

A dark night sky with a meteor streaking across it, framed by the silhouettes of trees.

Town of Lakewood Village

Perseid's Meteor Shower seen from Lakewood Village

Application for International Dark Sky Community Designation



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Lakewood Village is a town on a lush peninsula surrounded by beautiful Lewisville Lake in North Central Texas. It is located in the northern part of the Dallas/Fort Worth metroplex region within easy driving distance to Dallas and the surrounding areas where most of our residents earn their living. Its nearly 900 residents enjoy a crime-free and friendly place to live, play, and raise a family. Lakewood Village is one of the safest communities in the nation and has a town government that is efficient, effective, and fiscally sound.

Lakewood Village was originally envisioned and marketed as a golf course community that featured a runway for small private planes. In 1977 Lakewood Village officially incorporated as a municipality to protect itself from larger cities that were annexing land. The town reimagined itself in the 1980s and removed the golf course, tennis courts, and runway. It became the relaxed and quiet lakeside hometown residents enjoy today. Despite being near the heart of the busy metroplex, Lakewood Village is known as a rural and wooded municipality that is filled with wildlife. Being surrounded on three sides by Lewisville Lake provides our residents with beautiful views, both day and night.



Bald Eagle in Lakewood Village, 2018

Lakewood Village is proud to stand apart from typical suburban municipalities. Due to its unique location and size, the town can be creative and forward-thinking without being burdened by legacy

infrastructure and existing development. The town is an entirely residential community that does not have light pollution within its limits caused by commercial or retail establishments, such as strip-centers, small business or big-box stores. With more than one-third of the town being undeveloped and heavily wooded, Lakewood Village leadership recognized the opportunity to get ahead of future development and establish strict outdoor lighting standards to preserve the dark sky and water views it currently enjoys today.

Our residents have a strong desire to preserve the town's rural environment and protect the natural nocturnal habitats of wildlife in the area. Implementation of quality outdoor lighting standards will help prevent the devastating impacts of light pollution to both the human body and the natural ecosystems. Lakewood Village is home to many species of animals, such as deer, armadillo, squirrel, opossum, skunk, gray fox, bobcat, wild turkey, and even an occasional mountain lion. Frequent sightings are enjoyed by residents and visitors. The town is also directly in the migration path of the Monarch Butterfly. Because our small mammal population is so healthy, Lakewood Village is a bird of prey paradise. Hawk, falcon, owl, kestrel, and several types of eagles including Bald Eagles happily live and hunt in and around Lakewood Village. Our new comprehensive outdoor lighting standards will help protect the habitat and cycles of light and dark our living environment thrives upon.



Gray Fox in Lakewood Village - 2018

Lakewood Village has accepted responsibility for our corner of the world, and it has become one of the first municipalities in the metroplex to adopt a comprehensive and quality outdoor lighting ordinance that will preserve the dark sky. Our Dark Sky Team; Mayor Pro-Tem, Ed Reed and Resident Representative, Sheryl France, have worked diligently to educate our community about dark sky preservation and quality outdoor lighting. Their efforts significantly contributed to adoption of the first ever Lakewood Village Outdoor Lighting Ordinance that was approved at the February 14, 2019, town council meeting. The key accomplishment of the nearly 18-month initiative was the adoption of this ordinance. Lakewood Village hopes to become the first to be awarded the International Dark Sky Community designation in the Dallas-Fort Worth metroplex.



Monarchs in Lakewood Village, 2018

Lakewood Village is a community that is committed to preserving its night sky, protecting the health of its residents, and maintaining its wildlife's nocturnal habitats.



Lakewood Village – Sunset, 2018

Lakewood Village Town Council:

Dr. Mark E. Vargus
Ed Reed
Clint Bushong
Elizabeth Shields
Darrell West
Serena Lepley

Mayor
Mayor Pro-Tem
Councilman
Councilwoman
Councilman
Councilwoman

Lakewood Village Town Officers:

Linda Asbell, TRMC, CMC
W. Andrew Messer
Greg Bertrand

Town Administrator
Town Attorney
Presiding Judge

Resident Volunteer

Sheryl France

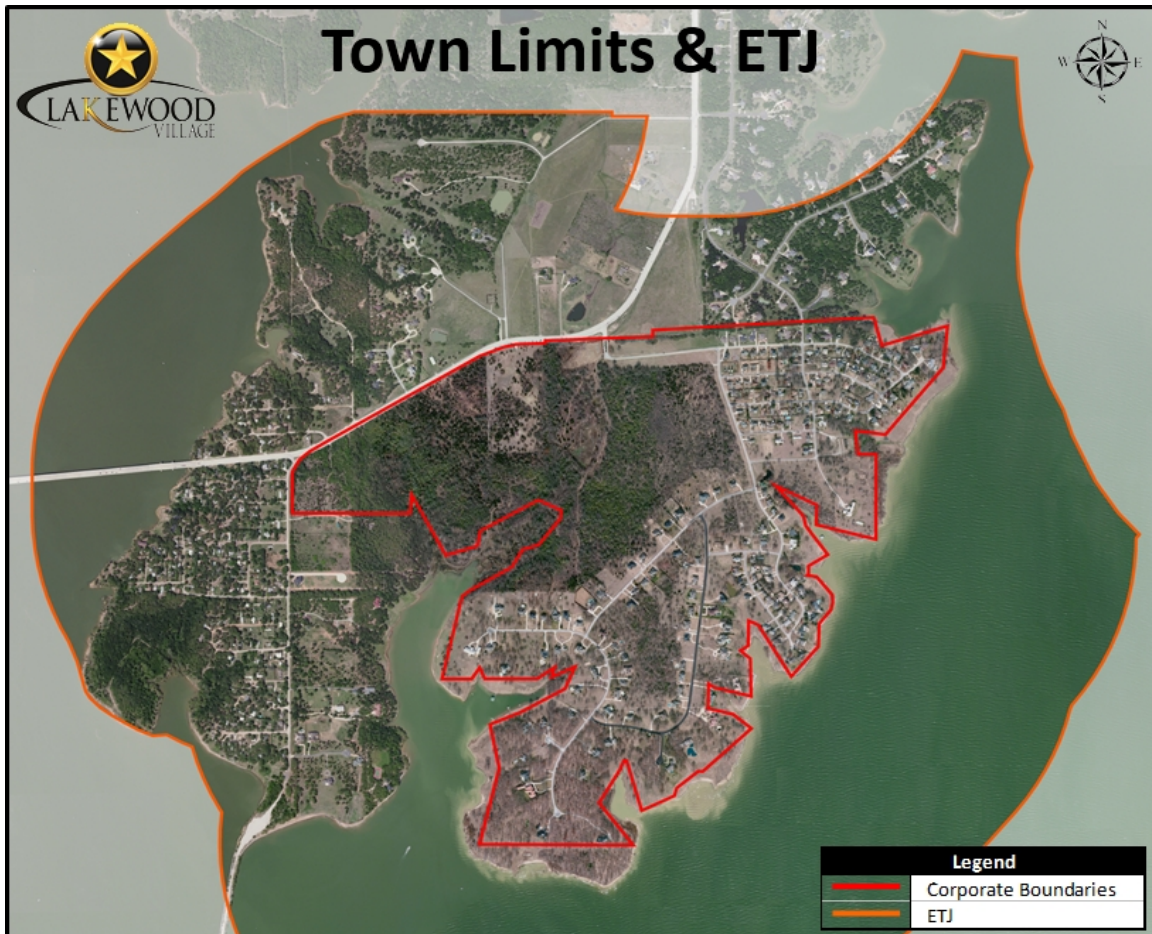
President, Lakewood Village Dark Sky
Committee

MAPS OF LAKEWOOD VILLAGE



Lakewood Village is located in the Metroplex area of North Central Texas







March 1, 2019

International Dark-Sky Association
3223 North First Ave.
Tucson, AZ 85719

Dear IDA:

I am delighted to nominate Lakewood Village, Texas to be designated as an International Dark Sky Community. Lakewood Village is located in North Texas between I-35 and the Dallas North Tollway on the Lewisville Lake/FM 720 corridor. Officially incorporated as The Town of Lakewood Village in 1977, the town has evolved into a relaxed and quiet lakeside hometown. Citizens of the Lakewood Village enjoy over three miles of shoreline inside the corporate limits and nearly seven-and-a-half miles of shoreline in its jurisdictional limits. As of 2019, the Town is zoned entirely residential. The Lakewood Village area is rich with wildlife including gray fox, bobcat, wild turkey, deer, coyote, and even an occasional mountain lion.

In the July 2017, members of the Lakewood Village town council began work on an initiative to update outdoor light fixtures throughout the town. Night sky preservation for both the residents and the wildlife who make Lakewood Village their home was a key objective of the council members guiding the project. They reached out to IDA for support and direction as they began to draft a new Model Lighting Ordinance (MLO) that would serve to guide their implementation. A Dark-Sky Committee was formed to undertake the task of developing a strategy for defining new outdoor lighting standards and to educate the residents of the town on the overarching goals, objectives, and methods to be employed. Educational workshops were developed and delivered to the community in collaboration with the Little Elm ISD Science team. IDA educational materials were made available to the residents of the community.

In early 2018, meetings were conducted with the utility company, CoServ, who are responsible for lighting infrastructure in Lakewood Village, to select Dark-Sky compliant lighting fixtures for the retrofit project. Sample lighting fixtures to replace the non-compliant barn lights and cobra-style streetlights were installed in January 2018, to allow residents to see the proposed lighting fixtures first-hand. Dark-Sky compliant lighting was also installed at the community mailbox facility in February 2018. A draft of the new Model Lighting Ordinance began in April 2018. In May 2018, a Unihedron Dark-Sky meter was placed to baseline the sky quality measurements and provide ongoing monitoring capability. A proposed budget to replace twenty non-compliant streetlights was approved in July, 2018. The legacy light fixtures were replaced with state-of-the-art, fully shielded, IDA approved LeoTek GreenCobra LED street lights. Two presentations were conducted at Town Council meetings by IDA Texas volunteers. Lakeview Village residents were encouraged to attend the Town Hall meetings to have any concerns heard and questions answered. Preliminary drafts of the MLO were reviewed and updated in November 2018, December 2018, and January 2019, at Town Council meetings and with support from IDA members. The final version was approved and became effective in February 2019.

Because of the commitment this community has demonstrated to preserve and share the night sky, to protect wildlife and the nocturnal habitat, and to be an example of good lighting design to the surrounding communities, I fully endorse Lakewood Village to receive the designation of Dark Sky Community by the International Dark-Sky Association.

Respectfully yours,

Gary J. Carter
Regional Director, International Dark-Sky Association, Texas Chapter
Gary.Carter@FairviewTX.Biz
(214) 998-9058

MICHAEL C. BURGESS, M.D.
26TH DISTRICT, TEXAS

COMMITTEE ON ENERGY AND COMMERCE
HEALTH
CHAIRMAN
DIGITAL COMMERCE AND CONSUMER PROTECTION
OVERSIGHT AND INVESTIGATIONS

COMMITTEE ON RULES



Congress of the United States
House of Representatives

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WASHINGTON, DC 20515
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2000 SOUTH STEMMONS FREEWAY
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LAKE DALLAS, TX 75065
(940) 497-5031
(940) 497-5067 FAX
www.house.gov/burgess

May 6, 2019

Mr. Adam Dalton
International Dark Sky Places Coordinator
3223 North First Ave.
Tuscon, AZ 85719

Dear Members of the Board:

As the Congressional Representative for the 26th District of Texas, which includes Lakewood Village, I want to extend my support to Mayor Mark Vargus in his effort to officially designate Lakewood Village as an "International Dark-Sky Association (IDA) Community." This community has worked diligently for the past two years to ensure it abides by the IDA's standards and it deserves recognition.

Lakewood Village's dedication to cleanliness and low pollution ensures the survival of the native ecosystem. This effort also extends to reducing light pollution through specialized light fixtures that are IDA compliant. I hope that the work conducted by Lakewood Village over the past 24 months serves as an example to the communities in the Dallas-Fort Worth Metroplex on how to better manage light pollution.

Mayor Vargus, Mayor Pro Tem Eddie Reed, and the rest of the Lakewood Village Council have been avid leaders in the ongoing efforts to curb light pollution, and I urge you to consider this community for recognition as an "IDA Community."

Sincerely,



Michael C. Burgess, M.D.

CC:
Dr. Mark Vargus
Mayor, Town of Lakewood Village
100 Highridge
Lakewood Village, TX 75068

MCB;my



Life's better outside.®

Board of Directors
International Dark-Sky Association
3223 North First Avenue
Tucson, Arizona 85719

July 6, 2018

Commissioners

T. Dan Friedkin
Chairman
Houston

Ralph H. Duggins
Vice-Chairman
Fort Worth

Anna B. Galo
Laredo

Bill Jones
Austin

Jeanne W. Latimer
San Antonio

James H. Lee
Houston

S. Reed Morian
Houston

Dick Scott
Wimberley

Kelcy L. Warren
Dallas

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

Dear IDA Board Members,

The town of Lakewood Village is a small community located within the Dallas-Fort Worth Metroplex. In a large metropolitan area with over 7 million people, there is a great need for refuges where people and wildlife can escape light pollution. Lakewood Village is committed to maintaining its "small town" feel within this large urban area. In my role as an urban wildlife biologist for Texas Parks and Wildlife Department, I have worked with town representatives to discuss methods for sustainable development and maintaining wildlife habitat. The town plans to create a 50' x 2,000' nature trail alongside an ongoing development project. Residents of Lakewood Village enjoy the natural feel of the community and enjoy sharing wildlife sightings on the town's Facebook page. Town employees also regularly share eco-friendly information with residents through the community's website.

I believe that Lakewood Village would make an excellent addition to the growing list of recognized Dark Sky Communities. The town is committed to meeting the qualifications outlined by the International Dark-Sky Association and they feel this program will improve the quality of life for the residents of Lakewood Village. Lakewood Village would be the first community in North Texas to receive this recognition and could potentially serve as an example for other developing communities in the region. Please feel free to contact me if you have any questions.

Sincerely,

Rachel Richter
Urban Wildlife Biologist, DFW
Texas Parks and Wildlife
972-754-4007
rachel.richter@tpwd.texas.gov

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

February 18, 2019

IDA Board of Directors
International Dark-sky Association
3223 N. First Avenue
Tucson, Arizona 85719

Dear Board Members:

It has been my great pleasure to have worked with the community of Lakewood Village, Texas over the past 12 months in their quest to be designated a Dark Sky Community. I would like to lend my voice in support of that designation.

I have worked in municipal government for nearly 25 years and I have rarely seen any community so committed to such a worthy goal. Lakewood Village has successfully negotiated with CoServe Electric is getting new shielded, low-CCT-temperature street lighting installed throughout much of the village. The Mayor Pro Tem has graciously lent a portion of his backyard for the installation of a sky quality meter and has assisted in data down-loading. Most recently the Village Council unanimously passed a stringent exterior lighting ordinance with the purpose of limiting light trespass and sky glow.

As a lifelong Denton County resident it has truly been a wonderful experience to see a local community so dedicated to preserving the night sky move forward with that process. I cannot think of a more deserving community in this part of the State of Texas than Lakewood Village to be designated a Dark Sky Community.

Sincerely,


Gordon Meredith
IDA Texas

P.O. BOX 12068
CAPITOL BUILDING
AUSTIN, TEXAS 78711
512/463-0112
FAX: 512/463-0923

DISTRICT OFFICE
1225 S. MAIN STREET, SUITE 100
GRAPEVINE, TEXAS 76051
817/424-3446
FAX: 817/488-6648

E-MAIL: jane.nelson@senate.texas.gov



The Senate of the State of Texas

Jane Nelson
Senate District 12

Committees:

FINANCE, CHAIR
TRANSITION LEGISLATIVE OVERSIGHT
COMMITTEE, CO-CHAIR
STATE AFFAIRS
LEGISLATIVE BUDGET BOARD
LEGISLATIVE AUDIT COMMITTEE
PARTNERSHIP ADVISORY COMMITTEE

March 19, 2019

Mr. Eddie A. Reed, Jr.
Town of Lakewood Village
100 Highridge Drive
Lakewood Village, Texas 75068

Dear International Dark Sky Association:

I am writing to officially nominate the town of Lakewood Village, Texas to be designated as an International Dark Sky Community. Lakewood Village is a small North Texas town in the Dallas - Fort Worth Metroplex of over seven million. Incorporated in 1977, Lakewood Village has evolved into a beautiful lakeside town rich with wildlife and a relaxing atmosphere.

Since 2017, Lakewood Village Mayor Mark Vargus and the Town Council have worked tirelessly to educate the public and worked with local utility companies to adjust equipment for compliance with the Dark Sky Community program. Town leadership is confident that this program will positively benefit the quality of life for residents. This designation would be the first for a North Texas community. It is my sincere hope that the initiative will prove to be a positive example for neighboring communities looking to improve residents' lives and exposure to natural environmental conditions.

I sincerely hope that you will give the town your utmost consideration when reviewing its application.

Very truly yours,

A handwritten signature in black ink that reads "Jane Nelson". The signature is fluid and cursive, with the first name "Jane" being more prominent than the last name "Nelson".

Senator Jane Nelson



PAT FALLON

STATE SENATOR • DISTRICT 30

April 4, 2019

IDA Board of Directors
International Dark-Sky Association
3223 North First Ave.
Tucson, AZ 85719

Dear Board Members:

I wholeheartedly support Lakewood Village's efforts to become an International Dark-Sky Community. During the last eighteen (18) months significant efforts to meet IDSC program requirements have been accomplished.

The town's residents strongly support protecting the night sky against all forms of light pollution. The community is committed to protecting its rural character and natural wildlife habitat. An outstanding example of their commitment was the recent conversion of more than 65% of their non compliant street light infrastructure to IDA approved shielded, low CCT temperature replacement street lights. Additionally, other town owned, non compliant outdoor lights have also been replaced.

Mayor Vargus and the Town Council are very supportive of becoming an IDA community. Recently a comprehensive Outdoor Lighting Ordinance was unanimously approved at their February 2019 council meeting.

When awarded Lakewood Village would become the first such community in the Dallas-Fort Worth metroplex. It would establish an IDA beachhead in one of the major population centers in the US.

I fully endorse Lakewood Village for your consideration.

For Texas and Liberty,

A handwritten signature in black ink, appearing to read "Pat Fallon", is located below the text "For Texas and Liberty,".

Pat Fallon, Member
State Senate-District 30
214-507-4861

CAPITOL OFFICE:
GE.7 • P.O. Box 12068 • AUSTIN, TEXAS 78711
(512) 463-0130
pat.fallon@senate.texas.gov



February 20, 2019

Dr. Mark Vargus
Mayor, Town of Lakewood Village
100 Highridge
Lakewood Village, TX 75068

Dear Dr. Vargus,

I support the International Dark-Sky Association (IDA) and the ordinance of Lakewood Village to protect dark skies through lighting policies.

