

Lake Havasu City Council Work Session
Police Facility, 2360 McCulloch Boulevard North
Tuesday, March 14, 2017 5:00 p.m.

CALL TO ORDER

Mayor Nexsen called the meeting to order at 5:00 p.m.

PLEDGE OF ALLEGIANCE

The Mayor led in the Pledge of Allegiance.

ROLL CALL

PRESENT: Councilmembers Mark Nexsen, Jeni Coke, Michele Lin, Cal Sheehy, David Lane, Gordon Groat, and Donna McCoy.

CALL TO PUBLIC

There were no requests to address the Council.

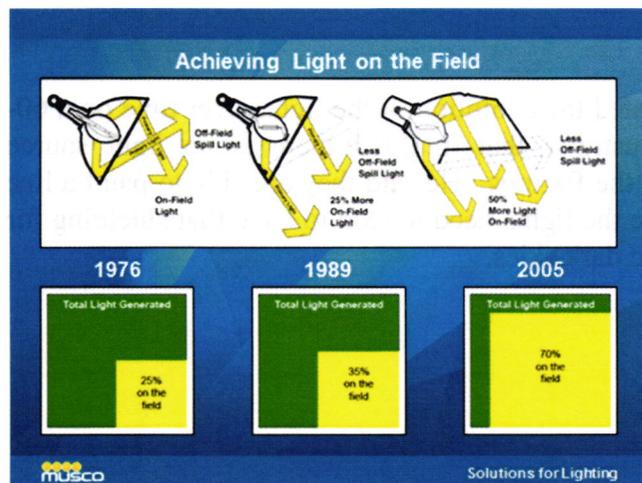
PUBLIC HEARING

5.1 Presentation and Discussion on the Cypress Park Project

Assistant City Engineer Jeremy Abbott stated on February 14th staff came to Council and presented on the status of Cypress Park and the proposed SARA Park Sports Complex. He said staff was asked to come back to Council at another work session to discuss in more detail the proposed lighting for Cypress Park. Mr. Abbott stated staff is before Council to discuss the proposed lighting, the effects of the lighting and also talk about technology and how it has improved over the years. He said Mr. Dee Smith with Musco Lighting was in attendance to make a presentation before the Council.

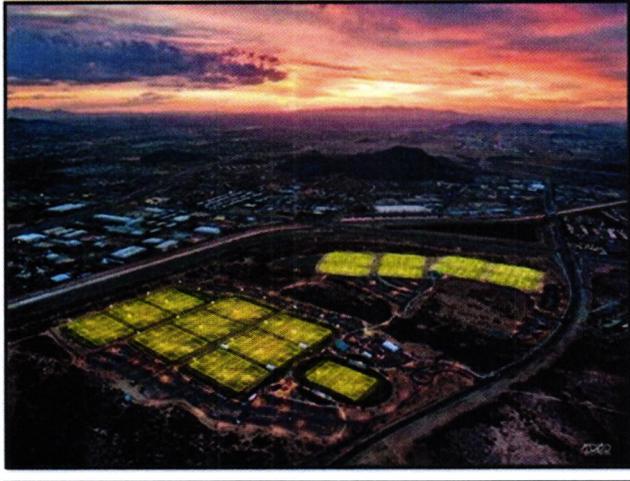
Mr. Abbott stated the Council also had questions as to what time the lighting would be shut off in the evening. He said the latest time for lights to be shut off in any of the city parks is ten o'clock at night but that does vary depending upon the season. Mr. Abbott also pointed out that Musco Lighting is the lighting currently being used in all of the city parks, and in the last three years they have been in the process of becoming certified through the Dark Sky Association

Mr. Abbott stated, ultimately, the goal is to present to Council and the public the effects and the technology of the proposed lighting at Cypress Park.

