

# Goodman Athletic Complex: Master Plan Addendum

Edgewood Campus  
Madison, Wisconsin  
November 14, 2018



Edgewood High School

2219 Monroe Street





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2219 MONROE STREET • MADISON, WI 53711-1999

608.257.1023 • 608.257.9133 (Fax) • edgewoodhs.org

Heather Stouder  
Planning Department  
Suite 017  
215 Martin Luther King Jr. Blvd.  
Madison, WI 53703

Re: Edgewood High School: Goodman Athletic Complex

Dear Heather,

Edgewood High School has been working closely with the City of Madison, our Liaison Committee and local neighbors for the past year and a half about opportunities we are seeking to enrich the offerings of the Goodman Athletic Complex. This facility has become a true community asset that is regularly utilized by several of our athletic teams, other local middle-school and high-school sports teams, UW-Madison athletic teams and our neighbors.

Now, we believe the time is right to upgrade the Goodman Athletic Complex to incorporate new technology that will allow our students to host a limited number of night home games at Edgewood like other teams in our conference host night games on their campuses. We are diligently working through the city's adopted process to amend our Campus Master Plan to allow for better and more strategic usage of this important community resource. Specifically, our hope is to build upon the existing facility by increasing seating, adding site-focused LED lighting and installing a directional sound system to enhance the overall experience for all users. We believe adding a limited number of high school night events hosted within our campus would allow the Edgewood athletics program to remain competitive with other teams in our conference by hosting true home games while contributing to the continued, holistic, well-rounded development of our students.

Throughout this detailed process we have been careful to adhere to our core principles of commitment to Community, Partnerships, Truth and an authentic dedication to preparing the whole student for a successful future. We have worked closely with local officials to meet or exceed City of Madison requirements on lighting, sound, parking and traffic; we have held neighborhood listening sessions to identify areas of concern and explore potential modifications, as necessary and appropriate; and we have worked hard to ensure that everyone involved receives accurate and timely information regarding the various aspects of the process and the modifications we are seeking.

Sincerely,

A handwritten signature in black ink that reads "Michael Elliott". The signature is written in a cursive style with a large, prominent initial "M".

Michael Elliott  
President

## Executive Summary

Edgewood High School is seeking an amendment to the adopted Master Plan for the Goodman Athletic Complex to incorporate a limited number of night games and improve the existing facility to include increased seating, LED lighting, and a directional sound system. These improvements would replace the existing stands and portable PA system while allowing for high school sports to be hosted on-site during the evening hours. This document outlines the details of the existing use and offers specific standards and programming requirements for all the proposed uses of the facility.

## History

The Goodman Athletic Complex is the most recent configuration of the field that has existed on-site since the founding of the Edgewood High School of the Sacred Heart in 1927. Edgewood High School's teams and classes have used this facility as the main outdoor athletics facility with events ranging from football, soccer, and track & field, to baseball and summer sports camps, with the only breaks in activity being linked to field condition issues and subsequent upgrades.

The current field configuration and improvements were completed in 2015 through a partnership with the Goodman Foundation and other donors. The Goodman Foundation support of the facility was expressly tied to creating a facility that is a "community-wide venue that will serve all of Madison, from children to seniors, through games, camps, and other activities" (E.G. Schramka, Executive director of the Goodman Foundation). This partnership has led to the field being used not just by Edgewood, but members of the entire community through hosting summer camps and games by teams from throughout the community ranging from soccer (Madison 56ers, MAYSA (Madison Area Youth Soccer Association)) to lacrosse (Westside Lacrosse Club); as well as practices by West high School, MAISL (Madison Area Independent Sports Teams) teams, and UW teams.



Edgewood High School & Athletic Field 1937

## Why Now?

Edgewood High School has a nearly 100-year history of using its athletic facilities for practice purposes, hosting day-time sporting events and allowing access to the community for game and recreational purposes. The Goodman Athletic Complex has deeply enriched Edgewood’s ability to serve as a community-wide asset for the greater Madison area. When the Edgewood Campus Master Plan was originally developed and approved in 2014, Edgewood leadership was up front about the continued desire to have the ability to have a true home field that could enrich our athletic program by hosting night games as required by the Badger Athletic Conference, but were very sensitive about how a limited number of night games may impact our surrounding neighborhoods.

Two major factors prompted us to begin the formal amendment process over a year and a half ago, as outlined in our Campus Master Plan:

1. Our primary agreement with Middleton to serve as a “home” field is no longer feasible. This is due not only to Middleton’s own athletic program demands, but financial ramifications, safety concerns and scheduling for Edgewood’s athletes. This fact has left Edgewood scrambling to find a location for “home” games, often ending up with multiple locations for our games — a scenario that few other schools have to address. Teams currently have held “home games” at Reddan Field (Verona), Middleton, Lussier Stadium, and Breese Stevens Field, resulting in significant travel, logistical hurdles, cost, and scheduling conflicts between Edgewood and visiting schools.
2. Advancements in both lighting and sound technology have made it possible to ensure that two of the major neighborhood concerns we acknowledged early in the Campus Master Plan process — light and sound — could now be addressed in a fashion that not only meets, but exceeds the City of Madison requirements.

As with our efforts during the original Campus Master Plan process, Edgewood High School remains committed to engaging with our neighbors and community partners as we follow the deliberative amendment process outlined in the 2014 Master Plan.



1930



1993



2018

## Process

The proposed amendment to the Master Plan has followed and exceeded the City of Madison process as outlined in the City of Madison Zoning Code and Adopted Master Plan. This effort has spanned several years of active dialog including public outreach to the Dudgeon Monroe Neighborhood, Vilas Neighborhood, and Liaison Committee through listening sessions, concept presentations, and neighborhood meetings along with coordination of outreach efforts with former Alder Sarah Eskrich and current Alder Allen Arntsen. Input gathered throughout the process has been integrated into the proposal or addressed through careful study and quantification by experts in lighting, sound, and traffic.

Efforts prior to submittal:

1. Hosted two listening sessions in 2017 with neighbors to gather feedback
2. Worked with design team to address comments
3. Visited existing (Waubesa) facilities with LED fixtures with Liaison Committee
4. Worked with the City, Liaison Committee, & Neighborhood Associations to distribute information about the amendment
5. Held 3 additional Informational Presentations (Vilas Neighborhood Board, Dudgeon Monroe Neighborhood Board, Liaison Committee)
6. Hosted a Neighborhood-wide informational & listening session

### **“A team without a home”**

Edgewood Football plays all their home games at locations throughout the city. The resulting distance traveled, team logistics (moving equipment), financial implications, and scheduling difficulty creates significant impacts on schools, players, and fans for all of the teams involved.

In 2018 this led to the team playing at the following stadiums:

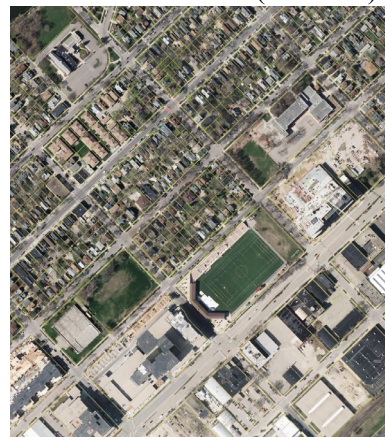
Breitenbach Stadium (Middleton)



Lussier Stadium (Madison)



Breese Stevens Field (Madison)



## Existing Facility

The existing field improvements, installed as part of the field upgrades in 2015, include upgrade field turf, track & field facilities, and bleacher seating for 450 fans. The total field attendance capacity is approximately 700-800 attendees.

Parking for activities on the field is delivered through on-site lots immediately adjacent to the entrance and Edgewood College Drive.





## Existing Site Photos

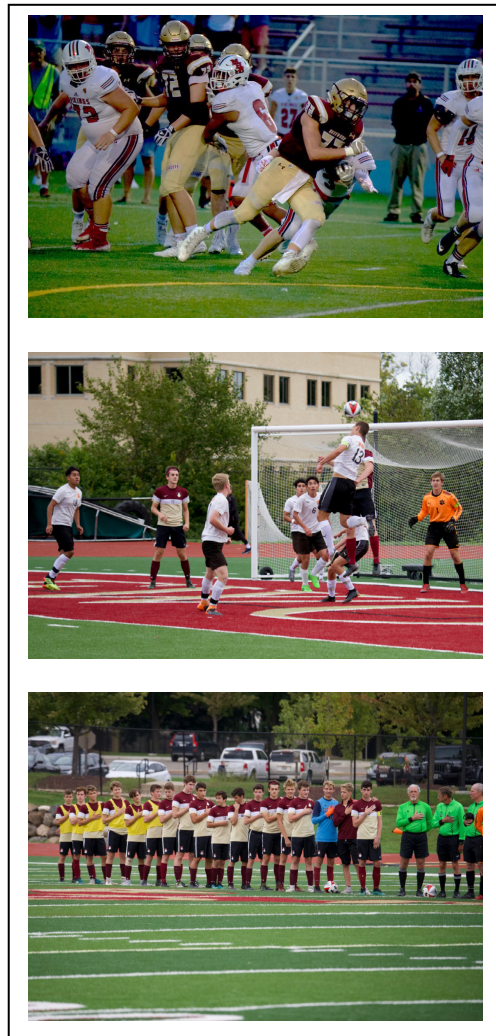


Site Photos (continued)



## Existing Use

The Goodman Athletic Complex serves as the main outdoor athletic facility for Edgewood High School as well as a wide range of Community athletic practices, games, and events throughout the year. The High School season is clustered into a three-month spring and three-month fall season for a variety of boys' and girls' sports. Community use is spread throughout the year. The current uses for the field occur during the daytime hours including weekday afternoon/evenings and weekend days.