Lakewood Village is surrounded by natural beauty and efforts need to be kept to preserve the area, especially during night hours.

Conserving electricity within the city during hours with little to no traffic will greatly benefit the community. Avoiding excess lighting during late night hours will promote conservation and keep our dark skies beautiful.

Please feel free to contact me if I can further share my support for the Lakewood Village dark sky ordinance.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jared L. Patterson".

Representative Jared Patterson



March 15, 2019

International Dark-Sky Association
3223 North First Ave.
Tucson, AZ 85719

To The IDA Board of Directors:

I am very pleased to write this recommendation letter for the Town's application to become an International Dark Sky Community. Although part of the greater DFW metroplex, Lakewood Village is a small lakefront community surrounded by nature. Our citizens embrace our quiet country atmosphere and look forward to our many encounters with our local wildlife. The ability to maintain our one corner of the metroplex in a manner which is beneficial to our current and future citizens is very important to me.

With approximately one-third of our town undeveloped, our decisions will last for generations we must have programs in place that will benefit us and our children. Leadership involves both vision and hard work. This project has been underway in our town for over 18 months - by far the longest "task" ever undertaken by our Council and Staff.

In my monthly Mayor's letter, I often tell our citizens that "it's easy to do nothing". We are very fortunate to have the energy and commitment of our Mayor Pro-Tem Ed Reed leading the process, writing ordinances, and overseeing the various lighting projects. We look forward to being a small oasis in the greater North Texas area.

In every Mayor's letter, I end with "*There's never been a better time to be in Lakewood Village.*" It will never be truer than when our application is approved.

Thank you

Dr. Mark E. Vargus
Mayor

Dr. Mark E. Vargus, Mayor
100 Highridge Drive, Lakewood Village, Texas 75068
214-558-6847, 972-292-0812 fax
www.lakewoodvillagetx.us



Little Elm

Independent School District

300 Lobo Drive
Little Elm TX 75068

March 25, 2019

Dr. Mark E. Vargus
Mayor, Town of Lakewood Village
100 Highridge
Lakewood Village, Texas 75068

Dear Mayor Vargus,

It is my honor to author this recommendation letter to support your efforts to become a Dark Skies Community. Lakewood Village has entered into a partnership with Little Elm Independent School District to help educate the students of Little Elm about your Dark Skies initiative. Several members of the Lakewood Village have visited our schools and given presentations to our students to educate them about the importance of protecting our night skies. Our students were engaged and really enjoyed the presentations as well as learning all about the impact that light has on the ecosystems and their interactions.

Lakewood Village is dedicated to qualifying for the Dark Skies Community designation. Their project committee has worked tirelessly to educate others about the impact that light pollution has on our environment throughout not only their own community but also the communities surrounding them. Little Elm is the local school district that provides education to six cities within Denton County, Texas. Their efforts are therefore providing education to students from all of those cities. Additionally, each resident within Lakewood Village has received multiple communications about the impact of light pollution and how important it is to reduce and eliminate light pollution.

The Little Elm Independent School District fully supports and recommends that Lakewood Village be considered to receive the Dark Skies Community designation. Their multiple educational efforts to improve the night time environment has required dedication and hard work. We feel that Lakewood Village will represent the IDA's program efforts to help continually educate citizens regarding light pollution and its detrimental impact on our environment.

Please feel free to contact me with any additional questions at jbernabo@littleelmsd.net.

Sincerely,

Jennifer Bernabo
Coordinator for Science
Little Elm Independent School District

August 2, 2018

Board of Directors
International Dark Sky Association
3223 North First Avenue
Tucson, Arizona 85719

Dear IDA Board Members,

As a custom home builder in the Town of Lakewood Village for more than 15 years we appreciate efforts to protect the night sky. We fully support the initiative of Major Vargus and the Town Council to ensure proper lighting through effective ordinances, education and outreach programs.

Their goal to become the first community to be awarded the "IDA community" designation in North Texas and the Dallas/Fort Worth Metroplex is admirable. The sky surrounding Lake Lewisville and neighboring municipalities is an asset that should be preserved.

When talking to prospective new residents a key selling point is the Town's country atmosphere. The natural landscape, its wildlife and open night skies are all key attributes. There is no question that efforts to protect our natural resources and environment are critical elements that will ensure the future growth of Lakewood Village.

Baringer Homes commends the Town's efforts to reduce light pollution. The replacement of the majority of their existing street lights to new state-of-the-art and IDA compliant fixtures demonstrates their commitment to protecting the night sky. These efforts will also undoubtedly result in improved health and quality of life for the Town's residents.

Baringer Homes is delighted to endorse their application to become an IDA "Dark Sky Community".

Best Regards,



Van C. Freeman
President
Baringer Homes
3821 Rexham Dr
Frisco, TX 75034

THE DARK SKY INITIATIVE

In July 2017, Dr. Mark Vargus, Mayor of Lakewood Village, attended Public Funds Investment Training in Austin, Texas. During the training he sought out the Horseshoe Bay, Texas, City Manager to discuss the International Dark Sky Community designation Horseshoe Bay received in 2015. Dr. Vargus had been interested in obtaining the Dark Sky Community designation for Lakewood Village. He realized an opportunity existed to protect the natural habitat and establish a dark sky beachhead in the Dallas-Fort Worth (DFW) metroplex. As a result, Mayor Vargus felt strongly that Lakewood Village needed to adopt a comprehensive outdoor lighting ordinance.



Street light upgrade - 2018

Mayor Vargus shared the dark sky information at the August 10, 2017, town council meeting. In addition to light pollution concerns, Dr. Vargus wanted to protect the town's rural character by creating outdoor lighting standards for the existing infrastructure as well as for new infrastructure when future residential development growth would occur within the town limits. During the meeting the Town Council strongly agreed that a dark sky initiative should be initiated. Ed Reed, Mayor Pro Tem, volunteered to lead the project.

Mayor Pro-Tem Reed's initial efforts were focused on CoServ, a non-profit electric utility cooperative that served the town. The town's existing street light infrastructure was in need of major repairs. Coordination with CoServ began in September 2017, and by February 2018, efforts resulted in significant improvements.

Improvements focused on fixture and bulb cleaning and replacement, bulb wattage and color consistency, and pole straightening or replacement.

In 2018, while working closely with Dr. John Barentine, IDA staff member, an initial outdoor lighting ordinance draft was completed. With Dr. Barentine's unwavering support and guidance the ordinance draft was presented to the Lakewood Village Town Council for discussion on November 8, 2018. Public hearings, which provided an opportunity for resident input, were also held at the December 13, 2018, and January 10, 2019, council meetings.

The Town Council unanimously approved the outdoor lighting ordinance at its February 14, 2019 meeting. The ordinance became effective upon approval.



Street light upgrade - 2018

KEY ORDINANCE ELEMENTS

The Lakewood Village Town Council and residents are enthusiastic about protecting the night sky and becoming an International Dark Sky Community (IDSC). The council and residents are extremely concerned about light pollution affecting the town's rural character and are troubled about light pollution emanating from multiple surrounding communities. Those reasons prompted the Town Council to create and enact an outdoor lighting ordinance that included strict standards.

No commercial or retail properties exist in the town limits and the current zoning ordinance prevents any such development in the future. The town is zoned one hundred percent residential and most residents fully support that concept.

Despite being completely residential, the night skies around Lakewood Village suffer significantly from sky glow emanating from multiple surrounding municipalities. Large cities, such as Lewisville, Little Elm, Frisco and Denton, create wide spread sky pollution. Although extremely challenging, a longer-term project involving the coordination of an area-wide outdoor lighting effort consisting of the sister communities, large and small, is being considered.

Lakewood Village does not have any schools, public or private, in town. As a result, sports facilities or sports fields do not exist either. If future sports facilities are developed, the lighting ordinance includes a curfew and requirement of adaptive controls for any lighting at public or private sports facilities. (Sections 2.B, 4.A, and 6.B and C)

The new Outdoor Lighting Ordinance stipulates that all outdoor lighting fixtures with more than 1,500 lumens must be fully shielded. All outdoor lighting fixtures must also have a correlated color temperature (CCT) of no more than 3,000 Kelvin. (Section 4.C)

The lighting ordinance includes provisions that address over lighting, strictly regulating where, when, and under what circumstances new public outdoor lighting is warranted and will be permitted. It also restricts the total amount of unshielded lighting and over lighting such as lumens/acre caps. (Sections 7.A; 8.B, C, and D)

Finally, the ordinance states that the Town Council may amend its provisions from time to time as changes occur in the recommendation of nationally recognized organizations, such as the International Dark-Sky Association (IDA) and Illuminating Engineering Society (IES). (Section 2.D)



IDA Flagpole Lights Installed



Lakewood Village Home IDA compliant - 2019

**TOWN OF LAKEWOOD VILLAGE
ORDINANCE 19-03**

**AN ORDINANCE OF THE TOWN OF LAKEWOOD VILLAGE, TEXAS,
REGULATING OUTDOOR LIGHTING FIXTURES; PRESCRIBING
PENALTIES FOR VIOLATIONS OF THE PROVISIONS OF THE
ORDINANCE, PROVIDING SAVINGS AND REPEALER CLAUSE;
SEVERABILITY CLAUSE; PROPER NOTICE AND MEETING; AND
PROVIDING AN EFFECTIVE DATE.**

WHEREAS, the Town Council desires to create a new Outdoor Lighting Ordinance that provides for safe and attractive lighting of private and public property within its town limits; and

WHEREAS, the Town of Lakewood Village may have new residential developments in the future and the Town Council believes that a consistent and definitive outdoor lighting ordinance will enhance the unique character of the Town; and

WHEREAS, the Town of Lakewood Village is adjacent to the Lake Lewisville wildlife conservation area maintained by the United States and seeks to help protect the natural habitat that depends on the natural cycle of day and night for survival; and

WHEREAS, the Town Council seeks to preserve and protect the night-time environment and the heritage of dark skies through responsible outdoor lighting; and

WHEREAS, the Town Council seeks to prevent light pollution, including glare, sky glow, light trespass, obtrusive light and energy waste that will protect the health and welfare of the Town's residents, reduce lighting expenses and prevent lighting that would be offensive to neighboring properties; and

WHEREAS, the Town Council desires to maintain the value of the Town's scenic and natural resources which are key to the Town's quality of life; and

WHEREAS, the Town Council desires to promote sound environmental policies which benefit the Town's residents and serve as a positive example for surrounding municipalities.

**NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE
TOWN OF LAKEWOOD VILLAGE, TEXAS:**

All of the above premises are hereby found to be true and correct legislative and factual findings of the Town Council and are hereby approved and incorporated into the body of this ordinance as if copied in their entirety.

Section 1: Findings

The findings set forth above are incorporated as if fully set forth herein.

Section 2: Adoption

The Lighting Ordinance attached hereto as Exhibit A is hereby adopted for the Town.

Section 3. Enforcement and Penalties

- A. **Enforcement** - The town shall have the power to administer and enforce the provisions of this ordinance as may be required by governing law. Any person or entity violating any provision of this ordinance is subject to suit for injunctive relief as well as prosecution for criminal violations.
- B. **Resolution** – If, after investigation, town officials find that any provision of this ordinance is being violated, notice shall be given by hand delivery or certified mail, return receipt requested, of such violation to the owner and/or the occupant of such premises, demanding that the violation be abated within thirty (30) days of the date of hand delivery or of the date of mailing of the notice. Town officials shall be available to assist in working with the violator to correct such violation. If the violation is not abated within the thirty (30) day period, town officials may institute actions and proceedings, either legal or equitable, to enjoin, restrain or abate any violations of the ordinance and to collect the penalties for such violations.
- C. **Public Nuisance** - Any violation of this ordinance that results in light trespass or an unreasonable interference with the common and usual use of neighboring property is hereby declared to be a public nuisance, which is prohibited. It is an offense for a person to emit light onto the property of another unreasonably interfering with the neighboring property owner's use and enjoyment of their property.
- D. **Penalty**- It shall be an offense for a person/entity to fail to comply with the standards set forth in this ordinance within 30 days after notice is mailed to them. Any person violating any provision of this ordinance shall, upon conviction, be fined a sum not exceeding one hundred dollars (\$100.00), except as may be otherwise expressly provided by state law. Each day that a provision of this ordinance is violated shall constitute a separate offense. An offense under this ordinance is a Class C misdemeanor.
- E. **Civil Remedies**-Nothing in this ordinance shall be construed as a waiver of the town's right to bring a civil action to enforce the provisions of this ordinance and to seek remedies as allowed by law and equity, including, but not limited to the following:

1. Injunctive relief to prevent specific conduct that violates this ordinance or to require specific conduct that is necessary for compliance with this ordinance;
2. Notification, intervals, follow-up and enforcement of violations shall follow established procedures utilized for other code violations.
3. A civil penalty up to five hundred dollars (\$500.00) for each day a violation occurs, when it is shown that the defendant was actually notified of the provisions of this ordinance and after receiving notice committed acts in violation of this ordinance or failed to take action necessary for compliance with this ordinance; and other relief as directed by a court with jurisdiction over the matter.

Section 4: Legal Rights

The penal provision imposed under this Lighting Ordinance shall not preclude the Town of Lakewood Village from filing suit to enjoin the violation. The Town of Lakewood Village retains all legal rights and remedies available to it pursuant to local, state, and federal law.

Section 5: Severability

A. Unconstitutional or Invalid Section

Should any section, subsection, sentence, clause or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Lighting Ordinance shall remain in full force and effect.

B. Independent Sections

The Town hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and/or phrases be declared unconstitutional or invalid.

Section 6: Estoppel / Waiver

The failure of the Town to enforce any term or condition of this Ordinance shall not constitute a waiver or estoppel or any subsequent violation of this Ordinance.

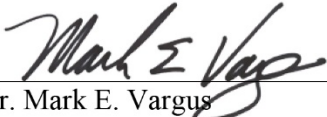
Section 7. Proper Notice and Meeting

It is hereby officially found and determined that the meeting at which this ordinance was adopted was open to the public and that public notice of the time, place and purpose of said meeting was given as required by the Open Meetings Act, Chapter 551 of the Texas Government Code.

Section 8: Effective Date

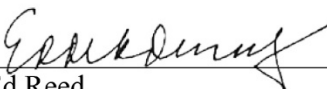
This Ordinance shall become effective from and after its date of passage and publication as provided by law.

PASSED AND APPROVED by the Town Council of the Town of Lakewood Village, Texas this the 14th day of February 2019



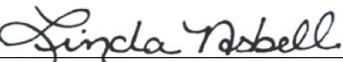
Dr. Mark E. Vargus
Mayor

COUNCIL SPONSOR



Ed Reed
Mayor Pro-Tem

ATTESTED:



Linda Asbell, TRMC, CMC
Town Secretary



OUTDOOR LIGHTING ORDINANCE TOWN OF LAKEWOOD VILLAGE, TEXAS



As Adopted by Ordinance No.19-03

Date: February 14, 2019

Section 1. Definitions

For the purposes of this ordinance, terms used shall be defined as follows:

Adaptive Controls - Devices such as timers, motion sensors and light-sensitive switches used to actively regulate the emission of light from light fixtures.

Applicant - A property owner, tenant or duly authorized agent or representative of the property owner who submits an application for approval required by this ordinance.

Area Lighting - Light fixtures located on public or private property that are designed to light spaces including but not limited to parks, parking lots and nature areas.

ANSI - The American National Standards Institute is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system.

Barn Light - Commonly referred to as a dusk-to-dawn light and is generally unshielded and used in rural applications.

Bulb - A light-emitting device or a structure containing a light source that includes but is not limited to a lamp; also referred to as a “lamp”.

Correlated Color Temperature (CCT) - A specification of the color appearance of the light emitted by a lamp, relating its color to the color of light from a reference source when heated to a particular temperature, measured kelvins (K).

Curfew - A period of time at night during which lighting must be significantly dimmed in output or extinguished in accordance with an expected decrease in human presence.

Existing Light Fixtures - Those outdoor light fixtures already installed on the date this ordinance is effective.

Exterior Lighting - Temporary or permanent lighting that is installed, located and used in such a manner to cause light rays to shine outside. Fixtures that are installed indoors and intended to light something outside are considered exterior lighting.

Fixture - An outdoor lighting assembly containing one (1) or more lamps including any lenses, reflectors and shields designed to direct the light in a defined manner.

Floodlight - A light fixture having a wide beam.

Fully Shielded Fixture - A light source screened, and its light directed in such a way that none is emitted above the horizontal plane passing through its lowest light-emitting part.

Glare - Lighting entering the eye directly from luminaries or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.

Holiday Lighting - Temporary outdoor lighting decorations installed to celebrate a holiday.

IES - The Illuminating Engineering Society (formerly IESNA) is a recognized authority on lighting best practices and standards; a professional society of lighting engineers, including those from manufacturing companies, and others professionally involved in lighting.

IDA - International Dark-Sky Association.

Illuminated Sign - Any informational or advertising sign that is illuminated by either internal or external means.

Initial Lamp Lumens - The number of lumens of light emitted by a lamp when new and not counting any depreciation of output due to the age of the lamp. This information can be found in manufacturer data sheets.

LED - Light emitting diode.

Light Fixture - The assembly that holds or contains a lamp or bulb and includes elements designed to give light output control, such as a reflector (mirror) or refractor (lens), the ballast, housing and the attachment parts.

Light Pollution - Any and all nuisances caused by the adverse effect of manmade light, including, but not limited to, glare, light trespass, sky glow, visual clutter and energy waste, due to excessive or unnecessary artificial light that unnecessarily diminishes the night sky.

Light Trespass - Unwanted light falling on public or private property from any location external to that property; generally caused by a light on a property that shines on the property of others.

Lumen - A unit of measure that identifies the amount of light emitted per second into a solid angle of one steradian from a uniform source of one candela.

Luminance - Light that reaches a surface and other objects; the density of luminous flux incident on a surface measured in lux or foot-candles.

Luminaire - The complete lighting unit (fixture) consisting of a lamp, or lamps and ballasts, together with the parts designed to distribute the light (reflector, lens, diffuser), to position and protect the lamps and to connect the lamps to the power supply.

Lumens Per Net Acre - The total number of initial lumens produced by all lamps utilized in outdoor lighting on a developed property by the number of acres. The net acreage of a property is the gross acreage of that property less any acre (s) that are considered undeveloped.

Major Addition – An addition/enlargement of 25% or more of the building's gross square footage either with a single construction project or cumulative series of construction

projects after enactment of this ordinance. Definition also includes replacement of 25% or more of installed outdoor lighting.

Nit - A unit of measurement of luminance, or the intensity of visible light, where one nit is equal to one candela per square meter. A nit is a common unit of luminance in both the outdoor lighting and outdoor advertising industries.

Non-Conforming - A structure and outdoor lighting that was installed before the effective date of this ordinance and does not conform to the standards imposed by this ordinance.

Opaque - Material that does not transmit light from the internal illumination source. The color of such opaque backgrounds is not restricted.