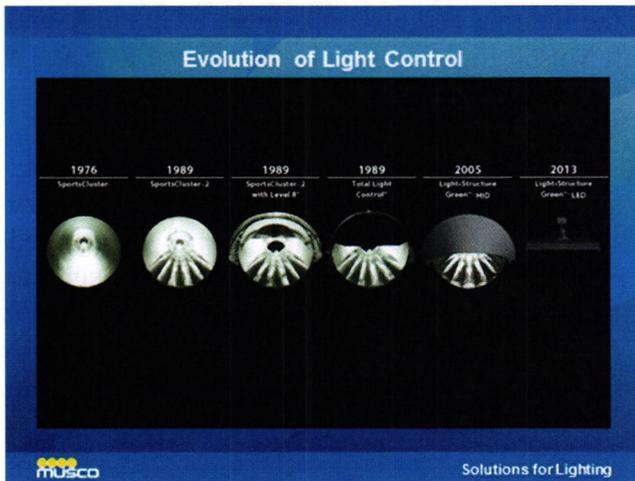


Mr. Dee Smith of Musco Lighting addressed the Council and stated that Musco Lighting was started in 1976 when the lighting technology was that of the old high school football fields. He said in 1989 they were putting 10 percent more light onto the ball fields and in 2005, started installing the green series metal halide which puts 70 percent of the light onto the ball field.

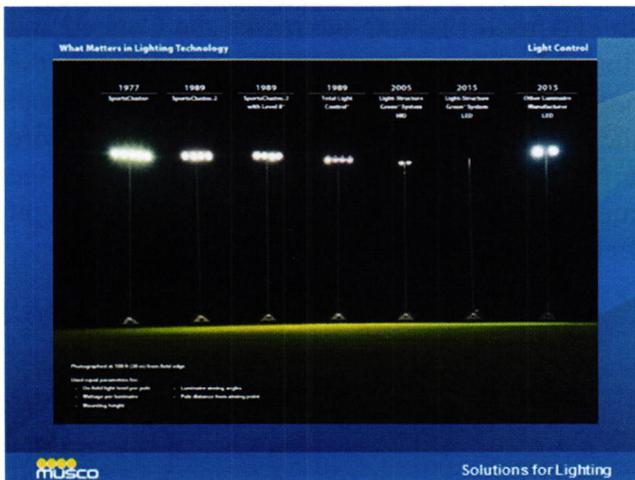
Reach 11 Park, Phoenix, Arizona



Mr. Smith stated the front pole in the illustration is the muscular system and the back poles are the competition. He stated that their firm was able to bring down the kilowatt (kW) consumption from 99 kW to 44 kW per pole, approximately 40 percent more energy efficient.

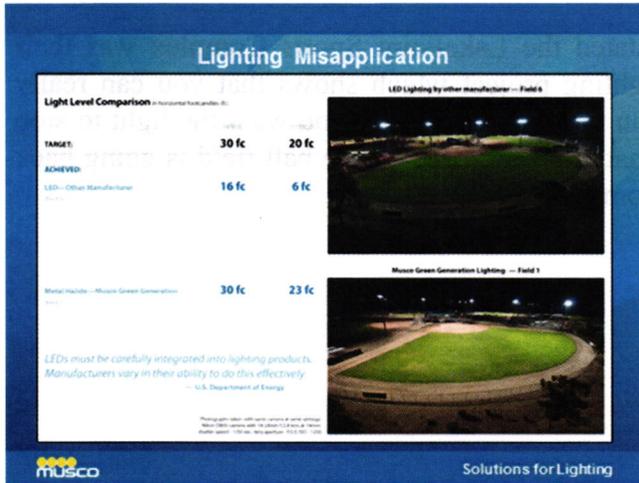


Mr. Smith stated the lighting system that they first came out with was the bare spun aluminum reflector and over time they added optics, reflectors and also put a shielding on the lighting system to be much more neighborhood and environmentally friendly. He said in 2005, they came out with the green series which was a fully shielded halide system, and in 2013, they came out with the LED lighting which is a fully shielded fixture with the LED technology that provides up to an additional 35 percent energy savings over the 2005 system.



