

Shaw Field Lighting

**Zoning Commission Public Hearing
January 16, 2025**

**Z.C. Case No. 16-18H
Campus Plan Amendment and Further Processing Application**



GEORGETOWN UNIVERSITY
ZONING COMMISSION
District of Columbia
CASE NO. 16-18H
EXHIBIT NO. 15

Shaw Field Background

Home to Men's and Women's Soccer

- No other uses permitted

Grass field in use since 1996

Capacity: 1,625 (Cooper Field is 3,500)

Home games (average per year)

- Men's, 10.5 games (including postseason)
- Women's, 11 games (including postseason)
- Soccer season is August – early November

Average attendance

- Men's, 1,000-1,200
- Women's, 500-600

GU Soccer history

- Men's, Big East Champions ('21, '19, '18, '17, '15). 2019 National Champions
- Women's, Big East Champions ('23, '22, '21, '20, '18, '17, '16)

Lights would allow flexibility in scheduling, but not increase intensity of use



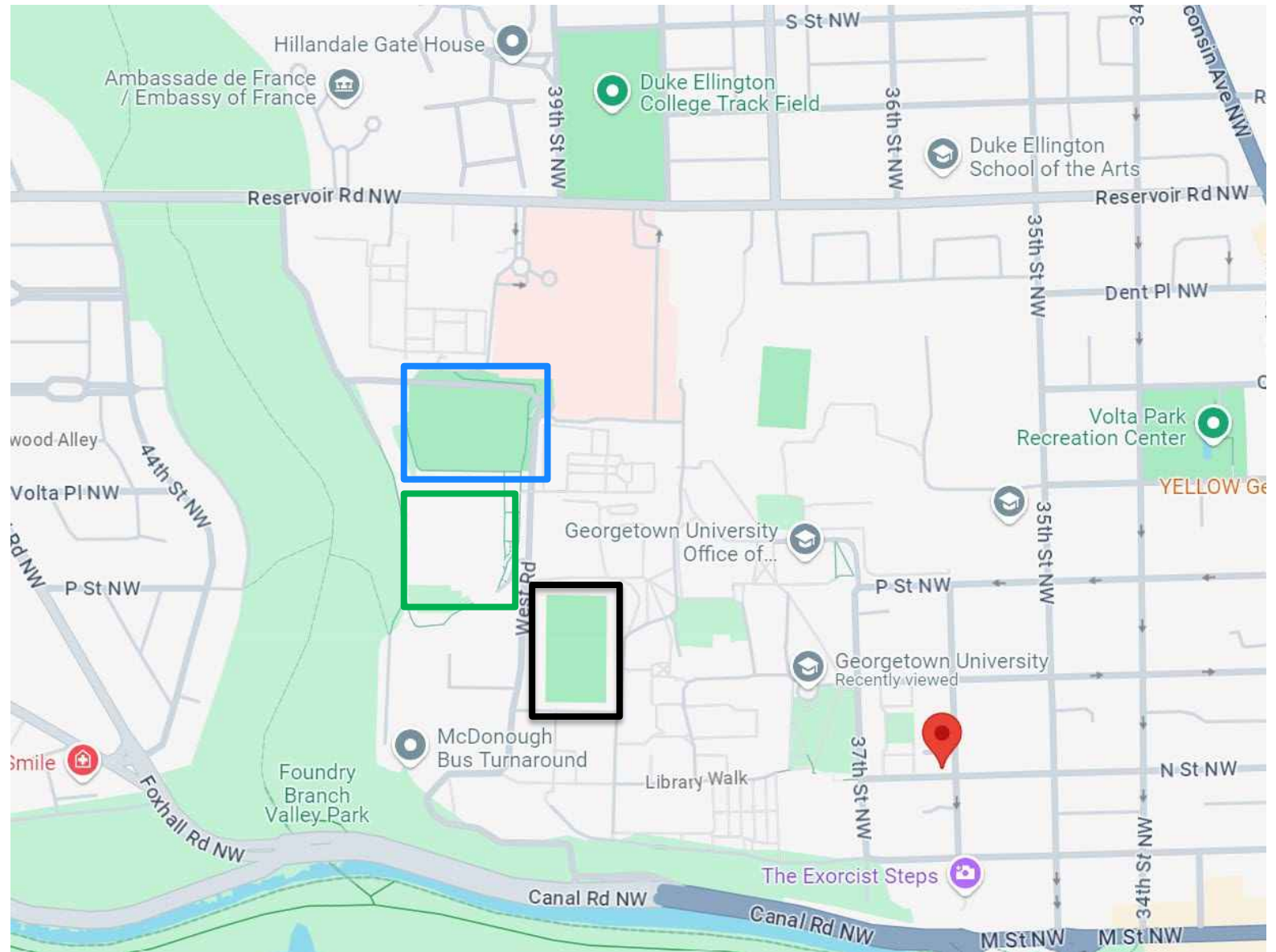
Shaw Field looking Northeast

Shaw Field, Kehoe Field and Cooper Field Locations

Shaw Field highlighted in blue

