

ISSUE: Certificate of Appropriateness for alterations

APPLICANT: James B. Spengler, Dept. of Recreation, Parks & Cultural Activities

LOCATION: Parker-Gray District
1501 Cameron Street

ZONE: RB/Townhouse zone

STAFF RECOMMENDATION

Staff recommends approval of the Certificate of Appropriateness, as submitted.

GENERAL NOTES TO THE APPLICANT

1. **APPEAL OF DECISION:** In accordance with the Zoning Ordinance, if the Board of Architectural Review denies or approves an application in whole or in part, the applicant or opponent may appeal the Board's decision to City Council on or before 14 days after the decision of the Board.
2. **COMPLIANCE WITH BAR POLICIES:** All materials must comply with the BAR's adopted policies unless otherwise specifically approved.
3. **BUILDING PERMITS:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Department of Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-746-4200 for further information.
4. **ISSUANCE OF CERTIFICATES OF APPROPRIATENESS AND PERMITS TO DEMOLISH:** Applicants must obtain a copy of the Certificate of Appropriateness or Permit to Demolish PRIOR to applying for a building permit. Contact BAR Staff, Room 2100, City Hall, 703-746-3833, or preservation@alexandriava.gov for further information.
5. **EXPIRATION OF APPROVALS NOTE:** In accordance with Sections 10-106(B), 10-206(B) and 10-307 of the Zoning Ordinance, any Board of Architectural Review approval will expire 12 months from the date of issuance if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.
6. **HISTORIC PROPERTY TAX CREDITS:** Applicants performing extensive, certified rehabilitations of historic properties may separately be eligible for state and/or federal tax credits. Consult with the Virginia Department of Historic Resources (VDHR) prior to initiating any work to determine whether the proposed project may qualify for such credits.



 **BAR #2022-00548**
1501 Cameron Street

0 75 150 300 Feet

N

I. APPLICANT'S PROPOSAL

The applicant requests a Certificate of Appropriateness to install six (6) sixty-foot poles with LED fixtures, at 1501 Cameron Street. The proposed lighting will be located at the existing athletic field at Jefferson Houston School. The lights will consist of steel poles and aluminum, powder-coat painted fixtures.

II. HISTORY

This site has a long history of educational uses, as it was once home to two schools. The first, constructed in **1915**, was the Alexandria High School (also known as the Jefferson Annex). In 1922 a second, slightly more modest brick school called the Jefferson School was constructed. On February 27, 2013, the Board approved to demolition of the schools and constructed of the new Jefferson-Houston School and Durant Recreation Center.

The athletic field was built as part of the new Jefferson-Houston school and Durant Recreation Center that opened in September of 2014. The field is surrounded by the L-shaped school on the east and north sides, and by the Durant Recreation Center to the west.

Previous BAR Approvals

BAR2013-00029 – Board approved the complete demolition of the school.

BAR2012-00210 - Board approved a Certificate of Appropriateness for the new school

III. ANALYSIS

Staff has no objection to the proposed installation of six light poles. The *Design Guidelines* states that exterior lighting can be much more than mere passive illumination. Exterior lighting can be used to create special effects and to accentuate architectural and landscape elements of a property. The proposed lights are architectural appropriate for this modern educational building and embraces the latest in light technologies.

The LED bulbs will utilize full cutoff light fixtures which are designed to not allow light to be emitted above the fixture and reduce glare by limiting the light output. Additionally, the light spill will be very minimal, limited to no further than 30 feet from the south side of the field. The proposed lights will not spill into Cameron Street, minimizing any impacts to traffic at night when the lights are being used. Lastly, the existing mature trees that lining the north side of Cameron Street will provide a buffer to residential properties in close proximity.

The proposed lights are sympathetic to the style of the adjacent school and do not detract from the architectural character of the building. The lights are in scale with the school, recreation center and overall site. Staff recommends approval of the application, as submitted.

STAFF

Amirah Lane, Historic Preservation Planner, Planning & Zoning

Tony LaColla, AICP, Land Use Services Division Chief, Planning & Zoning

III. CITY DEPARTMENT COMMENTS

Legend: C- code requirement R- recommendation S- suggestion F- finding

Zoning

Items comply with SUP2022-00044 approval.

Code Administration

Permits are required.

Transportation and Environmental Services

1. Comply with all requirements of [DSP2012-00011. (T&ES)
2. The Final Site Plan must be approved and released and a copy of that plan must be attached to the demolition permit application. No demolition permit will be issued in advance of the building permit unless the Final Site Plan includes a demolition plan which clearly represents the demolished condition. (T&ES)

Alexandria Archaeology

No Comments received.

V. ATTACHMENTS

1 – Supplemental Materials

2 – Application for BAR2022-00548: 1501 Cameron Street

ADDRESS OF PROJECT: 1501 Cameron Street, Alexandria, VA 22314

DISTRICT: Old & Historic Alexandria Parker – Gray 100 Year Old Building

TAX MAP AND PARCEL: 064.03-01-01 ZONING: RB

APPLICATION FOR: (Please check all that apply)

CERTIFICATE OF APPROPRIATENESS

PERMIT TO MOVE, REMOVE, ENCAPSULATE OR DEMOLISH
(Required if more than 25 square feet of a structure is to be demolished/impacted)

WAIVER OF VISION CLEARANCE REQUIREMENT and/or YARD REQUIREMENTS IN A VISION
CLEARANCE AREA (Section 7-802, Alexandria 1992 Zoning Ordinance)

WAIVER OF ROOFTOP HVAC SCREENING REQUIREMENT
(Section 6-403(B)(3), Alexandria 1992 Zoning Ordinance)

Applicant: Property Owner Business (Please provide business name & contact person)

Name: James B. Spengler

Address: 1108 Jefferson Street

City: Alexandria State: VA Zip: 22314

Phone: 703-746-5500 E-mail: james.spengler@alexandriava.gov

Authorized Agent (if applicable): Attorney Architect _____

Name: _____ Phone: _____

E-mail: _____

Legal Property Owner:

Name: City of Alexandria

Address: PO Box 178

City: Alexandria State: VA Zip: 22313

Phone: _____ E-mail: _____

- Yes No Is there an historic preservation easement on this property?
- Yes No If yes, has the easement holder agreed to the proposed alterations?
- Yes No Is there a homeowner's association for this property?
- Yes No If yes, has the homeowner's association approved the proposed alterations?

If you answered yes to any of the above, please attach a copy of the letter approving the project.

NATURE OF PROPOSED WORK: *Please check all that apply*

- NEW CONSTRUCTION
- EXTERIOR ALTERATION: *Please check all that apply.*
 - awning
 - doors
 - lighting
 - other _____
 - fence, gate or garden wall
 - windows
 - pergola/trellis
 - HVAC equipment
 - siding
 - painting unpainted masonry
 - shutters
 - shed
- ADDITION
- DEMOLITION/ENCAPSULATION
- SIGNAGE

DESCRIPTION OF PROPOSED WORK: *Please describe the proposed work in detail (Additional pages may be attached).*

The Department of Recreation, Parks and Cultural Activities (RPCA) is requesting approval to install new athletic field lighting at the existing synthetic turf rectangular field located at Jefferson Houston School. The rectangular field opened in 2014 and was constructed as part of the Jefferson Houston school construction approved with DSUP#2012-0011. The City received approval of SUP#2022-0044 on November 12, 2022. The proposed athletic field lighting system includes six (6) sixty foot poles with LED fixtures. The fixtures are designed to comply with the International Dark-Sky Association's Community Friendly Outdoor Sports Lighting Program and provide full cutoff lighting. Please see the exhibits for the proposed lighting plans, pole diagrams and fixture types.

SUBMITTAL REQUIREMENTS:

Items listed below comprise the **minimum supporting materials** for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the *Design Guidelines* for further information on appropriate treatments.

Applicants must use the checklist below to ensure the application is complete. Include all information and material that are necessary to thoroughly describe the project. Incomplete applications will delay the docketing of the application for review. Pre-application meetings are required for all proposed additions. All applicants are encouraged to meet with staff prior to submission of a completed application.

Demolition/Encapsulation : *All applicants requesting 25 square feet or more of demolition/encapsulation must complete this section. Check N/A if an item in this section does not apply to your project.*

- Survey plat showing the extent of the proposed demolition/encapsulation.
- Existing elevation drawings clearly showing all elements proposed for demolition/encapsulation.
- Clear and labeled photographs of all elevations of the building if the entire structure is proposed to be demolished.
- Description of the reason for demolition/encapsulation.
- Description of the alternatives to demolition/encapsulation and why such alternatives are not considered feasible.