Outdoor Lighting - Night-time illumination of an outside area or object by any man-made device that is located outdoors and produces light.

Parapet - A barrier which is an extension of the wall at the edge of a roof, terrace, balcony, walkway or other structure.

Partially Shielded - A fixture shielded in such a manner that no more than 10% of the light emitted directly from the lamp or indirectly from the fixture is projected at an angle above the horizontal.

Private Outdoor Lighting - Light fixtures located on property owned or controlled by individual persons or families.

Public Outdoor Lighting - Light fixtures located on property owned, or controlled, by the Town or other governmental entity or entities, including but not limited to streets, highways, alleys, easements, parking lots, parks, playing fields, schools and institutions of higher learning.

Property Line - The edges of the legally-defined extent of a property.

Recessed - When a light is built into a structure or portion of a structure such that the light is fully shielded, and no part of the light extends or protrudes beyond the undersides of a structure or portion of a structure.

Replacement Lighting - Lighting installed specifically to replace existing lighting that is sufficiently broken beyond repair.

Sag-lens/Drop-lens - Clear or prismatic refracting lens that extends below the lowest opaque portion of a light fixture.

Searchlight - Any light fixture having a narrow beam intended to be seen in the sky by an observer on the ground.

Sky Glow - The brightening of the nighttime sky caused by the scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Sky glow is caused by

light directed or reflected upwards or sideways and reduces one's ability to view the night sky.

Spotlight - A narrow strong beam of light that can be directed to illuminate a small area.

Street Lighting - Lighting provided for major, collector and local town roads, as well as sidewalks and bikeways, where pedestrians and cyclists are generally present.

Temporary Outdoor Lighting - Lighting installed and operated for periods not to exceed 60 days, completely removed and not operated again for at least 30 days.

Up Lighting - The most commonly used technique to illuminate structures or parts of structures, trees, walls, waterfalls, fountains and other outdoor objects above the horizontal plane. Light fixtures are ground-mounted and directed upwards, away from the viewer to prevent glare.

Unshielded - Any fixture which, as designed or installed, emits all or part of the light above the lowest part of the light fixture.

Wall Pack - A type of floodlight mounted on the wall of a building or other structure.

Watt - The unit used to measure the electrical power consumption (not the light output of a lamp).

Section 2. General

A. The town shall change and install all new public outdoor lighting within the town rights of way and on town owned property to meet the requirements of this ordinance when luminaries expire.

B. New public outdoor lighting, including street lighting, shall make use of timers, dimmers, motion sensors and other adaptive controls and shall be substantially dimmed or extinguished by 12 A.M., unless public safety concerns demand otherwise.

C. All outdoor lighting installed on private properties that is affixed to a construction project for which a building permit is required shall conform to the standards established by this ordinance.

D. The Town Council may amend this ordinance from time to time as local conditions change and as changes occur in the recommendations of nationally recognized organizations, such Illuminating Engineering Society (IES) and the International Dark-Sky Association (IDA).

E. Nothing in this ordinance shall be construed as limiting the right of any person or entity to pursue legal action against any other person or entity under any applicable law, including the doctrine of light trespass as a form of private nuisance.

F. *Attachment B to this ordinance* includes examples of unacceptable/not compliant and acceptable/ compliant outdoor lighting fixtures.

Section 3. Existing Light Fixtures

- A. All new and replacement private and public outdoor lighting installed after the effective date of this ordinance shall comply with its provisions. The town will assist property owners and/or occupants to correct any nonconforming lighting through consulting with the owner.
- B. If more than 50% of the total appraised value of a structure (as determined from the records of the county’s appraisal district) has been destroyed, the structure’s existing light fixtures must be removed and shall only be replaced with fixtures that meet outlined standards herein.
- C. All existing private outdoor lighting located on a property that is part of a building permit for a major addition/enlargement of 25% or more of the building gross square footage either with a single construction project or cumulative series of construction projects is required to be brought into conformance with this ordinance before final inspection or issuance of a certificate of occupancy. The applicant shall have a maximum of 180 days from the date of the permit issuance to bring the lighting into conformance.
- D. A nonconforming structure shall be deemed abandoned if the structure remains vacant for a continuous period of six (6) months. In that instance, the structure’s existing outdoor lighting must be removed and may only be replaced in conformity with the standards of this ordinance.

Section 4. General Outdoor Lighting

- A. Lighting at public and private outdoor sports/recreational facilities, including but not limited to playing fields, arenas, tennis courts, play grounds, tracks and swimming pools, shall be shielded such that no light-emitting part of fixtures is visible from any other property and shall provide levels of luminance consistent with IES “Recommended Practice for Sports and Recreational Area Lighting,” (IES RP-6-01) or current successor recommendations. Sports lighting shall furthermore cease upon conclusion of scheduled events or 12A.M. (whichever occurs first).
- B. Strobe lights on communication towers and other lights for aerial navigation that are required by the Federal Aviation Administration (FAA) during daytime hours are permitted. Other required night navigational lights shall not be brighter than the minimum required by the FAA.
- C. Outdoor lighting fixtures using lamps or bulbs, regardless of the number of bulbs and level of initial lamp lumens, shall not exceed 3,000 kelvins and meet the following:

<u>Initial Lamp Lumens</u>	<u>Shielding Requirement</u>
≥ 1,500	Fully
≤ 1,499	None

- D. All existing and/or new private and public outdoor lighting shall not cause light trespass and shall protect properties from glare and excessive lighting. Outdoor lighting

fixtures shall be sufficiently shielded and aimed such that spillage of light onto adjacent properties is minimized and glare from the light emitting and/or reflecting parts of a luminaire is not visible from an adjacent property.

E. Sag-lens, drop-lens and mercury vapor fixtures are prohibited.

F. Searchlights, beacons, laser source and other high-intensity fixtures are prohibited. Additionally, except as otherwise allowed, any lighting that is flashing, blinking, rotating, chasing or rapidly changing in color or intensity is also prohibited.

G. The installation of any barn light fixture for use as outdoor lighting is prohibited unless the fixture includes a full opaque reflector instead of the standard translucent lens.

H. Outdoor up lighting is prohibited, except in cases where the fixture is shielded by a roof overhang or similar structural shield that will not cause light to extend beyond the structural shield.

I. Up lighting and down lighting of flagpoles on public or private property is permitted:

1. Flagpoles illuminated from below are limited to a height of 25 feet above ground level and shall be illuminated with a single spot-type fixture whose maximum initial output is 52 lumens per foot of height, measured from the light fixture to the top of the flagpole. The maximum output shall be 1,300 lumens and 3,000 kelvins. The fixture shall be mounted perpendicular to the flag pole and the light outputs shall point straight up at the flag.

2. Flagpoles illuminated from above shall utilize a single light fixture, not to exceed 800 initial lamp lumens and 3,000 kelvins, attached to the top of the flagpole.

3. If the flag of the United State of America is displayed during the hours of darkness it should be illuminated as recommended in the United States Flag Code (36 U.S.C. Paragraphs 173, 174).

Section 5. Outdoor Signs

A. The luminous/illuminated surface of individual outdoor sign shall not exceed 200 square feet (18.6 square meters).

B. Outdoor signs may be unlighted, lighted externally, lighted internally or backlit. All sign lighting must be designed and shielded in such a manner that the light source is not visible beyond the property boundaries where the sign is located. Lighting for signs must be directed such that only the sign face is illuminated. All lighted signs must have stationary and constant lighting.

1. Externally Illuminated Signs

- a. In addition to meeting requirements in Section 3, lighting must be aimed and shielded so that light is directed only onto the sign face and does not trespass onto adjacent streets, roads, properties or into the night sky.
- b. Lighting must be mounted at the top of the sign.

2. Internally Illuminated Signs-Lighting Is Visible On Both Sides of Sign:

- a. Only sign copy areas and logos may be illuminated.
- b. Signs shall use semi-opaque materials for sign copy such that the light emanating from the sign is diffused. Transparent or clear materials are not allowed for sign copy. Non copy portions of the sign (e.g., background and graphics) shall be made of completely opaque material.

3. Backlit Illuminated Signs-Only One Side of Sign Lit:

- a. Signs shall be designed such that the light source is not visible.
- b. Signs shall be designed such that harsh, direct illumination does not emanate from the sign. Rather, the backlighting shall only allow indirect illumination to emanate from the sign. For example, signs that create a “halo” effect around sign copy are allowed.
- c. Signs shall be constructed with a non white background and utilize opaque letters and symbols such that the light emanating from the sign is diffused.

C. Digital Electronic Message Signs with intermittent, scrolling or flashing illumination are permitted only at town administration buildings and educational facilities and are subject to the following:

- 1. Any changes to the face or copy of the sign must have a minimum of eight (8) second interval between changes.
- 2. Between the hours of 12 A.M. - 6 A.M. except for time and temperature:
 - a. There shall be no changes to the face or copy of the sign; and
 - b. The background must be darker than the text.
- 3. LED/electronic message displays are subject to the following:
 - a. Between the hours of 12 A.M. - 6 A.M. signs shall not exceed the maximum illumination level of 100 nits as measured under conditions of a full white display.

- b. Signs shall be equipped with photo cell sensors that are factory locked to adjust the sign to an appropriate light level during daylight hours and dim the sign at night to the required nit level as stated previously.
- c. The electronic message portion of the sign shall not have a white background.
- d. Signs shall include timers that automatically turn off the digital display.

Section 6. Public Right of Way (Street) Lighting

- A. All residential streetlights shall be fully shielded fixtures of approved historical design, and shall be limited to 1,125 lumens and non residential streetlights to 1,500 lumens unless otherwise specified by the IES “American National Standard Practice for Roadway and Street Lighting” (IES RP-8-14) guidelines.
- B. Adaptive controls shall be utilized that automatically extinguish street lighting, when sufficient daylight is available using a control device or system such as photoelectric switch or equivalent functions from a programmable lighting controller.
- C. All area lighting, parking area lighting, and lighting of recreational facilities shall be level mounted and fully-shielded. Allowable luminance values from IES recommended practices shall be utilized.
- D. Freestanding luminaries shall be no higher than twenty-five feet (25’) above the stand/pole base, except fixtures used for playing fields shall be exempt from height restrictions. Building mounted luminaries shall be attached only to walls and the top of the fixture shall not exceed the height of the parapet or roof, whichever is greater.

Section 7. Requirements for New Outdoor Lighting Facilities

- A. New public outdoor lighting facilities shall adhere to the following requirements:
 - 1. All town-owned outdoor lighting including street lighting shall employ fully-shielded fixtures in order to limit light trespass.
 - 2. When new town-owned buildings and other facilities are constructed, or new town right-of-way are established, the installation of new outdoor lighting fixtures shall be allowed only when (a) specific need related to a hazardous nighttime situation is identified by the town, or (b) lighting is deemed necessary as a matter of ensuring the town’s public health, safety and welfare.
 - 3. When existing town-owned buildings, other facilities and town right-of-way are modified by physical alterations and/or by a change of use, the installation of new outdoor lighting fixtures beyond existing installations shall be allowed only when (a) a specified need related to a hazardous nighttime situation is identified

by the town, or (b) lighting is deemed necessary as a matter of ensuring public health, safety and welfare, as is in the best interest of the town.

4. In the event of the establishment of any new residential subdivision where street right-of-ways will be dedicated to the town, the town shall not allow the installation of street lights, except in the case of replacing existing nonconforming street lights. However, in cases where it is determined that street lighting is deemed necessary in public right-of-ways for the health, safety or welfare of pedestrians, bicyclists and/or motorists, the installation of street lighting shall be permitted. All street lighting shall be (a) fully shielded, (b) meet correlated color temperature requirements, (c) make use of appropriate adaptive controls, and (d) be subject to curfews as directed by the Town Council. A street lighting plan specifying the number and approximate location of street lights and style of fixture shall be included in the final plat and approved by the Town Council.

Section 8. Levels of Luminance Required or Permitted at Specific Facilities

A. For locations and facilities not specified herein, the Town Council shall set acceptable levels of luminance based of IES guidelines.

B. The total outdoor light output (excluding governmental owned streetlights used for illumination of public rights-of-way and outdoor recreation facilities) of any developed residential property shall not exceed 10,000 lumens per net acre, of which no more than 2,000 lumens per net acre may consist of unshielded lighting allowed in Section 4, Item C.

C. The total outdoor light output (excluding governmental owned streetlights used for illumination of public rights-of-way and outdoor recreation facilities) of any developed public or private non residential property shall not exceed 25,000 net lumens per acre, of which no more than 5,000 lumens per net acre may consist of unshielded lighting allowed in Section 4, Item C.

D. Outdoor multi-directional aerial sports (baseball, basketball, football and soccer) shall not exceed 100,000 net lumens per acre including any shielded lighting. Such lighting shall make appropriate use of adaptive controls when possible.

Section 9. Outdoor Lighting Projects

A. All subdivision and building permit applications shall include an outdoor lighting plan which includes the following information:

1. Location, type, height, color temperature, lumens output, shielding planned and amount of all proposed and existing fixtures. The applicant shall provide enough information to verify that lighting conforms to this ordinance.
2. Manufacturer's specification sheets for illustrations, such as contained in a manufacturer's catalog cuts for all existing and proposed light fixtures.

3. A table showing the amount of proposed outdoor lights by fixture, wattage, lumens and lamp type.

B. A building official and/or administrator shall review the lighting plan taking into account the factors above and shall approve or reject the plan within 30 days of submission, returning it to the applicant with an explanation for the decision. The applicant shall not undertake the outdoor lighting project until the lighting plan is approved. If required, additional information may be requested.

C. Upon receipt of residential building permit applications, the town shall provide the homebuilder/applicant with educational materials about this ordinance. The town's submission of educational materials shall be prima facie evidence that the applicant has received notification of the provisions of this ordinance.

D. Verification that a residential or non residential project has complied with the provisions of this ordinance shall occur during the final electrical inspection by the town building inspector.

E. In the event work is not being performed in accordance with this ordinance, the building inspector shall issue a stop-work order and all work shall immediately cease. No further work shall be undertaken on the project as long as a stop-work order is in effect.

F. Variance requests shall be submitted to the Town Council for approval/ disapproval by simple majority vote. In considering requests for variance the Major and Town Council shall consider the following criteria:

1. The degree to which compliance will cause undue hardship for the applicant; and
2. The degree to which the requested variance will result in a non-compliant fixture; and
3. The amount of time the requested variance will be in effect before the fixture comes into compliance; and
4. The degree to which approval of the variance would set a precedent for other such requests; and
5. The effect the variance might have on efforts by the town to attain and/or retain recognition such as a Dark Sky Community or other similar designation.

Note: Applicants requesting a variance must demonstrate under hardship caused by unique circumstances of the property making it impossible to literally comply with the standards of this ordinance. Financial concerns do not comprise a hardship under this ordinance.

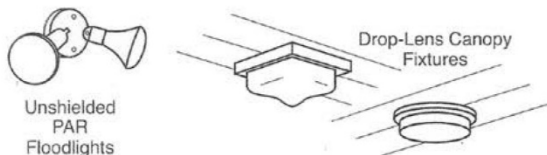
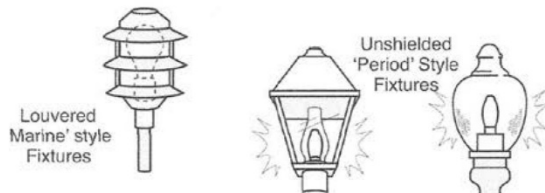
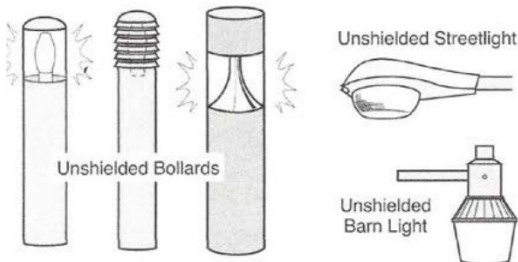
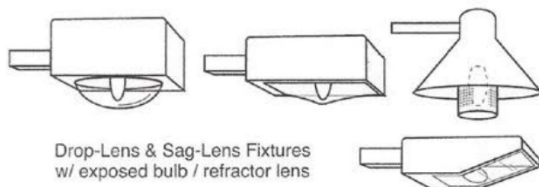
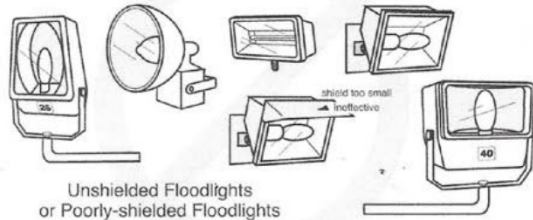
Section 10. Exceptions

- A. Temporary outdoor holiday lighting decorations shall be permitted from November 15 to January 15. Temporary outdoor holiday lighting decorations for other holidays shall also be permitted for a seven-day period before a holiday and shall be removed within one week after the holiday. Such lighting shall be minimized after 12 A.M.
- B. Lighting required by local, state or federal law; for example, motor vehicles.
- C. Temporary emergency lighting needed during activities of law enforcement, fire and other emergency services.
- D. Lighting employed during emergency repairs of roads and utilities may be unshielded provided the lights are positioned so they do not shine in the eyes of passing drivers.
- E. Temporary lighting required to save life or property from imminent peril.
- F. Outdoor lighting for which light is produced directly by the combustion of fossil fuels.

Examples of Acceptable & Unacceptable Lighting Fixtures

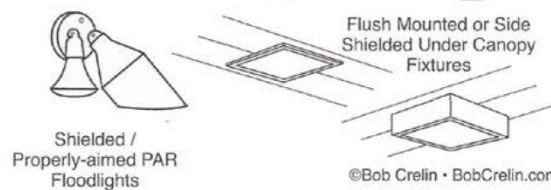
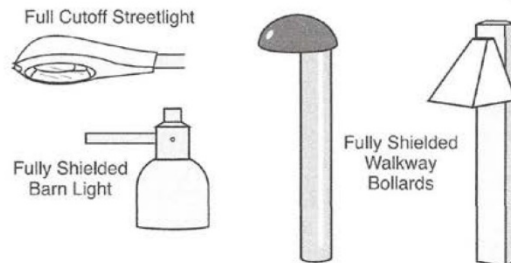
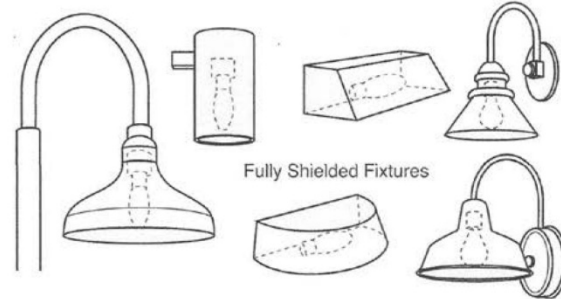
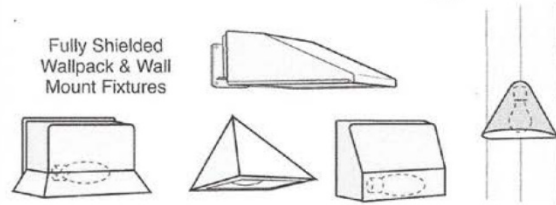
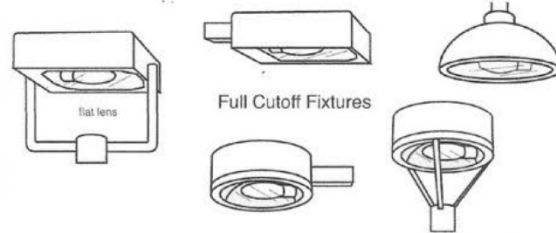
Unacceptable/Not Compliant

Fixtures that produce glare and light trespass



Acceptable/Compliant

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



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OUTDOOR LIGHTING HISTORY

Because Lakewood Village is a small rural community it is currently responsible for a very limited outdoor lighting infrastructure. The barn-type street lights located in “The Village” were installed prior to the incorporation of the town in April 1977. These lights were more than five decades old prior to being replaced during the Village Street Light Capital Improvement Project. The globes in “The Shores” are more than two decades old.

