

**ADDENDUM
NO. 02**

March 19, 2026

**Bronson Community Schools - JR/SR High School Track, Field, and Parking
Lot Improvements
450 E. Grant St.
Bronson, MI, 49028**

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated February 27, 2026, by TowerPinkster, and Driesenga & Associates, Inc. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 2-1 through ADD 2-1, and TowerPinkster Addendum No. 02 dated March 18 , 2026, consisting of 5 pages, along with Substitution Request.

A. Refer to the attached Request For Information summary, Pre-Bid RFI No. 01 through 9 are included.

ADDENDUM NO. 2

DATE OF ISSUANCE:	March 18, 2026
PROJECT:	JR/SR High School Track & Field Improvements 450 E. Grant St Bronson, MI 49028
OWNER:	Bronson Community School
ARCHITECT'S PROJECT NO.:	19-207.010
ORIGINAL BID ISSUE DATE:	February 27, 2026

SCOPE OF WORK

This Addendum includes changes to, or clarifications of, the original Bidding Documents and any previously issued addenda, and shall be included in the Bid. All of these Addendum items form a part of the Contract Documents. The Bidder shall acknowledge receipt of this Addendum in the appropriate space provided on the Bid Form. Failure to do so may result in disqualification of the Bid.

DOCUMENTS INCLUDED IN THIS ADDENDUM

This Addendum includes **2** pages of text and the following documents:

- Bidding Documents: **None.**
- Contract Conditions: **None.**
- Specification Sections: **None.**
- Drawings: **L 102, L 103, L 104.**

CHANGES TO PREVIOUSLY ISSUED ADDENDA

None.

CHANGES TO BIDDING REQUIREMENTS

None.

CHANGES TO CONTRACT CONDITIONS

None.

CHANGES TO SPECIFICATIONS

None.

CHANGES TO DRAWINGS

ADD-1 Item No. D-1 - Keynote/Legend Clarifications

Revise Keynotes to point to the correct details on the correct sheets on L 102 and L 103. There is no sheet L 105.

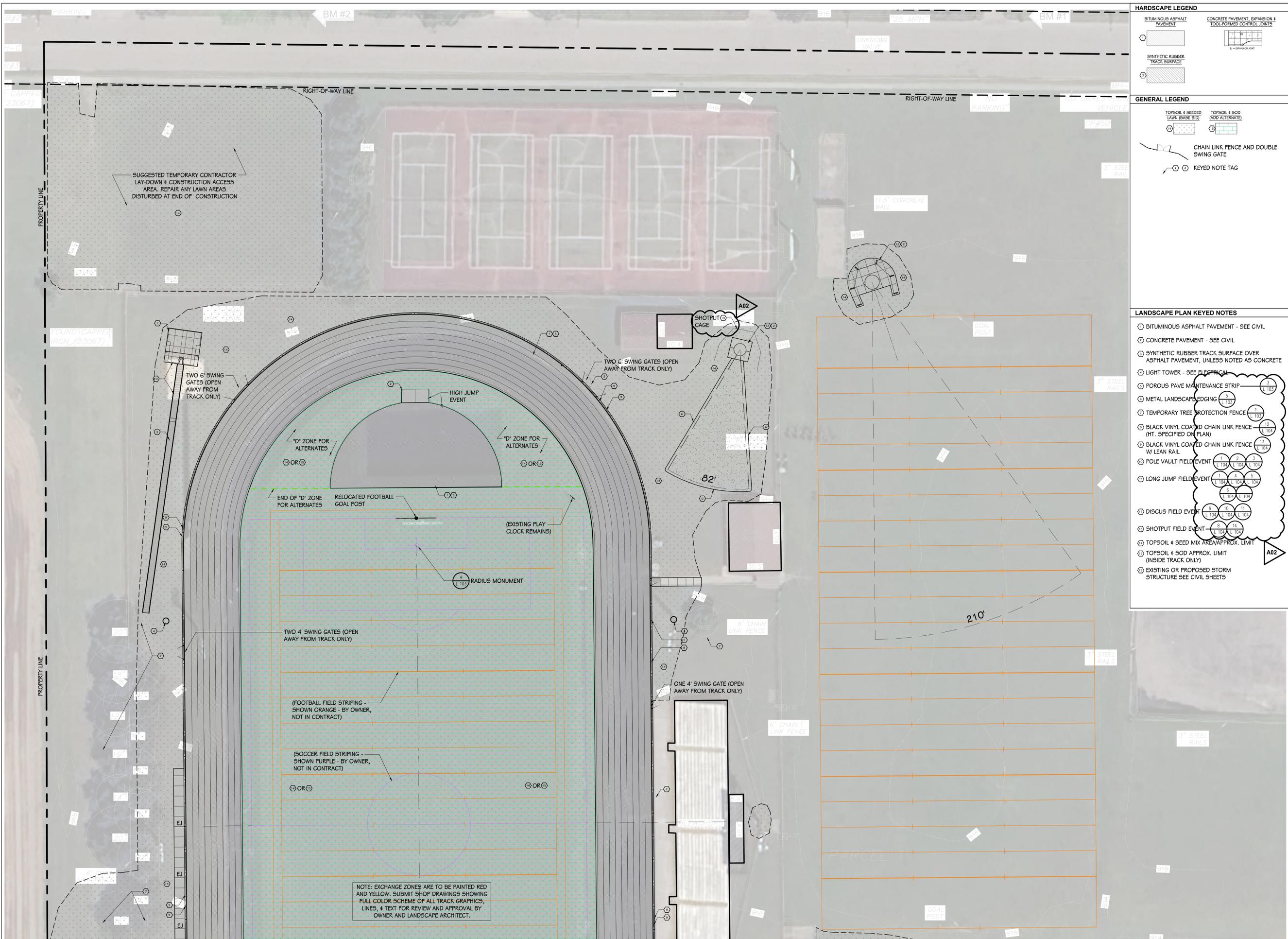
ADD-1 Item No. D-2 - Site Detail additions

Added two details: Aluminum Edging, and Shotput Cage to sheets L 103 and L 104, respectively.

ADD-1 Item No. D-3 - Site Detail additions

Added missing callout to Shotput cage on L 102 that pairs with the new detail on Sheet L 104.

END OF ADDENDUM.



HARDSCAPE LEGEND

BITUMINOUS ASPHALT PAVEMENT	CONCRETE PAVEMENT, EXPANSION & TOOL-FORMED CONTROL JOINTS
SYNTHETIC RUBBER TRACK SURFACE	

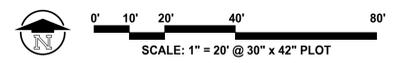
GENERAL LEGEND

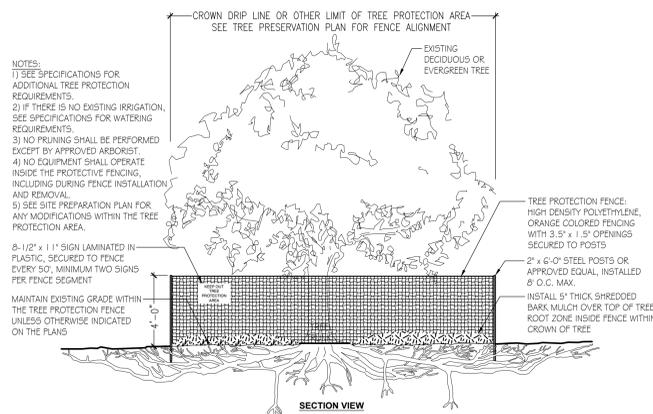
TOPSOIL & SEED MIX (BASE BID)	TOPSOIL & SOD (ADD ALTERNATE)
CHAIN LINK FENCE AND DOUBLE SWING GATE	KEYED NOTE TAG

- LANDSCAPE PLAN KEYED NOTES**
- ① BITUMINOUS ASPHALT PAVEMENT - SEE CIVIL
 - ② CONCRETE PAVEMENT - SEE CIVIL
 - ③ SYNTHETIC RUBBER TRACK SURFACE OVER ASPHALT PAVEMENT, UNLESS NOTED AS CONCRETE
 - ④ LIGHT TOWER - SEE ELECTRICAL
 - ⑤ POROUS PAVE MAINTENANCE STRIP
 - ⑥ METAL LANDSCAPE EDGING
 - ⑦ TEMPORARY TREE PROTECTION FENCE
 - ⑧ BLACK VINYL COATED CHAIN LINK FENCE (HT. SPECIFIED ON PLAN)
 - ⑨ BLACK VINYL COATED CHAIN LINK FENCE W/ LEAN RAIL
 - ⑩ POLE VAULT FIELD EVENT
 - ⑪ LONG JUMP FIELD EVENT
 - ⑫ DISCUS FIELD EVENT
 - ⑬ SHOTPUT FIELD EVENT
 - ⑭ TOPSOIL & SEED MIX AREA/APPROX. LIMIT
 - ⑮ TOPSOIL & SOD APPROX. LIMIT (INSIDE TRACK ONLY)
 - ⑯ EXISTING OR PROPOSED STORM STRUCTURE SEE CIVIL SHEETS

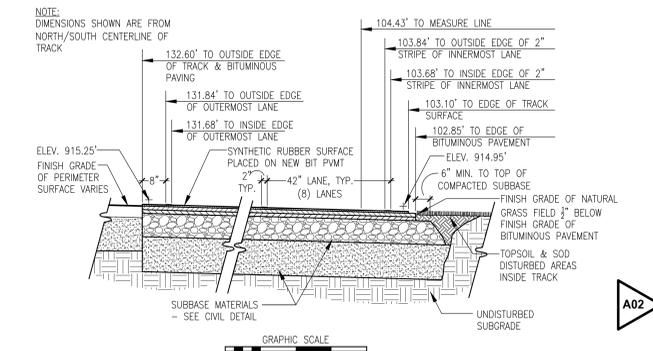
NOTE: EXCHANGE ZONES ARE TO BE PAINTED RED AND YELLOW. SUBMIT SHOP DRAWINGS SHOWING FULL-COLOR SCHEME OF ALL TRACK GRAPHICS, LINES, & TEXT FOR REVIEW AND APPROVAL BY OWNER AND LANDSCAPE ARCHITECT.

MATCHLINE - SEE SHEET L 103

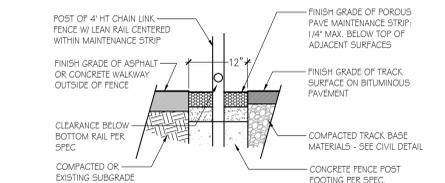




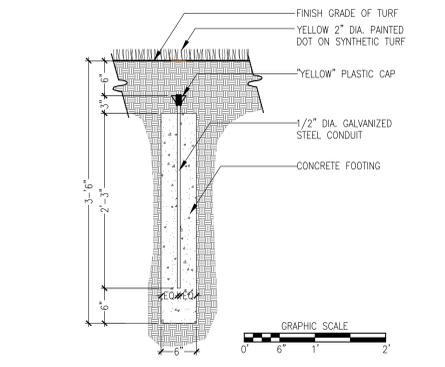
1 TREE PROTECTION FENCE
SCALE: NONE
L 103



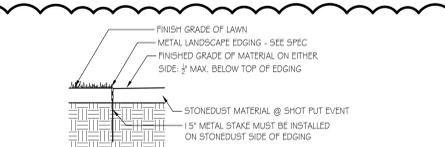
2 TRACK SECTION + LANE DIMENSIONS
SCALE: 1" = 2'
L 103



3 POROUS PAVE MAINTENANCE STRIP
SCALE: NONE
L 103



4 RADIUS MONUMENT
SCALE: 1" = 1'-0"
L 103



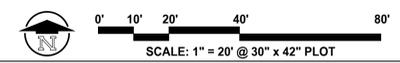
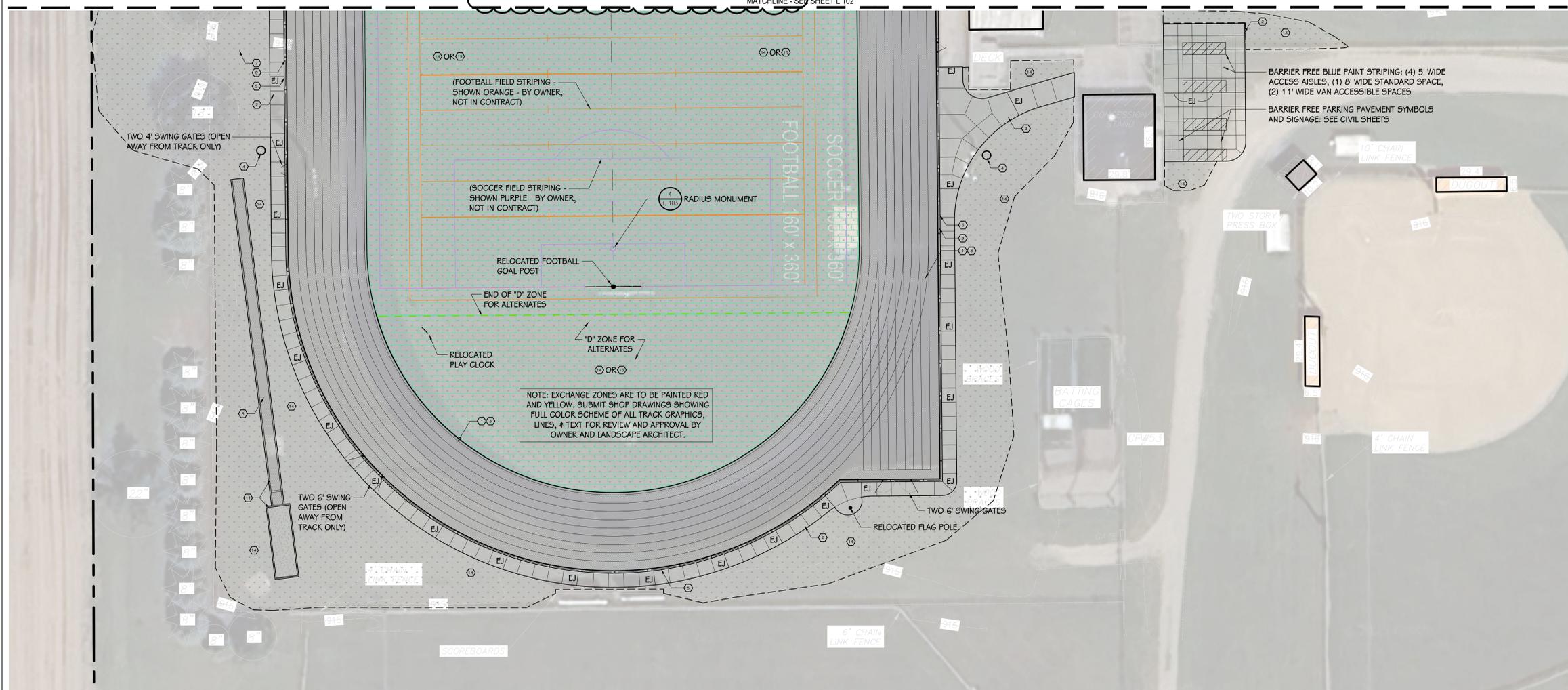
5 ALUMINUM LANDSCAPE EDGING
SCALE: NONE
L 103

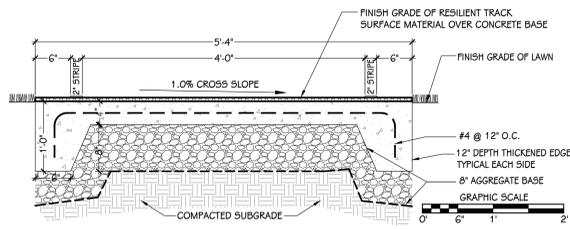
HARDSCAPE LEGEND

GENERAL LEGEND

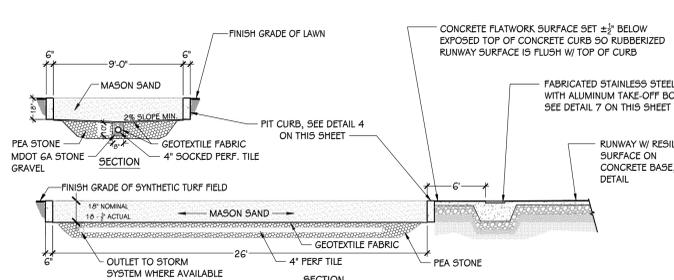
LANDSCAPE PLAN KEYED NOTES

- ① BITUMINOUS ASPHALT PAVEMENT - SEE CIVIL
- ② CONCRETE PAVEMENT - SEE CIVIL
- ③ SYNTHETIC RUBBER TRACK SURFACE OVER ASPHALT PAVEMENT, UNLESS NOTED AS CONCRETE
- ④ LIGHT TOWER - SEE ELECTRICAL
- ⑤ POROUS PAVE MAINTENANCE STRIP
- ⑥ METAL LANDSCAPE EDGING
- ⑦ TEMPORARY TREE PROTECTION FENCE
- ⑧ BLACK VINYL COATED CHAIN LINK FENCE (HT. SPECIFIED ON PLAN)
- ⑨ BLACK VINYL COATED CHAIN LINK FENCE W/ LEAN RAIL
- ⑩ POLE VAULT FIELD EVENT
- ⑪ LONG JUMP FIELD EVENT
- ⑫ DISCUS FIELD EVENT
- ⑬ SHOTPUT FIELD EVENT
- ⑭ TOPSOIL & SEED MIX AREA/APPROX. LIMIT (INSIDE TRACK ONLY)
- ⑮ EXISTING OR PROPOSED STORM STRUCTURE SEE CIVIL SHEETS

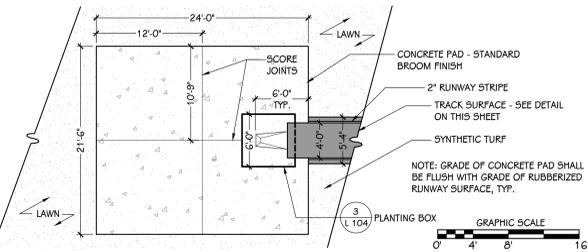




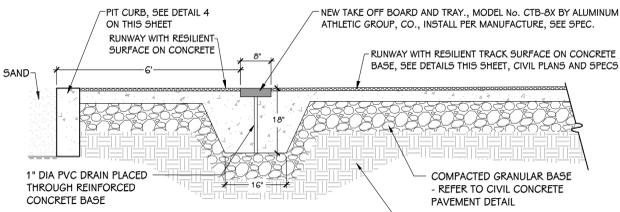
1 POLE VAULT + LONG JUMP RUNWAY
SCALE: 1" = 1'-0"



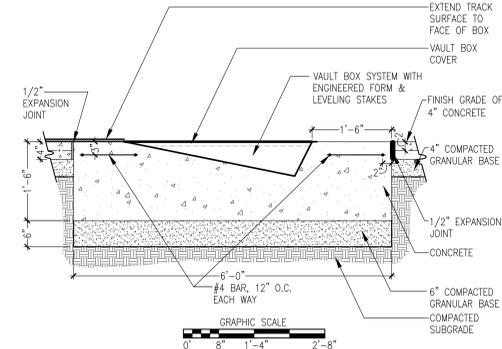
6 LONG JUMP LANDING PIT SECTIONS
NOT TO SCALE



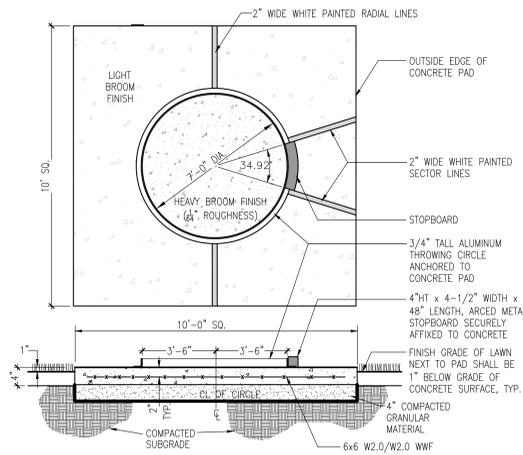
2 POLE VAULT - PIT LANDING AREA
SCALE: 1/8" = 1'-0"