Additions & New Construction: Drawings must be to scale and should not exceed 11" x 17" unless approved by staff. Check N/A if an item in this section does not apply to your project.

- ^{N/A} Scaled survey plat showing dimensions of lot and location of existing building and other structures on the lot, location of proposed structure or addition, dimensions of existing structure(s), proposed addition or new construction, and all exterior, ground and roof mounted equipment.
- FAR & Open Space calculation form.
- Clear and labeled photographs of the site, surrounding properties and existing structures, if applicable.
- Existing elevations must be scaled and include dimensions.
- Proposed elevations must be scaled and include dimensions. Include the relationship to adjacent structures in plan and elevations.
- Materials and colors to be used must be specified and delineated on the drawings. Actual samples may be provided or required.
- Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- For development site plan projects, a model showing mass relationships to adjacent properties and structures.

Signs & Awnings: One sign per building under one square foot does not require BAR approval unless illuminated. All other signs including window signs require BAR approval. Check N/A if an item in this section does not apply to your project.

- ^{N/A} Linear feet of building: Front: _____ Secondary front (if corner lot): _____.
- Square feet of existing signs to remain: _____.
- Photograph of building showing existing conditions.
- Dimensioned drawings of proposed sign identifying materials, color, lettering style and text.
- Location of sign (show exact location on building including the height above sidewalk).
- Means of attachment (drawing or manufacturer's cut sheet of bracket if applicable).
- Description of lighting (if applicable). Include manufacturer's cut sheet for any new lighting fixtures and information detailing how it will be attached to the building's facade.

Alterations: Check N/A if an item in this section does not apply to your project.

- ^{N/A} Clear and labeled photographs of the site, especially the area being impacted by the alterations, all sides of the building and any pertinent details.
- Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- Drawings accurately representing the changes to the proposed structure, including materials and overall dimensions. Drawings must be to scale.
- An official survey plat showing the proposed locations of HVAC units, fences, and sheds.
- Historic elevations or photographs should accompany any request to return a structure to an earlier appearance.

ALL APPLICATIONS: *Please read and check that you have read and understand the following items:*

- I have submitted a filing fee with this application. (Checks should be made payable to the City of Alexandria. Please contact staff for assistance in determining the appropriate fee.)
- I understand the notice requirements and will return a copy of the three respective notice forms to BAR staff at least five days prior to the hearing. If I am unsure to whom I should send notice I will contact Planning and Zoning staff for assistance in identifying adjacent parcels.
- I, the applicant, or an authorized representative will be present at the public hearing.
- I understand that any revisions to this initial application submission (including applications deferred for restudy) must be accompanied by the BAR Supplemental form and revised materials.

The undersigned hereby attests that all of the information herein provided including the site plan, building elevations, prospective drawings of the project, and written descriptive information are true, correct and accurate. The undersigned further understands that, should such information be found incorrect, any action taken by the Board based on such information may be invalidated. The undersigned also hereby grants the City of Alexandria permission to post placard notice as required by Article XI, Division A, Section 11-301(B) of the 1992 Alexandria City Zoning Ordinance, on the property which is the subject of this application. The undersigned also hereby authorizes the City staff and members of the BAR to inspect this site as necessary in the course of research and evaluating the application. The applicant, if other than the property owner, also attests that he/she has obtained permission from the property owner to make this application.

APPLICANT OR AUTHORIZED AGENT:

Signature:  _____
James Spengler (Dec 5, 2022 15:19 EST)

Printed Name: James B. Spengler

Date: 12/5/2022



Department of Planning and Zoning
 Floor Area Ratio and Open Space Calculations
 as of 12/20/18

B

A. Property Information

A1. Street Address RB Zone

A2. Total Lot Area x Floor Area Ratio Allowed by Zone = Maximum Allowable Floor Area

B. Existing Gross Floor Area

| <u>Existing Gross Area</u> | <u>Allowable Exclusions**</u> | |
|--|---|--|
| Basement <input type="text"/> | Basement** <input type="text"/> | B1. <input type="text" value="0.00"/> Sq. Ft. Existing Gross Floor Area* |
| First Floor <input type="text"/> | Stairways** <input type="text"/> | B2. <input type="text" value="0.00"/> Sq. Ft. Allowable Floor Exclusions** |
| Second Floor <input type="text"/> | Mechanical** <input type="text"/> | B3. <input type="text" value="0.00"/> Sq. Ft. Existing Floor Area Minus Exclusions (subtract B2 from B1) |
| Third Floor <input type="text"/> | Attic less than 7*** <input type="text"/> | |
| Attic <input type="text"/> | Porches** <input type="text"/> | |
| Porches <input type="text"/> | Balcony/Deck** <input type="text"/> | |
| Balcony/Deck <input type="text"/> | Lavatory*** <input type="text"/> | |
| Lavatory*** <input type="text"/> | Other** <input type="text"/> | |
| Other** <input type="text"/> | Other** <input type="text"/> | |
| B1. Total Gross <input type="text" value="0.00"/> | B2. Total Exclusions <input type="text" value="0.00"/> | |

Comments for Existing Gross Floor Area

N/A, Approved with SUP#2022-00044

C. Proposed Gross Floor Area

| <u>Proposed Gross Area</u> | <u>Allowable Exclusions**</u> | |
|--|---|--|
| Basement <input type="text"/> | Basement** <input type="text"/> | C1. <input type="text" value="0.00"/> Sq. Ft. Proposed Gross Floor Area* |
| First Floor <input type="text"/> | Stairways** <input type="text"/> | C2. <input type="text" value="0.00"/> Sq. Ft. Allowable Floor Exclusions** |
| Second Floor <input type="text"/> | Mechanical** <input type="text"/> | C3. <input type="text" value="0.00"/> Sq. Ft. Proposed Floor Area Minus Exclusions (subtract C2 from C1) |
| Third Floor <input type="text"/> | Attic less than 7*** <input type="text"/> | |
| Attic <input type="text"/> | Porches** <input type="text"/> | |
| Porches <input type="text"/> | Balcony/Deck** <input type="text"/> | |
| Balcony/Deck <input type="text"/> | Lavatory*** <input type="text"/> | |
| Lavatory*** <input type="text"/> | Other** <input type="text"/> | |
| Other <input type="text"/> | Other** <input type="text"/> | |
| C1. Total Gross <input type="text" value="0.00"/> | C2. Total Exclusions <input type="text" value="0.00"/> | |

D. Total Floor Area

D1. Sq. Ft.
Total Floor Area (add B3 and C3)

D2. Sq. Ft.
Total Floor Area Allowed by Zone (A2)

E. Open Space

E1. Sq. Ft.
Existing Open Space

E2. Sq. Ft.
Required Open Space

E3. Sq. Ft.
Proposed Open Space

Notes

*Gross floor area is the sum of all areas under roof of a lot, measured from the face of exterior walls, including basements, garages, sheds, gazebos, guest buildings and other accessory buildings.

** Refer to the Zoning Ordinance (Section 2-145(B)) and consult with Zoning Staff for information regarding allowable exclusions. Sections may also be required for some exclusions.

***Lavatories may be excluded up to a maximum of 50 square feet, per lavatory. The maximum total of excludable area for lavatories shall be no greater than 10% of gross floor area.

The undersigned hereby certifies and attests that, to the best of his/her knowledge, the above computations are true and correct.