Below is a summary of the type and number of Lakewood Village’s outdoor lights:

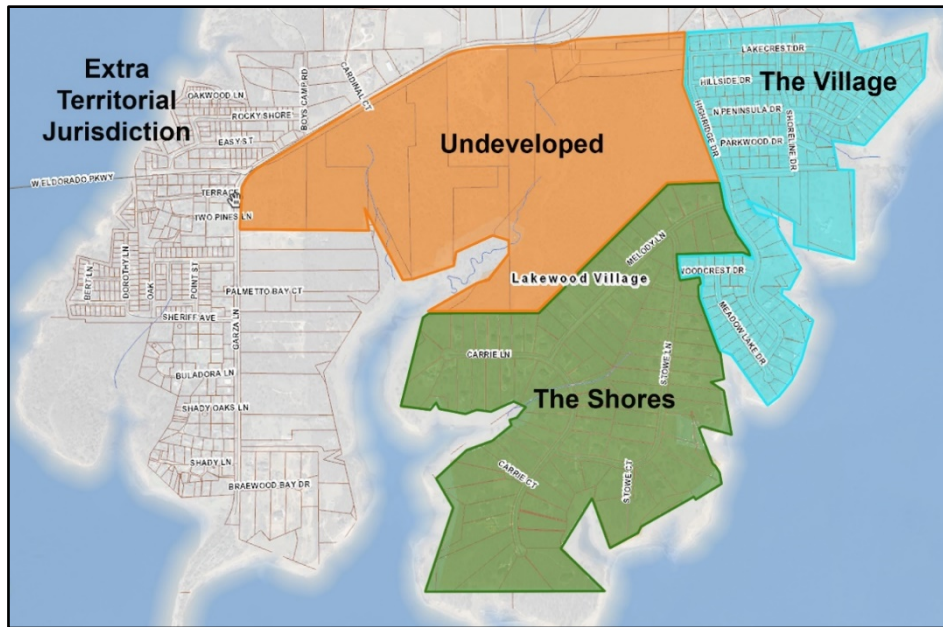
<u>Type of Light</u>	<u>Quantity</u>
Street Light Barn ¹	17
Street Light Globe ²	10
Town Hall Mailbox Facility	6
Town Hall Building	4
Street Light Cobra ³	3
Flag Pole	3
Town Hall Entrance & Exit	2
Town Hall Marquee	2
Town Entrance	2
Melody Mailbox Facility	1
Water Plant	1
Sewer Plant	1
TOTAL LIGHTS	52

(1-Located in “The Village”; 2-Located in “The Shores”; 3-Located in “The Village”)



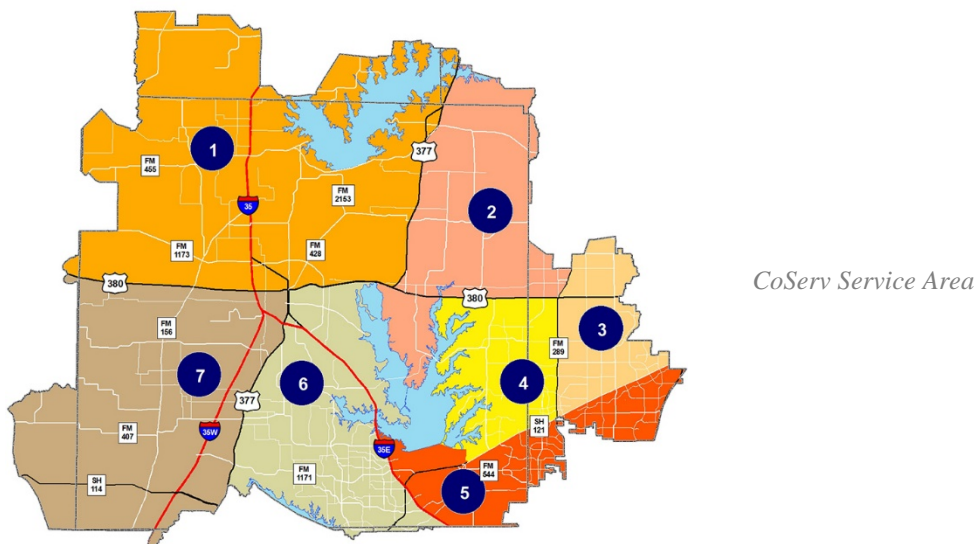
Legacy Outdoor Lighting Infrastructure in The Shores and The Village

The corporate town limits include 467 acres, of which 292 acres, or about 63%, are developed. Currently only 30 street lights exist in the developed acres resulting in an average of one street light per 9.7 acres. That ratio significantly helps protect the night sky.



The town was developed in two sections with a large percentage of the town remaining undeveloped and natural. The Village section was developed in the 1970s, The Shores section was developed in the 1990s. Each developer, after installing the street lights, gave ownership of the lights to the electric provider, CoServ. As a result, CoServ owns the street lights and has the responsibility for maintaining them.

CoServ is a not-for-profit rural electric utility cooperative headquartered in Corinth, Texas. It was organized in 1937 as the Denton County Electric Cooperative and took its current “Doing Business As” name in 1998. It distributes both electric and gas and has 9,800 miles of electric infrastructure serving more than 334,000 gas and electric meters across seven counties.



Mayor Pro-Tem Reed worked closely with CoServ to update and repair existing street lighting. CoServ's efforts to repair and replace the existing street light infrastructure were commendable. CoServ dedicated resources to the investigation of replacing existing non-compliant street lights



Lighting in The Village – Before & After

with ones that were IDA compliant. Their investigation determined that replacement of the ten (10) globe luminaries located in “The Shores” section of town would be extremely cost prohibitive but replacement of the seventeen (17) barn and three (3) cobra lights located in the “Village” section of town would be far more reasonable. CoServ however, would not be responsible for the replacement of those lights. The town bore the purchasing and installation costs.

Although CoServ was a supportive partner through the entire coordination process they would not author a support letter for our IDSC application because they did not agree with all

the IDA's goals and standards. It should be noted, however, that CoServ did ultimately select an IDA approved barn/cobra replacement fixture for potential installation throughout their entire seven-county service area.

The Village Street Light Capital Improvement Project eliminated numerous outdoor street lighting issues including twenty (20) unshielded fixtures and varying bulb wattage types and colors. The project ultimately resulted in the conversion of more than 65% of the town's street lights to IDA approved fixtures.





SUCSESSES IN LIGHT POLLUTION CONTROL





The existing outdoor lighting infrastructure is comprised of primarily thirty (30) street lights covering 24,400 feet of roadway, or an average of one street light every 815 feet. Other outdoor lighting owned by the town consists of an entrance sign, town hall, marquee, two (2) mailbox facilities, flag poles, and water and sewer facilities.







As noted previously, the town's population is approximately 900 residents, however, its extraterritorial jurisdiction (ETJ) has a population of about 1,900. Texas law does not allow a town to regulate outdoor lighting in its ETJ, however, residents in the ETJ have access to the town's web site which provides the Outdoor Lighting Ordinance and other dark sky information. When possible, the town staff encourages new ETJ developments and residents to follow the Lakewood Village Outdoor Lighting Ordinance.

The town has completed the following outdoor lighting renovation projects:

Type of Lighting		Former Fixture Type	Action Taken/New Fixture Type
1.	Mailbox Facility	1-Barn Light  <i>Highridge Drive Mailbox Facility – Before</i>	1-RAB WPLED26Y, fully shielded, 26W, 3265 Lumens, 3000 K. CCT  <i>Highridge Drive Mailbox Facility – After</i>

2.	Street Lights	17-Barn Lights 3- Cobra Head Lights  <p><i>Street Lighting in The Village – Before</i></p>	20-IDA approved, fully shielded GreenCobra, Jr. LED GCJ H-Series 5130 Lumens, 3000 K. CCT  <p><i>Street Lighting in The Village – After</i></p>
3.	Flag Pole Lighting	3-Hubbell 20W Flood Light, 1800 Lumens, 3000 K. CCT  <p><i>Flag Pole Lights – Before</i></p>	3-Phillips B9 Shielded FlexScape LED, shielded, 1409 Lumens, 3000 K. CCT  <p><i>Flag Pole Lights – After</i></p>

4.	Town Hall Entrance and Exit	<p data-bbox="440 161 943 210">Unable to determine – unshielded</p>  <p data-bbox="526 869 847 903"><i>Town Hall Entrance – Before</i></p>  <p data-bbox="555 1423 815 1457"><i>Town Hall Exit – Before</i></p>	<p data-bbox="943 161 1430 283">2-Phillips 7” Lighttolier LED Down Lighting, 1000 Lumens, 3000 K. CCT</p>  <p data-bbox="1029 869 1341 903"><i>Town Hall Entrance – After</i></p>  <p data-bbox="1058 1423 1312 1457"><i>Town Hall Exit – After</i></p>
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5.	Town Hall Marquee	4-F96T12/CW/HO, 8600 Lumens, 4100 CCT	2- F96T12/CW/HO, 8600 Lumens, 4100 CCT, Installed plastic amber sleeves over bulbs to reduce brightness
		 <p><i>Town Hall Marquee – Before</i></p>	 <p><i>Town Hall Marquee – After</i></p>
6.	Water Plant Pump Building	Unable to determine – unshielded	1-Paraflex DCSHM shielded, half-moon wall pack with motion sensor and dimmer, 2740 Lumens, 3000 K. CCT
		 <p><i>Pump Building – Before</i></p>	 <p><i>Pump Building – After</i></p>
7.	Town Entrance Monument Sign	4-Halogen 39W, PAR 20, 550 Lumens, 2850 K. CCT	2-Satco 7W, LED, 525 Lumens, 3000 K. CCT
		 <p><i>Town Entrance – Before</i></p>	 <p><i>Town Entrance – After</i></p>

Renovation of the existing street light infrastructure and lighting at the sewer plant will depend upon future residential developments and a sewer plant project that is currently in process:

1. A large acreage tract, 80 acres, of the remaining undeveloped 175 acres within the town limits is likely to be developed within the next five (5) years. When developed, a project involving both existing and new street lights will be initiated and completed. The project will result in the installation of a consistent, compliant street light infrastructure within the town limits. The remaining 95 acres of the 175 acres of undeveloped land within the town limits will also likely be developed within seven (7) years. All future residential developments in the town limits will adhere to the Outdoor Lighting Ordinance.
2. A major project involving the sewer plant is currently underway to rearrange the sewer plant facilities, as well as, bury overhead utility wiring. The project is expected to be completed in 2019 or 2020. Appropriate outdoor lighting will adhere to the Outdoor Lighting Ordinance and be installed before the project is completed.

The total current number of lights in Lakewood Village is inventory is fifty-two (52). Of those fifty-two lights, thirty-one (31), or 60%, are IDA compliant.

Future development will also likely result in construction of a new town hall, marquee, entrance sign, mailbox facilities, flag poles, and sewer and water plant expansions. All outdoor lighting for these new facilities will adhere to the Outdoor Lighting Ordinance.

DARK SKY EDUCATIONAL EFFORTS

Multiple dark sky educational efforts were initiated in 2017 and 2018. Efforts included posting information on the town's website and town hall marquee, displaying IDA brochures at town hall, and including an informational letter along with IDA brochures in the New Resident's Welcome Program.

Two (2) additional educational training efforts were also completed. The first effort involved town residents. Three (3) sessions, two (2) for adults and one (1) for children, were held at town hall in May and June 2018. The training covered the dangers of light pollution, use of shielded lighting, and viewing of the "Losing the Dark" video.

The second, and most significant, educational training effort involved partnering with the Little Elm Independent School District for the creation and implementation of a grade school education training program. An initial coordination meeting was held on February 27, 2018, with the Little Elm Independent School District Science Coordinator. The coordinator responded very positively to the idea and fully supported including dark sky education to the school district's curriculum.

In May and June 2018, arrangements were made for the dark sky training to be provided to one hundred twenty-five (125) fifth grade students at Oak Point Elementary in Oak Point, Texas. The 45-minute training materials were developed and lead by Sheryl France, President of the Lakewood Village Dark Sky Committee. It consisted of information about the harmful impacts of light pollution, viewing the "Losing the Dark" video, and distribution of other dark sky materials. In addition, the students worked through the Wild About Wildlife booklet (ages 6-12). At the conclusion of the education session dark sky brochures were distributed for students to take home.



Education at Oak Point Elementary



Education at Oak Point Elementary

The families of the students attending Oak Point Elementary who participated in the training program reside in Lakewood Village and three (3) other municipalities and several unincorporated areas of Denton County. The take home dark sky brochures information is hopefully being shared with other family members.

The Little Elm Independent School District Science Coordinator concluded that the training was a positive addition to their curriculum. Students were excited and participation during training was high. Additionally, verbal and written feedback received from both students and teachers was extremely positive. As a result, the program will be continued. Several additional residents with teaching and astronomical experience have agreed to participate

in the 2019 training effort. Coordination is currently underway to schedule 2019 training sessions. It is anticipated that the number of students receiving training in 2019 will be greater than in 2018.

An additional cooperative educational partnership has been initiated with the Lewisville Lake Environmental Learning Area (LLELA). LLELA participants include the U.S. Army Corps of Engineers, University of North Texas, City of Lewisville, Lewisville Independent School District, University of Texas in Arlington, and Texas A&M Agralife Extension. LLELA manages over 2,000 acres below the Lewisville Lake dam that was set aside for flood control in 1955. In the early 1990s, the potential of this set-aside area was recognized by the participants. They saw a place where people could interact with the wildlife and natural ecosystems which were already present, preserving it for the future during the explosive growth in the DFW area. The LLELA area would serve as a place where humans acted to repair historic damage to the land. Well over 360 vertebrates along with more than 500 plant species exist in the area. Both the dam and LLELA area are located directly south across the lake from Lakewood Village. The Lakewood Village Dark Sky Committee and LLELA will explore partnership opportunities like “Stars on the Prairie” in 2019.



LLELA Conservation Area



Deer in LLELA Conservation Area



Otters in LLELA Conservation Area



LLELA Paddle Trails in Winter

Sky Brightness Measurement Program

A sky brightness measurement program was established in May 2018, with a borrowed Unihedron Sky Quality Meter (#SQM) and assistance from Gordon Meredith, IDA Member. The unit is encased in a weatherproof housing and is located in a Lakewood Village resident's backyard.

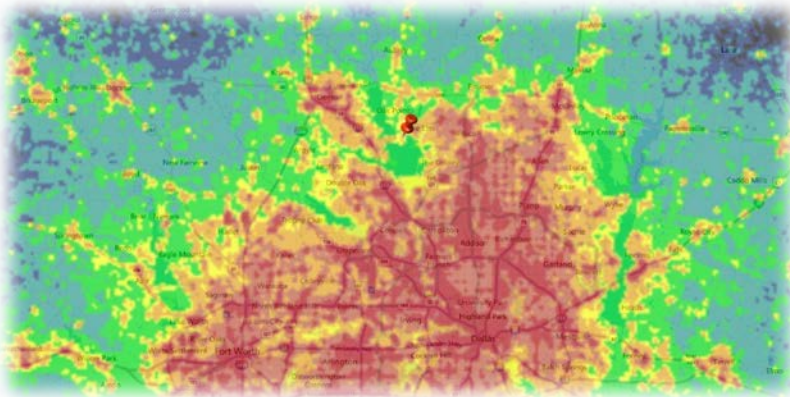
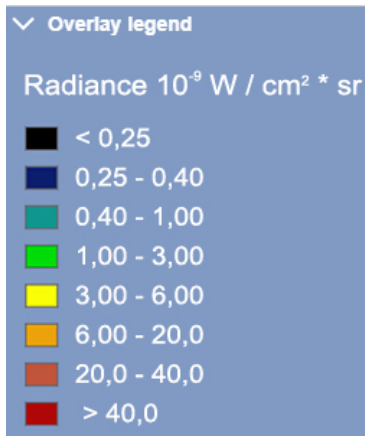


SQM on Melody Lane

Readings have been retrieved three (3) times since the program began; July 18, 2018, October 4, 2018, and December 20, 2018. The readings have been uploaded to Mr. Meredith's computer and shared with Mr. Gary Carter and Dr. John Barentine, IDA staff member. Select readings will be posted in the future on the town website (www.lakewoodvillagetx.us).

The town plans to purchase an SQM in the near future and will continue to capture and log nightly readings. This responsibility will be transferred to other town residents from time to time. The objective will be to involve multiple residents to take readings while at the same time educating them about the importance of light pollution.

Because of poor weather conditions during the last half of 2018, the analysis approach utilized by Gary Carter, Regional Director-IDA Texas, to determine a baseline sky quality for Lakewood Village identified the single best night of each consecutive month involving an average between 5.5 - 6.5 hours of sequential 5-minute interval readings for each night selected. The analysis resulted in SQM readings as good as 19.1 MPSAS. This reading will serve as the baseline sky quality for Lakewood Village.