**Edgewood School Use:**  
 Physical Education Classes  
 Outdoor classroom use

**Edgewood Team Use:**  
 The athletic field is used for practices, junior varsity games (JV), and varsity games by Edgewood's teams. Games and practices are held during the daytime hours on weekday and weekend dates during the fall and spring seasons.

*Fall Sports Season:*  
 The fall sport season occurs August through November with the regular season wrapping up late October. Playoff games may extend the season into November, dependent on team performance.

*Boys Soccer*  
 Boys soccer practices and hosts junior varsity games and varsity games on-site along with off-site games & tournaments at the Reddan Soccer Complex in Verona. These games are held during weekday afternoon/evenings and weekends.

**Existing Use:**  
 Practices  
 Junior Varsity Games  
 Varsity Games 8 regular season games  
 Up to 4 playoff games

Average Length of Varsity Game: 1 hour 40 minutes  
 Average Varsity Game Attendance: 150

### Football

The football team currently practices and plays junior varsity games on the field. The varsity team practices on the field and plays "home" games at other locations throughout the City (2018 locations: Breitenbach Stadium, Breese Stevens Stadium, Lussier Stadium). Junior varsity games are held Thursday afternoon/evenings with varsity games held on Fridays at 7:00 PM off-site.

Football anticipates that they will be re-aligning the Badger Football conference in 2020 to move Edgewood High School into a conference consisting of comparably sized smaller schools. The new conference will include Edgewood, McFarland, Edgerton, Monroe, Jefferson, Evansville/Albany,

East Troy, and Whitewater. The resulting realignment means that Edgewood will no longer play larger schools such as Waunakee in the regular season.

Existing Use:  
Practices  
Junior Varsity Games

Average Length of Varsity Game: 2 hours 30 minutes (Off-site)  
Average Varsity Game Attendance: 500 (off-site)

*Spring Sports Season:*

The spring sports season occurs April through June with the regular season wrapping up in late May. Playoff games may extend the season into June, dependent on team performance.

*Girls Soccer*

Girls soccer practices and hosts junior varsity games and varsity games on-site along with off-site games & tournaments at the Reddan Soccer Complex in Verona. These games are held during weekday afternoon/evenings and weekends.

Existing Use:  
Practices  
Junior Varsity Games  
Varsity Games

8 regular season games  
Up to 4 playoff games

Average Length of Varsity Game: 1 hour 40 minutes  
Average Varsity Game Attendance: 250

*Track & Field*

Track & Field practices and hosts 1-2 track meets on-site. Track meets are held during the week.

Existing Use:  
Practices  
Track Meets

1-2 meets

Average Length of Meet: 3 hour 30 minutes  
Average Meet Attendance: 350



*Westside Boys Lacrosse*

Westside Lacrosse is a community-based team made up of Edgewood, Memorial, and West High students. This team uses the field for practices and a portion of their home games.

Existing Use:

Practices

Junior Varsity Games

Varsity Games 6 regular season games

Average Length of Varsity Game: 1 hour 30 minutes

Average Varsity Game Attendance: 100

**Current Varsity Game Summary**

Total Fall Varsity Games:

Total Regular Season Varsity Games: 8

Potential Playoff Games: 4

Total Spring Varsity Games/Meets:

Total Regular Season Varsity Games/Meets: 16

Potential Playoff Games: 4

Total Varsity Games/Meets Currently Held On-site:

Current Regular Season Varsity Games/Meets: 24

Potential Playoff Games: 8



6.7.18  
 Edgewood 1, McFarland 0 WIAA Sectional Game  
 Attendance: ~450 fans

**Community Use:**

Consistent with the requirements of the Goodman Foundation grant, the field is available for use by numerous community groups throughout the year, including general neighborhood use.



*Open Field Use*

The field and track are available for general use by the community every day from dawn until dusk, when not in use by a previously scheduled group or team.

*Community Team Use (Practice & Games)*

The complex is used by a large number of additional community groups throughout the year for practices, events (camps), and games.



Recent community group use includes:


- Jeff Trickey/Randy Wright Quarterback camp
- Edgewood College Men’s Soccer team Practice
- Edgewood College Women’s Soccer team Practice
- Madison 56ers Youth Soccer Games
- UW-Women’s Lacrosse team Practice
- Great Lakes UW Men’s Lacrosse Games
- West H.S. Girls Soccer team Practice
- Numerous area Catholic Grade schools Games
- Edgewood All-Sports Camp
- Madison West Boys’ Soccer team Practice
- MAISL Touch FB Tournament
- Edgewood College Men’s Track Practice
- Edgewood Women’s Track Practice
- Westside Girls Lacrosse Youth Organization Summer Conditioning Camp
- AAU Soccer youth group (MAYSA) Games



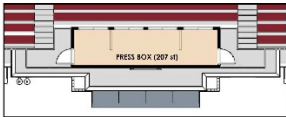
## Proposed Amendments

### Expanded Seating & Support Facilities

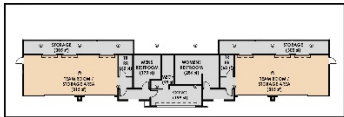
The proposed seating enhancements replace the existing temporary bleacher seating (450 seats) with a permanent structure featuring 1000 seats, concessions, storage rooms, restrooms, and team rooms. The requested seating has been reduced from the originally proposed 1,300 seat facility as part of the conversation with the neighborhood. The current proposal is the minimum seating required to meet WIAA requirements to host playoff games. The final design of the proposed structure will be subject to a separate review and approval per the Adopted Master Plan Process.



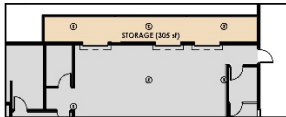
ATHLETIC STADIUM SEATING REDEVELOPMENT FROM WEST




PRESS BOX



TEAM ROOM / STORAGE AREA





STORAGE




**EDGEWOOD HIGH SCHOOL OF THE SACRED HEART**

ATHLETIC STADIUM SEATING & CONCESSION STAND REDEVELOPMENT







ATHLETIC STADIUM CONCESSION FACILITY FROM EAST




CONCESSION STAND




TICKET BOOTH




COURTYARD / ENTRY PLAZA




TEAM ROOM / STORAGE



ADA ACCESSIBLE RAMP



**EDGEWOOD HIGH SCHOOL OF THE SACRED HEART**

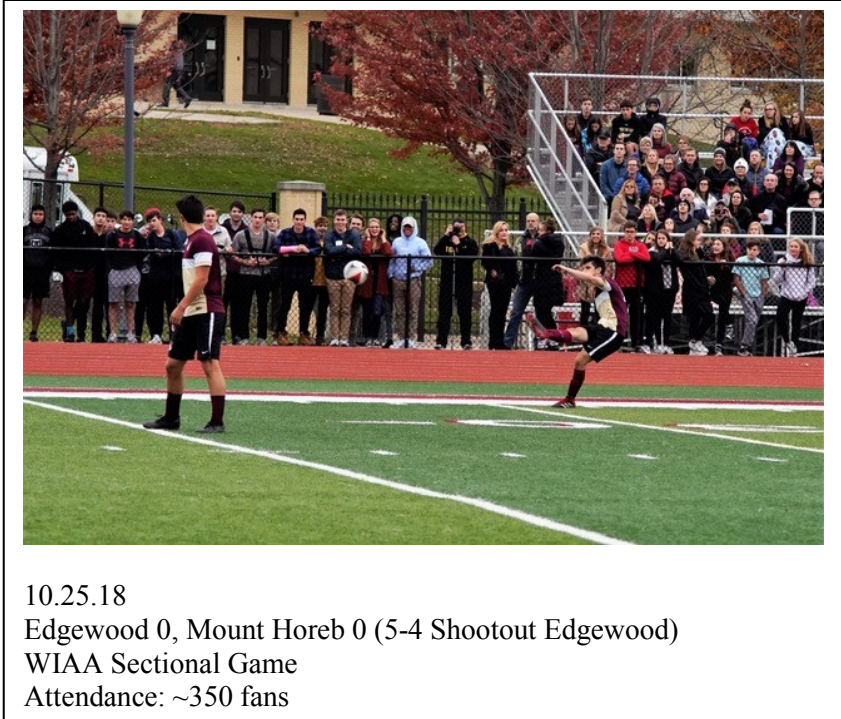


**Proposed Use:**

Edgewood School Use:  
Physical Education Classes  
Outdoor classroom use

**Edgewood Team Use:**

Edgewood High School would continue to host games on-site throughout the weekdays and weekends including fall and spring sport seasons. Varsity games would be eligible for use of the lighting and PA system. Junior varsity games would not use lighting or the PA system. Practices would be held the weekday afternoon/evenings and weekend days with lighting allowed until 7:00 PM.



