

City Council: Nov 26, 2019 **Staff Contact:** Ian Beck, Planner I
Resolution No: RES-0677 **E-mail:** ianb@pflugervilletx.gov
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SUBJECT: Approving a resolution for additional athletic field lighting for Hill Country Bible Church, located at 303 E Pflugerville Pkwy between Black Locust Dr. and Pflugerville Pkwy.

BACKGROUND:

The Austin Texans Soccer Club has requested for additional athletic field lighting in the existing practice fields behind the Hill Country Bible Church, between Black Locust Dr. and Pflugerville Pkwy. The property is currently zoned Retail (R) District and the practice field is ancillary to the principal church land use.

The church obtained a Site Development Permit in May 2010 to establish the practice field and to address other driveway improvements on their property. On June 3rd, 2011 the church received approval for a Specific Use Permit to allow athletic field lighting for the soccer fields and the construction of six (6) light fixtures on-site.

In 2015 changes were made to the Unified Development Code to address athletic field lighting and allow a request to be considered by City Council for approval through ORD No. 1203-15-02-24. Any lighting approved shall be subject to the requirements outlined in Subchapter 13 of the Unified Development Code.

PROJECT DESCRIPTION:

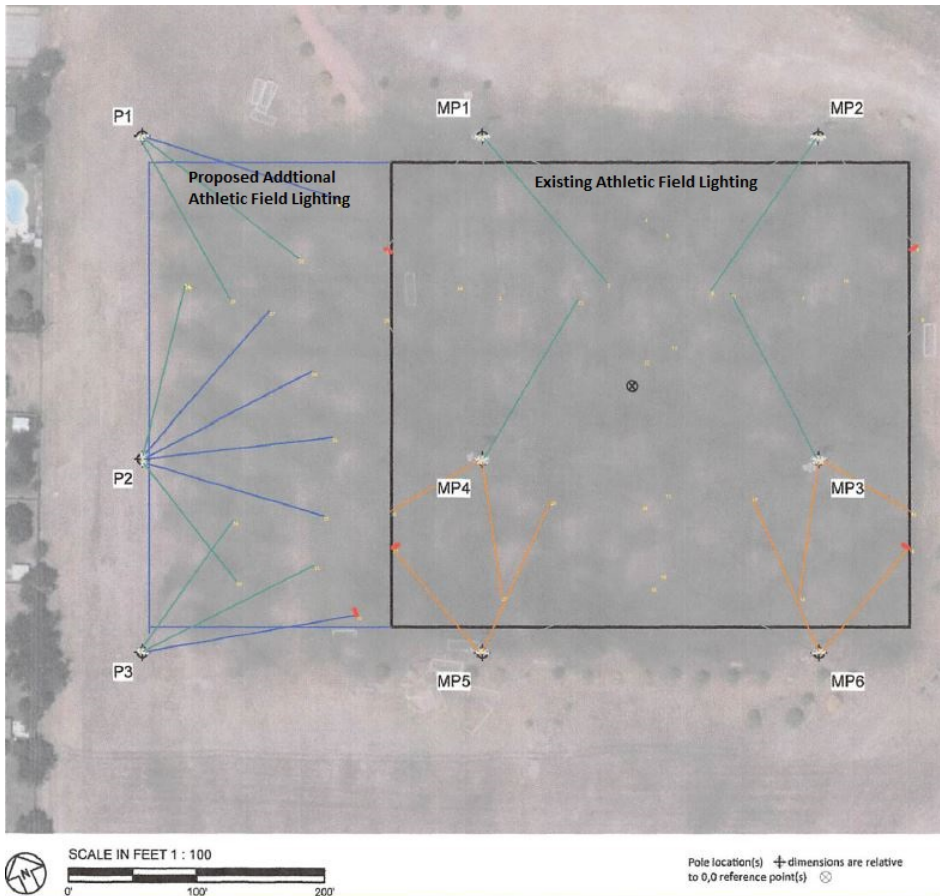
Location:

The applicant has proposed three (3) additional poles to the six (6) existing light fixtures located behind the Hill Country Bible Church. The new poles are proposed generally at the east of the field and the existing poles are towards the west into the field (refer to site plan and attachments). The proposed locations will allow flexibility in the arrangement of the soccer fields for practices.