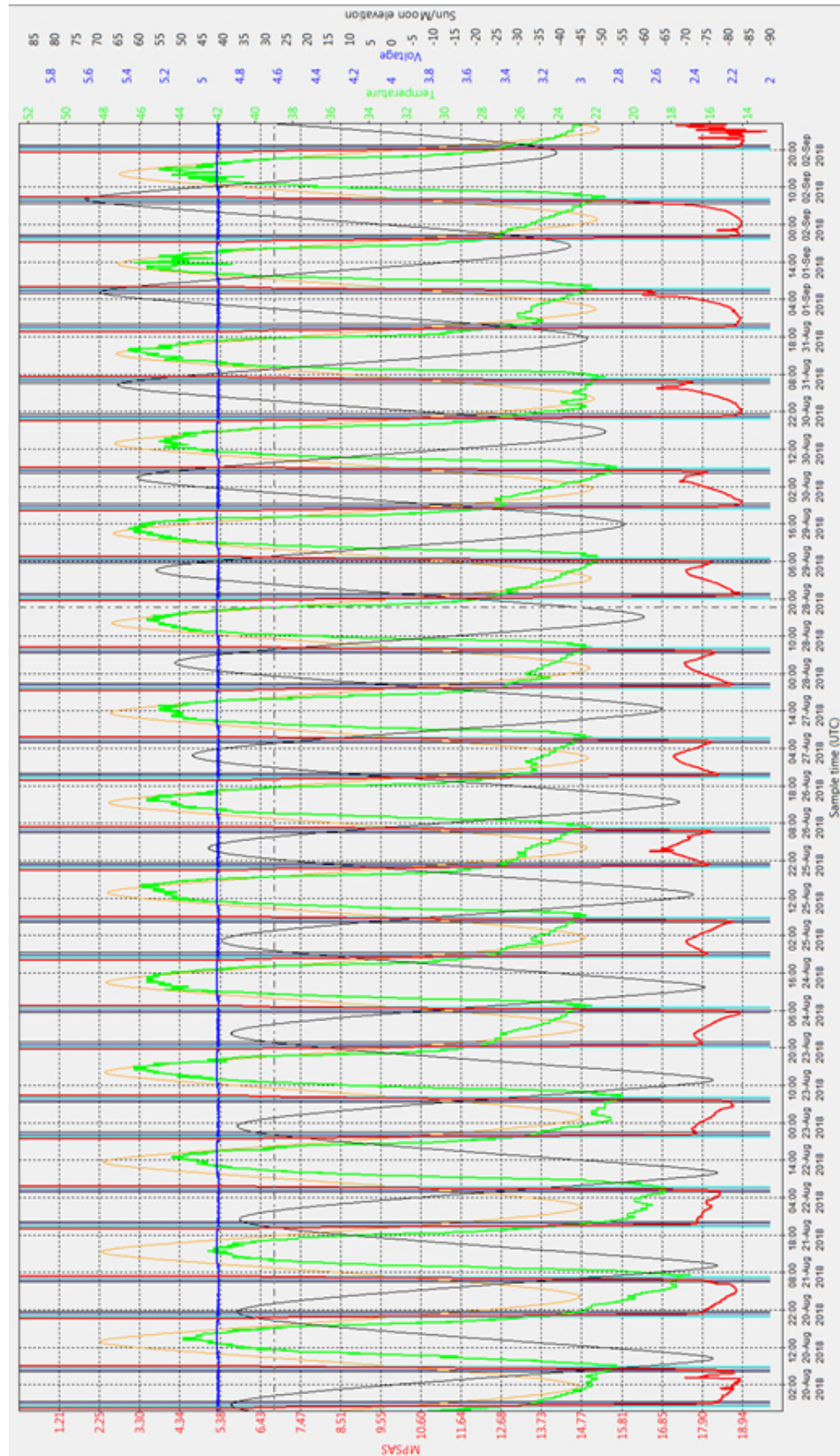


2013 Light Pollution Map



2018 Light Pollution Map

Readings from SQM located on Melody Lane



Community Commitment To Dark Skies

Lakewood Village began demonstrating its commitment to dark skies and quality lighting in August 2017, when it began its dark sky initiative. Eighteen (18) months later, the Town Council unanimously approved an Outdoor Lighting Ordinance at its February 14, 2019, council meeting.

A major capital improvement project involving replacement of 65% of the town's street lights was completed in July 2018, a full seven months prior to the Outdoor Lighting Ordinance approval, at a cost of \$5,142. The town has also completed four (4) additional outdoor lighting fixture replacement projects at a cost of \$1,920 to meet its ordinance requirements. During fiscal year 2018-2019 the town has spent approximately 60% of its total annual budget for Town Maintenance and Improvements on new IDA compliant lighting infrastructure.

Two (2) additional projects involving fixed structures; the town entrance sign and the town hall marquee, made replacement difficult without significant expense. Future development will result in removal of both structures; however, action has been taken to significantly limit brightness and temperature of each of these sources of light.



IDA brochures at Town Hall

Community education began in October 2017 and included multiple efforts. Dark sky information was posted on the town's web site (www.lakewoodvillagetx.us) soon after the initiative began. In addition, dark sky brochures were displayed at town hall for town residents and visitors. In 2018 Dark sky brochures and a dark sky informational letter were also included in the New Resident's Welcome Program.

Educational training sessions were not limited to programs for both adults and children who live in Lakewood Village. The Dark Sky Committee partnered with the Little Elm Independent School District (LEISD). This partnership resulted in the training of more than one hundred twenty-five (125) fifth-grade students at Oak Point Elementary School. The program will continue in the future and sessions are currently being planned for the 2019-2020 school year.

Additionally, during 2018, two (2) IDA members provided Dark-Sky presentations to the Town Council and town residents in attendance. The presentations were very informative and well received. A robust question and answer session followed each presentation.

Information about the Dark-Sky initiative was included for discussion during fifteen (15), or 75%, of the town council meetings from August 10, 2017, to February 14, 2019. Dark sky information was also included in the Mayor's Letter six (6) times during the same time period. The Mayor's Letter is distributed monthly to all residents through the U.S.P.S. and is posted on the town's website. Residents have championed this effort and are already making changes in outdoor lighting on personal property.

LAKEWOOD VILLAGE

HOME WELCOME COUNCIL GOVERNMENT DEPARTMENTS MDD COMMUNITY

FEATURED ARTICLES

- Report a Litterer
- Winterizing Your Boat
- Ten on Tuesday
- Fire Ants
- Drive Like Your Kids Live Here

CALENDAR OF EVENTS

- Curbside Recycling
Monday, March 25
- Utility Bills Due
Friday, April 05
- Curbside Recycling
Monday, April 08
- Council Meeting
Thursday, April 11

QUICK LINKS

- Monthly Newsletter
- Make a Payment
- When Is A Permit Required?
- Open A Utility Account
- Trash/Recycling Calendar
- Submit a Complaint
- Pet Registration
- Local Lake Levels
- Texas Drought Monitor

NEW SIMPLE RECYCLING PROGRAM

simple recycling

JUST FOLLOW THESE EASY STEPS

STEP 1 Place this bag in your closet and fill it with clothing & shoes

STEP 2 Get your bags well tagged and ready on your regular collection day

STEP 3 The trucks drive will pick up your bags and leave replacement bags behind

Newsletter | How It Works

ALLIED WASTE: RECYCLING TIPS.

How to Prepare Your Home Recycling...

Plastic Bottles
Aluminum Cans
Paper
Cardboard
Glass

LIGHT POLLUTION AFFECTS US ALL!

Check the calendar for local events.

- IDA General Brochure
- IDA Wildlife Brochure
- Safety and Security
- Energy Waste
- Light at Night and Human Health

ida
INTERNATIONAL DARK-SKY ASSOCIATION

Losing the Dark - Flat Screen ...

Lakewood Village, TX [More at Dark Sky](#)

57°
and rising
Wind: 6 mph

Mostly Cloudy.
Partly cloudy until this evening.

Today	Thu	Fri	Sat	Sun	Mon	Tue	Wed
65° 52°	74° 43°	75° 47°	64° 56°	75° 62°	76° 58°	67° 47°	73° 46°

TOWN OF LAKEWOOD VILLAGE | 100 HIGHBRIDGE DRIVE | LAKEWOOD VILLAGE, TX 75062
(972) 294-5555 (972) 292-2812 FAX | TOWN HALL HOURS 10:00AM - 5:00PM MON-FRI
[UTTS LINK](#)



LAKEWOOD VILLAGE MAYOR'S LETTERS



Mayor's Letter

August 15, 2017

Hello Everyone,

I'VE BEEN ASKED SEVERAL TIMES what they are building on Eldorado across from the Sunrise Bay entrance. It is an "event center", my understanding is that it these are used for receptions and large parties for several hundred people. The front part of the property is in Little Elm, with the majority of the property **residing in the county** in the Oak Point ETJ (none of it is in our jurisdiction). Let me paint a picture. You have several hundred people that have been "event-ing" all evening long who now get into their cars and exit onto the curve on Eldorado, which doesn't have **street lights**, and doesn't have a **raised median** in the middle. So my question is, will the drunk driver kill a Lakewood Village family when they don't realize that we are stopped in the left-turn lane, or will they just miss the curve all together and hit head-on and kill a family heading home to Frisco or Oak Point? Can we have the Sherriff's department pull people over? No, you can't stop someone until they do something illegal, and you can't set up a roadblock and shut-down Eldorado. It's hard for me to think of a worse thing you could put in a residential neighborhood. That's why last year when the owner asked if we would provide sewer for him, I told him no. The water provider, Aqua Texas also turned him down. Unfortunately, Little Elm rezoned the property frontage from residential to commercial and said they would provide him utilities. The dirt work you see along the road was Little Elm boring under Eldorado to bring him water.

IT DOES MATTER Actually, it matters a lot. We have a handful of people in Town and one council member who say the area on the north side of Eldorado doesn't matter. We should focus only on "my street" and what effects "my house". Let anyone build anything they want as long as it isn't next to me. Do nothing. Well, **I think that's a load of crap**. Suppose someone puts in thousands of apartments across the street, how do you think that will effect us? Think of this, **have you EVER seen** a developer tear down apartments to put up single-family houses? Of course not. No fool is going to destroy a thousand apartment units to put in a dozen houses. **Do you ever see** apartments going away once they are in? I've never seen it. Same with strip-malls; have you ever seen them tear one down to put in a house? Never. We are a quiet residential neighborhood. We don't need to sell-out and **we have to do everything we can to not blow it**.

Could we have done anything to stop the event center? No. It is mostly in the county and **in the county you can build anything you want**. We do have the nearest wastewater treatment plant and a significant amount of unused capacity, which gives us **some** leverage over any high-density development. I had a meeting last year with a developer who had architectural designs for apartments and a strip-mall on a ten-acre parcel on Eldorado near our entrance. I told him we would not provide him utilities. They got mad and as they stormed out, they told me they were in the county and they could **"build whatever the hell they want"**. Having city utilities is great, but in reality, anyone willing to spend close to \$10 million to buy Steve Harvey's land might also be willing to spend another \$1 million to build their own sewer plant. So what are we going to do? The easiest thing to do is to do nothing and just live with whatever ends up no matter how bad. **That's unacceptable**. We have to do everything we can to make sure that we don't blow this forever. I have spent hundreds of hours meeting with developers and reaching out to builders to sell them on how great Lakewood Village is. We need to have single family houses on both sides of Eldorado. Once the houses are in - there will never be apartments or commercial. **I'm not going to give up** until I get someone to put in homes to once and for all remove the threat of apartments and strip-mall commercial development surrounding us. It is my top priority.

OVER ♪

THE BUDGET AND CONCRETE ROADS There was some discussion at our last council meeting about the budget and the future concrete roads project. The approved budget has a General Fund surplus of \$16,000 after allocating \$10,000 towards the parks and \$30,000 in road repairs. **Lets apply some basic common sense.** I led the first road project, and I am responsible for financially planning the final project. One thing I do is to collect the latest information on other town's road projects. In the latest example, a couple of months ago the City of Melissa awarded a contract for the concrete road construction of Throckmorton Drive. The winning bid priced the concrete work at \$46 a square yard, which is 31 percent higher than the \$35 we paid for our project **three years ago in 2014**. Similarly, the 30 inch reinforced concrete pipe (RCP) is now \$90 a foot which is 17 percent higher than the \$77 we paid for RCP in 2014. That's why sooner is better than later and why I'm going to do everything I can to get us there in four years.

What's the financial plan ? **Well common sense.** If the cost is somewhere near \$4.5 million and we want to get there in four years. A couple of people say we should just save the money. Okay, sure, all we have to do is save \$1.1 million a year in the budget. That's going to be tough considering we only take in about \$300,000 annually and we have to run the town and pay for things like Fire & EMS services, the usual stuff that a city does. This year our surplus is \$16,000 so we'll have the money saved in just under 300 years. Of course by then there will be an app on our iPhone173's that will instantly teleport us anywhere in the world. Lets call that Plan "B". Instead, how about we keep Town Hall open, save as much as we can, pay as much cash up-front and borrow the rest at a super low interest rate. **Just like last time.**

Lakewood Village Historical Cash Balances		
<i>September 30th</i>	<i>Cash in Bank</i>	
2005	\$103,007	
2006	\$38,302	
Elected in May 2007		
2007	\$75,867	
2008	\$187,025	
2009	\$223,285	<= Paid off Utility Loan 4 yrs early (\$89,400)
2010	\$331,562	
2011	\$347,706	<= Paid \$84,310 for asphalt roads
2012	\$454,124	
2013	\$629,007	
30-Apr-14	\$703,722	<= June 30, 2014 Concrete Road Project Starts
2014	\$357,396	<= Utility CAPX \$250,631
2015	\$420,294	<= First year of bond payments
2016	\$261,295	<= Utility CAPX \$92,063
2017	\$250,000**	<= forecast (\$252,171 today)
2018	\$380,000**	
2019	\$500,000**	
2020	\$650,000**	
2021	\$850,000**	<= New Concrete Roads Project

The table shows our recent financial history. In 2006, **there were no annual audits**, the accounting system was junk, the city secretary didn't know how to balance the checking accounts, and no one on the Town Council had any financial expertise. One of the things I teach to executives and MBA's is budgeting. Its pretty simple; if your cash is rapidly decreasing from 2005 and you start out 2006 with only \$38,000 in the bank, you can't increase spending on CAPX by over \$100,000. Of course one way around that problem is just to add an extra \$80,000 to the utility revenues, because, you know, that will make it balance. Wonderful. So the Mayor's budget showed Utility Fund Revenues of just under \$300,000 when the actual revenues were only \$225,000. I was elected in May of that year and calculated that we were going to be out of money by October and

default on our bank loan (we owed Independent Bank \$ 137,500). I took over the Town's finances at that point and have been responsible ever since. Look at the numbers. Despite the great recession and property values tanking, we paid off that bank loan early and steadily grew our balances. **We saved for the road project. We had independent audits done each year.** We peaked with \$703,722 in the bank in April. By coincidence, the bid requests for financing **went out in May**, the banks all loved us, and we ended up with an interest rate below two percent. Except it wasn't a coincidence, it was exactly as I planned. I know the credit formula's that rating agencies use. I know how to maximize our scoring. We went from being insolvent to one of the highest rated municipalities in just a few years. Look at the numbers. We don't need any apartment developer to "save" us financially. Its finance. I got this. Seriously.

In the last couple of years we have spent down our cash as we made massive improvements to our utilities as I have documented in my last letter. Also, as I said previously the \$0.05 temporary tax only covered about a quarter of the bond payment, so we had to cut back and tap into our reserves for the first years. As you can see, I expect the spend-down to reverse next year. With nearly all of our CAPX projects complete, I am forecasting our cash balances to grow steadily and peak when it is time for the new road project. I am assuming no new developments, just our regular growth. We've expanded our utilities, property values are up, and sales tax growth is strong, we're through the toughest part.

DARK SKIES Several months ago Clint Bushong and myself were discussing some long-range planning issues dealing with the future road project. As we did with Lakecrest's and Peninsula's new water mains and hydrants, we need to identify areas of infrastructure improvements well before we put down the concrete streets. One area that I have begun looking at is our street lights. At first, I wondered if they were master planned at all, as there does not appear to be any coherent strategy with respect to style, type, location, or function. The more I thought and researched about the lighting issue, I came to the conclusion that we should adopt dark skies policies.

I think it would be consistent with our small town quality of life to become the first and only city in the metroplex to be certified as a dark skies community. **Dark skies does not mean we go dark** - it means that we take stringent steps to reduce light pollution in the sky through shielding and technology. It does not compromise safety or functionality. There is no reason to shine lights into the sky. Since we do not have commercial enterprises lighting up our town it should be doable. **Yet another reason to not sell-out to commercial.** I am strongly in favor of this. **I have met with CoServ** and they are enthusiastic about partnering with us on this venture. There is no reason that any new developments in our town should not be environmentally sound and improve our quality of life. We should make this a requirement ASAP.

At our last meeting, I presented my proposal to the Council, who approved moving ahead with exploring this important issue. **Mayor Pro-tem Ed Reed will be leading the project.** In the short time since our meeting Ed has already reached out to several organizations including the International Dark Skies Association (IDA) as well as CoServ. As I have said many times, when it comes to projects in our town, **we do it, we pay someone else to do it, or it just doesn't get done.** Ed needs your help. We need a couple of people willing to help us learn and plan for this. You don't need any expertise, just a willingness to help your community. You can contact Ed via email ed@lakewoodvillagetx.us. What a perfect project for our Town. Lakewood Village - quiet lakefront community, woods, trails, wild animals, and you can see the stars at night - that's the vision, what a great place.

Council Actions. The council approved the MDD and Town Budgets. I have proposed no change in the tax rate which will be considered at the September meeting. Several years ago the Town wisely purchased the lot at 595 Melody

Council Vote on Consideration Items	<div> <div>✓</div> <div>✗</div> </div>		<p>Lane for the extension of Stowe Lane to our entrance. Currently if you block the road at the Highridge mailboxes, you cut off access for the southern two-thirds of the Town. Today, this would never be allowed in any planned community, there must always be a second access point. After working with the engineers, we have designed the road so that we only need 0.25 acres, leaving 1.01 acres remaining. My proposal to the council was that we replat the property and sell the 1 acre that we don't need. The council approved and you will soon see a "For Sale by LWV" sign on the lot. As a lot owner myself, I think there's never been a better time to invest in</p>
	✓	✗	
MDD 2018 Budget	Unanimous		
Town 2018 Budget	Reed, Newsome, Bushong,	Tantalo, Shields	
Replat of 595 Melody Lot	Reed, Newsome, Bushong, Shields	Tantalo	
Sale of 595 Melody Lot	Unanimous		

Lakewood Village. Additionally the Council had discussions (no action) on updating our investment policy and the dark skies initiative. Minutes of the meeting will be available next month.

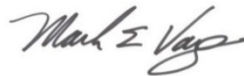
KEY FIGURES: For the first 15 days of August:

Average daily water production was 114,300 gallons or 39% of our maximum production.
At the sewer plant, the average daily flow was 44,346 gallons or 44% of our capacity.

The community celebration of our **40th anniversary** will be on **October 14th**. Sponsored by the MDD, there will be live bands and plenty of food. More information next month.

We're working hard and with your help we can make LWV great. It's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us



Mayor's Letter

January 13, 2018

Hello Everyone,

WE HAD A BUSY HOLIDAY SEASON HERE IN THE VILLAGE. Santa was able to thaw out his frozen reindeer and make the annual trip to the Village. Many of the Town's little ones came to have their pictures taken, eat cookies, play with paints, and make sand ornaments.



