was split into three segments for easier alternative identification, definition and evaluation. The following three segments were identified:

- Area A – CSAH 34 to 19th Street. The key element within this area is the future interchange with TH 14.
- Area B – 19th Street to 65th Street. The key element within this area is the CSAH 4/Valleyhigh Road NW intersection.
- Area C – 65th Street to CSAH 14. The key element within this area is the intersection with CSAH 14/75th Street NW.

The Project Steering Committee (PSC) identified several alternatives for each of these three areas along the corridor, while taking into consideration past planning work that incorporated general corridor design concepts. The *60th Avenue NW/CSAH 14 Expressway Corridor Management Plan (CMP) 2003* identified the following general corridor design guidelines for this future major arterial roadway:

- Rural four-lane, divided expressway facility following County State Aid Standards for lane widths, horizontal and vertical curvature, grades and shoulder widths.
- Design speed was identified as 55 mph with actual travel operations anticipated to be near 40-45 mph.
- Typical cross-section identified a minimum of 200-ft right of way with open ditches on the outside of travel lanes and a grassed, depressed median to separate travel lanes. Median cross-over points were located every ¼ mile. Major intersections and/or signalized intersections may

have raised medians to facilitate turn lanes and encourage pedestrian/bicycle crossings.

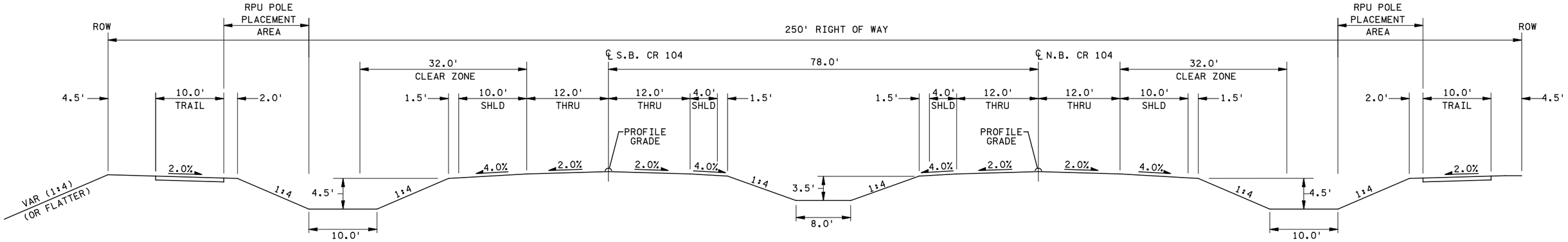
Although a 200 foot right of way was identified in the *60th Avenue NW/CSAH 14 Expressway CMP*, the current corridor study has investigated the cross section needs in more depth at a preliminary engineering level of detail, and through this investigation it has become apparent that a 200-foot right-of-way will not be able to provide for the basic features that need to be accommodated within the CR 104 / 60th Ave corridor. Elements of a future expressway design that are leading the project steering committee to conclude a wider right of way is needed include the following factors:

- A review of preliminary drainage needs shows that utilizing a rural cross-section with open ditches, given the rolling topography of the area, will require additional corridor width in order to provide a safer design on the ditch slopes and adequate ditch capacity;
- Providing for a multi-use trail on both sides of the roadway given the topography of the area in conjunction with the open ditch design requires additional width beyond what would be needed in an area with level topography; and
- Placement of Rochester Public Utilities (RPU) electrical poles within the road right-of-way is preferable to establishing easements outside the right of way for the power lines, which adds additional width to the right of way beyond a basic 200-ft width but actually reduces the total corridor width needed for infrastructure development when compared to constructing the power lines beyond the road/trail right of way

Considering these factors, it was determined that a 200-ft right-of-way would be inadequate to provide for the design of the future expressway / power line project, and a 250-foot corridor width should be utilized to provide adequate space of roadway, trail, drainage, landscaping and power line needs within the future county road right-of-way. Figure 13 illustrates the typical cross section that is recommended to be utilized in the future construction of this project.

Keeping in mind the CMP's layout for CR 104/60th Avenue, several design alternatives were considered and evaluated for each of the three key areas along the corridor to identify a preferred alternative for moving into the Environmental Assessment.

Over the course of five months, approximately 13 alternatives were developed and modified, resulting in several new iterations and modifications from the original 13. A summary of the alternatives considered and modified is included in the memo "Olmsted CR 104/60th Avenue Corridor Preservation Project Activities Since November 2006 Resource Agency Meeting" which is located in the Appendix. In addition, the major decision points of the PSC which directed the alternative development is summarized in Section VII of this report. The following discussion



60TH AVENUE / CR 104

DESIGN SPEED = 55 MPH

ROAD DESIGN MANUAL TABLE 2-7.01F, 4-4.01A & 4-4.01B

Figure 13

outlines the range of alternatives studied in-depth and considered for each key area along the corridor.

A. ALTERNATIVES FOR SOUTH SECTION (TH 14 INTERCHANGE AREA)

Alternatives for the TH 14 interchange area were developed realizing the following significant constraints on this area:

- Existing residential development
- Existing commercial/industrial development
- DM&E Railroad/ clearance and encroachment issues
- Existing high-voltage transmission line/ high cost to move
- Maintaining reasonable access to properties that rely on CR 104
- Skew of existing road intersection
- Existing drainage and ponding areas

Mn/DOT provided input to the PSC in terms of interchange design assumptions in a table titled, "Interchange Critical Design Elements"[2] for the CR 104/TH 14 interchange. The following outlines key design criteria for interchange development considered by Mn/DOT District 6 for this project:

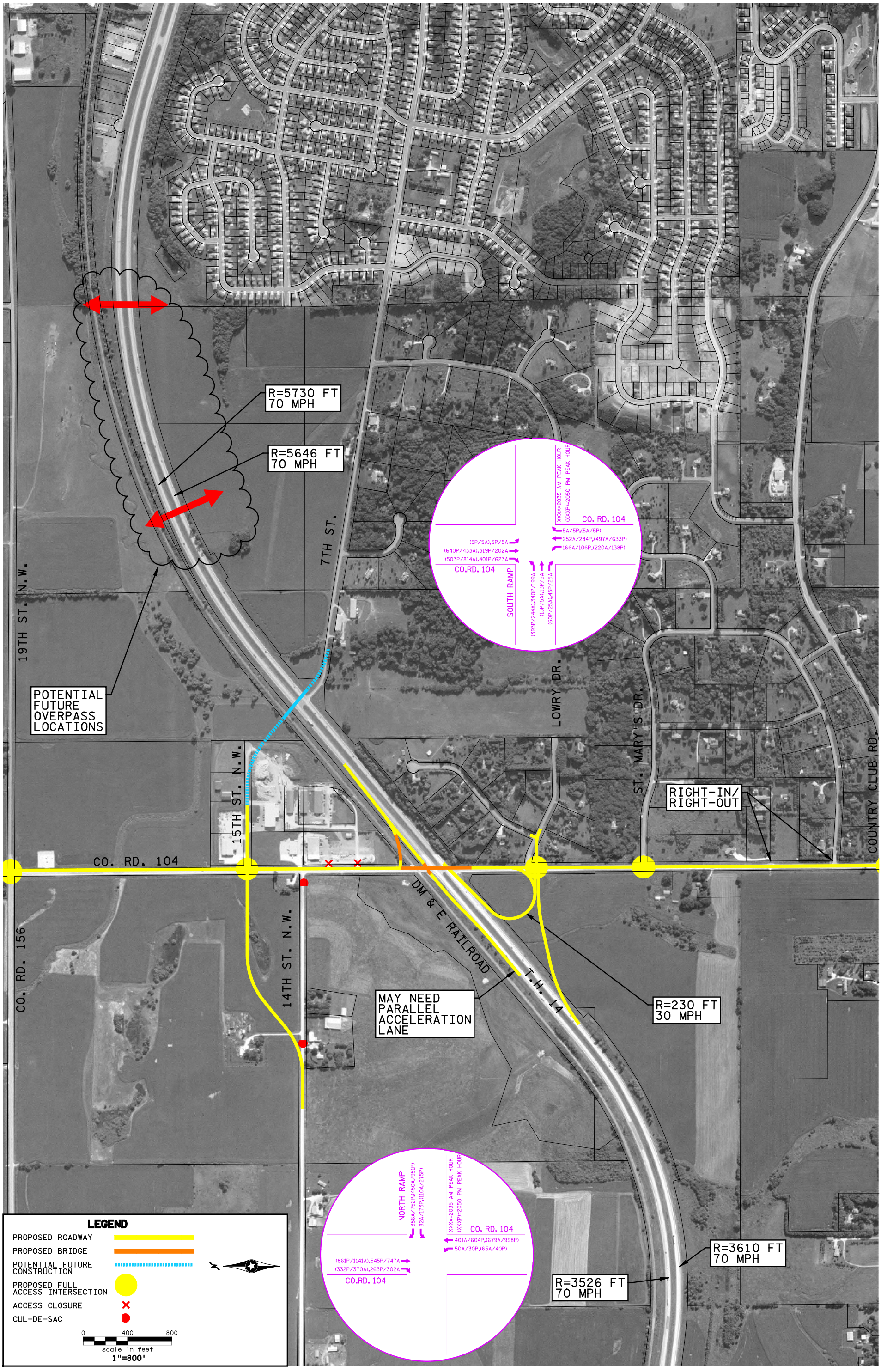
- 55 mph mainline design speed
- 30 mph loop ramp speed
- 90 degree ramp connection to CR 104/60th Avenue
- 1000 feet minimum distance between ramp terminals
- 1000 feet minimum distance between ramp terminals and first public intersection
- 23 feet of highway vertical clearance over railroad

Based on Mn/DOT's design criteria and the need to work within the constraints of the area, a series of interchange alternatives were developed and modified.

Input from the PSC and Mn/DOT regarding the critical design elements for the interchange resulted in the following range of alternatives for the TH 14 interchange area along with an overview of the major advantages and drawbacks of each:

- Constructing interchange at the existing CR 104/TH 14 intersection (see Figure 14)
    - Major advantage: Maximizes use of existing county road right of way
    - Major drawbacks:
        - Access conflicts- driveways and local street connections incompatible with function of expressway and connection of south ramp to Lowry Drive not acceptable to Mn/DOT.

[2] See "Interchange Critical Design Elements Table" in Appendix.