Kehoe Field highlighted in green

Cooper Field highlighted in black



Shaw Field Proposed Lighting Design

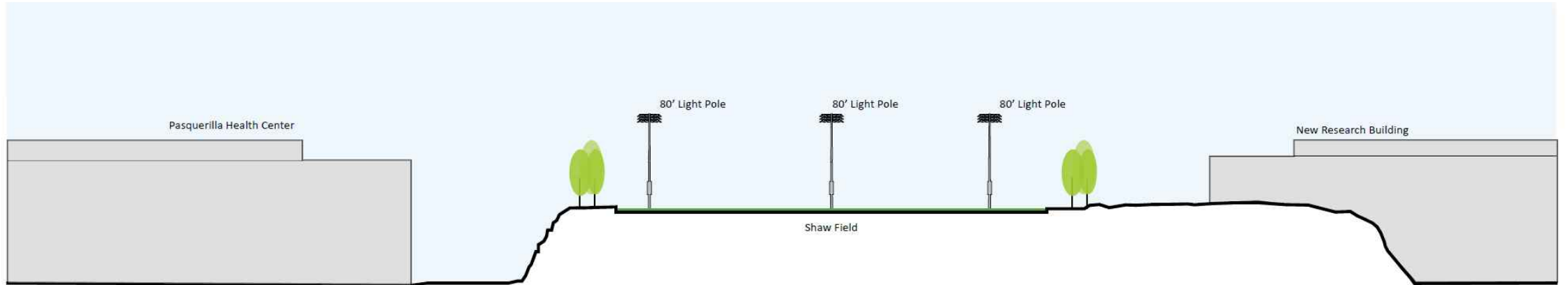
Musco Sports Lighting

- Specializes in design and manufacture of sports and transportation/infrastructure lighting solutions
- Total Light Control™ Technology
 - We create controlled light, not floodlights. Our LED sports lighting direct light with pinpoint precision, because it's about lighting your field, not the neighborhood around it.

Design

- 6 (six) 80' poles (reduced from initial 100' proposal)
 - 3 poles facing North, 3 poles facing South
 - 116 total light fixtures
 - 900w
 - 5700k color
- Goals
 - Produce average 100 fc light at playing field
 - Allow an average 85fc scan for broadcast
 - Minimize light spill beyond the field
 - Host home soccer games and some practices at night

Shaw Field Section



A

East-West Site Section Diagram

Note: This section is intended to be a diagrammatic representation of Shaw Field, illustrating its topography and surrounding context.