CHRISTMAS LIGHTS CONTEST. In early December, Serena Lepley of our Parks Advisory Board asked me if we could have a contest to reward people for their holiday spirit. Of course I said yes, provided that the board be the judges. So Serena, Shay, Rick and Liz, after driving the town and much deliberation awarded first prize to 447 **Lakecrest**; 2nd place to 409 **Lakecrest**, and 3rd place to 300 Hillside. Honorable mentions were 434 **Lakecrest**, 640 Melody, and 331 **Lakecrest**. What about Town Hall ? Nothing ? Next year lets really light up the Town and give Lakecrest some competition.

OVER ∟

ALSO IN DECEMBER we had our second annual appreciation dinner. **"It's easy to do nothing."** Well, in December we invite those who didn't take the easy way out but instead pitched in to help. This includes our MDD Board



of Directors, Parks and Impact Fee Advisory Committees members, the volunteers who work on the bulletin boards, our public works people, building inspectors, basically everyone who made the effort to make LWV such a great place. Each year I make a point of recognizing each person and describing their contribution. I do it from memory (with no notes, like in my class). This year was more difficult as the number of people has grown. I hope it gets harder each year as we thank more and more of our unsung contributors.

If you would like to help out, we're looking for more volunteers for our Parks Advisory Board. The idea is simple. Instead of the Council trying to come up with possible projects, we let our citizens who will directly benefit decide. Doesn't it make sense that the choice of playground equipment should be made by those who have small children who will actually be the ones using it ?

One of the many great things I like about operating our Town is that, for many things, the official LWV policy is that **we don't have a policy. We just do what makes sense.** We have money budgeted and in the bank, we need your help in spending it (really). In my PhD program at Wharton we covered corporate finance, derivatives, tax, and international capital markets, but nothing on playground equipment, community gardens, or athletic fields. So, if you want to

be a part of making something happen, then please join in. You can contact me or Linda if you are interested and we'll pass your information on to Serena and the Board.

IT WAS ONE OF THE MOST IMPORTANT VOTES IN LWV HISTORY. Last month the council voted 4-1 to revise our impact fee ordinance. Impact Fees are what developers have to pay the Town for expanding the utility system. If a new development comes to LWV and we have to put in a new well, you probably thought the developer would pay for it. It certainly seems logical, however, it's not the law in Texas. The developer pays only 50 percent. Who pays the other half? You and I, the current customers. That's the law.

Infrastructure Costs - Final Buildout			
	Onsite	Offsite	Total Sewer
SEWER	\$3,130,000	\$825,250	\$3,955,250
WATER	\$1,667,000	\$2,624,250	\$4,291,250
			\$8,246,500
		2016	2017
	Town	\$4,882,685	\$2,006,740
	Developer	\$3,353,815	\$6,204,760

When you calculate impact fees, we distinguish between **onsite costs** (on the project property like water and sewer mains, lift stations, fire hydrants) and **offsite costs** (on town property like wells, storage tanks, sewer plant). In the final buildout of every empty lot and every acre of undeveloped land in LWV all the way to Garza Lane, our engineers estimate that the total infrastructure costs will be \$8,246,500. **Don't panic** - this is like saying you will spend \$587,423 feeding yourself in your lifetime, or that you will spend \$271,104 on CoServ bills before you die. **It's not today, it's the grand total for everything, everywhere, over the entire life of the Town's buildout.**

In 2016, with the critical help of our impact fee committee, we successfully completed the very complicated process of implementing our impact fee ordinance. Now we could legally require \$3.3 million in impact fees from the developers (and approximately \$1.5 million in tap fees). Our share is larger due to the empty lots and future growth of the existing town. **With our safety net in place**, early last year I met with our attorneys to explore an alternative for our share of the onsite costs. Clint Bushong and I met several times with Kimley-Horn engineers in McKinney and we analyzed the underlying assumptions and design requirements. In the fall I recommended that we bring the impact fee committee back to consider revising our ordinance. The committee recommended the new changes which reduced our share of the costs from \$4,882,685 to only \$2,006,740. The new ordinance saves us almost \$3 million. That's more than **\$10,000 per house** that you and I won't have to pay in the future. The future is brighter than ever, thanks to our committee members.

ELECTION NEWS. In May we will make **history** with our Town elections. In 2018 for the first time, **Lakewood Village is officially precinct 1048.** Until this year, for Lakewood Village citizens to actually vote in Lakewood Village we had to pay for our elections equipment separately. I recall one year when a previous elections official (not Frank Phillips he is great), explained to me that for LWV there would be no machines available for us, our citizens would have to vote in Oak Point. I did an open records request and asked him to explain why every town not named Lakewood Village had gotten voting machines in every election going back 10 years. **We got our machines.** Linda worked very hard over several years pushing for the redistricting. Why is it so important? It means our elections costs will now be shared with all other towns in Denton County, saving us money. And most importantly it means from now on, you will vote for the School Board and Town Council right here at Town Hall. In Lakewood Village. **As it should be.**

TOWN COUNCIL ELECTIONS. Election day in Lakewood Village is May 5th. **In this year's election three seats are expiring, Seat 2, Seat 4, and Seat 6 (Mayor).** Councilman Gary Newsome (Seat 4) has told me that he will not be seeking re-election. Serena Lepley has picked up an election packet and has indicated that she intends to file for **Seat 4.** Darrell West has also picked up a packet and has indicated that he intends to file for **Seat 2.** The filing period starts on January 17th. Contact Linda if you have any questions or visit the Town website at www.lakewoodvillagetx.us.

LEADING BY EXAMPLE Mayor Pro-Tem Ed Reed has been working diligently with CoServ on the dark skies program to minimize light pollution in our night-time skies. With Ed's leadership we have now installed our first dark-skies compliant lighting fixture at the mailboxes on Highridge. It's important to evaluate our options **before** developers come in with their ideas - we need to be the leader and dictate what we want. Take a look.

WHAT YOU DIDN'T KNOW. During the recent frigid weather, when I was checking the heaters in the well house, I found that our large well had failed to operate and would not start. I was able to bring our second deep well online (we shut it down during the winter). The following day I found that this well had also become inoperative, thus we had lost 80 percent of our water production. Sam Morgan and I were able to get that well back in operation later that day. The reason why there was no emergency was that with our new storage tank, we had **three days of water in storage.** Yesterday we were able to replace the control system on the other deep well and now all three are running normally.

The expansion of our water system isn't just to get ahead of future development. When the Council voted 4-1 to bring that tank online we gained a huge safety margin. We don't have public works people standing around performing 24/7 monitoring, it's us finding water leaks, main breaks, or lift station failures. Having time to diagnose problems is great. I still don't know where our "Code Red" signs are.

COUNCIL ACTIONS. With the annual auditors report and impact fee ordinance revisions approved in December, the Council took a much deserved break to spend the holidays with family. Our January meeting was cancelled.

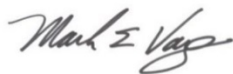
KEY FIGURES: Too cold to read the meter at the sewer plant! So here's a different figure:

On January 13, 2017 the Town had \$347,665 in deposits at Point Bank.

Today, January 13, 2018, we have **\$472,257** in the bank.

We're off to another great year. There's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us



Mayor's Letter

February 15, 2018

Hello Everyone,

DARK SKIES UPDATE. Several months ago Mayor Pro-tem Ed Reed took on the dark skies project. What started out as an investigation into the various requirements necessary for certification as a dark skies community has significantly expanded under Ed's leadership. Ed, working with Sheryl France, created a map with the location and lighting and fixture type of every street light in LWV. After several productive meetings with CoServ, all of the inoperative lights were repaired and several leaning poles were replaced, with more scheduled. You might not know it, but CoServ owns every light pole (including those in the Shores), and every light fixture. We pay a monthly fee for each light, but CoServ is fully responsible for their maintenance and repair. As you might have imagined Ed's research showed that the lights in LWV were a random assortment of colors (white, yellow), types (DD-lights, globes), fixtures (cobra-heads, sodium), and a range of different wattages. In short, a random collection of lights with no coherent pattern or purpose. Early in February, Ed, Sheryl, and myself had a meeting with CoServ personnel to discuss our lighting options as we try and develop a comprehensive lighting plan. It will really make a difference in the feel of the Town. If you would like to participate in the project please contact Ed.

After I first wrote to you about our interest in dark skies, I heard from someone who said they were told we were going to remove all of the lights in the Village. I can't say where that story came from, all I can say, is that it's called **dark skies, not dark ground**. To illustrate the point, we replaced the broken light at the Highridge mailboxes with an IDA dark skies approved fixture. The picture on the left is the mailboxes with the old fixture. **The picture on the right is the new dark skies fixture.** Look at the light diffusion. The dark skies fixture puts out more light with significantly less energy; and it is shielded so the light does not go up or sideways. The pictures are great examples. We're still gathering cost data, but I think the benefits of these new fixtures would fit in nicely with our Lakewood Village quiet country small town feel. Let the other "LV" (Las Vegas) light the sky.



OVER ∟

A GREAT EXAMPLE. Prior to our meeting with CoServ, Ed had taken it upon himself to look in detail at our utility bill. We pay a small amount \$5-\$6 for each light depending on their type, and now that Ed had an accurate count he wanted them to double check the bill. Upon Ed's request, prior to our meeting, a CoServ expert went over our bill and examined it. They ran the numbers and found that we could save money at the wastewater plant if we switched our billing type. It's a complicated formula (based on loading and time of day), but CoServ ran a simulation and recalculated our bills from last year to see the effect. **Based on our new rate, the sewer plant electricity cost for last year would have fallen from \$17,642.49 to only \$12,703.26. A savings of almost \$5000 !** It gets better. Due to our efficiency improvements at the plant, we currently turn the blowers off for five hours a day. So, if we shift the "off" time to be during CoServ's peak pricing period (3pm-8pm), we can save significantly more. The new rates have been implemented and I have already changed the timers on the blower motors. Without Ed's initiative and CoServ's extraordinary efforts to evaluate our comprehensive usage, we would never been able to achieve these savings. And after all of that, **Ed did get us the \$5.88 credit** for a pole that we owned and shouldn't have been charged for. On behalf of everyone, thank you Ed.

TOWN COUNCIL ELECTIONS. Currently, Serena Lepley has filed to run for Seat 4. Darrell West has filed to run for **Seat 2**. In an interesting coincidence, Darrell's father Heath West served on the Town Council from 1979 to 1982 in, you guessed it, **Seat 2**. Lastly, I have filed for re-election as Mayor, in Seat 6. Election day in Lakewood Village is Saturday, May 5th

SIMPLE RECYCLING Everyone should have received orange bags for the program. Bags should be placed outside next to your recycling containers (not inside). They are picked up on recycling days only (every other week). **Information is available on the Town website.** Last year, the Town Council unanimously approved Simple Recycling as another opportunity for everyone to divert items from landfills into usable products.

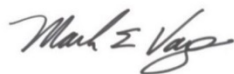
COUNCIL ACTIONS. The Town Council approved two variances for accessory buildings and continued discussions on an audit/finance committee.

KEY FIGURES: Our annual bond payments are due on February 1st each year I made our payment of \$165,271.10 on January 30th. As a comparison to last year,

On February 14, 2017 the Town had \$267,646 in deposits at Point Bank.
Today, February 14, 2018, we have **\$371,649** in the bank.

There's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us



Mayor's Letter

April 13, 2018

Hello Everyone,

A LITTLE OVER FOUR YEARS AGO, we made a strategic decision to obtain the exclusive sewer rights to the area on the north side of Eldorado Parkway. This area is in the Lakewood Village ETJ – which means although it is in the county, we have the **exclusive rights to annex it into our Town at a future date**. It is exclusively our jurisdiction. **It is part of our future growth**. This area, along with all of the wooded property towards the toll bridge are the two-thirds of our town that aren't here yet. However, unlike the wooded area which is inside our city limits, the north side of Eldorado is in the county. Although **that area will some day be a part of Lakewood Village**, until then, it is outside of our Town. That means that any developer could build anything they want and there is nothing we can do to stop them because none of our ordinances apply, especially zoning. Worse, if they built thousands of apartments virtually on our doorstep we would NEVER annex that into our town, so we would never get any benefits from that side of Eldorado. So what could we do ?

Well, **its really really hard to put in apartments without sewers**. So years ago we tasked Linda to quietly work with the Public Utility Commission and the Texas Commission on Environmental Quality to obtain the administrative approvals to get the sewer monopoly over there. Linda worked diligently on it for almost four years, navigating an unbelievable amount of frustration and regulatory paperwork insanity. In late Fall 2017, the administrative law judge in Austin gave us our final approval. I remember Linda was on the verge of tears when she told me “we got it !”.

A couple of months ago, the Oak Point City Manager requested a meeting to discuss a potential new project in Oak Point adjacent to the Lakewood Village ETJ. **It is in Oak Point**, so you might ask why did we need to meet ? Oak Point does not own any utilities, so when we were working on our application, we reached out to Little Elm to create an agreement on new boundaries where each of us would service the area. Little Elm performed all of the engineering and mapping required by the Public Utilities Commission for our requests to amend our service areas. Recognizing that we were working together, instead of cities usually fighting against each other, the PUC consolidated our requests and everything was approved together. So for this new development **that would be entirely in Oak Point**, the utility providers were Little Elm (three-fourths of the property) and Lakewood Village (the southern quarter). So unless the three cities could work together, the developer would have to walk away and OP would lose out on a terrific new addition to their city.

AFTER RECEIVING A PROPOSED AGREEMENT, and payment from the developer for the anticipated legal costs for our attorneys, we worked on changes to the document. **On Friday, March 30th, I called a special meeting** of the Town Council to approve a three-city interlocal agreement between the Town of Lakewood Village, the City of Oak Point, and the Town of Little Elm. In the agreement, Lakewood Village agreed to allow Little Elm to service the entire project. In return, the following language was added:

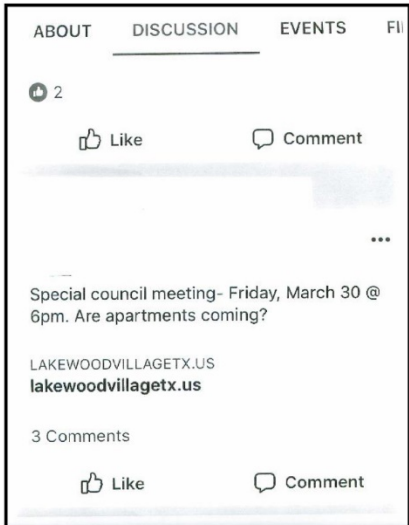
“1.4 Oak Point agrees that the development and land use of property will be exclusively for single family residential development”

The Town Council unanimously approved the agreement (except Tantalio who did not attend the council meeting). Because of the timing of the various towns' meeting dates, we had to go first in a special meeting, with Oak Point and then Little Elm to follow. Usually cities and towns are in competition with each other, but not here. **All three towns came together for the benefit of one**, as all of the taxes and financial benefits of the project will go to Oak Point. Having financially strong neighbors is good for us. I look forward to working on future joint projects with our neighbors.

While having the three of us working together successfully was great, it is really satisfying to see that, by looking ahead years ago we were able to anticipate future development that will affect us and **guarantee it will be on our terms**. We aren't big enough to outmuscle developers, so our only chance is to look ahead, anticipate, and adopt strategies to protect our town and our quality of life.

OVER ♡

AS WITH ANY COUNCIL MEETING, we have to post the agenda at least 72 hours prior to the meeting. Our agenda had only one item on it, the three city agreement for sewer service for the residential development in Oak Point. The development was discussed and approved the previous week at the **March 19th Oak Point Council meeting**. The maps of the development and detailed **single-family construction requirements** are in the council packet available on the OP website. So why would someone go on the LWV Facebook group and deliberately post that I had called a special



meeting for apartments ? Why would someone go on Facebook and post the exact opposite of the truth ? After writing numerous Mayor's letters clearly and unambiguously pointing out the huge negative impact of apartments, why would someone go on Facebook and imply that I would want apartments ? Instead of reading the agreement which I had negotiated which **clearly states the specific language to prohibit apartments** why would someone post the opposite. Why ?

BECAUSE THEY CAN. Anyone can say anything on Facebook. I will keep saying it, under Texas law, **the only place to get official town information is the Town's website**. As many of you know, our attorney's have advised us that we cannot engage in debates on Facebook. If we did, that would trigger document retention requirements and we don't have the manpower or technology required to archive Facebook posts to meet Texas Open Records requirements. So a few people in Town know that they can make up any lie or insult Linda, or the Council and we aren't allowed to correct it. There are a lot of positives to social media, and I would never suggest you avoid FB, in fact, I think some of the things on the LWV page are really nice. So in the interests of saving FB time for everyone: In the coming months we may take some test borings in the street to start the geotechnical analysis for the new concrete roads. So don't be surprised when a certain person posts on FB that the Council has secretly approved Chevron fracking for oil on Highridge. We have a bond interest payment of \$10,188.80 due on August 1st (our principle payment is in February), today we have \$394,176.09 in the bank. We are not "broke" we did not default on our payment, and the bank is not secretly foreclosing on Town hall and turning into a gas station with pumps in the driveway. I could go on forever, but that's the point, there are an unlimited number of things that certain people can fabricate. At the end of the day it's up to you what you believe.

ONE EXAMPLE OF THE BENEFITS OF FACEBOOK happened a couple of weeks ago. Linda told me that there was some postings about crawfish which turned into a series of posts about having a crawfish boil. This soon led to Stowe Lane resident Chris Cox volunteering to have Authority Roofing sponsor (that is buy and cook all the food) for the **First Annual Lakewood Village Crawfish Boil**. I think it's really neat that after coming to the village to repair so many roofs in town, Chris and wife Aileen decided to move here. **The event will be on Saturday, April 21, from 1 to 5pm**. There will be music, balloon twisters, face painters, games and tons of food. So bring your chairs, drinks and a side dish if you would like to share one. Don't worry I won't be cooking anything.

ADULT AND CHILDREN DARK SKY fun and learning sessions have been scheduled. Most of us are familiar with air, water and land (garbage) pollution. Come learn how light can also be a pollutant. The Lakewood Dark Sky Initiative will be hosting education events for children and adults at Town Hall. Please check the dates below and mark your calendars:

Children's Event- all ages: Saturday, May 12 from 10:30am to 11:30am.
Cookies and drinks will be provided.

Adult Event: Tuesday, May 29 from 7:00pm to 8pm. Cake and drinks provided.

Adults Event: Saturday, June 2 from 10:30am to 11:30am. Donuts and drinks provided.

. For more detailed information regarding light pollution please visit www.darksky.org.

AFTER NEARLY A QUARTER CENTURY WITH NO DEVELOPMENT, it now looks very likely that we will soon see a new single family residential development by LandPlan in the area across from Town hall. The big challenge is new development means that our timetable for concrete streets throughout our town could happen sooner than planned. To save money, we must do our new streets along with the developer. Each year I send our audit results to our financial advisors SAMCO Capital Markets and we discuss interest rates, borrowing strategies, and what we could expect when we issue new bonds to pay for new streets. Given that we may have to put roads in much sooner than anticipated, **I asked SAMCO to assess our current financial performance** and our ability to borrow funds.