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_14.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

EXISTING ALIGNMENT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 14

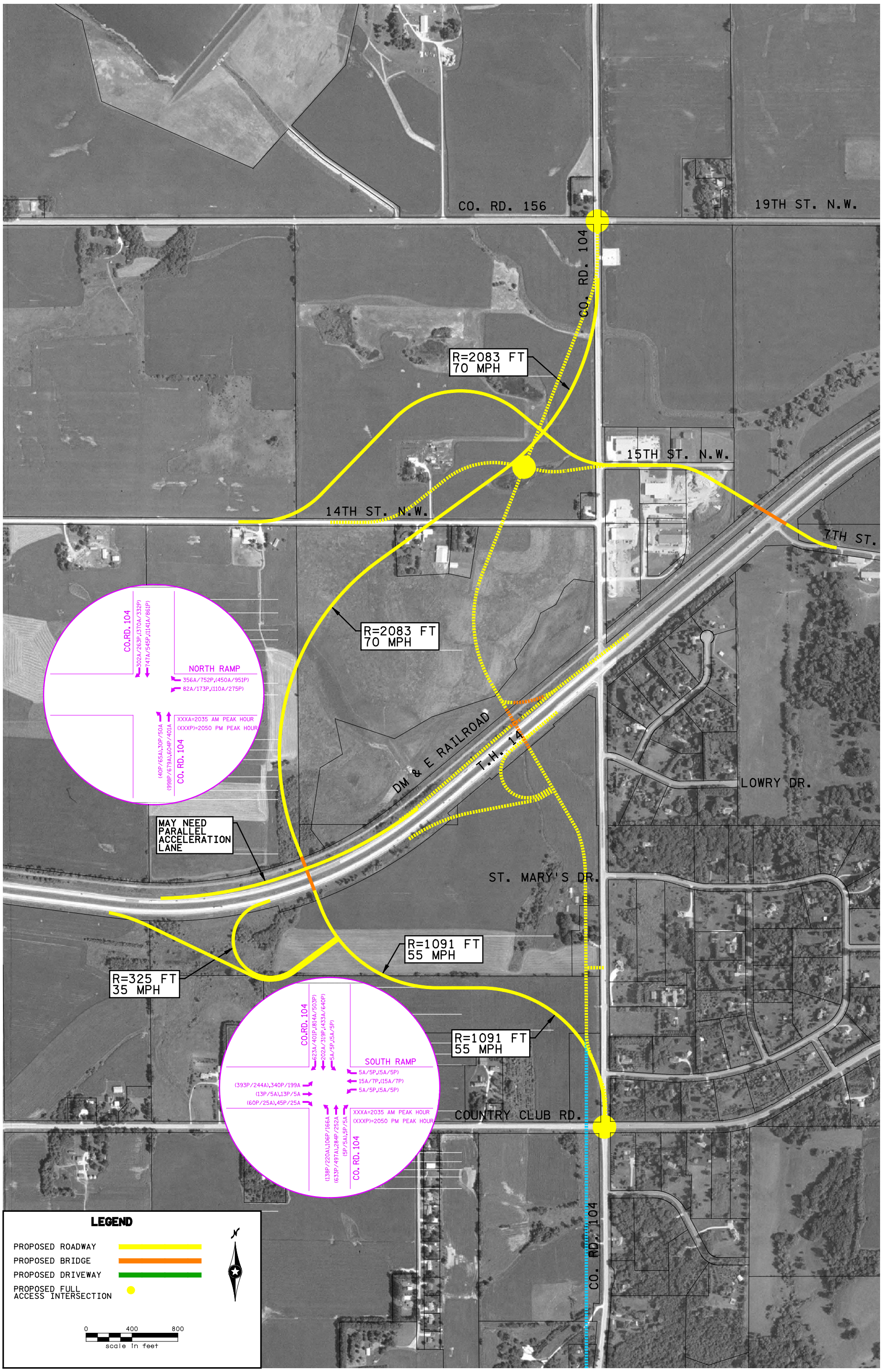
        - Inadequate ramp spacing
        - Unconventional split off-ramp design (north side)
        - Significant impact to visibility of existing businesses from highway anticipated

- Shifting alignment of CR 104 diagonally to create right angle crossing of two highways ¼ or ½ mile west of intersection (See Figure 15)
    - Major advantages:
        - Eliminates skew – easier to create right angle ramp intersections
        - Far west alternative avoids wet area
    - Major drawbacks:
        - Significant curvature introduced into county road alignment
        - Carves up farmland/developable parcels into odd-shaped parcels
        - Requires more right of way
        - Additional construction and right of way costs

- Single-Point Diamond Interchange design (See Figure 16)
    - Major advantage: smaller interchange footprint
    - Major drawbacks:
        - Significantly higher estimated cost (50% - $10 million)
        - Large bridge deck and amount of retaining wall needed to support construction of ramps and overpass
        - Realigned CR 104 carves up farmland/developable land in SW and NW quadrants into odd-shaped parcels- potential severance damages

- Shift the mainline of TH 14 (See Figure 17)
    - Major advantages:
        - Provides more room for ramps between TH 14 & railroad
        - Allows for use of more standard interchange design
    - Major drawbacks:
        - High cost for mainline reconstruction and right-of-way added to project
        - Property acquisition in St. Mary's Hills area & more property in SW Quadrant

- Shift CR 104 1/8th mile west parallel to existing road alignment (See Figure 18)
    - Major advantages:
        - Retains current access by using existing road as frontage road



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_15.dgn

SRF Consulting Group, Inc.

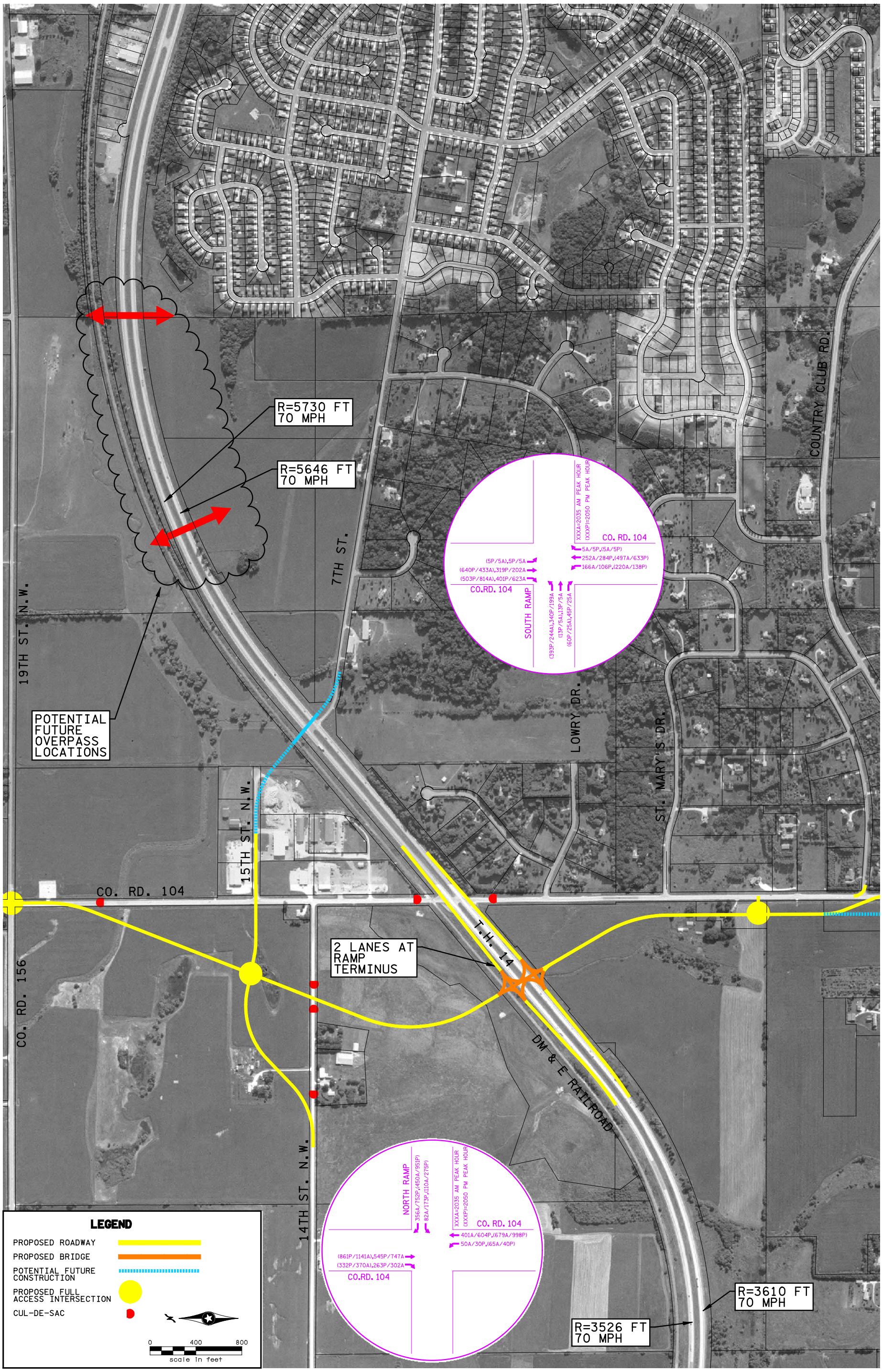
5756
5/24/2007

SHIFTED WEST

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 15



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_16.dgn

SRF Consulting Group, Inc.

