



**SITE PLAN REVIEW
AND
STORMWATER MANAGEMENT PERMIT**

**TRACK AND FIELD RENOVATIONS PROJECT
MILLBURY JR/SR HIGH SCHOOL
MILLBURY, MASSACHUSETTS**

January 24, 2020

Prepared for:

Millbury Public Schools
12 Martin Street
Millbury, Massachusetts 01527

Prepared by:

Gale Associates, Inc.
163 Libbey Industrial Parkway
Weymouth, MA 02189
Gale JN 716383

SITE PLAN REVIEW
AND
STORMWATER MANAGEMENT PERMIT

TRACK AND FIELD RENOVATIONS PROJECT
MILLBURY JR/SR HIGH SCHOOL
MILLBURY, MASSACHUSETTS

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Gale Associates, Inc.

163 Libbey Parkway | Weymouth, MA 02189

P 781.335.6464 F 781.335.6467

www.galeassociates.com

January 24, 2020

Town of Millbury
Planning Board
Town Hall
127 Elm Street
Millbury, MA 01527

Re: Site Plan Review/ Stormwater Permit
Millbury JR/SR High School Track and Field Renovations
Millbury, MA
Gale JN 716383

Dear members of the Millbury Planning Board:

On behalf of Millbury Public School, Gale Associates, Inc. (Gale) is providing the attached Site Plan Review Application Package for the proposed athletic campus renovations at Millbury JR/SR High School. Renovations to the athletic campus include:

- Constructing a new, durable, multipurpose, all-weather synthetic turf field inside the track that can sustain all the Millbury JR/SR High School's athletics programs including football, soccer, lacrosse, field hockey and cheerleading.
- Constructing a new running track into an eight-lane straightaway and six-lane oval running track.
- Converting the existing natural turf softball field into a durable, all-weather synthetic turf softball and multipurpose practice field that can sustain Millbury High School's athletics programs.
- LED athletic lighting at the track field with an alternate for lighting the softball field.
- 500 seat aluminum grandstand that includes a press box, with ADA access with an alternate for 750 seats.
- 1,200± SF amenities building that includes restrooms, equipment storage, concessions and a ticket sales room.

Other site improvements include:

- New walkways throughout the site.
- Parking improvements including removing the southeastern parking lot off of Orchard Street and converting this area into an emergency vehicle access point, expansion of the parking area to the northwest of the complex, and a new parking area to the southwest of the campus.

- Site security/safety lighting.

Work is proposed within the 100-ft buffer to the BVW. Therefore, a Notice of Intent (NOI) with the accompanying Stormwater Management Report has been filed with MADEP and the Millbury Conservation Commission.

As required, this Site Plan Review and Stormwater Permit Submittal includes the following:

- Site Plan Review Application (6 copies, including Site Plan Review Checklist)
- Stormwater Permit Application (6 copies, including Stormwater Permit Checklist)
- Permit Plan Set (3 full-size copies, 6 11x17 copies)
- Applicable Supporting Materials
 - Stormwater Management Report (1 Copy)
- Electronic (.pdf) Files of the entire submission package (provided on attached flash drive)

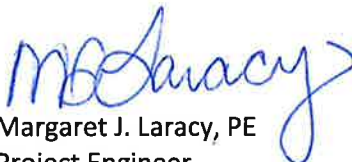
We hope you find this submittal to be complete. Please do not hesitate to contact the undersigned, at (781) 335-6465 or jmp@gainc.com, if there are any questions, comments or requirements for additional information.

Respectfully submitted,

GALE ASSOCIATES, INC.



John M. Perry, PE
Chief Civil Engineer



Margaret J. Laracy, PE
Project Engineer

JMP/lad

**TOWN OF MILLBURY
APPLICATION FOR SITE PLAN REVIEW**

APPLICANT:

NAME Millbury Public Schools - Contact: Richard Bedard

STREET 12 Martin Street CITY/TOWN Millbury

STATE MA ZIP 01527 TELEPHONE 508-685-9501

NAME OF PROPERTY OWNER (if different from Applicant) _____

Deed recorded in the Worcester District Registry of Deeds Book 3341 Page 365

SITE INFORMATION:

STREET AND NUMBER 12 Martin Street (Millbury Memorial Jr/Sr High School)

ZONING DISTRICT R-1 ASSESSOR'S MAP/LOT #(S) 35/95

LOT SIZE 30 Acres FRONTAGE 0

CURRENT USE School

PROJECT PLAN INFORMATION:

PLAN TITLE Millbury Jr/Sr High School - Track and Field Renovations Project

PREPARED BY (name/address of PE/Architect) Gale Associates, Inc. - 163 Libbey Parkway, Weymouth, MA 02189

DATES 01-24-2020

USES FOR WHICH SITE PLAN REVIEW PERMIT IS SOUGHT (refer to the Zoning Bylaw - Use Regulation Table):
School (No change in use)

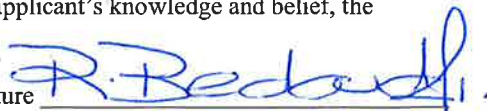
CITE ALL APPROPRIATE SECTIONS OF THE ZONING BYLAW WHICH PERTAIN TO THIS APPLICATION; USE AND SITE: Millbury Zoning By-laws:

Article 1, Section 12.4; Article 2, Section 22.12; Article 3, Section 33.3

TO THE MILLBURY PLANNING BOARD:

The undersigned, being the Applicant named above, hereby applies for Site Plan Review to be granted by the Planning Board and certifies that, to the best of applicant's knowledge and belief, the information contained herein is correct and complete.

Applicant's Signature



Property Owner's Signature (if not Applicant) _____

CHECKLIST

Millbury Planning Board Submission of Site Plan Review

Plan Name: Millbury Jr/Sr High School - Track and Field Renovations Project

Property Address: 12 Martin Street Assessor's Map 35, Lot 95

Applicant's Name: Millbury Public Schools **Address:** 12 Martin Street, Millbury MA **Tel. No.** 508-865-9501

(If the applicant is not the owner, a notarized statement authorizing the applicant to act on the owner's behalf and disclosing his interest shall be submitted)

Owner's Name: Millbury Public Schools **Address:** 12 Martin Street,
Contact: Richard Bedard Millbury, MA 05127 **Tel. No.** 508-865-9501

Engineering Firm: Gale Associates, Inc. **Address:** 163 Libbey Parkway,
Weymouth, MA 02189 **Tel. No.** 781-335-6465

Submission Checklist:

- N/A 1) Submission Fee of \$ _____ and Technical Review Fee of \$ _____ made payable to the Town of Millbury
- X 2) One original Site Plan (at a scale of 1" = 20'), ten (10) full size copies, and seven (7) 11" x 17" copies thereof showing:
- X a. Names, addresses and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan. If the applicant is not the owner, submit a notarized statement authorizing the applicant to act on the owner's behalf and disclosing his interest.
- X b. Identification of the plan by name of the project, property address, assessor's map and lot number, the date, datum NAD83 and NAVD 88, north arrow, names of abutters and scale.
- X c. Natural features including watercourses, water bodies, wetlands, soil properties, and any other environmental features of the landscape that are important to the site design process.
- N/A d. Location of all existing and proposed easements, rights-of-way and other encumbrances.
- N/A e. All floodplain information, including the contours of the one-hundred (100) year flood elevation based upon the most recent Flood Insurance Rate Map for Millbury, or as calculated by a professional land surveyor for unmapped areas.
- X f. Location, width, curbing, and paving of all existing and proposed streets, rights-of-way, easements, alleys, driveways, sidewalks, and other public ways.
- X g. Location of all pavement markings.
- X h. Location of all existing and proposed on-site snow storage areas.
- X i. Location and name of all streets and indicate whether the street is a public or private way.
- X j. Lot lines with dimensions.
- X k. Zoning district lines.
- X l. Five (5) signature lines for the Planning Board approval.
- X m. Existing and proposed topography contour lines at one (1) foot intervals.
- X n. Information on the location, size, type and number of existing and proposed landscaping features.
- X o. Information on the location, size and capacity of existing and proposed on-site and abutting utilities (water, sewer, drainage, electrical, cable, etc.)
- X p. The location, type and intensity of lighting, the location and dimensions of all signage and any site amenities, the location screening of refuse containers.
- X q. The location, dimensions of all existing and proposed buildings and uses on-site and on abutting properties.
- X r. Elevation and façade treatment plans of all proposed buildings.
- X s. Information on the location, size, and type of parking, loading, storage and service areas.
- X t. Zoning and other applicable setback distances, and zoning parking calculations
- N/A u At least three property boundary marker locations, remotely separated, indicated with Mass Grid Plane Coordinates
- X 3) A landscape plan at the same scale as the site plan, showing the limits of work, existing tree lines and all proposed landscape features and improvements including planting areas with size and type of stock for each shrub or tree.
- N/A 4) An isometric line drawing (projection) at the same scale as the site plan, showing the entire project and its relation to existing areas, building and roads for a distance of one hundred feet from the project boundaries.
- X 5) A locus plan at a scale of one inch equals 100 feet (1" = 100') showing the entire project and its relation to existing areas, buildings and roads for a distance of one hundred (100) feet from the project boundary or such other distances as may be approved or required by the Planning Board.
- N/A 6) Building elevation plans at a scale of one-quarter inch equals one foot (1/4" = 1') or one-half inch equals one foot (1/2" = 1') showing all elevations of all proposed buildings and structures and indicating the type and color of materials to be used on all facades.
- N/A 7) Development impact statements which shall describe potential impacts on the proposed development, compare them to the impacts of uses which are or can be made of the site without a requirement of site plan review, identify all significant positive or adverse impacts, and propose an acceptable program to prevent or mitigate adverse impacts. The development impact statement shall include:
- N/A a. Traffic Impact Assessment
- N/A b. Environmental Impact Assessment