*Fall Sports Season:*

The fall sports season occurs August through November with the regular season wrapping up late October. Playoff games may extend the season into November, dependent on team performance. Soccer and lacrosse games are held weeknights and weekend afternoon. Junior varsity football would be held on Thursday late afternoons and varsity football would be Friday evenings.

*Boys Soccer*

Practices	
Junior Varsity Games	
Varsity Games	8 regular season games Up to 4 playoff games

*Football*

Practices	
Junior Varsity Games	
Varsity Games	5 games Up to 3 playoff games

*Spring Sports Season:*

The spring sports season occurs April through June with the regular season wrapping up in late May. Playoff games may extend the season into June, dependent on team performance. Soccer and lacrosse games are held weeknights and weekend afternoon. Track meets would be held weekday afternoons/early evenings, consistent with their current usage of the facility.



*Girls Soccer*

Practices

Junior Varsity Games

Varsity Games	8 regular season games Up to 4 playoff games
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*Track & Field*

Track &amp; Field practices and hosts 1 to 2 track meets on-site. Track meets are held during the week.

Practices

Track Meets	1-2 meets
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*Westside Boys Lacrosse*

Practices

Junior Varsity Games

Varsity Games	6 regular season games
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Note: Lacrosse home games are limited under this proposal to 4-6 games. Additional regular season games will be held off-site or during daytime hours.

## Proposed Varsity Game Summary

Total Fall Varsity Games:

Total Regular Season Varsity Games:	13
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Potential Playoff Games:	7
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Total Spring Varsity Games/Meets:

Total Regular Season Varsity Games/Meets:	16
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Potential Playoff Games:	4
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Total Varsity Games/Meets (eligible for lighting use):

Total Regular Season Varsity Games/Meets:	29
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Potential Playoff Games:	11
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## Comparison of Existing Varsity Games versus Proposed Varsity Games

**Soccer/Track/Lacrosse**

<u>Existing</u>	<u>Proposed</u>	<u>Average Attendees</u>
24 regular season games	24 regular season	150-200 attendees
Up to 8 playoff games	Up to 8 playoff games	

**No net increase of games****Football**

0 regular season	5 regular season	500 attendees
0 playoff games	Up to 3 playoff games	

**Net increase of 5 regular season and up to 3 playoff games**

**Proposed Community Use:**

Community use of the field will continue per the current use agreement. Community uses will be limited to daytime scheduling to reduce the overall use of the lights.

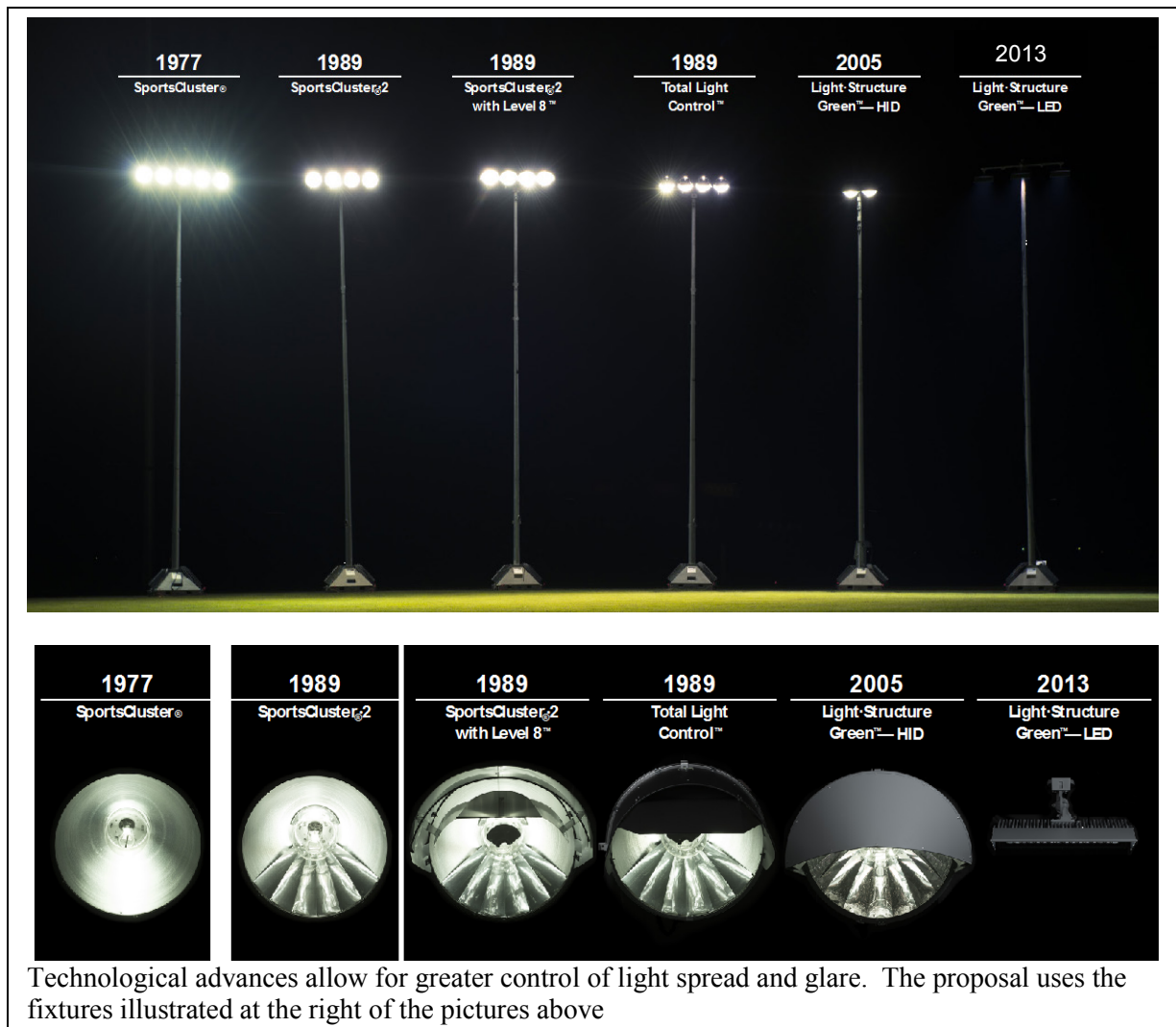
Open Field Use (Daytime)

Community Team Use (Practice & Games) (Daytime)

Other daytime Community Functions may be allowed, as guided by the process outlined in the Master Plan and approved by the Liaison Committee.

**Lighting Improvements**

The field lighting will feature carefully designed and shielded LED lighting that maintains appropriate field level lighting while minimizing light spread, glare, and sky glow. This technology, as illustrated in the attached photometrics, is designed to be dark sky compliant and focuses the light on the facility and away from the adjoining streets. Musco Lighting has worked closely with Edgewood High School to design a facility that meets the minimum standards for game lighting while maintaining a safe environment. The photometrics, confirmed by Rettler Corporation’s engineers, included in this packet will form the standard for reviewing light performance on the site once installed.



Lighting for the field will be clustered onto (4) 80' Poles utilizing LED fixtures set at 30 foot candles (minimum level for high school football). The field lighting will be installed on 3 circuits with "punt lighting (not needed for non-football events), field lighting, and general seating area lighting having separate controls to stage lighting based on demand.

Team use of lighting will be restricted to practices (ending by 7:00 PM) and varsity team games. Lighting will not be used for JV games. Lighting use will also be moderated by the time of year and on-field light conditions with an anticipated use of 18-27 games per year.

Sunset:	September 1 <sup>st</sup>	7:32 PM
	October 1 <sup>st</sup>	6:38 PM
	November 1 <sup>st</sup>	5:49 PM
	April 1 <sup>st</sup>	7:23 PM
	May 1 <sup>st</sup>	7:58 PM
	June 1 <sup>st</sup>	8:30 PM

See Exhibit C for proposed lighting details and photometrics.