Signature:
James Spengler (Dec 5 - 2022 15:19 EST)

Date: 12/5/2022

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

| Name | Address | Percent of Ownership |
|--------------------------|---------|----------------------|
| 1. City of Alexandria | | |
| 2. | | |
| 3. | | |

2. Property. State the name, address and percent of ownership of any person or entity owning an interest in the property located at 1501 Cameron Street (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

| Name | Address | Percent of Ownership |
|-------------------------|---------|----------------------|
| 1 City of Alexandria | | |
| 2. | | |
| 3. | | |

3. Business or Financial Relationships. Each person or entity listed above (1 and 2), with an ownership interest in the applicant or in the subject property is required to disclose **any** business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review.

| Name of person or entity | Relationship as defined by Section 11-350 of the Zoning Ordinance | Member of the Approving Body (i.e. City Council, Planning Commission, etc.) |
|--------------------------|---|---|
| 1. | | |
| 2. | | |
| 3. | | |

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

12/5/2022
Date

James B. Spengler
Printed Name


James Spengler (Dec 5, 2022 15:19 EST)
Signature

Luminaire Data

| | |
|---|-------------------------------|
| Weight (luminaire) | 67 lb (30 kg) |
| UL listing number | E338094 |
| UL listed for USA / Canada | UL1598 CSA-C22.2 No.250.0 |
| CE Declaration | LVD, EMC, RoHS |
| Ingress protection, luminaire | IP65 |
| Impact rating | IK07 |
| Material and finish | Aluminum, powder-coat painted |
| Wind speed rating (aiming only) | 150 mi/h (67 m/s) |
| UL, IEC ambient temperature rating, luminaire | 50°C (122°F) |

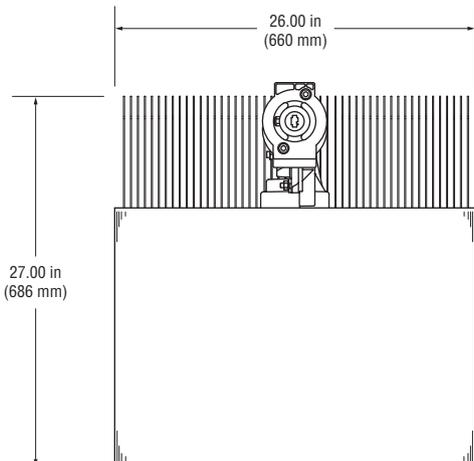
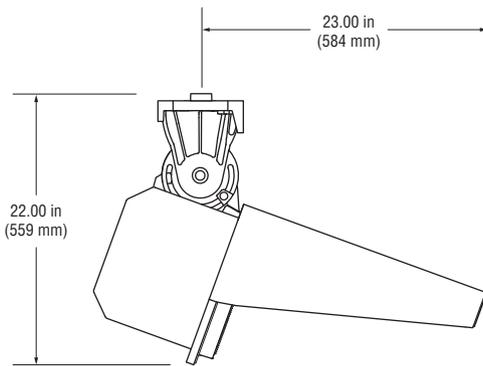
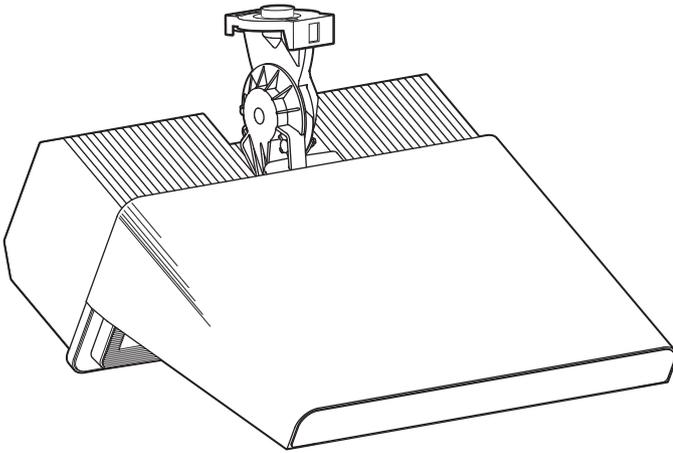
Photometric Characteristics

Projected lumen maintenance per IES TM-21-11

| | |
|----------------------------------|------------------------|
| L90 (20k) | >120,000 h |
| L80 (20k) | >120,000 h |
| L70 (20k) | >120,000 h |
| Lumens ¹ | 160,000 |
| CIE correlated color temperature | 5700 K |
| Color rendering index (CRI) | 75 typ, 70 min |
| LED binning tolerance | 7-step MacAdam Ellipse |

Footnotes:

1) Incorporates appropriate dirt depreciation factor for life of luminaire.

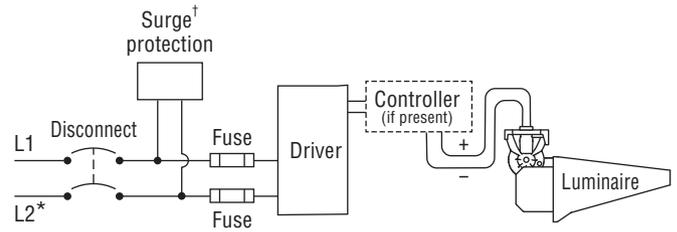


Driver Data

Electrical Data

| | |
|---|--------------------|
| Rated wattage ¹ | |
| Per driver | 1430 W |
| Per luminaire | 1430 W |
| Number of luminaires per driver | 1 |
| Starting (inrush) current | <40 A, 256 μ s |
| Fuse rating | 15 A |
| UL, IEC ambient temperature rating, electrical components enclosure | 50°C (122°F) |
| Ingress protection, electrical components enclosure | IP54 |
| Efficiency | 95% |
| Dimming mode | optional |
| Range, energy consumption | 12 – 100% |
| Range, light output | 17 – 100% |
| Flicker | <2% |
| Total harmonic distortion (THD) at full output | <20% |

Typical Wiring



* If L2 (com) is neutral then not switched or fused.
 † Not present if indoor installation.

| | 200 Vac 50/60 Hz | 208 Vac 60 Hz | 220 Vac 50/60 Hz | 230 Vac 50 Hz | 240 Vac 50/60 Hz | 277 Vac 60 Hz | 347 Vac 60 Hz | 380 Vac 50/60 Hz | 400 Vac 50 Hz | 415 Vac 50 Hz | 480 Vac 60 Hz |
|--|---------------------|------------------|---------------------|------------------|---------------------|------------------|------------------|---------------------|------------------|------------------|------------------|
| Max operating current per luminaire² | 8.86 A | 8.52 A | 8.06 A | 7.71 A | 7.39 A | 6.40 A | 5.11 A | 4.67 A | 4.43 A | 4.27 A | 3.70 A |

Footnotes:

- 1) Rated wattage is the power consumption, including driver efficiency losses, at stabilized operation in 25°C ambient temperature environment.
- 2) Operating current includes allowance for 0.90 minimum power factor, operating temperature, and LED light source manufacturing tolerances.

Notes

1. Use thermal magnetic HID-rated or D-curve circuit breakers.
2. See *Musco Control System Summary* for circuit information.



Total Light Control™ – TLC-LED-1500 Luminaire



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LEGEND:
 X = 0 FOOTCANDLES; NO LIGHT SPILL FROM ATHLETIC FIELD LIGHTING
 - - - - = 35 FOOT OFFSET FROM PROPERTY LINE
 - - - - = PROPERTY LINE

JEFFERSON HOUSTON PRE K-8 IB SCHOOL
 Alexandria, VA



Jefferson-Houston Pre K - 8 School

Lighting System

| Pole / Fixture Summary | | | | | | |
|------------------------|-------------|------------|-------------|----------------|-----------------|---------|
| Pole ID | Pole Height | Mtg Height | Fixture Qty | Luminaire Type | Load | Circuit |
| S1, S3-S4, S6 | 60' | 60' | 3 | TLC-LED-1500 | 4.29 kW | A |
| S2, S5 | 60' | 60' | 4 | TLC-LED-1500 | 5.72 kW | A |
| 6 | | | 20 | | 28.60 kW | |

| Circuit Summary | | | |
|-----------------|-------------|---------|-------------|
| Circuit | Description | Load | Fixture Qty |
| A | Soccer | 28.6 kW | 20 |

| Fixture Type Summary | | | | | | | |
|----------------------|--------------------|---------|---------|----------|----------|----------|----------|
| Type | Source | Wattage | Lumens | L90 | L80 | L70 | Quantity |
| TLC-LED-1500 | LED 5700K - 75 CRI | 1430W | 160,000 | >120,000 | >120,000 | >120,000 | 20 |

Light Level Summary

| Calculation Grid Summary | | | | | | | | |
|--------------------------|---------------------------------|--------------|------|------|---------|---------|----------|-------------|
| Grid Name | Calculation Metric | Illumination | | | | | Circuits | Fixture Qty |
| | | Ave | Min | Max | Max/Min | Ave/Min | | |
| Soccer Spill | Horizontal Illuminance | 0 | 0 | 0.01 | 0.00 | | A | 20 |
| Soccer Spill | Max Candela Metric | 298 | 0.62 | 787 | 1278.39 | 481.18 | A | 20 |
| Soccer Spill | Max Vertical Illuminance Metric | 0.01 | 0 | 0.03 | 0.00 | | A | 20 |
| Soccer | Horizontal Illuminance | 50.4 | 42 | 65 | 1.56 | 1.20 | A | 20 |
| Zero Grid | Horizontal | 10.7 | 0 | 68 | 0.00 | | A | 20 |

From Hometown to Professional



We Make It Happen.