N/A c. Fiscal Impact Statement

N/A d. Historic Impact

Note: The Planning Board may waive any of the above listed requirements if it believes that said requirement is not necessary based on the size and scope of the project. The applicant may petition the Planning Board prior to making a formal application to request notification as to which sections (s) of the site plan review by-law requirements are necessary. The Planning Board will then notify the applicant within thirty (30) days as to which sections relate to the proposed project based on the size and scope of the project.

The Millbury Planning Board has accepted the submission of the above Site Plan. This document certifies that, as currently submitted, the Site Plan meets the minimum submission guidelines as set forth by the Town of Millbury. This document certifies that the Site Plan is officially accepted for Planning Board review and consideration. It does not constitute approval of the Site Plan.

Town Planner/Planning Board Clerk Signature _____ Date _____

**TOWN OF MILLBURY
APPLICATION FOR STORMWATER PERMIT**

APPLICANT:

NAME Millbury Public Schools - Contact: Richard Bedard

STREET 12 Martin Street CITY/TOWN Millbury

STATE MA ZIP 01527 TELEPHONE 508-865-9501

NAME OF PROPERTY OWNER (if different from Applicant) Town of Millbury

Deed recorded in the Worcester District Registry of Deeds Book 3341 Page 365

SITE INFORMATION:

STREET AND NUMBER 12 Martin Street (Millbury Memorial Jr/Sr High School)

ZONING DISTRICT R-1 ASSESSOR'S MAP/LOT #(S) 35/95

LOT SIZE 30 Acres FRONTAGE 0

CURRENT USE School

PROJECT PLAN INFORMATION:

PLAN TITLE Millbury Jr/Sr High School - Track and Field Renovations Project

PREPARED BY (name/address of PE/Architect) Gale Associates, Inc. - 163 Libbey Parkway, Weymouth, MA 02189

DATES January 21, 2020

USES FOR WHICH STORMWATER PERMIT IS SOUGHT

School (No change in use)

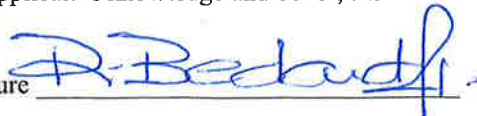
**CITE ALL APPROPRIATE SECTIONS OF THE GENERAL BYLAW WHICH
PERTAIN TO THIS APPLICATION; USE AND SITE:**

Article 1, Section 12.45 (d)(e)(g)(s)

TO THE MILLBURY PLANNING BOARD:

The undersigned, being the Applicant named above, hereby applies for a Stormwater Permit to be granted by the Planning Board and certifies that, to the best of applicant's knowledge and belief, the information contained herein is correct and complete.

Applicant's Signature



Property Owner's Signature (if not Applicant)

CHECKLIST
Millbury Planning Board
Submission of Stormwater Plan Review

Plan Name: Millbury Jr/Sr High School - Track and Field Renovations Project

Property Address: 12 Martin Street, Millbury, MA 01527 Assessor's Map 35, Lot 95

Applicant's Name: Millbury Public Schools **Address:** 12 Martin Street, Millbury, MA **Tel. No.** 508-865-9501
(If the applicant is not the owner, a notarized statement authorizing the applicant to act on the owner's behalf and disclosing his interest shall be submitted)

Owner's Name: Millbury Public Schools **Address:** 12 Martin Street,
Contact: Richard Bedard Millbury, MA 01527 **Tel. No.** 508-865-9501
163 Libbey Parkway,

Engineering Firm: Gale Associates, Inc. **Address:** Weymouth, MA 02189 **Tel. No.** 781-335-6465

Submission Checklist:

- N/A 1) Submission Fee of \$ _____ and Technical Review Fee of \$ _____ made payable to the Town of Millbury
- X 2) One original Stormwater Management Plan and ten (10) copies thereof showing:
- X a) Names, addresses and telephone numbers of the owner, applicant and person(s) or firm(s) preparing the plan
- X b) Name of project, property address, assessor's map and lot number, the date, north arrow, names of abutters and scale
- X c) A locus map
- N/A d) The existing zoning, and land use at the site
- X e) The proposed land use
- N/A f) The location(s) of existing and proposed easements
- X g) The location of existing and proposed utilities
- X h) The site's existing & proposed topography with contours at one (1) foot intervals
- X i) The existing site hydrology
- X j) A description and delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows
- N/A k) A delineation of 100 year flood plains, if applicable
- X l) Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention or infiltration
- X m) The existing and proposed vegetation and ground surfaces with runoff coefficient for each
- X n) A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths
- X o) A description and drawings of all components of the proposed drainage system, including:
- X Locations, cross sections and profiles of all brooks, streams, drainage swales and their method of stabilization
- X All measures for the detention, retention or infiltration of water
- X All measures for the protection of water quality
- X The structural details for all components of the proposed drainage systems and stormwater management facilities
- X Notes on drawings specifying materials to be used, construction specifications and typicals
- X Expected hydrology with supporting calculations
- X p) Proposed improvements including locations of buildings or other structures, impervious surfaces, and drainage facilities if applicable
- X q) Timing schedules and sequence of development including clearing, stripping, rough grading, construction, final grading and vegetative stabilization
- X r) A maintenance schedule for the period of construction
- X 3) One original Operation and Maintenance Plan and ten (10) copies thereof showing:
- X a) The names(s) of the owners(s) for all components of the system
- N/A b) Maintenance agreements that specify:
- X The names and addresses of the person(s) responsible for operation and maintenance
- X The person(s) responsible for financing maintenance and emergency repairs
- X A maintenance schedule for all drainage structures, including swales and ponds
- X A list of easements with the purpose and location of each
- X The signature(s) of the owner(s)

Note: The Planning Board may waive any of the above listed requirements if it believes that said requirement is not necessary based on the size and scope of the project. The applicant may petition the Planning Board prior to making a formal application to request notification as to which sections (s) of the stormwater plan review by-law requirements are necessary. The Planning Board will then notify the applicant within thirty (30) days as to which sections relate to the proposed project based on the size and scope of the project.

The Millbury Planning Board has accepted the submission of the above Stormwater Plan. This document certifies that, as currently submitted, the Stormwater Plan meets the minimum submission guidelines as set forth by the Town of Millbury. This document certifies that the Stormwater Plan is officially accepted for Planning Board review and consideration. It does not constitute approval of the Stormwater Plan.

Town Planner/Planning Board Clerk Signature _____ Date _____

**TOWN OF MILLBURY, MASSACHUSETTS
FORM E**

CERTIFIED LIST OF ABUTTERS

To the Town of Millbury Planning Board:

The undersigned being an applicant for approval of a Special Permit and/or Definitive Plan of a Subdivision entitled: Millbury Jr/Sr High School Track and Field Renovations

requests the names and addresses of each abutter within a 300 foot radius of said property.

Applicant's Signature: _____

mf Lavaray (Gale Associates)

Mailing Address: Millbury Jr/Sr High School Track and Field Renovations

Owner of Property: Millbury Public Schools

Property Address: 12 Martin St.

