

Craneridge Lighting Options

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Introduction

As the last of the old gas lights have been removed throughout Craneridge, the Town of Concord has resurfaced a 30+ year old issue regarding what to do with the lighting here in our community. The new members of the lighting committee have been in collaboration with the Town and have produced three different lighting options detailed below. It should be recognized that the Town of Concord has been working with us in good faith and still possesses the power to install whichever lights they see fit with-in their right-of-way, based on recommendations from NYSEG. There is no legislation that mandates lights be installed at all intersections. Instead, each municipality relies on engineering reports provided by the power companies. Their main goal is to "ensure the safety of pedestrians as well as proper illumination of road signs for motorists." The Lighting Committee shares the same goal of safety for the residents, but realizes that aesthetics are also important as Craneridge is a unique community.

Summary

The residents of Craneridge have historically paid on average \$180 per lot per year as a line item in their property taxes for the lighting district. These funds were used by the Town of Concord to pay for the natural gas and maintenance of the lights. Depending on the variable costs, this cost has varied between \$120 and \$283 over the past 20 years.

Now that the gas lights have been removed, a decision needs to be made on how to move forward. Several ideas were considered including keeping the gas lights or converting to solar LEDs. After research and debate, the options below were considered most feasible.

An informational meeting will be held on Monday, November 11 at 6:30pm, details will be published on the website. The purpose of this meeting will be to answer any questions people have about our lighting options. After that meeting, an online survey will open up to allow residents to provide feedback and choose their desired option. Though the final decision rests with the Craneridge Board of Directors, feedback from this survey will direct the Board on how to move forward.

Options

1 Go Dark

Going dark means that there will be no lights at any of the intersections nor lights along the road side. New York State does not require lighting at intersections nor mandates the illumination of street signs, instead it leaves the decision to local municipalities. Each Township is responsible for conducting their own lighting survey as well as any lighting implementation. If we choose to "go dark", our case will have to be brought to the Town of Concord Board of Directors during their monthly meeting. The Town Board will then vote to accept or deny our case. Both the Craneridge Board and the Town Board would need to approve the go dark approach. Though they are open to the suggestion, the Town of Concord has the authority to deny this option and require lighting on its publicly maintained roads.

Pros	Cons
	Not a guaranteed option. A separate case will need to be made and accepted by the Town of Concord
Beneficial to flora and fauna that require a dark	Increase the possibility of animal/pedestrian accidents
	Loss of "charm" and/or sense of security to the community
	Decreased ability to navigate the neighborhood.

2 NYSEG installed cobra lights

The Town of Concord has asked NYSEG to conduct a lighting survey of Craneridge and to provide a cost estimate on the installation of cobra-style lights at the eight intersections main in our community. During the last meeting with the Town Supervisor, he shared <u>limited</u> details about the estimate, but the cost would be approximately \$1,400. This estimate is for the installation of the lights. <u>The funds would come from the Town of Concord Lighting District reserves</u>. The actual cost of the lights and maintenance are paid by NYSEG as each light is "rented" at a per month price that is covered by the Town's general highway fund.

Pros	Cons	
It will cost the residents of CR nothing	NYSEG does not offer aesthetic options	
All lights will be dark sky compliant	No say on which intersections are illuminated	
Lights will be maintained by the Town	No control of when the lights come on/off	
Added sense of security when walking/biking	Possibility of light trespass	

3 Craneridge installed lights

The Town of Concord had previously installed two demonstration lights along Deer Run near the Meadow. These lights served as an alternative to the proposed cobra lights at that time. If we as a community choose to install the lights ourselves, they would be in a similar style as the ones at the Meadow. The exact model of the Meadow light is no longer in production, but almost identical ones are available for purchase. The suggested lighting plan is similar to that of the Town's. Eight intersections would be illuminated, but there would be an additional four electrical meters that would be necessary for proper power distribution. The locations of the meters as well as the style of the meter bases is still yet to be determined. The light fixtures themselves would be LED and dark-sky compliant. If this option is chosen, the installation of the lights will be paid by the residents of Craneridge. The exact dollar amount and how it will be funded is yet to be finalized.