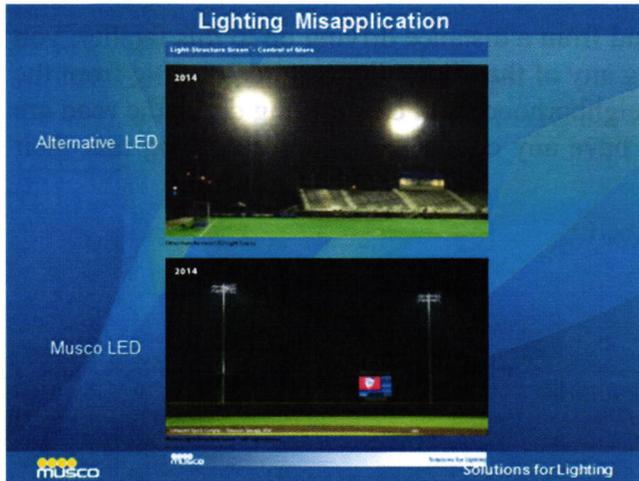
Mr. Smith stated the evolution of the lights over time on a 60-foot pole illustrates that in 2015 there is no light source coming from the fixtures. He said they are able to paint a line exactly where the lights need to stop to have that shielding for neighbors and dark skies.

Victory Lane, Phoenix, Arizona



Mr. Smith stated that they had to retro-fit the lighting misapplication on the Victory Lane Project with 30/23 footcandles with metal halide to reduce the glare and improve playability for students and athletes.

Duke University



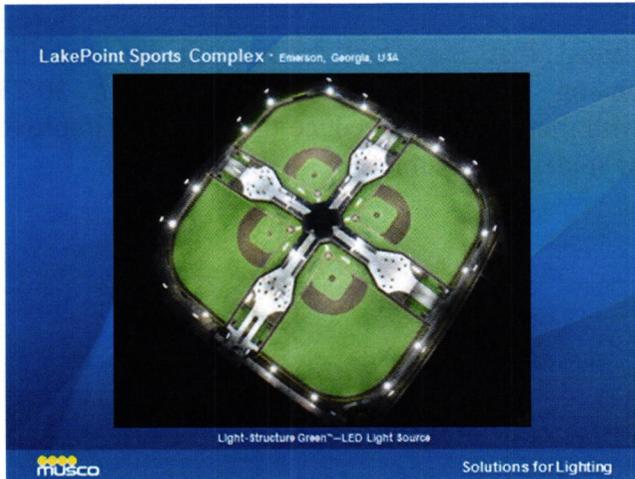
Mr. Smith stated this illustrates another LED misapplication and shows that by standing behind home plate and looking directly at the lighting fixtures it looks like a big glare bomb.

He added that walking up to the site at Duke University this illustrates how intense the light really is looking at the LED lighting if it is not shielded.



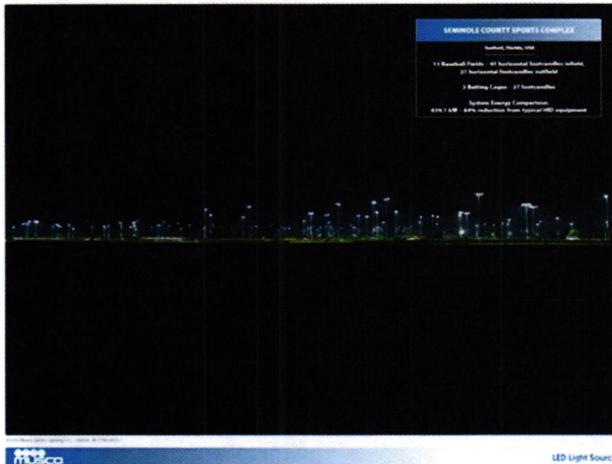
Mr. Smith stated there can be all kinds of energy savings but if you do not put the proper technology on the pole, it is going to be very harmful to the dark skies and for the environment.

LakePoint Sports Complex



Mr. Smith stated the LakePoint Sports Complex was their first LED lighting project which shows that you can really paint a line on the ball field where you want the light to stop so no light that is meant to be on the ball field is going back behind the home run territory.