Assessor's Map #: 35

Parcel #: 95

Date of Public Hearing: February 24, 2020

To the Town of Millbury Planning Board:

This is to certify that at the time of the last assessment for taxation made by the Town of Millbury, the names and addresses of the parties assessed as adjoining owners to the parcel of land shown above, where as above written, except as follows:

Assessor's Signature: _____

Date: _____

Millbury Junior Senior High School Fields

Millbury, MA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	60'	60'	1	TLC-LED-1200	1.17 kW	B
		60'	2	TLC-LED-900	1.78 kW	B
		16'	1	TLC-BT-575	0.58 kW	B
		45'	1	TLC-LED-400	0.40 kW	C
B1-B2	70'	70'	5	TLC-LED-1200	5.85 kW	B
D1	60'	60'	2	TLC-LED-600	1.16 kW	B
		60'	1	TLC-LED-900	0.89 kW	B
		16'	3	TLC-BT-575	1.73 kW	B
F1-F2	80'	80'	9	TLC-LED-1500	12.87 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
F3	80'	80'	10	TLC-LED-1500	14.30 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
F4	80'	80'	10	TLC-LED-1500	14.30 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
		80'	2	TLC-LED-400	0.80 kW	C
9			74		83.07 kW	

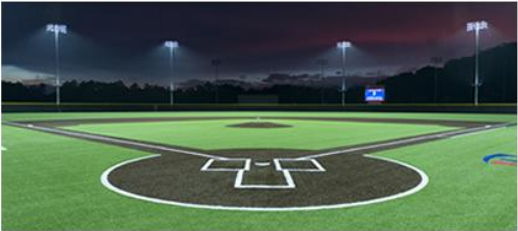
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Football	58.94 kW	46
B	Softball	22.53 kW	24
C	Security	1.6 kW	4

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>81,000	>81,000	>81,000	12
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	13
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>81,000	>81,000	>81,000	5
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>81,000	>81,000	>81,000	38
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>81,000	>81,000	>81,000	4
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>81,000	>81,000	>81,000	2

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Away Batting Cage	Horizontal	21.1	13	31	2.45	1.62	B	24
Football	Horizontal Illuminance	52.7	46	59	1.29	1.15	A	46
Home Batting Cage	Horizontal	16.5	10	27	2.61	1.65	B	24
Property Line 2	Horizontal	0.75	0.02	1.32	68.49	37.45	A,B,C	74
Property Line 2	Max Vertical Illuminance Metric	1.73	0.05	2.58	54.59	34.52	A,B,C	74
Property Line	Horizontal	0.95	0.02	7.68	390.02	47.42	A,B,C	74
Property Line	Max Vertical Illuminance Metric	1.73	0.05	10.8	202.23	34.53	A,B,C	74
Soccer	Horizontal Illuminance	52.2	46	60	1.30	1.14	A	46
Softball (Infield)	Horizontal Illuminance	50.4	41	62	1.52	1.23	B	24
Softball (Outfield)	Horizontal Illuminance	34.2	20	43	2.16	1.71	B	24
Track	Horizontal Illuminance	18.8	4	39	9.46	4.70	A	46
Walkway 2	Horizontal	2.92	0	9	0.00		C	4
Walkway	Horizontal	3.51	0	14	0.00		C	4
Walkway	Perpendicular	3.51	0	14	0.00		C	4
Zero Grid	Horizontal Illuminance	14.4	0	62	0.00		A,B,C	74

From Hometown to Professional



We Make It Happen.®

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	60'	TLC-LED-1200	1	1	0
				15.5'	TLC-BT-575	1	1	0
				45'	TLC-LED-400	1	0	1
				60'	TLC-LED-900	2	2	0
2	B1-B2	70'	-	70'	TLC-LED-1200	5	5	0
1	D1	60'	-	60'	TLC-LED-600	2	2	0
				15.5'	TLC-BT-575	3	3	0
				60'	TLC-LED-900	1	1	0
5	TOTALS					26	24	2

Millbury Junior Senior High School Fields
Millbury, MA

GRID SUMMARY	
Name:	Home Batting Cage
Size:	Irregular 201' / 220' / 200'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

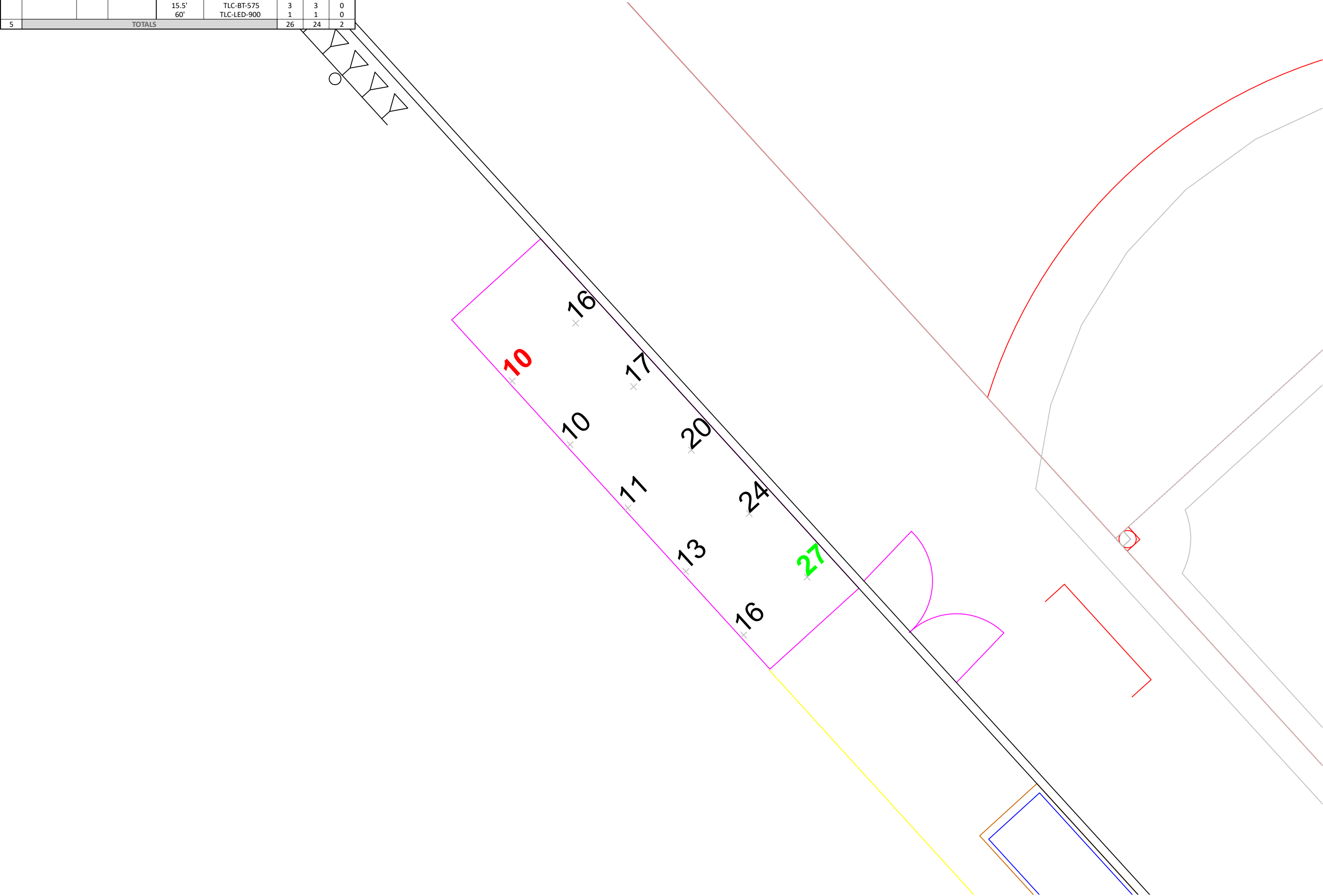
ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
Entire Grid			
Scan Average:	16.52		
Maximum:	27		
Minimum:	10		
Avg / Min:	1.60		
Max / Min:	2.61		
UG (adjacent pts):	1.78		
CU:	0.01		
No. of Points:	10		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	136,000 / 52,000 / 89,600 / 65,600 lumens		
No. of Luminaires:	24		
Total Load:	22.53 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

