



# Brook Park Central Park Complex Power & Lighting Design

Planning Commission Submission  
March 7, 2022



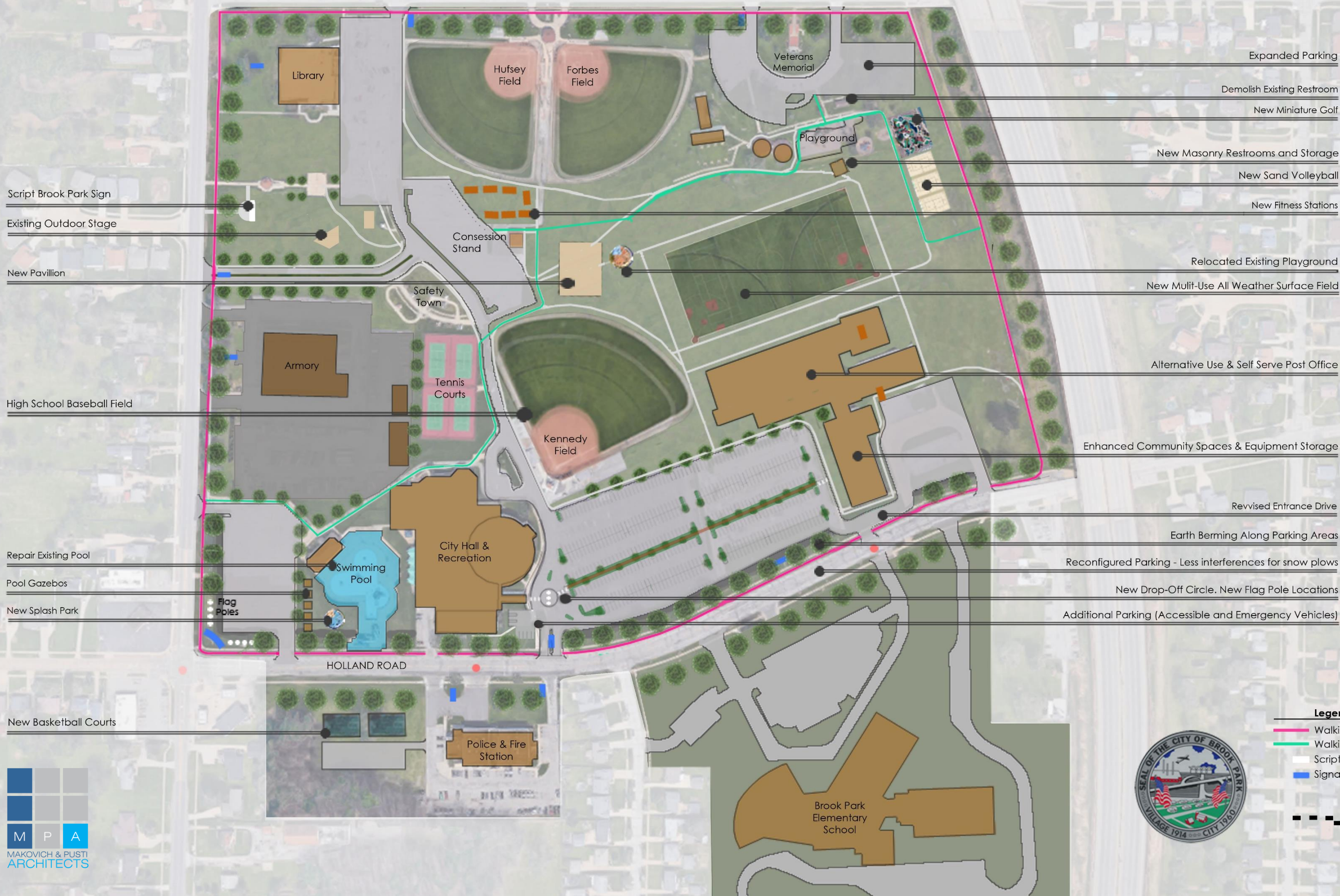
MAKOVICH & PUSTI  
ARCHITECTS  
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(440) 891-8910 • www.mparc.com











**Legend**

- Walking Trail 1= 1-1/4 Miles
- Walking Trail 2= 1/2 Mile
- Script Brook Park Sign
- Signage

200'-0"

Scale

N








# Planning Commission

March 7, 2022










BROOK PARK CENTRAL PARK COMPLEX  
**POWER AND LIGHTING DESIGN**

17400 HOLLAND RD.  
Brook Park, OH 44142

	PURPOSE	DATE
1	PLANNING	2/15/22
TITLE		
PROPOSED SITE PLAN		
JOB NO: BPK-2021.01		
DRAWING NO:		
<b>SP.1</b>		

# PROPOSED SITE PLAN



OUTLET SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	SINGLE RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18" A.F.F. UNLESS OTHERWISE NOTED. *H* INDICATES MOUNTING HEIGHT OTHER THAN 18". *ZZ / ##* INDICATES BRANCH CIRCUITING.
	DUPLEX RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18" A.F.F. UNLESS OTHERWISE NOTED. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION.
	DOUBLE DUPLEX (QUAD) RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18" A.F.F. UNLESS OTHERWISE NOTED. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION.
	GROUND FAULT INTERRUPTER TYPE DUPLEX RECEPTACLE, 20 AMPERE, 125 VOLT, 2 POLE, 3 WIRE GROUNDING TYPE, NEMA 5-20R, MOUNTED 18" A.F.F. UNLESS OTHERWISE NOTED. REFER TO ABOVE FOR MOUNTING HEIGHT AND CIRCUITING INFORMATION.
	RECEPTACLE MOUNTED ON EMERGENCY CIRCUIT. REFER TO ABOVE FOR TYPE AND CIRCUITING INFORMATION.
	
	RECEPTACLES WITH ADDITIONAL SUBSCRIPT DESIGNATES TYPE OR SPECIFIC REQUIREMENTS AS FOLLOWS:
	G GROUND FAULT CIRCUIT INTERRUPTER TYPE E EMERGENCY RED IN COLOR H HOSPITAL GRADE TYPE IG ISOLATED GROUND TR TAMPER RESISTANT TYPE WP WEATHERPROOF "WHILE-IN-USE" (HUBBELL #WP25E) COVER
	JUNCTION BOX (SIZED AS REQUIRED PER N.E.C. ARTICLE 314).