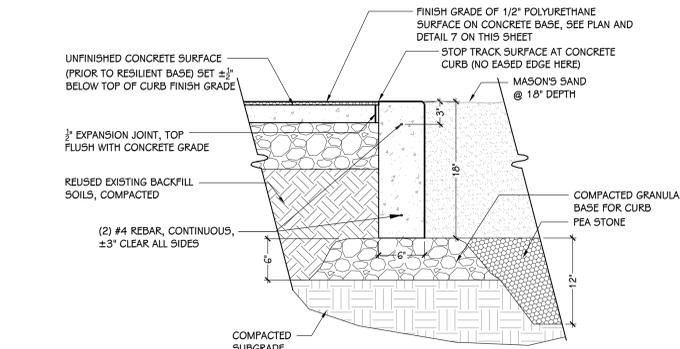
7 LONG JUMP TAKE OFF BOARD
NOT TO SCALE



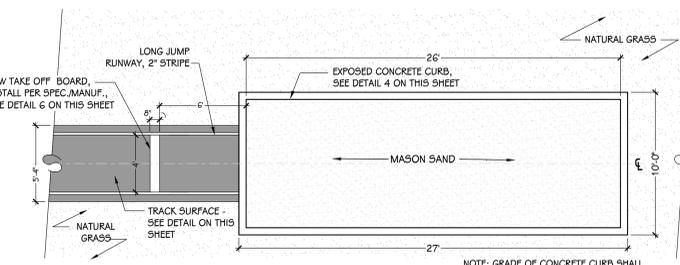
3 POLE VAULT - PLANTING BOX SECTION
SCALE: 3/4" = 1'-0"



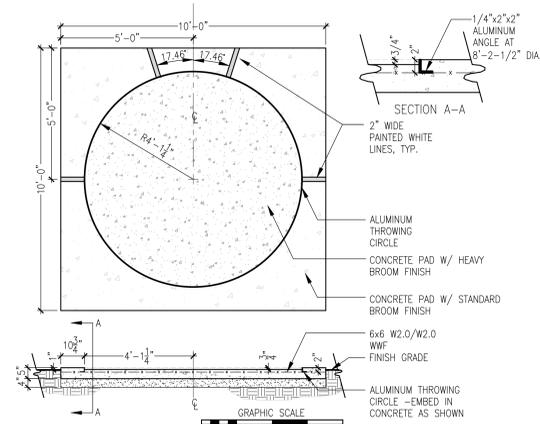
8 SHOT PUT DETAIL
NOT TO SCALE



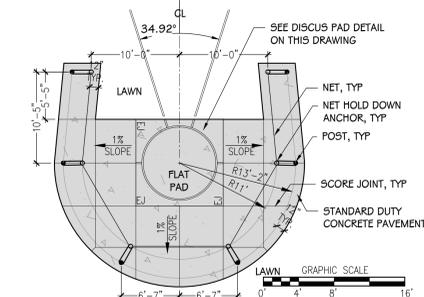
4 LONG JUMP PIT CURB
NOT TO SCALE



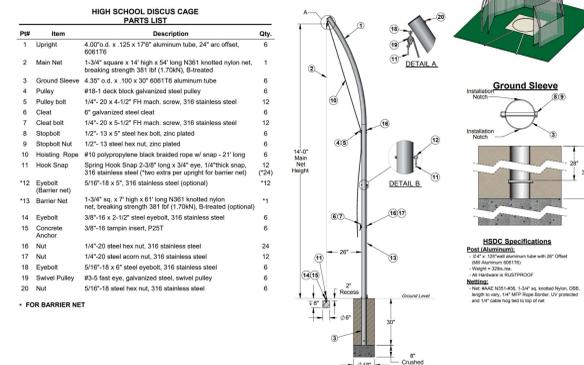
5 LONG JUMP LANDING PIT DETAIL
NOT TO SCALE



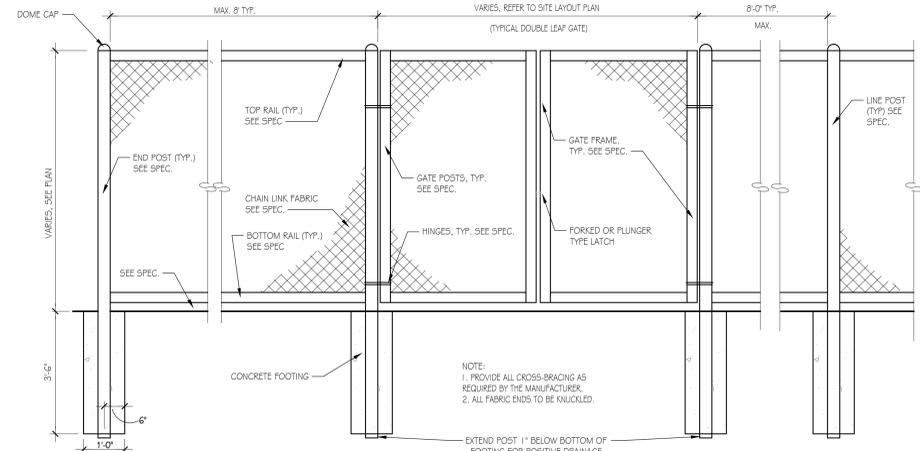
9 DISCUS PAD DETAIL
SCALE: 1/8" = 1'-0"



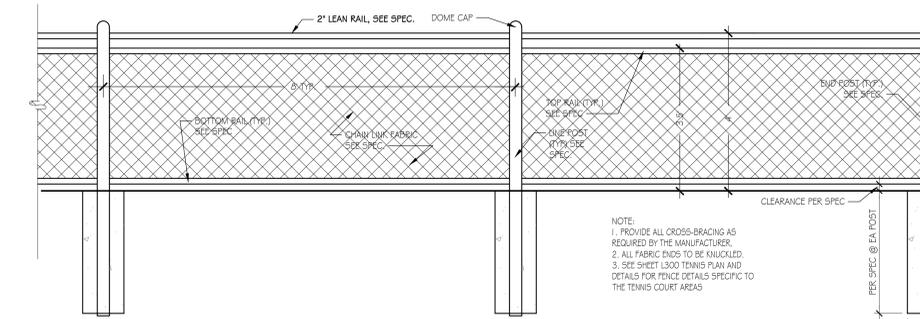
10 DISCUS CAGE + CONCRETE
SCALE: 1/8" = 1'-0"



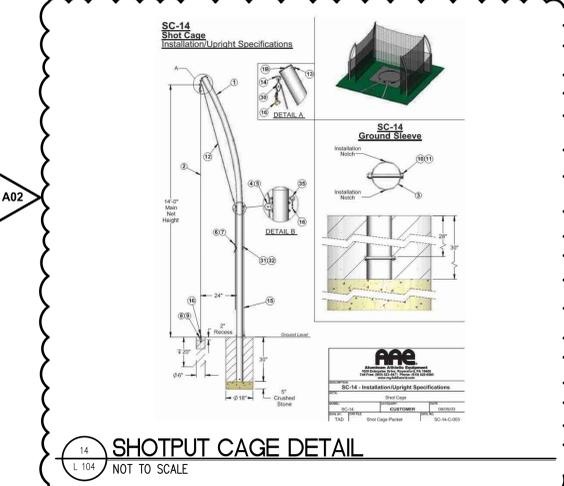
11 DISCUS CAGE DETAIL
NOT TO SCALE



12 CHAIN LINK FENCE DETAIL
SCALE: NONE



13 CHAIN LINK FENCE W/ LEAN RAIL
SCALE: NONE



14 SHOTPUT CAGE DETAIL
NOT TO SCALE

Bronson Community Schools Jr / Sr High School Athletic and Parking Lot Project - Pre-Bid RFI Log

Date - 3/17/2026



DRISENGA & ASSOCIATES, INC.
Architecture · Engineering · Interiors

TowerPinkster



RFI #	Company Submitting RFI	Date Received	RFI Description	RFI Response
1	The Skillman Company	3/6/2026	<p>Bid Category 00 - Construction Manager</p> <p>On the NW corner of the site there is a note on sheet C302 that states "MODIFY EXIST FENCE AS NEEDED FOR CONSTRUCTION ENTRANCE, AND RESTORE FENCE PRIOR TO CONSTRUCTION COMPLETION" The hatching on the note key references " Vehicle Tracking Control" The symbol SCA is not noted in the legend. Please advise the intent of this note.</p>	<p>Answer by: TP-Civil (Mark Rocheleau) - SCA refers to stabilized construction entrance, and is interchangeable with Vehicle Tracking Control nomenclature. This correlates with the SCA detail on sheet C304.</p>
2	The Skillman Company	3/6/2026	<p>Bid Category 00 - Construction Manager</p> <p>Discus location notes "Alternative" Discus Pad on sheet C300. Is this note relevant, should it be removed? This is the sole discus location, this may be a remenant from a previous drawing?</p>	<p>Answer by: TP-Civil (Mark Rocheleau) - Contractor can disregard the word "alternative". Please refer to landscape plan L102 for installation information.</p>
3	The Skillman Company	3/6/2026	<p>Bid Category 00 - Construction Manager</p> <p>What specification is to be referenced in the note on 6/C303 for the Steel Pipe? Should this be reworded to "STL PIPE SHALL BE PAINTED AS DIRECTED BY OWNER UNLESS OTHERWISE NOTED"?</p>	<p>Answer by: TP-Civil (Mark Rocheleau) - Contractor suggested rewording is acceptable. If Owner has no preference, then bollard shall be painted yellow.</p>
4	HSC Pavement	3/12/2026	<p>Bid Category 05 - Track Surfacing</p> <p>Please provide the distance between the radius points</p>	<p>Answer by: Craig Newhouse: 328.083 feet (100 meters).</p>
5	HSC Pavement	3/12/2026	<p>Bid Category 05 - Track Surfacing</p> <p>Is the finished surface black? If so, could SBR rubber be used on the finishing layers? SBR is cheaper and requires less lead time to obtain the product.</p>	<p>Answer by: Craig Newhouse: Yes, finish surface is black. Although EPDM granules are specified for the top layers of the track rubber surface, bidder may submit a comparison - adhering to requirements in Spec Section 32 1823.89.2.1.A.3 - that includes bid price difference.</p>
6	Excell Paving	3/13/2026	<p>Bid Category 02 - Asphalt Paving</p> <p>I don't see a detail for what is to be placed when the track shifts to the west for the grass to be planted in, how thick, what material is acceptable under the topsoil. Are we reusing material from on site or is new screened topsoil needed?</p>	<p>Answer by: Craig Newhouse: Please read Spec Section 32 9200; both answers are in there.</p>
7	Excell Paving	3/13/2026	<p>Bid Category 02 - Asphalt Paving</p> <p>Does the entire existing sod on field get striped or only where needed?</p>	<p>Answer by: Craig Newhouse: Assuming 'striped' means 'stripped', then yes, the entire existing football field gets fully regraded.</p>

REQUIRED SUBMITTAL INFORMATION FOR ALL MANUFACTURERS (NOT PRE-APPROVED) 10 DAYS PRIOR TO BID

All items listed below are mandatory, shall comply with the specification and be submitted according to pre-bid submittal requirements. Complete the Yes/No column to indicate compliance (Y) or noncompliance (N) for each item. Submit checklist below with submittal.

Yes/No	Tab	Item	Description
YES	A	Letter/ Checklist	Listing of all information being submitted must be included on the table of contents. List the name of the manufacturer's local representative and his/her phone number. Signed submittal checklist to be included.
YES	B	Equipment Lay-out	Drawing(s) showing field layouts with pole locations
YES	C	On Field Lighting Design	Lighting design drawing(s) showing: <ul style="list-style-type: none"> a. Field Name, date, file number, prepared by b. Outline of field(s) being lighted, as well as pole locations referenced to the center of the field (x & y), Illuminance levels at grid spacing specified c. Pole height, number of fixtures per pole, horizontal and vertical aiming angles, as well as luminaire information including wattage, lumens and optics d. Height of light test meter above field surface. e. Summary table showing the number and spacing of grid points; average, minimum and maximum illuminance levels in foot candles (fc); uniformity including maximum to minimum ratio, coefficient of variance (CV), coefficient of utilization (CU) uniformity gradient; number of luminaires, total kilowatts, average tilt factor; light loss factor.
YES	D	Off Field Lighting Design	Lighting design drawing showing initial spill light levels along the boundary line (defined on bid drawings) in footcandles. Lighting design showing glare along the boundary line in candela. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights.
YES	E	Photometric Report	Provide first page of photometric report for all luminaire types being proposed showing candela tabulations as defined by IESNA Publication LM-35-02. Photometric data shall be certified by laboratory with current National Voluntary Laboratory Accreditation Program or an independent testing facility with over 5 years experience.
YES	F	Performance Guarantee	Provide performance guarantee including a written commitment to undertake all corrections required to meet the performance requirements noted in these specifications at no expense to the owner. Light levels must be guaranteed to not fall below target levels for warranty period.
YES	G	Structural Calculations	Pole structural calculations and foundation design showing foundation shape, depth backfill requirements, rebar and anchor bolts (if required). Pole base reaction forces shall be shown on the foundation drawing along with soil bearing pressures. Design must be stamped by a structural engineer in the state of Michigan, if required by owner. (May be supplied upon award).
YES	H	Control & Monitoring System	Manufacturer of the control and monitoring system shall provide written definition and schematics for automated control system. They will also provide ten (10) references of customers currently using proposed system in the state of Michigan.
YES	I	Electrical Distribution Plans	Manufacturer bidding an alternate product must include a revised electrical distribution plan including changes to service entrance, panels and wire sizing, signed by a licensed Electrical Engineer in the state of Michigan.
YES	J	Warranty	Provide written warranty information including all terms and conditions. Provide ten (10) references of customers currently under specified warranty in the state of Michigan.

YES	K	Project Refer-ences	Manufacturer to provide a list of ten (10) projects where the technology and specific fixture proposed for this project has been installed in the state of Michigan. Reference list will include project name, project city, installation date, and if requested, contact name and contact phone number.
YES	L	Product Infor-mation	Complete bill of material and current brochures/cut sheets for all products being provided.
YES	M	Delivery	Manufacturer shall supply an expected delivery timeframe from receipt of approved submittals and complete order information.
NO	N	Non-Compliance	Manufacturer shall list all items that do not comply with the specifications. If in full compliance, tab may be omitted.
YES	O	Cost of Owner-ship	Document cost of ownership as defined in the specification. Identify energy costs for operating the luminaires. Maintenance cost for the system must be included. All costs should be based on 25 Years

The information supplied herein shall be used for the purpose of complying with the specifications for Bronson High School Football. By signing below, I agree that all requirements of the specifications have been met and that the manufacturer will be responsible for any future costs incurred to bring their equipment into compliance for all items not meeting specifications and not listed in the Non-Compliance section.

Manufacturer: Qualite Sports Lighting

Signature: *Renny Coe*

Contact Name: Renny Coe

Date: 3 / 11 / 2026

Contractor: Qualite Sports Lighting

Signature: *Renny Coe*

1.1

END OF SECTION 26 5668

- Substitution is acceptable for bidding**
- Foot candles appear to be slightly lower than basis of design**
- System input power appear slightly higher than basis of design.**
- Warranty and control appear to be are equal**

Owner has final decision on installed system given the final bidding costs and total system cost of ownership.

Ryan Schumitz

17-Mar-2026

Qualite

SPORTS LIGHTING, LLC

March 11, 2026

PRE-BID SUBMITTAL BCS Junior Senior High School Track and Field

Bronson, Michigan

QL 23680

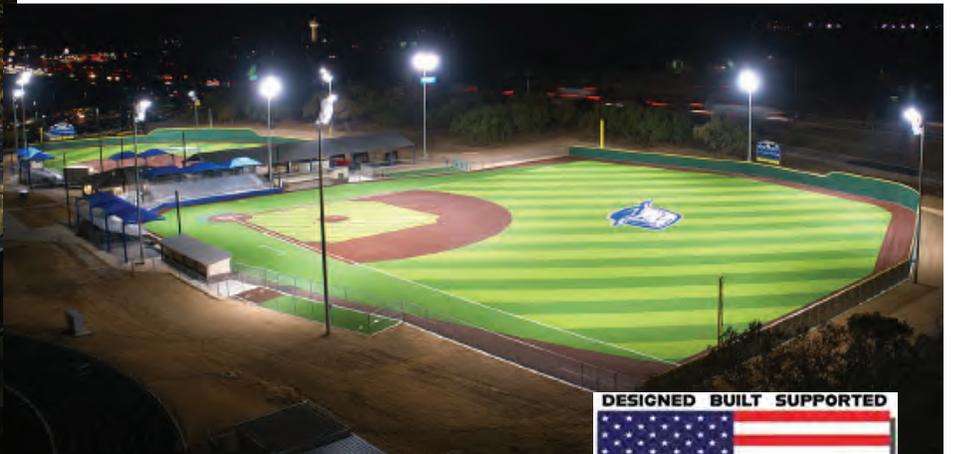
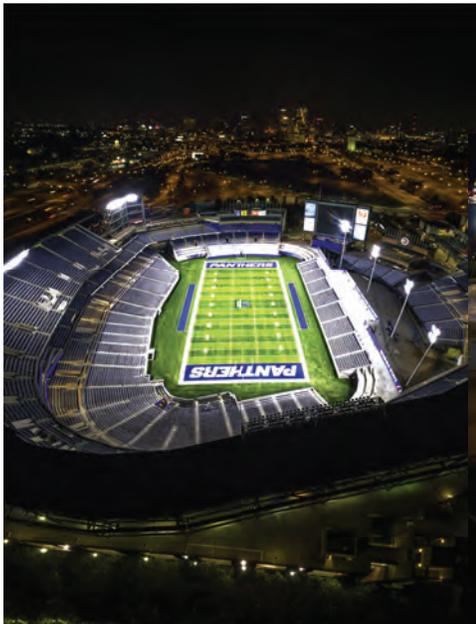




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School Track and Field
Bronson, Michigan
QL 23680**

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Project References	<u>I</u>
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A

Letter | Checklist



March 10, 2026

To Whom It May Concern:

We are pleased to offer our information towards being approved as an equal manufacturer for the BCS Junior/Senior High School Track and Field project. Qualite Sports Lighting will manufacture and produce the materials for this project per the specification.

- 1.) Our warranty is the best in the business. We are the only company which provides a standard, all-inclusive, 25-year warranty.
- 2.) Qualite is a 40-year-old Sports Lighting company.
- 3.) Your new Qualite GameChanger System will include remote mounted driver cabinet, which includes as standard:

- a.) Slide in/out drivers
- b.) Incoming power scrubber
- c.) Surge protection
- d.) Fusing
- e.) Circuit breakers
- f.) Pole Disconnect

4.) Your new control system will be wireless remote. Once the project is installed, we will get your people access to the app which we will provide. We will then set up a training session for its use. It is very easy to work with. You will have the ability to add or subtract users whenever you would like.

5.) Your wireless controls will allow you to:

- a.) Instant on/off
- b.) Scheduling lights on/off
- c.) If wanted, control each pole individually
- d.) Dim lights from 10% to 100%

6.) Once a commitment is made with Qualite, we will prepare submittal package and make sure all questions are answered. Once you sign off on the package, we will schedule the install.

Thank you and please do not hesitate to contact us with any questions or comments. We look forward to being approved as an equal lighting supplier for the BCS Junior/Senior High School Track and Field project.

A handwritten signature in black ink that reads "Renny Coe". The signature is written in a cursive, flowing style.