#### Proposed Lighting Conditions:

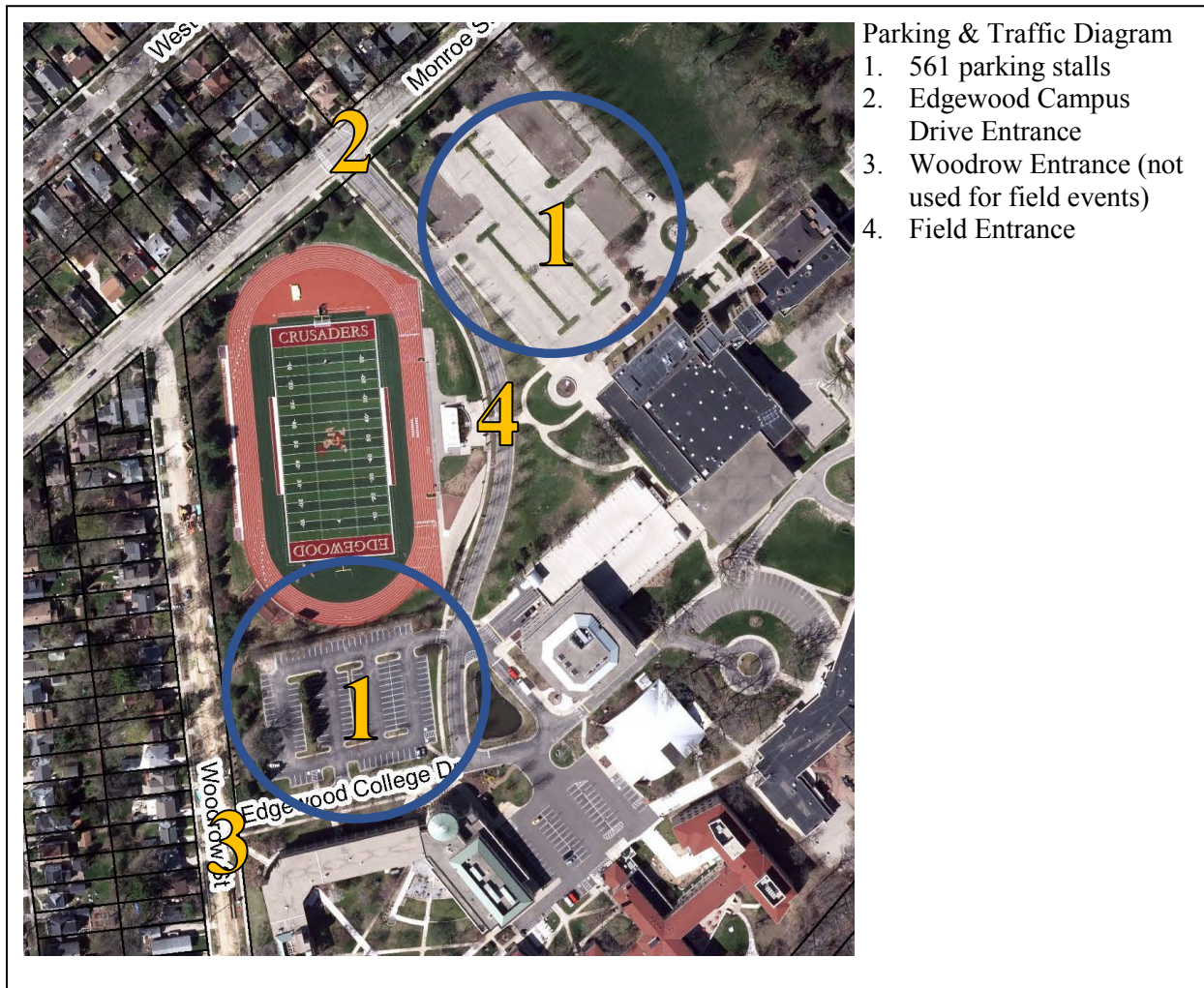
1. Lighting may be used for High School Athletics with up to 29 regular season varsity games and 11 varsity playoff games. Additional games may not be substituted for playoff games in the event that teams do not qualify for the post season.
2. Lighting may not be used for non-high school events.
3. Lighting for soccer, track, and lacrosse games may be utilized until 8:30 PM (24 regular season games, up to 8 playoff games).
4. Football games may utilize the lighting until 10:00 PM (5 regular season games, up to 3 playoff games).
5. Main field lighting will be turned off as soon as possible upon the completion of the game.
6. Site and seating lighting will be allowed to remain on until the stadium is cleared.
7. Lighting will be turned off once the complex is no longer in use, except for health and safety lighting.
8. Main field lights may be allowed to exceed the target turn off time for exceptional circumstances, such as overtime games weather delays, or health and safety delays.
9. Games will not be scheduled with a start time after 7:30 PM, unless weather delay conditions dictate.
10. Lighting may be allowed for practices until 7:00 PM.
11. "Punt lighting" will not be utilized during non-football events.
12. Lighting shall be used during high school sporting events only.

#### Traffic & Parking

The existing traffic and parking facilities (more than 561 on-site parking stalls in immediate proximity to the field) will accommodate the proposed amendments, as guided by the adopted Traffic Management Plan. The traffic management plan and operation of the campus has hosted events exceeding the capacity of the field with examples ranging from Graduation to College Events without issue. Initial conversations with the Traffic Engineering Department indicate that the shift in game start time later in the evening will benefit overall neighborhood traffic as it will avoid peak commuter traffic time on Monroe Street.

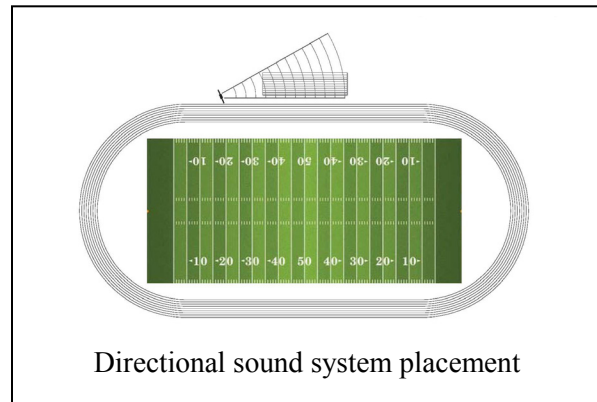
Edgewood has added the following conditions based on feedback from the neighborhood to help eliminate potential issues:

1. The Woodrow Street entrance will not be used for events in the complex.
2. Edgewood will distribute parking and circulation maps to all visiting schools stressing use of Edgewood College Drive for access and parking on-site.
3. The main entrance will feature a permanent large-scale parking & circulation map illustrating the location of on-site parking & access while discouraging parking within the neighborhood and detailing the parking restrictions on Monroe Street.
4. Parking attendants will be used on site to communicate and execute the parking & circulation plan, including posting signage along Monroe Street/Woodrow Street to direct traffic to Edgewood College Drive, and directing parking on-site.
5. The existing pedestrian entrance along Edgewood College Drive will be maintained as the only non-emergency point of access to the facility.



### Amplified Sound System

The amplified sound system for the facility will be an improvement over the current portable system utilized on the field. The proposed system is designed as a directional sound system placed adjacent to the seating and directed to the east, away from the closest neighbors and into the hill and adjoining campus. Amplified sound will not be directed onto the playing field. This placement and directional system will allow the sound to be focused onto the stands where desired with the attenuation resulting sound levels around 60 decibels at the adjoining streets.



Proposed amplified sound conditions:

1. Sound system will be utilized during games only (no practice use).
2. Music will not be allowed to be played through the PA system (excluding the national anthem and incidental pickup of music played by the pep band).
3. Sound levels will meet or exceed all applicable City of Madison Standards.

### Additional General Conditions & Commitments:

1. Lighting may only be used for high school sports. All non-high school events will occur during daytime hours.
2. Facility will not be rented out for events that require lighting.
3. Facility will not be used for concerts.
4. Additional landscape screening will be added to the Woodrow Street side of the track to further enhance the existing mature landscape.

## Exhibits:

Exhibit A:	Legal Description Property Data
Exhibit B:	Submittal Notification Letter
Exhibit C:	Lighting Details & Specifications

## Photo & Graphic Credits:

Page 3:	Edgewood High School
Page 4 Top	Mentzer, Martinelli/Edgewood High School
Middle	Mentzer, Martinelli/Edgewood High School
Lower	Grosenheider
Page 9:	Grosenheider
Page 10:	Grosenheider
Page 11:	Grosenheider
Page 12:	Grosenheider
Page 13:	Rettler Corporation
Page 14:	Madson
Page 15:	Musco Lighting

All other photos sourced by Vandewalle & Associates

Exhibit A:

Legal Description

Edgewood Condominium, Unit 1 as declared and recorded in Dane County Register of Deeds as Document #4790400.

Property Data

Address: 2219 Monroe Street  
Parcel Size: 19.97 acres  
PIN Number: 0709-272-0101-5

**Exhibit B: Submittal Notification Letter**

**From:** Elliott, Michael <michael.elliott@edgewoodhs.org>  
**Sent:** Wednesday, August 15, 2018 11:58 AM  
**To:** Anne Palzkill; Susan VanderSanden; Michael Guns; Scott Flanagan; Jon standridge; Douglas Poland; Samip Kothari; DMNA President; Daryl Sherman; Thomas Huber; Tucker, Matthew; Parks, Timothy; Allen Arntsen; Brian Munson; Margaret Watson  
**Subject:** Master Plan Amendment

Edgewood High School will be requesting an amendment to the Adopted Master Plan to allow for improvements to the Goodman Athletic Complex, including expanded seating, storage, restrooms, amplified sound, and lighting. This request will follow the adopted modification process per the master plan and will be presented at a neighborhood meeting and public hearings. We anticipate beginning the formal review process in October with review before the Plan Commission and Common Council later this year or early 2019. We will contact the neighborhood associations with further details on the timing of the submittal, neighborhood meeting, and exact review dates prior to submitting.

We look forward to discussing the proposal with the neighborhood.