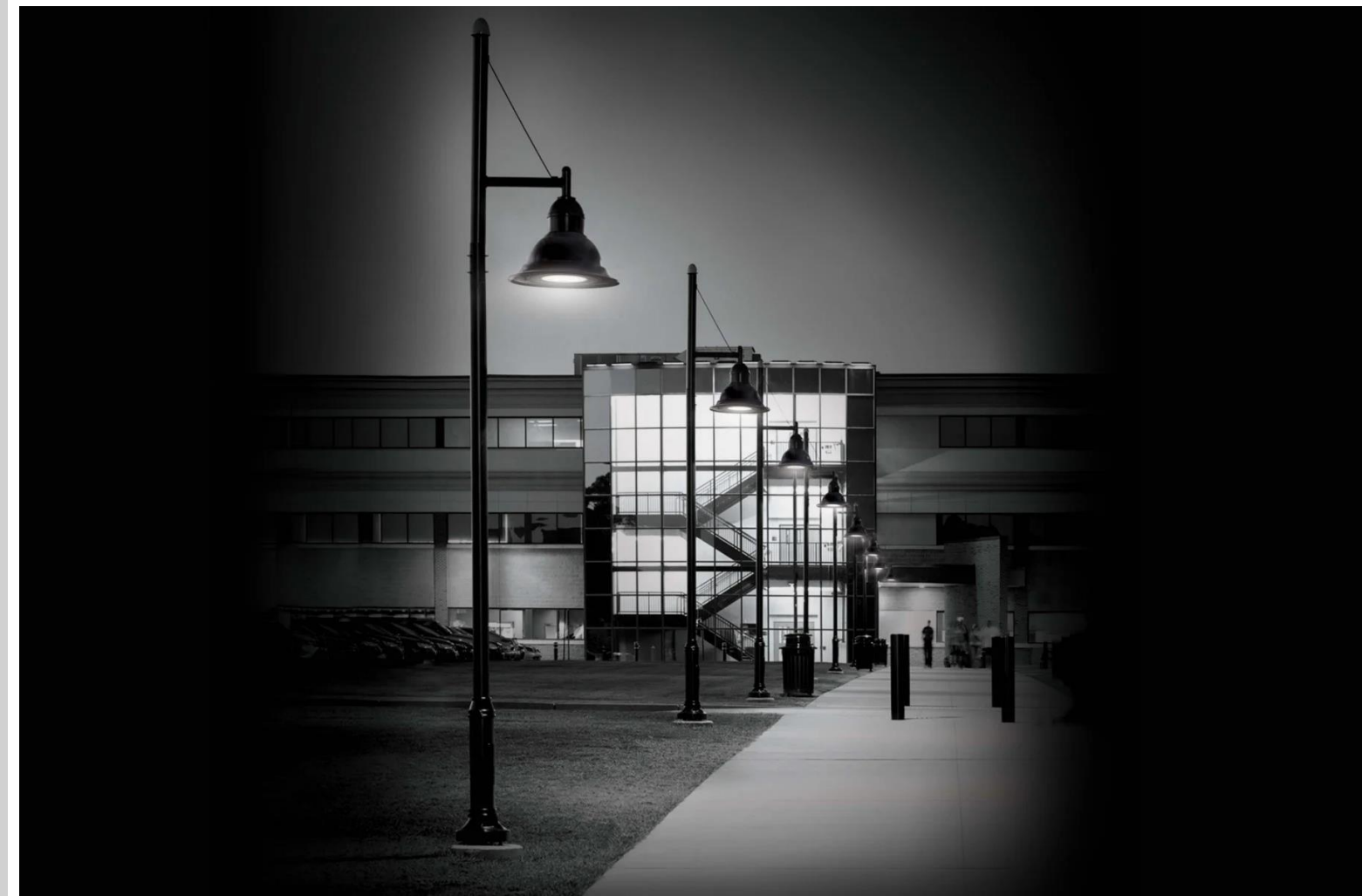


Basket Holder



Banner Arm

Allegra - Allegra Medium





Specification Sheet

allegro  
Alegro Medium

<b>Surface Finish</b>	Super durable resistant exterior, powdercoat powder coating meets AIAA 2024-W requirements (5 years Florida exposure), is corrosion resistant (NACE C202) and is available to meet ASTM B-117 & ASTM D-1624 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
<b>Electrical and control</b>	
<b>Voltage</b>	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
<b>Control</b>	On/Off controls, 0-10V dimming
<b>Environmental</b>	
<b>Storage Temperature</b>	-40°F to 122°F (Storage must reach start up temperature value before operating)
<b>Start-up Temperature</b>	-40°F to 104°F (-13°F to 104°F for 120V combined with HMI), 179°F, 130 Software, 130 Software or 170 Software (output)
<b>Operating Temperature</b>	-40°F to 104°F (-13°F to 104°F for 120V combined with HMI), 179°F, 130 Software, 130 Software or 170 Software (output)
<b>Ingress Protection Rating</b>	IP66 (optical chamber)
<b>Environment</b>	Dry/damp/wet location
<b>Decorative arms (order separately, consult related specification sheets for details)</b>	
<b>Compatible decorative arms</b>	Perimeter Mount Decorative Arm, Pull-Point Medium 14.8 ft Tension Adjusted Luminaire Mounting Option with CS2, CS4, CS6, CS12, CS15 and MCS Arm Style, Side Mount Decorative Arm, 30-36 Incher (2 3/8 In. Tension Luminaire Mounting Option with Pull-Point Arm, P16, P18, CS12 and CS15 Arm Style)

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A1 - 4/25

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allegro  
Aklara Motion

# Specification Sheet

## Optical System

LID beam size

Small (600nm to 1000nm)

A top-down diagram of a circular optical component. It features a central circular area filled with many small dots, surrounded by concentric rings of smaller dots. The entire assembly is enclosed in a rectangular frame.

Medium (1000nm to 1500nm)

A top-down diagram of a circular optical component, similar to the small one but with larger dots in the central area and slightly different ring patterns.

Large (1700nm)

A top-down diagram of a circular optical component, featuring the largest dots in the central area among the three types.

Type V Si-Fibre is available with large LID board only (3000nm to 7000nm).

Backlighting\*

A top-down diagram of a circular optical component. It shows a dense central cluster of dots with several arrows pointing outwards from the center towards the edges of the circle, representing light emission or backlighting.

\*Small, Medium and Large LID boards can have the same full coverage backlight shield plates.

\*Backlight shield available with Type K, Type R and Type T only.

\*Backlight shield is factory installed.

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info@lumenpulse.com

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P. 1

Specification Sheet

allegro  
A3000 Machine

Mounting options

P4 - Pendant Medium (4-Ball Tension Adapter)

A = Decorative Arm  
 B = 4-Ball Tension Adapter  
 C = Luminaire  
 D = 1x1 LED 200 in x 1 ft in Ball (Included with luminaire) 200 504 in Ball Chain

92 - Side Integral (2-Ball in Tension)

A = Decorative Arm  
 B = 2-Ball in Tension Adapter  
 C = 1x1 LED 200 in x 1 ft in Ball (Included with luminaire)  
 D = Luminaire

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## 1 ELECTRICAL LUMINAIRE TYPE SL4 FITNESS AREA LIGHTING CUT-SHEETS







Specification Sheet

pole accessories

Banner AMT

18

Project Name \_\_\_\_\_ City \_\_\_\_\_

Type \_\_\_\_\_ Catalog / Part Number \_\_\_\_\_

Side View

Front View

EPA table

Banner arms	sq ft	sq'
18' AMT	0.11	0.03
18' AMT	0.22	0.06
18' AMT	0.11	0.03
18' AMT	0.22	0.06

Description

The Banner arm is available in multiple finishes and configurations. The accessories shown are made out of clear anodized aluminum.

Features

Hanging configurations

Straight or double configuration (see table for 18' and 20' in pole)

Hanging type

One banner arm (top only), two banner arms (top and bottom)

Warranty

5-year limited warranty

Physical

Housing Material

Die cast aluminum

Environmental

Endowment

Dry / damp / wet location

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## Specification Sheet

**pole accessories**  
Base of Header

10

Project Name \_\_\_\_\_ City \_\_\_\_\_

Type \_\_\_\_\_ Catalog / Part Number \_\_\_\_\_

EPA Table

Beamer arms	sq ft	sq'
LUM1 	0.88	0.27
LUM2 	1.36	0.41

Side view

Front view

### Description

The bracket header is an accessory specifically designed to support decorative elements such as flower brackets. The bracket header is available in multiple finishes and configurations. The accessory is a universal support inside out of cast steel extruded aluminum.

