



Request for City Council Committee Action From the Department of Public Works

Date: December 14, 2004
To: Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee
Referral to: None

Subject: **Minneapolis Street Lighting Policy**

Recommendations

1. Adopt Sections 1 through 11 of the December 7, 2004 draft of the City of Minneapolis, Minneapolis Park and Recreation Board Street Lighting Policy
2. Remove the moratorium on new ornamental lighting petitions
3. Return to the T&PW Committee with the following Street Lighting Policy updates regarding:
 - Section 4 -- Work Program related to the Orfield Proposal in February 2005
 - Section 3 -- Street Light Ownership and Service Provisions related to Xcel Energy in April 2005
 - Section 12 -- Park Board Lighting provisions in June 2005

Previous Directives:

- October 12, 2004 – The Council received a progress update of the Draft Street Lighting Policy and community feedback.
- July 27, 2004 – The Council received an overview of the 2004 Draft Street Lighting Policy dated July 19, 2004, requested Public Works to begin the community involvement process, and to return to committee with an update on October 12, 2004.
- December 13, 2002 – Council adopted the Standard Street/Alley Wood Pole System and again allowed for wood pole lighting petitions; the rest of the Lighting Policy was postponed.
- August 9, 2002 – The Council directed Public Works to gain neighborhood input, cease new petitions, and review Orfield proposal.
- June 13, 2002 – 2002 Draft Minneapolis Street Lighting Guidelines were presented and postponed at TPW.
- December 1, 1999 – Draft Street Lighting Policy discussed and postponed at TPW.

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Approved by: _____
Klara A. Fabry, P.E., City Engineer, Director of Public Works

Presenters: Jon Wertjes, P.E., Director of Traffic and Parking Services

Financial Impact (Check those that apply)

- No financial impact - or - Action is within current department budget.
(If checked, go directly to Background/Supporting Information)
- Action requires an appropriation increase to the Capital Budget
- Action requires an appropriation increase to the Operating Budget
- Action provides increased revenue for appropriation increase
- Action requires use of contingency or reserves
- Other financial impact (Explain):
- Request provided to the Budget Office when provided to the Committee Coordinator

Background/Supporting Information:

Drafting of the Minneapolis Street Lighting Policy began in 1998. Exhibit 1 is the December 7, 2004 draft of the Minneapolis Street Lighting Policy. This draft has been modified and expanded to include more direction on the process and standards that are used. The Policy Updates and On-going Work Items are discussed next.

Street Light Policy Updates

The following are a list of Public Works recommended Street Lighting Policy updates:

1. Establish 3 types of lighting districts: Residential Districts, Pedestrian Districts, and the Central Business District.

Public Works recommends establishing three different lighting districts. Each district would have a unique lighting intensity. The Central Business District would have the highest intensity of lighting and residential areas would have the lowest. The Department of Public Works and the Department of Community Planning and Economic Development have and will continue to work together to determine the definition and boundaries of each of these areas. Some areas may change land use designations over time, so the boundaries may periodically change. A web-based map that will clearly define the three districts is currently begin completed and will be available by January 1, 2005.

2. Cost of Street Lighting Systems

Attachment 5 in the Street Lighting Policy includes tables summarizing the parameters and costs for street lighting for the three districts. These costs are for a 25-year life cycle of the street lighting systems on a typical block. For example the residential lighting has two systems – Xcel wood pole and the low-level. Over the 25-year cycle, the cost for operation and maintenance is approximately equal. It is the capitol cost that differentiates these to systems.

3. Ornamental lighting systems continue to be optional in the residential districts.

Residential areas would still have the option to install low-level ornamental lighting systems instead of continuing with the existing wood pole system. Areas wishing to install ornamental street lighting would go through a petition process to determine the level of interest and then be subject to a special assessment for the lighting system capital cost. At this time there is no funding mechanism to have a low-level ornamental system become a standard throughout the city. A street lighting utility fee may be an

option to establish a funding mechanism if this type of system were to become standard throughout the city.

Public Works will continue to look for more “urban” options to the existing wood pole system. There may be more aesthetically pleasing alternatives to the current wood pole, such as metal or concrete, and/or the cobra-head fixture. This may result in ownership changes of the street light pole and/or the fixture. The feasibility of changing to a different type of pole, changing ownership, or maintenance responsibilities is currently being explored. This will be done along with other Xcel Energy issues as discussed below.