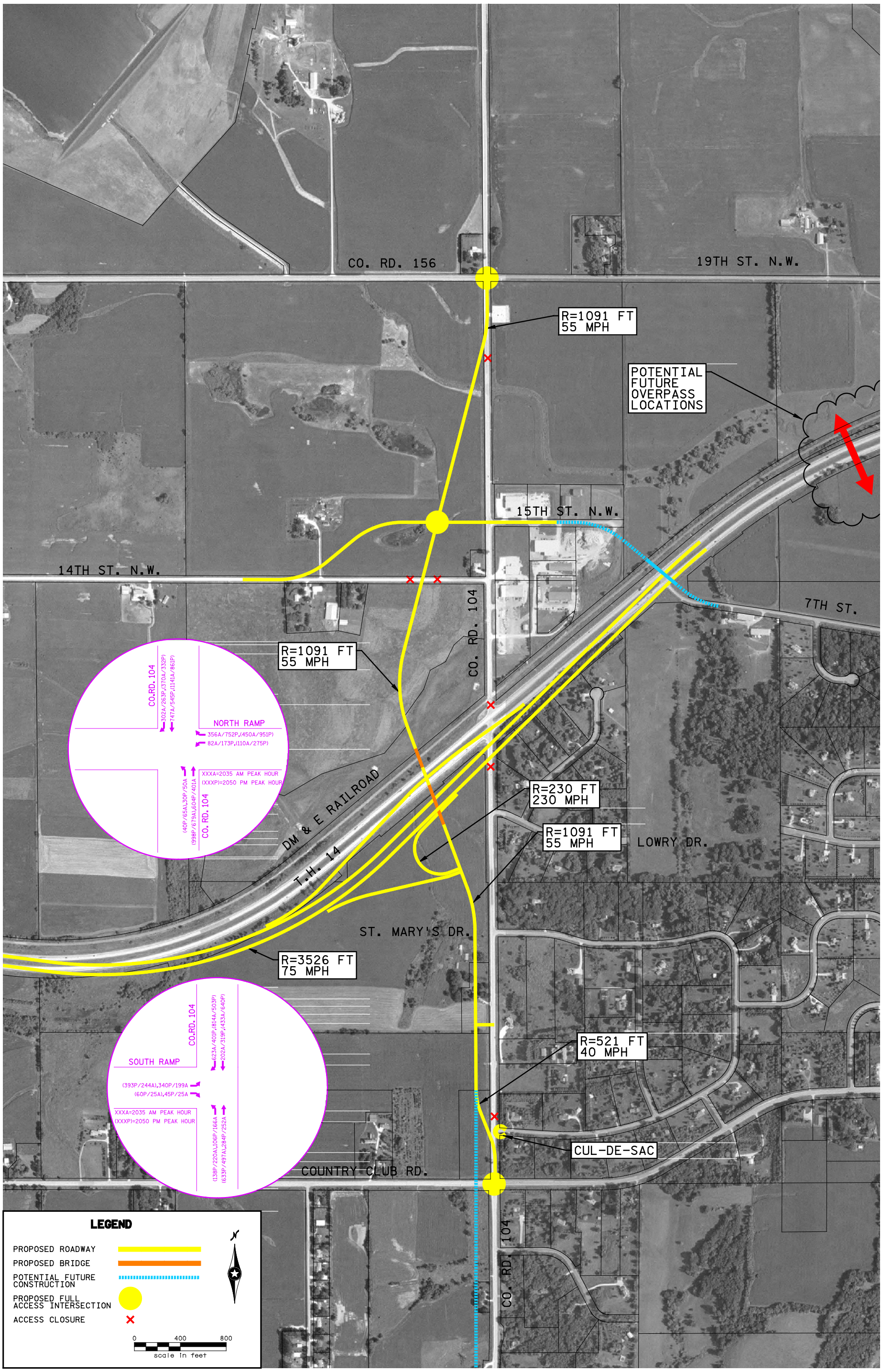
5756
5/24/2007

SINGLE POINT INTERCHANGE

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 16



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_17.dgn

SRF Consulting Group, Inc.

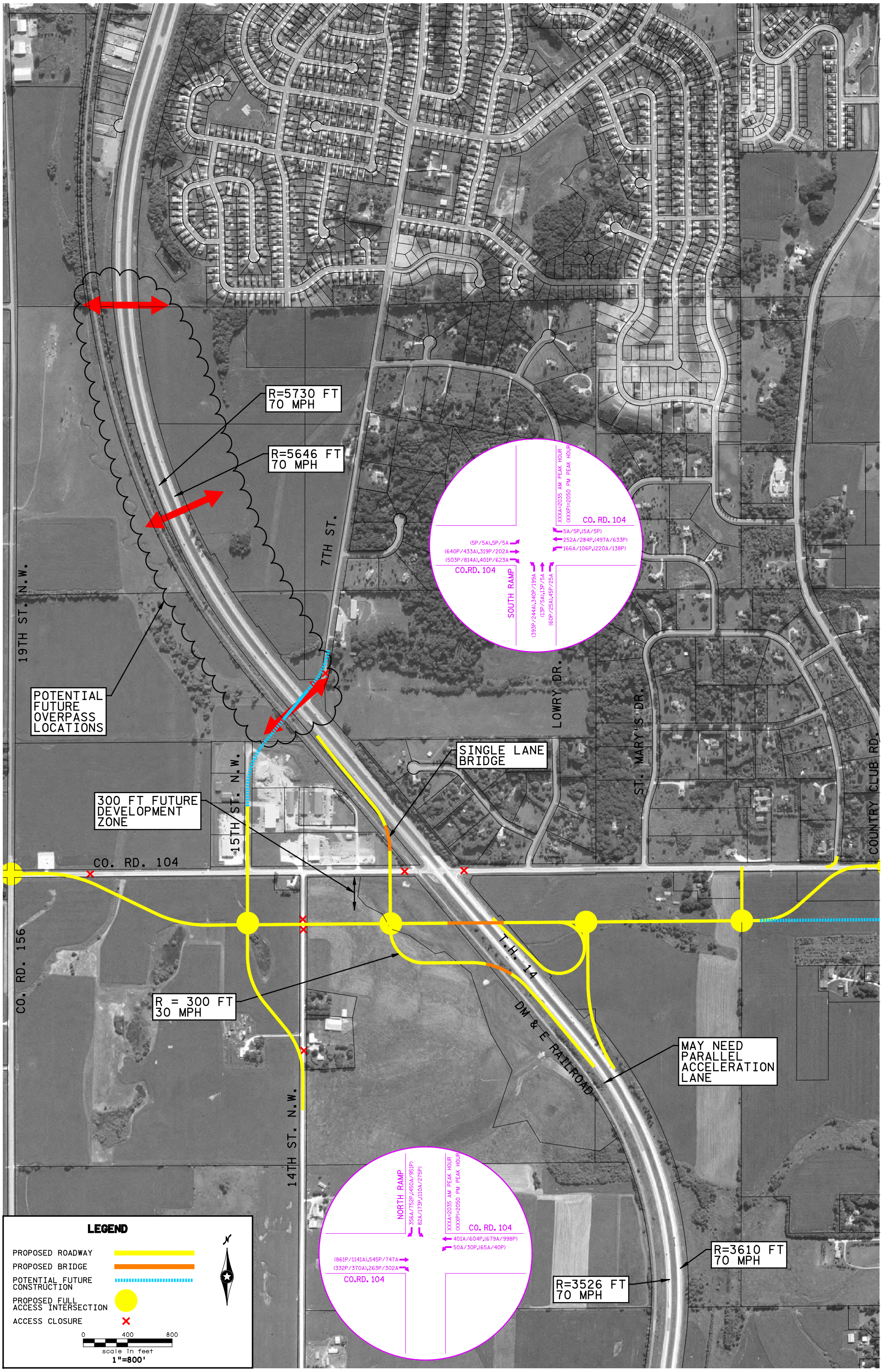
5756
5/24/2007

TH 14 MAINLINE SHIFT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 17



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_18.dgn

SRF Consulting Group, Inc.

5756
5/29/2007

CR 104 PARALLEL ALT.

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 18

        - New parallel corridor can be located to create standard rectangular lots at usable lot depth on west side of existing CR 104 (shown at 300 ft depth)
        - Reduces number of structures directly impacted by construction
    - Major drawbacks:
        - Additional right of way needed for new alignment
        - Some business visibility impacts but not as severe as interchange on existing alignment

B. <u>ALTERNATIVES FOR MIDDLE SECTION (CSAH 4 INTERSECTION AREA)</u>

The middle section of the corridor is focused around the CSAH 4 intersection. The following key issues were identified in the development of alternatives for this area:

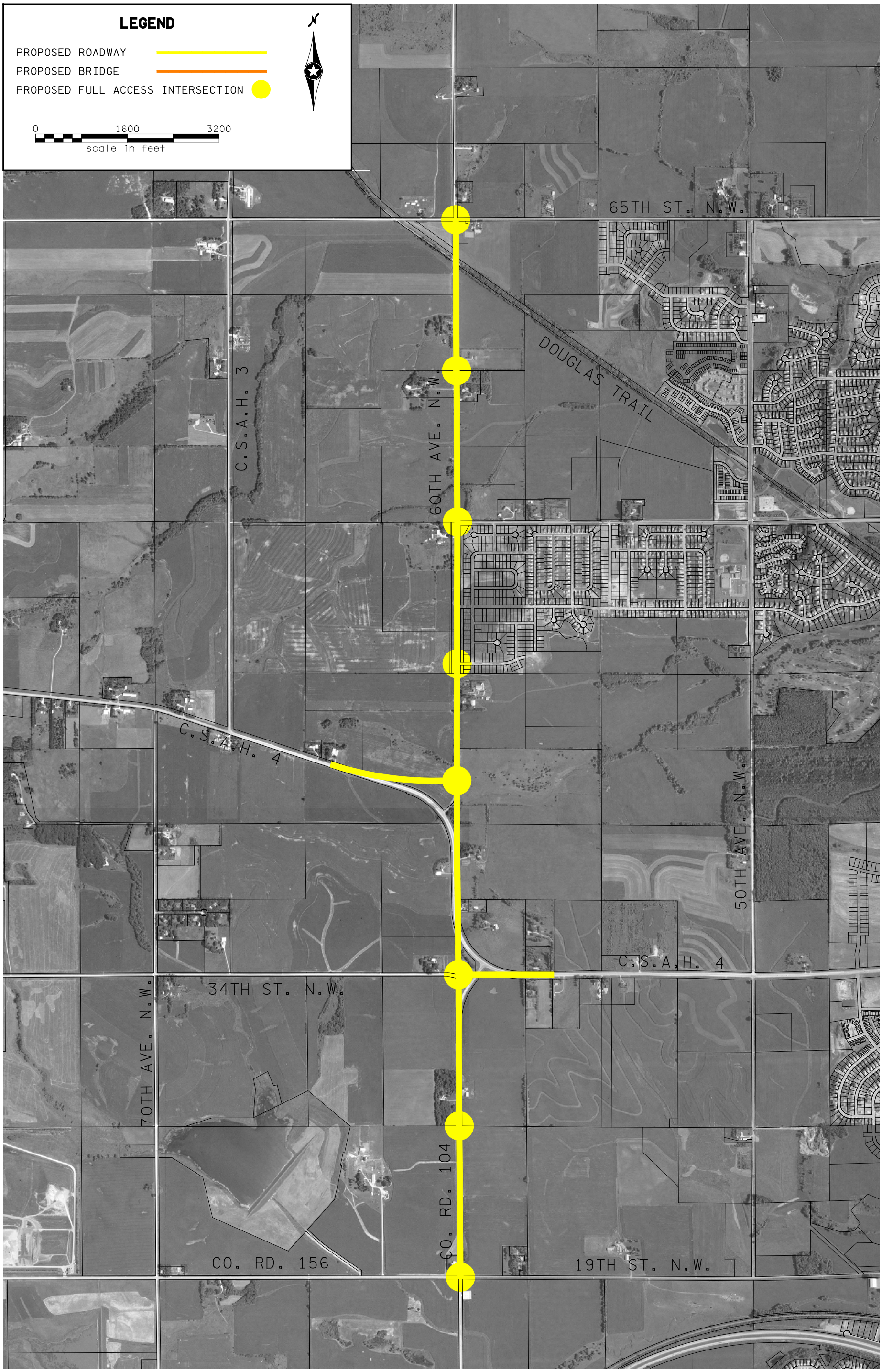
- Predominant traffic flow projected to change from E/W to N/S over long term as development fills out areas east and west of CR 104
- E/W flow will continue to grow but not to level of future N/S traffic
- Current intersection of Valleyhigh Dr with CR 104 (south) and 60th Ave (north) will not operate effectively under future traffic volumes
- Need to identify plan that can handle projected level of crossing traffic safely and efficiently (20-25,000 N/S – 10-12,000 E/W)

Three alternatives were identified for the treatment of CSAH 4. The following outlines the ideas studied and the major advantages and drawbacks of each:

- Retain offset of East and West legs of CSAH 4 (See Figure 19)
    - Major advantage: Requires minor realignment and right of way acquisition
    - Major drawbacks:
        - Offset legs of CSAH 4 introduces significant weaving traffic into the section of CR 104 between the legs of CSAH 4
        - Offset legs will result in higher NB and SB left turn movements, affecting future signal efficiency

- Align east and west legs of CSAH 4 at single intersection (See Figure 20)
    - Major advantages:
        - Provides continuity along CSAH 4 by aligning the east and west legs
        - Eliminates weaving and left turns required of E/W traffic in offset intersection
    - Major drawbacks:
        - Requires additional right of way for new alignment
        - Added construction cost

- Grade Separation (See Figure 21)



h:\projects\5756\HI-MU\Concept\Concept_Layout\April 2007 Open House\5756_con_lo1a.dgn

SRF Consulting Group, Inc.