Pros	Cons		
Highly customizable	The installation of light bases will cost CR ~\$70,000		
Adjustable temperature output i.e warm, daylight, cool white etc.	Cost of the installation does not include the lights themselves. TBD based on exact model		
Optional shielding to limit light trespass	4 meters will be added throughout CR common property		
We can pick the exact fixture we want	Monthly operation cost (estimated below)		
Locations can be adjusted to fit needs	Lights will have to be maintained by CR		
No additional utility poles/wire	Landscaping around meter bases will be maintained by CR		
We can chosen when the lights turn on/off			
Builds infrastructure needed if the neighborhood wants additional lighting in the future.			
Added sense of security when walking/biking			
Maintains unique charm of neighborhood			

Further Details are in Appendix A

Note: As of January 1, 2025, the residents of Craneridge will no longer be charged a lighting district tax. The Town has voted to dissolve the current Light District and it will take place the first of the new year. This will take effect regardless of any of the lighting options.

Furthermore, the Town has stated that they <u>will not sign</u> any documentation that relinquishes their authority to install cobra light regardless of any lighting provided by Craneridge.

<u>Dark Sky</u> complaint means lights will be downward facing and not upwards toward the sky, which can impact start views and bird and insect migration.

*Light trespass means that the lights shine in non-street areas like homes, property fronts, etc. and can be prevented with the use of a shield/shroud that blocks light in a certain direction.

Financial Information for Craneridge Installed Lights

Estimate for installing the infrastructure for 8 lights: \$70,000 Estimate for light posts @ \$4000/ea: \$32,000 Total \$102,000

Note: These are estimates only. Care was given to be conservative.

Payment options:

Various options exist to cover this cost. Though it may seem high, money can be 1) responsibility used from reserves with 2) the balance available via a bank loan. Craneridge owns 2 lots that make up the Meadow, which can be used as collateral. An ideal loan would have a 15 year term with no prepayment penalty. Exact rates and terms would need to be worked out with the bank, Finance Committee, and have approval of the Craneridge Board of Directors.

Below are estimated annual costs by lot. Note at the bottom that all of these estimates are considerably lower than the rate we have historically paid for the gas lights.

Project Cost	\$102,000			
	Option 1	Option 2	Option 3	Option 4
Loan				
Down Pymt (reserves)	\$60,000	\$20,000	\$60,000	\$20,000
15 yr Loan (7%)	\$42,000	\$82,000		
10 yr loan (7%)			\$42,000	\$82,000
Annual loan cost	\$4,254	\$8,304	\$5,592	\$10,920
Maintenance				
service charge	\$176	\$176	\$176	\$176
supply charge	\$200	\$200	\$200	\$200
misc maintenance	\$40	\$40	\$40	\$40
	\$416	\$416	\$416	\$416
Total annual cost	\$4,670	\$8,720	\$6,008	\$11,336
total per lot per yr	\$27	\$51	\$35	\$67

Average cost currently spent per lot on lighting

2024: \$133.33

Average annual cost (2020-2024): \$179.56 Average annual cost (2005-2024): \$183.08

Case for Street Lighting

Proper street lighting is a crucial component of any safe and well-maintained neighborhood. Intersections, in particular, require adequate illumination to prevent accidents, enhance visibility, and promote overall safety. Below outlines the significance of street lighting at intersections and provides recommendations for HOAs to ensure optimal lighting conditions within their communities.

Key Benefits of Street Lighting at Intersections

- 1. Accident Prevention: Well-lit intersections significantly reduce the risk of traffic accidents by:
 - o Improving visibility for drivers, pedestrians, and cyclists
 - Enhancing detection of potential hazards, such as potholes, debris, or other obstacles
 - Improving navigation, especially for drivers unfamiliar with the area as main intersections are easier to find when properly illuminated.
- 2. **Pedestrian Safety:** Adequate street lighting at intersections benefits pedestrian safety, as it:
 - Allows pedestrians to be seen more easily by drivers
 - Helps pedestrians identify potential hazards in the road.
- 3. **Property Values:** Well-lit neighborhoods often have higher property values. Good street lighting contributes to a positive perception of the community and can attract potential buyers.
- 4. **Community Well-being:** A well-lit neighborhood can foster a sense of security and community. Proper lighting helps to create a welcoming and inviting atmosphere.

