

## Planning Commission Staff Report

<b>Project Type:</b>	Architectural Specialty Lighting Package
<b>Meeting Date:</b>	June 14, 2021
<b>From:</b>	Natalie Nye, Planner
<b>Location:</b>	North of Chesterfield Airport Rd. and east of Spirit of St. Louis Blvd.
<b>Description:</b>	<b><u>Spirit of St. Louis Corporate Center (Gateway Studios) Lighting Package:</u></b> Architectural Specialty Lighting Package for a 30.8-acre tract of land zoned “PC” Planned Commercial District located on the north side of Chesterfield Airport Road and east of Spirit of St. Louis Boulevard.

### **PROPOSAL SUMMARY**

This is a request for an Architectural Specialty Lighting Package for the Gateway Studios development located in the Spirit of St. Louis Corporate Center subdivision. Specifically, this Lighting Package is seeking approval for lighting on the Main Building and Studio 2 located on Lot 1 of the Gateway Studios development. Even though the proposed hotel on Lot 2 is not requesting any specialty lighting, the Lighting Package covers the entire development. If approved, other buildings within Gateway Studios would need to amend this package to request any additional specialty architectural lighting.



Figure 1: Aerial

## **HISTORY OF SUBJECT SITE**

The subject property was originally zoned “M3” Planned Industrial District by St. Louis County. On March 19, 2007 Ordinance 2342 was approved which rezoned the property to “PC” Planned Commercial District. Permitted uses as a result of the rezoning include but are not limited to; studios, offices, and hotels. Following the approval of the Ordinance, a Lot Split and Boundary Adjustment Plat were approved in May of 2007. This created the current boundaries of the site.

In 2021, applications for a Boundary Adjustment Plat, Amended Site Development Concept Plan, and Site Development Section Plans for Lots 1 and 2, and an Architectural Specialty Lighting Plan were submitted for the development known as Gateway Studios, a campus containing recording and film studios, office space and a hotel. The site is currently vacant awaiting development.



Figure 2: Colored Site Plan

## **REQUEST OVERVIEW**

The Site Development Section Plans for Lot 1 and Lot 2 of the development are currently in the review process. Lot 1 includes a 293,000 square foot multi-story building and attached two-story, 36,500 square foot studio building. Lot 2 consists of a five-story hotel building containing 168 hotel rooms. The Gateway Studios campus includes an internal drive, surface parking lots, landscaping and an additional lot for future development.

The Main Building and Studio 2 have a total of eight different light fixtures. Of the eight, only one light fixture is classified as a specialty lighting fixture. This fixture is a wall-wash fixture

highlighting the exposed concrete panel walls located on the Main Building. These walls will face Chesterfield Airport Rd. and Spirit of St. Louis Blvd. All lighting proposed will match the black and grey exterior finishes, will be static and will not trespass beyond the roof of the building.

The project was reviewed by the Architectural Review Board (ARB) on May 13, 2021. The Board made a motion to forward the submittal to the Planning Commission with a recommendation for approval by a vote of 4-0.

### **STAFF ANALYSIS**

The Unified Development Code (UDC) allows for Architectural Specialty Lighting Packages (Sec. 31-04-03.C). Specialty architectural lighting is defined as lighting applications located on the exterior or visible from the exterior of a building that highlight and accentuate certain portions, features, or entire facades of a building or structure and that may utilize non-traditional colors, motion, or other similar features. The UDC also defines that the purpose of an Architectural Specialty Lighting Package is to provide comprehensive, complementary and unified architectural specialty lighting throughout a single development. Any requested modifications are to provide for flexible architectural accent lighting criteria that promotes superior design and is tailored to a specific development.

The UDC provides several considerations for Architectural Specialty Lighting Packages which can be found below:

- **Architectural specialty lighting should highlight and accentuate traditional building detailing and architectural features. Additionally, precise lighting applications should highlight distinctive architectural features.**

The specialty lighting located at the base of the exposed concrete walls on the Main Building highlights the texture and pattern of the architectural design. The accentuated architectural features can be seen in the night renderings found below (Figures 3 and 4).