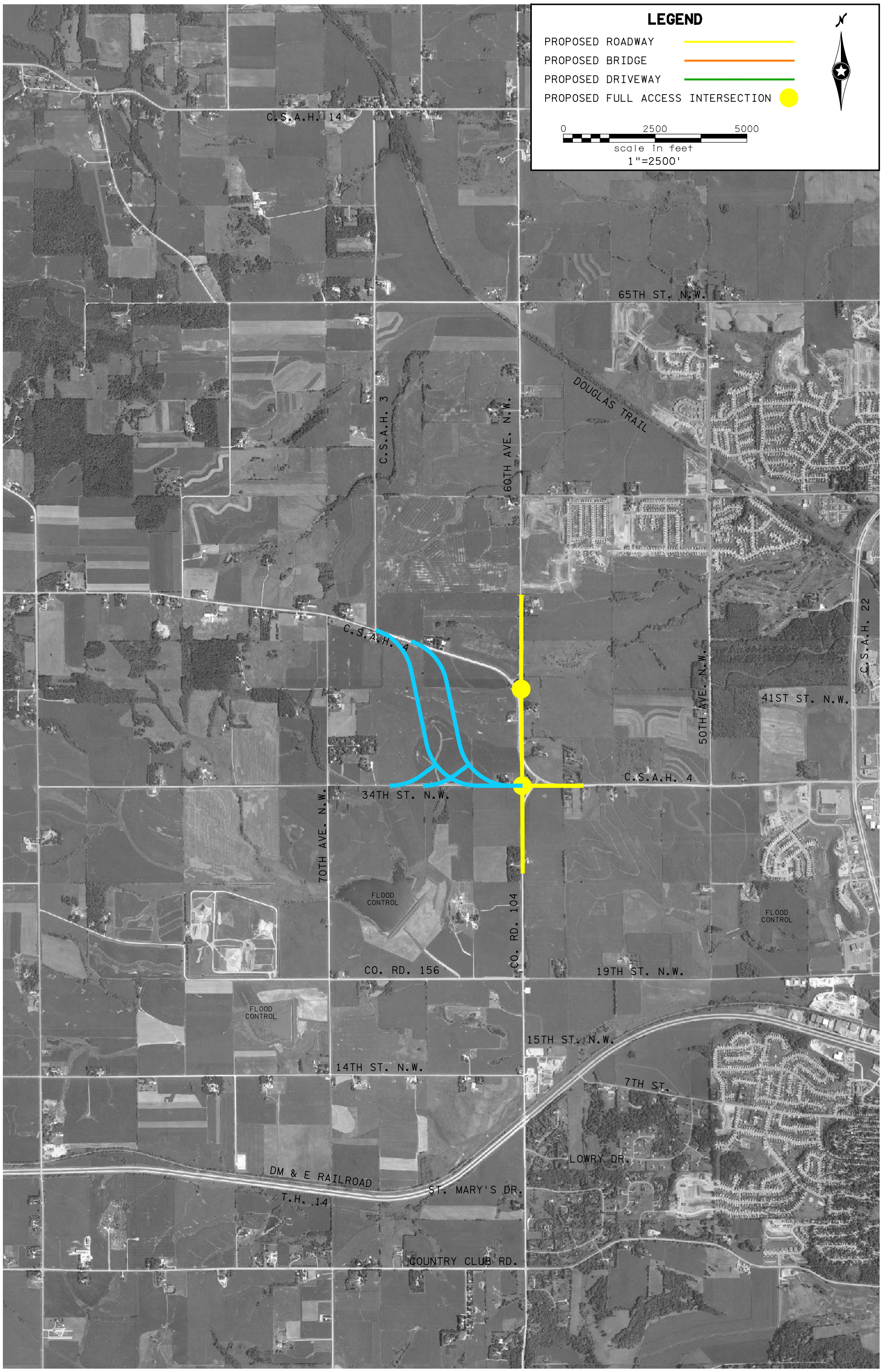
5756
5/24/2007

C.S.A.H. 4 OFFSET INTERSECTION CONCEPT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 19



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_20.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

C.S.A.H. 4 SINGLE INTERSECTION CONCEPT (SOUTH)

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 20

Figure 21

Exhibit 45: Center Turn Overpass Conceptual Design

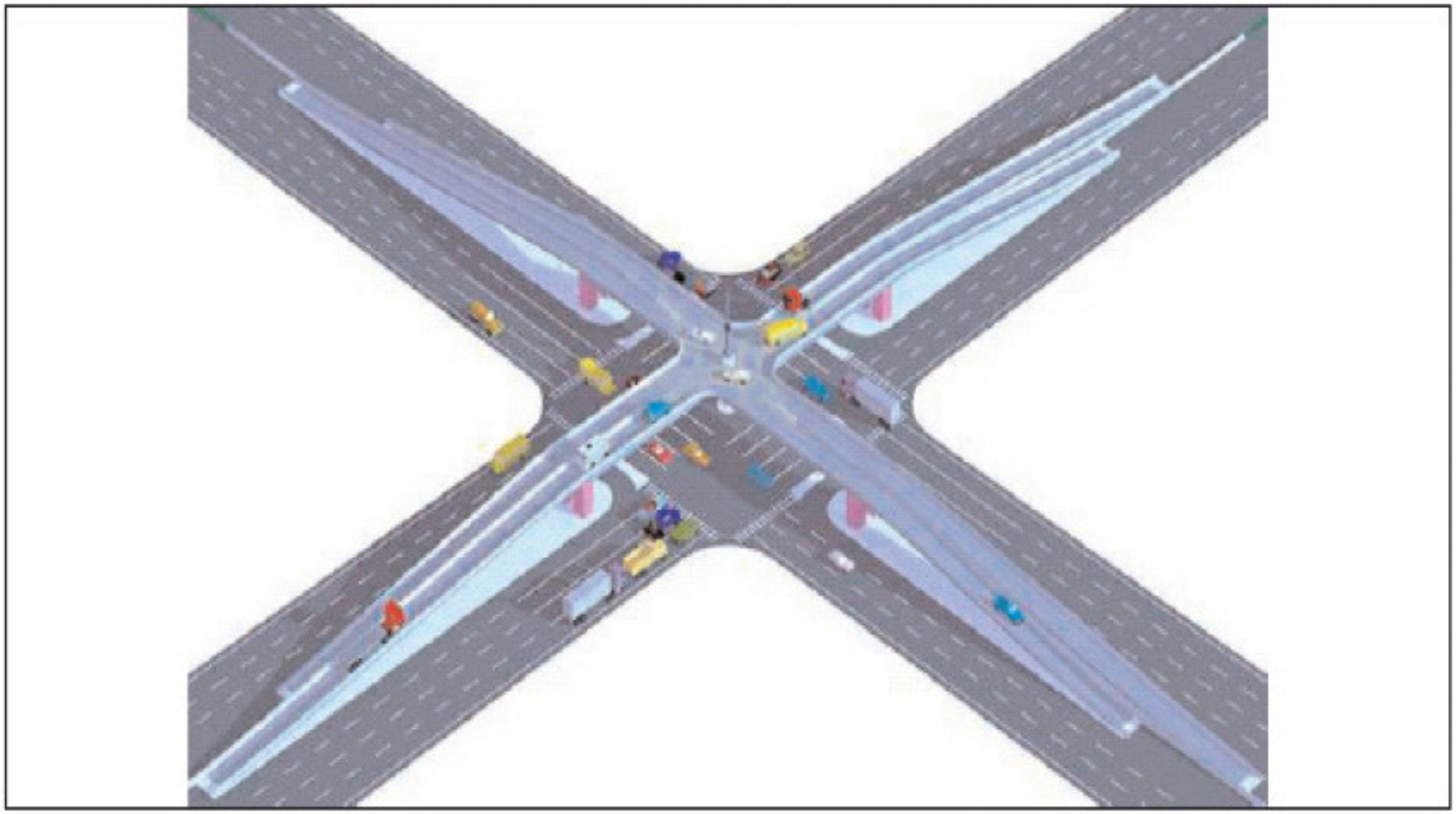


Illustration from CTO Website (www.centerturnoverpass.com); used by permission.