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| EQUIPMENT LIST FOR AREAS SHOWN | | | | | | | | |
|--------------------------------|-----------------|------|-----------------|-----------------|----------------|------------|-----------|-------------|
| Pole | | | Luminaires | | | | | |
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY / POLE | THIS GRID | OTHER GRIDS |
| 4 | S1, S3-S4 S6 | 60' | - | 60' | TLC-LED-1500 | 3 | 3 | 0 |
| 2 | S2, S5 | 60' | - | 60' | TLC-LED-1500 | 4 | 4 | 0 |
| 6 | TOTALS | | | | | 20 | 20 | 0 |

| GRID SUMMARY | |
|--------------|------------------|
| Name: | Soccer |
| Size: | 300' x 165' |
| Spacing: | 30.0' x 30.0' |
| Height: | 3.0' above grade |

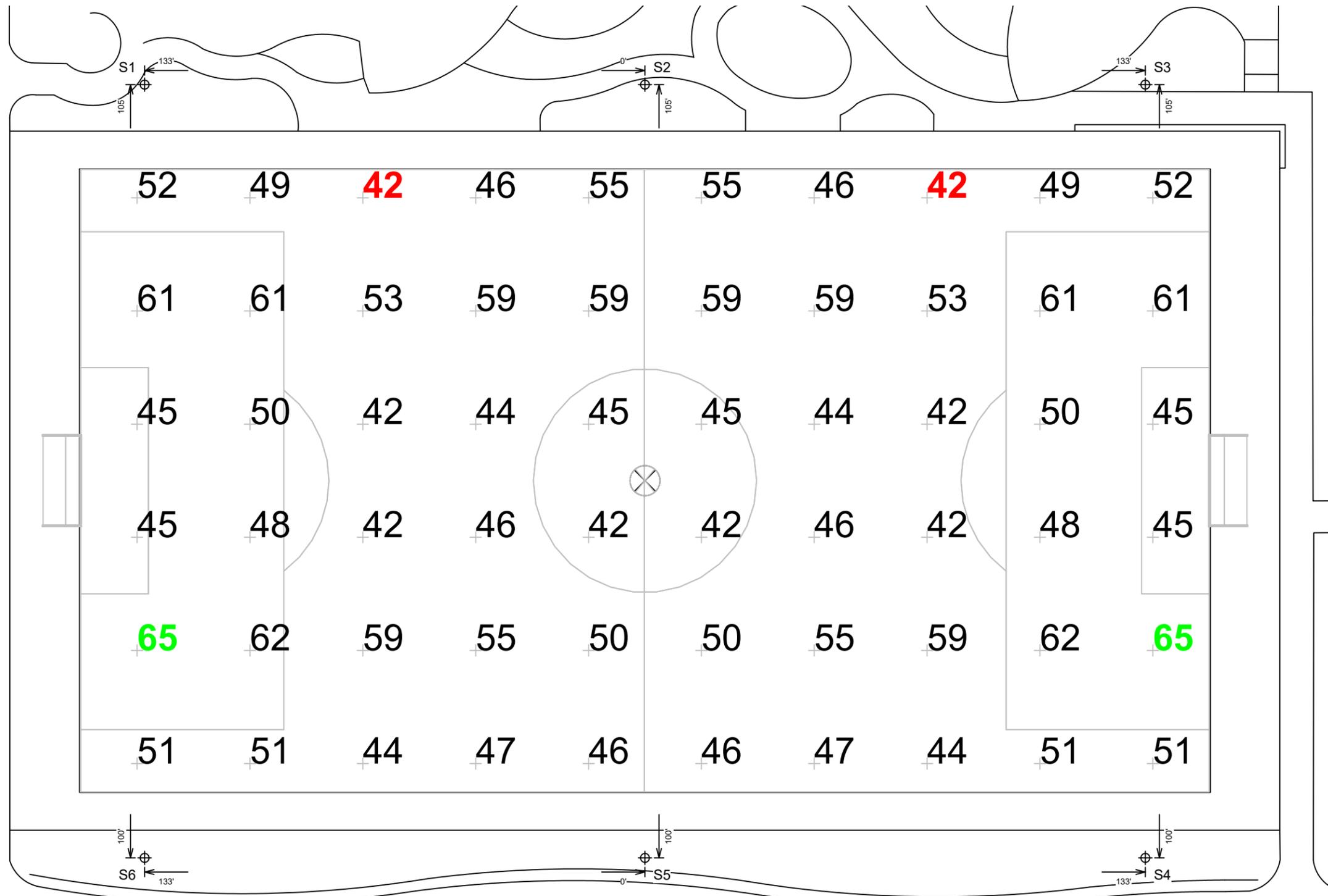
| ILLUMINATION SUMMARY | |
|-----------------------------------|---------|
| MAINTAINED HORIZONTAL FOOTCANDLES | |
| Entire Grid | |
| Guaranteed Average: | 50 |
| Scan Average: | 50.43 |
| Maximum: | 65 |
| Minimum: | 42 |
| Avg / Min: | 1.21 |
| Guaranteed Max / Min: | 2 |
| Max / Min: | 1.56 |
| UG (adjacent pts): | 1.45 |
| CU: | 0.86 |
| No. of Points: | 60 |
| LUMINAIRE INFORMATION | |
| Applied Circuits: | A |
| No. of Luminaires: | 20 |
| Total Load: | 28.6 kW |

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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 driver and structures located within 3 feet (1m) of design locations.



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



We Make It Happen.

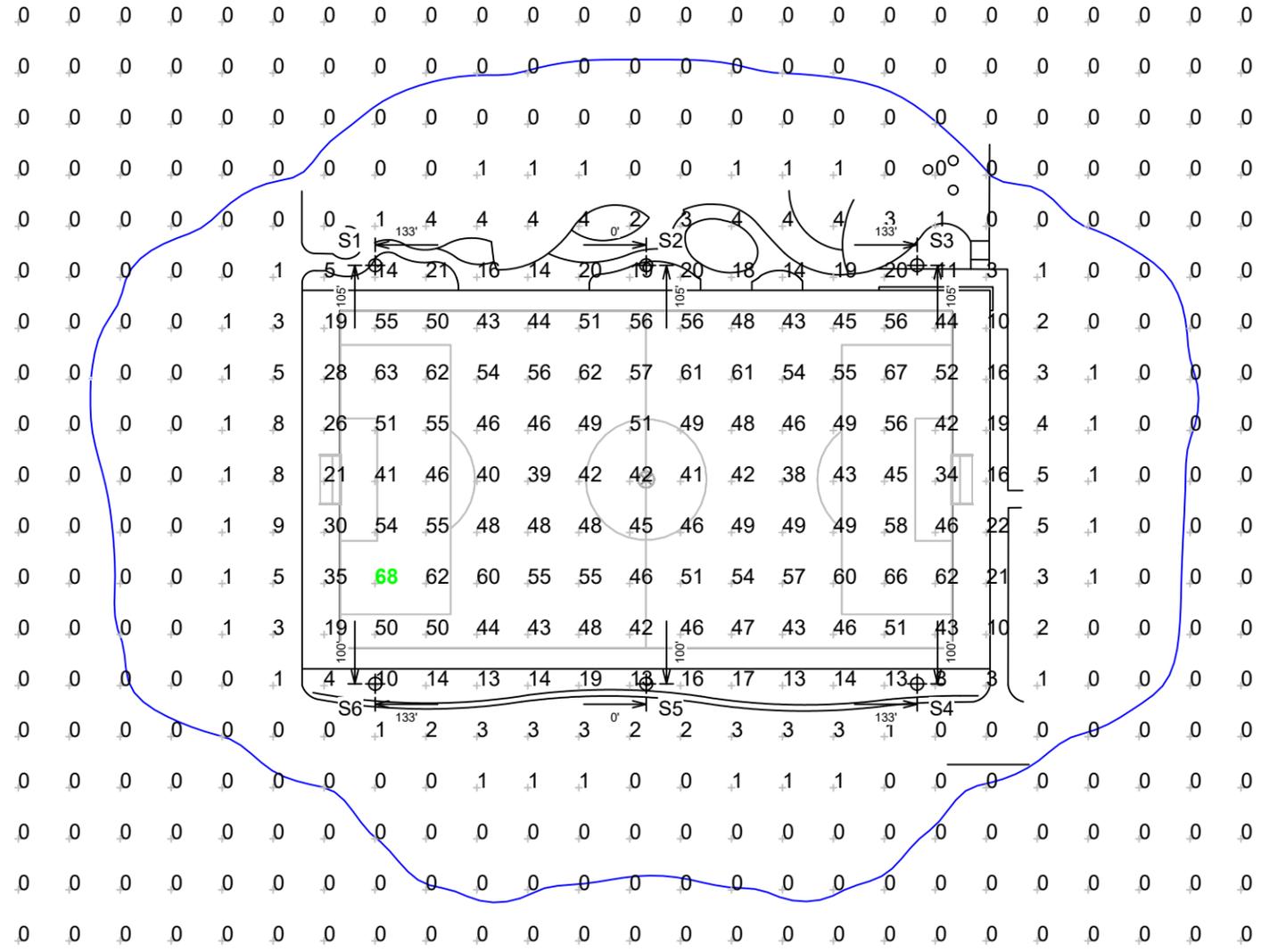
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| EQUIPMENT LIST FOR AREAS SHOWN | | | | | | | | |
|--------------------------------|-----------------|------|-----------------|-----------------|----------------|------------|-----------|-------------|
| Pole | | | | Luminaires | | | | |
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY / POLE | THIS GRID | OTHER GRIDS |
| 4 | S1, S3-S4 S6 | 60' | - | 60' | TLC-LED-1500 | 3 | 3 | 0 |
| 2 | S2, S5 | 60' | - | 60' | TLC-LED-1500 | 4 | 4 | 0 |
| 6 | TOTALS | | | | | 20 | 20 | 0 |