Michael Elliott  
President  
Edgewood High School of the Sacred Heart  
2219 Monroe St. Madison, WI 53711  
(608) 257-1023 x 103  
[edgewoodhs.org](http://edgewoodhs.org) | [facebook.com/EdgewoodHS](https://facebook.com/EdgewoodHS)



# Edgewood High School Of Sacred Heart SO

Madison, WI

From Hometown to Professional

## Lighting System

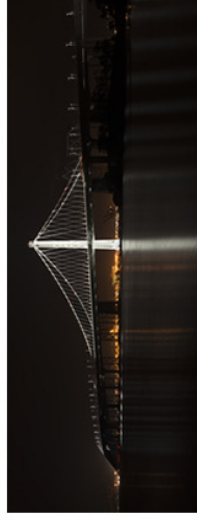
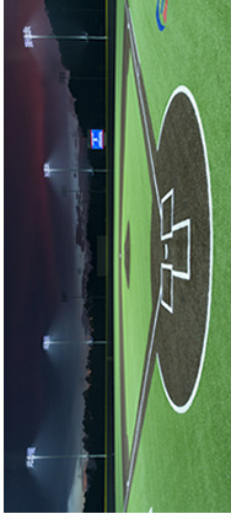
Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F2	80'	15'	2	TLC-BT-575	1.15 kW	A
		80'	8	TLC-LED-1150	9.20 kW	A
		50'	1	TLC-LED-1150	1.15 kW	A
F3-F4	80'	15'	2	TLC-BT-575	1.15 kW	A
		80'	8	TLC-LED-1150	9.20 kW	A
<b>4</b>			<b>42</b>		<b>43.70 kW</b>	

Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	43.7 kW	42

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	8
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>81,000	>81,000	>81,000	34

## Light Level Summary

Calculation Grid Summary									
Grid Name	Calculation Metric	Illumination			Circuits	Fixture Qty			
		Ave	Min	Max					
Blanket Grid	Horizontal	6.25	0	47	A	42			
Bleachers	Horizontal	14.2	11	20	A	42			
Football	Horizontal Illuminance	32	26	45	A	42			
Soccer	Horizontal Illuminance	32.6	26	46	A	42			
Track	Horizontal Illuminance	8.76	1	18	A	42			
				29.34	8.76	42			

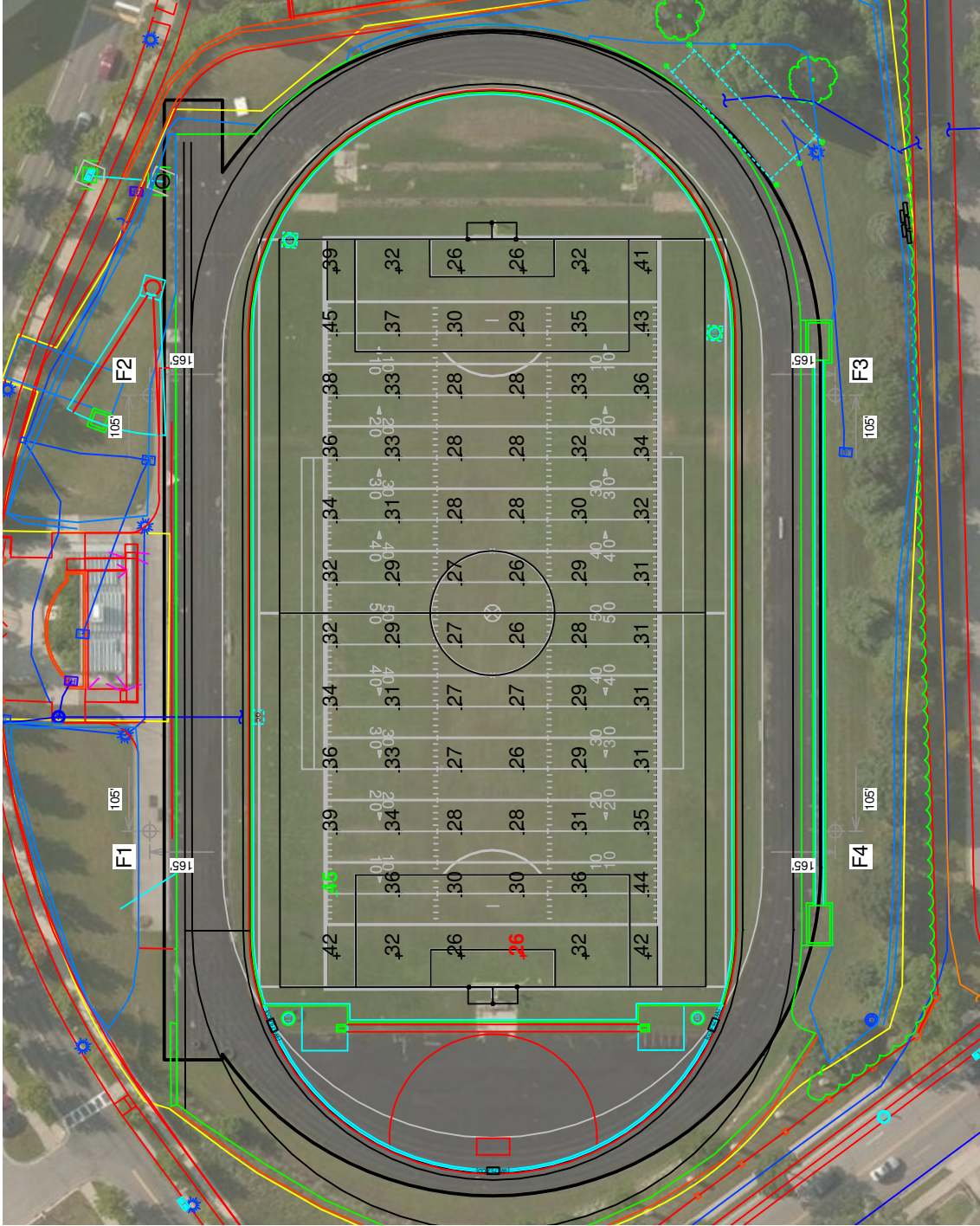


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EQUIPMENT LIST FOR AREAS SHOWN

QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			THIS GRID	OTHER GRIDS
	LOCATION	SIZE			LUMINAIRE TYPE	QTY/ POLE			
2	F1-F2	80'	-	15'	TLC-BT-575	2	2	0	
2	F3-F4	80'	-	80'	TLC-LED-1150	8	8	0	
4	TOTALS				TLC-BT-575	42	42	0	
					TLC-LED-1150	8	8	0	



SCALE IN FEET 1 : 80



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

GRID SUMMARY

Name: **Football**  
Size: 360' x 160'  
Spacing: 30.0' x 30.0'  
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid

Guaranteed Average: **30**

Scan Average: 32.01

Maximum: 45

Minimum: 26

Avg / Min: 1.25

Guaranteed Max / Min: **2.5**

Max / Min: 1.75

UG (adjacent pts): 1.31

CU: 0.46

No. of Points: 72

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI

Luminaire Output: 52,000 / 121,000 lumens

No. of Luminaires: **42**

Total Load: 43.7 kW

Lumen Maintenance

Luminaire Type L90 hrs L80 hrs L70 hrs

TLC-BT-575 >81,000 >81,000 >81,000

TLC-LED-1150 >81,000 >81,000 >81,000

Reported per TM-21-11. See luminaire datasheet for details.