- Major advantages:
  - Would separate left turns from through movement and right turns and handle them at elevated intersection
- Major drawbacks:
  - Significantly higher construction cost
  - Additional right of way may be needed
  - Would extend zone of access restriction on all legs
  - May not realize full benefit of grade separation given signalization of other main crossings in close proximity to ramp merge/diverge points

C. ALTERNATIVES FOR THE NORTH SECTION (CSAH 14 AREA)

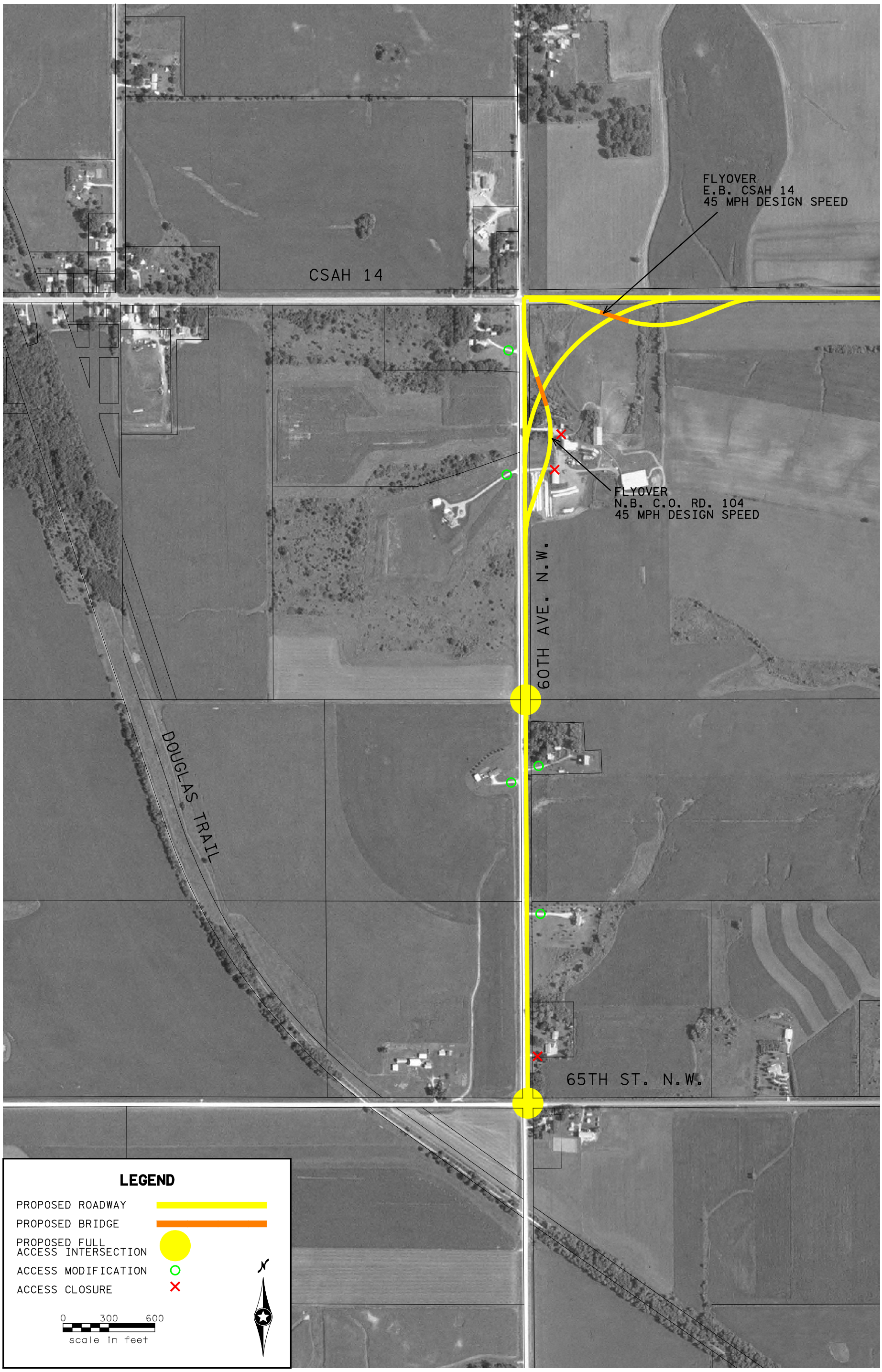
The key intersection in the north section of the corridor is CR 104/60th Avenue's connection to CSAH 14. The following issues were identified in the development of alternatives for this area:

- The predominant flow of traffic is expected to be the movement between 60th Avenue south of CSAH 14 and CSAH 14 east of 60th Avenue to/from TH 52.
- Designing an intersection where NB right turn and WB left turn will be the major traffic flow.

Three alternatives were identified and considered for the CSAH 14 intersection with CR 104/60th Avenue. These alternatives considered the following concepts: 1) utilization of flyover ramps, 2) utilization of an at-grade continuous curve, and 3) utilization of a roundabout. The major advantages and drawbacks of each are discussed below:

- Grade Separation with Flyover Ramps Alternative (See Figure 22)
  - Major Advantage
    - Eliminates need for signalization; all expressway movements are merge or diverge
    - Existing 60th Ave / 75th St intersection remains for rural traffic
  - Major Disadvantage
    - Cost
    - Right of Way Impact
    - Safety concern of higher speed movement on curved bridge structure
- Continuous Curve Alternative (See Figure 23)
  - Major advantage:
    - Design consistency with rest of corridor can be maintained
  - Major disadvantage:
    - Introduces 2nd stop controlled intersection for regional/rural traffic
    - May discourage use of 60th Ave as long term N/S connection between Rochester and Oronoco area

- Roundabout (See Figure 24)
  - Major advantage
    - Would allow all traffic movements to occur without stop control
    - Smaller footprint reduces right of way required
  - Major disadvantage
    - Requires reduced speed for WB to SB mainline flow; only NB to EB can occur at higher speed
    - Driver understandability may be an issue



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_22.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

CSAH 14/60TH AVE. N.W. FLYOVER INTERSECTION CONCEPT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 22

h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_23.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

CSAH 14/60TH AVE. N.W. CONTINUOUS CURVE CONCEPT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 23

h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_24.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

CSAH 14/60TH AVE. N.W. ROUNDABOUT INTERSECTION CONCEPT

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 24

VI. ALTERNATIVE EVALUATION

In order to narrow the number of alternatives identified, an alternative evaluation process was developed. The PSC used a multi-phase evaluation process to compare and contrast alternatives within each subarea of the corridor in order to assess planning-level impacts as part of the decision-making process used to identify a preferred corridor improvement concept. Following is a summary of this evaluation process and the screening criteria used.

Phase I: Suitability Screening

Several design concepts, such as traffic signalization as the ultimate long term improvement at TH 14, were dismissed early in the process since they were determined not to meet the purpose and need of the project. Formal evaluation for remaining concepts began with what was called a "suitability screening" (see Figure 25a). The purpose of this level of evaluation was to screen out any alternatives that did not achieve or meet long term improvement needs. Alternatives were rated on the following screening factors:

- Flexibility – ability to adapt to future increases in travel demand;
- Mobility – can be designed to achieve a 55 mph design speed on a reconstructed CR 104/60th Ave corridor; provides adequate CSAH 4 continuity; can provide reasonable continuity in the flow of expressway traffic around the 60th Ave / CSAH 14 intersection at the north end of the project study area
- Safety – can eliminate at-grade rail and trail crossings
- Modes – can adequately meet the needs of pedestrians/bicyclists and accommodate transit needs

The majority of the alternatives reviewed in this phase passed the suitability screening– meaning they were rated favorably and would be carried into the second evaluation phase. Two alternatives did not meet the basic suitability criteria - these include an at-grade intersection at Trunk Highway (TH) 14 and the current intersection configuration at County State Aid Highway (CSAH) 14/75th Street. Due to the expected growth in traffic volumes along the corridor, along with the shift in its function from a local collector / arterial road to a major strategic arterial / expressway, at-grade intersections at these two locations do not meet the basic criteria identified as a necessity for a future expressway. All remaining alternatives were carried forward into the second phase of evaluation.

FIGURE 25a
CR 104/60th Ave Alternatives Evaluation
Basic Corridor Vision: Suitability Screening

Screening Criteria	Key Factors	2/3 lane utilizing existing roadbed	4-6 Lane Expressway
Suitability Screening			
A. Flexibility			
	Ability to adapt to future increases in demand	Poor	Good
B. Demand to Capacity			
	Provides adequate mainline capacity(2050 V/C)	Poor	Good
C. Design Speed (Mobility)			
	Achieves 55 mph design speed	Good	Good
G. Modes			
	Meets spatial needs of pedestrians/bicyclists	Good	Good
	Addresses transit needs	Fair	Good
	Suitability Screening Summary ● **Good/Yes**	2	5
	◘ **Fair**	1	0
	○ **Poor/No**	2	0
	Totals	5	5
	Carry Forward Into Phase I Evaluation Phase? Yes/No	**No**	**Yes**

Phase II: Design Impacts

The second phase of evaluation relied on a more detailed, quantitative evaluation. Screening factors in this phase were grouped into the following categories:

- Preliminary assessment of natural resources impacted
- Preliminary assessment of cultural resources impacted
- Potential number of properties impacted
- Preliminary assessment of acreage of right-of-way that would need to be acquired
- Adequacy of the interchange design to meet MNDOT safety & design standards
- Adequacy of the interchange design to provide needed traffic capacity
- Preliminary assessment of construction and right-of-way costs
- Ability of the design to meet the needs of the Rochester Public Utilities (RPU) project

Alternatives were rated on each of the above key factors and compared to the other alternatives using the matrix shown in Figure 25b. It is important to note that the purpose of this evaluation is to develop a planning-level understanding of impacts for each alternative for the purpose of aiding the project steering committee to identify which concept(s) appear to best meet the purpose and need of the project. This evaluation primarily aided in differentiating among the alternatives so that a preferred concept could be selected. This type of evaluation does not replace the detailed Environmental Assessment (EA) that will be prepared using the preferred concept as a starting point during the next stage of the project.

Phase III: Stakeholder Input

The final evaluation phase includes one key measure: agency and community input. The purpose of this phase is to allow the public and other agencies (Mn/DOT, MnDNR, etc.) to provide input on the preliminary preferred concept plan identified by the project steering committee. After input was received by these groups, a final preferred alternative was confirmed by the project steering committee and was taken forward into the EA for environmental review.

VII. PUBLIC INVOLVEMENT

Public participation and agency coordination were an important element in developing the CR 104/60th Avenue corridor vision, alternatives and selection of a preferred concept. The following approaches were used to involve the public throughout this study as well as previous planning efforts in the area:

FIGURE 25b

CR 104 / 60th Ave Alternatives Evaluation

Concepts

Concepts: Phase I Evaluation		**Area A (CSAH 34 to 19th Street)**						**Area B (19th Street to 65th Street)**		**Area C (65th Street to CSAH 14)**		
Screening Criteria	Key Factors	At-Grade intersection	Current Alignment Tight Ramps 2-1	Current Alignment Spread Ramps 2-2	Off-set Alignment Tight Ramps 2-3	Off-set Alignment Spread Ramps 2-4	Single Point 2-5	Split Intersection 1A	Single Intersection 1B	Current Intersection Configuration	Roundabout 3A_1	Continuous Curve 3A_2
Suitability Screening(Applied to All Alternatives)												
A. Flexibility	Ability to adapt to future increases in demand	This alternative was not evaluated since it does not support TH 14 IRC Policies	All of these alternatives meet the basic suitability criteria and are carried forward into the Phase II evaluation.					Poor	Fair	Poor	Good	Good
B. Mobility	Achieves 55 mph design speed							Good	Good	Good	Fair	Good
	Establishes CSAH 4 continuity							Poor	Good	N/A	N/A	N/A
	Establishes 55 mph connection to CSAH 14							N/A	N/A	Poor	Poor	Good
C. Safety	Eliminates at-grade rail crossing							N/A	N/A	N/A	N/A	N/A
	Eliminates at-grade trail crossing							N/A	N/A	Good	Good	Good
D. Modes	Meets spatial needs of pedestrians/bicyclists							Fair	Fair	Poor	Fair	Fair
	Addresses transit needs							Fair	Fair	Fair	Fair	Fair
	Phase I Screening Summary ● **Good/Yes**							1	2	2	2	4
	◘ **Fair**							2	3	1	3	2
	○ **Poor/No**							2	0	3	1	0
	Carry Forward Into Phase II Evaluation? Yes/No	**No**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
Concepts: Phase II Evaluation												
Screening Criteria	Key Factors	At-Grade intersection	Current Alignment Tight Ramps 2-1	Current Alignment Spread Ramps 2-2	Off-set Alignment Tight Ramps 2-3	Off-set Alignment Spread Ramps 2-4	Single Point 2-5	Maintain Split Intersection 1A	Single Intersection 1B	Current Intersection Configuration	Roundabout 3A_1	Continuous Curve 3A_2
A. Natural Resources Im	Hydric (Wetland) Soils		Medium	Medium	Medium	Medium	Medium	Low	Low		Low	Low
	Floodplain Soils		Medium	Medium	Medium	Medium	Medium	Low	Low		Low	Low
	Acres of Farmland		38.5	43.2	52.5	61.6	49	47.6	65.4		53.7	52.5
	Acres of Woodland		0	0	0	0	0	0	0		0	0
	Acres of Biodiversity		0	0	0	0	0	0	0		0	0
	Acres of Parkland		0	0	0	0	0	0	0		0	0
	Number of Streams or River Crossings		0	0	0	0	0	1	1		2	2
	Likelihood to involve significant physical or hydrologic alteration (e.g., filling, diversion, outfall structure, diking, impoundment) of any surface or groundwater resource		N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A
B. Cultural Resources Im	Number of known historic properties		0	0	0	0	0	0	0		0	0
	Section 6(f) Impact		0	0	0	0	0	1	1		0	0
	Section 4(f) Impact		0	0	0	0	0	0	0		0	0
C. Range of Right of Way Impacts	Number of Partial Residential Takes		10	10	10	10	8	54	59		27	23
(properties and/or stru	Number of Partial Commercial/Industrial Takes		0	0	0	2	0	0	0		0	0
	Number of Full Residential Takes		1	1	0	0	2	6	6		0	0
	Number of Full Commercial/Industrial Takes		1	4	0	0	0	0	0		0	0
D. Extent of Right of Way	Acres of right of way		38.9	49.1	52.5	62.5	49	56.7	74.1		53.8	52.5
	Acres of farmland takes		35.5	40.1	52.2	61.3	45.9	53	70.9		47.4	48.1
	Acres of residential takes		3.1	3.1	0.3	0.3	3.1	3.7	3.7		6.4	4.4
	Acres of commercial/industrial takes		0.35	5.9	0	0.9	0	0	0		0	0
E. Interchange Geometr	Ramp Geometry (Ramp alignment, connection to TH 14, capacity)		Fair	Good	Fair	Good	Poor	N/A	N/A		N/A	N/A
	Achieves intersection efficiency		Fair	Good	Fair	Good	Good	N/A	N/A		N/A	N/A
	Ramp to Ramp Spacing		1000'	1730'	1060'	1760'	N/A	N/A	N/A		N/A	N/A
F. Ramp Intersection Ca	Volume to capacity ratio (2050) AM: N/S Ramp		0.50/0.47	0.50/0.47	0.50/0.47	0.50/0.47	0.53	N/A	N/A		N/A	N/A
	Volume to capacity ratio (2050) PM: N/S Ramp		0.69/0.61	0.69/0.61	0.69/0.61	0.69/0.61	0.69	N/A	N/A		N/A	N/A
G. Access	Meets access spacing policies of 60th Avenue NW/CSAH 14 CMP		Good	Good	Good	Good	Good	Good	Good		Good	Good
	Meets Mn/DOT intersection spacing criteria - Ramp to North Intersection		1380'	880'	1760'	1290'	N/A	N/A	N/A		N/A	N/A
	Meets Mn/DOT intersection spacing criteria - Ramp to South Intersection		960'	980'	1400'	1400'	N/A					
	Number of access points requiring modification		2	2	0	0	0	9	7		9	10
	Number of access points closed		2	2	0	0	0	5	6		6	4
	Ability to maintain access during construction		Poor	Poor	Fair	Good	Good	Good	Good		Good	Good
H. Construction and Right-of-Way Cost	Dollars (millions)		$21.1	$22.9	$20.9	$22.7	$33.2	$14.5	$16.7		$11.9	$12.1
I. Consistency with Rochester Public Utilities(RPU) Transmission Corridor Project												
	Adequate ROW width		Good	Good	Good	Good	Good	Good	Good		N/A	N/A
	Linear Corridor (fairly straight)		N/A	N/A	N/A	N/A	N/A	Good	Good		N/A	N/A
	Crossing Challenges Over Intersections		Poor	Poor	**Fair**	Good	Good	Fair	Good		N/A	N/A
	Phase I and II Screening Summary ● **Good/Yes**		5	6	5	6	4	4	5		3	4
	◘ **Fair**		1	0	1	0	0	2	3		3	3
	○ **Poor/No**		0	0	0	0	1	2	0		1	0
	Carry Forward Into Phase III Evaluation Phase? Yes/No		**No**	**No**	**No**	**Yes**	**No**	**No**	**Yes**		**Yes**	**Yes**
Concepts: Phase III Evaluation												
Agency/Community Input	Achieves Mn/DOT Acceptance											
	Achieves Community Acceptance											
	Phase III Screening Summary ● **Good/Yes**					**Good**			**Good**		**Good**	**Good**
	◘ **Fair**											
	○ **Poor/No**											
	PREFERRED ALTERNATIVE					**YES**			**YES**		**YES**	**YES**

Project Steering Committee (PSC) Meetings

Early in the process, a Project Steering Committee (PSC) was formed to review and provide input on the proposed project consistent with the policies of the agencies which they represent. The PSC met regularly (usually bimonthly, sometimes more) to review the alternative corridor assessment, development of the purpose and need framework, development of screening criteria, development of alternatives, preliminary design, review of evaluation matrixes and discussion of public involvement opportunities. Following is a list of the agencies represented on the TAC.

- Federal Highway Administration
- Minnesota Department of Transportation
- Olmsted County
- Rochester-Olmsted Council of Governments
- City of Rochester
- Kalmar Township
- Cascade Township

PSC Meeting 1

The first meeting was held on June 22, 2006. Sixteen participants were present. The purpose of this initial meeting was to introduce the study to participants and obtain feedback from Mn/DOT and FHWA on the proposed approach to the corridor study and environmental clearance for purposes of adopting an Official Right of Way Map. This meeting resulted in the need for the Olmsted County to consider preparing a full EA/EAW at a corridor level using a less detailed design, identifying right of way based on a worst-case scenario. The level of detail required for interchange design approval was an issue identified as needing more consideration.

PSC Meeting 2

The PSC's second meeting was held on September 19, 2006. There were 10 participants at this meeting. The Committee reviewed project tasks and schedule, discussed coordination efforts with RPU, reviewed the background data and existing conditions information and proposed project purpose and need framework. A public open house was scheduled for November. A newsletter and project website update was provided to property owners and other interested citizens approximately two weeks before the November open house.

PSC Meeting 3

The third meeting of the PSC took place on November 15, 2006 with twelve participants at this meeting. The Committee addressed additional questions on the purpose and need framework, discussed information gained from the resource/referral agency meeting (held early the same day) and identified/discussed corridor improvement concepts. Mn/DOT

reported that their discussions with FHWA determined Olmsted County could process an Environmental Assessment for this corridor preservation project. Mn/DOT was to look into whether the County or Mn/DOT should be the RGU for the EAW. Mn/DOT stated the County should address FHWA's concerns regarding consideration of alternative corridors in lieu of CR 104/60th Avenue NW, namely the use of 50th Avenue NW or 70th Avenue NW. Initial corridor alternative concepts were reviewed a this meeting including (See Appendix A for copies of all alternatives):

- CSAH 14 Alternative 3A: WB flyover with EB continuous curve
- CSAH 4 Alternatives:
  - 1A: Split Intersections
  - 1B: SW Quadrant Connection
  - 1C: SE Quadrant Connection
  - 1D: 41st Street Connection
- TH 14 Interchange Alternatives:
  - 2A: Existing alignment, tight ramps on north
  - 2B: Existing alignment, ramps and loops in NE and SW quadrants
  - 2C: Shift 1000 ft. west to where the wetland narrows, tight north ramps in a traditional diamond interchange design

PSC reviewed alternatives and collectively agreed to dismiss Alternative 1D-41st Street connection since the west/east flow of CSAH 4 will be heavy and 41st Street is planned by the City as a urban collector roadway, with lower speeds and several neighborhood roundabouts.

PSC Meeting 4

The fourth meeting of the PSC was held on January 29, 2007 with 14 participants. The Committee was notified that Technical Memorandum 3: Alternative Corridor Screening and Documentation was prepared and submitted to Mn/DOT and FHWA at their request for review of alternative corridors to CR 104/60th Avenue NW. Mn/DOT reported that they determined Olmsted County should be the RGU for the Environmental Assessment Worksheet. Alternatives 2A_1, 2A_3, 2C_1, 2C_2, 2C_3 and 2C_4 resulting from the workshops held with Mn/DOT on December 18, 2006 and January 12, 2007 were presented for the TH 14 interchange area. In addition, Alternatives 1A, 1B, 1C, 3A_1 and 3A_2 (continuous curve) were also reviewed. Review of these alternatives by the PSC resulted in the dismissal of Alternatives 2C_4, 1C, and 2A_3. The Committee also reviewed the first draft of potential evaluation criteria for alternative evaluation.

PSC Meeting 5

The fifth meeting of the PSC was held on March 6, 2007 with 10 participants. The purpose of the meeting was to review alternatives and select those to be carried into the Evaluation phase of study. Alternatives 2A_1, 2A_3L, 2C_1, 3A_1, 3A_2, 1A and 1B were reviewed. The Committee agreed to carry five interchange alternatives into the evaluation phase. These alternatives were modified from those presented at this meeting and renumbered. They included:

- Alternative 2-1: Existing alignment, split WB exit ramp, SW loop free right

- Alternative 2-2: Existing alignment, bridged north ramp, SW loop free right
- Alternative 2-3: Off-set alignment, split WB exit ramp, SW loop free right
- Alternative 2-4: Off-set alignment, bridged north ramp, SW loop free right
- Alternative 2-5: Single-Point Interchange Design

The Committee also agreed upon the CSAH 4 and CSAH 14 intersection alternatives to carry into the evaluation phase. They included:

- CSAH 4 Alternative 1A: Split intersections
- CSAH 4 Alternative 1B: SW quadrant connection
- CSAH 14 Alternative 3A_1: Roundabout with continuous EB curve
- CSAH 14 Alternative 3A_2: Continuous curve, tee intersection to west

PSC Meeting 6

The sixth meeting of the PSC was held on March 21, 2007 with 12 participants. The Committee reviewed the evaluation of the alternatives based on the criteria identified earlier. The Committee recommended a preliminary preferred alternative(s) for each of the three key areas along the corridor. The preliminary preferred alternatives included: (1) TH 14 Alternative 2-4, (2) CSAH 4 Alternative 1B, and (3) CSAH 14 Alternative 3A_1 and 3A_2. The Committee agreed to bring these alternatives to a public open house for public feedback before selecting the final preferred alternative to be evaluated in the EA. In addition, the Committee agreed upon a 250 ft corridor cross-section to accommodate drainage needs of a rural section with off-road trails and Rochester Public Utilities transmission poles within the road right of way.