Light Fixture:

All luminaires are proposed with 1500 watt, metal halide light lamps, which meets the conditions outlined in the UDC. Metal halide lamps produce a white light, which allows for better color rendering. Most street lights in Pflugerville utilize high pressure sodium lamp, which produces the orange colored light. Each luminaire will be directed downward and contain a shield to ensure the light is full cut off from light spillage into the night sky. The proposed athletic field lights will include the same light source and fixture type as the existing athletic field lights on site. With the additional lights, the average foot-candle is anticipated to increase to 18 foot-candles which is less than the maximum of 30 foot-candles allowed by the Unified Development Code.

<u>FIXTURE/POLE</u>	<u>QUANTITY</u>	<u>DIRECTION</u>
P1	3 luminaires	south-east facing
P2	6 luminaires	multi directional
P3	3 luminaires	east facing



Height:

The applicant has proposed the maximum 60-ft. height as allowed in the UDC per pole/fixture, stating that this height will enable the lights to have less light spill over and glare than at a lower level. The proposed light fixtures are to be the same height as the existing 6 athletic field light fixtures currently on site.

Electricity:

Power to serve the poles is already on-site, and any extensions of service to the poles will be underground.

Illumination Period:

According to the applicant, the lights are expected to be used Monday through Thursday between the hours of 5:30 and 9:45 pm. The UDC permits lighting to extend until 10:00 pm. An on-site control switch will be used to allow operation of the lights during the lighting period and an electronic controller will be installed within the church to cut power to the lighting system at 10:00 pm.

LAND USE COMPATIBILITY:

When athletic field lighting was added to the UDC, specific conditions were added to help mitigate potential negative effects on surrounding property. Additional efforts have been taken to reduce impacts to the surrounding residential property, including proposing a limited number of poles, reducing the number of luminaires per pole, reduced light levels, maintaining a 90' separation distance from the existing single family homes, and a limited time period during the week.

CRITERIA FOR APPROVAL OF ATHLETIC FIELD LIGHTING

The City Council is recommended to consider the following criteria for approval of the additional athletic field lighting:

- (a) Whether the use is harmonious and compatible with its surrounding existing uses or proposed uses;
- (b) Whether the nature of the use is reasonable; and
- (c) Whether any impact on the surrounding area has been mitigated.

In granting approval, the City Council may impose written conditions that the owner or grantee must comply with prior to installation of the additional three (3) athletic field light poles.

STAFF RECOMMENDATION:

Approving the three (3) additional poles for athletic field lighting will help assist the growing soccer population within Pflugerville and the Austin Texans Soccer Club. The additional lighting will allow more teams to practice and utilize the space during the week. The applicant has

AGENDA REPORT

diligently ensured the proposed lighting meets the conditions outlined in the UDC and has taken additional measures to reduce the potential impact to adjacent properties.

Staff recommends approval to allow for additional athletic field lighting at the Hill Country Bible Church with the following conditions:

1. Only three (3) poles shall be installed as shown on the proposed site plan, equipment layout and illumination summary included with the application.
2. The proposed lighting shall be as provided in the application and subject to the conditions and minimum requirements outlined in the Unified Development Code.

ATTACHMENTS:

- General Location Map
- Separation Distance Aerial
- Foot-candle Illumination Grid and Calculation Table Site Plan
- Site Photos

Attachments:

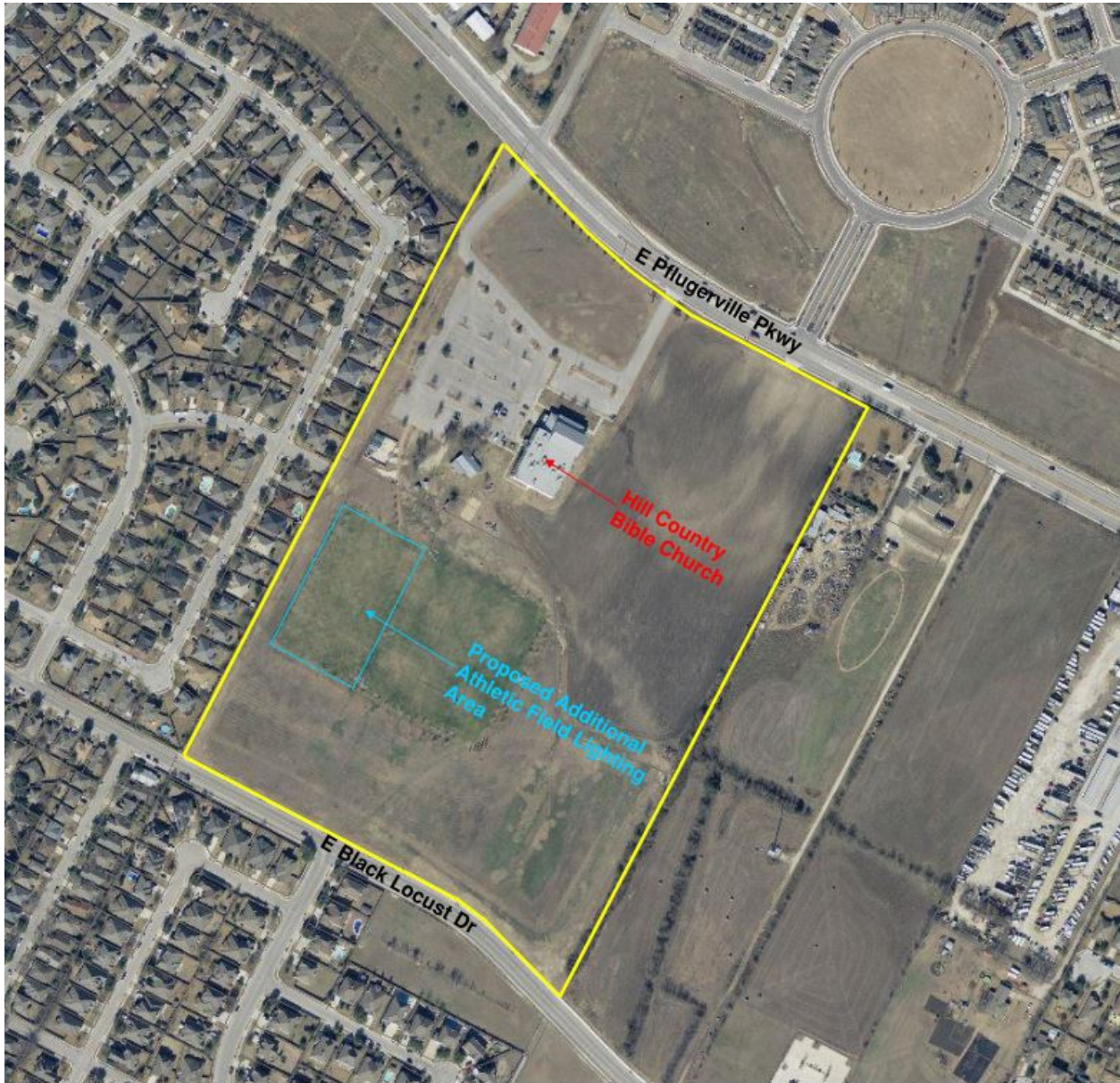


Image shows the general location of the Hill Country Bible Church property and the proposed area for additional athletic field lighting.