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%

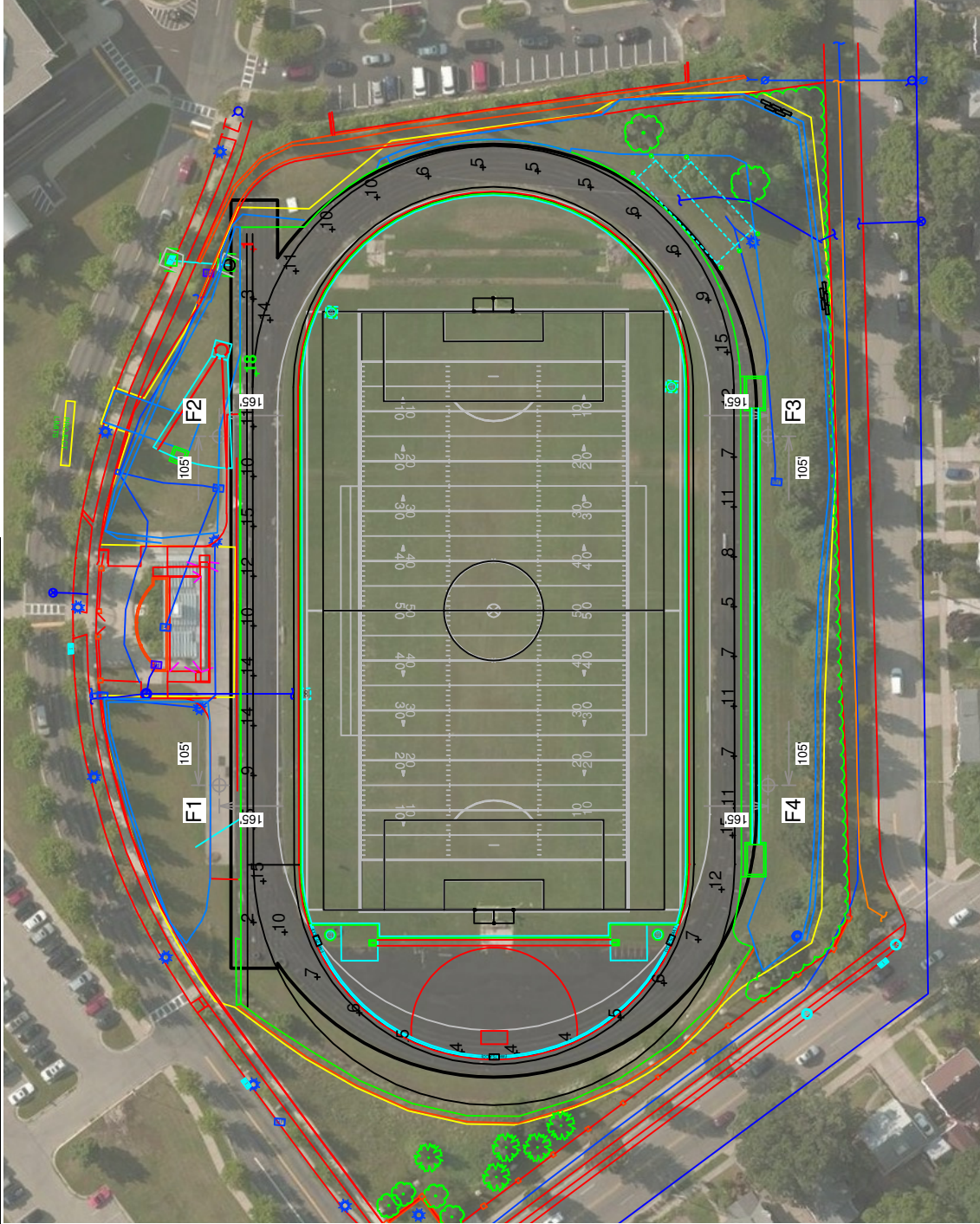
nominal voltage at line side of the driver and structures

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

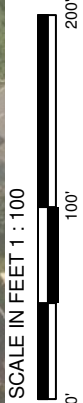


EQUIPMENT LIST FOR AREAS SHOWN

QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
	LOCATION	SIZE			LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15'	TLC-BT-575	2	2	0
				50'	TLC-LED-1150	1	1	0
2	F3-F4	80'	-	80'	TLC-LED-1150	8	8	0
				15'	TLC-BT-575	2	2	0
				80'	TLC-LED-1150	8	8	0
4	TOTALS					42	42	0



Pole location(s) with a crosshair symbol are relative to 0,0 reference point(s) with a circle and crosshair symbol.



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GRID SUMMARY

<b>Name:</b>	Track
<b>Size:</b>	Irregular
<b>Spacing:</b>	30.0' x 30.0'
<b>Height:</b>	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
<b>Scan Average:</b>	8.76
Maximum:	18
Minimum:	1
Avg / Min:	14.47
<b>Max / Min:</b>	29.34
UG (adjacent pts):	0.00
CU:	0.08
No. of Points:	47

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	52,000 / 121,000 lumens
<b>No. of Luminaires:</b>	<b>42</b>
Total Load:	43.7 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-1150	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

**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.



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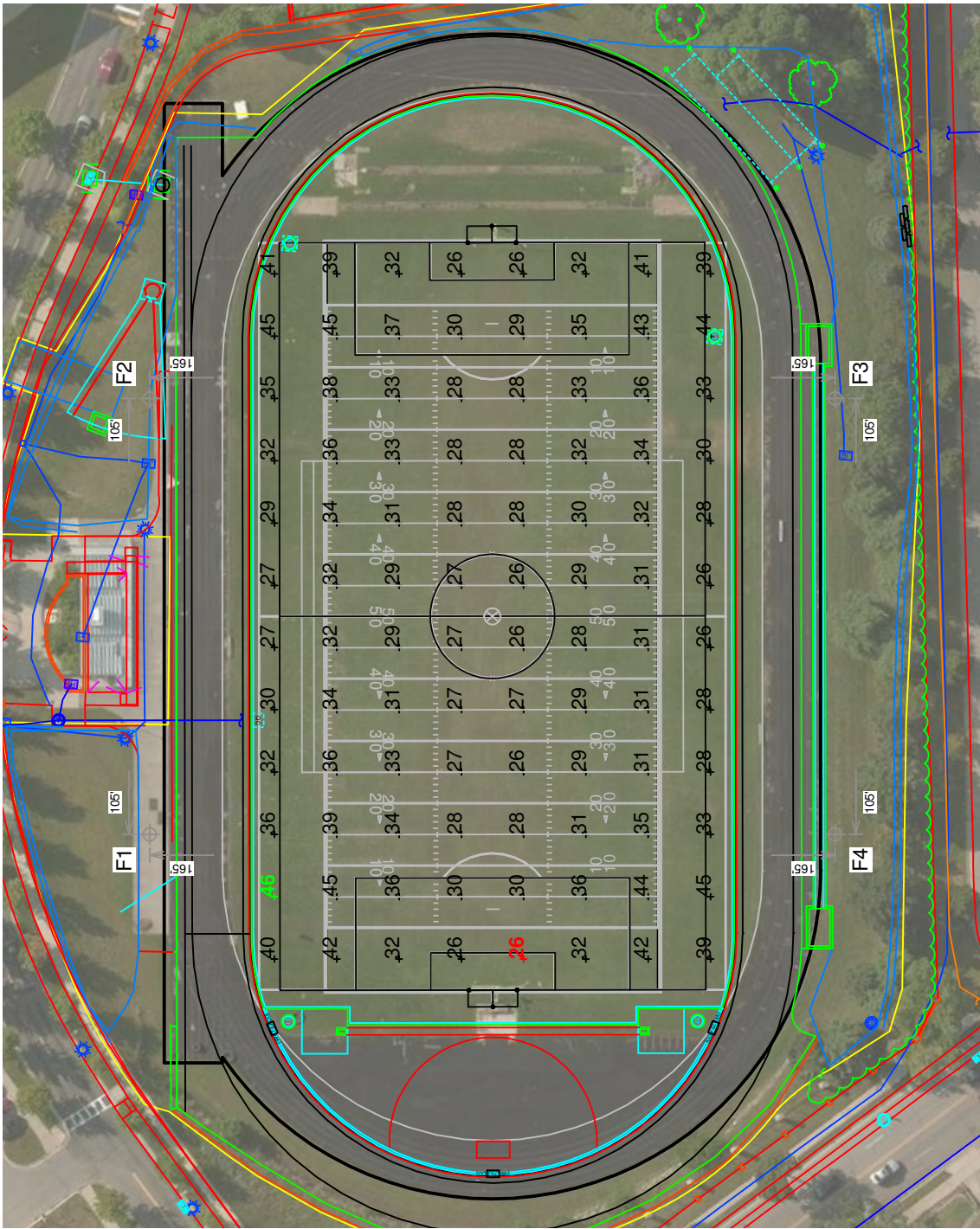
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ILLUMINATION SUMMARY

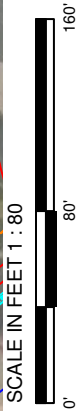
**Edgewood High School Of Sacred Heart SO  
Madison, WI**

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			OTHER GRIDS
	LOCATION	SIZE			LUMINAIRE TYPE	QTY/ POLE	THIS GRID	
2	F1-F2	80'	-	15'	TLC-BT-575	2	2	0
				50'	TLC-LED-1150	1	1	0
2	F3-F4	80'	-	80'	TLC-LED-1150	8	8	0
				15'	TLC-BT-575	2	2	0
				80'	TLC-LED-1150	8	8	0
4	TOTALS					42	42	0



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



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**GRID SUMMARY**

**Name:** Soccer  
**Size:** 360' x 225'  
**Spacing:** 30.0' x 30.0'  
**Height:** 3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid

**Guaranteed Average:** 30  
 Scan Average: 32.55  
 Maximum: 46  
 Minimum: 26  
**Guaranteed Max / Min:** 2.5  
 Avg / Min: 1.27  
 Max / Min: 1.81  
 UG (adjacent pts): 1.38  
 CU: 0.63  
 No. of Points: 96

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 52,000 / 121,000 lumens  
**No. of Luminaires: 42**  
 Total Load: 43.7 kW

Luminaire Type	Lumen Maintenance	
	L90 hrs	L70 hrs
TLC-BT-575	>81,000	>81,000
TLC-LED-1150	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

**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.



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**ILLUMINATION SUMMARY**

**Edgewood High School Of Sacred Heart SO  
Madison, WI**

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			
	LOCATION	SIZE			LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15'	TLC-BT-575	2	2	0
2	F3-F4	80'	-	80'	TLC-LED-1150	8	8	0
4	TOTALS					42	42	0

**GRID SUMMARY**

**Name:** Bleachers  
**Size:** 360' x 225'  
**Spacing:** 10.0' x 10.0'  
**Height:** 3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid  
**Scan Average:** 14.18  
 Maximum: 20  
 Minimum: 11  
 No. of Points: 24