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



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

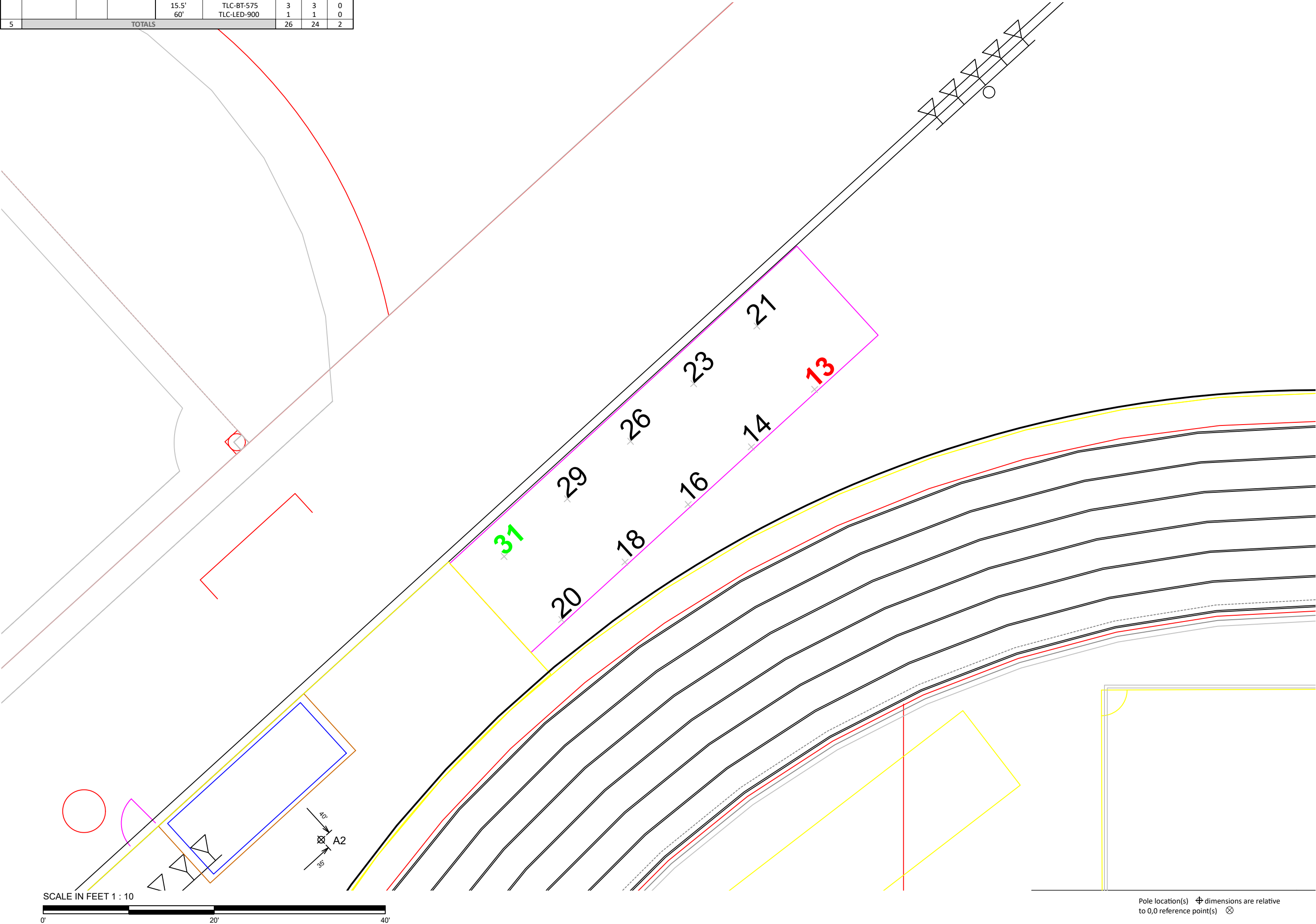


We Make It Happen.®

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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	60'	TLC-LED-1200	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				45'	TLC-LED-400	1	0	1	
				60'	TLC-LED-900	2	2	0	
2	B1-B2	70'	-	70'	TLC-LED-1200	5	5	0	
1	D1	60'	-	60'	TLC-LED-600	2	2	0	
				15.5'	TLC-BT-575	3	3	0	
				60'	TLC-LED-900	1	1	0	
				60'	TLC-LED-900				
5	TOTALS					26	24	2	



GRID SUMMARY	
Name:	Away Batting Cage
Size:	Irregular 201' / 220' / 200'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
MAINTAINED HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	21.12
Maximum:	31
Minimum:	13
Avg / Min:	1.65
Max / Min:	2.45
UG (adjacent pts):	1.70
CU:	0.01
No. of Points:	10

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	136,000 / 52,000 / 89,600 / 65,600 lumens
No. of Luminaires:	24
Total Load:	22.53 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000

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

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

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

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

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



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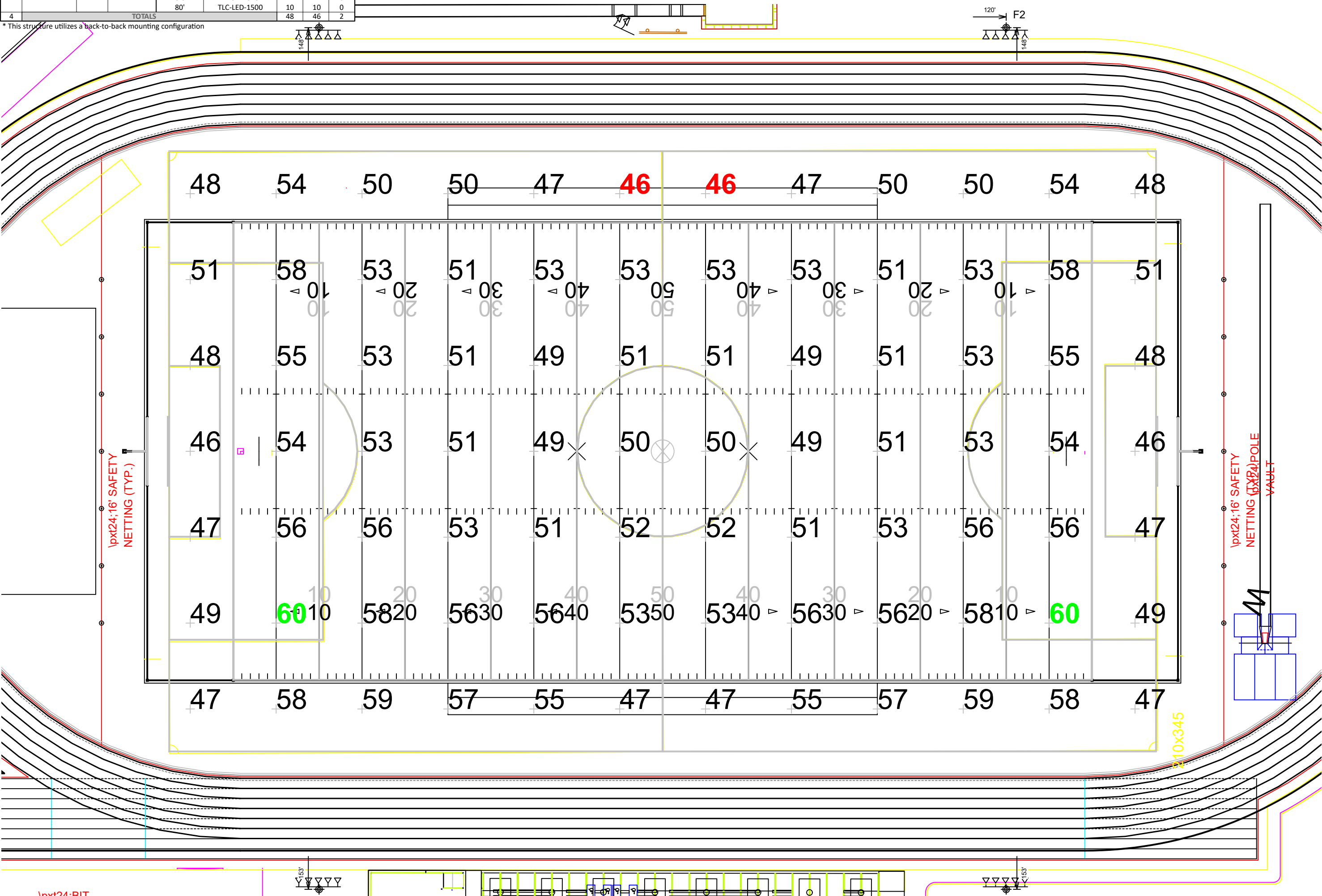
* This structure utilizes a back-to-back mounting configuration



ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	9	9	0
1	F3	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	10	10	0
1	F4	80'	-	80'	TLC-LED-400	2*	0	2
				15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	10	10	0
4	TOTALS					48	46	2

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



Millbury Junior Senior High School Fields
Millbury, MA

GRID SUMMARY	
Name:	Soccer
Size:	345' x 210'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid		
Scan Average:	52.23		
Maximum:	60		
Minimum:	46		
Avg / Min:	1.14		
Max / Min:	1.30		
UG (adjacent pts):	1.24		
CU:	0.61		
No. of Points:	84		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	52,000 / 160,000 lumens		
No. of Luminaires:	46		
Total Load:	58.94 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-1500	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

