WRIGHT COUNTY RURAL INTERSECTION STREET LIGHTING POLICY

As Adopted by the Wright County Board of Commissioners on January 8, 2002

SECTION I. PURPOSE

Research by the Minnesota Local Road Research Board (Report No. MN/RC-1999-17) has concluded that the installation of streetlights at rural intersections offers a low cost and very effective strategy for mitigating nighttime vehicle crashes. Other published reports (refer to MN/RC-1999-17) have found that the installation of intersection lighting at rural intersections resulted in a 25 to 40 percent reduction in the nighttime crash frequency and an 8 to 26 percent reduction in nighttime crash severity. A benefit-cost analysis indicated that the crash reduction benefits associated with the installation of street lighting at rural intersections outweigh the costs by a 15:1 ratio.

SECTION II. POLICY

It is in the public interest that Wright County should use the strategy of installing street lights at rural intersections in order to reduce crashes and improve motorist guidance. These provisions are provided for use by the County Engineer in regulating the location, design of, and the method of installation in a uniform manner of street lighting at rural intersections. It also provides for detail cost responsibilities between local road authorities or governmental units and Wright County.

SECTION III. DEFINITIONS

Rural Intersection

For the purposes of this policy, a "Rural Intersection" shall mean any intersection located outside of an Urban District as defined in MS 169.01; and that is not within the developed area of a community; and that has a speed limit of 45 mph or greater.

Urban District (MS 169.01)

"Urban District" means the territory contiguous to and including any street which is built up with structures devoted to business, industry, or dwelling houses situated at intervals of less than 100 feet for a distance of a quarter of a mile or more.

SECTION IV. SCOPE

This policy will apply to all Rural Intersections under the jurisdiction of the Wright County Board of Commissioners and their designee, the Wright County Engineer and County Highway intersections with State Highways.

SECTION V. GENERAL CRITERIA

To be considered for street lighting at rural intersections one (1) or more of the following conditions should exist:

1. **Crashes** - The intersection has had three (3) nighttime crashes within a three (3) year period.

2. **Volume** - The volumes reach the "High" priority level in the Functional Classification Matrix.

3. **Ambient Light** - Illumination in areas adjacent to the intersection that adversely affects the drivers vision.

4. **Channelization** - The intersection is channelized and the 85th percentile speed exceeds 40 miles per hour. A continuous median is not considered as channelization for the purpose of this warrant.

SECTION VI. VOLUME CRITERIA

1. The following matrix shall be used in determining the Volume Warrant for street lighting. The lower volume, of a multiple classification intersection, shall take precedence in determining the priority. The functional classifications are based on the most current Wright County Functional Classifications Map located in the County Engineers Office:

Functional Classification for Major Street & Cross Street (Street Volumes in Vehicles Per Day)				
PRIORITY	**MINOR ARTERIAL**	**MAJOR COLLECTOR**	**MINOR COLLECTOR**	**LOCAL**
Low	0 - 999	0 - 749	0 - 499	0 - 249
Moderate	1,000 - 2,000	750 - 1,000	500 - 750	250 - 500
High	> 2,000	> 1,000	> 750	> 500

Note: Use the appropriate classification above for the Major Street and Cross Street, the lower volume shall take precedence for priority. Example: The Major Street is CSAH 35 and is classified as a Minor Arterial, The Cross Street is C.R. 117 and is classified as a Minor Collector. The ADT on CSAH 35 = 4,520 (rated High) and the ADT on C.R. 117 = 520 (rated Moderate), the Moderate Priority would apply.

2. Volumes shall be determined by placing traffic counters on all legs of the intersection.

SECTION VII. COST PARTICIPATION

The Wright County Highway Department can authorize placement of street lighting at rural intersection and participate in the costs, based on the following criteria, providing that there are sufficient funds in the Road & Bridge Budget.

1. Wright County will be responsible for all costs associated with the installation and maintenance of street lighting at warranted intersections under the County's jurisdiction, including electrical costs. If using volume warrants to meet this criteria, a "High Priority" in the volume matrix must be met. For those intersections that are under Mn/DOT's jurisdiction, a formal agreement, outlining the cost participation between the two agencies, or a Mn/DOT Permit will be required.

2. Any local road authority or local unit of government that requests street lighting at an un-warranted intersection (If using volume warrants, this would mean a "Moderate" or "Low" Priority in the volume matrix), will be responsible for all costs associated with the installation and maintenance of street lighting, including electrical costs. Under this provision the local road authority or local unit of government will be required to apply for a utility permit for the installation of street lighting.

3. Current monthly power costs are as follows:

Excel Energy	250 watt bulb $10.00/month ($18.00 underground wire)	400 watt bulb $17.70/month
Wright Hennepin Electric	250 watt bulb $16.05/month	400 watt bulb $18.00/month

SECTION VIII. LIGHTING DETAILS

For detail specification requirements on the standards of street light systems, refer to the Minnesota Department of Transportation's most recent Traffic Engineering Manual, Chapter 10 - "Lighting of Traffic Facilities".

SECTION VIII. ADMINISTRATION

1. The Traffic Engineering Section of the Wright County Highway Department will be responsible for administering this policy.

2. Street lighting of rural intersections will be handled on a case by case basis, either from County initiated investigations or by the request of local road authorities, local units of government or citizens.

3. A Local Road Authority or Local Unit of Government requesting street lighting at a rural intersection that is not warranted, will be required to complete a Utility Permit Application.

4. Requests for street lighting at an intersection with a County Highway and a State Highway, will first be forwarded to Mn/DOT for their consideration & policy requirements. Should Mn/DOT decline from installing street lighting at such an intersection, then the County Highway Department may install the street lighting, if it meets the general criteria of this policy; and an existing power pole can be used for the mast arm and luminaire. If, however, a breakaway pole is required, the request would be reviewed by the County's Transportation Committee to determine if funds should be appropriated for the installation.