Case against Street Lighting

While street lighting can provide benefits, such as improved safety and visibility, it's important to weigh these advantages against the potential negative consequences.

Key Concerns of Street Lighting at Intersections

- 1. **Light Pollution:** Excessive artificial light disrupts natural rhythms of wildlife, including nocturnal animals. It can interfere with migration patterns, breeding cycles, and hunting behaviors
- 2. **Disrupted Sleep Patterns:** Exposure to artificial light at night can interfere with the body's natural production of melatonin, a hormone that regulates sleep-wake cycles. This can lead to sleep disorders, increased risk of chronic diseases, and decreased cognitive function.
- 3. **Maintenance Costs:** Streetlights require regular maintenance, including cleaning, repair, and replacement of bulbs
- 4. **Loss of Nighttime Ambiance:** The absence of darkness can diminish the beauty and tranquility of nighttime environments.

Appendix A - Craneridge Installed Pedestal Lighting Details

The proposal below is to add street lighting to the intersections in Craneridge. The project is split into 2 parts; 1) Wiring, foundations, and meters and 2) lighting fixtures. This allows for flexibility and discussion around the final lighting fixtures.

Goals of this project are:

- Provide lighting at intersections in Craneridge. This would make them easier to navigate.
- Maintain aesthetics of Craneridge. Craneridge is a unique neighborhood with architectural charm that blends into its natural setting. "Standard" cobra-style street lighting conflicts with these aesthetics.
- Minimize light pollution and maintain dark sky compliance. Excessive lighting negatively impacts both residents and the natural surroundings.

During the summer of 2024 an RFP was issued to 3 companies. Simoncelli Electrics, Inc was the low bid for the following plan:

Installation of new electrical wiring for the following with regard to new intersection street lighting as per our walk through in Craneridge Association

- 1. Installation of general wiring for:
 - a. Line side cable in PVC conduit from NYSEG source to new meter location.
 - b. New NYSEG approved outdoor meter and raintight panel on a pressure treated post.
 - c. New load side cable from new panel to new street light location.
- 2. Proposal shall also include:
 - a. Electrical permit and Inspection fees.
 - b. Trenching and backfill to a rough grade state for underground portion and light pole foundation.
 - c. Concrete foundation for customer supplied light pole.
 - d. Labor for installation of customer supplied poles and light fixtures.
- 3. Proposal does not include:
 - a. Any NYSEG fees if any should occur
 - b. Cost of street light pole and LED light fixture.

The initial proposal was based on twelve (12) installations and each installation shall be 100' in length. Estimated cost is \$76,800.00 to be paid by Craneridge Homeowners Association. After this proposal was received, it was suggested to light 8 instead of 12 intersections, which could reduce cost by up to 25%.

Street Lights will meet the following criteria

- Maximum lumens of 2500 to 3000. (consistent with the 2018 MDA Engineering report)
- Maximum CCT (color temperature) of 3000K with CCT between 1000K and 1800K recommended for wildlife sensitive and rural areas.
- All streetlights are Dark Sky compliant.
 - This is especially important to many residents in Craneridge, not only to minimize environmental impact, but also maintain character of the neighborhood.
 - There is a proposed bill (A5632A) before the New York State assembly (in committee) for dark sky protection. Fixtures chosen would meet these guidelines in order to be proactive and avoid the need for future changes and costs.
 - All LED lighting should be properly shielded to minimize glare and detrimental human and environmental effects
 - Consideration should be given to utilize the ability of LED lighting to be dimmed for off-peak time periods.
- Lamp design is consistent with the architectural, historical, and environmental identity of Craneridge.

Fixture placement

All fixture locations will be mutually agreed upon between the Town of Concord and Craneridge Association. This will ensure that the needs of both parties are met. If required, all fixtures will be outside of the right-of-way.