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

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

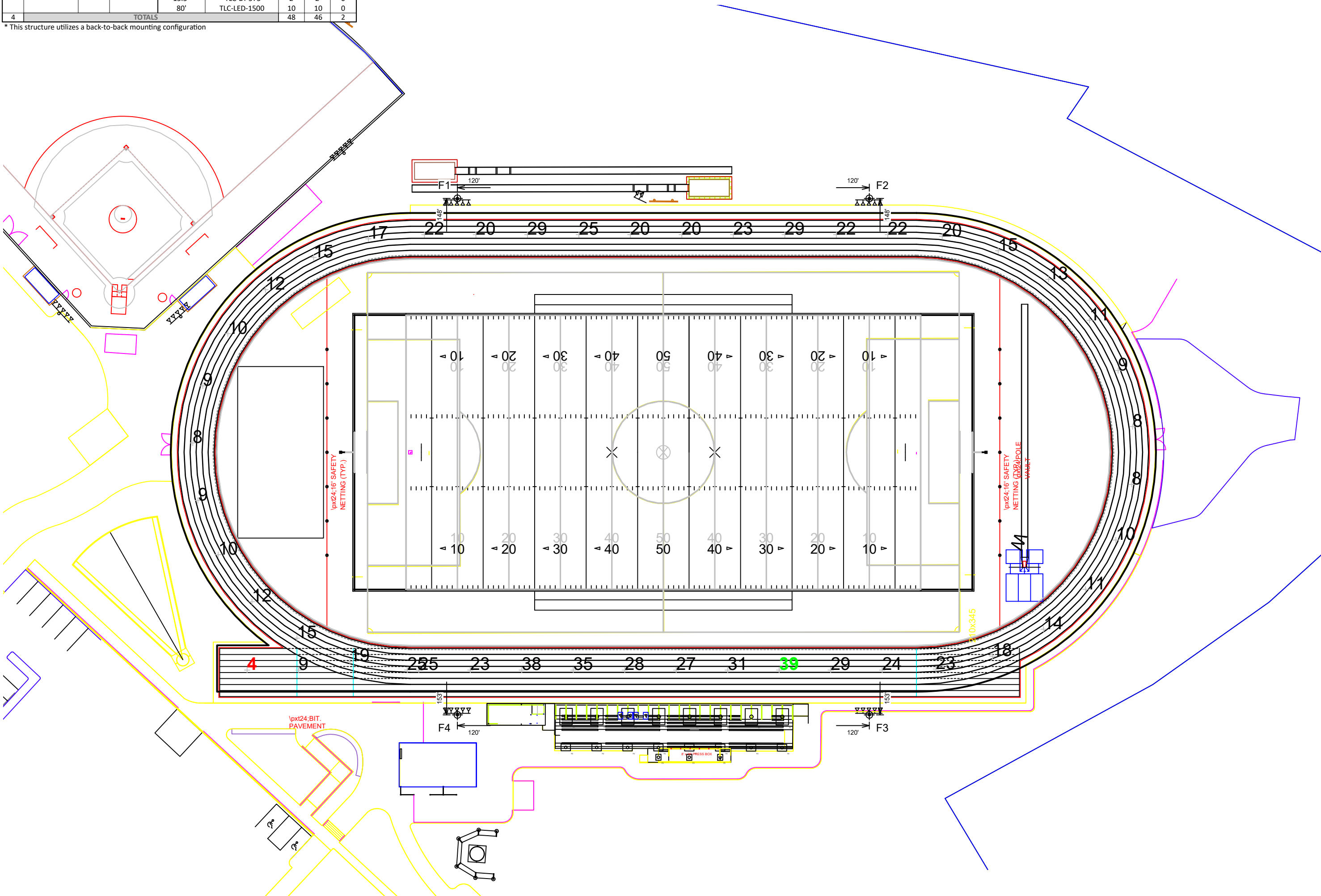


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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	9	9	0
1	F3	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	10	10	0
1	F4	80'	-	80'	TLC-LED-400	2*	0	2
				15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1500	10	10	0
4	TOTALS					48	46	2

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



Millbury Junior Senior High School Fields Millbury, MA

GRID SUMMARY	
Name:	Track
Size:	Irregular
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOT CANDLES			
		Entire Grid	
Scan Average:	18.80		
Maximum:	39		
Minimum:	4		
Avg / Min:	4.54		
Max / Min:	9.46		
UG (adjacent pts):	0.00		
CU:	0.12		
No. of Points:	46		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	52,000 / 160,000 lumens		
No. of Luminaires:	46		
Total Load:	58.94 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-1500	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

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



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	60'	TLC-LED-1200	1	0	1
				15.5'	TLC-BT-575	1	0	1
				45'	TLC-LED-400	1	1	0
				60'	TLC-LED-900	2	0	2
1	F4	80'	-	80'	TLC-LED-400	2*	2	0
				15.5'	TLC-BT-575	2	0	2
				80'	TLC-LED-1500	10	0	10
3	TOTALS					24	4	20

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

Millbury Junior Senior High School Fields
Millbury, MA

GRID SUMMARY	
Name:	Walkway
Size:	345' x 210'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

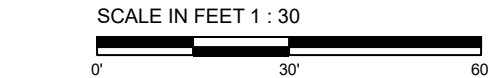
ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOT CANDLES			
Entire Grid			
Scan Average:	3.51		
Maximum:	14		
Minimum:	0		
Avg / Min:	-		
Max / Min:	-		
UG (adjacent pts):	80.59		
CU:	0.15		
No. of Points:	80		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	46,500 lumens		
No. of Luminaires:	4		
Total Load:	1.6 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

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

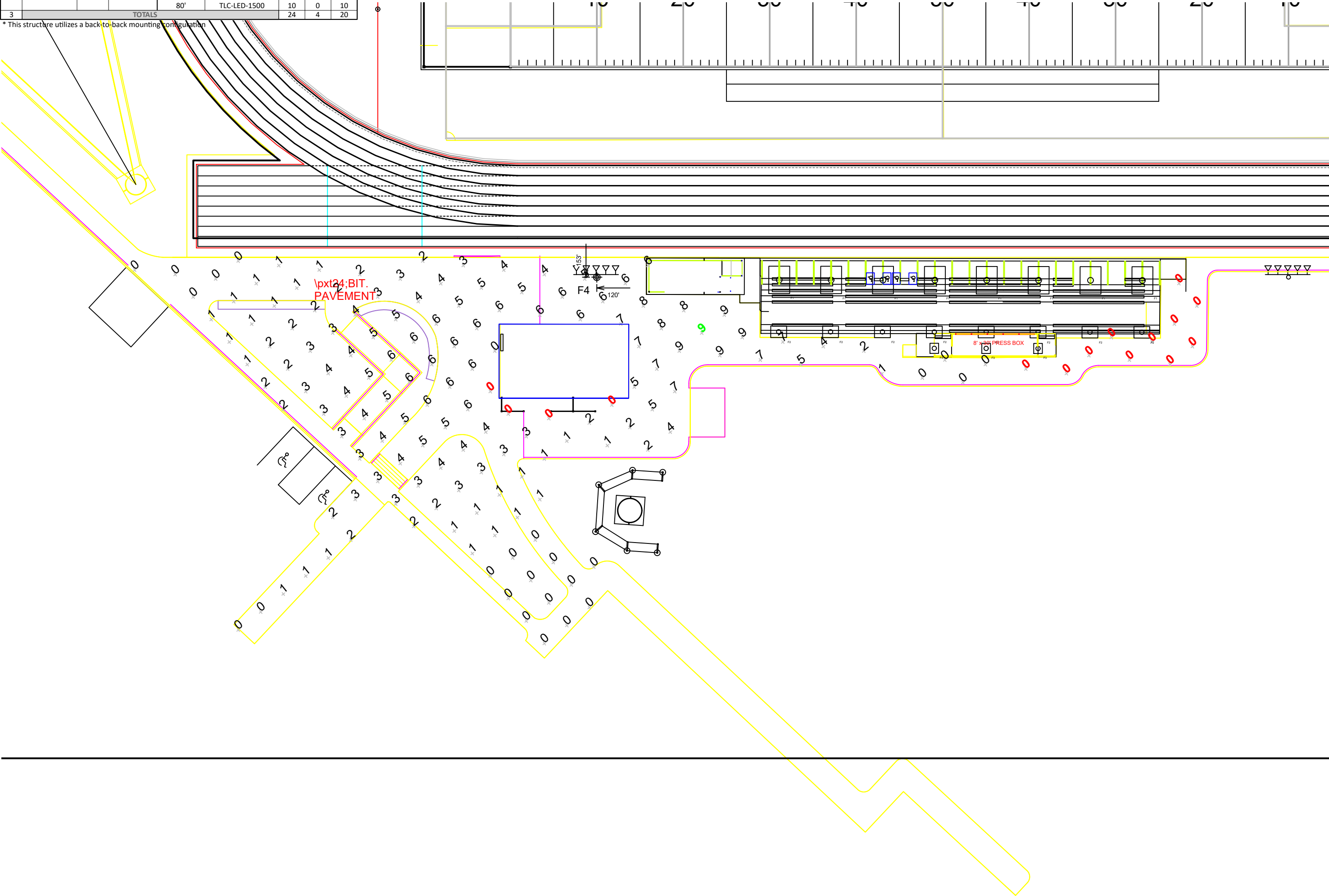


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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	60'	-	60'	TLC-LED-1200	1	0	1
				15.5'	TLC-BT-575	1	0	1
				45'	TLC-LED-400	1	1	0
				60'	TLC-LED-900	2	0	2
1	F4	80'	-	80'	TLC-LED-400	2*	2	0
				15.5'	TLC-BT-575	2	0	2
				80'	TLC-LED-1500	10	0	10
3	TOTALS					24	4	20

