

TOWN OF LYNDEBOROUGH
STREET LIGHT STUDY COMMITTEE MEETING MINUTES
Monday, August 6, 2018 at 7:00 p.m. at Citizens' Hall

Committee Membership: Chair Steve Brown, Vice Chair Andy Roeper, Greg Kreider, Rick McQuade (BOS), John Pomer, Charlie Post, Bob Rogers (Planning Board), Stephanie Roper (Heritage).

- I. **Call to Order:** Chair Brown called the meeting to order at 7:00 p.m.
- II. **Introduction of Members Present:** Steve Brown, Andy Roeper, John Pomer, Bob Rogers, Stephanie Roper.
- III. **Appointments:** Lighting Vendors
 - a. **Via Telephone: John (JB) Branagan at Affinity LED Lighting, Dover, NH**
<https://affinityledlight.com>

Chair Brown thanked Mr. Branagan for calling in and informed him that this was being recorded for minute-taking purposes only. Chair Brown reported that we have taken a GIS map of the town with the street lights we currently have and narrowed down what we want to keep, remove and where we want to add new lighting locations. Out of 20 lights, the current plan is to remove 16, upgrade 4 to LED and add 4 new lights. There is a possibility we will be adding new lighting at Highway Department and Citizens' Hall parking lot which would involve adding new pole. This could increase the total number of lights from 8 to 12. Saving money, preserving the rural character of our town, the dark skies, avoid light trespass are a part of the Committee's discussions. Chair Brown informed Mr. Branagan of the schedule and timing of the project which will be presented to the town in October and discussed at the Town Meeting in March 2019. He indicated the Committee is looking for ballpark costs to present to the town in our October Report. If we go through with the switch to LED lighting, there will be another phase where we will need to figure out actual costs.

Chair Brown asked Mr. Branagan tell us about himself, his business and what they have done. Mr. Branagan said he is a Project Manager with Affinity and has handled all the Street Light conversions in 36 communities in New Hampshire and is starting in the state of Maine. Affinity has been awarded the DOT contract for the State of NH for the highway and turnpike systems. Steve Lieber is the President. The two men worked together at the Timberland Company, Mr. Lieber was based in Asia managing the Global Supply chain and Mr. Branagan was in Stratham, NH Headquarters working on licensing deals. He said they have a lot of lighting experience. The company is based in Dover, NH and they hire U.S. Veterans to do the assembly. The components are globally sourced products that, in Mr. Branagan's opinion, are "one of the best values you can find in the Street Lighting market place." He reported cost of \$137 for a 25 Watt light and indicated that it is hard to find another brand that has all the same features and components. There may be lights for a little less but they not comparable in terms of USA made and their componentry tends to be value engineered for a lower price. Mr. Branagan was pleased the GIS Map has been done and stated that is one of the things that we have done for communities. Chair Brown questioned if the luminaires come with the sensor on top. Mr. Branagan confirmed the sensor goes on top with every photo cell. He indicated they have a 10-Year/1-Year Warranty. The 10-year Warranty is "bumper-to-bumper" on the parts of their manufactured assembly process. In the first year if something happens, they not only replace the product but pay for the labor. If after one year, something happens such as a tree hits it, we can help with the insurance claim to get it replaced. If it is a Dover built fixture, we can service it. Mr. Roeper asked how MTBF on your sensors compare with Eversource' sensors as these seem to be the most frequent point of failure? Mr. Branagan indicated that they were losing some early batches of photo cells due to corrosion, but since upgrading photo cell not