4. Ornamental lighting systems will become standard in Pedestrian Districts and the Central Business District.

The Policy introduces that Pedestrian Districts and the Central Business District are required to have an ornamental lighting systems that will achieve lighting levels to meet City livability and safety goals. Each area has the option of which fixture will be used, but minimum lighting levels need to be met. Pedestrian Districts and the Central Business District have higher volumes of pedestrians and a more intense light level is needed for safety and security purposes. These lighting levels reflect the Illuminating Engineering Society’s (IES) recommended guidelines. Many Pedestrian Districts are near residential areas, so the lighting level is not as intense as in the Central Business District. The three districts of light levels will reduce the drastic changes in lighting levels from one location to another.

The Central Business District has an existing ornamental system, mostly 30 foot high level lights. Some Pedestrian Districts have existing ornamental systems, however not all. Therefore, a long-term capitol and funding program is needed to install ornamental systems consistently among these Pedestrian Districts. The Policy recommends as a standard that new ornamental lighting installations be completed with all street reconstruction or renovation projects. Public Works will further develop a long-term street lighting program to address the Pedestrian District lighting needs. This program will be developed in the first half of 2005.

5. The time limit for collecting petition signatures for an ornamental lighting system will be limited to 12 months with a possible 6 month extension.

In 2002, a time limit was proposed for the petition process of 12 months and an extension could be granted by the Council Member(s) for an additional 6 months. The Policy modifies this by allowing the six month extension only when the petition approval level is at least 50% after the first 12 months. This is more applicable to the residential areas, where the size of area is typically much larger than Pedestrian Districts or parts of the Central Business District. Setting criteria for extending the time limit will prompt neighborhoods to work in a timely manner collecting the petition signatures. Petitions remain advisory to the City Council’s actions.

6. The signatures collected for the petition will be tracked based on owner, management, and tenant basis.

Public Works recommends tracking all signatures collected and providing a breakdown of owners, management, and tenants to provide a better understanding of who’s in favor of the project. Exhibit 2 is a sample spreadsheet which is used to track the approval percentage. An owner’s or manager’s signature would count for the whole property and a tenant’s signature would be tracked for just a portion. (Example: If one tenant of a four-plex signs a petition, one fourth of the square footage of the effective lot area would

be considered to be in approval, if the owner signed, the full lot would be considered to be in approval.) Petitions remain advisory to the City Council's actions.

7. The current number of adopted lighting fixtures

In August 2004, Minneapolis Public Works sent letters to all neighborhoods and business associations requesting feedback on new lighting fixture styles. The information was also posted on the City website and announced in several neighborhood newsletters and newspapers.

There were only 20 responses to our request for feedback. The fixtures that were rated as favorable were similar to styles that are already offered. This can be an indication that the current fixture styles are acceptable to some neighborhoods and residents. Public Works is still seeking to expand the number of fixtures currently offered and recommends forming a task force of Public Works, CPED, and other interested parties to continue the process to expand the number of approved fixtures. This is discussed later in this letter under the Public Works Best Management Practices section.

8. Private lighting in the public right-of-way

The previous draft Policy did not contain language regarding private lighting in the public right-of-way. Public Works recommendation is to allow this type of lighting in addition to, and not as a replacement of, the City's street lighting. The private systems must be installed by encroachment permit that will be reviewed and approved by the Department of Public Works for safety, photometric, and structural requirements, such as the amount of light provided, the potential for glare, and the wind load stability of the pole structures.

Other items described in the July 19, 2004 draft Policy have not been changed and therefore, have not been addressed in this letter.

On-going Items

Some items require more follow-up even after the street lighting policy is adopted. These items are discussed below along with their estimated timeline

A. Minneapolis Park and Recreation Board (MPRB)

Currently, Minneapolis Public Works operates and maintains the lighting systems along parkways. This system is past or near the end of its useful life. A Task Force has been formed to address the lighting issues along parkways. Members represent Minneapolis Public Works, Minneapolis Park Board Planning and Park Operations, and the Grand Rounds. The purpose of the Task Force is to establish a standard light level and recommend a fixture for use along the parkway system. Members of the task force are working to determine the system parameters. The Minneapolis Park Board will have a public input process. This process is yet to be determined and may extend into the second quarter of 2005.

In the proposed 2005 capitol budget, there is \$1 million designated for parkway lighting. (The budget is not adopted at this time.) Public Works and the MPRB are working on a recommendation to prioritize funds on the many needed parkway segments. A list of priorities, based on current conditions of the existing system, will be developed by mid-January, 2005. The money budgeted for parkway lighting may also be used to match

other funding opportunities. Public Works and MPRB are currently exploring federal and regional funds.