### Features

**Mounting configurations** Single or double configuration (available for 24 in. pole)

**Warranty** 3-year limited warranty

### Physical

**Mounting Material** Die cast aluminum

### Environmental

**Environment** Dry / damp / wet location

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Specification Sheet

pole accessories

Basket holder

p4

Housing configurations dimensions

IM41 - single basket holder for Q4 to pole\*

IM42 - double basket holder for Q4 to pole\*

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Planning  
Commission  
March 7, 2022



**BROOK PARK CENTRAL PARK COMPLEX**  
**POWER AND LIGHTING DESIGN**

117400 HOLLAND RD.  
Brook Park, OH 44142

REV		PURPOSE	DATE
1		PLANNING	2/15/22
TITLE:			
ELECTRICAL CUT-SHEETS			
JOB NO: J20211339.000			
Drawing NO:			
<b>E-005</b>			

Brook Park - City of, 20211339, 000\_Master\_Plan\_Lighting/Drawing9/Elect/20211339, 000-E-005.dwg [E-005] February 14, 2022 - 11:44am mbloom

# 1 ELECTRICAL LIGHT POLE ACCESSORIES CUT-SHEETS

# Electrical Cut-Sheets



Specification Sheet

lumenpulse  
inspired  
LED  
COLOR CHANGED

**Optical chamber orientation**

**Cables (order separately)**

**LEDIC - Linear cable for Lumenpulse Inground**

**LEDIC-CERTIFICATION-LENGTH**

Please specify:

**CERTIFICATION** UL or CE, LENGTH 10 R, 25 R or 50 R

- Suitable for dimming applications and non dimming applications.
- Consult Lumenpulse Inground leader cable specification sheet for details.

**LEDIC - Jumper cable for Lumenpulse Inground**

**LEDIC-CERTIFICATION-LENGTH**

Please specify:

**CERTIFICATION** UL or CE, LENGTH 2 R, 4 R or 10 R

- Suitable for dimming applications and non dimming applications.
- Consult Lumenpulse Inground jumper cable specification sheet for details.

**Jumper cable length selection**

D = distance between two fixtures

L = length of fixture

Add the length of one fixture to the distance between two fixtures L + D. Order the next longer jumper cable available 2 R, 4 R or 10 R.

Example: If the distance between two R fixtures is 5.5 ft, L + D = 6.0 ft. Therefore a 10 R jumper cable is required.

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1 Lumenpulse 470-500-0000 | 1-800-500-0000

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LEDIC is a registered trademark of Lumenpulse Inc. This product is shown without cable and such modification and the absence of a cable

should be considered as a warning.

Rev. 0-02

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## Specification Sheet

**lumenpulse**  
Innovative  
LED  
COLOR CHANGING

### Typical wiring diagrams

#### Wiring color code

US Color Code	URL
Green	Ground
Black	Line
Violet	Line/Neutral
Red or Purple	0-10V / Data +
Orange	0-10V / Data -

#### Typical installation with leader cable

- A - Optical chamber
- B - Leader cable (DLC, order separately)
- C - Backbox
- D - Ground (if other)
- E - Jumper cable to next fixture (DLC, order separately, for continuous run installations)
- F - Patchbox

#### Typical installation with P16-LC-BD1 accessory

- A - Optical chamber
- B - Power and data input cable (not P16)
- C - Backbox
- D - Ground (if other)
- E - Jumper cable to next fixture (DLC, order separately, for continuous run installations)
- F - Patchbox
- G - P16-LC-BD1 (order separately)

The P16-LC-BD1 accessory cannot be used with 12V+ fixtures.

#### Lumenlink (LL)

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumenlink standard fixtures must be connected using Lumenlink® software and a USB-L. Consult factory for details.
- 1 DMX controller per Lumenlink network, maximum of 48 DMX channels per Lumenlink network. Minimum 10m step transition update rate (3) second, minimum fade time between two colors (1 minute). Consult factory for applications that require additional capacitors.
- Maximum of 1 Lumenlink Lumenlink network (Lumenlink) per system.
- No third party fixtures allowed on the same cable.
- 17.25 wft.

- A - Power Input (120-277V AC, wiring per ULW)
- B - DMX/DMX controller (order separately from Lumenlink, or 3rd party)
- C - Data wiring (see wiring)
- D - Lumenlink network 2 (LL-L) DMX
- E - Power wiring (wiring to other)
- F - P16-LC-BD1 (optional)
- G - Patchbox
- H - Jumper cable (DLC)
- I - Lumenlink ground

**lumenpulse**

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Phone: 630.261.3400

www.lumenpulse.com











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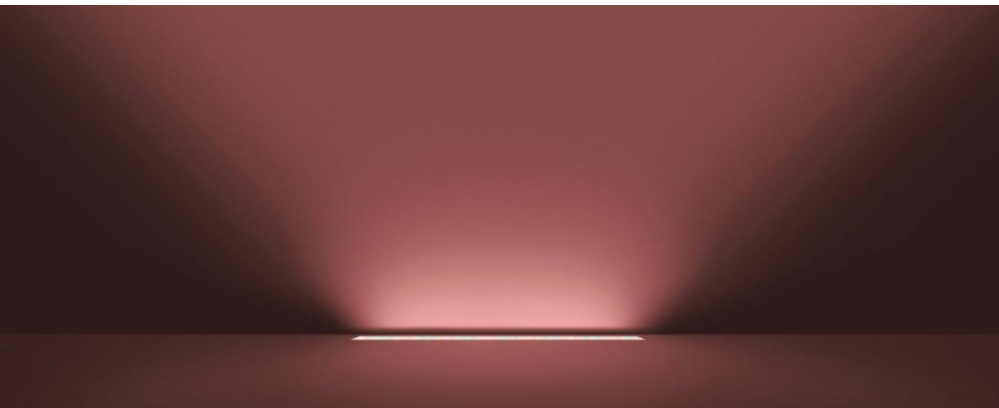
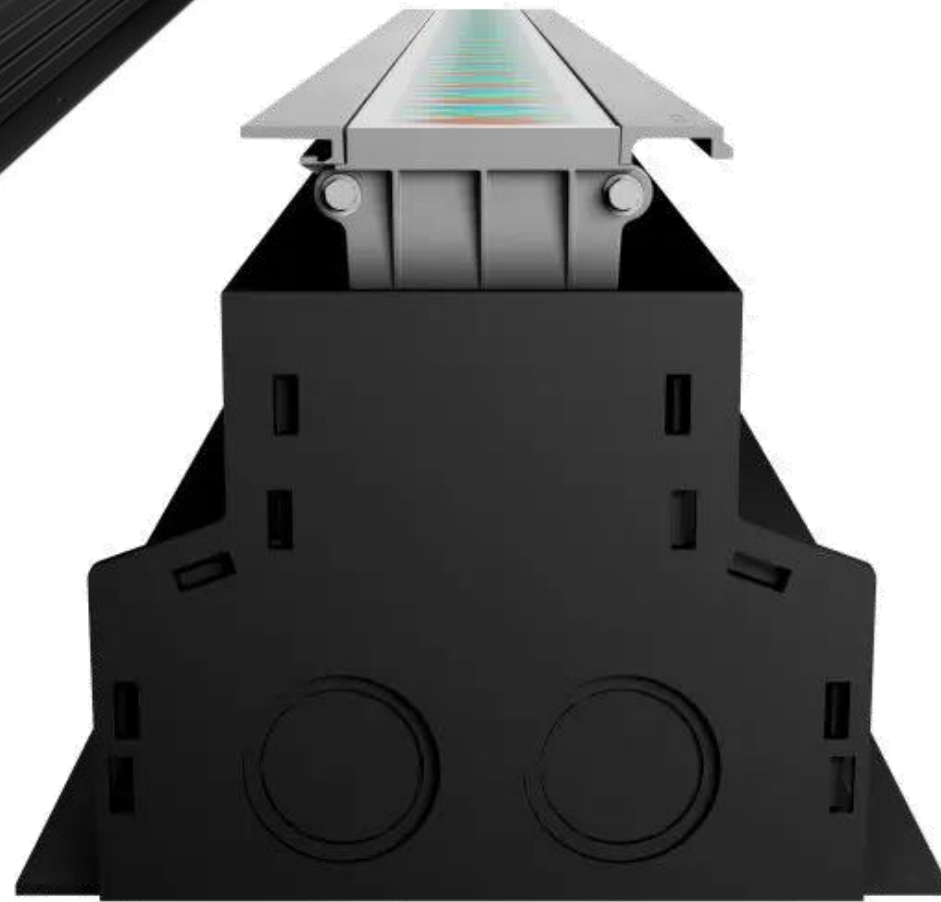
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<b>Specification Sheet</b>	<b>lumenpulse</b> Infrared IoT COLOR CHANGING					
<b>Electrical accessories (order separately)</b>						
<b>IJC-IBD1 - Luminarc color Inground Junction Box</b>						
						