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 52,000 / 121,000 lumens  
**No. of Luminaires:** 42  
 Total Load: 43.7 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-1150	>81,000	>81,000	>81,000

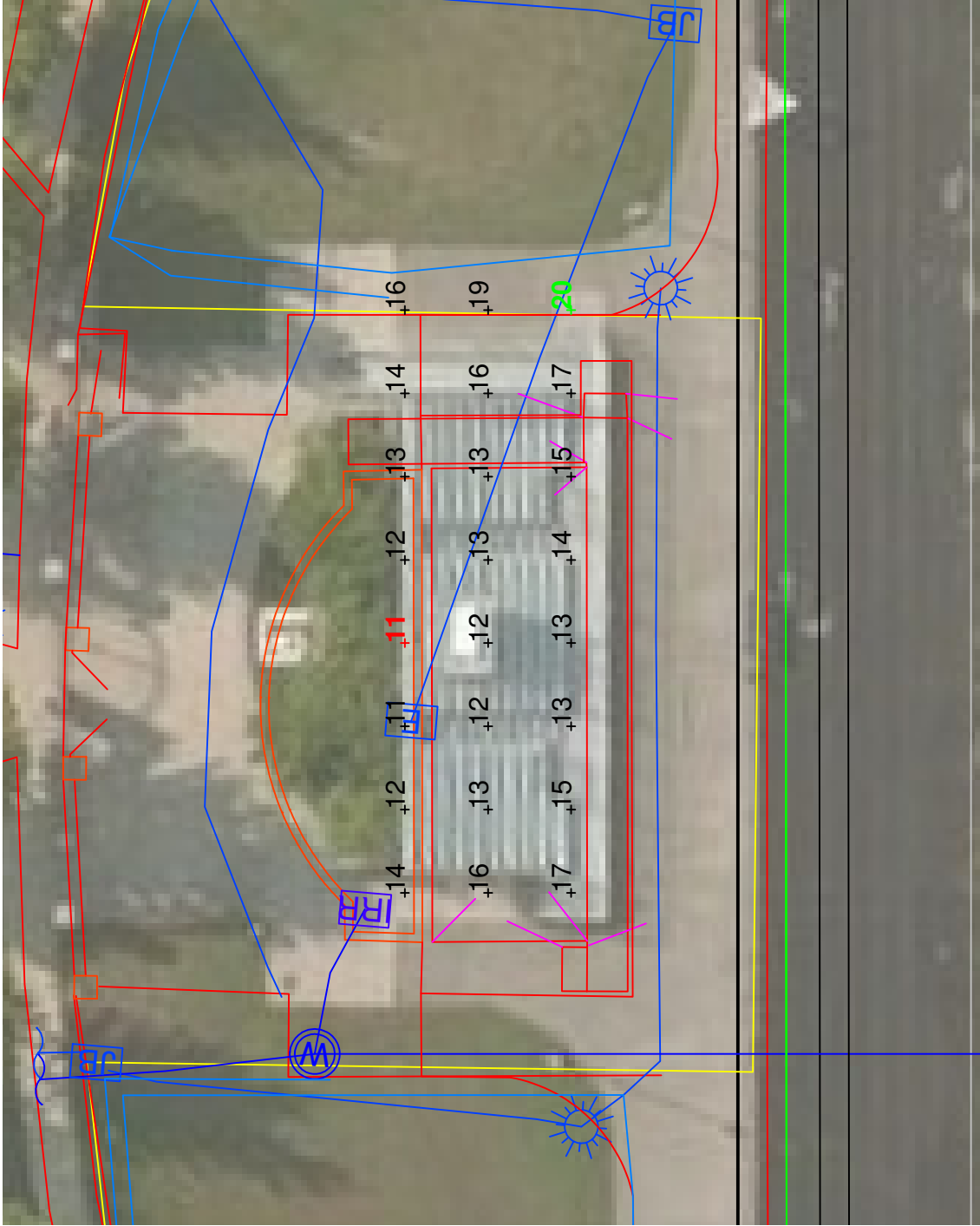
Reported per TM-21-11. See luminaire datasheet for details.

**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) ⊗



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**ILLUMINATION SUMMARY**

**Edgewood High School Of Sacred Heart SO  
Madison, WI**

**EQUIPMENT LIST FOR AREAS SHOWN**

QTY	Pole		GRADE ELEVATION	MOUNTING HEIGHT	Luminaires			OTHER GRIDS	
	LOCATION	SIZE			LUMINAIRE TYPE	QTY/POLE	THIS GRID		
2	F1-F2	80'	-	15'	TLC-BT-575	2	2	0	
				50'	TLC-LED-1150	1	1	0	
				80'	TLC-LED-1150	8	8	0	
2	F3-F4	80'	-	15'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1150	8	8	0	
4	TOTALS							42	42

**GRID SUMMARY**

Name: **Blanket Grid**  
 Size: 360' x 225'  
 Spacing: 30.0' x 30.0'  
 Height: 3.0' above grade

**ILLUMINATION SUMMARY**

MAINTAINED HORIZONTAL FOOTCANDLES

Entire Grid  
**Scan Average: 6.25**  
 Maximum: 47  
 Minimum: 0  
 No. of Points: 713

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI  
 Luminaire Output: 52,000 / 121,000 lumens  
**No. of Luminaires: 42**  
 Total Load: 43.7 kW

Luminaire Type	L90 hrs	L80 hrs	L70 hrs	Lumen Maintenance
TLC-BT-575	>81,000	>81,000	>81,000	>81,000
TLC-LED-1150	>81,000	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

**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.

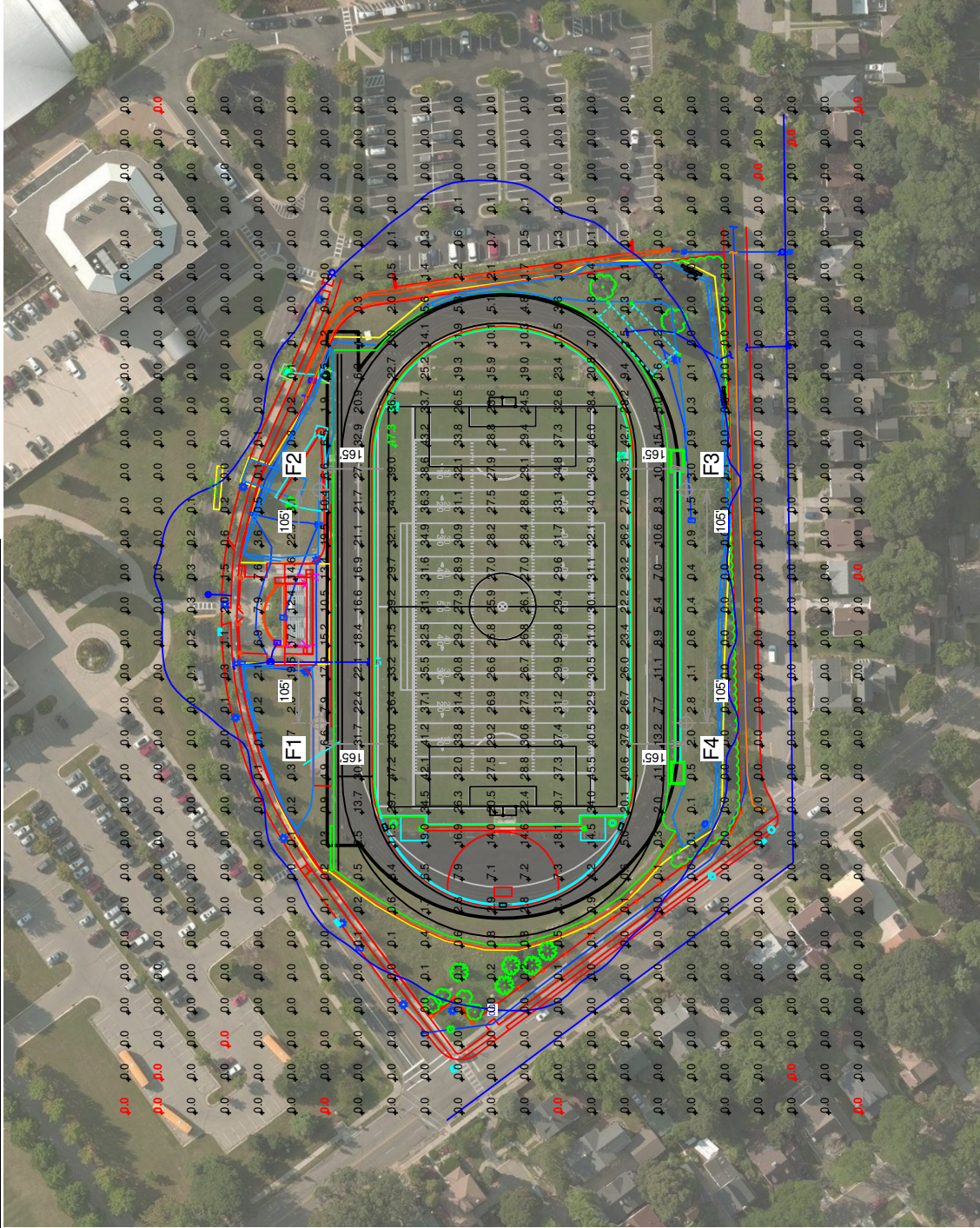
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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**ILLUMINATION SUMMARY**