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



Millbury Junior Senior High School Fields
Millbury, MA

GRID SUMMARY	
Name:	Walkway 2
Size:	345' x 210'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

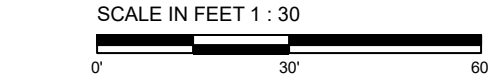
ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOT CANDLES			
	Entire Grid		
Scan Average:	2.92		
Maximum:	9		
Minimum:	0		
Avg / Min:	-		
Max / Min:	-		
UG (adjacent pts):	194.45		
CU:	0.26		
No. of Points:	161		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	46,500 lumens		
No. of Luminaires:	4		
Total Load:	1.6 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-400	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

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



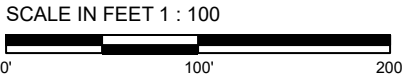
Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \otimes



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



Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \otimes

GRID SUMMARY	
Name:	Zero Grid
Size:	1070' x 780'
Spacing:	10.0' x 10.0'
Height:	3.0' above grade

LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	136,000 / 52,000 / 89,600 / 160,000 / 46,500
No. of Luminaires:	74
Total Load:	83.06 kW

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

above is guaranteed per your Musco
Warranty document and includes a 0.95
dirt depreciation factor.

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

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

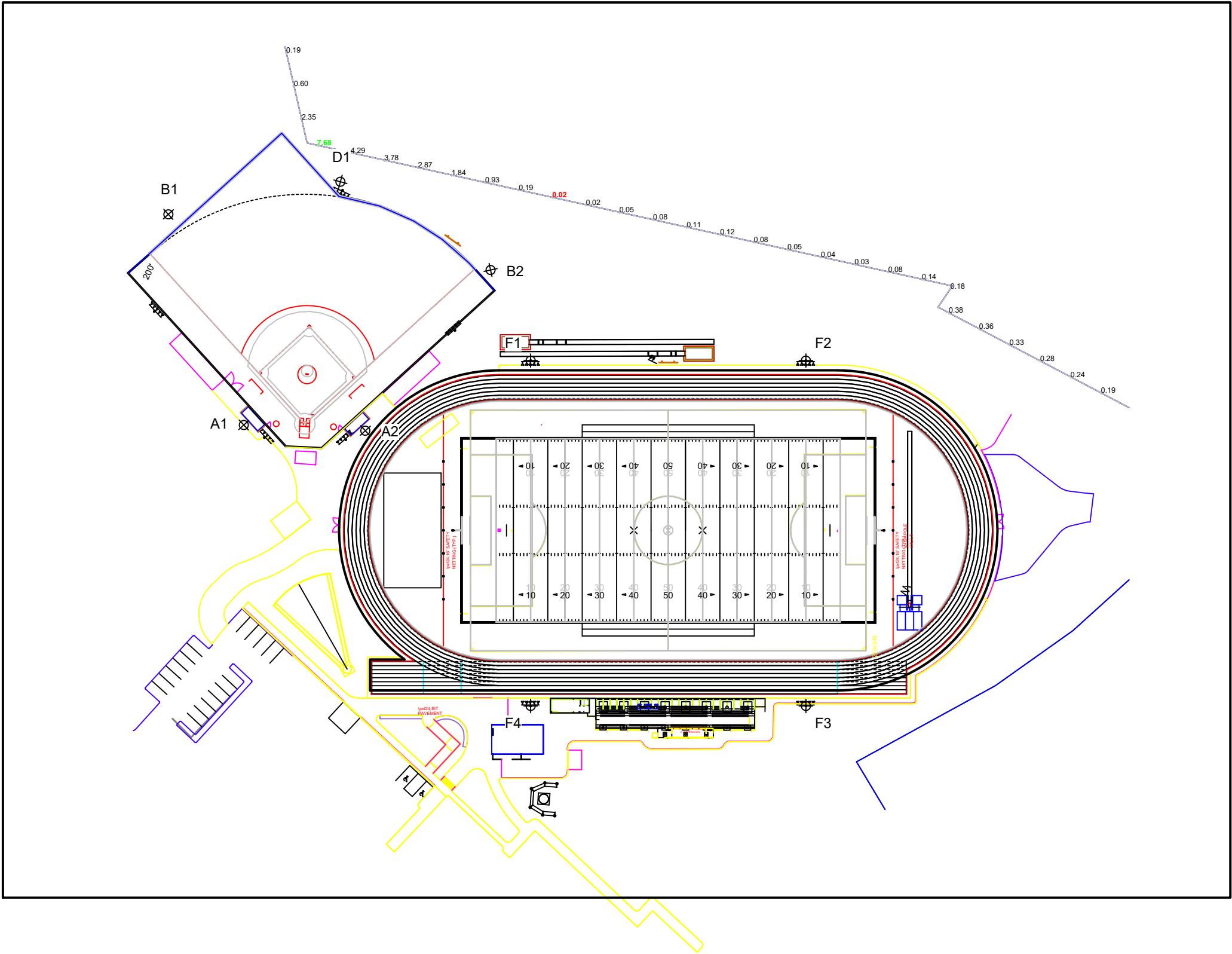


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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	60'	TLC-LED-1200	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				45'	TLC-LED-400	1	1	0	
				60'	TLC-LED-900	2	2	0	
2	B1-B2	70'	-	70'	TLC-LED-1200	5	5	0	
1	D1	60'	-	60'	TLC-LED-600	2	2	0	
				15.5'	TLC-BT-575	3	3	0	
				60'	TLC-LED-900	1	1	0	
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	9	9	0	
1	F3	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	10	10	0	
1	F4	80'	-	80'	TLC-LED-400	2*	2	0	
				15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	10	10	0	
9	TOTALS					74	74	0	

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



SCALE IN FEET 1 : 100



GRID SUMMARY	
Name:	Property Line
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
HORIZONTAL FOOTCANDLES			
	Entire Grid		
Scan Average:	0.9484		
Maximum:	7.68		
Minimum:	0.02		
No. of Points:	29		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	136,000 / 52,000 / 89,600 / 160,000 / 46,500		
No. of Luminaires:	74		
Total Load:	83.06 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1200	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
TLC-LED-900	>81,000	>81,000	>81,000
TLC-LED-1500	>81,000	>81,000	>81,000
TLC-LED-400	>81,000	>81,000	>81,000
TLC-LED-600	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