Seminole County Sports Complex, Florida

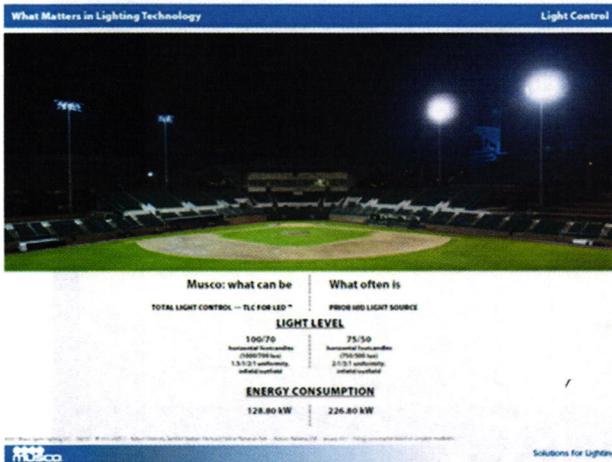


Mr. Smith said from a distance driving up to this facility, you are not seeing any of that direct light source coming from the fixtures so neighborhoods and cars driving down the road are not going to have any of that light source coming into their eyes.



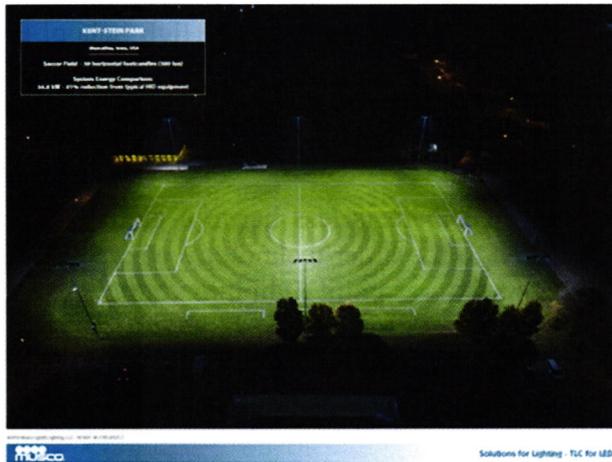
Mr. Smith stated the fixture that they are proposing for Cypress Park is their Generation One, 400 watt fixture. He added the 1,150 watt fixture is their Generation Two fixture which is fully shielded and adjustable, so they can fully paint the line right at the edge of the ballfield. Mr. Smith stated you have to have the fully shielded fixture to be dark skies compliant, be good to the neighboring homes, and for any cars that pass by. He said if there are any issues with the system, Musco has a 25 year warranty and will come out at no charge to the city and re-aim those fixtures so that all of the surrounding neighbors are happy with the system. Mr. Smith added that the fixtures have on and off at full power so there is no waiting time for the lights to come back on.

Auburn University Baseball Field



Mr. Smith stated that the old metal halide system is much more glaring and unpleasant to the eye. He added with the Musco fully shielded system, you do not see any of that light source coming from the fixtures and the energy consumption savings is approximately 100 kW per field.

Kent-Stein Park, Iowa

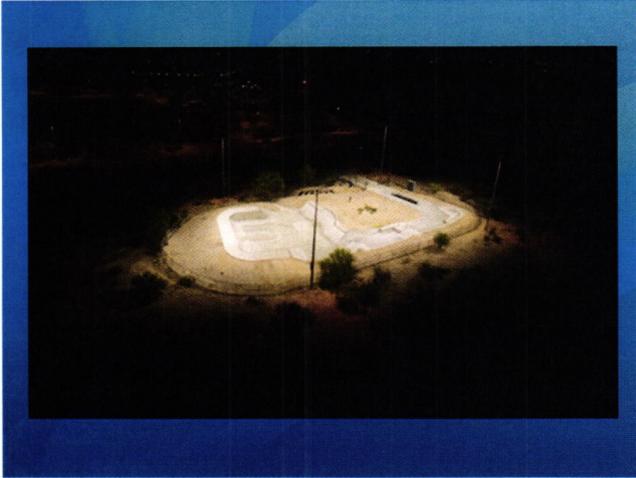


Mr. Smith stated that their first pilot field is in Iowa where the company is headquartered. He added with the spill light, there are no offsite lights.