SCALE IN FEET 1 : 150



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**EQUIPMENT LAYOUT**

**INCLUDES:**

- Football
- Soccer
- Track

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

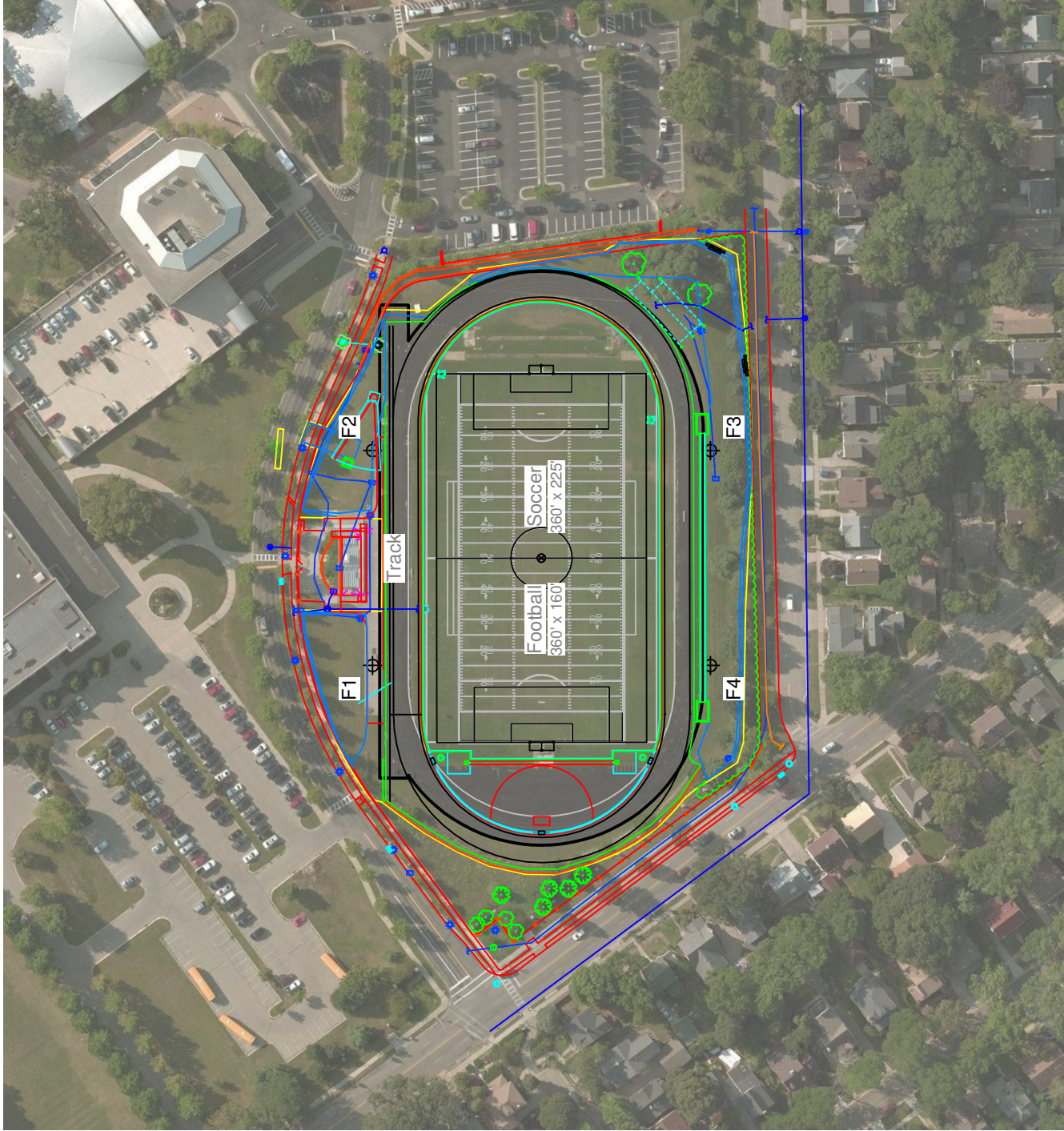
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

**EQUIPMENT LIST FOR AREAS SHOWN**

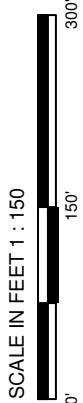
QTY	LOCATION	POLE SIZE	GRADE ELEVATION	MOUNTING HEIGHT	Luminaires	
					LUMINAIRE TYPE	QTY/POLE
2	F1-F2	80'	-	15'	TLC-BT-575	2
				50'	TLC-LED-1150	1
				80'	TLC-LED-1150	8
2	F3-F4	80'	-	15'	TLC-BT-575	2
				80'	TLC-LED-1150	8
<b>TOTALS</b>						<b>42</b>

**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)
Single Phase Voltage	3.2	3.0	2.8	2.4	1.9	1.7
TLC-BT-575	6.8	6.5	5.9	5.1	4.1	3.7
TLC-LED-1150						3.0



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



SCALE IN FEET 1 : 150



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**GLARE IMPACT**

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

**GLARE**

Candela Levels

**High Glare: 150,000 or more candela**

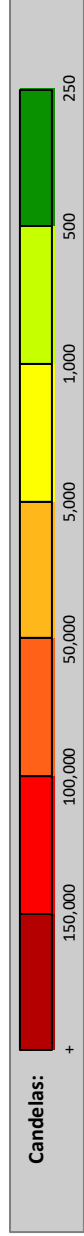
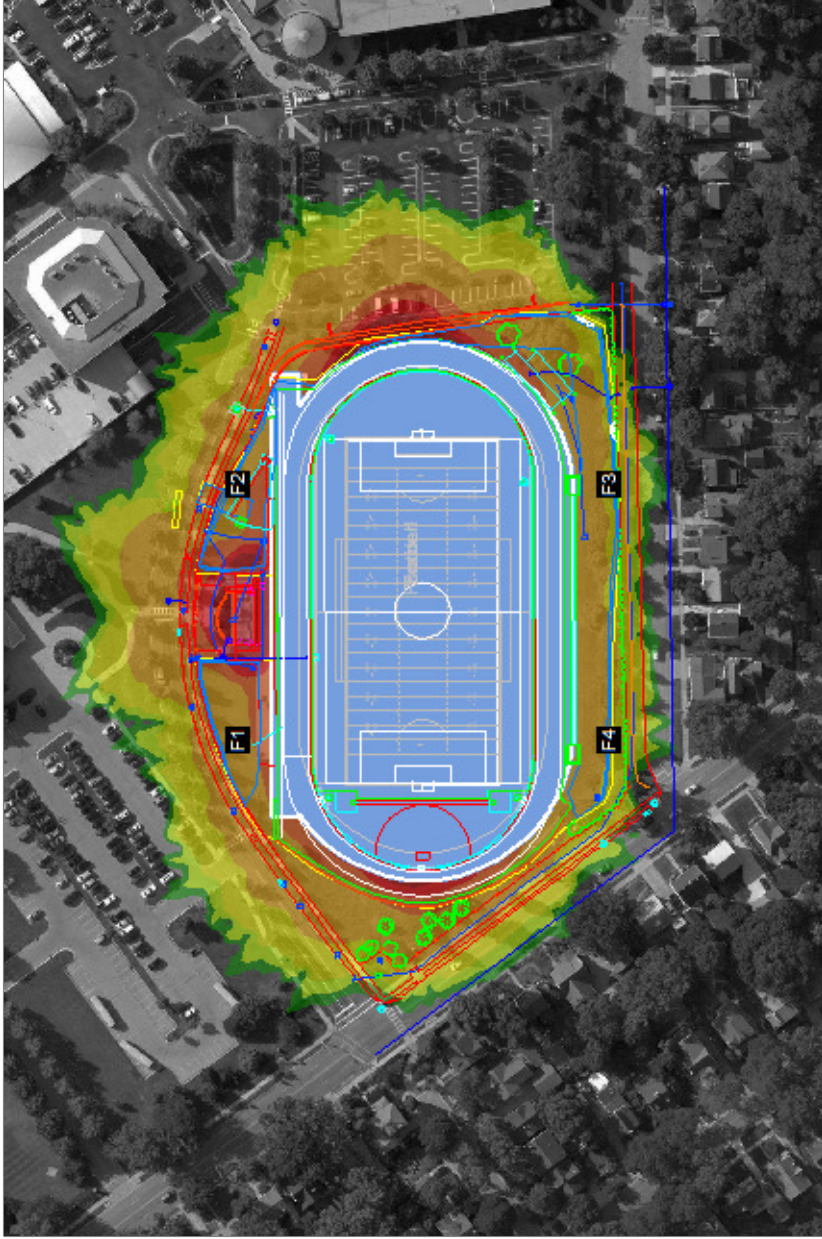
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

**Significant Glare: 25,000 to 75,000 candela**

Equivalent to high beam headlights of a car.

**Minimal to No Glare: 500 or less candela**

Equivalent to 100W incandescent light bulb.



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