

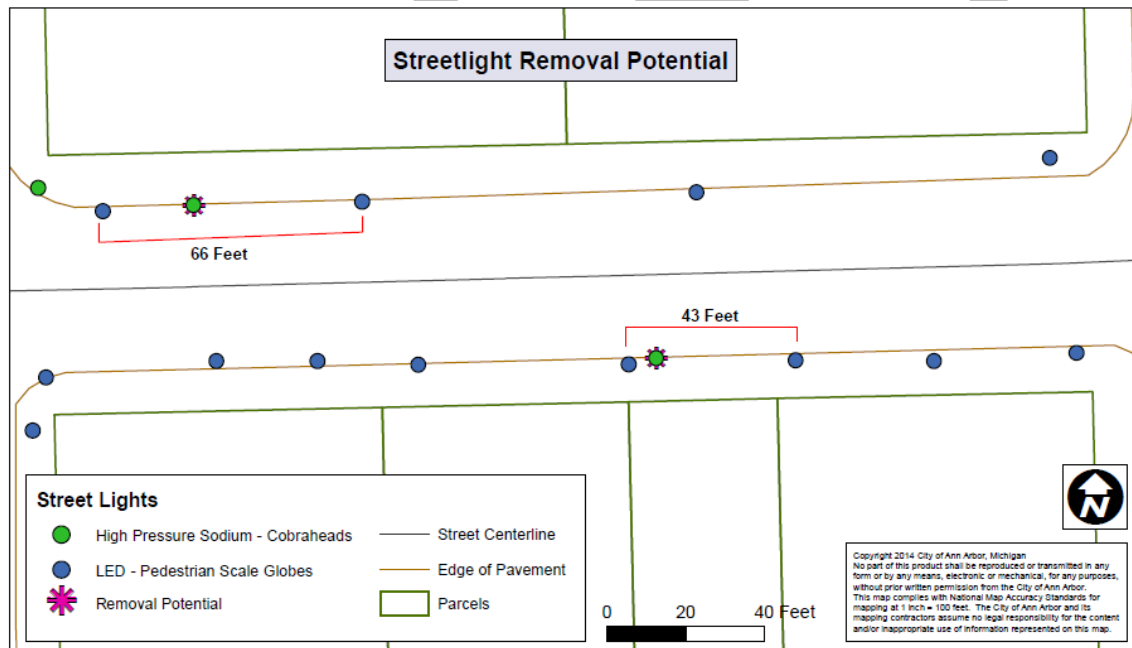
Appendix: Streetlight Offset Program (SOP) Implementation Strategies

Immediate/Phase I Strategies

Phase I of the SOP will consist of the following strategies to potentially expand the available savings reserve. Phase I will be considered the time to implement the strategies described. The time horizon is expected to be 1 to 3 calendar years.

a. Targeted Streetlight Removal in Over-lit Areas

Identify lights that exceed Public Services Department Standard Specifications (190 feet for cobraheads, 45-60 feet for downtown/pedestrian scale lights) such that the removal of any one light does not leave spacing between remaining lights to be greater than the standard specification. This analysis includes areas where lights owned, maintained, and paid for by non-City entities may be sufficient to light the right-of-way after lights billed to the City have been removed. Streetlights specifically intended to light marked crosswalks should not be considered. Preliminary analysis does not indicate streetlights that meet these criteria are found in residential neighborhoods.



b. Convert DTE Streetlights to LED

Participate in opportunities to convert DTE streetlights to LED under the existing Master Streetlight Agreement, such that the City contributes to upfront purchase of LED luminaires, but DTE retains responsibilities, including fixture replacement in all future years. DTE's initial focus and the current optimum eligible rebates apply to mercury vapor streetlights, but this strategy may also extend beyond mercury vapor streetlights, which the utility is phasing out. Conversion to LED typically reduces energy consumption by half or more, while also reducing expenses, thus opening space in the SOP reserve.

Secondary/Phase II Strategies

Phase II will be considered the time to implement the strategies described. The time horizon is expected to be potentially concurrent with the 1 to 3 calendar year in Phase I but also continuing in an ongoing basis thereafter. (Additional strategies not explicitly laid out in this policy but achieving offsetting aims of the SOP will be considered and applied as determined by Public Services staff.)

c. Lighting Bank

When developers install new public lighting, they pay for the initial cost of the light fixtures, but it falls on the City to pay the energy and maintenance costs for the life of these lights, which can be over \$500/year per light. Developers currently wait for lighting to be removed before proceeding with their projects. This has caused delays and other problems for past development projects. The Lighting Bank would allow a developer to pay a set fee per watt of new public lighting installed as part of their development without waiting for accrual of lighting removals. The funds raised will be used to retrofit existing public lighting with more efficient, less costly to maintain LEDs, while contributing towards the SOP reserve. This provides a mechanism for developers to move ahead with new projects, reduces overall public lighting costs and provides an incentive for developers to install more efficient lighting within the SOP.

Potential guidelines have been developed in the past by the City's Energy Office and could be used to develop the Lighting Bank as a supplement to the Streetlight Offset Program.

d. Optimize Off-Street Area Lighting

Existing streetlights adjacent to on-building and/or on-property lighting that provide necessary illumination for the sidewalk, street, or right-of-way may be evaluated for removal as part of the SOP to accommodate costs of any new lights added to the system. Photometric layouts detailing the light output in these areas may be requested from the project developer or responsible party controlling the property to determine whether the on-site or on-building light will sufficiently meet guidance set by the Illuminating Engineers Society (IESNA). This approach will be done in coordination with surrounding parties, including organized associations to ensure adequate lighting is achieved.

e. **Graphic Depiction of SOP**