| GRID SUMMARY | |
|--------------|------------------|
| Name: | Zero Grid |
| Size: | 300' x 165' |
| Spacing: | 25.0' x 25.0' |
| Height: | 3.0' above grade |

| ILLUMINATION SUMMARY | |
|-----------------------------------|--------|
| MAINTAINED HORIZONTAL FOOTCANDLES | |
| Entire Grid | |
| Scan Average: | 10.66 |
| Maximum: | 68 |
| Minimum: | 0 |
| Avg / Min: | - |
| Max / Min: | - |
| UG (adjacent pts): | 180.72 |
| CU: | 1.00 |
| No. of Points: | 475 |

| LUMINAIRE INFORMATION | |
|-----------------------|---------|
| Applied Circuits: | A |
| No. of Luminaires: | 20 |
| Total Load: | 28.6 kW |



Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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 driver and structures located within 3 feet (1m) of design locations.



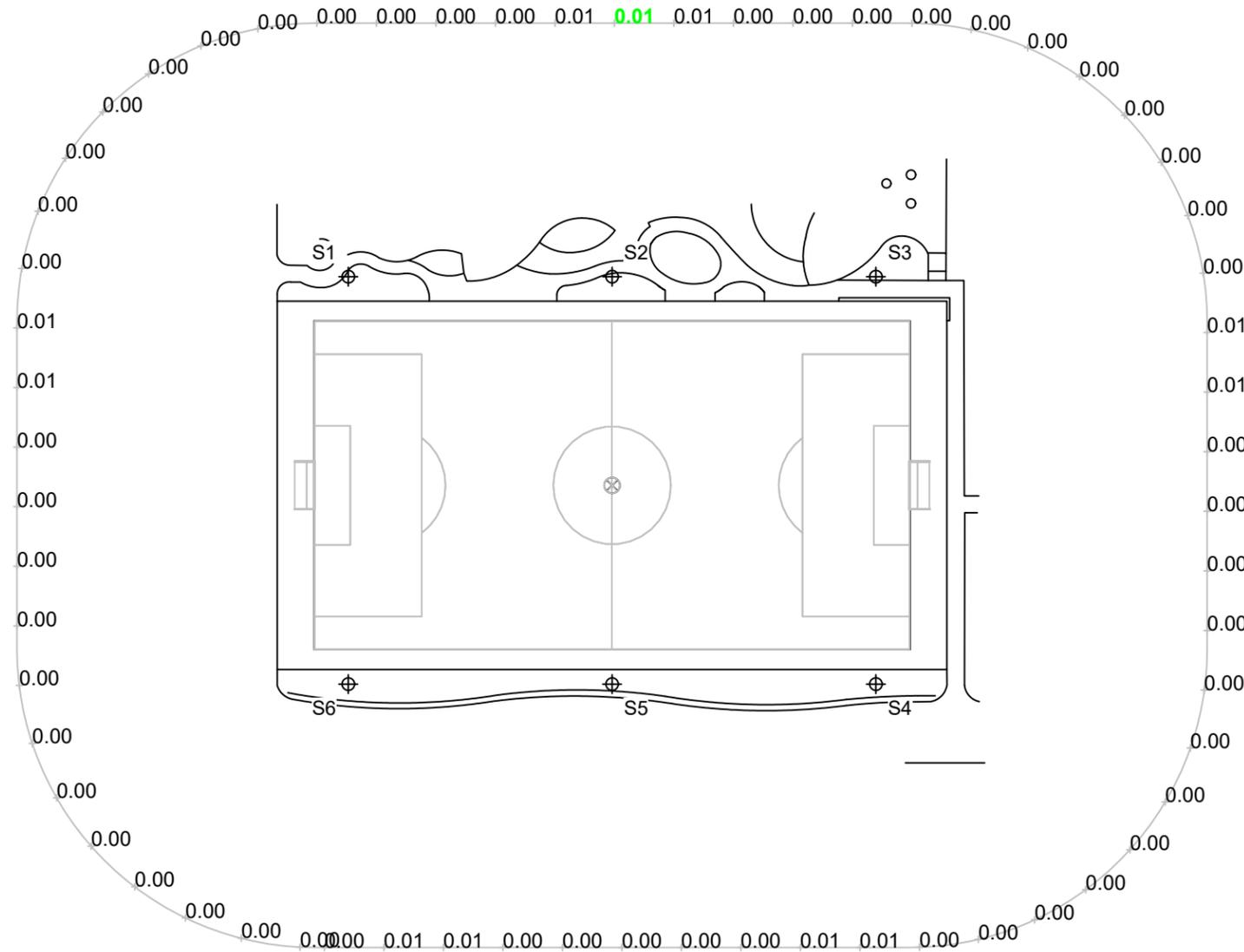
Pole location(s) Ⓢ dimensions are relative to 0,0 reference point(s) ⊗



| EQUIPMENT LIST FOR AREAS SHOWN | | | | | | | | |
|--------------------------------|-----------------|------|-----------------|-----------------|----------------|------------|-----------|-------------|
| Pole | | | | Luminaires | | | | |
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY / POLE | THIS GRID | OTHER GRIDS |
| 4 | S1, S3-S4 S6 | 60' | - | 60' | TLC-LED-1500 | 3 | 3 | 0 |
| 2 | S2, S5 | 60' | - | 60' | TLC-LED-1500 | 4 | 4 | 0 |
| 6 | TOTALS | | | | | 20 | 20 | 0 |

| GRID SUMMARY | |
|--------------|------------------|
| Name: | Soccer Spill |
| Spacing: | 30.0' |
| Height: | 3.0' above grade |

| ILLUMINATION SUMMARY | |
|------------------------|-------------|
| HORIZONTAL FOOTCANDLES | |
| | Entire Grid |
| Scan Average: | 0.0027 |
| Maximum: | 0.01 |
| Minimum: | 0.00 |
| No. of Points: | 63 |
| LUMINAIRE INFORMATION | |
| Applied Circuits: | A |
| No. of Luminaires: | 20 |
| Total Load: | 28.6 kW |

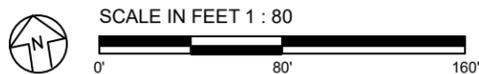


Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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 driver and structures located within 3 feet (1m) of design locations.