many have failed. There is a 10 year warranty on fixtures and the life expectancy is 25 years or longer on DCL listed fixture. Eversource does require DCL listed fixtures on their poles and they pay \$100 incentives as long as it is a DLC listed item. They are also rated for dark sky compliant. Our BUG (Back Up and Glare) rating 1,0,1. For back lighting, you don't always want a 0 as in a crosswalk where you need a little behind the pole. There is much less light pollution. All the LEDs are very direct. We recommend Type 2, rectangular lighting, it lights the roadway nice in both directions. Mr. Roeper asked if they offered an intensity map for the differences in height regarding the Type 2 and Mr. Branagan confirmed they have IDS files that show all their output, how many lumens and how the cone of light is directed. Type 3 is for a wide intersection and is more of a box. Type 5 is for parking lots where you want some back light. Mr. Branagan questioned the Committee's strategy on Historic lighting. Chair Brown replied there was discussion of whether to pull down the circular top-shaped fixtures with a type of "beak" on the front and the back, which are definitely historic and auction them off or sell them and indicated that most of the town's lights are of this vintage. We have a couple of Metal Halide in front of the Fire Department and one more between the Fire Department and the school, so there are 3 unattractive fixtures and 3 quaint (incandescent) fixtures. Mr. Branagan reported that Conway, NH went to 25 Watt LEDs but noted there is an aesthetic change. The pay back on the fixtures was one year. The color temperature recommendation by Affinity is 3000K for residential towns and cities although NH recommends 4000K. The town of Milford went with 4000K on their major roadways going out of town and 3000K in all their residential neighborhoods. He said "you can't go wrong with 3000K across the board" and that has recently been endorsed by the American Medical Association and Dark Sky Association: it is good for people, animals and circadian rhythms. It is a great eco light for New Hampshire and Maine. Chair Brown questioned if the LEDs are broad band instead of narrow band. Mr. Branagan said his company wanted to have a high efficacy LED chip module and offered the 3000K for the price of the 4000K and the new 3GXP chip reduces blue spikes. He will send information on this to us. He reported that it is a "warm" 3K. Mr. Roeper questioned if the color temperature and light output remain consistent over the life of the fixture. Mr. Branagan affirmed a low depreciation and will send a file over on this as well. Mr. Branagan indicated they underdrive the chip set and because it is under driven, both the driver and the chip board operate at cooler temperatures which allows it to take the heat a bit easier resulting in a longer life. Eversource will handle setting new lights, pole settings and hanging a new mast arm on an existing pole. They do not let the contractors do this work. Eversource charges for the cost of the pole, for TACK (where they tack power into the overhead lines). They also do the removal of the old arms unless they give us special authorization. Mr. Branagan expressed that if they are lucky enough for Lyndeborough to select them there will be an Affinity cost and an Eversource cost. He is happy to help us in any way and indicated T/A Boland has his contact information and feels free to call or email. He will put together some basic pricing ideas looking at installation costs. He will talk with Amer Electric in Keene or Eversource to help us out. Chairman Brown reiterated that the Committee will present a report to the town in October, and will go to a vote at the Town Meeting in March 2019, and indicated that it will be about this time next year that we will get the project started. Mr. Branagan mentioned the Eversource incentive funds of \$100 per fixture which he felt would not run out in the near future. He suggested payback should be one year. The Committee thanked Mr. Branagan for his time.

b. Via Telephone: Peter Salvitti, Owner of Efficient LED Lighting Systems, Sunapee, NH
Website: <http://www.efficientledsystems.com/>

Chair Brown thanked Mr. Salvitti for calling him in and informed him the conversation is being recorded for minute-taking purposes only. Chair Brown indicated that we started meeting a few months ago after receiving a charter from the town to explore changing the town's street lights principally to take advantage of the incentive money for the changeover. The total number of street lights is 20, with 17 incandescent and the other 3 are metal halide. We looked at this from a number of different perspectives, cost savings in converting to LED luminaires, safety in the case of needing additional lighting and removing fixtures that had no particular value. He indicated that out of 20 lights, the current plan is to remove 16, upgrade 4 to LED and add 4 new lights. The Committee is discussing the need for lighting at

the Highway Garage where there are poles and the Citizens' Hall parking lot which would involve adding a pole or two for lighting. This could bring the total number of fixtures from 8 to 12. Chair Brown recognizes that this is small number of fixtures, but as a small town, we are trying to pay attention that lights are where they need to be and remove lights that are not needed. We are looking at different kinds of lights, wattage and colors and have been reading as much as we can. Eversource came out to talk the Committee. The output of this Committee is to prepare a report and recommendation to the town in October, which would then be voted on at the Town Meeting in March 2019. Given where we are right now, I would like you to open up the discussion with what you do, experience you have and information you have that would educate us relative to our project.