Luminarc color Inground Full sealed Junction Box that let you into the remote control. Follow exactly the pin's instructions. The IJC-IBD1 accessory does not fit in 12 ft fixtures.						
<b>Control boxes (order separately)</b>						
<b>CBS-DIM-RDM - DMX/RDM enabled (dimy chain or star configuration)</b>		<b>CBS-EHBT - Ethernet enabled (star chain or star configuration)</b>				
 		 				
DMX/RDM control box. Up to 4pin dimmer and data outputs to fixture or fixture sets. Consult CBI specification sheet and installation instructions for details. Luminarc universos provided with CBS for delay chain configuration, for the star configurations, contact factory to order options.		Ethernet control box. Up to four pin dimmer and data outputs to fixture or fixture sets. Consult Ethernet CBI specification sheet and installation instructions for details.				
<b>Control systems (order separately)</b>						
<b>LND - Lumenarc™ 2</b>		<b>PHARC - Pharsat® kit</b>				
						
Lumenarc 2 is a simple pre-programmed DMX 322 controller with a push button rotary dial and live feedback.		The Pharsat Kit includes 1 or 2 DMX universos, others for complete control of large lighting installations. 3 DMX universos kit shown.				
<b>Diagnostic and addressing tools (order separately)</b>						
<b>ID-Lenard</b>		<b>LD-4T - Lumenarc IoT</b>				
						
Lumend is a diagnostic and addressing DMX485 tool. It must be specified on all DMX applications. Consult IDLT specification sheet for details.		Lumenarc IoT is a diagnostic and addressing tool. It must be specified for all Lumenarc 3.0 applications. Consult IDLT specification sheet for details.				
 <b>1200 Wm Rd., Longview, TX 75604 USA</b> <a href="http://www.lumenpulse.com">www.lumenpulse.com</a> ☎ toll-free 1-800-575-1100      ☎ (940) 765-3000      ☎ (940) 765-3000      ✉ info@lumenpulse.com						
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BROOK PARK CENTRAL PARK COMPLEX		<b>POWER AND LIGHTING DESIGN</b>	
17400 HOLLAND RD.		Brook Park, OH 44142	
ISS		PURPOSE	DATE
1		PLANNING	2/15/22
TITLE:			
ELECTRICAL CUT-SHEETS			
JOB NO. J20211339.000			
Drawing NO. <b>E-006</b>			

# Electrical Cut-Sheets





Lumenfacade Inground LOI



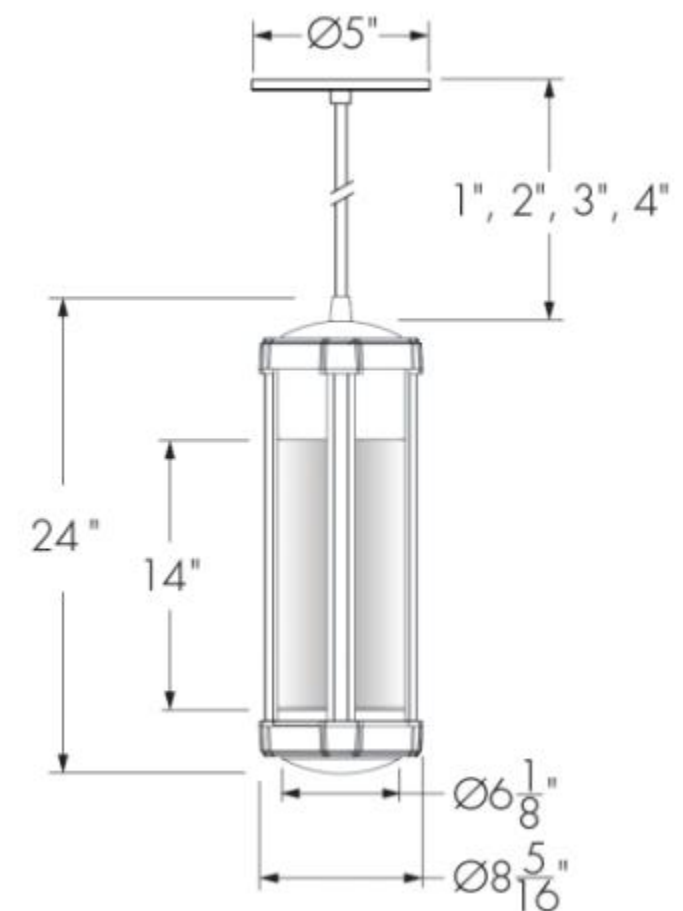


# Electrical Cut-Sheets





Element  
Pendant  
WHITE & STATIC  
COLORS  
COLOR CHANGING  
DYNAMIC WHITE











# Flex Compact gen3, RGB

## Durable and weather-resistant

All Flex nodes are sealed for maximum node life and water-resistance—IP66-rated for outdoor applications.

## Optimized nodes

Choose the node that outputs the light (color, tunable white, or white) and brightness that match your specific needs.



## Standard and optional lenses

Each Flex solution offers a range of standard lens options, as well as optional lenses—ensuring that your implementation looks fantastic, up close and from a distance.