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



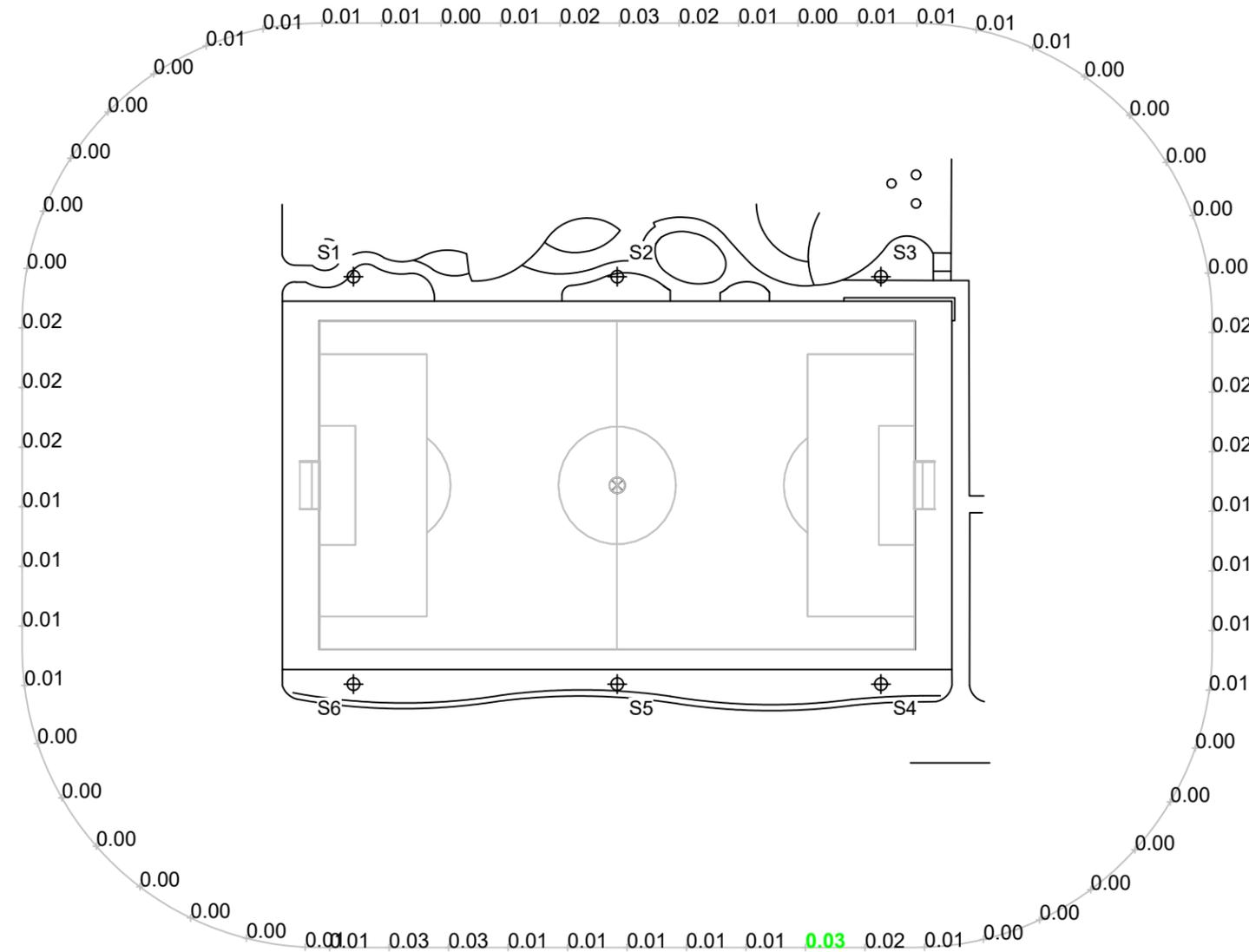
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| EQUIPMENT LIST FOR AREAS SHOWN | | | | | | | | |
|--------------------------------|-----------------|------|-----------------|-----------------|----------------|------------|-----------|-------------|
| Pole | | | | Luminaires | | | | |
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY / POLE | THIS GRID | OTHER GRIDS |
| 4 | S1, S3-S4 S6 | 60' | - | 60' | TLC-LED-1500 | 3 | 3 | 0 |
| 2 | S2, S5 | 60' | - | 60' | TLC-LED-1500 | 4 | 4 | 0 |
| 6 | TOTALS | | | | | 20 | 20 | 0 |

| GRID SUMMARY | |
|--------------|------------------|
| Name: | Soccer Spill |
| Spacing: | 30.0' |
| Height: | 3.0' above grade |

| ILLUMINATION SUMMARY | |
|--------------------------|-------------|
| MAX VERTICAL FOOTCANDLES | |
| | Entire Grid |
| Scan Average: | 0.0088 |
| Maximum: | 0.03 |
| Minimum: | 0.00 |
| No. of Points: | 63 |
| LUMINAIRE INFORMATION | |
| Applied Circuits: | A |
| No. of Luminaires: | 20 |
| Total Load: | 28.6 kW |



Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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 driver and structures located within 3 feet (1m) of design locations.



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



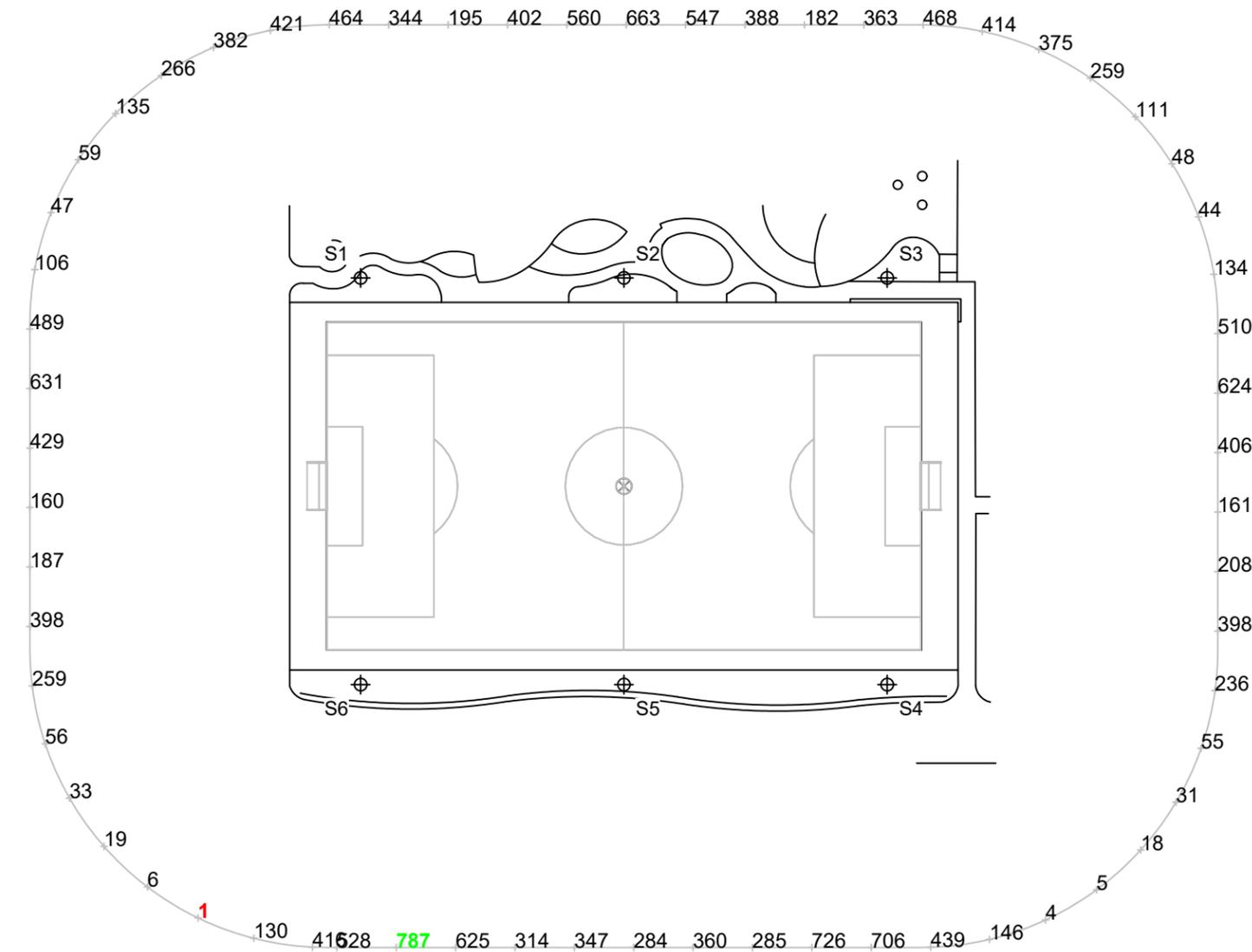
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| EQUIPMENT LIST FOR AREAS SHOWN | | | | | | | | |
|--------------------------------|-----------------|------|-----------------|-----------------|----------------|------------|-----------|-------------|
| Pole | | | | Luminaires | | | | |
| QTY | LOCATION | SIZE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY / POLE | THIS GRID | OTHER GRIDS |
| 4 | S1, S3-S4 S6 | 60' | - | 60' | TLC-LED-1500 | 3 | 3 | 0 |
| 2 | S2, S5 | 60' | - | 60' | TLC-LED-1500 | 4 | 4 | 0 |
| 6 | TOTALS | | | | | 20 | 20 | 0 |

| GRID SUMMARY | |
|--------------|------------------|
| Name: | Soccer Spill |
| Spacing: | 30.0' |
| Height: | 3.0' above grade |

| ILLUMINATION SUMMARY | |
|-----------------------|-------------------------|
| CANDELA (PER FIXTURE) | |
| Scan Average: | Entire Grid 298.3330 |
| Maximum: | 787.13 |
| Minimum: | 0.62 |
| No. of Points: | 63 |
| LUMINAIRE INFORMATION | |
| Applied Circuits: | A |
| No. of Luminaires: | 20 |
| Total Load: | 28.6 kW |