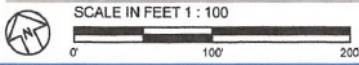
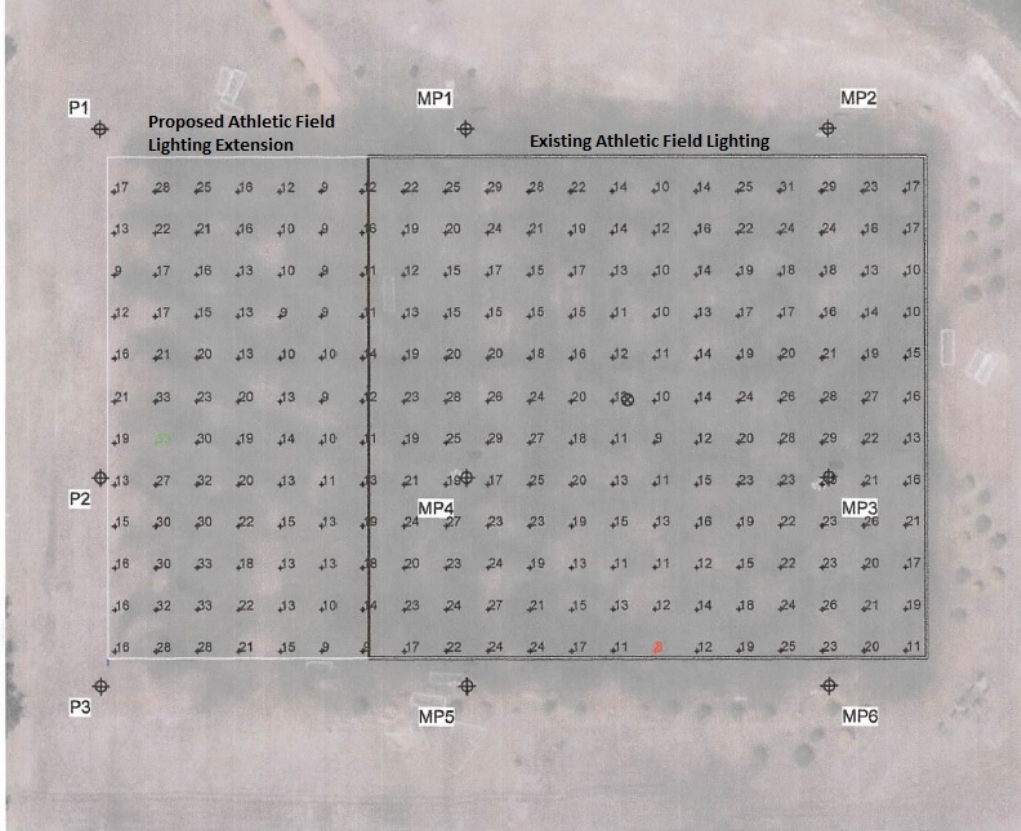


Image shows a 90' separation distance from the proposed and existing athletic field lighting areas.



EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	MP3, MP4	60'	-	60'	1500W MZ	4/3*	7	0	
4	MP5, MP6	60'	-	60'	1500W MZ	3	3	0	
2	MP1, MP2	60'	-	60'	1500W MZ	4	4	0	
1	P2	60'	-	60'	1500W MZ	6	6	0	
9	TOTALS					40	40	0	

* This structure utilizes a back-to-back mounting configuration



Pole location(s) + dimensions are relative to 0,0 reference point(s) ⊗

MY PROJECT	
Name:	Pflugerville Hill Country Bible Soccer
Location:	Pflugerville, TX

GRID SUMMARY	
Name:	Area Ph.2
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

CONSTANT ILLUMINATION	
SUMMARY	Entire Grid
Scan Average:	18.13
Maximum:	33
Minimum:	8
Avg / Min:	2.14
Max / Min:	3.94
UG (adjacent pts):	2.05
CU:	0.73
No. of Points:	240
LUMINAIRE INFORMATION	
Luminaire Type:	Green Generation
Design Usage Hours:	5,000 hours
Design Lumens:	134,000
Avg Lamp Tilt Factor:	1.000
No. of Luminaires:	40
Avg KW:	62.56 (68.0 max)

Guaranteed Performance: The CONSTANT ILLUMINATION described above is guaranteed for the design usage hours of the system.

Field Measurements: Illumination measured in accordance with IESNA RP-6-15 and CIBSE LG4. Individual values may vary. See the Warranty document for details.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume +/- 3% nominal voltage at line side of the ballast and structures located within 3 feet (1m) of design locations.

ENGINEERED DESIGN		
By:	Kelsy Butterbaugh	
File # / Date:	182382C	09-Oct-19

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Image shows the foot-candle illumination grid and calculation table site plan.



Photo taken from Hill Country Bible Church.



Photo taken from Black Locust Dr, showing the existing athletic field lighting, light fixtures.