SAMCO CAPITAL MARKETS, INC.
1700 PACIFIC AVENUE, SUITE 2000 • DALLAS, TEXAS 75201
TELEPHONE 214-765-1400 • FACSIMILE 214-765-1414

March 28, 2018

Dr. Mark Vargus, Mayor
Town of Lakewood Village
100 Highridge Drive
Lakewood Village, TX 75068

Re: Lakewood Village 2017 Audit

Dear Mark:

Thank you for sending me your 2017 audit. As required, I have forwarded a copy to American National Bank of Texas, the owners of your Series 2014 CO's and to the Municipal Advisory Council of Texas.

After reviewing your audit, I would like to congratulate you, your council, and the Town staff for another excellent year. The General Fund continues to add to its fund balance and is now at 48.36% of all General Fund Expenditures and 83.53% of General Fund Expenditures less Debt Service. These are excellent ratios and continued success will certainly help the Town the next time you go to the debt market to sell Bonds.

I also reviewed the Proprietary Fund results and they too had an excellent year. Operating income of \$89,681 prior to depreciation and \$2,925 after depreciation proves that the Town continues to add assets to the Utility System assuring long term success of the System.

Let me know if there is anything else you would want.


Sincerely,



Mark McLiney
Senior Managing Director

MEMBER FINRA - SIPC

COUNCIL ACTIONS. The interlocal agreement between LWV, Oak Point and Little Elm was the only agenda item at the March 30th Special Meeting. No agenda items were submitted for the April 12th Council meeting and the meeting was cancelled. Out of respect to our two new council members and potential new mayor, I have decided not to bring up any of my new items until our June meeting. Liz Shields did not ask for the finance audit committee discussion to be on the agenda as she was unable to attend the meeting. She and daughter Rachel are visiting A&M which she will be attending in the Fall. That's a great accomplishment.

<u>Council Vote on Consideration Items</u>		Absent
Interlocal Agreement with OP and LE for sewer.	Reed, Newsome, Bushong, Shields	Tantalo

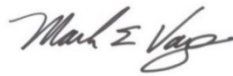
KEY FIGURES: As a comparison to last year,

On April 13, 2017 the Town had \$258,020 in deposits at Point Bank.

Today, April 13, 2018, we have **\$394,176** in the bank.

I hope everyone can come out for our first annual crawfish boil next Saturday at Town Hall. There's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us



Mayor's Letter

August 15, 2018

Hello Everyone,

Water System Update. Our water production has been significantly decreased due to the water level in our aquifers dropping below the level that our pumps can effectively operate. We have three wells in two different aquifers, and all are affected. Our water production has decreased by approximately 30 percent. Since we cannot increase our supply of water in the near future, the only option is to reduce demand. On July 17th, our three wells ran continuously for 24 hours and we could not fill our tanks. Therefore on July 18th I declared a **Level 3 Water Emergency** and we implemented three-day a week watering. The Town's water usage increased, so in response, on **Monday July 23rd, I declared a Level 4 Water Emergency** and we instituted limited two-day a week watering.

It is unusual for Lakewood Village to have water restrictions. Typically in the past, restrictions have been for a short duration due to a mechanical issue relating to the pumps, or a temporary water shortage due to a main break. Our current problems are caused by the aquifer and we cannot take the wells offline to make motor adjustments until the Fall. **It is likely we will be on water restrictions until Thanksgiving.** Now that we have been on restrictions for a month, I thought I would share with you the latest information on how the Town has responded to our critical issue and our extended water rationing rules. The Table shows the average water usage per house.

	July No Water Restrictions	August Level 4 Water Restrictions	Percentage Change	% of Houses with Decreased Usage	% of Houses with Increased Usage
Stowe	38,790	31,228	-19.5%	60%	40%
Melody	31,754	27,031	-14.9%	58%	42%
Carrie	26,169	24,238	-7.4%	59%	41%
Highridge	15,107	17,169	13.6%	38%	62%
Meadowlake	12,381	15,495	25.2%	32%	68%
Woodcrest	11,587	12,475	7.7%	75%	25%
Lakecrest	12,309	15,742	27.9%	23%	77%
Parkwood	11,735	13,825	17.8%	42%	58%
Hillside	10,461	10,333	-1.2%	41%	59%
Peninsula	9,359	11,209	19.8%	23%	77%
TOWN	4,210,060	4,209,100	0.0%	42%	58%

As you can see, the overall usage was unchanged, we used 4.2 million gallons before rationing, and during rationing we still used 4.2 millions gallons. Stowe Lane remains on top with the average house using 38,790 gallons in July prior to the watering restrictions. As expected, the largest water users are in the Shores. Under water rationing, the Shores reduced their consumption significantly, with Stowe Lane again leading the way. Unfortunately, the remaining part of the town (except Hillside) greatly increased their water use and wiped out all of the gains from the Shores. So, **in response to our critical water situation and Stage 4 water emergency, overall consumption did not decrease while 58 percent of the houses actually increased their water usage.** These results are very disappointing. The recent rains will lead to reduced usage this month, but we cannot rely on the weather bailing us out of an emergency. We have to do better.

SOLUTIONS ? In the near term, you cannot make our existing wells deeper. However, we believe we can lower the pump deeper in our #1 and #3 wells, (we lowered the pump in our #2 well several years ago). After consulting with our operator, well maintenance company, and Town engineers, our course of action is to take the big well offline and perform the operation in the late Fall (i.e. probably in late November). We will not risk working on any of the wells during the summer.

We have always known that we will have to drill an additional well. When operating normally, our current wells produce enough water for approximately 320 houses according to TCEQ rules. With the empty lots in Town we currently have approximately 290 houses and lots, so we have a good fit. But, this means a new well was going to be necessary to accommodate any new developments. The plan was to wait for that to happen. The aquifer didn't follow the plan, so we need to drill that well now.

In 2017, in anticipation, we had a water well study performed, so we are already on the path. I have had discussions with our Engineers and Water system operator to begin planning the regulatory approval and construction process. I have discussed with our financial advisors our financing options. The good news is that a significant portion of the cost will be recaptured from future developers impact fees. However, even if we submitted the engineered plans today to TCEQ (which we don't have yet), realistically, it could take 18 months until we have the well operational.

ON A BRIGHTER NOTE Our Lakewood Village MDD will be sponsoring our 41st Anniversary Celebration and picnic at Town Hall on October 14th. Food, drinks, a live band, and play things for the kids will be provided. More information as the event draws near.

IMPROVING THE VILLAGE You may have noticed several improvements around the village. First, the new dark-skies high efficiency street lights were installed around the Village. Under Mayor Pro-tem Ed Reed's leadership CoServ installed the new lights which provide greater illumination, are softer and generate much less glare, present a more uniform design throughout the village, they have a 20+ year warranty, and cost the town less to operate. You may have also noticed we are in the process of making changes to Town Hall. We have our new doors installed. Our resident artist, sign maker, design expert Larry Owens will be finishing the graphics. And finally, a long awaited upgrade to our playground is underway. Councilwoman Serena Lepley is leading the project to replace the wood chips with rubber mulch. The mulch and new boarders are here and should be installed in the next week. The resulting surface will be much softer and will be weed free !

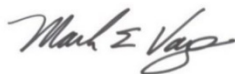
KEY FIGURES: As a comparison to last year,

On August 15, 2017 the Town had \$226,712 in deposits at Point Bank.

Today, August 15, 2018, we have **\$389,195** in the bank.

There's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us



Mayor's Letter

January 15, 2019

Hello Everyone,

DARK SKIES. There are only fifteen cities in the entire United States that are certified by the International Dark-Sky Association (IDA). On **August 10, 2017** we began the process of being number sixteen when Mayor Pro-tem Ed Reed volunteered to research and educate us on the program and lead us toward certification. Over the course of the **last 18 months (!)** Ed has had many meetings with the IDA working on the complicated application process and through it all, it has been very beneficial to the Town. As part of the process of determining our existing lighting conditions, Ed identified the various types of inefficient barn-lights that we had and worked with CoServ for alternatives. As a result, we replaced all of the lights outside of the Shores with IDA compliant high efficiency lighting. Ed and Councilman Darrell West are working on more efficient lighting solutions for the marquee (that's why it has been off), and we will be improving the lighting around the mailboxes in the near future. Will we replace the lights in the Shores ? Yes. Our current thinking is that the next developer must have underground utilities, so they too will have the lamp-post type lighting (no "telephone poles"). So, our most efficient and economical option is to piggy-back on the developer's IDA approved lighting choice and have one uniform style for all of the town.

LIGHTING ORDINANCE. One of the toughest parts of the IDA approval process is the adoption of a lighting ordinance which limits light pollution. After discussing the ordinance for the last several months, I expect the Council to adopt it at our next Council meeting. Let me say a few things about it. First, the ordinance places design requirements on **future** houses; current houses are **grandfathered**. You don't have to do anything. It is our hope that when you choose to replace your outdoor lighting or install new lighting you will follow the ordinance. Second, much of the outdoor lighting that you have would be exempt under the ordinance because it isn't bright enough, or because it is located under the eaves of the house so it is shielded. **It is critical that we have a lighting ordinance.** When the next developer submits a preliminary plat and asks for a list of approved lighting fixtures, we have to be ready. They will build whatever we require, that's easy, the hard part is figuring out exactly what we want. When the developer is at the door, we don't have 18 months to find someone like Ed to do the work. We have to be ready. We will be ready.

UTILITY SYSTEM UPDATE. We have completed our annual winter repairs on the water system. We installed a liner in the new steel ground storage tank and replaced valves, fittings, and control wires. In response to our water issues this summer, we are ready to attempt to lower the pumps in our #1 and #2 wells deeper into the aquifer. The well-drilling company is completing a job in Aubrey, I expect them to start here in early February. At the February Council meeting I will be seeking Council approval to construct a new sewer force-main along Melody Lane from the Carrie lift station. This will eliminate the capacity and motor issues we are having with the Stowe lift station. The plan is to have the project completed prior to the Spring rains. In the construction process we will be boring under the driveways along the south side of Melody. Since it is the force main, there will be no effect on individual sewer lines and no service outages. The new line is necessary to correct an engineering design error when the Shores was built in 1995.

OVER ➤

ACROSS THE UNITED STATES towns are struggling with the issue of short-term rentals (e.g. Airbnb, HomeAway). The issue continues to be litigated here in Texas. Recently with the wedding/event center opening across from us on Eldorado we have experienced the problem first-hand. Before I talk about short-term rentals specifically, it is important to understand the legal environment that we operate under.

In Texas there are two types of cities: Home Rule and General Law, each with unique powers. **Approximately 75 percent of Texas cities, including Lakewood Village, are general-law.** Once a city's population exceeds 5,000 it can elect to stop being a general-law city and be a home-rule city with their own charter. What that means for us is that we are severely limited in the ordinances that we can enact. When people complain to me, they often have the misconception that we can simply make up our own ordinances and declare something illegal. In fact, **it is the opposite**, we can only take actions that have been specifically authorized by the State Legislature. **The Texas Local Government Code (LGC)** has 615 Chapters and 1,336 pages. It's simple, if what we want to do isn't in the code, we can't do it. So, for example, our zoning ordinance states that:

WHEREAS, pursuant to Chapter 211 of the Local Government Code, the Town of Lakewood Village ("Town") has the authority to adopt...

Every ordinance of the Town must state where in the LGC we have the authority. If we are challenged in court, the very first thing examined is whether we had the authority to enact the ordinance. It doesn't matter if our intentions are good. If we can't point to a particular section in the LGC, we lose. Period. Game over.

SHORT-TERM RENTALS. Everyone understands the problems - excessive noise, lots of traffic, cars blocking the streets and neighbors' driveways, extra trash, transient people wandering around. Everybody gets it. Every city understands. I do. Ed, Clint, Serena, Liz, Darrell all get it. What can we do? First, La'el Collins won't be leading any running plays for the Dallas Stars, and they won't be shooting footballs at the goalie. The Stars play by hockey rules, not the NFL rules. General law cities like LWV have different rules than the larger home-rule cities, so it is useless and pointless to look at what they are doing. **WE have to follow the LGC.**

Dallas makes owners register their rental properties, can we do that? **NO.** There is nothing in the LGC which authorizes a general-law city to do that. Can we require more inspections for rentals? **NO.** There is no authorization in the LGC and we have no statistical evidence that they are less safe than any other house in town. Can we limit street parking? **YES**, but it would apply to every house in the Town. Legally, it is very difficult to justify an ordinance that treats one group of homeowners different from another, especially if you claim it is a safety issue. Logically, if something improves safety, it should apply everywhere.

ZONING. The most common action by cities is to use their zoning authority to prohibit or severely restrict short-term rentals. **The city's argument** is that the owner is operating the property like a hotel (they even pay the hotel occupancy tax) in an area zoned residential. **The owners argue** that what matters is how the property is being used by the occupants - they are eating, sleeping, swimming in the pool, even having parties which are things that are normal activities in a residential setting. Who is right? In May 2018 the Texas Supreme Court ruled **unanimously, yes unanimously** in the case of *Tarr v. Timberwood Park*, that **the owner is correct**. If the occupants were fixing transmissions in the front yard, that would be a commercial use, but if they are using it in the manner like any other resident, then **the use is residential** not commercial. The Tarr case involved an HOA, not a city, but the implications for cities are clearly not good. There are several lawsuits against cities (most notably Austin) that are headed to the Texas Supreme Court. Closer to home, in September, the Grapevine City Council voted to enforce a ban on short-term rentals. Before they could even start, several owners filed a lawsuit and the District Court issued an injunction prohibiting Grapevine from enforcing it. On top of that, rather than waiting for these cases to play out, the Texas Legislature has signaled they may pass a law **banning cities from regulating short-term rentals** (as they tried to do in the last legislative session). This isn't California, here in Texas we have a tradition of strong property rights, so it's tough (as it should be) to restrict what **you** do on **your** land.

However, we have taken a step to address the noise problem. I have discussed with Council a new noise ordinance which is under review by our attorneys. It's a good start. It's the best we can do for now.

NOTICE OF PROPOSED ZONING CHANGE

The Town Council has discussed changes to our zoning ordinance at our meetings on:

September 13, 2018

October 17, 2018

November 8, 2018

December 13, 2018

January 10, 2019

We have held public hearings for citizen comments on the proposed zoning changes on:

September 13, 2018

December 13, 2018

January 10, 2019

Under the proposed changes, no properties will be reclassified. As in my discussion of the changes in last month's mayor's letter, there are no changes to the district boundaries, and no changes to minimum lot sizes, set-back dimensions or minimum house sizes. The zoning ordinance with the red-lined proposed changes is available on the town website.

There will be a final public hearing at our February 14, 2019 Council meeting. After the public hearing we will be voting on the changes.

STOP THE BLEED: No matter how rapid the arrival of professional emergency responders, bystanders will always be first on the scene. A person who is bleeding can die from blood loss within five minutes, so quickly stopping the bleeding is critical. Those nearest to someone with life-threatening injuries are best positioned to provide immediate care if they are equipped with the appropriate training and resources.

Learning to control bleeding in an emergency is as important as learning CPR. Bleeding emergencies can happen anywhere, in your home, at a social event, at a traffic accident, etc. You can attend a FREE class on Saturday, February 2, 2019 from 10am to 12pm at Town Hall and learn some very simple actions you can take to help save a life. Email Linda at to confirm your spot in class: linda@lakewoodvillagetx.us

KEY FIGURES: Building up our financial reserves is very important as liquidity is one of the key drivers of our future bond rating from S&P. We are continuing to increase our cash position ahead of the February 2020 start of our road project.

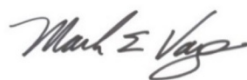
Last year, on January 15, 2018 the Town had \$452,898 in the bank.

Today, January 15, 2019, we have **\$559,010** in the bank.

We are \$106,112 ahead of last year and things are only getting better.

There's never been a better time to be in Lakewood Village.

Dr. Mark E. Vargus
Mayor



(cell) 214-558-6947
Mark@lakewoodvillagetx.us

Dark Sky Initiative Timeline

2017	
July	Mayor Vargus learns about the Dark Sky Community Designation Program (IDSC)
August 10	<ul style="list-style-type: none"> • IDSC details shared with the Town Council • Town Council supported an initiative • Mayor Pro-Tem Ed Reed volunteered to lead the initiative
September 5	Initial dark sky presentation shared with the Town Council
September 12	Initial coordination meeting with CoServ: <ul style="list-style-type: none"> • CoServ agreed to repair the existing street light infrastructure and investigate its replacement
October	<ul style="list-style-type: none"> • Initiative status presented to council on October 12th • Dark sky information placed on town website • Dark sky brochures displayed at town hall • Distribution of Dark sky brochures and informational letter included in New Resident's Welcome Program • Completed inventory of existing street light inventory
November 7	<ul style="list-style-type: none"> • Sheryl France, resident, volunteered and appointed President of the Dark Sky Committee • CoServ issued maintenance orders for street light repairs
2018	
January 25	CoServ installed two (2) new trial street light fixtures
February 8	<ul style="list-style-type: none"> • CoServ completed repair of non-working street lights • CoServ began investigation of an IDA compliant street light fixture to replace existing non-compliant barn and cobra street lights
February 15	First IDA compliant fixture installed at Melody Lane mailbox facility
February 27	Meeting with Little Elm Independent School District Science Coordinator to discuss potential elementary dark sky education training program
April 18	Mayor Pro-Tem Ed Reed began drafting Outdoor Lighting Ordinance with support from Dr. John Barentine
May 10	IDA presentation by Mr. Gordon Meredith, IDA Member, during town meeting to council and residents
May 12	Completed the first Lakewood Village children's education training session

May 17	Completed three (3) educational training sessions at LEISD's Oak Point Elementary School, Oak Point, Texas
May 23	Installed Sky Quality Meter (SQM) with support from Mr. Gordon Meredith to begin recording night sky measurement program
May 29	Completed the first Lakewood Village adult's education training session
June 2	Completed the second Lakewood Village adult's education training session
June 14	Initial Town Council discussion for the Village Street Light Capital Improvement Project to replace barn lights
July 10	Town Council discussed and approved capital expense of \$5,142 for Village Street Light Capital Improvement to replace barn and cobra street lights
July 18	SQM readings taken from Melody Lane
July 30	CoServ completed installation of twenty (20) IDA approved LeoTek GreenCobra LED streetlights in The Village
September 13	IDA presentation by Mr. Gary Carter, IDA Member and President of the Texas Astronomical Society of Dallas, during town meeting to the Town Council and attending residents
October 4	SQM readings taken from Melody Lane
November 8	Mayor Pro-Tem Reed presented draft of Outdoor Lighting Ordinance to the Town Council for discussion
December 13	Town Council further discussed the proposed Outdoor Lighting Ordinance
December 20	SQM readings taken from Melody Lane
2019	
January 10	Town Council discussion of the final draft of the Outdoor Lighting Ordinance
February 14	Town Council unanimously approved Outdoor Lighting Ordinance.
March	Completed four (4) town owned outdoor lighting replacement projects

IDA International Dark Sky Association

www.darksky.org

... to observe and protect the nighttime environment
and our heritage of dark skies through
environmentally responsible out door lighting

IDA Texas

www.idatexas.org

...seeks to connect everyone interested in better
outdoor lighting and providing information to help
foster better outdoor lighting practices.