## Standard and custom spacing and lengths

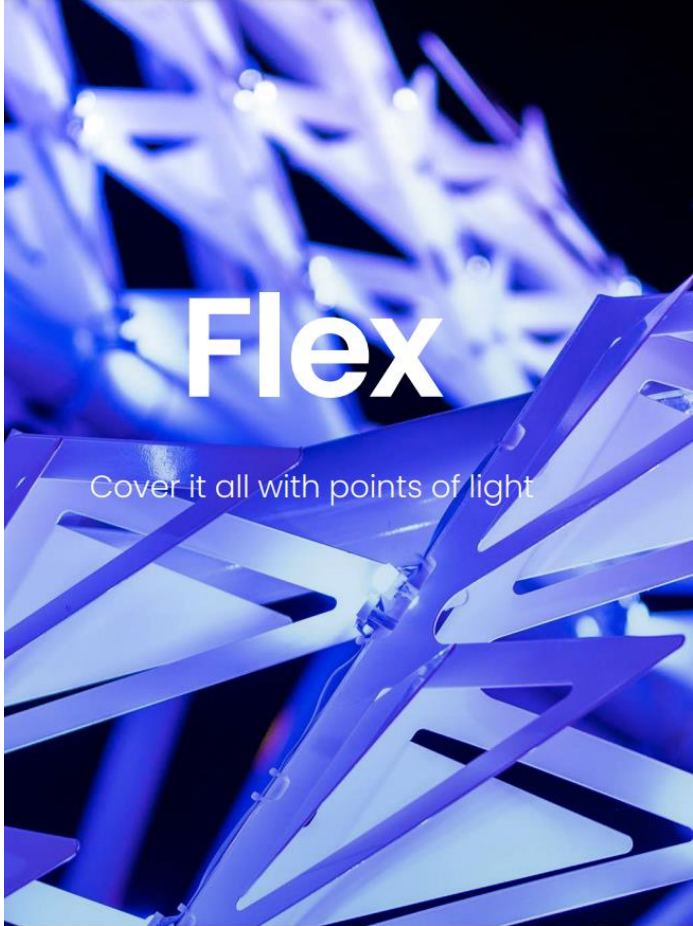
Flex lets you choose the node spacing length that works best for your implementation.

Standard 50 nodes with 102 mm (4 in) or 305 mm (12 in) on-center node spacing.

Custom 1 to 60 nodes are available with 76 mm (3 in) to 610 mm (24 in) on-center node spacing.

## Maximum flexibility

Flex node strands can be field-shortened, to customize the string required for your installation. (Flex Harsh Environment strings are not field-trimmable).



# Flex

Cover it all with points of light



# Flex means flexibility

Bringing light, color, and motion to a structure helps add beauty, get attention, and make an impact. But today's more adventuresome architecture can be a challenge for lighting designers who want to add direct-view lighting to a curved wall, domed ceiling, or other unusual surfaces.

Our innovative, proven Flex family of direct-view LED luminaires meets these challenges—from displaying messages on curved building facades to bringing stunning LED light shows to stadium roofs. All Flex luminaires consist of flexible strands of efficient, addressable LED nodes that can be arranged along a nearly limitless array of surfaces and structures. The flexibility continues with a wide range of choices—color or white light, varying brightness, node spacings, strand length, lens options, beam angles, and more.

No matter what Flex luminaire you choose, you can be confident that it will deliver high-quality LED light, ease of commissioning and installation, and proven reliability. That's why so many lighting designers choose Flex for their more ambitious, artistic installations.

At Color Kinetics, we've been delivering advanced direct-view lighting solutions for more than a decade, bringing new excitement, attention, and beauty to landmark buildings, bridges, stadiums, and other high-profile structures around the world. Our full family of direct-view LED luminaires creates bright, addressable points of light (the Flex family and ArchPoint) and lines of light (the Accent family and Vaya Tube family) that can be mounted on the exterior of a structure, adding visual interest and transforming buildings into eye-catching icons. Our direct-view luminaires can also display video, exciting color graphical effects, and messages.



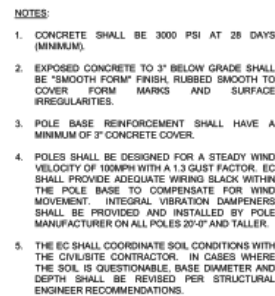




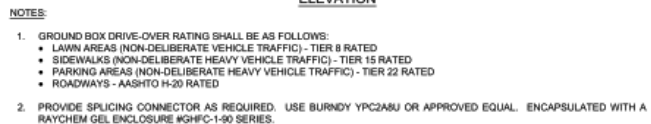




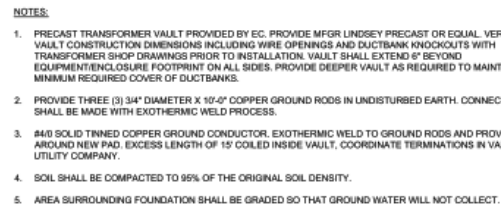




POLE LOCATION	BASE HEIGHT
UNPAVED AREAS (LAWN, PLANTERS, ETC.)	0'-3"
PARKING LOTS	3'-0"
SIDEWALKS	0'-0"

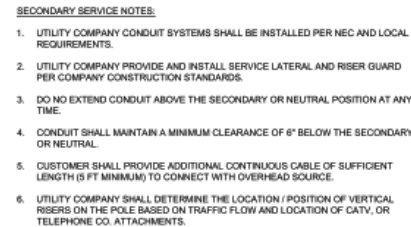


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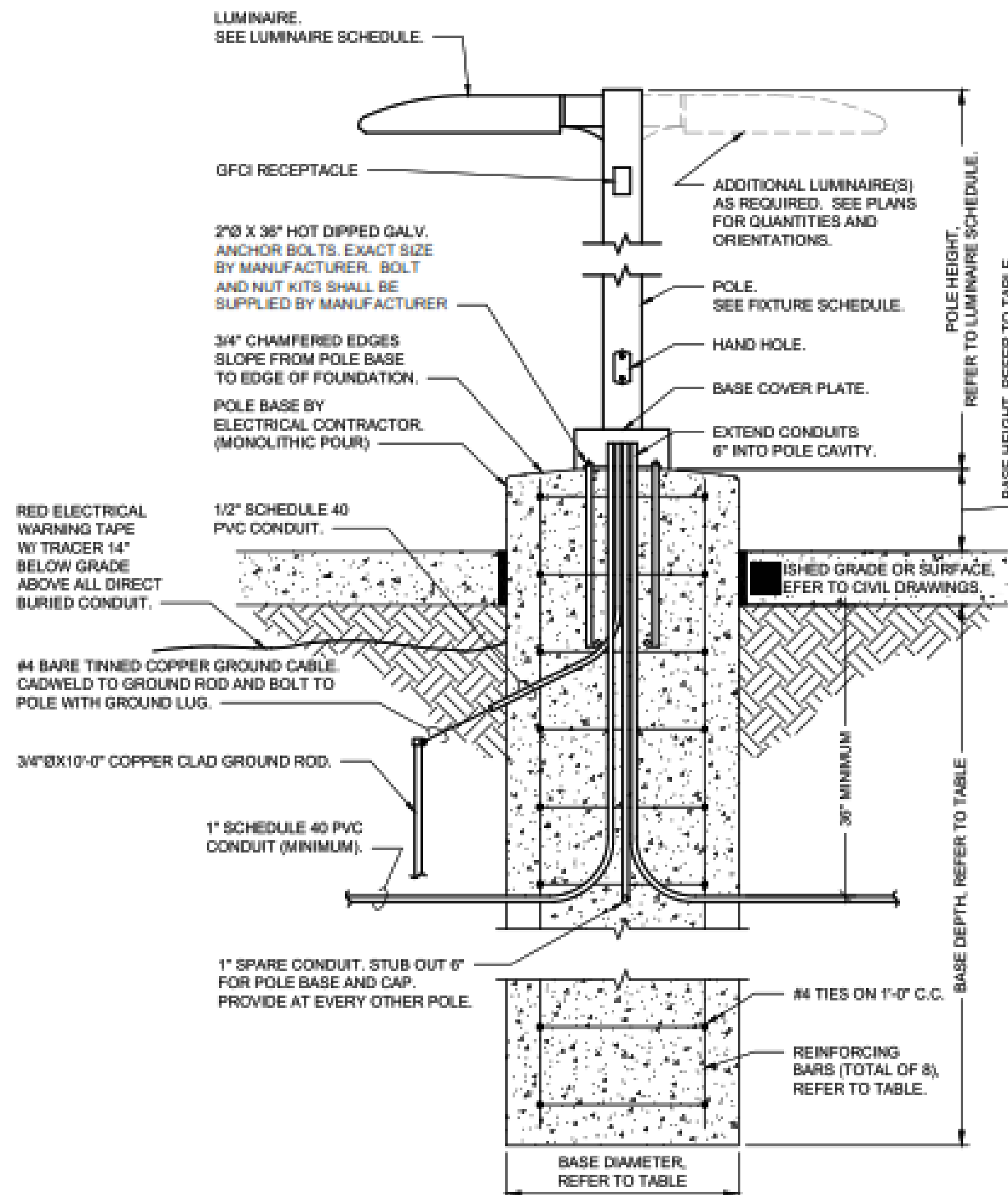