*Figure 3: Rendering – Main Building Front Façade facing Chesterfield Airport Rd.*



*Figure 4: Rendering – Main Building & Studio 2 facing Spirit of St. Louis Blvd.*

- **The color temperature of architectural specialty lighting should underscore the building materials and character. Any non-traditional colors are limited to one change within a 24-hour time period. Additionally, architectural specialty lighting should be unobtrusive in intensity and should not turn a building into an attention-getting device or blanket signage.**

The proposed lighting will match the black and grey exterior finishes and be a cool, neutral 4000k color temperature. While the specialty lighting wall wash fixture will have the ability to change color based on the clientele hosted in the studio, the clear/white color shown on the renderings will be the standard lighting preference. The proposed lighting on the Main Building and Studio 2 is designed so that it does not project beyond the building. The light does not blink or flash and will not be perceived as signage.

- **All proposed light fixtures should be permanently mounted.**

All of the proposed fixtures within the approved lighting plan and the proposed Specialty Lighting Package are to be permanently mounted.

- **Architectural specialty lighting shall not interfere with or obscure the public's capacity to receive information, or cause visual confusion by interfering with pedestrian or vehicular traffic. Architectural specialty lighting shall conform to the character of the community, enhance the visual harmony of development, and preserve the public health, convenience, welfare and/or safety within the City of Chesterfield by maintaining the high aesthetic quality of the community.**

The proposed specialty lighting will highlight feature walls facing Chesterfield Airport Rd. and Spirit of St. Louis Blvd. No specialty lighting is proposed on the rear elevations facing Highway 40/Interstate 64. The Main Building and Studio 2 are set back significantly from the road and there will be no light spillage from the site. The proposed development is unique in both use and architecture and will be highly visible. The proposed Lighting Package enhances the buildings' architecture while maintaining public safety and aesthetic quality of the City of Chesterfield.





*Figure 5: Rendering – Studio 2 facing Highway 40/Interstate 64*

### **Additional Design Standards/Policies:**

**Chesterfield Valley Design Policies:** The City of Chesterfield’s Comprehensive Plan has a specific Chesterfield Valley Policies Element. The policies include commercial development with particular concern over the image presented by development along I-64. There are six specific policies of which one is applicable to the lighting design of this project. Staff outlines the applicable policy below.

**Policy 1: Lighting of Buildings Along I-64/US 40** - The facades of buildings facing I-64/US 40 should be lighted to provide an attractive image at night for individuals traveling along I-64. Accent lighting should be utilized and flood lighting should be avoided.

Limited building light fixtures are proposed along the facades facing the highway. No flood lights are proposed along these rear façades.

### **DEPARTMENTAL INPUT**

Attached is the Architectural Specialty Lighting Package submittal containing the approved color elevations with the application of lighting for all facades, additional renderings at night, photos of other locations with similar lighting, photos of adjacent development, and the architect’s statement of design. Staff is requesting action on the Spirit of St. Louis Corporate Center (Gateway Studios) Architectural Specialty Lighting Package.

Requests for Architectural Specialty Lighting Packages can be permitted if they are found to be architecturally integrated with the building design and harmonious with the surrounding area. The Architectural Review Board (ARB) has recommended approval of the Lighting Package proposed for Gateway Studios.

### **MOTION**

The following options are provided to the Planning Commission for consideration relative to this application:

- 1) "I move to approve (or deny) the Architectural Specialty Lighting Package for Spirit of St. Louis Corporate Center (Gateway Studios) as presented."
- 2) "I move to approve the Architectural Specialty Lighting Package for Spirit of St. Louis Corporate Center (Gateway Studios) with the following conditions..." (Conditions may be added, eliminated, altered, or modified)

Attachments

1. Architectural Specialty Lighting Package Submittal

# MAIN BUILDING | SPECIALITY LIGHTING PACKAGE

GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021



# MAIN BUILDING | LIGHTING NARRATIVE

GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021



April 20, 2021

## **Architectural Specialty Lighting Package** **Gateway Studios – Main Building and Studio 2**

### Purpose

The specialty lighting proposed for the Gateway Studios Main Building had been designed to highlight and accentuate the building detailing and architectural features. The only specialty light fixture being proposed is a wall-wash type fixture, while all other lighting for the Gateway Studios Campus are traditional applications of architectural accent lighting.