B. Xcel Energy

Xcel Energy has a large role in Minneapolis street lighting. Xcel Energy is the sole source of energy for street lighting. Xcel Energy also owns, operates and maintains the existing residential wood pole system. The current contract with Xcel Energy renews on September 1, 2005. Meetings have begun with Xcel Energy to discuss operation and maintenance of lighting systems. The following items are being discussed:

- Public Works is conducting an audit of the energy rates and billing elements to ensure that all aspects and systems are correct and in alignment with Public Works and Xcel Energy records. Findings and recommendations are expected to be completed December 2004.
- Public Works and Xcel will define service level commitments, develop reporting requirements, and incorporate needed new language into the contract. Public Works has requested information from Xcel to help understand their process for reporting outages, timelines for correcting problems, and the service levels that are provided. Public Works has not yet received Xcel's information. This is consistent with the Public Works Business Plan efforts to define service levels.
- Public Works will work with Xcel to review street light pole and fixture ownership options. The ownership spectrum is a continuum from total Xcel ownership to total City ownership. As part of the meetings with Xcel Energy, a matrix of options will be developed factoring in pole ownership, fixture ownership, maintenance activities, and energy.
- Public Works will continue to look for aesthetic alternatives to the existing wood poles and the cobra-head fixtures. Pole options would include metal or concrete materials. The feasibility of changing to a different type of pole or fixture may affect ownership and/or maintenance responsibilities that will be explored. This will be done in parallel with the other above Xcel discussions.

Public Works and Xcel Energy expect these issues to be thoroughly discussed and brought back to the City Council for further direction in April 2005. This will allow any contract agreements to be written and executed prior to the September 1, 2005 contract renewal.

C. Public Works Best Management Practices

Communications and 311/One Call

Public Works has begun discussions with the City's Communications to improve communication with the public and other stakeholders regarding the street lighting system. The defined communication improvements will be incorporated into the street light service level commitments.

The implementation of the 311 system will assist in tracking the response to reported outages. A private citizen will only need to know one number to report any street lighting issue and the request can be directed to the appropriate party, City or Xcel Energy.

Orfield Laboratories Proposal

Orfield Laboratories has submitted a proposal to the City of Minneapolis for a study of street lighting systems. Their proposal expresses interest in further defining the "visibility" parameters of street lighting that would result in a better light fixture and mounting height parameters for the City. The Orfield proposal anticipates that vendors will be involved and

be primarily responsible for funding the proposal activities. Public Works has several questions and requires further discussions with Orfield.

Due to the limited response rate to the lighting fixture survey (item #7 above), it is recommended that the City stay with the existing light fixtures and work with Orfield or some else entity to help define the new fixture options. A program that develops, designs and tests potential new lighting fixtures is contemplated. Therefore, Public Works will further explore a proposal process to solicit improved lighting from both a visibility standpoint and the aesthetic design needs. It is anticipated that a work program could be developed in two months pending input and discussions with various stakeholders.

Continuing Research & Technology Updates

Public Works will continue to review street lighting levels to determine if there is too much or too little light provided. The Street Lighting Policy Document will be reviewed and revised as necessary to incorporate advances in technology such as Light Emitting Diodes (LEDs), Metal Halide with longer lamp life, and Quality Lighting (QL). Public Works will have an on-going commitment to look for ways to best balance the need for efficient lighting fixtures, lower energy usage, and address Dark Sky concerns.

Also, Public Works will continue to review other cities street light practices to determine how Minneapolis compares based on light levels, funding, fixtures used, etc. A list of the cities that have been contacted or researched are below. Further information will be shared with the City Council.

- St. Paul, Minnesota
- Richfield, Minnesota
- Burnsville, Minnesota
- University of Minnesota, Twin Cities
- Salt Lake City, Utah
- Dallas, Texas
- Portland, Oregon
- Seattle, Washington
- Columbus, Ohio
- Oakland, California
- Sacramento, California
- Washington D.C.
- Boston, Massachusetts
- Denver, Colorado
- Philadelphia (future)
- New York City (future)

Public Works anticipates that approximately 2 to 5% (\$12-\$30,000) of the street lighting budget will annually be targeted to continuous improvement, research, and technology efforts.

Exhibits:

- Exhibit 1 – December 7, 2004 Draft Minneapolis Street Lighting Policy
- Exhibit 2 – Petition Status Sample

cc: Jon Gurban, Michael Schmidt, and Judd Rietkirk - Minneapolis Park & Recreation Board
Barbara Sporlein and Jack Byers - CPED
Rhonda Rae, John Hotvet, Steve Mosing, and Dennis Bechard – Public Works
Gail Plewacki, Communications
Ed Backstrom, City Attorney's Office