Renny Coe

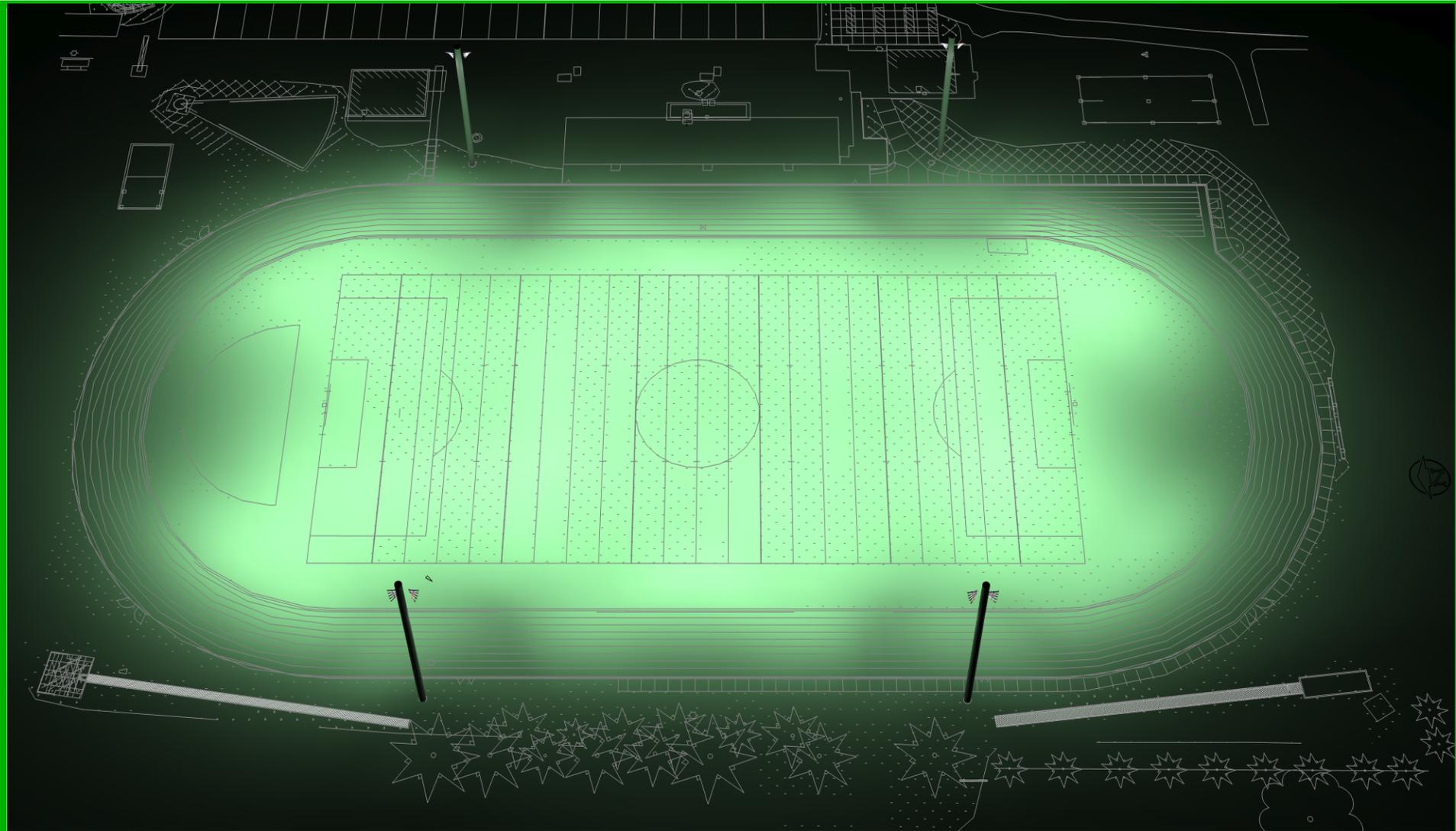
Northeast Sales Manager

Qualite Sports Lighting, LLC.

517.914.6225 | rcoe@qualite.com

B

Equipment Layout | On and Off Field Lighting and Environmental Light Control Designs



THIS DESIGN WAS DONE IN ACCORDANCE WITH ILLUMINATING SOCIETY OF NORTH AMERICA STANDARDS

THIS INFORMATION IS CONFIDENTIAL AND PROPRIETARY TO QUALITE SPORTS LIGHTING LLC AND IS NOT TO BE REVEALED OR DISTRIBUTED TO OTHERS WITHOUT THE PERMISSION OF QUALITE SPORTS LIGHTING LLC. OR USED IN ANY MANNER DETRIMENTAL TO THE INTEREST OF QUALITE SPORTS LIGHTING LLC.

GUARANTEE IS BASED ON PROPER INSTALLATION, MINIMUM INPUT VOLTAGES, MOUNTING HEIGHT +/- 3 FEET, AND POLES PLACED WITHIN 4 FEET OF SPECIFIED LOCATIONS. POLES TO COMPLY WITH CURRENT AASHTO STANDARDS.

Qualite
SPORTS LIGHTING, LLC
WWW.QUALITE.COM

JOB NAME: **Bronson HS Athletic Field Lighting**

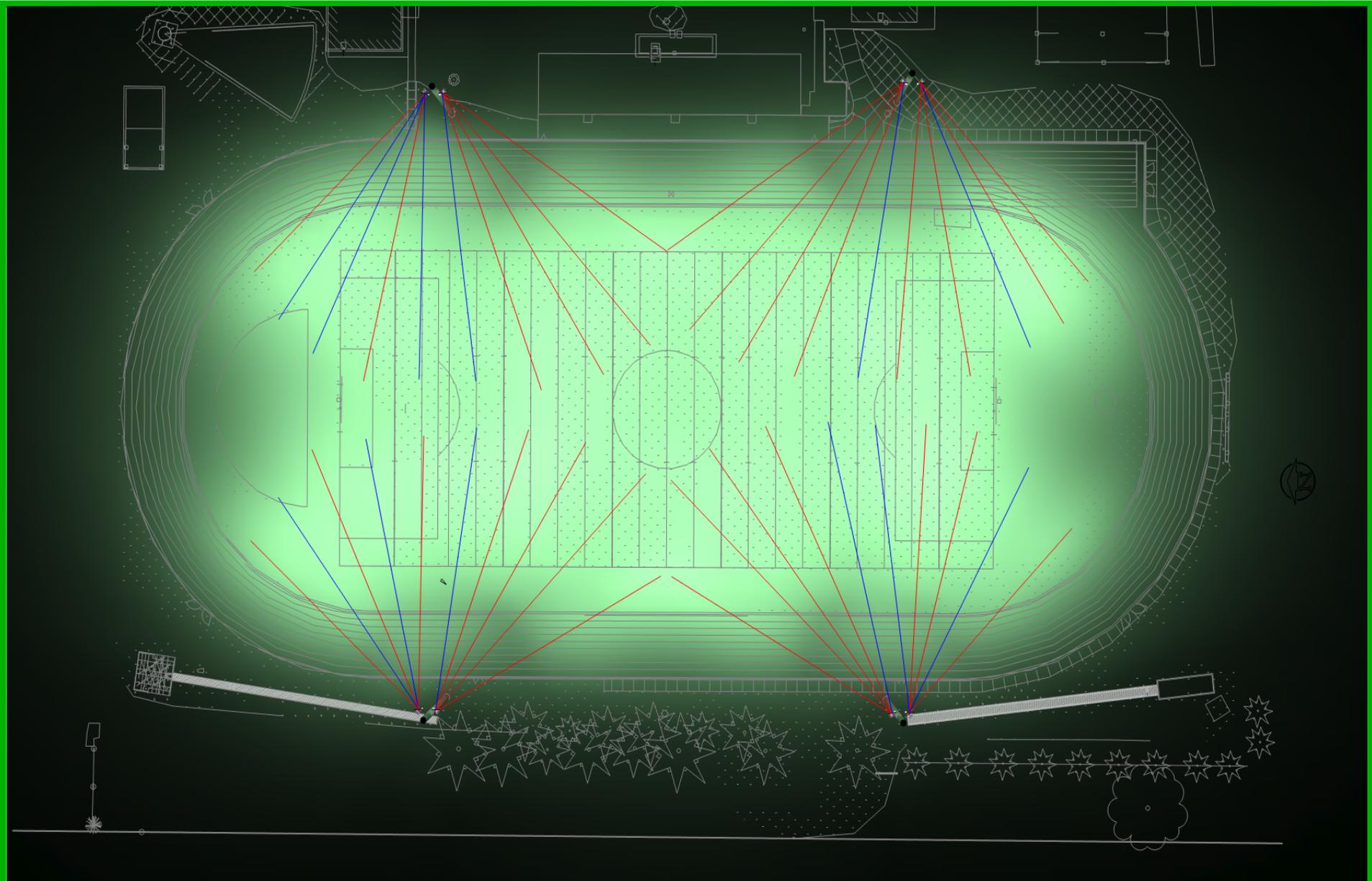
LOCATION: **Bronson, MI**

REF# QL-23680

REV: D1-A

DESIGNER: PDR

DATE: 3/11/2026



THIS DESIGN WAS DONE IN ACCORDANCE WITH ILLUMINATING SOCIETY OF NORTH AMERICA STANDARDS

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GUARANTEE IS BASED ON PROPER INSTALLATION, MINIMUM INPUT VOLTAGES, MOUNTING HEIGHT +/- 3 FEET, AND POLES PLACED WITHIN 4 FEET OF SPECIFIED LOCATIONS. POLES TO COMPLY WITH CURRENT AASHTO STANDARDS.

Qualite
SPORTS LIGHTING, LLC
WWW.QUALITE.COM

JOB NAME: **Bronson HS Athletic Field Lighting**

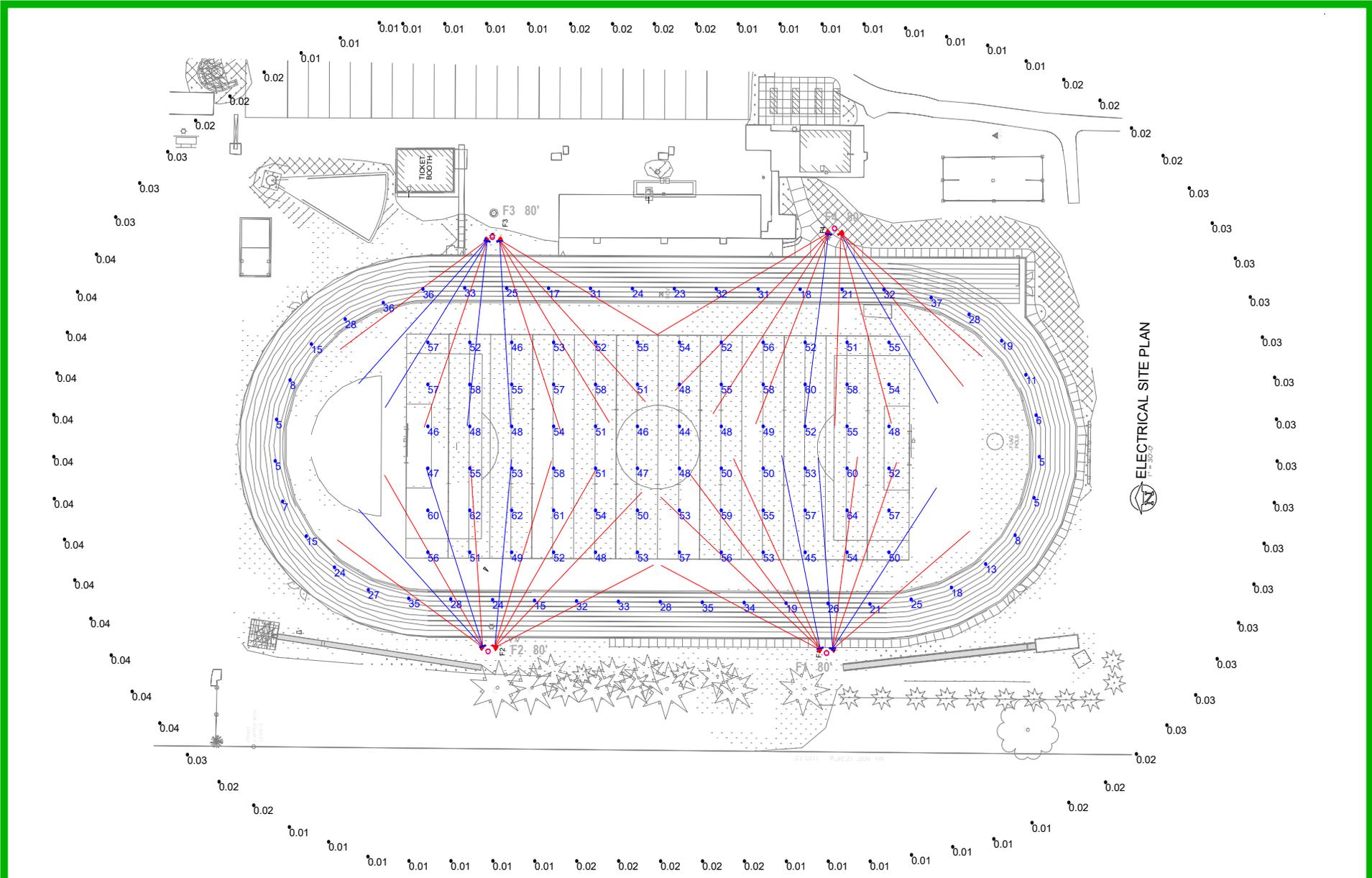
LOCATION: **Bronson, MI**

REF# QL-23680

REV: D1-A

DESIGNER: PDR

DATE: 3/11/2026



ELECTRICAL SITE PLAN

THIS DESIGN WAS DONE IN ACCORDANCE WITH ILLUMINATING SOCIETY OF NORTH AMERICA STANDARDS

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Qualite
SPORTS LIGHTING, LLC
WWW.QUALITE.COM

JOB NAME: **Bronson HS Athletic Field Lighting**

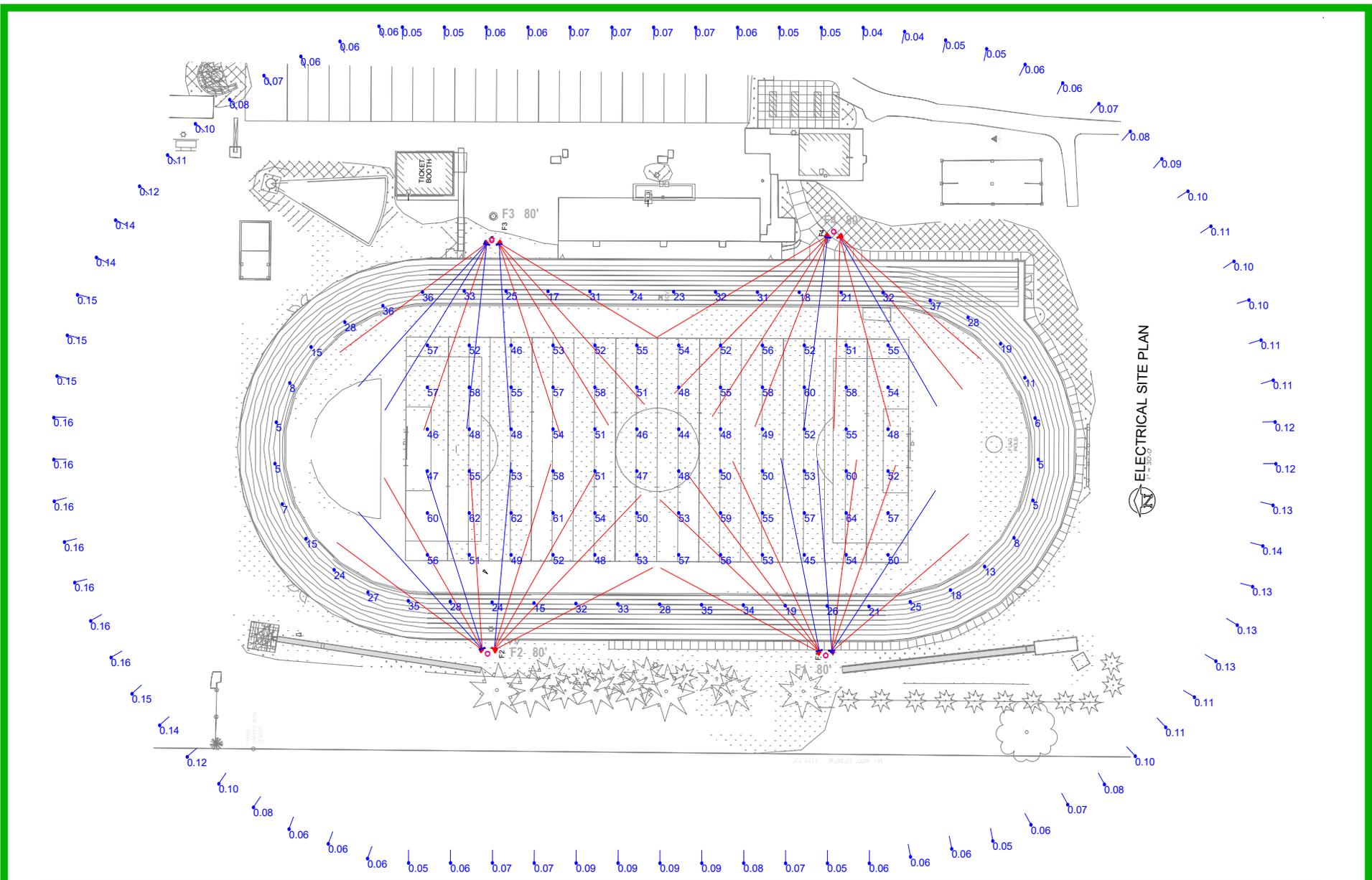
LOCATION: **Bronson, MI**

REF# QL-23680

DESIGNER: PDR

REV: D1-A

DATE: 3/11/2026



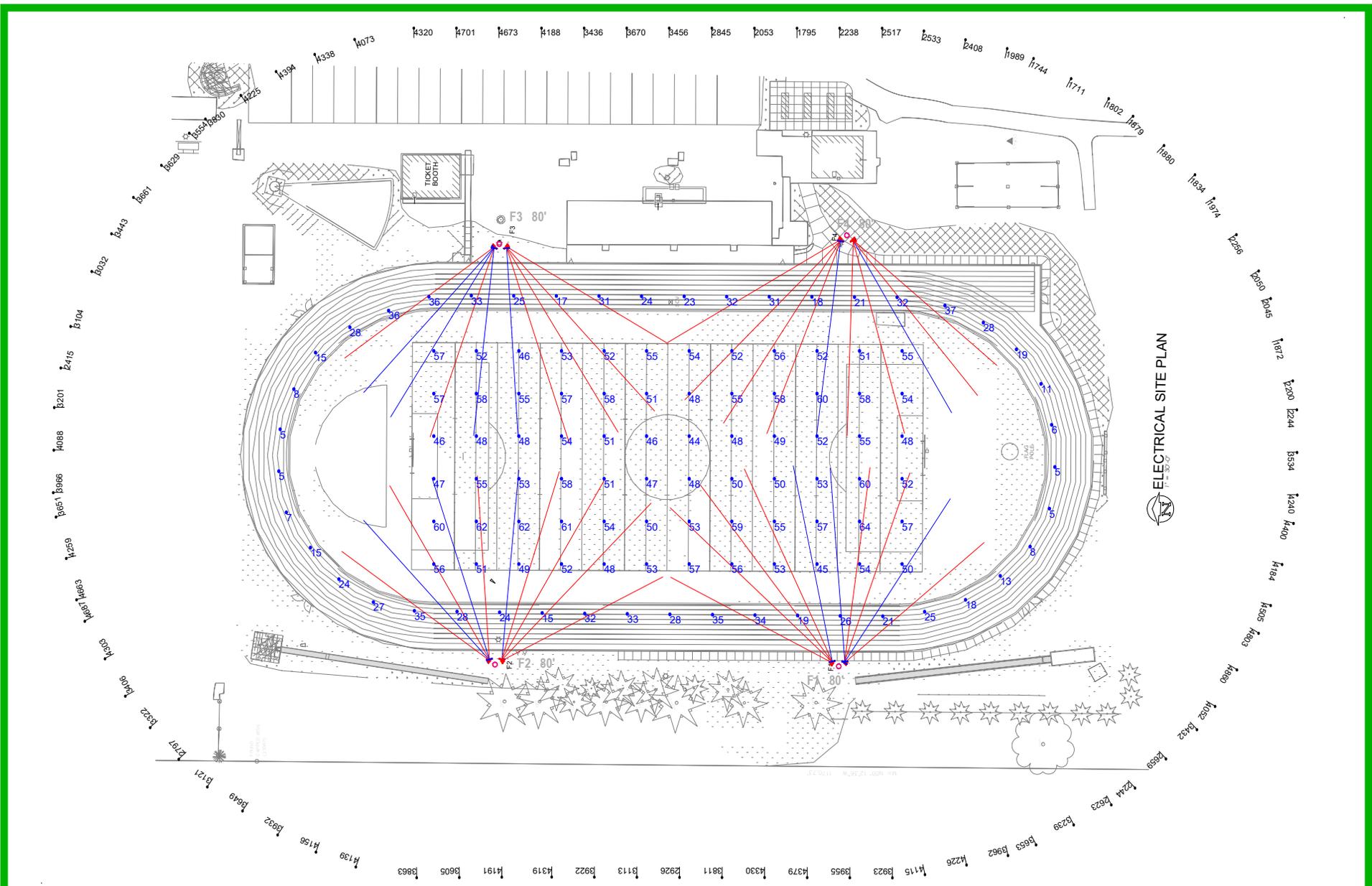
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Qualite
SPORTS LIGHTING, LLC
WWW.QUALITE.COM

JOB NAME: Bronson HS Athletic Field Lighting	REV: D1-A
LOCATION: Bronson, MI	DATE: 3/11/2026
REF# QL-23680	
DESIGNER: PDR	



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JOB NAME: **Bronson HS Athletic Field Lighting**

LOCATION: **Bronson, MI**

REF# QL-23680

REV: D1-A

DESIGNER: PDR

DATE: 3/11/2026

Calculation Summary									
Project: 23680D1-A (BRONSON FB TRACK)									
Label	Units	Avg	Max	Min	Max/Min	CV	UG	# Pts	Pt Spacing
FOOTBALL	Fc	53.3	64	44	1.45	0.08	1.28	72	30 X 30
TRACK	Fc	22.2	37	5	7.40	0.45	N.A.	45	30 X 30