KEY MAP

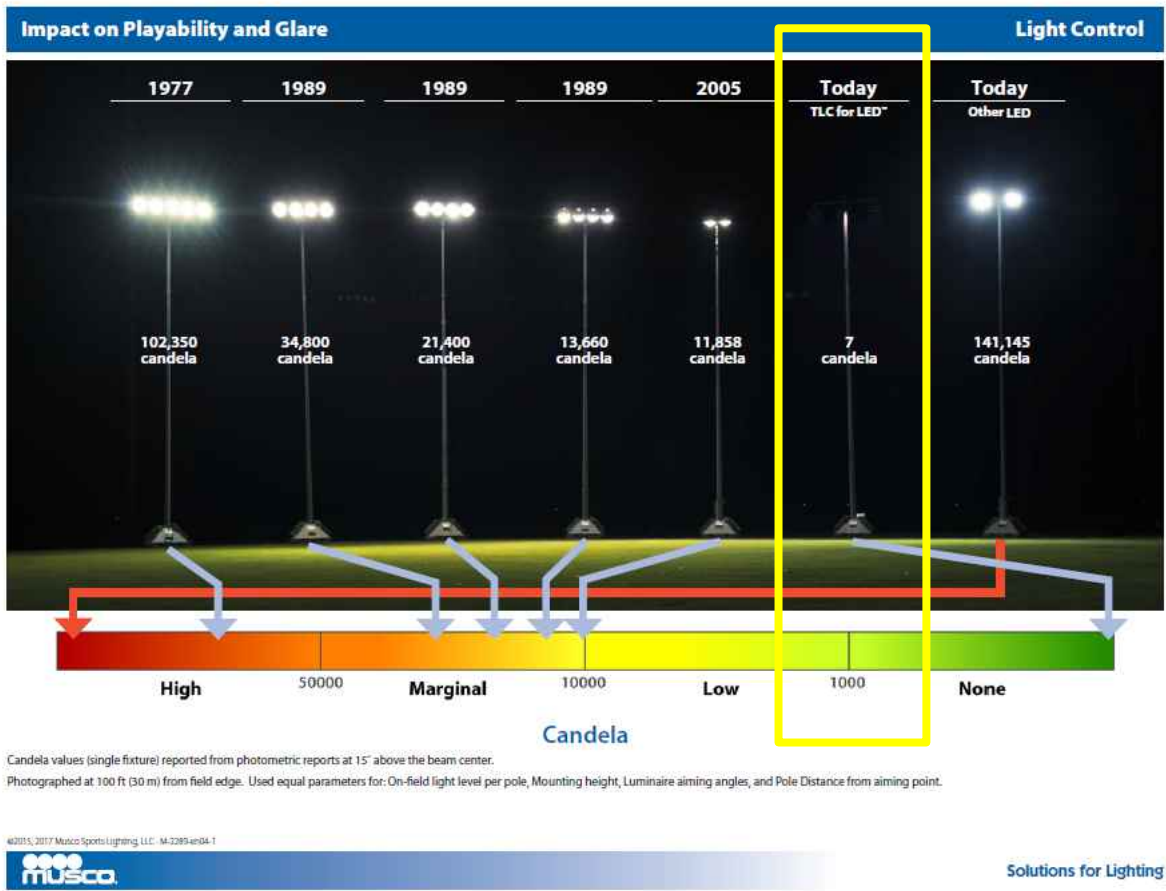


Shaw Field Renderings

Daytime view
Northeast



Musco Lighting Evolution and Examples



Shaw Field light technology highlighted in yellow above



Example of installed light technology at Boston College NCAA soccer field.

Shaw Field Renderings

Aerial overhead
rendering of
Shaw Field with
lights on.

Bleachers (at
bottom of
picture) are on
the South side of
the field facing
North.



Shaw Field Lights: Neighborhood Impacts

Henry Adams Lighting Design Study

- The study modeled the field lighting from nine perspectives and evaluated each perspective with and without the proposed field lighting. The study concluded:
 - Overall, the use of tall poles, visors, and downward directed lighting will control spill to within 150' of the field
 - On-campus buildings will minimize remaining glare and lighting visibility from perspectives north and east of the field
 - The downward orientation of the lighting toward the field will minimize remaining glare and light visibility from the south
 - The north-south orientation of the lighting will minimize glare and light visibility from the west, and heavily wooded areas will minimize remaining glare and visibility when there is foliage