Kent-Stein Park, Iowa



Mr. Smith stated with their second pilot field there is no direct light source coming from the fixtures.

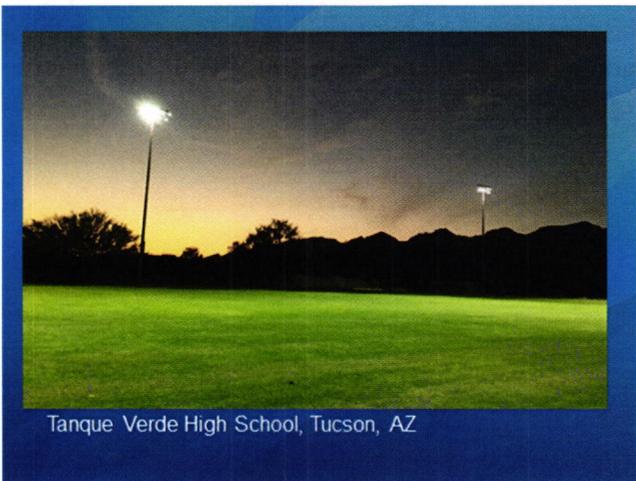


Tanque Verde High School, Tucson, Arizona



Mr. Smith stated that Tanque Verde High School in Tucson, Arizona is a dark skies city where they do not want any of the environmental sky glow and as illustrated they are able to control the light with the new LED lighting.

Mr. Smith stated there is less harmful glare on the field compared to the older technology where at any point, the light fixtures point right into your eyes



Mr. Smith stated when standing in the bleachers looking back at the fixtures, there is no light in your eyes.

Quail Creek, Arizona



Mr. Smith stated that the Quail Creek ballfield is by the Observatory and they wanted to make sure that there was no sky glow so they cut off the light exactly where they wanted it to be cut off.

Arizona State University Softball Field



Mr. Smith stated that Musco installed metal halide fixtures at the softball field and also installed the new LED technology at the field behind the softball field. He said even though Musco was the leader in the metal halide technology, there is much better control with the LED being fully shielded.

Proposed Cypress Park Soccer

Cypress Park Soccer
 Lake Havasu City, AZ

Lighting System

System	Wattage	Volts	Amperage	Phase	Notes
LED Flood Light	32,200	120	268.3	3	30' beam
LED Flood Light	32,200	120	268.3	3	30' beam
Total	64,400	120	536.6	3	

Equipment List for Areas Shown

Item	Quantity	Unit Price	Total Price
LED Flood Light	2	\$16,100	\$32,200
LED Flood Light	2	\$16,100	\$32,200
Total	4	\$16,100	\$64,400

From Homegrown to Professional

Musco Lighting
 We Make It Happen

ENGINEERED DESIGN By: B. Taylor • File #152098461 • 15-Feb-17

Cypress Park Field Lighting Design

Cypress Park Soccer
 Lake Havasu City, AZ

Lighting System

System	Wattage	Volts	Amperage	Phase	Notes
LED Flood Light	32,200	120	268.3	3	30' beam
LED Flood Light	32,200	120	268.3	3	30' beam
Total	64,400	120	536.6	3	

Equipment List for Areas Shown

Item	Quantity	Unit Price	Total Price
LED Flood Light	2	\$16,100	\$32,200
LED Flood Light	2	\$16,100	\$32,200
Total	4	\$16,100	\$64,400

Standard Performance

The illumination described above is based on the following assumptions:

- Standard Performance: 100 foot-candles (10.0 lux) at the playing surface.
- Field Measurements: Individual Foot Candles (FC) are measured at 10' above the playing surface and averaged at 10'.
- Lighting System Requirements: Refer to Appendix A for details on the "Minimum Lighting System Summary" for outdoor lighting.
- Installation Requirements: Refer to Appendix B for details on the "Minimum Lighting System Summary" for outdoor lighting.