WATTS PER POLE	
Label	Total Watts
F1	13.257
F2	13.257
F3	13.256
F4	13.258
TOTAL	53.028

Calculation Summary				
Project: SPILL				
Label	Units	Max	Pt Spacing	Grid Z
GLARE	Cd	4,860	30 X 30	5
HORIZONTAL SPILL	Fc	0.04	30 X 30	3
VERTICAL SPILL	Fc	0.16	30 X 30	3

NEW POLES - PROPOSED LOCATIONS BASED ON BID DOCUMENT

TOTAL Luminaire Schedule					
Symbol	Qty	Description	Tag	Luminaire Watts	Total Watts
⌋	12	GC 1330 N4WV-33	GEN 4 LARGE / VISORED	1,325	15,900
⌋	28	GC 1330 N2V-33	GEN 4 LARGE / VISORED	1,326	37,128

TOTAL 46

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JOB NAME: **Bronson HS Athletic Field Lighting**

LOCATION: **Bronson, MI**

REF# QL-23680

REV: D1-A

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DATE: 3/11/2026

Luminaire Schedule					
Project: F1 80'					
Symbol	Qty	Description	Tag	Luminaire Watts	Total Watts
⌋	4	GC 1330 N4WV-33	GEN 4 LARGE / VISOR	1325	5300
⌋	6	GC 1330 N2V-33	GEN 4 LARGE / VISOR	1326	7956

Luminaire Schedule					
Project: F2 80'					
Symbol	Qty	Description	Tag	Luminaire Watts	Total Watts
⌋	2	GC 1330 N4WV-33	GEN 4 LARGE / VISOR	1325	2650
⌋	8	GC 1330 N2V-33	GEN 4 LARGE / VISOR	1326	10608

Luminaire Schedule					
Project: F3 80'					
Symbol	Qty	Description	Tag	Luminaire Watts	Total Watts
⌋	3	GC 1330 N4WV-33	GEN 4 LARGE / VISOR	1325	3975
⌋	7	GC 1330 N2V-33	GEN 4 LARGE / VISOR	1326	9282

Luminaire Schedule					
Project: F4 80'					
Symbol	Qty	Description	Tag	Luminaire Watts	Total Watts
⌋	3	GC 1330 N4WV-33	GEN 4 LARGE / VISOR	1325	3975
⌋	7	GC 1330 N2V-33	GEN 4 LARGE / VISOR	1326	9282

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LOCATION: **Bronson, MI**

REF# QL-23680

REV: D1-A

DESIGNER: PDR

DATE: 3/11/2026

Luminaire Summary	
Label	Tilt
GC 1330 N4WV-33	60.651
GC 1330 N2V-33	59.498
GC 1330 N2V-33	61.028
GC 1330 N4WV-33	59.796
GC 1330 N2V-33	60.23
GC 1330 N2V-33	61.062
GC 1330 N4WV-33	59.479
GC 1330 N4WV-33	59.705
GC 1330 N2V-33	58.314
GC 1330 N2V-33	59.579
GC 1330 N2V-33	59.439
GC 1330 N2V-33	59.219
GC 1330 N2V-33	63.163
GC 1330 N2V-33	63.966
GC 1330 N2V-33	61.756
GC 1330 N2V-33	63.381
GC 1330 N2V-33	60.304
GC 1330 N2V-33	62.144
GC 1330 N4WV-33	59.157
GC 1330 N4WV-33	60.408
GC 1330 N2V-33	63.614
GC 1330 N2V-33	60.166
GC 1330 N2V-33	61.364
GC 1330 N4WV-33	59.061
GC 1330 N2V-33	62.795
GC 1330 N4WV-33	58.98
GC 1330 N2V-33	60.676
GC 1330 N2V-33	59.874
GC 1330 N4WV-33	60.844
GC 1330 N4WV-33	60.738
GC 1330 N4WV-33	59.84
GC 1330 N2V-33	61.513
GC 1330 N2V-33	62.977
GC 1330 N2V-33	63.882
GC 1330 N2V-33	61.765
GC 1330 N2V-33	59.809
GC 1330 N2V-33	60.642
GC 1330 N2V-33	60.486
GC 1330 N4WV-33	60.815
GC 1330 N2V-33	61.187

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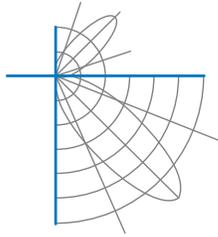
REV: D1-A

DESIGNER: PDR

DATE: 3/11/2026

C

Photometric Reports



Report of Test

LLIA002129-001

Catalog Number: N2-3.3-V

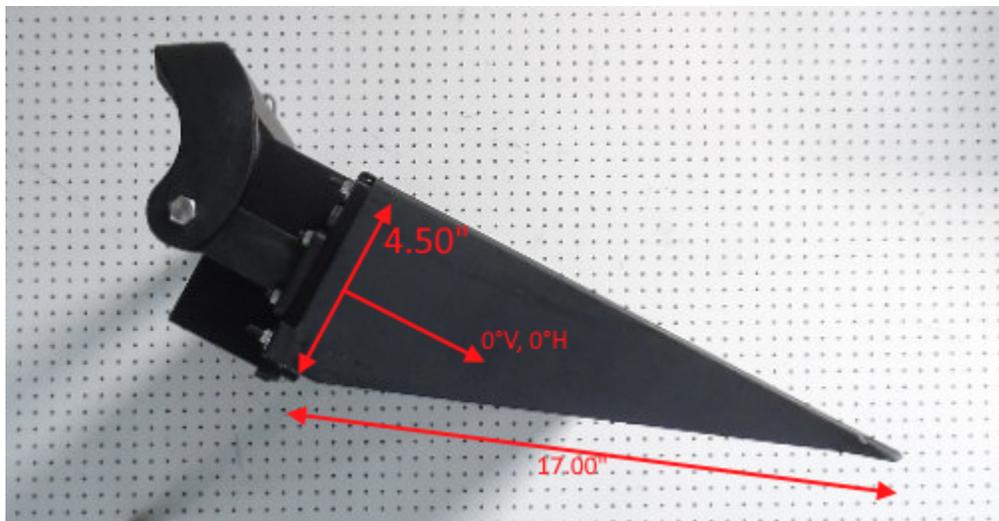
Aluminum housing and heatsink fins, two molded plastic lens frames.

Formed matte black steel visor with specular hammertone aluminum visor.

198 white LEDs with silicone optics in front of each. Aimed approximately 30 degrees below horizon.

Two Inventronics ESM-680S350MT LED drivers labeled as 3290mA each

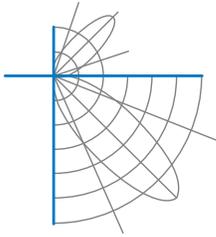
479.9Vac, 60.00Hz, 2.843A, 1325.7W, 0.972PF, 6.4%THD(i)



Performance Summary

Total Light Output	139389	lm	Illuminance at 10m	11120.0 lux
Luminaire Power	1325.7	W	Beam Distance	2109.0 Meters (to 0.25 lux)
Luminous Efficacy	105.1	lm/W		
Beam Spread (50%)	15.6° V x 17.2° H		Maximum Intensity	1112000 cd
Field Spread (10%)	34.2° V x 37.0° H			
NEMA Type	3H x 3V			

PREPARED FOR : Qualite Sports Lighting, 215 West Mechanic St, Hillsdale, MI 49242, USA



Report of Test

LLIA002129-005

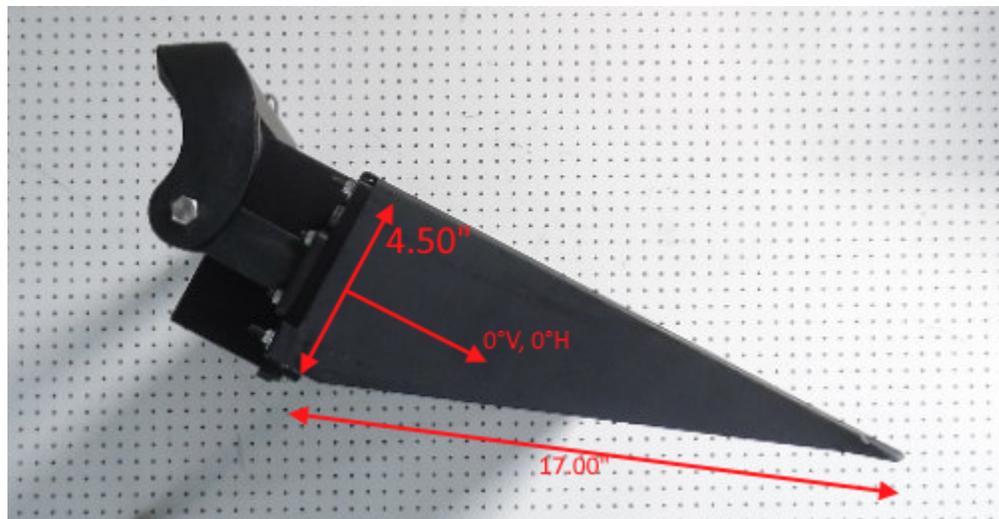
Catalog Number: N4W-3.3-V

Aluminum housing and heatsink fins, two molded plastic lens frames.

Formed matte black steel visor with specular hammertone aluminum visor.

198 white LEDs with silicone optics in front of each. Aimed approximately 30 degrees below horizon.

Two Inventronics ESM-680S350MT LED drivers labeled as 3290mA each
480.1Vac, 60.00Hz, 2.840A, 1324.4W, 0.971PF, 6.5%THD(i)



Performance Summary

Total Light Output	130533	lm	Illuminance at 10m	7764.0 lux
Luminaire Power	1324.4	W	Beam Distance	1762.3 Meters (to 0.25 lux)
Luminous Efficacy	98.6	lm/W		
Beam Spread (50%)	16.5° V x 17.1° H		Maximum Intensity	776400.0 cd
Field Spread (10%)	46.4° V x 41.3° H			
NEMA Type	3H x 4V			

PREPARED FOR : Qualite Sports Lighting, 215 West Mechanic St, Hillsdale, MI 49242, USA

D

Performance Guarantee



QUALITE PERFORMANCE GUARANTEE

First of all, we would like to thank you for choosing Qualite Sports Lighting for your lighting project.

We are pleased to offer our Edison Award-winning QLED GameChanger™ Sports Lighting System to light your project. Our new LED system uses state-of-the-art technology, is completely manufactured in the United States, and adheres to the high quality standard that Qualite has built its reputation on.

The enclosed layout(s) indicate the guaranteed maximum Kilowatt consumption.

Qualite also guarantees the light levels and uniformities as specified; or per IESNA recommendations, if a performance specification was not provided.

As a pre-aimed, pre-wired system, our guarantee requires proper input voltage and installation. We understand that sometimes unforeseen conditions can dictate layout changes, during installation and we guarantee to react and assist as quickly as possible to help ensure great results for the end user.

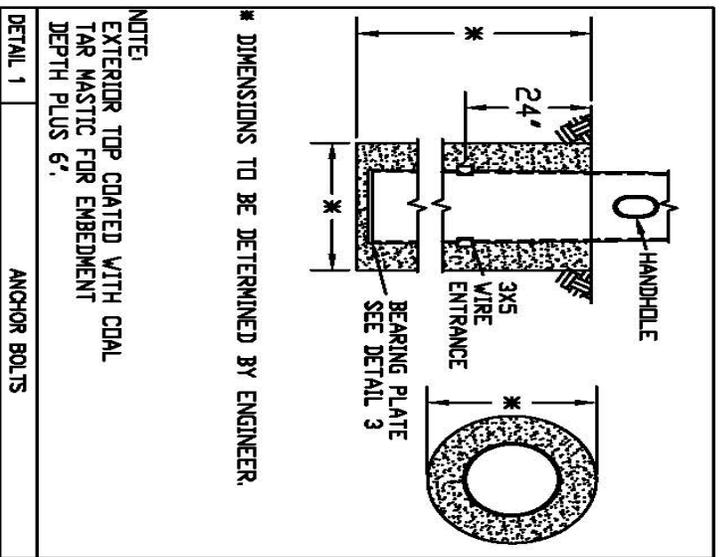
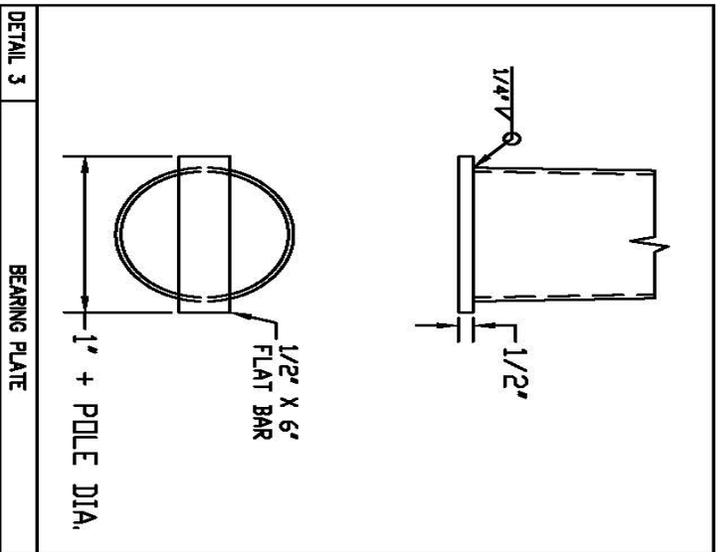
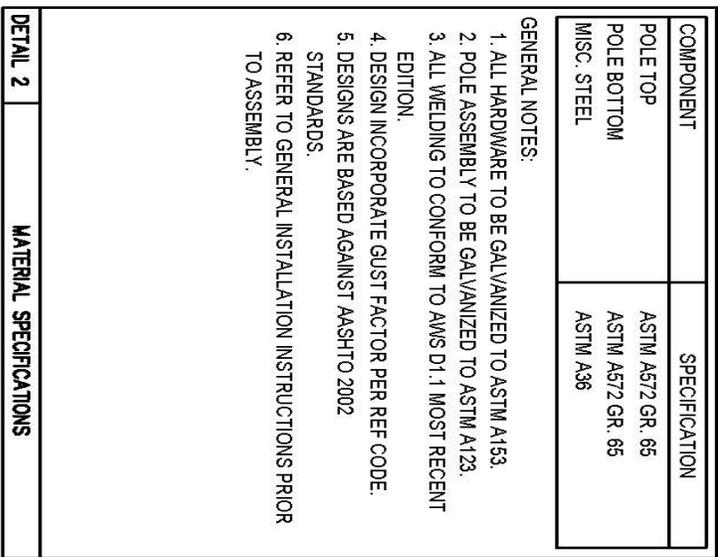
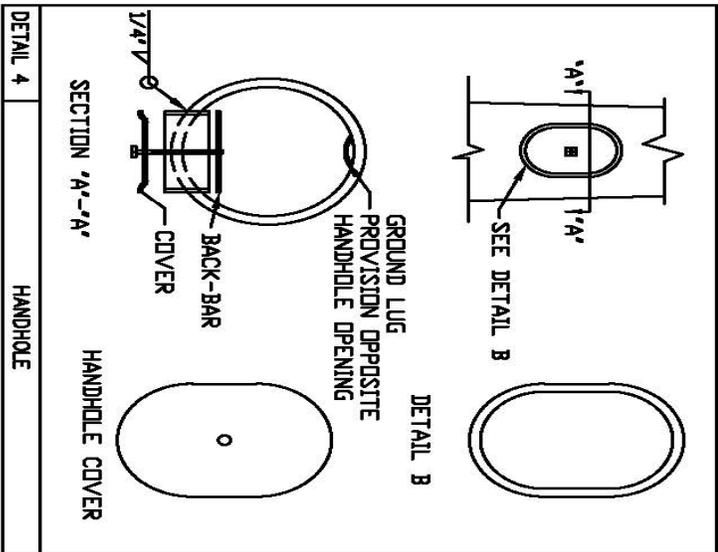
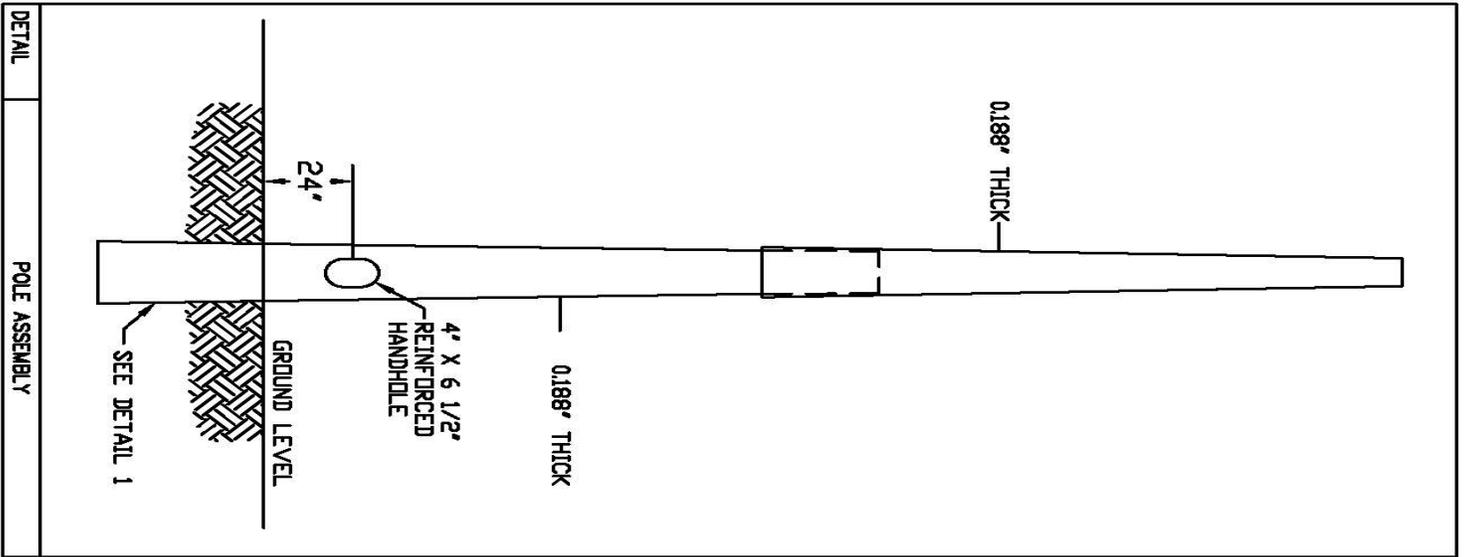
This guarantee must exclude mounting to wooden poles; due to their tendency to twist and change the aiming.

Sincerely,

The Qualite Sports Lighting Team

E

Structural Calculations



COMPONENT	SPECIFICATION
POLE TOP	ASTM A572 GR. 65
POLE BOTTOM	ASTM A572 GR. 65
MISC. STEEL	ASTM A36

- GENERAL NOTES:**
1. ALL HARDWARE TO BE GALVANIZED TO ASTM A153.
 2. POLE ASSEMBLY TO BE GALVANIZED TO ASTM A123.
 3. ALL WELDING TO CONFORM TO AWS D1.1 MOST RECENT EDITION.
 4. DESIGN INCORPORATE GUST FACTOR PER REF CODE.
 5. DESIGNS ARE BASED AGAINST AASHTO 2002 STANDARDS.
 6. REFER TO GENERAL INSTALLATION INSTRUCTIONS PRIOR TO ASSEMBLY.

NOTE:
EXTERIOR TOP COATED WITH COAL TAR MASTIC FOR EMBEDMENT DEPTH PLUS 6".

* DIMENSIONS TO BE DETERMINED BY ENGINEER.

F

Control & Monitoring System



The Controller is the basic building block of the Lightcloud system. Use it for switching and 0-10V dimming. Deploy it for power management. Or simply use it to extend the range of your Lightcloud mesh network.

Color: Black

Weight: 0.4 lbs



Technical Specifications

Compliance

UL Listing:

Suitable for indoor and outdoor use. Suitable for wet and damp locations.

Plenum Rated

IP Rating:

Ingress protection rating of IP66 for dust and water

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities

Electrical

Installation:

All Light cloud components should be installed by a licensed electrician in accordance with local codes.