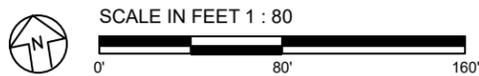


Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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 driver and structures located within 3 feet (1m) of design locations.



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



EQUIPMENT LAYOUT

INCLUDES:
· Soccer

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

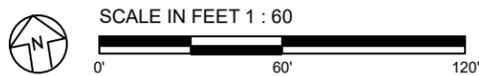
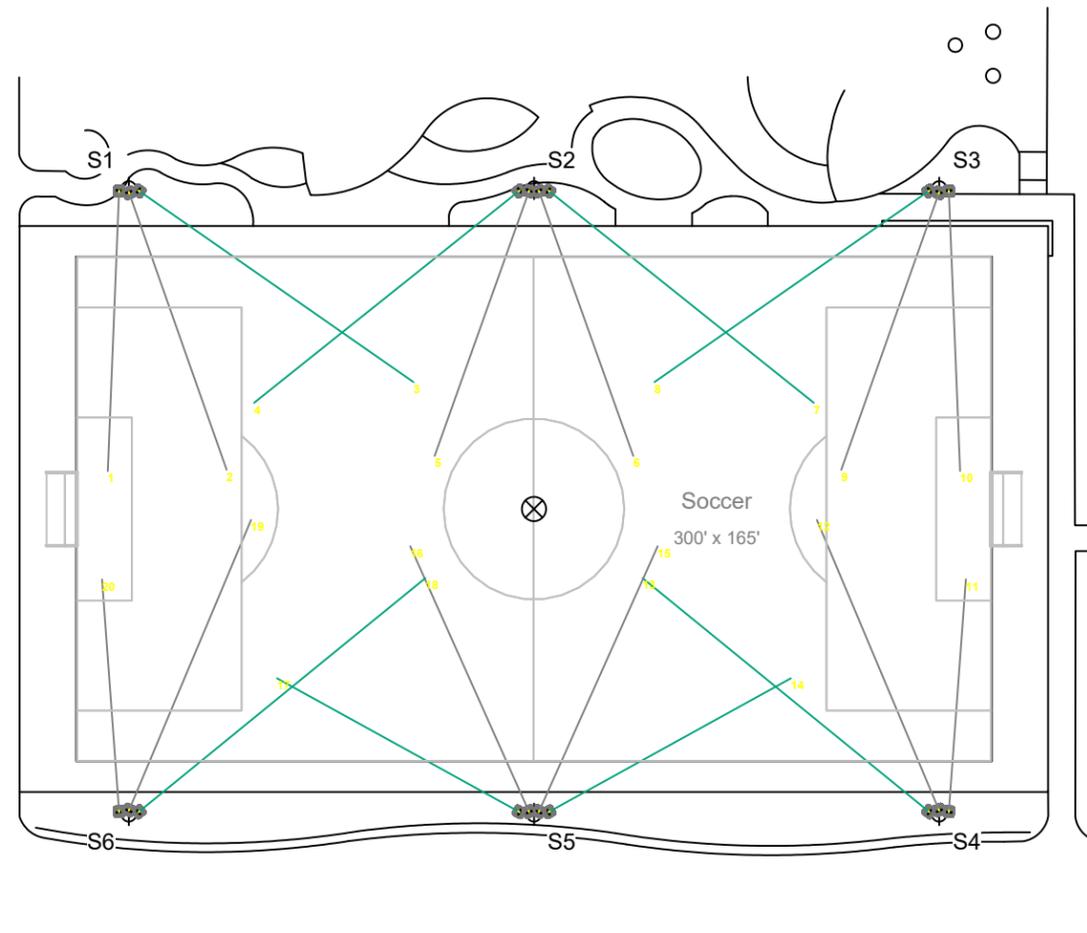
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

| QTY | Pole | | | Luminaires | | QTY / POLE |
|-----|-----------------|---------|-----------------|-----------------|----------------|------------|
| | LOCATION | CLASS | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | |
| 4 | S1, S3-S4 S6 | LSS60AA | - | 60' | TLC-LED-1500 | 3 |
| 2 | S2, S5 | LSS60A | - | 60' | TLC-LED-1500 | 4 |
| 6 | TOTALS | | | | | 20 |

SINGLE LUMINAIRE AMPERAGE DRAW CHART

| Ballast Specifications (.90 min power factor) | Line Amperage Per Luminaire (max draw) | | | | | | |
|--|---|-------------|-------------|-------------|-------------|-------------|-------------|
| | 208 (60) | 220 (60) | 240 (60) | 277 (60) | 347 (60) | 380 (60) | 480 (60) |
| Single Phase Voltage | | | | | | | |
| TLC-LED-1500 | 8.5 | 8.1 | 7.4 | 6.4 | 5.1 | 4.7 | 3.7 |



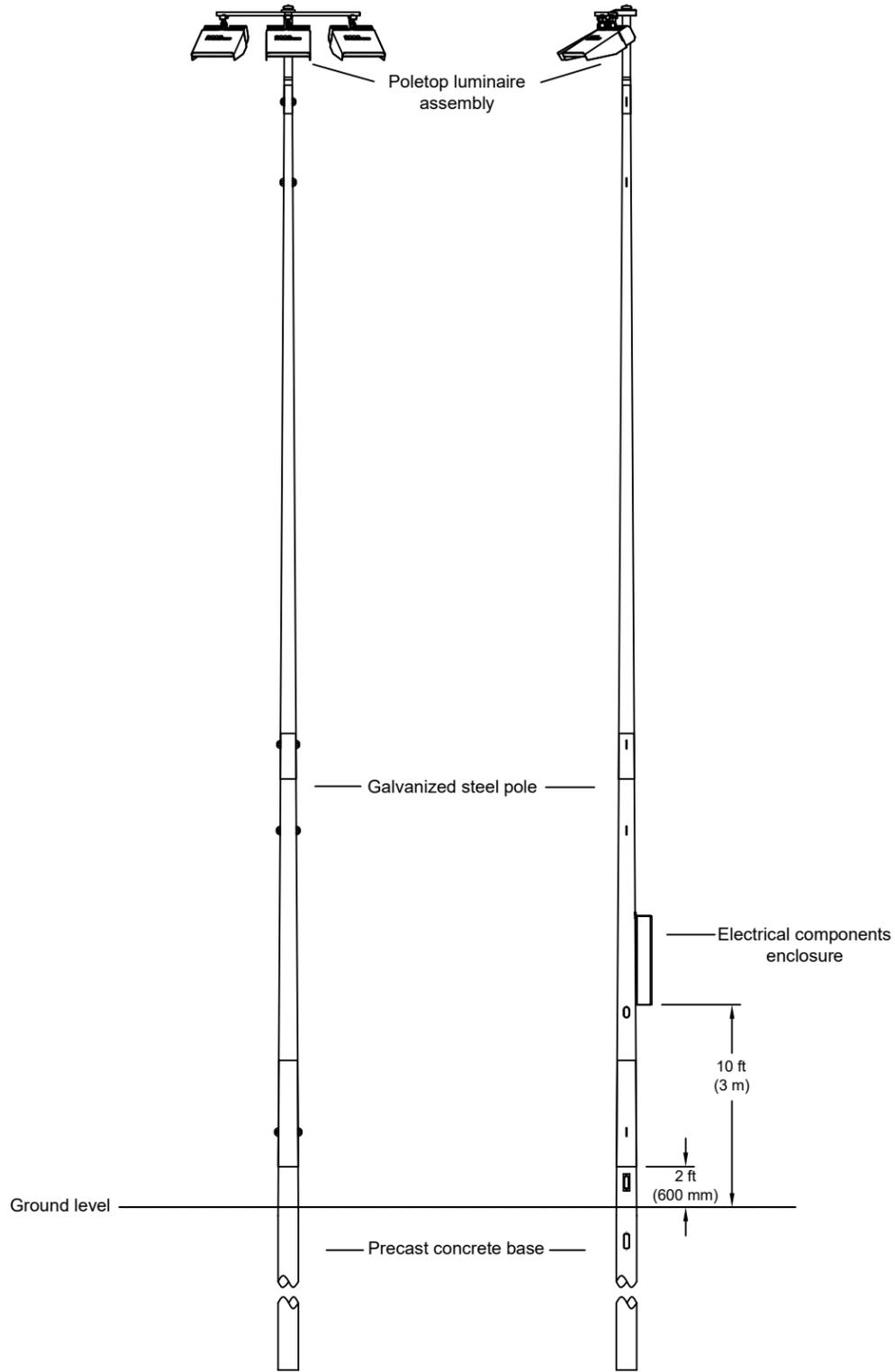
Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