Musco Lighting
 We Make It Happen

ENGINEERED DESIGN By: B. Taylor • File #152098461 • 15-Feb-17

Mr. Smith stated that the proposed system for Cypress Park Soccer has four poles with seven fixtures per pole with 32.2 kW consumption at a cost of \$3.25 per hour. He added they are proposing 30 footcandles which is the amount of light per square foot on the ballfield.

Cypress Park Spill Field

Cypress Park Soccer
 Lake Havasu City, AZ

Lighting System

System	Wattage	Volts	Amperage	Phase	Notes
LED Flood Light	32,200	120	268.3	3	30' beam
LED Flood Light	32,200	120	268.3	3	30' beam
Total	64,400	120	536.6	3	

Equipment List for Areas Shown

Item	Quantity	Unit Price	Total Price
LED Flood Light	2	\$16,100	\$32,200
LED Flood Light	2	\$16,100	\$32,200
Total	4	\$16,100	\$64,400

Standard Performance

The illumination described above is based on the following assumptions:

- Standard Performance: 100 foot-candles (10.0 lux) at the playing surface.
- Field Measurements: Individual Foot Candles (FC) are measured at 10' above the playing surface and averaged at 10'.
- Lighting System Requirements: Refer to Appendix A for details on the "Minimum Lighting System Summary" for outdoor lighting.
- Installation Requirements: Refer to Appendix B for details on the "Minimum Lighting System Summary" for outdoor lighting.

Musco Lighting
 We Make It Happen

ENGINEERED DESIGN By: B. Taylor • File #152098461 • 15-Feb-17

Mr. Smith stated the spill field shows the lines and how much light the neighboring property will have. He said they measure light at a horizontal three feet above grade and what the readings show is that Musco will have zero spill light going into the neighboring homes.

Mr. Abbott pointed out that the glare impact if both the upper and lower fields were fully lit does not pass the property line with the exception that it starts to encroach the property line on the Daytona side of the field. He added that by the time the light reaches that property line it is equivalent to moon light. Mr. Smith added the spill scans shown is .5 footcandles which is pretty much equivalent to moon light. Mayor Nexsen asked if that area could be adjusted in some way, to which Mr. Smith stated that is why they have the fully adjustable visor. He added if there are any complaints of any kind, Musco will turn that visor down. Mr. Smith stated that they work very closely with all of the neighbors as well to make sure there is no light encroaching into their homes or windows. Mr. Abbott stated that one of the reasons that it is a little brighter in that area is because the focus of the light is to be on the goal.

Councilmember Groat stated if he was interpreting the splash study correctly, if they were to go on the other side of the street by the curve where the splash study does not touch, there are zero footcandles there. Mr. Smith stated that was correct. He added to do their spill designs, there is the park and then all the way across the street to meet those property line spill numbers. Councilmember Groat asked Mr. Smith to expand on dark skies certification. Mr. Smith stated that dark skies starts around ten o'clock at night because that is when they say all of the park lights must be turned off. He said Mr. Chris Monrad, former President of the Dark Skies Association, is an engineer for Musco and has worked very closely with their lighting researchers for the past three year to become the only Dark Skies compliant fixture for sports lighting. In response to Councilmember Groat's question, Mr. Smith stated that star gazing typically starts around ten o'clock at night when the sport lighting is off so they do not have to change any settings on their telescopes to filter out that light source.

Mayor Nexsen opened the public hearing.

Mr. Scott Smith addressed the Council and stated that he loves the soccer field idea but is concerned that about 90 percent of the pictures Mr. Smith illustrated were taken from above or on flat land. He added they are not worried about the lighting into their home but are worried about the lighting as you drive up Daytona.

Mr. Aaron Miller stated he was before the Council on behalf of his father, Bret Miller, who was unable to attend the meeting. He read a letter from his father into the record in support of the soccer field lighting proposal.

Mr. Joseph Tusso addressed the Council and stated that he is in support of the soccer field but said the lighting is not welcome.