Input Voltage:

120-277 VAC, 50/60 HZ
<2W (standby- 4W Active)

Listings

Frequencies:

50/60 Hz

Current Draw:

30 mA @ 120VAC
20 mA @ 277VAC

Load Switching Capacity:

For Control of Magnetic, Electronic Ballast or LED
277VAC: 20A Magnetic/Resistive
240VAC: 5A Tungsten/Electronic, 20A FLA/60 LRA,
2HP
120VAC: 15A Tungsten/Electronic, 1HP

Operating Temperature Range:

-40°C to 40°C

Storage Temperature Range:

-40°C to 80°C

Construction

Overall Dimensions:

1.55" diameter, 5.75" length
1/2" NPT Mount, Male
16AWG pigtails

Wireless Range

Obstructions:

100 feet

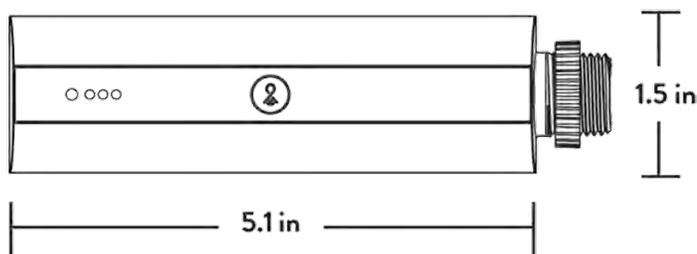
Line of Sight:

1,000 ft

Warranty:

10-year full hardware warranty with 100% repair/replacement coverage for all properly installed devices. [See Lightcloud Warranty Terms.](#)

Dimensions



Features

Easy setup - simply power on, confirm device connectivity and call 844-LIGHTCLOUD

Cylindrical design for easy installation at threaded junction boxes

Cloud-based management - no software to install or maintain

Connects to Lightcloud Gateway and other Lightcloud devices

Connects via a secure, encrypted, and self-healing 2.4 GHz wireless mesh network

Repeater Mode to extend range of wireless mesh network

If power to Controller is lost, notification is shown in the Lightcloud application

If communication is lost, Controller can fall back to a customizable emergency state



The Gateway stores all local site information (energy monitoring, schedules, scenes, and more) and communicates with RAB's servers via private 4G cellular connection, so no internet access is required. This Gateway operates on the Verizon cellular network.

Color: Black Weight: 1.3 lbs



Technical Specifications

Listings

Compliance

UL Listing:

Indoor use only

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities

Electrical

Input Voltage:

Only use with provided power supply.
5VDC +/- 5%
100-240VAC

Frequencies:

50/60 Hz

Electrical Ratings:

0.5A

Operating Temperature Range:

-30°C to 70°C

Storage Temperature Range:

-40°C to 85°C (-40°F to 185°F)

Other

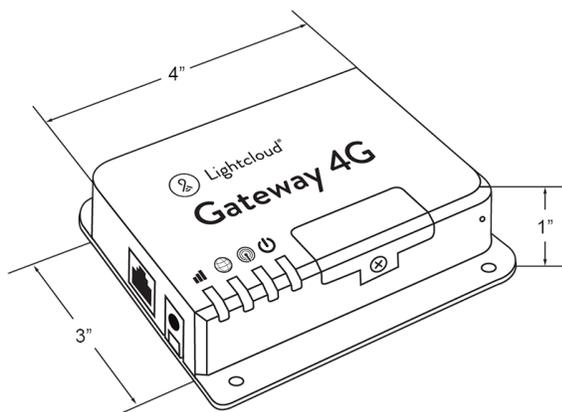
Maximum Relative Humidity:

95%

Warranty:

10-year full hardware warranty with 100% repair/replacement coverage for all properly installed devices. [See Lightcloud Warranty Terms.](#)

Dimensions



Features

- Connects with up to 200 Lightcloud devices
- Communicates with Lightcloud devices via 2.4 GHz wireless mesh network
- User-serviceable, built-in UPS battery backup (lasts approximately 2 hours)
- Cloud-based management - no software to install or maintain
- Connects to Lightcloud service using secure cellular 4G connection and no internet access is required
- Easy setup - simply power on, confirm a cellular signal and call 844-LIGHTCLOUD

Before final placement of Gateway, call Qualite Sports Lighting at 800.933.9741 to confirm signal strength and placement of Gateway.



The Lightcloud Dimmer is an in-wall device that delivers remote switching, dimming and scene control. Easily trigger one of your scenes, or toggle between multiple scenes.

Color: White Weight: 0.4 lbs



Technical Specifications

Listings

Compliance

UL Listing:

Indoor use only

Electrical

Installation:

All Lightcloud components should be installed by a licensed electrician in accordance with local codes.

Input Voltage:

120V through 277V

Frequencies:

50/60 Hz

Electrical Ratings:

14mA@120VAC
10 mA @ 277VAC

Storage Temperature Range:

-40°C to 85°C (-40°F to 185°F)

Construction

Operating Temperature Range:

0°C to 40°C

Maximum Relative Humidity:

85%

Wire Gauge:

18AWG grounding; terminals supporting up to 12AWG wire

Wireless Range

Line of Sight:

1000 ft

Obstructions:

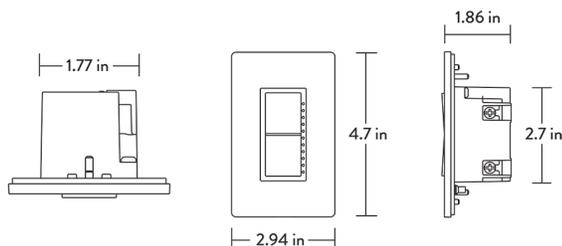
100 ft

Other

Warranty:

10-year full hardware warranty with 100% repair/replacement coverage for all properly installed devices. [See Lightcloud Warranty Terms.](#)

Dimensions



Features

- In-wall device for switching, dimming and scene control
- Switch and dim individual fixtures or entire zones
- Dimming features both fade on/off and rapid full-on
- Assign scenes to top and/or bottom buttons
- Set the max trim level for a zone or fixture to save energy
- Use together with Lightcloud Controller or Sensor devices

Lightcloud Takes Security Seriously

We take our users' security and privacy concerns seriously and strive to be transparent about our security infrastructure and practices. We secure our devices and data at every level of communication, from the site to the cloud, with 5 layers of security.



UL2900-01
LISTED

THE FIRST NETWORKED
LIGHTING CONTROL SYSTEM
LISTED FOR CYBER SECURITY!

5 Layers of Security

Isolation

All Lightcloud data communication is isolated from other networks. Lightcloud isn't affected by compromises to computer networks or dependent on utilizing existing IT infrastructure. Only Lightcloud devices are supported by the Lightcloud network — isolating it from interference and manipulation.

Encryption

Lightcloud uses end-to-end encryption (E2EE) — data transmission is always encrypted. If data were to be accessed, it wouldn't be readable. That encryption remains whether it's between devices, cellular, or accessed via the web. Your data is always secure.

Restriction

Access is restricted by site, passwords, two-factor authentication, and user-level permissions. Every network uses its own keys, so a compromise would be isolated to a single location. Password best practices and two-factor authentication ensure individual users' passwords are secure and used only by the intended user. User-level permissions ensure users only have access to the controls they need.

Prevention

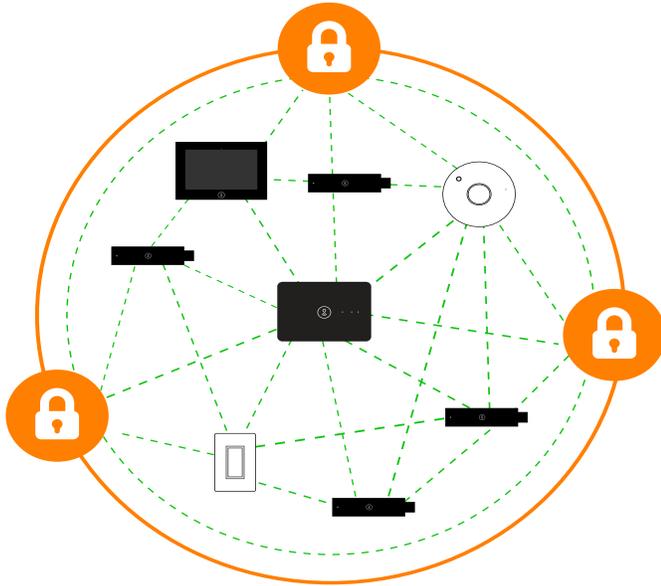
Lightcloud updates go through a rigorous evaluation period in an isolated environment before being released to devices. Evaluations include internal and external audits and penetration tests. This keeps Lightcloud security constantly ahead of any would-be intruders.

Verification

Working with external agencies to evaluate our security validates our efforts to be the most secure lighting controls system available. Our internal security team is constantly improving our system to exceed security guidelines, keeping us several steps ahead.

Call Us Anytime: 1 (844) - LIGHTCLOUD

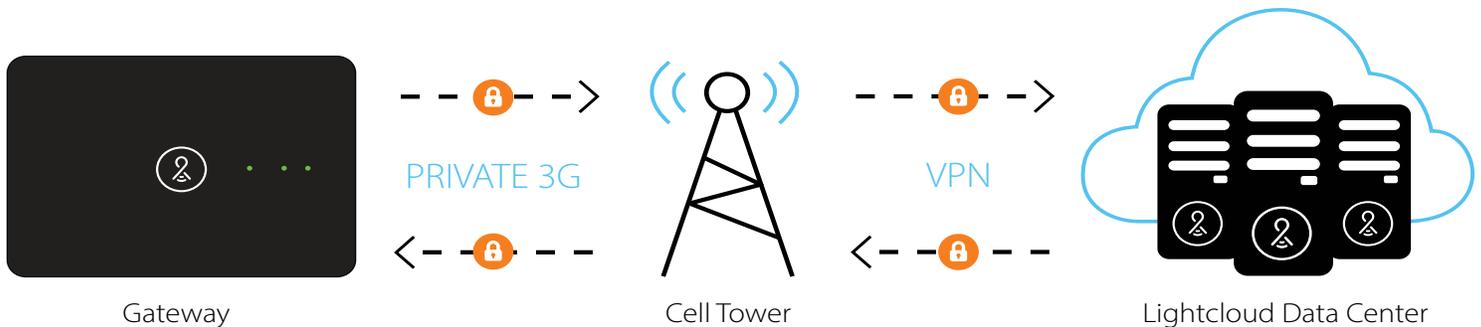
On-Site Security: Device Communication



- AES 128-Bit Encrypted
- Data Transmission is ALWAYS Encrypted
- No 3rd Party Products on Network

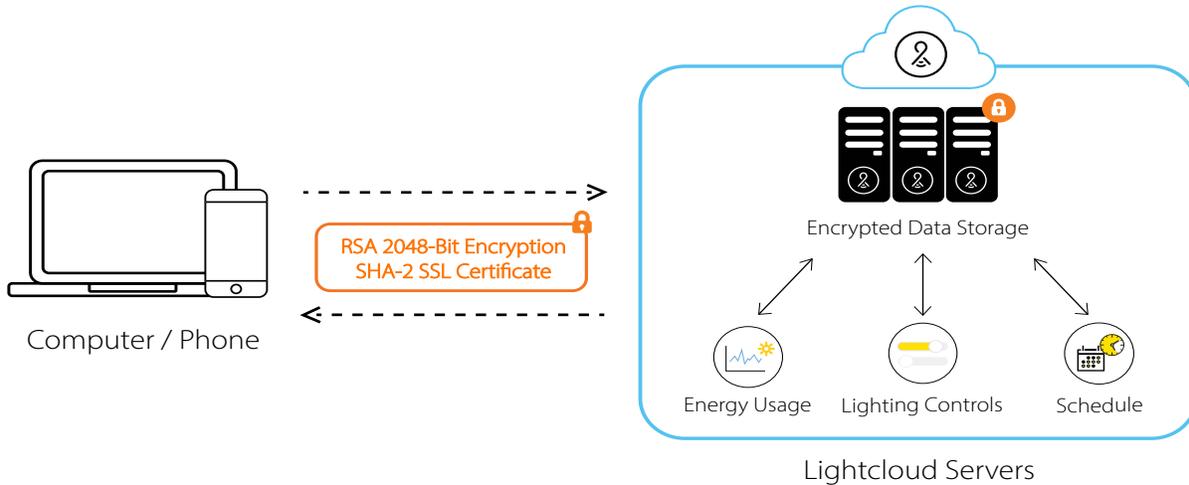
Lightcloud is a networked lighting control system with Devices communicating over a secure wireless mesh network. At the 802.15.4 wireless level, we provide an encrypted and secure joining process that includes unique network keys for every installation and AES 128-bit encrypted network communications. At no time does any data travel unencrypted. Additionally, only products manufactured by RAB can communicate over the Lightcloud network.

Uplink: Private Cellular to Cloud



The Gateway communicates to the cloud-based services via dedicated, private 128-bit and 256-bit encrypted 3G cellular connections. Our secure connection operates completely independently from your IT infrastructure. The Gateway provides the communications between the 802.15.4 network and the 3G wireless network. In addition to standard 3G encryption, all data over the cell network travels on a private allocation of cellular addressing over an encrypted VPN (virtual private network) between the Gateways and our private data center.

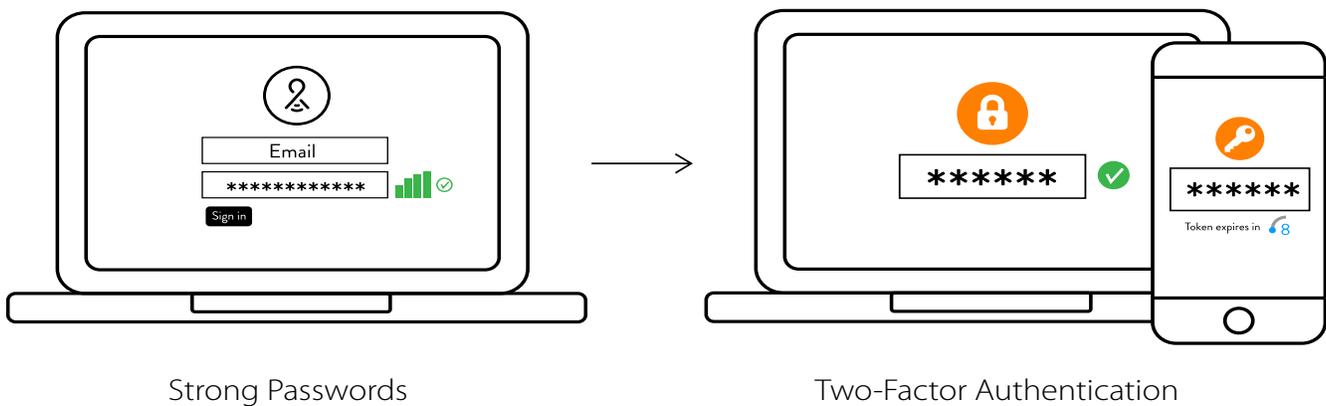
Cloud Infrastructure: Communication and Storage



We communicate entirely via SSL TLS — including client communications with servers that interface with our backend servers, which protects communications by using both server authentication and data encryption. Our application endpoints use industry-leading RSA 2048-bit encryption and have DigiCert SHA-2 SSL Certificates. Our servers employ a robust physical security program with multiple certifications. The cloud storage method also guarantees information won't be lost, by creating redundancies on servers around the world.

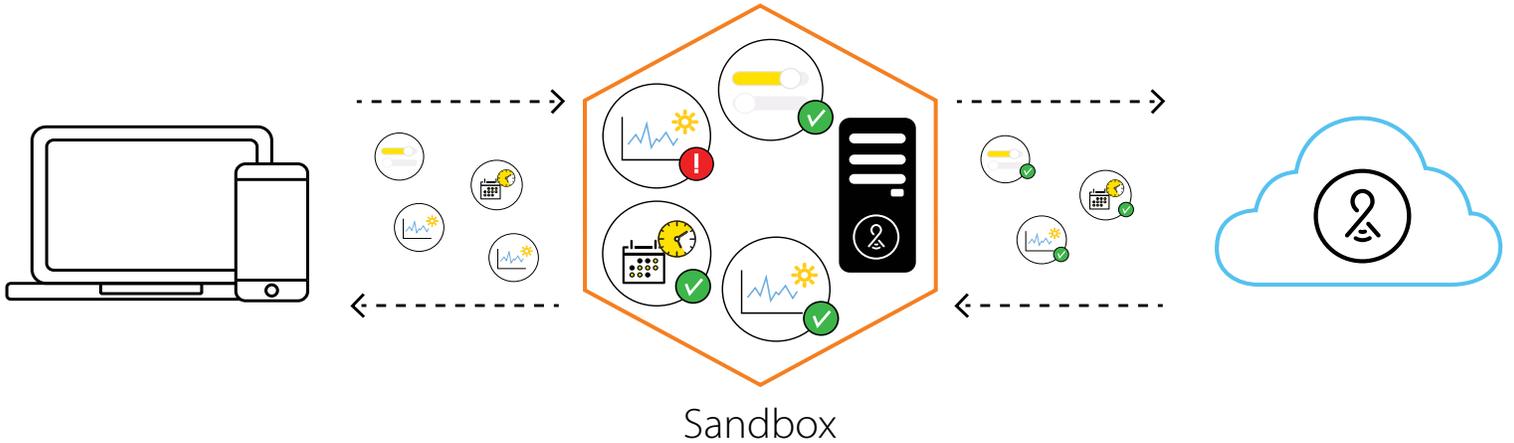
If a Lightcloud Network were compromised, no sensitive user data would be accessible. User data on Lightcloud is limited to email addresses and lighting controls, so sensitive information is safe.

Access & Control: User-Level Security



Industry-standard password management protocols are employed, including requirements for length and strength. Strong passwords are important and can be layered with two-factor authentication (2FA) for extra protection. This extra layer of protection can be especially important for administrative users such as systems management and support. Finally, user restrictions ensure access is granted for specific controls for each user. Whenever phones and computers are used to control Lightcloud, each adjustment is logged by user, so if a user's account is ever compromised, that user can immediately be removed or their password changed.

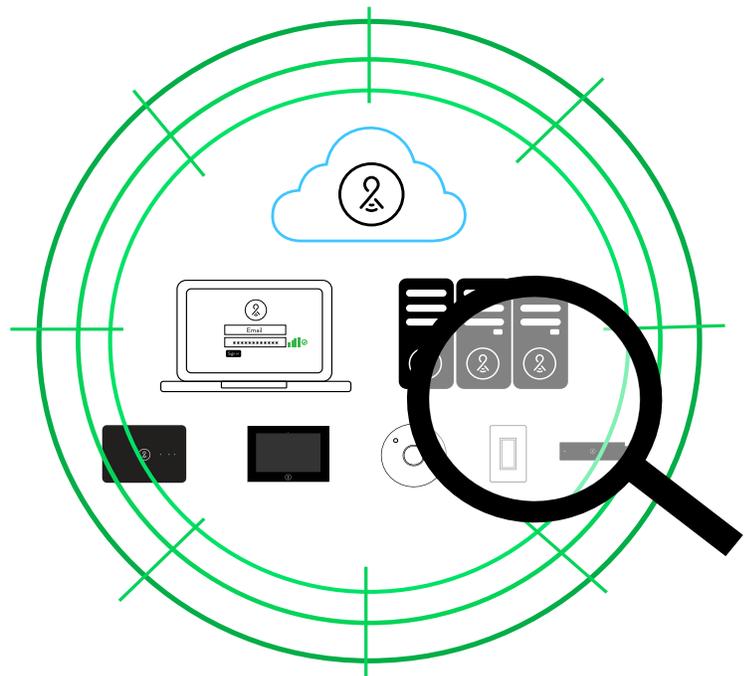
 **Testing & Vulnerability Management: Monitoring & Development**



System functionality and design changes are verified in an isolated test “sandbox” environment and subjected to functional and security testing prior to deployment to active production systems. By testing in an isolated environment without live site data, we ensure no data can be compromised while testing. Once security and functionality is verified, changes are rolled out in stages.

Security Audits

Security is an ever-moving target, so we use both internal and 3rd parties to perform quarterly penetration tests and security audits to verify that we are meeting the strict guidelines we have established. Security audits look at the system's hardware/devices, network/server, and the user interfaces/software. Even with physical access to our hardware, none of our security partners have been able to compromise our system at any level. Our security partners are security experts trusted by Fortune 500 Global Companies including GE, Intel, Microsoft, and Samsung.



Verification: 3rd-Party Certification

We've designed a very secure ecosystem with layered protection, and two independent agencies — SSL Labs and UL — recognize our security superiority.

THE FIRST  UL2900-01 NETWORKED LIGHTING CONTROL SYSTEM!