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

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

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

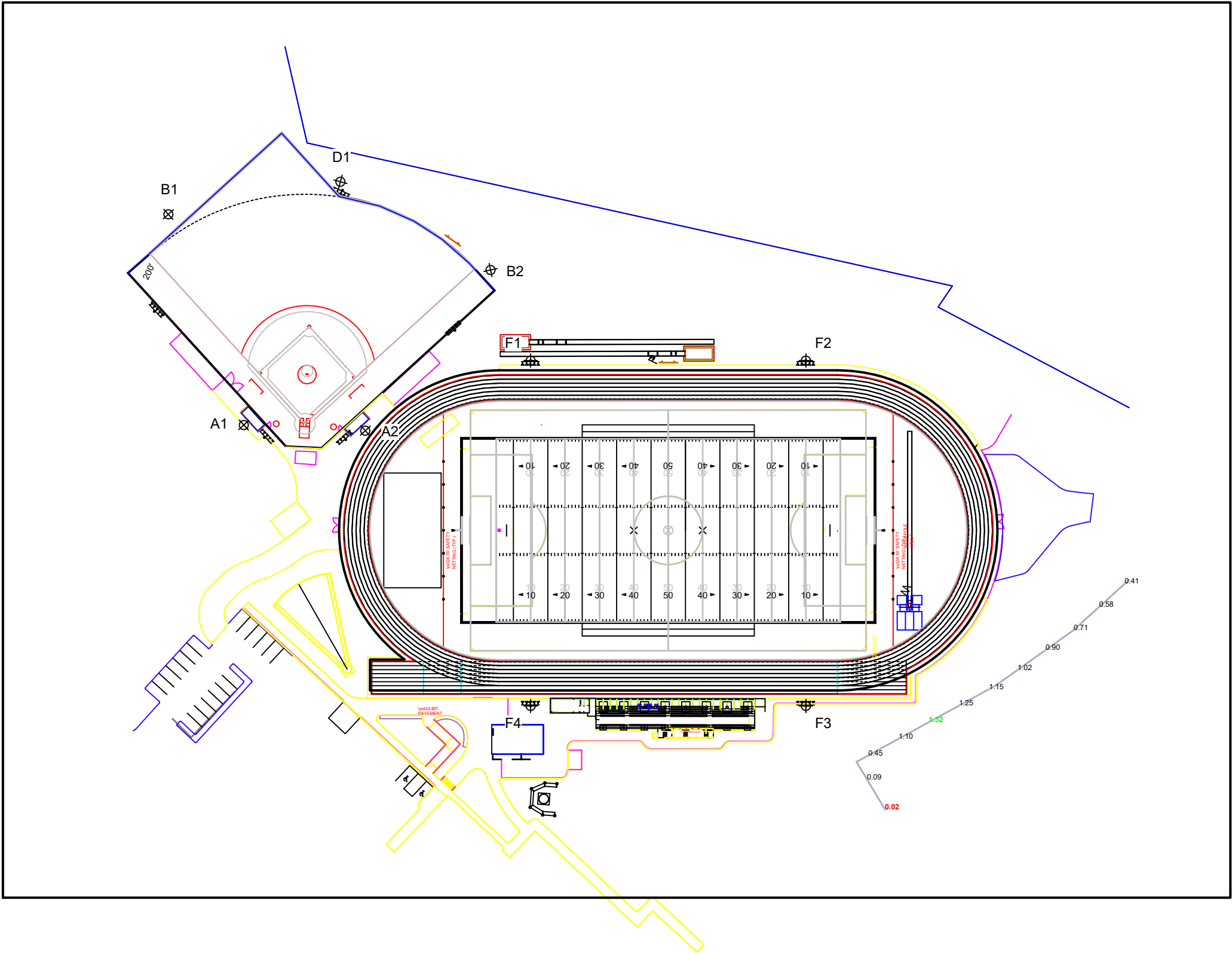
Installation Requirements: Results assume $\pm 3\%$ nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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EQUIPMENT LIST FOR AREAS SHOWN									
Pole				Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS	
2	A1-A2	60'	-	60'	TLC-LED-1200	1	1	0	
				15.5'	TLC-BT-575	1	1	0	
				45'	TLC-LED-400	1	1	0	
				60'	TLC-LED-900	2	2	0	
2	B1-B2	70'	-	70'	TLC-LED-1200	5	5	0	
1	D1	60'	-	60'	TLC-LED-600	2	2	0	
				15.5'	TLC-BT-575	3	3	0	
				60'	TLC-LED-900	1	1	0	
2	F1-F2	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	9	9	0	
1	F3	80'	-	15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	10	10	0	
1	F4	80'	-	80'	TLC-LED-400	2*	2	0	
				15.5'	TLC-BT-575	2	2	0	
				80'	TLC-LED-1500	10	10	0	
9	TOTALS					74	74	0	

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



GRID SUMMARY	
Name:	Property Line 2
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY	
HORIZONTAL FOOTCANDLES	
Entire Grid	
Scan Average:	0.7490
Maximum:	1.32
Minimum:	0.02
No. of Points:	12
LUMINAIRE INFORMATION	
Color / CRI:	5700K - 75 CRI
Luminaire Output:	136,000 / 52,000 / 89,600 / 160,000 / 46,500 / 65,600
No. of Luminaires:	74
Total Load:	83.06 kW
Lumen Maintenance	
Luminaire Type	L90 hrs L80 hrs L70 hrs
TLC-LED-1200	>81,000 >81,000 >81,000
TLC-BT-575	>81,000 >81,000 >81,000
TLC-LED-900	>81,000 >81,000 >81,000
TLC-LED-1500	>81,000 >81,000 >81,000
TLC-LED-400	>81,000 >81,000 >81,000
TLC-LED-600	>81,000 >81,000 >81,000
Reported per TM-21-11. See luminaire datasheet for details.	

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

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

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

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

EQUIPMENT LAYOUT

INCLUDES:

- Football
- Soccer
- Softball
- Track
- Zero Grid

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

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

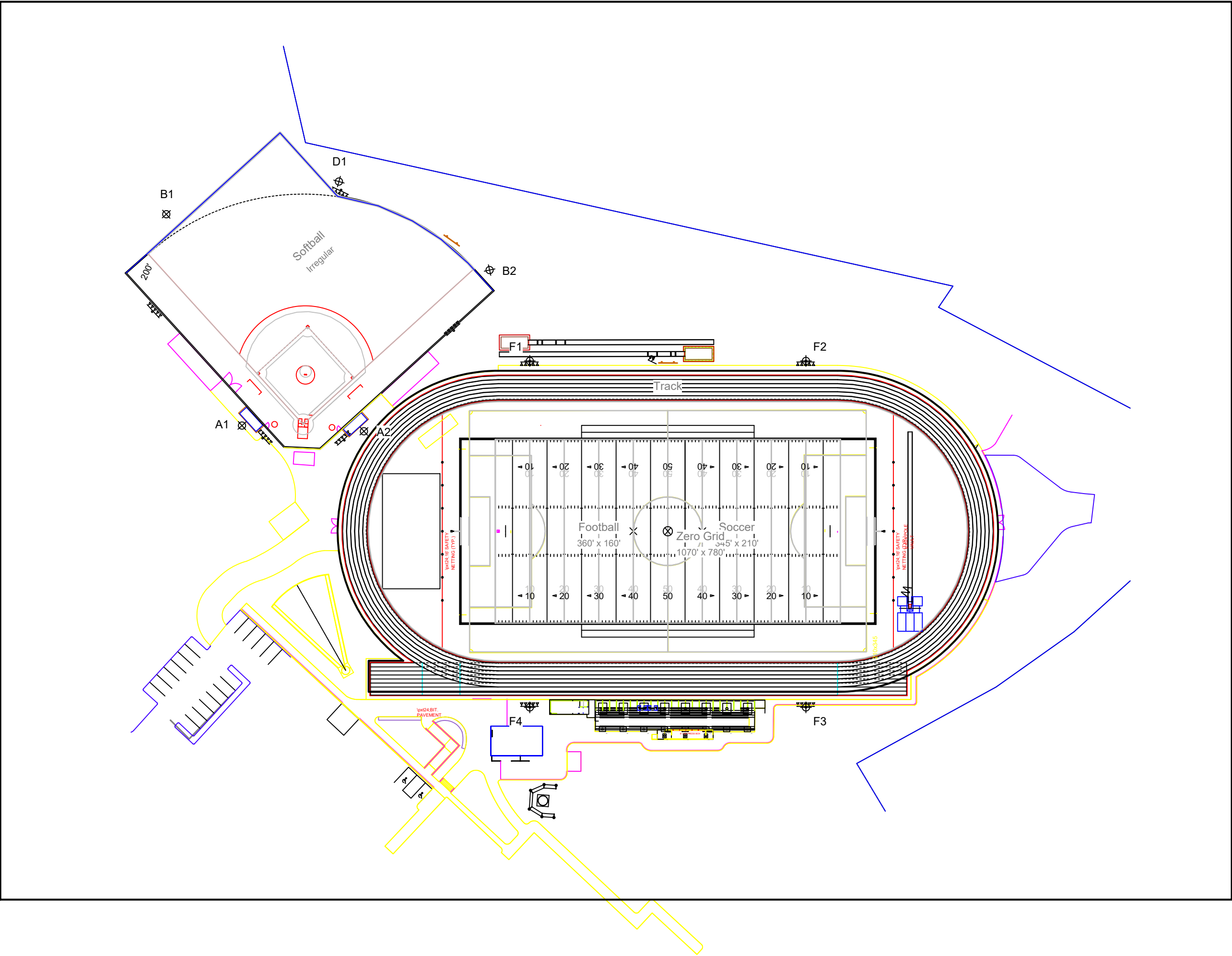
EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	A1-A2	60'	-	60'	TLC-LED-1200	1
				15.5'	TLC-BT-575	1
				45'	TLC-LED-400	1
				60'	TLC-LED-900	2
2	B1-B2	70'	-	70'	TLC-LED-1200	5
1	D1	60'	-	60'	TLC-LED-600	2
				15.5'	TLC-BT-575	3
				60'	TLC-LED-900	1
2	F1-F2	80'	-	15.5'	TLC-BT-575	2
				80'	TLC-LED-1500	9
1	F3	80'	-	15.5'	TLC-BT-575	2
				80'	TLC-LED-1500	10
1	F4	80'	-	80'	TLC-LED-400	2*
				15.5'	TLC-BT-575	2
				80'	TLC-LED-1500	10
9	TOTALS					74