Agency Coordination (include Mn/DOT Meetings)

Agency coordination took place through two different forms. The first involved two meetings with Mn/DOT District 6 to discuss interchange alternatives. The second form of agency coordination involved two meetings with Environmental Resource and Referral Agencies. (Please see Appendix A for copies of all alternatives reviewed).

Mn/DOT Meeting 1

The first meeting with Mn/DOT District 6 staff took place on December 18, 2006 at Mn/DOT District 6 offices. Representatives from ROCOG, Olmsted County and Mn/DOT District 6 were present. The purpose of the meeting was to discuss and reach agreement on the CR 104/60th Avenue Corridor Preservation Study process, discuss the project's proposed timeline and further discuss the level of design proposed for the project. Mn/DOT agreed to consider a preliminary interchange design level (less than a Staff Approved Layout which is typical) as long as the following key items were addressed in the design: (1) treatment of TH 14, (2) efforts to eliminate skew at the interchange location, (3) treatment of 7th Street, and (4) interchange ramp spacing.

Mn/DOT Meeting 2

A second meeting with Mn/DOT District 6 staff took place on January 12, 2007. The purpose of this meeting was to review the TH 14 interchange concepts in order to reduce the total number of alternatives to take into the detailed evaluation phase of study. The

original interchange alternatives (Alternatives 2A, 2B and 2C) presented at the November 15, 2006 PSC meeting were modified to incorporate the design parameters discussed at the first meeting with Mn/DOT on December 18, 2006 and were presented at this meeting for discussion. These modified and new alternatives included:

- Alternative 2A_1: Existing alignment, shift TH 14 south, tight north ramps
- Alternative 2A_2: Existing alignment, shift TH 14 south, standard north ramps
- Alternative 2B_1: Existing alignment, ramps and loops in NE and SW quadrants
- Alternative 2C_1: Shift 1000 ft. west- wet area narrows, tight north ramps
- Alternative 2C_2: Shift 1000 ft. west-wet area narrows, shift TH 14 south, standard north ramps
- Alternative 2D_1: Shift 3200 ft west – avoid wet area, tight north ramps
- Alternative 2D_2: Shift 3200 ft west – avoid wet area, shift TH 14 south, standard north ramps

Mn/DOT and Olmsted County reviewed the alternatives presented and collectively agreed to dismiss Alternatives 2A_2; 2B_1; 2D_1; and 2D_2.

Environmental Resource and Referral Agency Meeting 1

Two workshops were held with Environmental Resource and Referral Agencies. The These meetings included representatives from the City of Rochester Public Works Department, Rochester Public Schools, the Olmsted County Soil and Water Conservation District, the Minnesota Department of Natural Resources, Peoples Cooperative Electric, Qwest Communications and ROCOG. The first meeting was held to introduce the study, goals and objectives and to provide an opportunity for feedback on initial issues/resources identified in the project area.

Environmental Resource and Referral Agency Meeting 2

The second meeting included the same participants as the first workshop. The second workshop was held to provide information on the alternatives identified and evaluated and to receive feedback on the preliminary preferred alternatives identified. Several additional issues were raised at this meeting to consider in the design of alternatives and within the Environmental Assessment.

Public Open Houses

Two public open houses were held throughout the course of the Pre-NEPA phase of the corridor study. The first open house was held in November 2006 to introduce the study, review general project goals and objectives and to answer questions. A newsletter providing background information, study goals, project schedule and an outline of the purpose of the open house served as notice to landowners and other interested parties about the meeting. A map of the landowner notification area, a copy of the newsletter and open house materials and public comments received is included in Appendix B.

A second open house was held in April 2007 to discuss study progress, review alternatives studied and obtain feedback on the preliminary preferred concepts selected. Similar to the first open house, a project newsletter summarizing this information was

sent out to landowners and other interested parties along the corridor, prior to the open house. Open house materials and summary of comments received is incorporated in Appendix B.

Public comments were received through a number of different means including public open houses, e-mails submitted through the project website to the project managers or through phone calls submitted to the project managers. The following provides a summary of public comments collected through these various mediums throughout the course of the study (Note: detailed comment summaries can be found in Appendix B):

1. In general, public is supportive of Olmsted County's proactive planning and is ready for an upgrade of this roadway.
2. Citizens concerned about mobility along this future roadway due to the number of proposed intersections. Comparisons were made to the number of intersections/signals on West Circle Drive and poor perceived operation of that roadway today.
3. Business owners concerned about impacts to commercial/industrial area in the northeast quadrant of CR 104/60th Avenue intersection with TH 14.
4. Public supports County's vision of a future four-lane north/south arterial roadway along CR 104/60th Avenue.
5. Concerns raised over timing of future interchange at TH 14. Majority felt this is a major safety issue right now and improvements are needed soon.
6. Public showed a general understanding of the alternative studied along the corridor.
7. No significant new alternatives or modifications to alternatives were proposed.
8. No strong objections to the Preferred Concept presented.
9. Several comments were heard regarding local neighborhood connections to St. Mary's Hills; however, most seemed to approve of the interchange area concept.
10. Several comments in support of the offset/parallel CR104/60th Avenue concept.
11. Questions why the cross section of CR104/60th Avenue will be greater than West Circle Drive.
12. Questions regarding who will have jurisdiction of the land around the TH 14 interchange(city or township).
13. Support for and against the roundabout design at CSAH 14. Proponents liked the small right-of-way requirements and opponents expressed concern with truck maneuverability and travel speeds.

Project Newsletters and Website Updates

Project newsletters and website updates were an additional form of public involvement used throughout the study. Project newsletters were developed prior to each of the public open houses and mailed to all area landowners and other identified interested parties. The newsletters provided an update of recent activities as well as serving as notice for the upcoming open houses. A copy of the two newsletters are provided in Appendix B.

A project website was also used to disseminate project information to interested citizens and property owners. The project website was located on Olmsted County's website

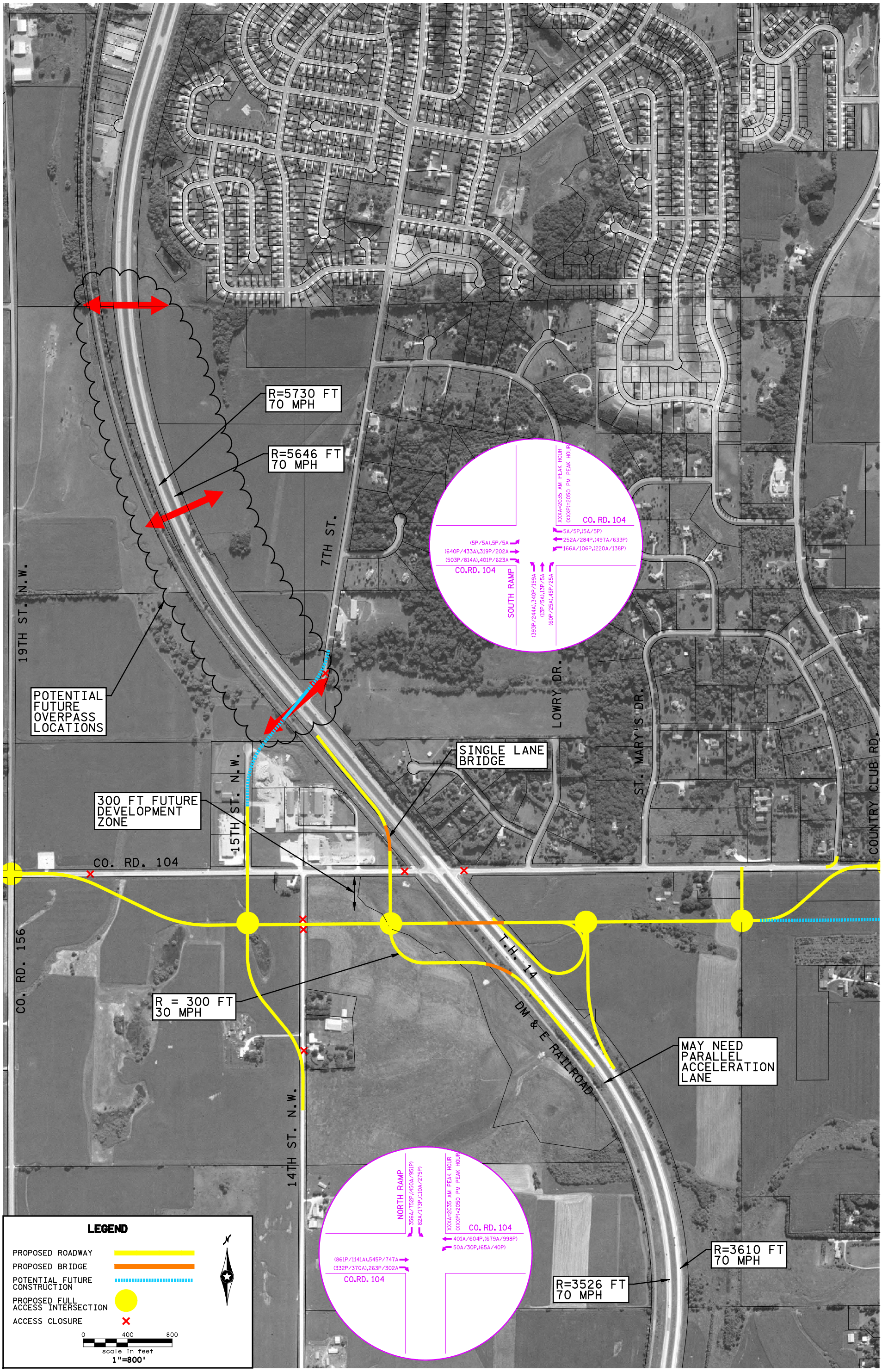
through a link to the specific project information and background material. Project schedule, status, background data and technical information was available on the website for viewing or download. In addition, website users were able to submit comments to Olmsted County through the website.
(Note: The web address for the project website is http://www.co.olmsted.mn.us/planning/cr_104_corridor_study.asp)

VIII. ALTERNATIVES TO BE CARRIED INTO ENVIRONMENTAL ASSESSMENT

Based upon the public input received and the preliminary design and evaluation developed by the project team on the range of alternatives studied, the PSC recommended a preferred alternative for each segment of the corridor to serve as a starting point for preparation of the EA. These include:

- **Area A (South Section): An interchange at TH 14 offset to the west of CR 104 with spread ramps, as illustrated in Project Alternative 2-4 (see Figure 26)**
- **Area B (Central Section): A basic 250' right of way, with legs of CSAH 4 east and west of the corridor consolidated into a single crossing as illustrated in Project Alternative 1B (See Figure 27)**
- **Area C (North Section): Given the likelihood that this improvement will be the last section to be constructed, the committee felt Alternatives 3A-1 (roundabout) and 3A-2 (continuous curve) should be retained and the composite right of way needs for these two alternatives reflected in the Environmental Assessment (see Figure 28)**

In addition, a No-Build Alternative will also be carried into the EA for purposes of evaluating the Preferred Alternative in terms of Purpose and Need and comparing impacts and avoidance, minimization and mitigation of impacts.