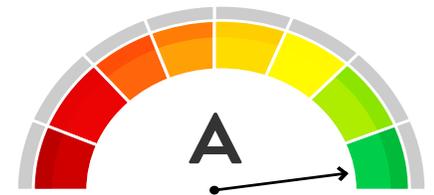
UL created the 2900-01 standard of software cybersecurity for network-connectible products and was published as an ANSI (American National Standards Institute) standard. UL evaluated and tested our devices for vulnerabilities, software weaknesses and malware, including risk management and controls in the architecture and design of the product.

UL tests performed:

- Scanned for malware on the binaries
- Scanned for vulnerabilities from the NIST National Vulnerability Database (NVD)
- Scanned for weaknesses in the source code and binaries
- Subjected to malformed traffic data
- Evaluated security protocols for access control and authentication, remote connections, software integrity, cryptography, security logs, and decommissioning
- Ran penetration tests to circumvent controls and security, engage the product in denial of service, access and authentic on the product via unauthorized means, attempt to exploit vulnerabilities acceptable in the risk analysis, elevated privilege on the product, man in the middle attacks

After careful evaluation, UL found our Devices and software exceeded or met all of their requirements, and listed our system as the first UL 2900-01 listed networked lighting control system.

SSL Labs verified and approved our SHA-2 SSL Certificate, inspected our encrypted network communication protocol based on protocol, key exchange, and cipher strength, and determined our security to be of the highest rating. We strive to adopt the latest most secure security protocols and procedures to keep customer data and sites safe.



Applications: Trusted Everywhere

Lightcloud is trusted by airports, civic centers, hospitals, hotels, manufacturers, municipal buildings, retailers, sheriff's offices, stadiums, and many other security-sensitive applications. Lightcloud is securely controlling lights all over the country and is ready for your application.

For more information on current Lightcloud customers, see our Select Sites document. For more information on how Lightcloud can fit into your specific application, give us a call at 1 (844) - LIGHTCLOUD



Glossary

AES 128-Bit Encryption

AES is a security standard adopted worldwide and by the US Government. AES is also approved as a cipher for top-secret information at the NSA (National Security Agency). For 128-bit encryption, data is placed in an array, then there are 10 rounds of processing information (substitute, transpose, and mixing of text). 128-Bit encryption has a block and key length of 128 bits.

Virtual Private Network (VPN)

A VPN is a secure, encrypted tunnel that is only accessible by authorized users. VPNs allow information to be safely transmitted over otherwise insecure networks by encrypting the data. If a network is penetrated, the data can't be read and is displayed as meaningless text.

SSL TLS

Secure Sockets Layer and Transport Layer Security are cryptographic protocols for secure, private communication over a network from the server to the browser. The symmetric encryption keys are created for each communication and are unique to each connection. The connection can't be interrupted by an attacker in the middle of the connection or viewed by eavesdroppers. The identities of both the server and the user via the access point is known to the connection. Each message sent has an integrity check to ensure data is transmitted securely and properly.

2-Factor Authentication (2FA)

2FA is an extra layer of security for your Lightcloud login that ensures that you're the only person who can access your account, even if someone knows your password. Each time you log in on a new device, a unique code will be texted to you. This unique code is required along with your password to log in to your user account. 2FA is generally reserved for account administrators or highly security-sensitive locations.

User Restrictions

User restrictions limit access to specific lighting controls and management. System administrators can be given complete control over the system. Other users can be given access to all of the scenes and zones or user-specific controls. By restricting access to only the lights users need to access, it's simpler for the users and more secure.

Sandbox

An isolated testing environment that has no connection to a "live" system is a sandbox. If a sandboxed environment is compromised, it has no effect on the system and no user data can be compromised. By testing in a sandbox, vulnerability and stability can be verified before releasing to customers.

Penetration Audits

Lightcloud Devices, networks, and user interfaces are tested internally and by 3rd-party security experts to look for potential security oversights.

Private 3G

A private allocation of AT&T and Verizon third-generation networks dedicated to Lightcloud. Data is encrypted and transmitted via a VPN to the highly secure Lightcloud Cloud.

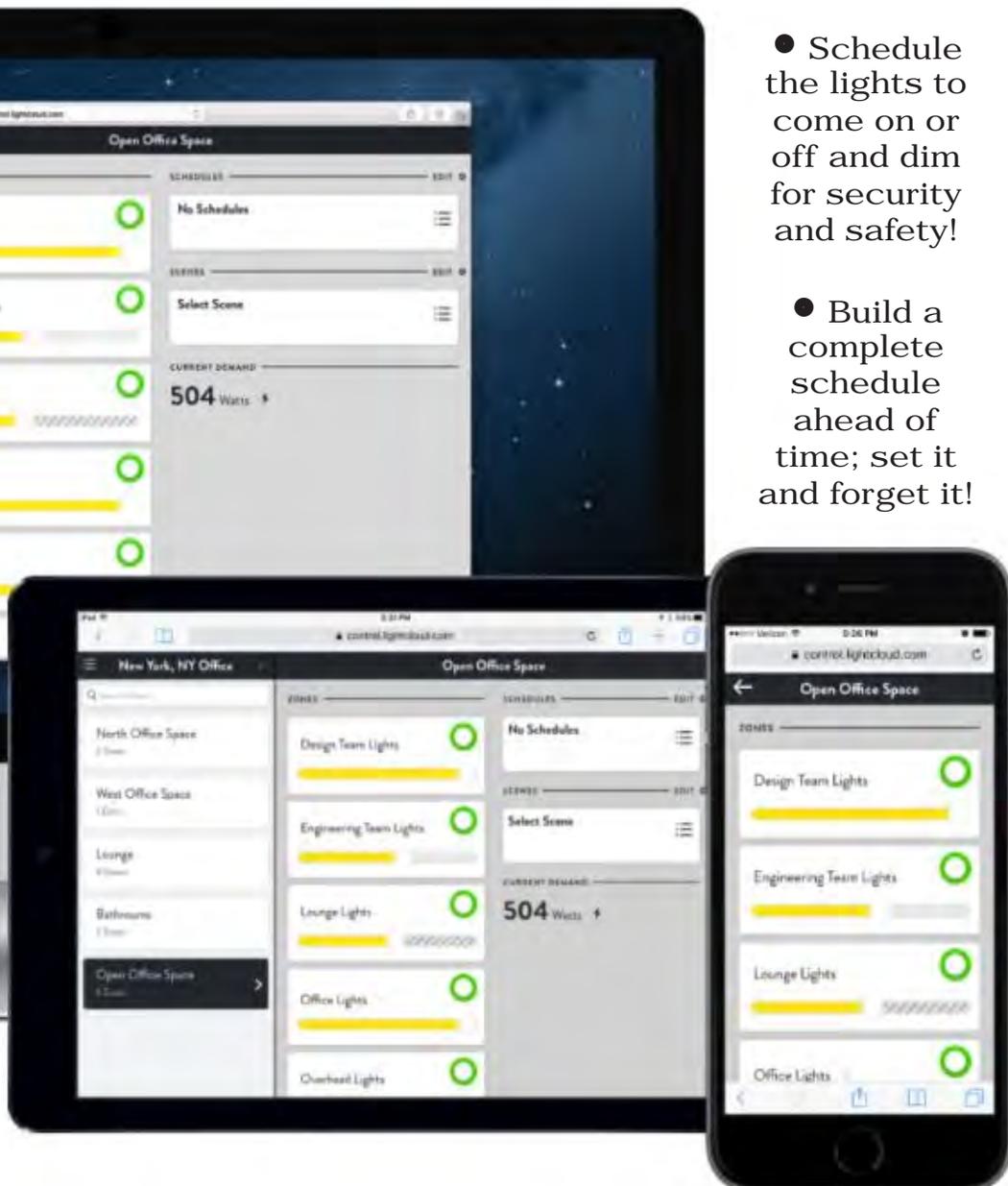
COMPLETE control at any time!

- Schedule the lights to come on or off and dim for security and safety!

- Build a complete schedule ahead of time; set it and forget it!

- Manage the schedule from anywhere with your phone, computer, laptop or tablet!

- The first UL2900-01-Listed Networked Lighting Control System!

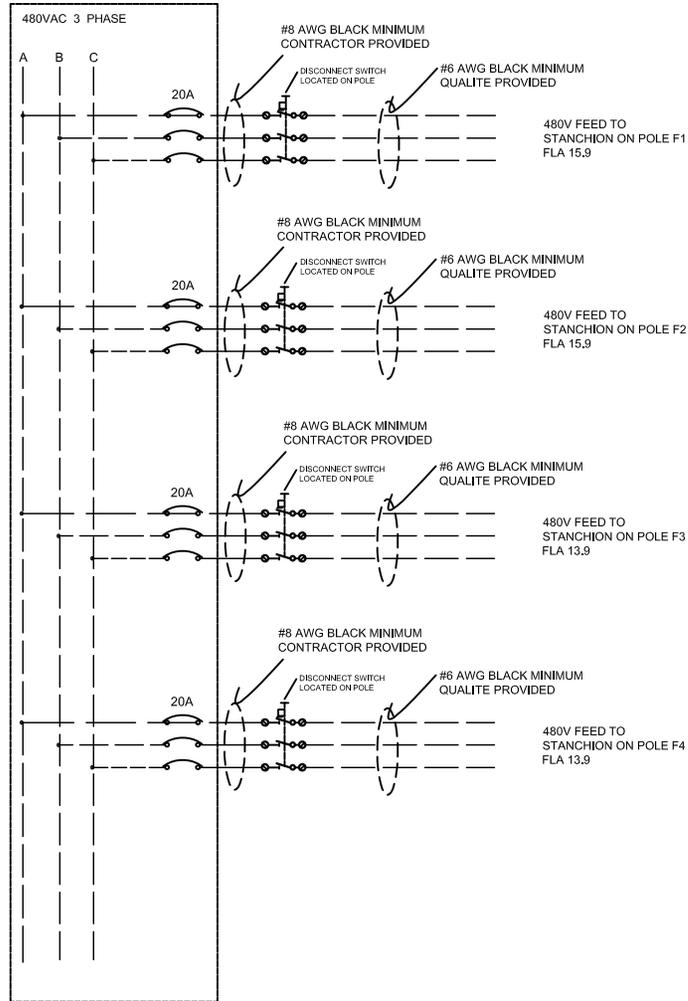


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Electrical Distribution Plans

This is a sample. Upon PO or LOI, Qualite will provide a project-specific electrical distribution plan.

SERVICE PANEL PROVIDED BY OTHER



QUALITE SPORTS LIGHTING, INC.				
HILLSDALE, MICHIGAN				
NAME				
DR	SHEET	ENCLOSURE	DATE	OL NO
ASD	1 OF 1	NA	12/27/2024	

PRIMARY MEANS OF DISCONNECT PROVIDED BY INSTALLER	VOLTAGE:	480V 3Ø
	FLA	59.9
	KW	39.9
	CONTROL VOLTAGE	120V 1A



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Warranty



25-YEAR TOTAL COVERAGE WARRANTY

LED GameChanger™ Lighting System
Sports Lighting Application

Qualite Sports Lighting provides a 25-year “total coverage warranty” to the owner for complete peace of mind at no out-of-pocket cost.

What this warranty covers:

Qualite warrants the GameChanger™ LED Lighting System for 25 years from failure.

All fixtures and or components are covered under this warranty for the full 25 years. All necessary labor, parts, wiring, etc. will be replaced or corrected at Qualite’s expense. The use and cost of equipment (cranes, lifts or other heavy construction equipment) is included in this warranty at Qualite’s expense.

What is covered and included:

- Total system coverage, lights, poles, drivers, etc.
- All labor
- Lifts, crane or other equipment required for repair
- All parts will be supplied by Qualite at no cost to owner
- Light levels are guaranteed for full 25-year period
- Fixture aiming and mounting is guaranteed.

What is not covered:

- Acts of God. (flood, lightning, tornado, etc.)
- Vandalism
- Damage from improper installation
- Non-compliant power conditions

Conditions of Service:

- Adequate, pre-determined egress/ingress is required for heavy service equipment
- Safe working environment for crews

Response Time:

- Normal non-emergency service work will be scheduled under Qualite’s normal service schedule.
- Emergency service response will occur within a 24-hour period

Notes: This warranty is intended for normal usage for the GameChanger™ Lighting System that would be installed on a grade school, high school sports venue, charter schools, park and recreation, college level or other venue with normal use considerations. Please contact Qualite Sports Lighting for high or extreme use facilities.



Project References



GAMECHANGER™ REFERENCES

Deerfield Electric - New Jersey
Jared Smith
E: jared@deerfieldelectric.net
P: 856.451.5579

Cochran Electric - Michigan
Matt Hill
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P: 517.784.7106

Hirst Electric - Michigan
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P: 412.309.1920

Frey Electric - Buffalo, New York
Donnie Daigler
E: frey-electric.com
P: 716.868.8445

Edmond Tennis Center

- Winchester Gun Club Trap & Skeet Range, North Shore Trap & Skeet, Franksville, WI
- St. Mary's Memorial High School Football Stadium, St. Mary's OH
- Hart High School Football Stadium & Track, Hart Public Schools, Hart, MI
- Harrison High School Tennis Courts, Tippecanoe School Corporation, West Lafayette, IN
- Seeger High School Football Stadium & Track, MSD of Warren County, West Lebanon, IN
- Guerin Catholic High School Soccer Field, Noblesville, IN
- Spalding Park Baseball, Champaign Park District, Champaign, IL
- Rec Fields Football & Softball, University of Illinois-Springfield, Springfield, IL
- Sibley-Ocheyedan Community School District Football Stadium & Track, Sibley, IA
- McInnis Park Golf Center Driving Range, Tayman Park Golf Group, Inc, San Rafael, CA
- Augusta National Golf Club, Augusta, GA
- McDonald High School Football & Track, McDonald, OH
- Rocori High School Football & Soccer, Cold Spring, MN
- Miller Park Soccer, Eden Prairie, MN



Edmond Tennis Center
Edmond, OK



- Rogers Stadium Football, Tulsa Public Schools, Tulsa, OK
- Robert's Field at the Roy Anderson Sports Complex, Big Spring, TX
- Itasca Intermediate School District Baseball & Softball, Itasca, TX
- Edmond Tennis Center, Intermediate School District #12, Edmond, OK
- Hughes Springs High School Football, Hughes Springs Intermediate School District, Hughes Springs, TX
- Rice Consolidated Intermediate School District Softball & Baseball, Altair, TX
- Panama City Beach Sports Complex, Panama City Beach, FL
- Itasca Independent School District Baseball & Parking Lot, Itasca, TX
- Wink High School Football Stadium & Track, Wink-Loving Intermediate School District, Wink, TX
- Van Vleck Intermediate School District Football Stadium, Van Vleck, TX
- Ingleside Intermediate School District Football Stadium, Ingleside, TX
- Drive Time Parking Area, Lot & Building, Fort Worth, TX
- Crowell Intermediate School District Football Stadium, Crowell, TX
- Drive Time Car Storage, San Antonio, TX
- Iron Tee Golf, Bettendorf, IA
- Marianna High School Baseball Field, Jackson County Schools, Marianna, FL
- Lake Nona Beach Volleyball, Orlando, FL
- South Walton Sports Complex, Baseball & Multi-Purpose Fields, Walton County Board of Commissioners, Defuniak Springs, FL
- Big Corkscrew Island Regional Park Baseball, Multi-Purpose, Pool, Pool Square, Event Lawn Area, Basketball, Pickleball & Tennis, Naples, FL
- Tommy Oliver Stadium Football & Track, Bay District Schools, Panama City, FL
- Mickel Park Baseball, City of Wilton Manors, Wilton Manors, FL

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- Avicenna International Soccer Complex, Oxford, FL
- Wellington Community High School Park Tennis, Football & Basketball, Village of Wellington, Wellington, FL
- Hammondville Baseball, Hammondville, AL
- Charlie Vettner Park Tennis Complex, Louisville, KY
- Petersburg Park Tennis Complex, Louisville, KY
- South Central Park Soccer Complex, Louisville, KY
- Veterans Park Multi Field Complex, Mint Hill, NC
- Flagler College Lacrosse Field, St Augustine, FL
- East Ouchita High School Football Stadium, Brockwell, AL



**Martorelli Stadium
Pittsburgh, PA**

- Izard High School Football Stadium, Brockwell, AL
- CSLA School Football Stadium, Chattanooga, TN
- South Florence High School Football Stadium, Florence, SC
- West Florence High School Football Stadium, Florence, SC
- Wilson Florence High School Football Stadium, Florence, SC
- Southside School Baseball & Softball, Florence, SC
- Fairplay Park, Douglas County Parks (3)Baseball Fields, Douglasville, GA

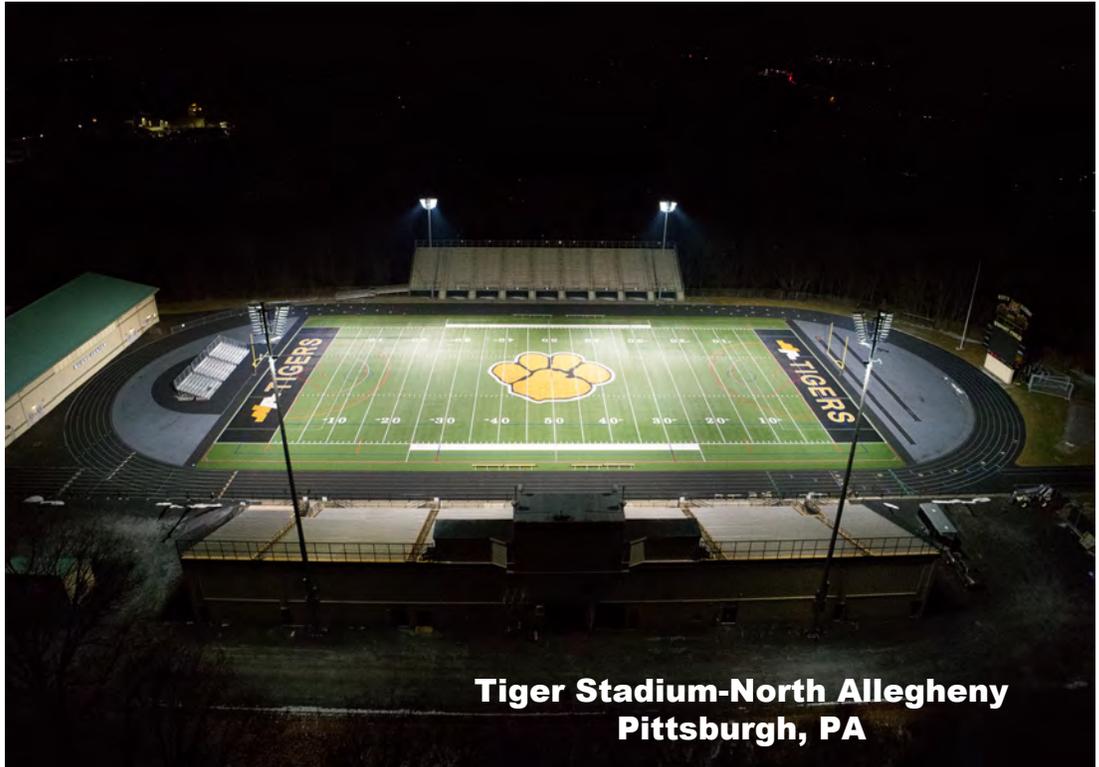
- Georgia State Football Stadium-Turner Field, Georgia State University Football, Atlanta, GA
- North Oconee High School Baseball, Softball, Football & Soccer, Watkinsville, GA
- Cedartown High School Football/Track & Bleachers, Cedartown, GA
- Berrien County School Multi-Field/Track, Practice & Tennis Courts, Nashville, GA
- Mount Paran Christian School Softball, Kennesaw, GA
- Publix Sports Park Baseball & Soccer (13 Fields Total), Panama City, FL

- Falcon Plex Multi-Purpose Field, Cedar Crest College, Allentown, PA
- South Range High School Football Field & Track, South Range Athletic Boosters, Canfield, OH
- Brookville High School Football Field, Brookville, PA
- Bedford High School Football Field, Temperance, MI
- Southwest Valley High School Football Field, Corning, IA
- Chartiers Valley High School Football Field, Bridgeville, PA
- Heritage Park, Bakersfield, CA
- Cabot-Citrus Farms, Brooksville, FL

- Hillsdale College Track & Field Events, Hillsdale, MI
- North Baltimore High School Football Field, North Baltimore, OH
- Jackson College Baseball & Softball, Jackson, MI
- Carlson High School Football Field, Gibraltar, MI
- Pittsgrove Soccer Complex, Pittsgrove, NJ
- Selinsgrove High School Football Field, Selinsgrove, PA
- North Hills Schools, Martorelli Stadium, Pittsburgh, PA
- University of Maine-Fort Kent Soccer, Fort Kent, ME