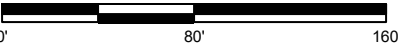
* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage	7.0	6.6	6.1	5.2	4.2	4.0
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	4.0
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8
TLC-LED-900	5.3	5.0	4.6	4.0	3.2	2.9
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7
TLC-LED-400	2.3	2.2	2.0	1.7	1.4	1.3
TLC-LED-600	3.4	3.2	3.0	2.6	2.0	1.9



SCALE IN FEET 1 : 80



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



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Control System Summary

Project Specific Notes:

Project Information

Project #: 203506
 Project Name: Millbury Junior Senior High School Fields
 Date: 01/17/20
 Project Engineer: TLanphier
 Sales Representative: Mike Berry
 Control System Type: Show-Light
 Communication Type: PowerLine-ST
 Scan: 203506A
 Document ID: 203506P1V1-0117160841
 Distribution Panel Location or ID: Service 1
 Total # of Distribution Panel Locations for Project: 1
 Design Voltage/Hertz/Phase: 480/60/3
 Control Voltage: 120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE	
1. Control and Monitoring Cabinet	24 X 72	
	QTY	SIZE
Total Contactors	12	30 AMP
Total Off/On/Auto Switches:	3	

Materials Checklist

Contractor/Customer Supplied:

- ☐ A dedicated control circuit must be supplied per distribution panel location.
 - If the control voltage is NOT available, a control transformer is required.
- ☐ Electrical distribution panel to provide overcurrent protection for circuits
 - HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ☐ Wiring:
 - See chart on page 2 for wiring requirements
 - Equipment grounding conductor and splices must be insulated. (per circuit)
 - Lightning ground protection (per pole), if not Musco supplied.
- ☐ Electrical conduit wireway system
 - Entrance hubs rated NEMA 4: must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ☐ Mounting hardware for cabinets
- ☐ Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- ☐ Anti-corrosion compound to apply to ends of wire, if necessary

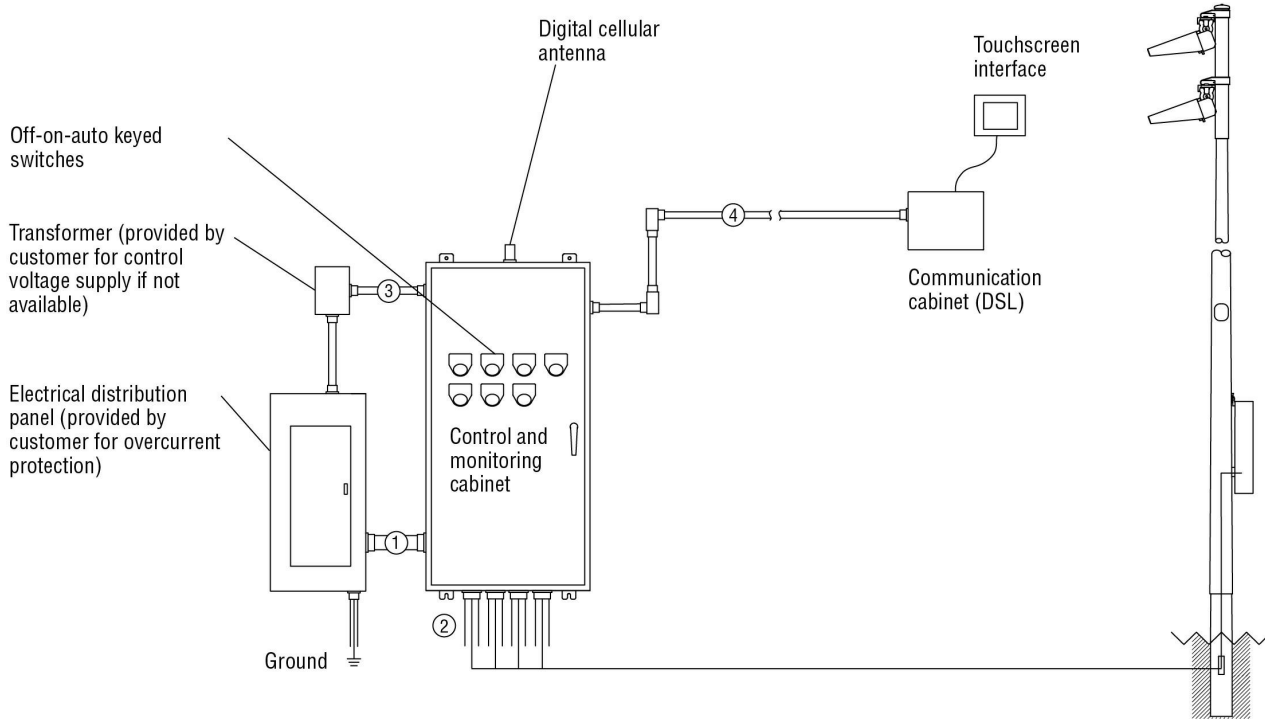
Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.
 Note: Activation may take up to 1 1/2 hours

IMPORTANT NOTES

- Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
- In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
- One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are UL 100% rated for the published continuous load. All contactors are 3 pole.
- If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
- A single control circuit must be supplied per control system.
- Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements

Control•Link® Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
1	Power-line Communication Connection (dedicated, 20A)	*A	12	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E
4	Communication cable to touchscreen	*F	*F	*C	1500	No	C,E,F

* Notes:

- A. See voltage and phasing per the notes on cover page.
- B. Calculate per load and voltage drop.
- C. All conduit diameters should be per code unless otherwise specified to allow for connector size.
- D. Equipment grounding conductor and any splices must be insulated.
- E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.
- F. Cat5e cable (Belden 7937A or equal) is required. DSL modem (inside cabinet) receives power over DSL cable. Communication cabinet requires connection to earth ground. Standard wall outlet is required to power touchscreen. Touchscreen connects to communication cabinet with Ethernet cable (<300 ft.).

R60-104-00_C

IMPORTANT: Control wires (3) and communication wire (4) must be in separate conduit from line and load power wires (1, 2).



Control System Summary

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SWITCHING SCHEDULE

Field/Zone Description	Zones
FB/SO	1
Softball	2
Walkway	3

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 3513.0
	SEALED: 387.8

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
F1	FB/SO	11	11	21.7	30	C1	1
F2	FB/SO	11	11	21.7	30	C2	1
F3	FB/SO	12	12	23.7	30	C3	1
F4	FB/SO	12	12	23.7	30	C4	1
A1	Softball	4	4	5.9	30	C5	2
A2	Softball	4	4	5.9	30	C6	2
B1	Softball	5	5	10.5	30	C7	2
B2	Softball	5	5	10.5	30	C8	2
D1	Softball	6	6	7.1	30	C9	2
A1	Security	1	1	0.9	30	C10	3
A2	Security	1	1	0.9	30	C11	3
F4	Security	2	1	1.7	30	C12	3

*Full Load Amps based on amps per driver.



Control System Summary

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PANEL SUMMARY

CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole F1	21.74		
1	1	C2	Pole F2	21.74		
1	1	C3	Pole F3	23.69		
1	1	C4	Pole F4	23.69		
1	1	C5	Pole A1	5.86		
1	1	C6	Pole A2	5.86		
1	1	C7	Pole B1	10.50		
1	1	C8	Pole B2	10.50		
1	1	C9	Pole D1	7.06		
1	1	C10	Pole A1	0.87		
1	1	C11	Pole A2	0.87		
1	1	C12	Pole F4	1.73		

ZONE SCHEDULE

ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 1	1	FB/SO	F1	C1
			F2	C2
			F3	C3
			F4	C4
Zone 2	2	Softball	A1	C5
			A2	C6
			B1	C7
			B2	C8
			D1	C9
Zone 3	3	Security	A1	C10
			A2	C11
			F4	C12