Mr. Marvin Batten also addressed the Council and stated that he was never against the soccer fields but is against putting in lighting that will adversely affect the night skies in a residential area.

Mr. Leo Cyr complimented Councilmember Lane on canvassing his neighborhood with regard to the lighted soccer fields. He stated that he is in favor of the soccer field but is concerned about his view. He added because he believed the parking lot and the fields would be terraced down lower than the road, it would not only block his view but believed it would be a safety issue when the cars exit the parking lot at night because of the headlights. Mr. Cyr stated it would make a lot of sense to have a one way parking lot with the north entrance just south of Daytona and the exit further down on Cypress. He also expressed concern with the amount of shrubs and trees on the proposed plan which would affect their view. In response to Mr. Cyr's question, Mr. Abbott stated the walkway and parking lot lighting had not been decided. Mr. Cyr stated with the number of possible players on each team they will also have to put up with a lot of excess noise and traffic.

Ms. Brook Vetter addressed the Council and stated that she has lived here almost ten years and has four children, one of which has aged out of the Soccer League. She said that she empathizes with the citizens but stated the fact of the matter is as parents who have kids they are in a position where they are desperate to find someplace for their kids to play. Ms. Vetter stated that as a community, we need to work as a community. She said as parents they have made concessions and are working to try and make it better for the kids and for the city in general to attract more families and attract more people to get things going for the younger population.

Ms. Natalie Livermore addressed the Council and stated that she has been a part of this community for 15 years. She said her three children have had the opportunity to participate in the Soccer League for over six years and she has been a coach for all of those years and over the past three has been the coach for the travel program. Ms. Livermore said there are 700 kids in the Soccer League under 14 years of age and 200 are currently in the year round program. She stated that they appreciate the local community and the citizens that are living in that area but are just trying to get the parents and their children to participate in something that is going to build them and encourage them as leaders in our community and hopefully continue to stay within our community. She said the City is working very hard toward the Vision 20/20 of Lake Havasu City and believed that this is another piece of the puzzle that is going to bring us there.

Ms. Holly Balderrama stated that she and her family moved to Lake Havasu City 13 years ago for a job opportunity. She said she was excited about the lighted fields and as a homeowner that lives on Cypress she looks forward to the lights. Mayor Nexsen stated that at the last work session he had asked Ms. Balderrama to provide Council with an estimated schedule and an idea when the lights could be turned off based on the season. Ms. Balderrama stated that she would gather that information and provide it to Council through email.

Ms. Laurel Clifford stated she has been a resident for 16 years and has two children. She said her second child is about to age out of soccer but they love and support the children's programs and will continue to do so. Ms. Clifford stated that she is an instructor and faculty member at Mohave Community College (MCC). She said MCC has tall lights at the campus for security reasons and last week they were observing the sky and were able to observe them clearly from campus. Ms. Clifford stated that she thought the lighted soccer fields would be a nice way to minimally impact as well as support our children's programs.

Ms. Kelly Borgan addressed the Council and stated that the kids do need a place to play but did not know if Cypress Park was a good place for the lighted soccer fields. She said her concern is that she will have to wait until ten o'clock at night to enjoy the sky. Ms. Borgan stated why not compromise and instead of ten o'clock at night for the lights to be turned off, why not make it eight o'clock. She also expressed concern about the increased traffic and wondered if a parking study had been completed. Mayor Nexsen stated that the parking has been arranged and there is ample parking.

Ms. Borgan asked if there would be a PA system installed, to which Mr. Abbott stated that was not included in the design. Ms. Borgan also asked if the field would only be used for soccer, to which Mayor Nexsen stated it will be an all-purpose park and would have the same rules as any city park. Ms. Borgan expressed concern that activity would be in the park seven days a week and the lights on the field would be on every day until ten o'clock at night. Mayor Nexsen stated the reason that he had asked at the last work session for the soccer group to give an estimated schedule with when lighting could be turned off was to address exactly what she was talking about. Ms. Borgan invited the Council to her home to observe the neighborhood from their perspective.

