

**Greg Minikel**

**From:** Steve Bacalzo  
**Sent:** Wednesday, May 03, 2017 11:04 AM  
**To:** Greg Minikel; Dan Koski  
**Subject:** Rapids Road Street Lighting - Custer to Broadway Streets

Greg and Dan,

Following are street lighting options for three "segments" of the proposed, 4-lane road and offset pedestrian pathway:

1. The existing, 6 each, High Pressure Sodium (HPS) street lights between Custer Street and the railroad tracks **will be adequate**.
  - A. **Option A: Do nothing and leave the existing HPS fixtures.** Capital cost \$0. Existing monthly cost is \$14.77 per fixture.
  - B. **Option B: Replace 6 existing HPS light fixtures with 6 LED fixtures on the existing wood utility poles.** One-time capital cost is estimated at \$4,200. MPU does not have an existing tariff for LED lighting but estimates that monthly cost would reduce to about \$13.24 per fixture, subject to PSCW tariff development and approval.
  - C. **Option C: Remove 6 existing HPS light fixtures and install 6 LED fixtures on ornamental poles, all on the east side of the street.** One-time capital cost is estimated at \$46,200. MPU does not have an existing tariff for LED lighting but estimates that monthly cost would be about \$15.75 per fixture, subject to PSCW tariff development and approval.
  
2. The existing, 13 each, HPS street lights between the railroad tracks and the river **will not be adequate**.
  - A. **Option A: Add 12 HPS lights on new wood utility poles and remove 3 existing HPS lights (to achieve uniform spacing).** Capital cost is \$0. Existing monthly cost is \$14.77 per fixture.
  - B. **Option B: Replace 13 existing HPS light fixtures with 15 LED fixtures on wood utility poles.** One-time capital cost is estimated at \$40,000. MPU does not have an existing tariff for LED lighting but estimates that monthly cost would reduce to about \$13.24 per fixture, subject to PSCW tariff development and approval.
  - C. **Option C: Remove 13 existing HPS light fixtures and install 15 LED fixtures on ornamental poles, all on the east side of the street.** One-time capital cost is estimated at \$115,500. MPU does not have an existing tariff for LED lighting but estimates that monthly cost would be about \$15.75 per fixture, subject to PSCW tariff development and approval.
  
3. The existing, 3 each, HPS street lights between the river and Broadway Street **will not be not adequate**.
  - A. **Option A: Add 1 HPS fixture to an existing wood utility pole.** Capital cost \$0. Existing monthly cost is \$14.77 per fixture.
  - B. **Option B: Replace 3 existing HPS light fixtures with 4 LED fixtures on the existing wood utility poles.** One-time capital cost is estimated at \$2,800. MPU does not have an existing tariff for LED lighting. MPU estimates that monthly cost would reduce to about \$13.24 per fixture, subject to PSCW tariff development and approval.
  - C. **Option C: Remove 3 existing HPS light fixtures and install 4 LED fixtures on ornamental poles, all on the east side of the street.** One-time capital cost is estimated at \$30,800. MPU does not have an existing tariff for LED lighting but estimates that monthly cost would be about \$15.75 per fixture, subject to PSCW tariff development and approval.

Options are based on street lighting standard ANSI/IES RP-8 with the right of way modelled as a major road class with low night-time pedestrian usage (low pedestrian density - suburban and rural). Please advise if you have questions or would modify this design criteria.