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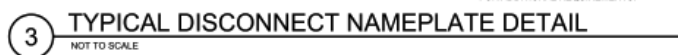
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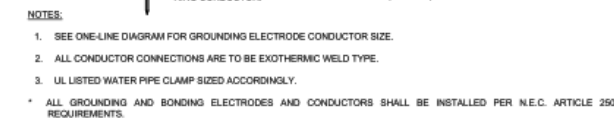
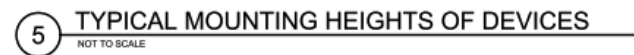








1. DETAIL #1 SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
  - 1.1. PANELDOORS.
  - 1.2. DISTRIBUTION PANELBOARDS.
2. DETAIL #2 SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
  - 2.1. DISTRIBUTION PANELBOARD MAIN AND FEEDER BREAKERS.
3. DETAIL #3 SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
  - 3.1. NON-FUSED DISCONNECT SWITCHES.
  - 3.2. FUSIBLE DISCONNECT SWITCHES.
  - 3.3. MOTOR STARTERS.
  - 3.4. LIGHTING CONTROLS
4. DETAIL #4 SHALL BE UTILIZED FOR THE FOLLOWING EQUIPMENT:
  - 4.1. TRANSFORMERS
5. REFER TO OWNER'S STANDARDS FOR VARIATIONS TO REQUIRED NAMEPLATE INFORMATION AND FORMATTING.
6. TEXT INCLUDED IN **BOLD** ITALICIZED TEXT INDICATES INFORMATION SPECIFIC TO EACH PIECE OF EQUIPMENT.
7. NAMEPLATES SHALL BE ENGRAVED ACRYLIC OR MELAMINE WITH BEVELED EDGES.
8. FURNISH NAMEPLATE WITH SELF-ADHESIVE BACK OR PROVIDE TWO (2) STAINLESS STEEL SCREWS TO SECURE NAMEPLATE:
  - 8.1. SCREWS SHALL MAINTAIN 1/2" DISTANCE FROM LETTERING
  - 8.2. SCREWS SHALL NOT DEGRADE THE NEMA RATING OF THE EQUIPMENT ENCLOSURE.
9. WHERE EQUIPMENT LISTED ABOVE IS FURNISHED OR PROVIDED BY OTHER DIVISIONS AND CONNECTED OR INSTALLED BY THE ELECTRICAL CONTRACTOR, THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE EQUIPMENT NAMEPLATE. NAMEPLATE SHALL NOT COVER ANY FACTORY INSTALLED LABELING OR OTHER EQUIPMENT INFORMATION OR IDENTIFICATION.
10. NAMEPLATE BACKGROUND AND LETTER COLORING SHALL BE AS FOLLOWS:
  - 10.1. NORMAL SYSTEMS: BLACK LETTERS ON A WHITE BACKGROUND.



NOT TO SCALE

NOTES:

1. CONNECT RECEPTACLE LOAD TO PHASE NOT CONNECTED TO LIGHTING


# Planning Commission

March 7, 2022



BROOK PARK CENTRAL PARK COMPLEX  
**POWER AND LIGHTING DESIGN**

17400 HOLLAND RD.  
Brook Park, OH 44142

10		PURPOSE	DATE
1		PLANNING	2/15/22
TITLE			
ELECTRICAL DETAILS II			
JOB NO: J20211339.000			
DRAWING NO: <b>E-502</b>			

Perbrook Park - City of 20211539.000 Master Plan LightingDrawings/Elect/20211539.000-E-502.dwg [E=502] February 14, 2022 - 11:48am rmbloom