Mr. Salvitti reported he has done approximately 900 street lights over the past year in seven or eight towns, Sunapee Newport, Newbury, Bradford, Stoddard and just closed a deal in Marlborough which will done next month. He expressed he has plenty of lighting experience and experience working with Eversource. He is present at all the installations and has a very good understanding of where each light is on the map. He will assist the town with everything needed. The Company uses Phillips fixtures, for the most part, which comes with smart tag which can be scanned providing exact locations, registers the light and entire layout of the fixture itself, all the information needed for troubleshooting and we handle this get the necessary components though there have been no failures at all. Adding or removing fixtures would be done by Eversource including the brackets and fixtures. We will basically start with a ledger of what current lighting. On that ledger, you would summarize what you indicated verbally to me today and we will make note of which lights are to be removed, added or changed. I would be the point man; you can work with me or directly with Eversource. We are knowledgeable in our work. Eversource will charge you \$150-\$200 to service the pole and remove the lights. A work order from the town would be generated to Eversource, and we would collaborate so we are on the same page. There will be an expense for every light removed; however, the town will no longer incur that cost in the electric bill. There are additional expenses for new brackets and poles. Where there are lights, we can take a light off and put the new one on and our company has a charge for that. For additions, we supply the lights to Eversource and they install them along with the bracket and will give you a rebate of \$100 per fixture. Although unlikely, the rebate could change next year. The lights range from \$155-\$250 depending on wattage and whether they are really bright lights on highways. Our company puts 25s and 35s in most rural areas. If it is a wider main street you can go from 72 watts to 108 but you will never go over \$250 per light fixture and any installation we do is a \$45 per pole. Eversource will charge you whatever the service charge is, give you a credit on the rebate of the fixture but charge you an additional \$150-\$250. Mr. Salvitti questioned the look of our incandescent light fixtures. Chair Brown replied the fixture is circular on the top with a type of "beak" on the front and the back though it is not the corrugated flat one, it is a historical fixture. Mr. Salvitti indicated they recycle transformers, capacitors, etc. If the town desires to preserve the historical look, it is a completely different spectrum of lighting which costs \$600-\$900 per fixture. A nice simple aluminum 3000K is a nice light, clean, very streamlined with a 10-Year Warranty and 20-year life expectancy and are solid workhorse lights. Again he reports there have been no failures to date. Mr. Salvitti will be happy to provide references. Chair Brown asked if the Phillips luminaire comes with photo cell, and Mr. Salvitti confirmed it does and indicated we can get smarter with these lights if we want to control them. It would not be expensive because we have a small number lights. You would have a central location, but by the same token you have a small number of lights that go on when it gets dark and turn off when it gets light. It's a standard rate that Eversource charges. Rate reductions are on average 50% depending on what you are paying and if you reduce lights you will save more money there. It is the best move to make the choice to go with LEDS, all you have to choose is the fixture type. I did have a town that wanted a lot of decorative fixtures and gave them a price. They were getting very technical so I did not bid on the project. We put a bid in Hookset for 300 lights and there was a bonding process. I use a specific company when the project requires bonding. This causes the installation costs to rise from \$45 to \$68 per fixture. Most of the towns I have done are not bonded and they're not small towns, Newport was 273 fixtures and Sunapee was 178. We do 30-35 lights per day consecutively and finish up quickly. Chair Brown asked for a recommendation on the