There being no further comments, Mayor Nexsen closed the public hearing.

Mayor Nexsen stated that Mr. Scott Smith had asked about the hilly area and how that would impact the traffic traveling up Daytona. Mr. Dee Smith stated that when they put their designs together they do look at elevation changes and topography. He said the reason they are proposing the 70-foot poles instead of a 30-foot or 40-foot pole is because the optimal aiming is 25 degrees and if you use the short poles you start shallowing out that aiming and that is when you start to see more of the light source. He added they are able to turn the visor down and will be able to block that light for those homeowners that are around that surrounding property.

Councilmember Lane stated that Cypress is crowned and the way he understood the picture is that at either end of the crown is where the entrance to the parking lot would be so the parking lot would actually be below the level of the crown on Cypress. Mr. Abbott explained that the entrance would be below the crown on one side and above the crown on the west side, closer to Oak. Councilmember Lane asked, on the west side of the park where it goes down into the drain and the back yards on Locust if there was a plan to put fencing around that area to keep the balls from going into that area and backyards. He added another comment he received was that they do not want people parking on Mulberry and walking up Mulberry Circle through their back yard and up the embankment to get to the soccer fields. Mr. Abbott stated that some of the purpose of the landscaping is to keep from entering the field where we do not want traffic. He added there is currently a fence proposed along the wash side to try and contain some of those balls from entering the wash.

Councilmember Lane asked if the lights would be put on timers so the lights would not have to be on when there was nobody playing ball. Mr. Abbott stated that the timers will be programmable so depending on use, if they are not needed that day, they would not come on. He added if there is a plan for use until eight o'clock at night, the lights can be scheduled to shut off at eight-thirty at night.

Councilmember Lane stated that he had walked around the neighborhood three evenings and spoke with many of the people in attendance. He said 90 percent spoke in favor of this project. He stated he was in favor of the project and would like to move forward.

Mayor Nexsen stated a lot of people suggested SARA Park for the soccer fields but noted there are already plans for fields at SARA Park which are not necessarily soccer fields. He added with the Fields Needs Assessment Study they would be utilizing about every inch of space at SARA Park. Mayor Nexsen stated he empathizes with regard to the lighting but not as much with the view because view is not a right unless you bought the air space above your property.

City Manager Charlie Cassens clarified that Lake Havasu City has not adopted a dark sky ordinance. He said the City has elected to not put in conventional street lighting in residential and most other areas of the city but that is not because of the dark sky, it is mostly because the community has told us that they do not want that and of course the related expense is huge.

Councilmember Sheehy stated he supports the project and should move forward. He added that he feels very comfortable with the information that was provided and is confident the lighting concerns can be mitigated.

Councilmember McCoy stated that we need to do something for our kids and give them safe places to play. She added that the site was originally supposed to be a school and school lights may or may not be darker or lighter than what we are looking at. She stated that it was always planned that there would be something there that would have lights and said she would support moving forward with the project.

Vice Mayor Coke stated that she too supports moving forward with the project. She added that staff is very aware of the sensitivity of the neighbors and the neighborhood and said that she is confident that they will work very hard to make sure that the impact, if any, is minimal.

Mayor Nexsen stated that he supports moving forward with the project. He said that he was hoping the Soccer League would have provided the schedule to Council to mitigate some of the concerns of the neighbors so that they would know when the lights would be on or off. He said by not having that schedule makes it harder to explain to the neighbors what they might expect. He stated that he would like to see some sort of a reasonable compromise where we can count on when the lights are going to be on or off to help the neighbors as well as help the kids.

ADJOURN

Upon motion by Vice Mayor Coke and seconded, the meeting adjourned at 6:01 p.m.

CERTIFICATION

I hereby certify that the foregoing is a full and true copy of the Work Session Minutes of the Lake Havasu City Council held on the 14th day of March, 2017. I further certify that the meeting was duly called and posted, and that a quorum was present.

Kelly Williams, City Clerk/CMC

Prepared By:

Sacia Graber, City Clerk Assistant/CMC