## Electrical Details II



LUMINAIRE SCHEDULE							
TYPE	DESCRIPTION	VOLTAGE	LAMPING	FIXTURE WATTAGE	BASIS OF DESIGN	ALTERNATE	REMARKS
SL1	IN-GROUND COLOR CHANGING LED SITE LUMINAIRE, 48" LENGTH, WITH ALUMINUM HOUSING, POLYMER PVC REINFORCED WITH A STAINLESS STEEL FRAME, TEMPERED GLASS LENS, DIE CAST ALUMINUM END CAP, SINGLE POINT POWER/CONTROL CABLE CONNECTION, IP-68 RATING, IMPACT RESISTANT, INTEGRAL DMX / LUMINTALK CONTROLLER, ANTI-SLIP LENS, RGB COLOR/TEMPERATURE, ASYMMETRIC WALLWASH OPTICS, INTERNAL LOUVER, 2.5-DEGREE TILT, AND UL LISTED FOR WET LOCATIONS.	208V	1186 LUMEN (NOMINAL) COLOR CHANGING RGB, ASYMMETRIC WALLWASH OPTICS	51.2W	LUMENFACADE IN-GROUND #LO-12027TV-48-RGBA-WW-TS2.5-INFL-DMX/RDM / LT-ASL	NO ALTERNATE MANUFACTURERS WILL BE ACCEPTED.	LUMINAIRE SHALL BE INSTALLED PER INSTALLATION DOCUMENTS. ALL WIRING LENGTHS SHALL BE CONCEALED AND KEPT TO A MINIMUM. PROVIDE CONTROLLER AT AN APPROPRIATE LOCATION ADJACENT TO SCRIPT.
SL2	27"-DIAMETER, TYPE R, BLACK, 20" (NOMINAL) LED SITE LUMINAIRE WITH DIE CAST LOW COPPER 360 ALUMINUM ALLOY, OPTICAL, TEMPERED CLEAR GLASS LENS, SUPER DURABLE RESISTANT EXTERIOR POLYESTER POWDER COATING, SALT SPRAY RESISTANT, INTEGRAL 0-10V DIMMING CONTROL, IP-68 RATING, CORROSION-RESISTANT COATING, SURGE PROTECTOR, C86 ARM STYLE PENDANT, PENDANT MEDIUM 4-BOLT TENSION ADAPTOR, ALG7220 FIXTURE TYPE, AND UL LISTED FOR WET LOCATIONS. PENDANT MOUNTED AT -20.4" AFF ON BLACK 4" DIAMETER, 20' ROUND ALUMINUM POLE WITH WL BASE OPTION, GROUND FAULT RECEPTACLE 12" FROM TOP, (2) BANNER ARMS.	208V	5063 LUMEN (NOMINAL) 3500K, 70+CRI	55W	LUMINAIRE: LUMENPULSE ALLEGRA T220 #ALG7220-208-CBL-560-35K-CRI 70-2-BK-DM-CRC-SP-P4 +C86 POLE: LUMENPULSE #PL-S-4-AL-R-20-H-BK-WL-D-RGU-AB	NO ALTERNATE MANUFACTURERS WILL BE ACCEPTED.	LUMINAIRE SHALL DIM TO 50% FROM 12AM TO 8AM AND WITH NETWORK INTEGRAL MOTION SENSOR DURING THIS TIME SHALL TURN ON TO 100% OUTPUT WHEN MOTION IS DETECTED. AFTER 15 MINUTES OF INACTIVITY THE LUMINAIRE SHALL DIM BACK TO 50%. PHOTOSENSOR SHALL CONTROL ON/OFF. REFER TO POLE BASE DETAIL ON DWG. E-501 FOR ADDITIONAL REQUIREMENTS. POLES SHALL BE 2" ROUND ALUMINUM BLACK, POWDER COATED FINISH. POLES SHALL BE PROVIDED WITH VIBRATION DAMPENERS. ALUMINUM POLE WITH WL BASE OPTION, GROUND FAULT RECEPTACLE 12" FROM TOP, (2) BANNER ARMS.
SL4	SAME AS TYPE SL2, EXCEPT: TYPE IV DISTRIBUTION AND 240V.	240V	5063 LUMEN (NOMINAL) 3500K, 70+CRI	55W	LUMENPULSE ALLEGRA T220 #ALG7220-240-CBL-560-35K-CRI 70-4-BK-DM-CRC-SP-P4 +C86 POLE: LUMENPULSE #PL-S-4-AL-R-20-H-BK-WL-D-RGU-AB	NO ALTERNATE MANUFACTURERS WILL BE ACCEPTED.	SAME AS TYPE SL2.
SLP	8" DIA. LED, PENDANT, COLOR CHANGING, ALUMINUM HOUSING, MOULDED WHITE AND UV STABILIZED ACRYLIC LENS, IP-68 RATED, WET LOCATION RATED, RGBW-30K COLOR CHANGING, WITH STANDARD STRAIGHT STEM	120V	REGULAR OUTPUT 260 LUMEN RGBW30K, 70+CRI	20W	LUMENPULSE ELEMENT #ELM5-10-R-120-RGBW30K-CRI70-5120-SCAN-2"-O-S4-D-MK0-AM	NO ALTERNATE MANUFACTURERS WILL BE ACCEPTED.	PROVIDE AND CONNECT COLOR CHANGING CONTROLLER.
SLF	FLEXIBLE COMPACT LED, RGB, CLEAR FLAT LENS, 55-NODE, 4" ON-CENTER NODE SPACING, WHITE, ADDRESSABLE, IP-68 RATING, WET LOCATION RATING, WITH MARQUEE LENS KIT (TRANSLUCENT WHITE), MARQUEE MOUNTING TRACK (WHITE) & MARQUEE SPACES (WHITE)	120V	NOMINAL LUMEN (NOMINAL) RGB, 70+CRI	1W / NODE	COLOR KINETICS #K101-000075-00 + 999-007957-02 + 101-000075-03 + 101-000075-000	NO ALTERNATE MANUFACTURERS WILL BE ACCEPTED.	PROVIDE AND CONNECT COLOR CHANGING CONTROLLER.

#### GENERAL NOTES

- FOR ANY LUMINAIRES SUBMITTED OTHER THAN BASIS OF DESIGN LUMINAIRES, A POINT-BY-POINT PHOTOMETRIC PLAN SHALL BE PROVIDED FOR THE PROPOSED LUMINAIRE AS PART OF THE SHOP DRAWING SUBMITTAL. POINT-BY-POINT CALCULATIONS SHALL FOLLOW IESNA RECOMMENDED PRACTICES AND INCLUDE LIGHT LOSS FACTOR (LLF) USED FOR ALL LUMINAIRE TYPES, SURFACE REFLECTANCES, AVERAGE FOOTCANDLE LEVELS, MINIMUM FOOTCANDLE LEVELS, AND MAXIMUM TO MINIMUM RATIOS FOR ALL AREAS WHERE ALTERNATE PROPOSED LUMINAIRE IS TO BE INSTALLED (ONE CALCULATION FOR TYPICAL AREAS IS ACCEPTABLE).
- ALL LUMINAIRES SHALL BE IN ACCORDANCE WITH THE LUMINAIRE SCHEDULE. THE LUMINAIRE SCHEDULE PROVIDES THE MANUFACTURER AND CATALOG NUMBER. THE LUMINAIRE PROVIDED SHALL CONFORM TO THE DESCRIPTION IN THE LUMINAIRE SCHEDULE, THE MANUFACTURER AND CATALOG NUMBER, AND ALL PROVISIONS OF THE CONTRACT DOCUMENTS.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL COLORS, TYPES, LUMINAIRE COLORS, LENGTHS, TRIMS, FINISHES, MOUNTING HARDWARE, CONFIGURATIONS AND HEIGHTS OF SUSPENDED LUMINAIRES, ETC. WITH ARCHITECT PRIOR TO ANY ROUGHING AND PLACING FINAL PURCHASE ORDERS.
- VERIFY EXACT HEIGHT AND LOCATIONS OF ALL WALL MOUNTED LUMINAIRES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ANY ROUGHING.
- AT THE CONCLUSION OF THE WORK, EACH LUMINAIRE MUST BE CLEANED PER MANUFACTURER'S INSTRUCTIONS, EQUIPPED WITH THE PROPER TYPE, NUMBER OF LAMPS, INCLUDING KELVIN TEMPERATURE AND WATTAGE, AND ALL IN GOOD OPERATING CONDITION.
- LIGHT FIXTURE COLOR TEMPERATURE SHALL BE 3000K MINIMUM UNLESS OTHERWISE NOTED.
- NOMINAL LUMEN VALUES MAY VARY BETWEEN DIFFERENT MANUFACTURERS OF SAME TYPE OF LUMINAIRE. NOMINAL LUMEN VALUES GIVEN IN SCHEDULE ARE THE VALUES USED FOR DESIGN.
- FINAL COLOR SELECTION BY ARCHITECT/OWNER AT FUTURE SUBMITTAL.
- FIXTURES SHALL HAVE 5-YEAR WARRANTY.