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POLE(S): S1, S3, S4, S6

Musco 60FT Light-Structure System™ pole
 TLC for LED™ luminaires
 (3) TLC-LED fixtures

| | | |
|---------------------------|----------------------------------|---------------|
| PROJECT NUMBER: 151216 | DATE: 03/10/2022 | SCALE: NTS |
| DRAWN BY: B. Carter | DRAWING NUMBER: 151216A-JH_P1 | |
| | 1 OF 2 SHEETS | |

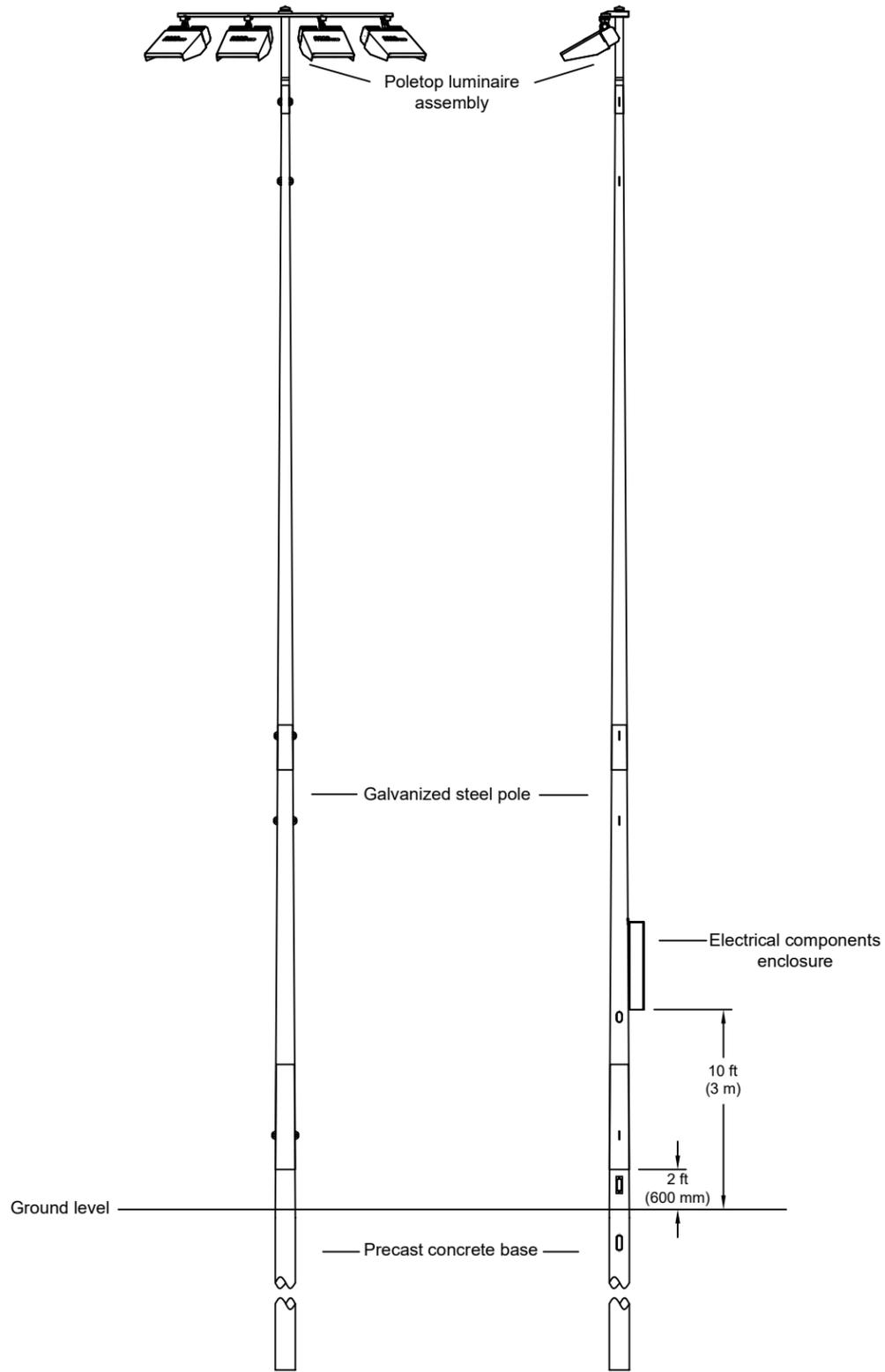
| DATE: | BY: | R.L. | REVISIONS: |
|-------|-----|------|------------|
| | | | |
| | | | |
| | | | |

MUSCO Lighting

CORPORATE OFFICE:
 P.O. Box 808
 100 1st Avenue West
 Oskaloosa, Iowa 52577
 +1-800-825-6020
 +1-641-673-0411

Jefferson-Houston Pre K - 8 School
 Alexandria, VA
 Pole Configuration Drawing **B**

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POLE(S): S2, S5

Musco 60FT Light-Structure System™ pole
 TLC for LED™ luminaires
 (4) TLC-LED fixtures

| |
|---|
| PROJECT NUMBER: 151216 |
| DRAWN BY: B. Carter |
| SCALE: NTS |
| DATE: 03/10/2022 |
| DRAWING NUMBER: 151216A-JH_P1 |
| 2 OF 2 SHEETS |

| DATE: | BY: | R.L. | REVISIONS: |
|-------|-----|------|------------|
| | | | |
| | | | |
| | | | |


MUSCO
Lighting

CORPORATE OFFICE:
 P.O. Box 808
 100 1st Avenue West
 Oskaloosa, Iowa 52577
 +1-800-825-6020
 +1-641-673-0411

Jefferson-Houston Pre K - 8 School
 Alexandria, VA
 Pole Configuration Drawing **B**



INTERNATIONAL DARK-SKY ASSOCIATION

International Dark-Sky Association
5049 E. Broadway Blvd., #105,
Tucson, AZ 85711 USA
tel +1.520.293.3198

Dear Mr. Carter

June 15, 2022

Congratulations! The lighting designs for City of Alexandria Jefferson-Houston Pre K-8 School soccer project has been reviewed and found to be in compliance with IDA's Community Friendly Outdoor Sports Lighting program. This Letter of Certification confirms your successful application of Phase I and allows you to apply for the Phase II Field Verification process.

We are proud to have you join this community of outdoor sports lighting facilities working to reduce light pollution and improve the environment in localities across the nation. By adopting the IDA criteria for Community Friendly Outdoor Sports Lighting, your community will:

- Minimize neighborhood lighting nuisance by greatly reducing local spill and glare.
- Manage high angle light pollution, thus dramatically decreasing off-site light trespass and sky glow.
- Mitigate neighborhood light pollution and sky glow, which will benefit the environment, the astronomy community, and others impacted by poorly designed outdoor sports facilities.
- Minimize lumen densities, thereby reducing energy consumption.

Sincerely,
Pete Strasser

Technical Director
pete@darksky.org

Executive Director: Ruskin Hartley

Emeritus Director: David L. Crawford, Ph.D.

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