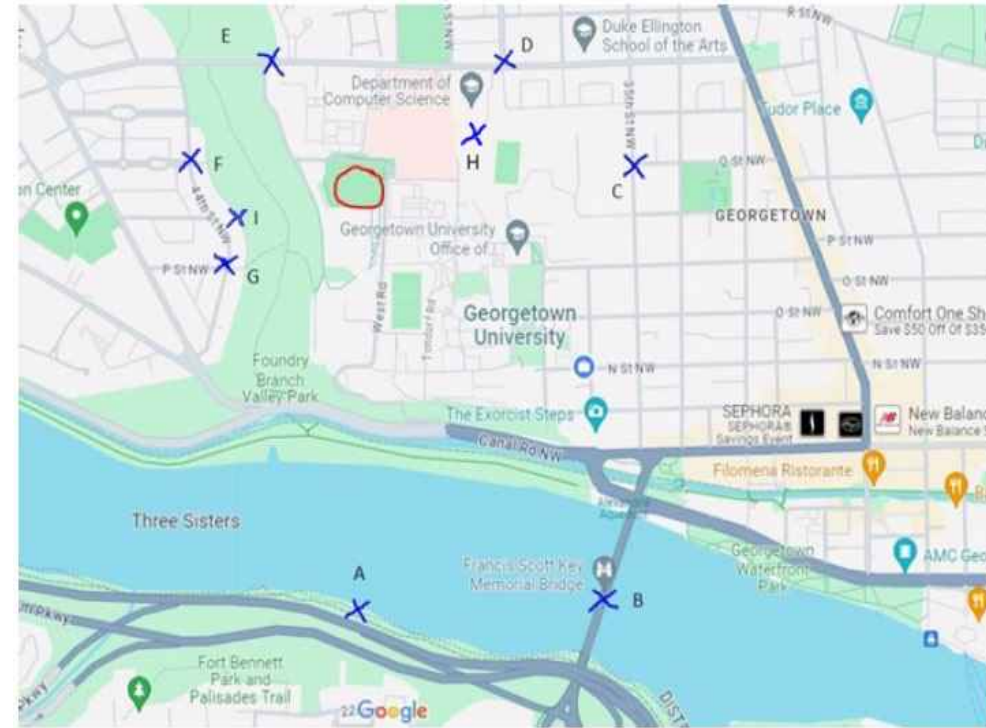


Figure 1: Nine Perspective Rendering Points Surrounding Shaw Field

Shaw Field Lights: Neighborhood Impacts

Glover Archbold Park - Supplemental Study by MUSCO

- The study evaluated horizontal and vertical light levels at various points at the edge of the campus. The study concluded:
 - The new Shaw Field lights will generally not generate light exceeding existing conditions.
 - The new Shaw Field lights would generate no light except immediately proximate to the field, where light levels would be comparable to the light of a full moon.
- The study also evaluated light levels within the park and did not identify any measurable light intrusion.



Shaw Field Sound: Neighborhood Impacts

Shaw Field currently utilizes amplified sound during games

Sound Study conducted by Phoenix Noise and Vibrations to compare sound levels during current (afternoon) events and proposed (evening) events

- Measured at 7 locations
 - Burleith, Foxhall, Hillandale, near Glover Archibald Park and Shaw Field
- Sound measured between 3:30 pm – 9:30 pm
 - Ambient Noise
 - Aircraft
 - Amplified Music
 - Amplified Speech
 - Traffic
- Preliminary results indicate no significant sound impacts at measurement sites



Shaw Field Sound: Neighborhood Impacts

Table 3: Maximum noise measurement results for various noise sources.

	[dBA]	Day [dBA]			Night [dBA]			[dBA]
Location	Ambient	Aircraft	Amplified Music	Amplified Speech	Aircraft	Amplified Music	Amplified Speech	Traffic
A	50	80	60	65	73	57	61	N/A
B	48	77	*	52	74	*	54	51
C	44	76	*	46	71	*	*	57
D	44	72	*	*	68	*	*	69
E	46	75	*	*	67	*	*	58
F	44	75	*	*	73	*	*	64
G	52	76	75	87	71	76	85	N/A

The maximum values of the amplified music and speech are presented in the table above. The table also includes noise levels of traffic roadway and aircraft events at each location, where applicable.

A Phoenix representative remained on site for the duration of the measurements in the residential areas to determine audibility of the amplified sports field programs.

At all locations to the north of Shaw field (D through F) neither the amplified music nor speech could be heard.

At location B and C, the amplified music was not audible, and the amplified speed was barely audible but could not be understood except for short announcements such as “Goal.”



Shaw Field: Other Considerations

Medstar Georgetown University Hospital

- Supportive of the proposal

FAA

- Issued a Determination of No Hazard for Shaw Field

Transportation

- Parking would continue to be provided at the Southwest Quad garage
- Adding lights will not materially increase peak trips to/from campus

No Expansion of Intensity of Use

- No additional sports would be played or hosted on Shaw Field (only mens' and womens' NCAA soccer)