\*LUM = MULTIVOLTAGE BALLAST/DRIVER (120-277 VOLT OPERATION)

		MFR. SQUARE D		PANEL NO. (E) CONCESSIONS		LOCATION MOUNTING		CONCESSIONS STAND					
		TYPE TEOO		SERVICE 240		L-N 120 DWG. NO.		SURFACE MOUNTED					
		BUS 25SA						E-101					
CONDUCTOR	DESCRIPTION	BREAKER		AMPS		AMPS		BREAKER		DESCRIPTION	CONDUCTOR		
SIZE		POLE/AMPS TYPE		A B		A B		POLE/AMPS TYPE			SIZE		
EXISTING	LVS CONCESSION STORAGE RM	1	20	TYPE	3.00	1	2	8.00	1	20	DRINKING FOUNTAIN - STORAGE	EXISTING	
EXISTING	LVS RESTROOMS - MEN/WOMEN	1	20		3.00	3	4	8.00	1	20	REFRIGERATOR	EXISTING	
EXISTING	EXTERIOR LVS	1	20		3.00	5	6		1	20	SPARE	EXISTING	
	SPARE	1	20			7	8	6.00	1	20	HEAT TRACE	EXISTING	
EXISTING	FURNACE - EXHAUST FAN	1	20		6.00	9	10		1	20	SPARE	EXISTING	
EXISTING	POP COOLER / CASH REGISTER	1	20		7.00	11	12		1	20	SPARE	EXISTING	
EXISTING	MEN'S HAND DRYER	1	20		11.00	13	14	4.00	1	20	RECP'S SERVICE COUNTER	EXISTING	
EXISTING	WOMEN'S HAND DRYER	1	20		11.00	15	16	4.00	1	20	RECP'S SIDE DOOR HALL	EXISTING	
EXISTING	TRAILER	1	20		11.00	17	18	6.00	1	20	ICE MACHINE	EXISTING	
SP10, 1W10EG	IN FITNESS EQUIPMENT LTG.	1	20		8.00	19	20		1	20	SPARE	EXISTING	
	BLANK	1				21	22				BLANK		
	BLANK	1				23	24				BLANK		
	BLANK	1				25	26				BLANK		
AMPS:		BUS A		50		MAIN BREAKER		100A MCB		Total kVA:		A	B
		BUS B		45		CONDUIT SIZE		EXISTING				14	11
						FEEDER SIZE		EXISTING		A.I.C. SYM		22.000	
						SOURCE		EXISTING		KVA DEMAND		14	

### 3 EXISTING 'CONCESSIONS' PANEL SCHEDULE

NOT TO SCALE

- NOTES:
- CONNECT NEW LOADS TO NEW PANELBOARD.
  - BALANCE PANELBOARD LOADS AS REQUIRED.
  - PROVIDE UPDATED TYPED PANEL SCHEDULE.
  - FIELD VERIFY AVAILABILITY OF QUOTED SPACE.

		MFR. BY SPEC TYPE BY SPEC BUS COPPER	PANEL NO. (N) AMPHITHEATER			LOCATION MOUNTING DWG. NO.			AMPHITHEATER SURFACE E-101			
CONDUCTOR SIZE	DESCRIPTION	BREAKER POLE/AMPS	AMPS			AMPS			BREAKER POLE/AMPS	DESCRIPTION	CONDUCTOR SIZE	
2W12, 1W12EG	AMPHITHEATER RECEPTACLE	1 20	8.0	A	B	C	A	B	C	3 60	CUSTOMER CONNECTION	
2W12, 1W12EG	AMPHITHEATER RECEPTACLE	1 20		8.0			3	4				
2W12, 1W12EG	AMPHITHEATER RECEPTACLE	1 20			8.0		5	6				
2W12, 1W12EG	AMPHITHEATER RECEPTACLE	1 20	8.0				7	8		3 50	CUSTOMER CONNECTION	
2W12, 1W12EG	AMPHITHEATER RECEPTACLE	1 20		8.0			9	10				
	CUSTOMER CONNECTION	2 30			8.0	11	12					
						13	14					
	CUSTOMER CONNECTION	2 40				15	16					
						17	18		2 40	CUSTOMER CONNECTION		
	CUSTOMER CONNECTION	2 50				19	20					
						21	22					
	BLANK	1				23	24		1	BLANK		
	BLANK	1				25	26		1	BLANK		
	BLANK	1				27	28		1	BLANK		
	BLANK	1				29	30		2 1 15	PANELBOARD STRIP HEATER	2W12, 1W12EG	
AMPS PER PHASE			22.00	16.00	16.00	0.00			0.00	2.00	AMPS PER PHASE	
AMPS:		BUS A	22.00	MAIN BREAKER		200A		TOSH KVA		A	B	C
		BUS B	16.00	CONDUIT SIZE		1-1/2"				2.040	1.920	2.160
		BUS C	18.00	FEEDER SIZE		1W12		A.I.C. SYM		22000 (MINIMUM)		
				SOURCE		(N) PWR SERVICE		KVA DEMAND		6.720		

### 4 NEW 'AMPHITHEATER' PANEL SCHEDULE

NOT TO SCALE

MFR. BY SPEC		PANEL NO. (N) MDP		LOCATION MOUNTING		EQUIPMENT RACK						
TYPE	BY SPEC	SERVICE	L-L 208	L-N	120	DWG. NO.	SURFACE E-101					
CONDUCTOR SIZE	DESCRIPTION	BREAKER POLE/AMPS	AMPS			BREAKER POLE/AMPS			DESCRIPTION	CONDUCTOR SIZE		
4W30, 1W3EG	AMPHITHEATER CUST. SWITCH & AMPHITHEATER PANELBOARD	3 200	120.0	A	B	C	1 2	12.0	3 30	SITE LIGHTING CIRCUIT #1	4W3, 1W3EG	
			120.0				3 4	12.0				
			120.0				5 6					
4W2, 1W3EG	RESTROOM SINGLE POINT CONN.	3 100	60.0				7 8	12.0	3 30	SITE LIGHTING CIRCUIT #2	4W3, 1W3EG	
			60.0				9 10	12.0				
							11 12					
2W10, 1W10EG	PAVILION RECTIPACLE	1 20	8.0				13 14	8.0	1 20	SCRIPT LIGHTING CIRCUIT	2W3, 1W10EG	
2W10, 1W10EG	PAVILION RECTIPACLE	1 20	8.0				15 16	8.0	1 20	SCRIPT RECEPTACLE	2W3, 1W10EG	
2W10, 1W10EG	PAVILION RECTIPACLE	1 20	8.0				17 18		1 20	SPARE	3W10, 1W10EG	
2W10, 1W10EG	PAVILION LIGHTING	1 20	8.0				19 20		3 100	SPARE		
2W10, 1W10EG	AMPHITHEATER RECTIPACLE	1 20					21 22					
2W10, 1W10EG	AMPHITHEATER RECTIPACLE	1 20					23 24					
2W10, 1W10EG	SPARE	2 20					25 26	12.0	3 100	GAZEBO PANELBOARD	4W2, 1W3EG	
							27 28					
	SPARE	2 50					29 30		12.0			
							31 32					
	SPARE	1 20					33 34		1	BLANK		
	BLANK	1					35 36		1	BLANK		
	BLANK	1					37 38		1	BLANK		
	BLANK	1					39 40		1	BLANK		
	BLANK	1					41 42		2 0 1 15	PANELBOARD STRIP HEATER	2W12, 1W12EG	
AMPS PER PHASE												
			(Average) 106.00			44.00 44.00 38.00			AMPS PER PHASE			
AMPS:		BUS A	238.00	MAIN BREAKER		400A		Total KVA		A	B	C
		BUS B	240.00	CONDUIT SIZE		4"				28.560	28.800	29.080
		BUS C	234.00	FEEDER SIZE		4W30 1W3EG		A.I.C. SYM		42000 (MINIMUM)		
				SOURCE		(N) PWR SERVICE		KVA DEMAND		85.440		

### 2 NEW 'MDP' PANEL SCHEDULE

NOT TO SCALE

### 5 NEW 'GAZABO' PANEL SCHEDULE

NOT TO SCALE

- NOTES:
- RECONNECT EXISTING LOADS TO NEW PANELBOARD.
  - BALANCE PANELBOARD LOADS AS REQUIRED.



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