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_26.dgn

SRF Consulting Group, Inc.

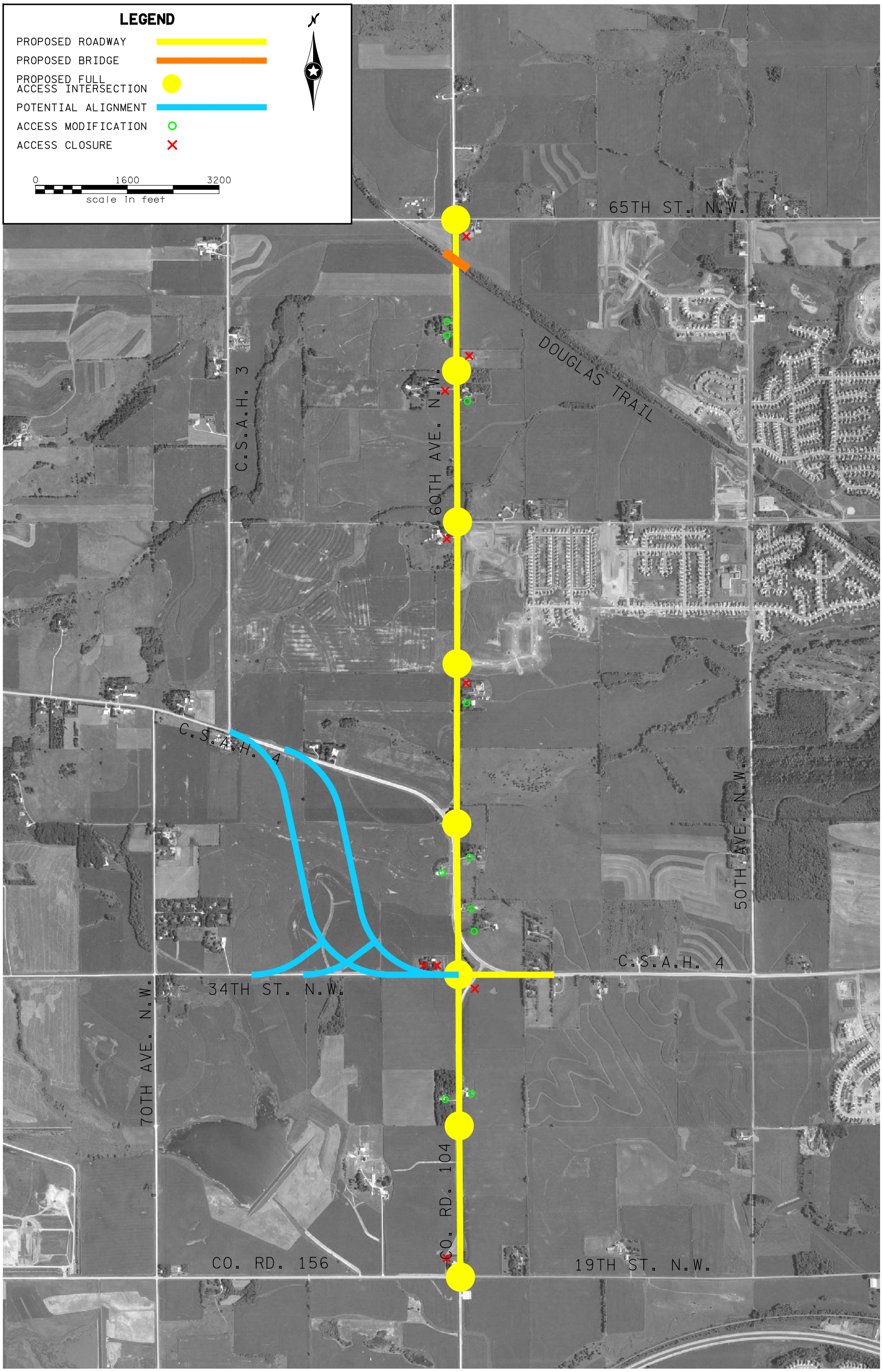
5756
5/29/2007

PREFERRED ALTERNATIVE AREA A

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 26



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_27.dgn

SRF Consulting Group, Inc.

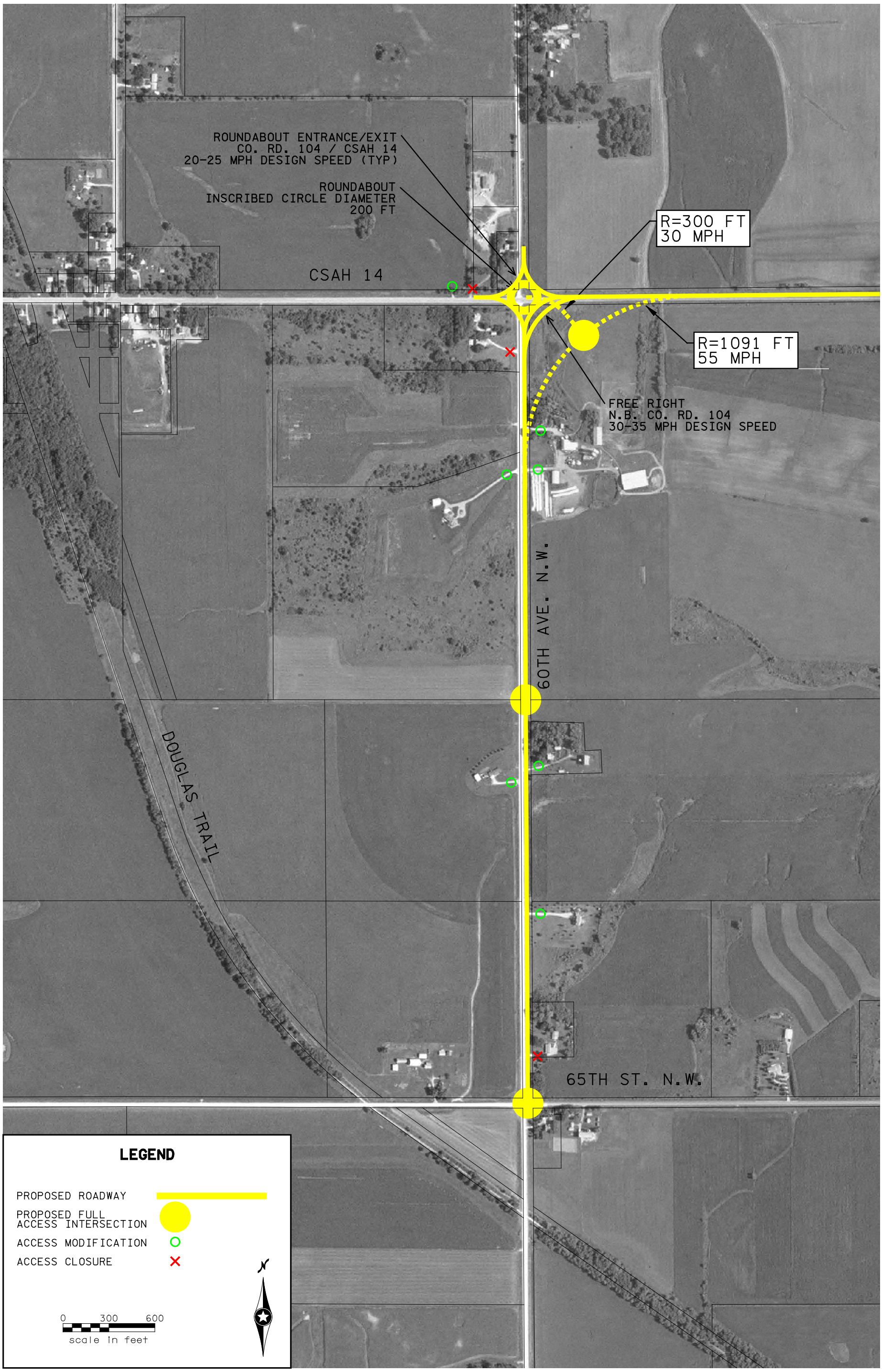
5756
5/24/2007

PREFERRED ALTERNATIVE AREA B

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 27



h:\projects\5756\HI-MU\Concept\Concept_Layout\May, revised figure numbers\5756_Fig_28.dgn

SRF Consulting Group, Inc.

5756
5/24/2007

PREFERRED ALTERNATIVE AREA C

CO. RD. 104 /60TH AVENUE WEST HIGHWAY CORRIDOR

Rochester–Olmsted Council of Governments and Olmsted County

Figure 28

IX. NEXT STEPS

This Pre-NEPA Corridor Summary report summarizes the process undertaken to validate the recommendations of the ROCOG 2035 Long Range Transportation Plan and the 60th Ave NW Corridor Management Plan that call for development of a strategic urban arterial corridor along the CR 104/60th Avenue corridor. As a lead-in to preparation of a full Environmental Assessment to support adoption of corridor preservation tools including an Official Right of Way Map, goals and objectives and project purpose and need were identified, along with a preferred alternative for the corridor. The next step in the development of this future roadway is to formally evaluate the impacts and identify measures to avoid, minimize and mitigate those impacts for the preferred alternative in a formal EA/EAW.

An EA will be completed to address the federal regulations for this project to ensure eligibility for future federal funding of the project. A State Environmental Assessment Worksheet (EAW) will be prepared in conjunction with the EA to address the portion of the project exceeding the State thresholds. The combined EA/EAW will be submitted to Mn/DOT State Aid and FHWA for review and approval. In addition, a 30-day public comment period and a public hearing will also be held for public input before a finding on the need for an EIS is made by the Olmsted County Board of Commissioners.

Once the EA/EAW is completed and approved, Olmsted County will begin the Official Right of Way Map process to protect the future corridor from development. Another public hearing will be held during this time for public input on the proposed Official Right of Way Map.