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- Hempfield Area High School Football Field, Greensburg, PA
- Sechler Park Softball Field, City of Northfield, Northfield, MN
- Babcock Park Softball & Hockey, City of Northfield, Northfield, MN
- Minot North High School Football, Minot, ND
- Caldwell Park Football, Ocean View, NJ
- Franklin Regional High School Football, Soccer & Track, Murrysville, PA
- Mead Sportsplex Football, Mead School District, Mead, WA
- Ridgeline High School Football, Soccer, Track & Tennis, Central Valley School District, Liberty Lake, WA
- Zuni High School Sports Complex Baseball, Zuni, NM
- SanTan High School Football Field, Chandler, AZ
- Blanchet Catholic High School Football, Soccer, Track & Field Events, Salem, OR
- Pollock Field Softball, Department of the Navy, Marine Corps Base MCHB, Hawaii
- Job Corp US Forestry Service Baseball Field, US Forestry Service, White Swan, WA
- Days of 47 Rodeo Arena, Salt Lake City, UT
- Willard City Schools, Willard, OH



**Tiger Stadium-North Allegheny
Pittsburgh, PA**

- Lassonde Studio Volleyball & Basketball, University of Utah-Lassonde, Salt Lake City, UT
- Burns High School Football Field, Harney County School District #3, Burns, OR
- Pacific High School Football Stadium, Meramec Valley R-III School District, Pacific, MO
- Boonville City Soccer Fields, City of Boonville, Boonville, MO
- Riseley Field Baseball, US Marine Corps Base Hawaii, Kaneohe Bay, HI
- Plant Scherer, Juliette, GA
- Twelve Bridges High School Football, Soccer & Track, Western Place Unified School District, Lincoln, CA
- Clay County SC Complex, Clay County, FL
- Crane Union High School, Football Field, Burns, OR
- Metro State University Sports Complex, Denver, CO
- Lutheran High School Football Field, Parker, CO
- Bradshaw Christian High School Football Stadium & Track, Sacramento, CA
- Junge Stadium Football Field & Track, Joplin, MO
- City of Wilcox Ballfields, Basketball Courts, Softball & Rodeo, Wilcox, AZ
- Dutch Clark Football Stadium, Pueblo, CO
- Double Angel Baseball Field, Parker, CO
- Luckie Park-29 Palms, Twenty Nine Palms, CA
- Cranford Memorial Soccer Field, Cranford Soccer Club, Cranford, NJ
- Eden Community School District Soccer & Track, Eden, NY
- Penn-Trafford High School Football, Harrison City, PA
- Kingston High School Softball, Kingston, OK
- Ballinger ISD-Bear Cat Stadium Football & Bleachers, Ballinger, TX
- Brush High School, Brush, CO
- Lakewood Ranch High School Football, Bradenton, FL
- City Pond Park Ballfields 1-6, Covington, GA
- Port Neches-Groves High School, Port Neches, TX

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- Jackson Northwest High School Football, Jackson, MI
- Mecklenburg High School Football, Baseball & Softball, Baskerville, VA
- Nacogdoches High School Football Stadium, Nacogdoches, TX
- Putnam City West Football Stadium, Putnam City Schools Independent District No. 1, Oklahoma City, OK
- Sports Field & Stadium Complex, Bay County Board of Commissioners, Panama City Beach, FL
- Kings Meadow Park Basketball Courts, Miami-Dade County, Miami, FL
- Shiloh Football Field, City of Fruitland Park, Fruitland Park, FL



Lutheran High School Parker, CO

- Silo Public Schools Baseball & Softball, Silo, OK
- Heartwell Golf Course, American Golf, Long Beach, FL
- Rose Park Tennis Center, City of Abilene, Abilene, TX
- Weatherford Intermediate School District Baseball & Softball, Weatherford, TX
- Roy Anderson Sports Complex Baseball, City of Big Spring Park & Recreation, Big Spring, TX
- Golf Links Practice Range, Leonard Golf Links, Fort Worth, TX
- Malone High School Baseball Field, Jackson County Schools, Marianna, FL

- Raymond High School Football/Track, Raymondville Independent School District, Raymondville, TX
- Pickering High School Football Field, Vernon Parish School Board, Leesville, LA
- John Walter Smith Soccer Field, Worcester County Recreation & Parks, Snow Hill, MD
- Carmel Clay School District Baseball Quadplex, Carmel, IN
- Plum Senior High School Football & Track, Plum Borough School District, Pittsburgh, PA
- Donaldson Park Baseball, North Fayette Township, Oakdale, PA

- John A. Halter Shooting Sports Center Shooting Range, Trap & Skeet, Hillsdale College, Hillsdale, MI
- Northwest School District Football Field, Jackson, MI
- Drive Time Parking Area, Morrisville, PA
- Hart High School Football Stadium & Track, Hart Public Schools, Hart, MI
- Harrison High School Tennis Courts, Tippecanoe School Corporation, West Lafayette, IN
- Seeger High School Football Stadium & Track, MSD of Warren County, West Lebanon, IN
- Ben Davis High School Tennis Courts, Indianapolis, IN

- Nash Park Baseball Fields, Chatham Township, NJ
- Washington High School Football Field, Washington, PA
- Harbor Springs High School, Ottawa Stadium, Harbor Springs, MI
- Hillsdale College Baseball, Hillsdale, MI
- The Woods at Creekside Baseball Complex, Creekside Community Improvement District, Parkville, MO
- Rusk Intermediate School District Football Stadium, Rusk, TX
- North Florida Educational Institute Football Stadium, Jacksonville, FL

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■ South Walton High School
Baseball, Santa Rosa, FL

■ The Heritage School Baseball
& Softball, Newnan, GA

■ Shiloh Football/Soccer
Complex Football Game &
Practice Football, Fruitland Park,
FL

■ Kennesaw State Fifth Third
Stadium Football, Kennesaw, GA

■ Quincy High School Football
Stadium, Quincy, WA

■ Capitol Futbol Club Soccer
Field, Salem, OR

■ Clement Park Baseball,
Foothills Park & Recreation
District, Littleton, CO

■ The Harbor School Soccer,
Vashon Island Soccer Club,
Vashon, WA

■ Madison High School Event
Stadium Soccer, Madison School
District #321, Rexburg, ID

■ Exeter Sports Field
Football/Track, Exeter Public
Schools, Exeter, CA

■ Kearns High School
Baseball Park & Facility,
Kearns, CT



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- ◆ Chesterfield, MO
- ◆ Vineyard, UT
- ◆ Chattanooga, TN
- ◆ Charlotte SW, NC
- ◆ The Colony, TX
- ◆ Jacksonville, FL
- ◆ San Antonio, TX
- ◆ Birmingham, AL
- ◆ Albuquerque, NM
- ◆ Charlotte Univ, NC
- ◆ Cleveland, OH
- ◆ Fort Worth, TX
- ◆ Miami Gardens, FL
- ◆ Nashville, TN
- ◆ Overland Park, KS
- ◆ Ashburn, VA
- ◆ Augusta, GA
- ◆ Lake Mary, FL
- ◆ Doral, FL



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- ◆ Huntsville, AL
- ◆ Alpharetta, GA
- ◆ Tampa, FL
- ◆ Spring, TX
- ◆ Rogers, AR
- ◆ Omaha, NE
- ◆ Gilbert, AZ
- ◆ Scottsdale, AZ
- ◆ Roseville, CA
- ◆ San Jose, CA
- ◆ Renton, WA
- ◆ Richmond, VA
- ◆ Fishers, IN
- ◆ Buford, GA
- ◆ Orlando, FL
- ◆ Germantown, MD
- ◆ Thornton, CO
- ◆ Ontario, CA
- ◆ Mt. Laurel, NJ
- ◆ Myrtle Beach, SC
- ◆ Pharr, TX
- ◆ Greenville, SC

- ◆ Auburn Hills, MI
- ◆ Greensboro, NC
- ◆ Oklahoma City, OK
- ◆ Schaumburg, IL
- ◆ Virginia Beach, VA
- ◆ Pompano Beach, FL
- ◆ Philadelphia, PA
- ◆ Canton, MA

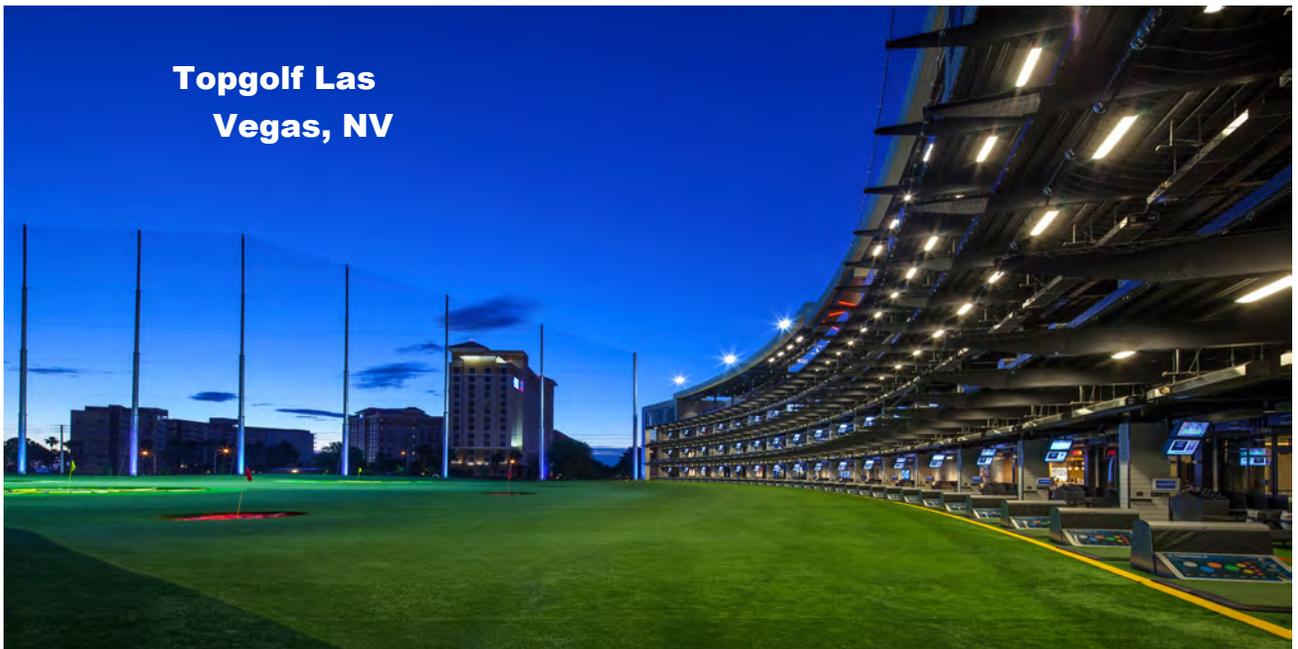
- ◆ Naperville, IL
- ◆ Wichita, KS
- ◆ Baltimore, MD
- ◆ National Harbor, MD
- ◆ Colorado Springs, CO
- ◆ Brooklyn Center, MN
- ◆ Boise, ID
- ◆ Louisville, KY

- ◆ Katy, TX
- ◆ Webster, TX
- ◆ Centennial, CO
- ◆ Salt Lake City, UT
- ◆ Glendale, AZ
- ◆ Columbus, OH
- ◆ Baton Rouge, LA
- ◆ El Segundo, CA

- ◆ West Chester, OH
- ◆ Schaumburg, IL
- ◆ Waco, TX
- ◆ Knoxville, TN
- ◆ Atlanta, GA
- ◆ Oklahoma City, OK
- ◆ St. Petersburg, FL
- ◆ Burlingame, CA

INTERNATIONAL VENUES

- ◆ Dubai, UAE
- ◆ Monterrey, Mexico
- ◆ Oberhausen, Germany
- ◆ Bangkok, Thailand
- ◆ Vienna, Austria



Topgolf Las
 Vegas, NV

J

Product Information

Keep Your Neighbors in the Dark.

Be a good neighbor with amazing
light spill & glare control!



Introducing the **ALL NEW**
GameChanger™ Gen 4 Series!

GAMECHANGER™

Q-LED™



Features:

- Meet and exceed spill & glare control requirements to keep your neighbors happy
- Driver cabinets lower on pole - no need for bucket truck to come back to your field for maintenance
- Wireless controls with no operation cost to you
- Entertainment package available; includes pre-set & custom scenes for field lights, dynamic & RGBA lighting
- 25-year warranty on parts & labor



Qualite GameChanger® Gen 4 QLED System offers the most advanced spill and glare control, making it the ideal choice when neighbors are close. It provides top-level field uniformity while reducing energy consumption for your project.

With 38 years of experience in the sports lighting industry, Qualite designs and produces all products in the USA. We have thousands of installations across the country.

We can also assist with the installation of lights and poles in most areas, if needed. Our 25-year full warranty includes parts & labor, ensuring a maintenance-free system for the owner. Our warranty covers both new installations and retrofit projects.

Additionally, we offer remote monitoring and adjustment capabilities for added convenience.

Qualite makes purchasing easy through national cooperative purchasing contracts. We provide project management to ensure a smooth process from start to finish.

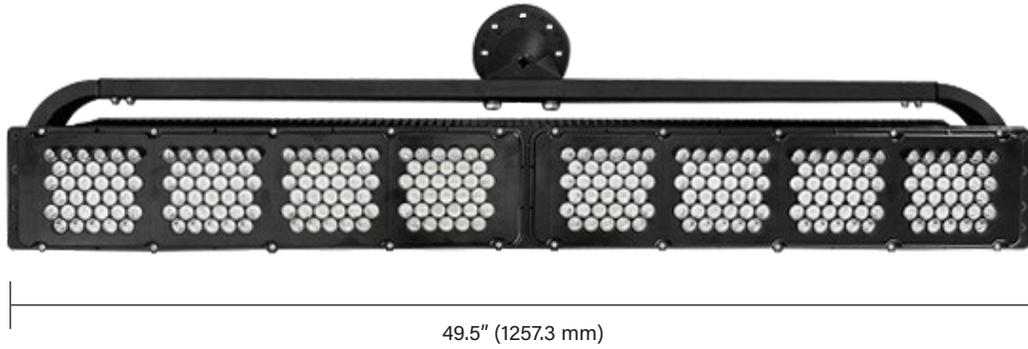
If you haven't compared Qualite Sports Lighting with other options, you have nothing to lose, and everything to gain. You'll receive a comprehensive design and quote package from an award-winning national provider, likely at a competitive price with all the features you need.

Make the better choice, with Qualite!

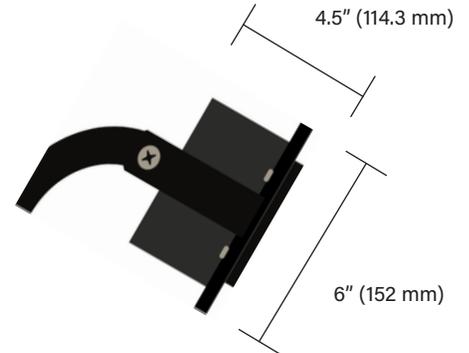
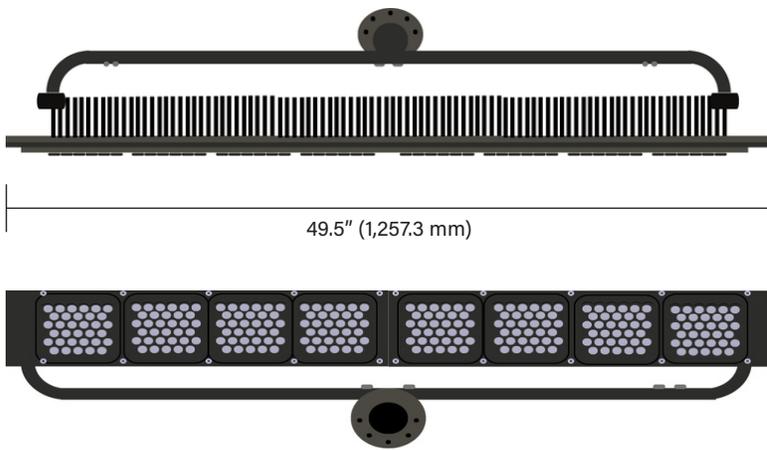
Consider Qualite for a great option that includes everything from inception to completion of your project, including specifications, light designs, engineering, quotations, light level audit, and complete installation.

Main: 800.933.9741 • Fax: 517.437.3146 • info@qualite.com • www.qualite.com

Fixture Technical Specifications



GEN 4



Applications

- Outdoor sports fields at all levels
- General area lighting

Controls

- LightCloud Gateway 4G
- Onsite touchscreen or smart switch w/dimmer

Input Power

- 208v - 240v auto sensing
- 277v - 480v auto sensing

Ratings

- IP66, -40°C to 55°C

GameChanger Electric Detail	GEN4 Series (up to)
Kw Draw	1.320
*Lumen Output	143,827
CCT	5,700
CRI	>80
Weight	39 lbs.
Current	Amps (up to)
277v	4.76
240v	5.50
208v	6.35
480 1 Ø	2.83
480 3 Ø	1.59 (w/ balanced load)

Please contact us for full technical specifications and all available options.

Basic Assembly Configuration

The GameChanger Lighting System

Pre-aimed, pre-wired and **FULLY ASSEMBLED** light racks for unequaled ease of assembly with guaranteed performance.

Features	System Benefits
High Efficiency LED	<ul style="list-style-type: none"> Lower power consumption Very Low Lumen depreciation 5700K / 80CRI Min
Pre-Wired and Pre-Aimed System	<ul style="list-style-type: none"> Ease of Installation Guaranteed light levels System engineered components
Nearly Instant On/Off	<ul style="list-style-type: none"> Allows for emergency No warm-up/cool-down time
Color-Consistency Dimmable	<ul style="list-style-type: none"> Maintains high denition quality lighting Power savings and design flexibility
Environmentally Safe	<ul style="list-style-type: none"> ROHS compliant

Pre-wired, pre-aimed, and pre-assembled light stanchion - lights available with full visors as shown



Junction box

Remote driver / Distribution cabinet (see details below)

Qualite provided wire harness (internal to the pole)



Driver Distribution Cabinet



Remote Driver Cabinet
Mounted 10 ft. off the ground for safety and accessibility



Controller Gateway
Can be mounted in concessions, electrical room, outside, etc. Requires 120v outlet.

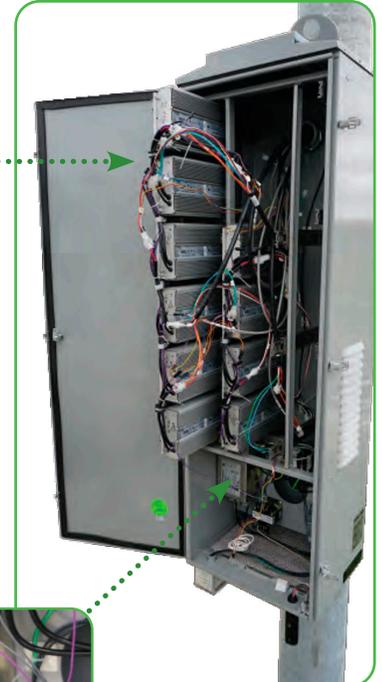
Surge Protection
100kA Rating
Fail Safe Operation
Built-in Thermal Disconnect

Easy Access Driver
with pullout service slides

Programmable IP67 Rated Drivers
with internal thermal protection power supply

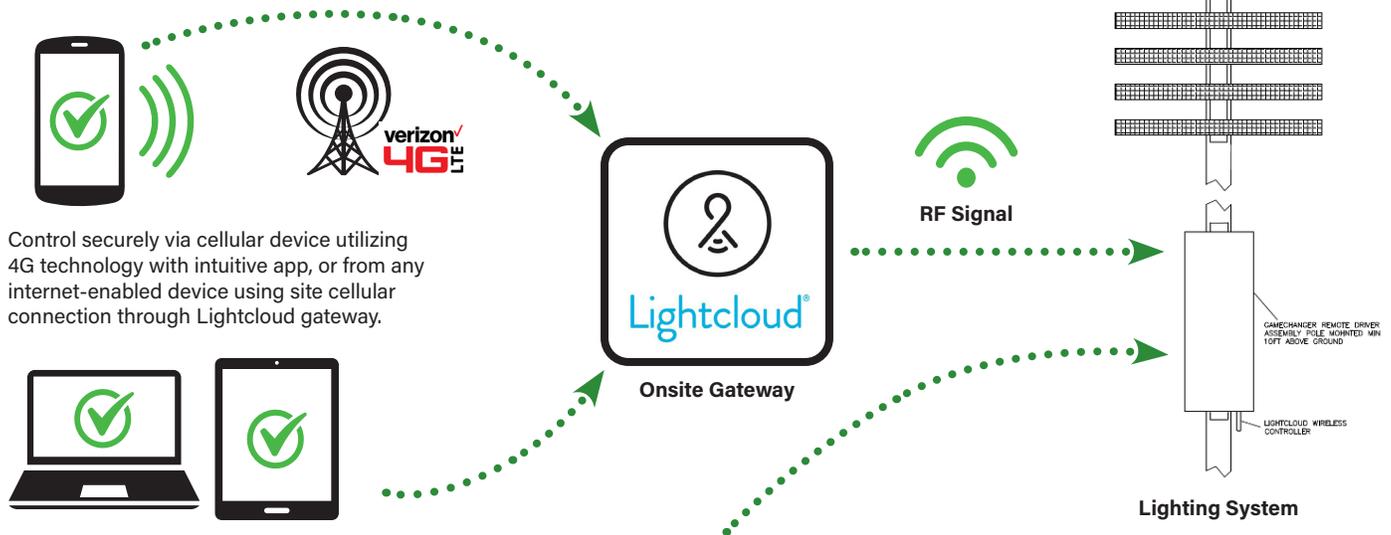
Wireless Controller Disconnect
Pre-wired for single point disconnection

Fused for redundant protection



Power Line Filter
Reduce EMI and RFI (both direction)

Control & Switching Options



Redundant Onsite Control Option

Touchscreen and Smart Switch talk directly to the pole in the event the gateway should fall offline. Either option can be used as a redundant back-up control option or easy access onsite control without the use of cellular gateway or phone. Either unit communicates directly to pole driver enclosure.