One of the primary architectural features of the Main Building are the Studio walls. The Studio walls are exposed concrete panels designed with a formliner pattern inspired by Japanese Architect Tadao Ando. This formliner creates a consistent four (4) foot tall by eight (8) foot long grid-like pattern, dotted with six (6) round depressions.

To highlight the beauty of the exposed concrete walls with this grid-like pattern, the Studio walls that flank the Main Entry will be illuminated with an energy efficient, color-change, wall-wash type fixture (Fixture F). These Studio walls face Chesterfield Airport Road and Sprit of St. Louis Boulevard, and do not face the Interstate. The wash-wash fixture highlights the natural character of the building, while providing the option to change the color based on the clientele from the Music and Film Industry that is using the facility. Per City of Chesterfield guidelines, the color will not be changed more than one (1) time during a twenty-four (24) hour period.

Sleek, twelve-foot-tall pedestrian light poles line the entry plaza of the Main Building to serve both function and beauty (Fixture G). These modern, slim line fixtures align with the column bay spacing of the Main Building and complement the contemporary design. In addition to being attractive accents that delineate the edge of the entry plaza, these light poles provide the required light levels in the drive lanes near the monument sign at the Main Building.

A cove light frames and highlights the cantilevered entry portion of the Main Office at the Main Building (Fixture C-2). On the underside of the cantilevered entry portion is linear LED lighting recessed in a wood-look fiber cement paneled soffit (Fixture C-1).

In contrast to the wall-washed Studio walls that are the highlight of the lighting scheme, the concrete walls of the Studio Support Space will have simple, strategically placed, accent lighting that adds visual interest and balance to the front façade (Fixture B). These fixtures are mounted at 24' above the finish floor so that they are above the trees and landscaping.

The concrete walls of the plaza between the Main Building and Studio 2 will have accent lighting that offers safety and appeal to the overall plaza design (Fixture B). This accent lighting will line both sides of the plaza, mounted at 12' above the finish floor.

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Per City of Chesterfield guidelines, the lighting for the façade of Studio 2 which faces the Interstate will have traditional accent lighting (Fixture B). These accent lights will be mounted at 18' above the finish floor so that they are above the tree line and balanced with design of the North façade (Fixture B).

For safety purposes, all exterior man doors in the concrete walls of the Main Building and Studio 2 will have a downlight above the man door, mounted at 12' above the finish floor (Fixture A). All dock doors for the Main Building and Studio 2 will have a downlight above the dock door, mounted at 14' above the finish floor (Fixture D). Where additional light is needed near the taller drive-in doors for the Main Building and Studio 2, a downlight will be mounted at 24' above the finish floor (Fixture E).

To coordinate with the black and grey features on the Main Building and Studio 2, all exterior lighting will have a black colored housing finish and will be a cool, neutral 4000K color temperature.

All fixtures will be dusk-to-dawn fixtures. All light fixtures will be static (not moving, flashing, shifting, or blinking). No lights will project their light above the roof of the building, and no light trespass or sky glow will result from the proposed lighting scheme.

See provided architectural lighting plans, lighting cut sheets, and nighttime renderings included with this submission.

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# MAIN BUILDING | LIGHTING PLANS