distribution type or what type to stay away from as most of our lights are on Route 31. Mr. Salvitti recommended RN2 which is a standard distribution with a small amount of back light toward the pole and throws light out into the street and goes side to side. It is a fairly balanced distribution. He will provide cut sheets that have diagrams and illustrates where the beam is going to be thrown with recommendations for intersections where there might be different angles. He will take a look at it when we do the audit and see where lights are in relation to the intersection and can eliminate back light if necessary. Mr. Roeper asked if the pole arm brackets are reusable and where they are being taken off the pole can they be reused, Mr. Salvitti replied that Eversource will reuse them as long as they are not rusted or the integrity of the bracket is not up to par. Eversource will only have a fee for the service call. Mr. Roeper questioned if the 20-year rated life span is rated for a percentage of output or if the expectation is a higher failure rate at 20-year life term. Mr. Salvitti responded that LED lights will gradually lose lumen output. These lights have an approximate life of 100,020 hours and will degrade over a period of time. They are warranted for 10 years. The LM 70 will retain 70% of its brightness which 30% is virtually undetectable to the human eye. When I say 20 years that is the expectancy of the fixture itself which will provide light but the color starts to change a bit after 100,000 hours. You will never have to change a light bulb because either the technology is going to change or the cost going to be so low, it will be like changing a light bulb. It seems like this is the trend that's going to happen over the next 10 years. In past six years, the lighting cost has gone from hundreds of dollars to next to nothing. Currently there are rebates which will not be here forever because the fixture prices are coming down so low. As far as switching out and going to a basic Cobra Head light fixture that is clean, nice and simple, the cost averages of \$175 per light with a \$45 fee and a \$100 rebate which brings it to approximately \$120 per fixture. Mr. Salvitti indicated that no one can beat his price using his standard 25 wattage fixtures. Chair Brown asked if Mr. Salvitti if he had any questions for us. He did not, but indicated whenever we are ready he would like to put a bid in. He explained that he is not going to turn a small project away because the reference is as important as the project itself. He indicated he would do the project to the best of his ability and would be there with his installers. He feels it is important to be able to put our town's name down on his resume. Chairman Brown reiterated that the Committee will present a report to the town in October, and will go to the Town Meeting for a vote in March 2019. Realistically, it will be this time next year or a little less that we get started on this project. Chair Brown thanked him for his time. Mr. Salvitti said he looks forward to working with us and thanked the Committee and TA Boland.

IV. Community Forum and Public Comment: None

V. Decision Making Actions:

a. Old/Tabled Business:

- i. Review Outline for Town Report – To be discussed at the next meeting.
- ii. TA Boland to Report on Highway Department Lighting and Stop Sign on Wilton Rd at Center & Johnson Corner intersection. TA Boland informed the Committee that the Stop Sign on Wilton Road at the intersection with Center Road is going back up and the mowing machine was delivered and intersections will be mowed. In addition, there would be spraying of the invasive knotweed on Route 31.
- iii. Report on light across from the school by Mr. Post: Chair Brown summarized Mr. Post's email indicating that he contacted the SAU and at this time, they could not make any commitment but would be discussing the matter at their August 14, 2018 School Board Meeting. Mr. Post's intention is to have the School Board take a vote to support the town's initiative. A decision will be made during the 19/20 budget season. Chair Brown felt that \$250 is a good estimated cost to go with to the School Board.

b. New Business:

- i. Review and Approval of 07/23/2018 Meeting Minutes

Motion made by Bob Rogers, seconded by Andy Roeper to accept the minutes as amended. Voting: All ayes. Motion passed 5-0.

- ii. Review of Updated Lighting Footprint (See Attachment)

- iii. After discussion, it was decided that adding a street light at this intersection would not provide any safety benefit.

Motion made by Bob Rogers; seconded by John Pomer to remove the proposed street light at Johnson Corner and Center Road from the list of new lighting. Voting: All ayes. Motion passed 5-0.

- iv. Chair & TA Boland to draft letter to those affected by proposed addition of street lights.

- v. John Pomer suggested they have posters/handouts of the GIS Map of proposed Street Lighting. T/A Boland to prepare.

- vi. Mr. Roeper recommended getting on the state Vendor List for Cooperative purchasing.

c. Items not on Agenda:

- i. Stephanie Roper reported that Historical Society recommended the lighting on the Citizens' Hall Building be around the side of the building (near the Police entrance). She also indicated that the Historical Society would like to keep one of the old lights and recommended putting an old light on the Artillery Shed.

VI. Department Head Reports: None

VII. Adjournment: 8:25 p.m.

Motion made by Bob Rogers, Seconded by Andy Roeper to adjourn the meeting. Voting: All ayes. Motion passed 5-0.

**Respectfully Submitted,
Lisa C.M. Post, Secretary**

Next Meeting: August 27, 2018 at Citizens' Hall 7:00 p.m.