IDA Designations

- ❖ Parks
- ❖ Reserves
- ❖ Sanctuaries
- ❖ Developments of Distinction
- ❖ Communities



What Is A Dark Sky Community

A IDA Dark Sky Community (DSC) is a town, city or municipality that has shown dedication to the preservation of the night sky through the:

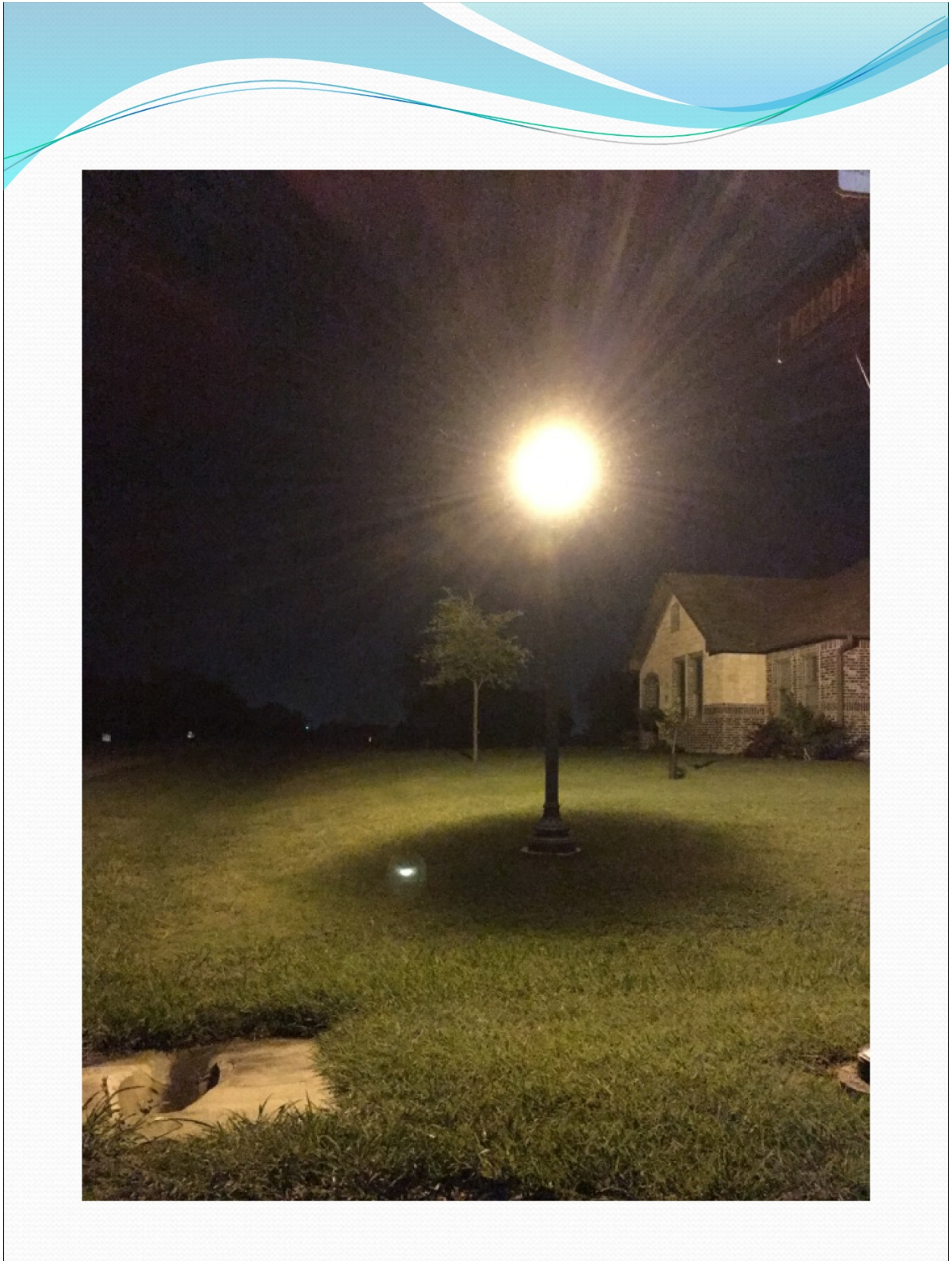
- ❖ implementation and enforcement of quality lighting codes
- ❖ dark sky education
- ❖ citizen support of dark skies
- ❖ Currently nearly 5 dozen across the globe

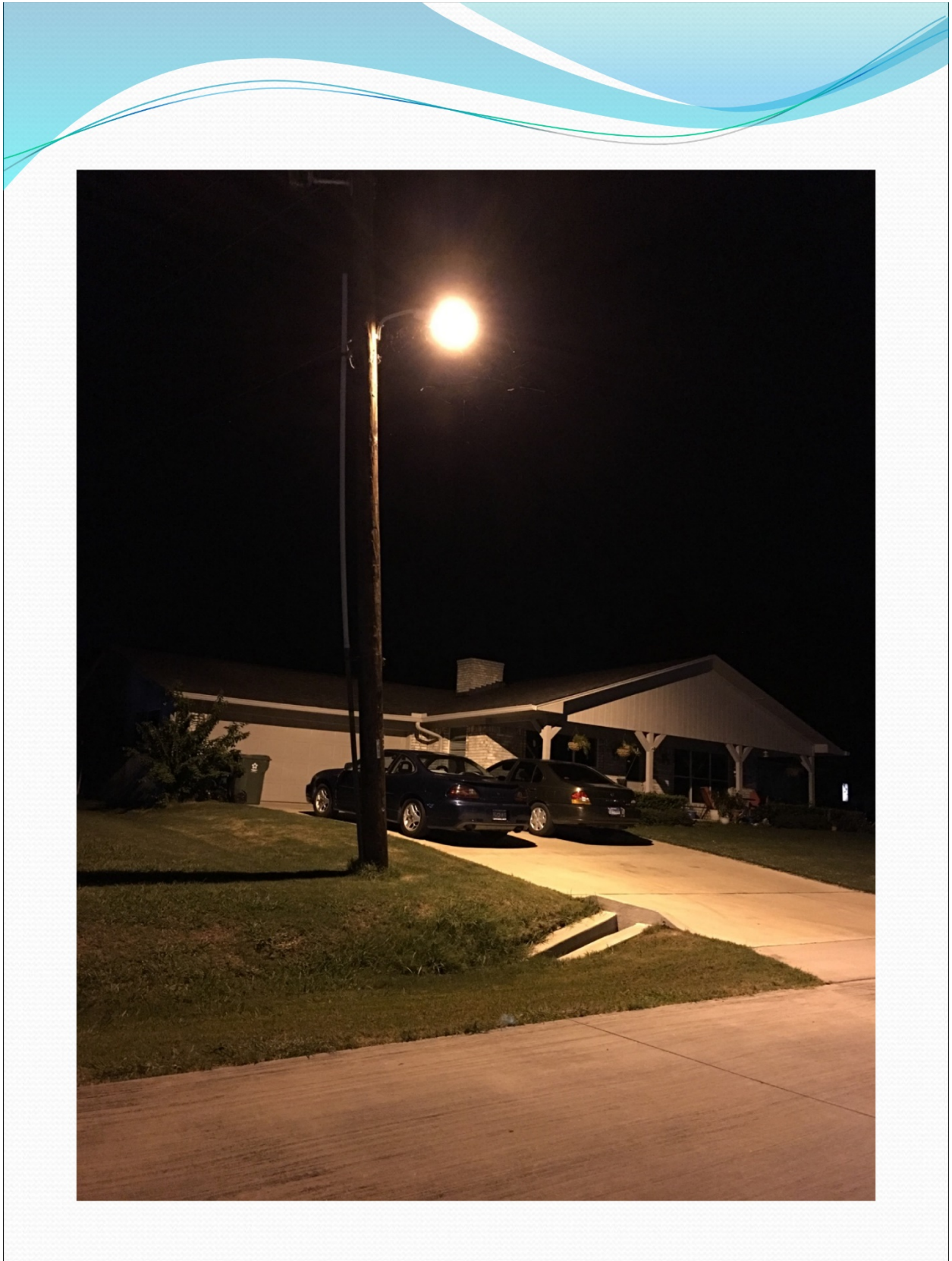
Dark Sky Community Lighting Philosophy

- ❖ Eliminate light pollution
 - ❖ Glare
 - ❖ Sky Glow
 - ❖ Light Trespass
 - ❖ Clutter
- ❖ Lighting should be used wisely to minimize harmful effects to light pollution:
 - ❖ only be on when needed
 - ❖ only light the area that needs it
 - ❖ be no brighter than necessary
 - ❖ minimize the light emissions
 - ❖ be fully shielded (pointing downward)











Requirements

- ❖ A quality comprehensive lighting code with the following minimum standards for permanent lighting installation:
 - Fully-shielded or full-cutoff standard for all lighting fixtures over 1500 Lumens initial lamp output, and;
 - Establish a threshold of 3000 Kelvins for the allowable correlated color temperature of all lighting fixtures, and;
 - Restrictions on total amount of unshielded lighting, such as limit on Lumens per acre or total site Lumens in unshielded fixtures, and;
 - A policy to address over-lighting, such as energy density caps, Lumens/acre caps, or maximum luminance specifications, and;
 - A provision that clearly 1) indicates when, where and under what circumstances new public outdoor lighting (street lighting and lighting on other public property and rights-of-way) is warranted and will be permitted, and 2) requires that adaptive controls and curfews be employed in all future installations of public outdoor lighting.



Requirements

- ❖ Community commitment to dark skies as shown by at least one of the following:
 - Planning and execution of at least two community dark sky awareness events per year. This may be organized through a local astronomy club, municipality, school, and/or;
 - Inclusion of dark sky awareness documents (IDA brochures or Community-created brochures) with other community information for residents and visitors, and/or;
 - Inclusion of dark sky education in Community schools and curriculum.
- ❖ Success in light pollution control. At least one of the following conditions must be demonstrated:
 - Examples of a minimum of ten (10) projects built under the lighting code, demonstrating effective application of the local lighting code, and/or;
 - Alternative demonstrations of success in light pollution control, to be discussed with IDA for compliance.



Requirements

- ❖ Community commitment to dark skies and quality lighting as shown by:
 - City approved lighting conforming with, or committed to conforming with, the lighting code (if the latter, a published plan with a timeline for completion in no more that 5 years), and;
 - Municipal support of dark skies and good lighting as indicated through city publications, flyers, public service announcements, funding of lighting upgrades.
- ❖ Broad support of dark skies from a wide range of community organization such as;
 - Local electrical utility
 - School District
 - Local IDA chapter
 - Lighting Retailers
 - Others



Requirements

- ❖ A sky brightness measurement program must be maintained either by the community or by another public or private organization (university, research center, IDA chapter, astrology club) to follow the evaluation of light pollution in the DSC.
- ❖ Designation is permanent, but is subject to regular review by IDA and possible revocation if minimum requirements are not maintained.
- ❖ Periodic checks, through the submission of an annual report due October 1st will be performed to ensure that minimum standards and objectives of the program are being upheld and adequate progress is being made
 - 1-2 page synopsis of activities and initiatives throughout the previous year

Certification

- ❖ Satisfy and document requirements
- ❖ Application submitted to Dark Sky Places Committee
- ❖ Recommendation made to IDA Board of Directors for approval
- ❖ Process takes, on average, **1-2 years** from initial inquiry to formal designation



Next Steps

- ❖ Create a Dark Skies Committee comprised of dedicated residents to begin key activities to meet program requirements
- ❖ Establish contact with Texas IDA Chapter and International IDA Association
- ❖ Complete inventory of current street lights
- ❖ Schedule meetings to gain support from key supportive groups (CoServe, LEISD, NTU, TWU)
- ❖ Initiate review and make changes to existing lighting ordinance for Council approval

Dark Sky Initiative Status Update

10.12.2017 Council Meeting

- ❖ Communicate Dark Sky information to residents
 - Thank Clint for adding info to our web site. On the site's home page links have been provided to information regarding areas that Dark Skies impact, such as wildlife, safety, security, energy waste and human health. Encourage reading.
 - A link also exists to a video entitled "Losing the Dark". The 6 1/2 minute video provides an overview about what is happening to our sky.
- ❖ Create a Dark Skies Committee comprised of dedicated residents to begin key activities to meet program requirements
 - Sheryl France is a new committee member
 - If anyone else is interested please contact me
- ❖ Establish contact with Texas IDA Chapter and International IDA Association
 - Have established contact with the international organization
 - Established a working file to maintain a record of our efforts to obtain the designation
- ❖ Complete inventory of current street lights
 - Completed an inventory of globe and barn lights
 - Investigating if existing infrastructure could be retrofitted to meet IDA standards
- ❖ Schedule meetings to gain support from key supportive groups (CoServ, LEISD, NTU, TWU)
 - Met with CoServ 9.12.2017
 - Identifying costs to change out existing street lights to meet IDA standards
 - Target is Nov 9 Council Meeting
 - Provided survey of broken lights (5), lights needing cleaning (19) and poles needing straightened (10)
 - Meeting with Home Depot to be scheduled (Paul Ganz-469-633-0607)
- ❖ Initiate review and make changes to existing lighting ordinance for Council approval
 - No lighting ordinance exists
 - Draft lighting ordinance has been initiated

Dark Sky Initiative Status Update

11-7-2017 Council Meeting

- ❖ Sheryl France has volunteered to help with our Committee. I appointed her President-Lakewood Village Dark Skies Committee.
- ❖ On October 27 Sheryl and I had a very successful meeting with Jennifer Bernado, K-12 Science Coordinator for LEISD. She was excited about potential partnership. Ideas brainstormed included school presentation, Dark Sky problem based learning unit and vendor opportunities with LEISD fairs. Sheryl has begun working on a draft presentation.
- ❖ Sheryl initiated an email to Ronald DiIulio, UNT Director Planetarium and Astronomy Laboratories and NASA Solar System Ambassador, Department of Physics. He responded he had a full plate of challenges and couldn't, for the time being, take on anything further. Plan to follow-up in 2018.
- ❖ Sheryl plans to contact TWU in near future.
- ❖ Partnership with CoServ is going well. Very supportive and responsive.
 - Had hoped to have cost alternatives for current infrastructure to be IDA compliant to share tonight
 - Having to rely heavily on vendor for information
 - Paul Mitchell, Regional Sales VP-Western North America for Sternberg Lighting has offered to fly in for a three way meeting.
 - Sternberg is a US manufacturer located in Roselle IL since 1923; it manufactures a wide range of lighting products.
 - Meeting to be finalized in very near future
- ❖ Maintenance orders have been issued for the following:
 - No completion established because of crews supporting hurricane in Houston
 - Two (2) globe poles to be straightened
 - Seven (7) barn light poles to be straightened
 - Eight (8) globe lights to be cleaned
 - Eleven (11) barn lights to be cleaned
 - One (1) globe light to be replaced
 - Three (3) barn lights to be replaced

Street Lighting Update

02.08.2018 Council Meeting

- *CoServ - supportive partner*
- *Phase 1-Replace/Repair Street Lights*

Street Light Type	Cleaned	Broken Replaced	Working	Poles Replaced/ Straightened
Globes	ALL	1	ALL	2
Barn Lights	NA	4	ALL	9

- Pending Pole Work Orders
 - Highridge/Woodcrest
 - Peninsula/Lot 438 on curve (3)
 - Highridge/Lot 815
 - 401 Shoreline
 - 3038 Peninsula
 - 420 Peninsula (2 backyard)
- All Yield and Stop signs straightened
- *Phase 2- Street Light Consistency*
 - Infrastructure inconsistencies

Street Light Type	#	Bulb Color	
		White	Yellow
Globes	10	10	0
Barn Lights	17	12	5
Cobra	4	1	3

- 3 types of fixtures
- 2 bulb colors
- 4 bulb wattage types

- Recently installed two (2) new trial barn light fixtures
 - Shoreline/Hillside
 - Shoreline/Peninsula
- Potential to replace all existing barn lights fixtures
- *Dark Sky (IDA) Initiative*
 - **First Dark Sky compliant fixture installed at Highridge/Melody mailboxes**
 - **May also be trialing a new CoServ Dark Sky compliant fixture**
 - Developing educational presentation
 - Outdoor Lighting Ordinance draft in progress
- *Completed Billing Review*
 - Identified \$5,000 annual savings
- *Other Major Initiative*
 - Project to bury sewer plant electrical facilities in planning/design phase

**Lakewood Village
Street Light
Capital Improvement
Project**

**Town Council Meeting
June 14, 2018**

Existing “Village” Dusk-to-Dawn Barn Street Light Infrastructure



- Aged, inefficient barn lights
- Number of lights – 20
- No color, type or wattage consistency
 - 100W HPS
 - 150W HPS
 - 175W MV
 - 250W HPS



- Multiple KWH rates exist
 - \$10.73 - \$16.49
- Not IDA compliant
 - Not cutoff; not shielded
 - No uniform light distribution
 - Inefficient light
 - High CCT
 - Glare

CoServ Proposes Installation of State-of-the-Art LeoTek GreenCobra Jr. LED Street Lights



- Hi-flux/Hi-power white LEDs
 - Mercury and lead free
- 100,000 hour life expectancy
 - Estimated life 22.8 years
- 3,000K CCT
 - 5,130 Lumens, 46 Watts
- IDA approved
 - Uniform light distribution
 - Low glare performance
 - Full cutoff; fully shielded
- Built in the USA



“Village” Street Light Upgrade Project

Town Council Meeting
July 10, 2018

Current Village Infrastructure

- Aged and inefficient
- Provide habitat for insects
- High glare and lacks uniform light distribution
- No color, type or wattage consistency
- Multiple KWH rates exist
- Not IDA compliant

Proposed Village Infrastructure

- Install state-of-the-art LeoTek GreenCobra LED street lights
- Hi-power white LEDs free from mercury and lead
- Eliminates habitat for insects
- Color, type and wattage consistency
- Low glare and ensures uniform light distribution
- 100,000 hour life expectancy (22.8 years estimated life)
- Single KWH rate
- IDA compliant

Project Timeline

- Start date NLT 30 days of payment receipt
- Completion date NLT 30 days of start date

Capital Cost

- \$5,141.80

Project Capital Cost

- \$5,141.80
- Prepayment required
- Proposal expires 8/23/2018
- Start date within 30 days of payment
- Completion date within 30 days of start date



*Town of Lakewood Village
100 Highridge Drive
Lakewood Village, Texas 75068
www.lakewoodvillagetx.us*

Photo credit: Rob Greenbon – taken in the Texas Hill Country