– OR –



About Qualite

If you haven't compared Qualite Sports Lighting to your other options recently, you have nothing to lose and everything to gain. Discover the difference with our comprehensive design and quote package from an award-winning national provider of sports lighting. You'll likely find a competitive price that includes all the features and functions you need.

Qualite has been the sports lighting partner for high schools, colleges, parks and recreation departments, and minor and major league professional sports franchises for over 30 years. Qualite's Q-LED GameChanger™ is the first high performance sports lighting system designed for all sports venues, from youth to professional sports stadiums, with a focus on great connectivity and functionality at affordable pricing.

25-Year Service Warranty

Qualite provides a complete 25-year service and performance warranty. This warranty includes parts, labor and equipment to keep your lighting system running at it's peak performance for a full 25 years. All service work is performed by our factory-trained service technicians. We also utilize our wireless controls for system monitoring and remote service.



Let us know when you are ready to make a better choice!

Main: 800.933.9741 • Fax: 517.437.3146 • info@qualite.com • www.qualite.com

Qualite
SPORTS LIGHTING, LLC

RAB CONTROLS - IN PARTNERSHIP WITH QUALITE

The Lightcloud Dimmer is an in-wall device that delivers remote switching, dimming and scene control. Easily trigger one of your scenes, or toggle between multiple scenes.
Color: White Weight: 0.5 lbs

TECHNICAL SPECIFICATIONS

Compliance

UL Listed: Indoor use only

Electrical

Installation: All Lightcloud components should be installed by a licensed electrician in accordance with local codes.

Input Voltage: 120V through 277V

Frequencies: 50/60 Hz

Electrical Ratings:

14 mA @ 120VAC

10 mA @ 277VAC

Construction

Operating Temperature Range:

0°C to 40°C

Storage Temperature Range:

-40°C to 85°C

Maximum Relative Humidity:

85%

Wire Gauge:

18AWG grounding; terminals supporting up to 12AWG wire

Wireless Range

Line of Sight:

1000 feet

Obstructions:

100 feet

Other

Warranty:

10-year full hardware warranty with 100% repair/replacement coverage for all properly installed devices. See Lightcloud Warranty Terms.

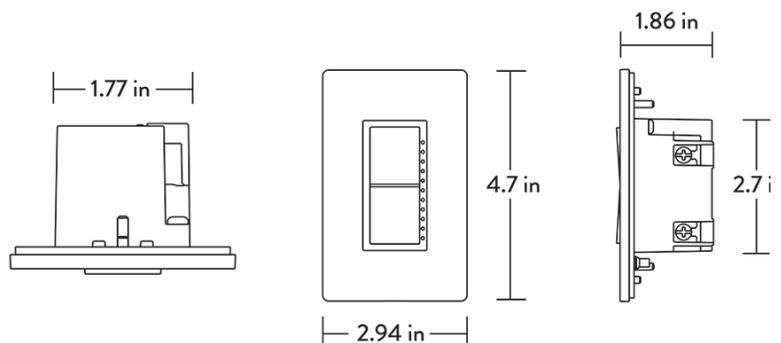
Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.



Features

In-wall device for switching, dimming and scene control
Switch and dim individual fixtures or entire zones
Dimming features both fade on/off and rapid full-on
Assign scenes to top and/or bottom buttons
Set the max trim level for a zone or fixture to save energy
Use together with Lightcloud Controller or Sensor devices.



GAMECHANGER™

Q-LED™



Top Golf



(517) 439-1581
www.qualite.com
 1-800-933-9741



K

Delivery



March 10, 2026

To Whom It May Concern:

Once an order is placed with Qualite, we would expect two (2) weeks for submittals to be delivered and approved.

Once approved for a new project, we can have materials available approximately eight (8) to ten (10) weeks.

We see no issue in meeting project time requirements as we coordinate with the district.

Thank you.

A handwritten signature in black ink that reads "Renny Coe". The signature is written in a cursive style with a large, sweeping 'C' at the end.

Renny Coe
Northeast Sales Manager
Qualite Sports Lighting, LLC
Cell: 517.914.6225 Factory: 800-933-9741
Email: rcoe@qualite.com

L

Cost Of Ownership

PROJECT: Bronson Community Schools - JR/SR High Schoo
 DESIGN #: 23680D1-A
 DATE: 3/10/2026



Fixture Quantity	kW	kWh rate	Annual Usage	Life (years)	Total
40	1.3	\$ 0.19040	300	25	\$ 74,256.00
Communications Cost for wireless Controls are covered for 25 years					0
All Maintenance Cost are covered for 25 years					0
Total 25-Year Life-Cycle Operating Cost					\$ 74,256.00

M

Domestic US Content



March 10, 2026

Re: Buy American Compliance

To Whom it May Concern:

We are confirming compliance with "Buy American Act."

This project contains 38% of its costs for foreign goods and 62% of its costs are for domestic products.

Please reach out should you have questions.

A handwritten signature in black ink, appearing to read "Mikel J. Boorum", written in a cursive style.

Mikel J. Boorum, PE

V.P. Product Development & Manufacturing | **Qualite Sports Lighting, LLC**

T: 517.610.5709 | F: 517.437.3146 | C: 517.795.3718

MBoorum@qualite.com

215 W. Mechanic, Hillsdale, MI 49242

Visit us online: [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#) | [LinkedIn](#)



N

About Qualite

QUALITE HAS OVER 40 YEARS OF EXPERIENCE IN THE STADIUM & FIELD LIGHTING INDUSTRY

WHO WE ARE

Qualite has been the sports lighting partner for high schools, colleges, parks and recreation departments, and minor and major league professional sports franchises for over 40 years. Qualite's Q-LED GameChanger™ is the first high performance sports lighting system designed for all sports venues, from youth to professional sports stadiums, with a focus on great connectivity and functionality at affordable pricing.



LIGHTING SYSTEM DESIGN

Qualite utilizes its experienced design team to develop complete lighting designs that provide code-compliant, yet energy-efficient, lighting systems.

PROJECT MANAGEMENT

Qualite offers complete project management to provide seamless, ontime completion of your project.



WHERE ARE WE LOCATED

Qualite maintains corporate operations in Hillsdale, MI, along with our manufacturing facility, sales and customer service teams.

COMPLETE INSTALLATION SERVICES

Allow Qualite to provide a turnkey solution. From design and manufacturing to installation by our trained factory installation and service team. Each member has extensive knowledge of our products offering code-compliant installation.

25-YEAR SERVICE WARRANTY

Qualite provides a complete 25-year service and performance warranty. This warranty includes parts, labor and equipment to keep your lighting system running at its peak performance for a full 25 years. All service work is performed by our factory-trained service technicians. We also utilize our wireless controls for system monitoring and remote service.



THE AWARD-WINNING QLED GAMECHANGER LIGHTING SYSTEM IS DESIGNED AND MANUFACTURED IN THE USA



THE GAMECHANGER

The art of design is clearly illustrated with the QLED GameChanger™ Lighting System. With proprietary optical lenses that provide precision lighting on and off the field, the GameChanger is designed for performance and energy savings. The GameChanger is factory-aimed and guaranteed to perform as designed for 25 years.

INNOVATIVE HELICAL DESIGN

Old-style, straight crossarms are obsolete. A new, fresh approach utilizes a vertically-mounted stanchion providing lower wind loads on poles and higher performance. Also, by centering loads, lighting poles are subjected to less torsional loads, in turn extending their life. The helical design is very efficient for lighting efficiency, as well, and allows the designer to maintain good aiming angles while limiting spill.



PRECISE LIGHTING CUT-OFF

The GameChanger offers a wide range of cut-off capabilities. With precision optical lenses, lighting cut-off can be achieved in most cases. If extreme cut-off is needed, Qualite engineers add an external visor that extends the cut-off and increases the cut-off capabilities.

Gamechanger Performance Specifications



ELECTRICAL DETAIL	GC600	GC1200
Input Watts	600 W	1200 W
KW Draw	.65	1.3
Lumen Output	>60,000	>120,000
Lumens/Watts	>115	>115
CCT	5,700	5,700
CRI	>80	>80
Weight	25 lbs	39 lbs

CURRENT	AMPS	AMPS
480 V, 1P	1.35	2.70
277 V, 1P	2.35	4.70
240 V, 1P	2.71	5.42
208 V, 1P	3.13	6.26
120 V, 1P	5.42	10.80

- Pre-Wired System
- Pre-Aimed Optics
- Remote Driver Enclosure
- Over Current Protected
- Power Conditioner Included
- Service Disconnect Included
- No Exposed Wiring
- Wiring Harness Included
- Wireless Controls Included
- No WIFI Required
- Dimming Capabilities
- Customer-Designed Scenes
- Advanced Scheduling Capabilities
- Remote Diagnostics Included
- Steel or Concrete Pole Options
- Precision Optics Included
- Built-In Glare Control
- IP66, -40L C TO 55L C
- Lightning Protection
- External Visor (optional)
- 24/7 Tech Support
- 25-Year Warranty
- Performance Guarantee
- Extreme Reliability
- 100,000+ hour life
- HDTV Compatible
- Retrofit Compatible
- Made in the USA
- ROHS Compliant
- Enviromentally-friendly packaging



M. Eric Boorom,
Founder



- Founder of Worth Capital and Worth Investment Group
- Proven track record of over 26 years in operations management, turnarounds, workouts, banking, finance, and mergers & acquisitions
- The Bank of Tokyo-Mitsubishi, the second largest bank in the world; worked as a team member in the Special Assignments Group
- ABN-AMRO/LaSalle National Bank, one of the world's largest banks headquartered in Chicago, Illinois; Worked as a credit analyst, and was also involved in debt recapitalization, operational reengineering, turnaround financing, workout and bankruptcy transactions, real estate financing, enterprise value transactions (cash-flow based financing), mergers, acquisitions, cross-border financing and the issuance/procurement of subordinated debt, bonds and equity.
- Currently President and CEO of Worth Holdings, LLC
- Currently President and CEO of Qualite Sports Lighting, LLC
- Bachelor of Science in finance from Michigan State University



Mikel J. Boorum, P.E.
VP and Director of Product
Development and
Manufacturing



Mikel Boorum started his career working for Commonwealth Engineers, where he designed high-voltage steel and aluminum transmission line structures, including sectional steel pole structures, also designing the reinforced concrete foundations for the structures.

Mr. Boorum was involved with the structural concrete design for a number of nuclear power plants, and has provided engineering expertise in the fields of aerodynamics, aircraft structural analysis and design.

He has been employed by SAFRAN as an expert in the integration of aircraft diesel power plants on general aviation aircraft during which he provided on-site expertise for various projects in France and Central America. He has provided contract services for the Structural Steel Industry and Aircraft Industry. Composite materials integration in current aircraft design optimization of aero dynamic drag reduction.

He has been active in the American Institute of Steel Construction, American Concrete Institute, National Society of Professional Engineers, American Institute of Aeronautics and Astronautics, Society of Automotive Engineers, American Society of Civil Engineers and Structural Engineering Institute.

In addition, he holds an FAA Airframe and Powerplant Mechanics Certificate, Private Pilot's License, with Single Engine and Multi-Engine, Instrument Rating, Seaplane Rating. He has over 10,000 hours of flight time, ranging from ultraflights to Lear jets.

Mr. Boorum earned his bachelor of science degree in Civil/Structural Engineering from Michigan State University and additional studies in soil mechanics, composite structures design, FAA Certification procedures and Forensic Analysis of Structural Failures.



Robert Denning, Sr. VP of West Coast Sales and Construction Services



Bob Denning is the Sr. VP of West Coast Sales and Construction Services, with 40+ years of experience in managing successful organizations.

Mr. Denning joined the Worth Team in 2015, after taking an early retirement from Verizon, where he managed large groups of Construction and Service teams. His organization covered northern California, where he led diverse workgroups of management and union employees. Bob specializes in developing a positive workplace culture, empowering teams, and employees to achieve defined goals. Bob has a degree in Information Technology from PACE University in White Plains, NY, and is a licensed Electrical Contractor in California.

Capabilities and areas of expertise:

- Leadership to coordinate the efforts of multiple teams working across the United States
- Team management to effectively execute project goals
- Issue resolution
- Review construction plans and material needs
- Estimating labor and material costs
- Identify potential contractors
- Oversee daily operations
- Recommend changes to improve
- Licensed Electrical Contractor in several states
- Career of managing large electrical construction teams across the United States, including 34 years at FTE/Verizon and 8 years at Qualite Sports Lighting



Renny Coe

Qualite Sales Manager
North East United States

Renny Coe is the Qualite Sales Manager for the North East United States area.

Renny joined the Qualite Sports Lighting team in 2018, bringing over 32 years of sales expertise.

Highly motivated and accomplished Sales Professional with years of experience in developing strong relationships for successful client/customer outcomes. Skilled in partnering with School Districts and Local Municipalities to address short- and long-term goals for Sports Lighting projects. Has a proven track record of developing and implementing creative Sports Lighting solutions.

Key Skills and Capabilities

- Relationship Building
- Sales Strategy
- Customer Engagement
- Solution-Oriented Approach
- Developing and nurturing long-lasting relationships with school districts and local municipalities.
- Successfully promoting sports lighting options to meet clients' needs and enhance their sports facilities.
- Presentation of proposed Sports Lighting projects to individuals, small or large groups.
- Collaborating with architects, engineers, and decision-makers to plan and execute sports field lighting projects.
- Demonstrated expertise in promoting and presenting energy-efficient options for lighting athletic facilities.



Heather Jeffrey
Sales and Marketing Manager



Heather Jeffrey is the Marketing/Sales Manager for Qualite Sports Lighting.

She joined the team in 2017 and brought with her two decades of marketing, management and sales experience.

Prior to joining our team, she owned and operated her own successful marketing/sales support company. Prior to that, for 18 years, she served as the Executive Editor of two daily newspapers, two total market coverage publications and four weekly newspapers in Michigan.

She studied journalism at Michigan State University and radio/television broadcasting at Kellogg College.

Heather, who started as a customer concierge, specializes in leading our marketing efforts and customer service teams, with a special emphasis on the facilitation/management of our inside and outside sales team.

Capabilities areas of expertise:

- * Sales, customer service and marketing team management;
- * Oversee sales, customer service and marketing team daily duties;
- * Communications;
- * Customer retention;
- * Software administration;
- * Value-engineering options;
- * Bid Packages;
- * Quoting;
- * Marketing presentations; and
- * Email marketing.



Brooke Buschmann
Inside Sales



Brooke Buschmann is a proud Hillsdale native and graduate of Hillsdale Academy. Brooke spent four years with DuPont, where she developed strong technical and problem-solving skills while working in a hands-on, team-oriented environment. Her time there provided valuable experience in operations and practical engineering applications, which she continues to build upon through her studies and current work.

Brooke is known for her reliability, work ethic, and commitment to quality. Brooke brings a thoughtful and disciplined approach to every project she's part of. Her combination of local roots, real-world experience, and ongoing education makes her a strong asset to the team.

Capabilities areas of expertise:

- * Customer Service
- * Quoting
- * Marketing
- * Bid Packages
- * Communication
- * Project Leadership
- * Operations



Patricia Del Rio
Lighting Design Engineer

Patricia del Rio is an Orlando-based Lighting Design Engineer with over 20 years of experience in manufacturing engineering and the lighting industry.

Patricia joined the Qualite Sports Lighting Team in 2023. Patricia is an expert in lighting design analysis for indoor and outdoor sports projects that comply with IES lighting standards. Patricia's expertise includes indoor, outdoor, roadway, and sports lighting.

As a lighting designer, Patricia has analyzed and developed designs for occupational settings (i.e. offices, schools, warehouses), commercial settings (i.e. restaurants, hotels, parking garages), and life safety egress (i.e. corridors, stairwells). Patricia's latest experience has been with Qualite Sports Lighting, providing lighting designs for sports fields (i.e. football, soccer, baseball, softball, and more) and indoor sports facilities (i.e. basketball arenas).

Patricia is focused on excellence through continuous improvements, creative solutions, and analytical approaches to provide exceptional results. Patricia excels through mentoring, training, and empowering junior designers to excel. Patricia is a proud member of the Illuminating Engineering Society.

Capabilities and areas of expertise:

- Bachelor of Science in Mechanical Engineering from Florida Atlantic University
- Master of Science in Occupational Safety Management from Embry-Riddle Aeronautical University
- Lean manufacturing and design engineering
- Lighting Analysis & Design using AGI32 Lighting Analyst
- Understand & Interpret the NFPA Life Safety Code
- IES/NA Recommendations & Guidelines
- OSHA Compliance & Safety
- AutoCAD / REVIT / Sketchup
- Leadership & Mentoring
- Inside sales/manufacturer's representative
- Indoor, outdoor, parking garages, stairwells, commercial, industrial, sports lighting, egress



Daniel Elias,
Electrical Engineer/
Master Electrician



Daniel Elias serves as Qualite Sports Lighting's electrical engineer.

He was born and raised in Argentina and came to the United States about 20 years ago. He lived in Hollywood, Florida and later moved to San Antonio, Texas, where he lives now with his wife and children.

He has worked in the electrical field for entire life and recently completed his schooling and graduated with an electrical engineer degree. He is a master electrician. He specializes in electrical layout and material planning, as well as provides on-site leadership to execute the quality of installation. He has 12 years experience in the electrical trade.

Samuel C. Spragg:
Production & Facilities Manager



Sam Spragg is the Production and Facilities Manager, with more than 15 years of experience in managing and organizing production and transportation.

Mr. Spragg joined the team in 2023, after a plant closure in the automotive industry, where he managed production employees, transportation and scheduling teams. His organization covered North America, supplying the automotive industries with just in time management. He led diverse work groups of management and union employees. Sam specializes in developing a positive workplace culture and boosting morales, as well as empowering teams and employees to achieve defined goals.

Capabilities and areas of expertise:

- Leadership, team-building, transparency;
- Promoting a safe work environment;
- Quality assurance;
- Coordinating new policies and procedures;
- Team management to effectively execute project goals;
- Review and execute production plans and material needs;
- Problem-solving;
- Identify potential cost savings;
- Oversee daily operations and scheduling of jobs;
- Encourage and enhance self-awareness;
- Promoting adaptability;
- Formulate changes to improve;
- Ability to strategize new concepts;
- Implementing product improvements; and
- 24-year career of managing a strong and efficient work force.

Christopher Parks,
Senior Project Manager



Chris Parks is a senior project manager with Qualite, who oversees a crew for warranty and service. He also handles customer service, Qualite controls trouble-shooting, and has eight (8) years of management experience.

Mr. Parks started with the Qualite team in 2012 on the production floor and worked his way up to warehouse manager, then to purchasing manager, then to production manager and finally, to his current Senior Project Manager position. He has helped develop good production work-flow to help meet production goals and time lines.

Capabilities and areas of expertise:

- Leadership to coordinate the effective completion of production needs to meet customer deadlines
- Team management to effectively execute project goals
- Technical trouble-shooting of LED and Metal Halide systems and controls
- Oversee daily operations
- Issue resolution
- Crew route planning
- Scheduling crews and production
- Purchasing and product sourcing
- Safety procedures