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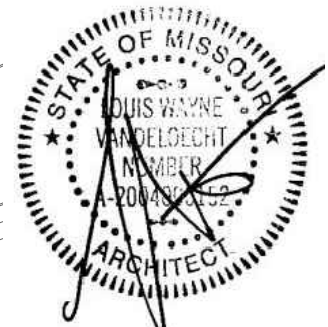
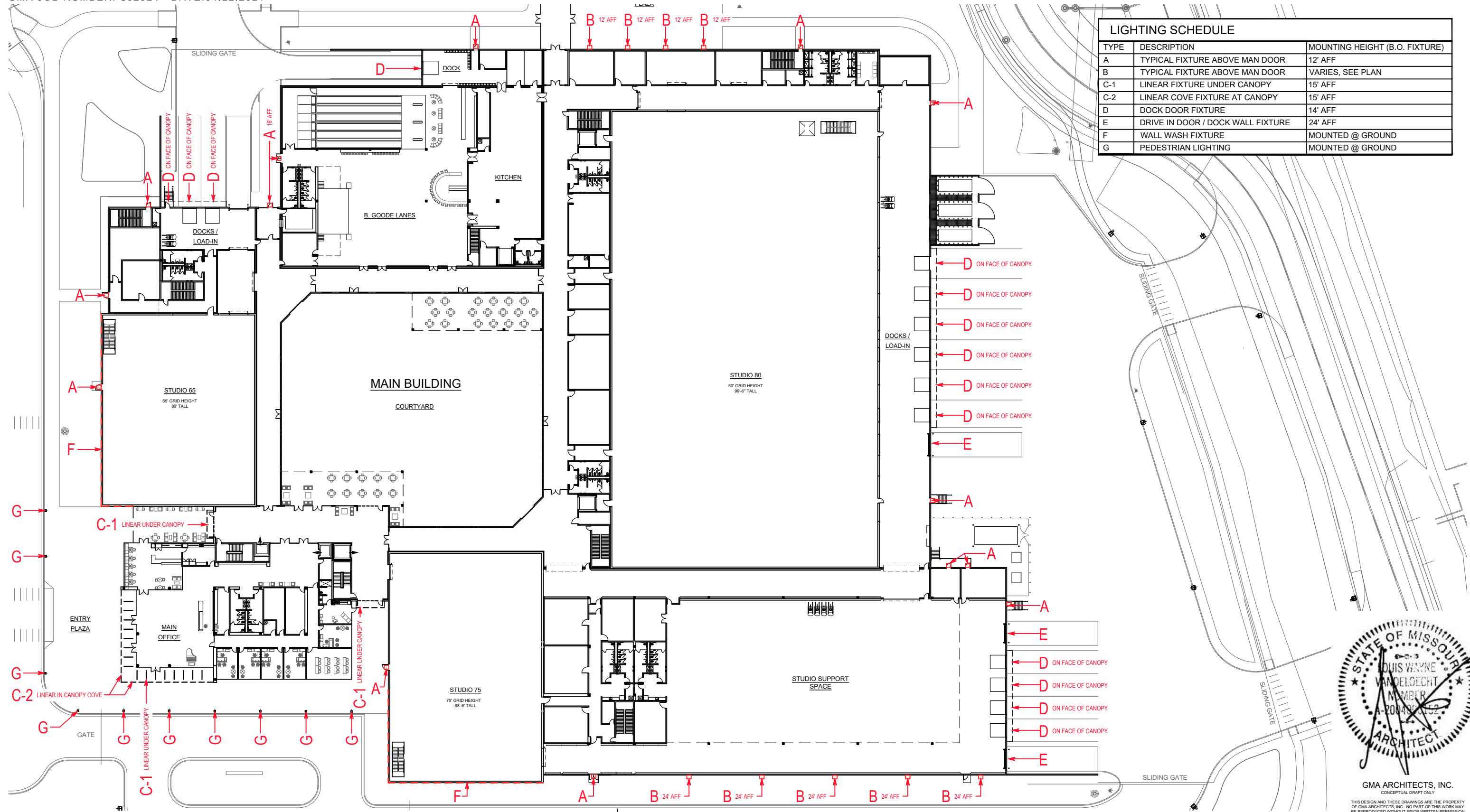
GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021

# GATEWAY STUDIOS | CHESTERFIELD, MO

GMA JOB NUMBER: SJ2324 DATE:04.22.2021

LIGHTING SCHEDULE		
TYPE	DESCRIPTION	MOUNTING HEIGHT (B.O. FIXTURE)
A	TYPICAL FIXTURE ABOVE MAN DOOR	12' AFF
B	TYPICAL FIXTURE ABOVE MAN DOOR	VARIES, SEE PLAN
C-1	LINEAR FIXTURE UNDER CANOPY	15' AFF
C-2	LINEAR COVE FIXTURE AT CANOPY	15' AFF
D	DOCK DOOR FIXTURE	14' AFF
E	DRIVE IN DOOR / DOCK WALL FIXTURE	24' AFF
F	WALL WASH FIXTURE	MOUNTED @ GROUND
G	PEDESTRIAN LIGHTING	MOUNTED @ GROUND



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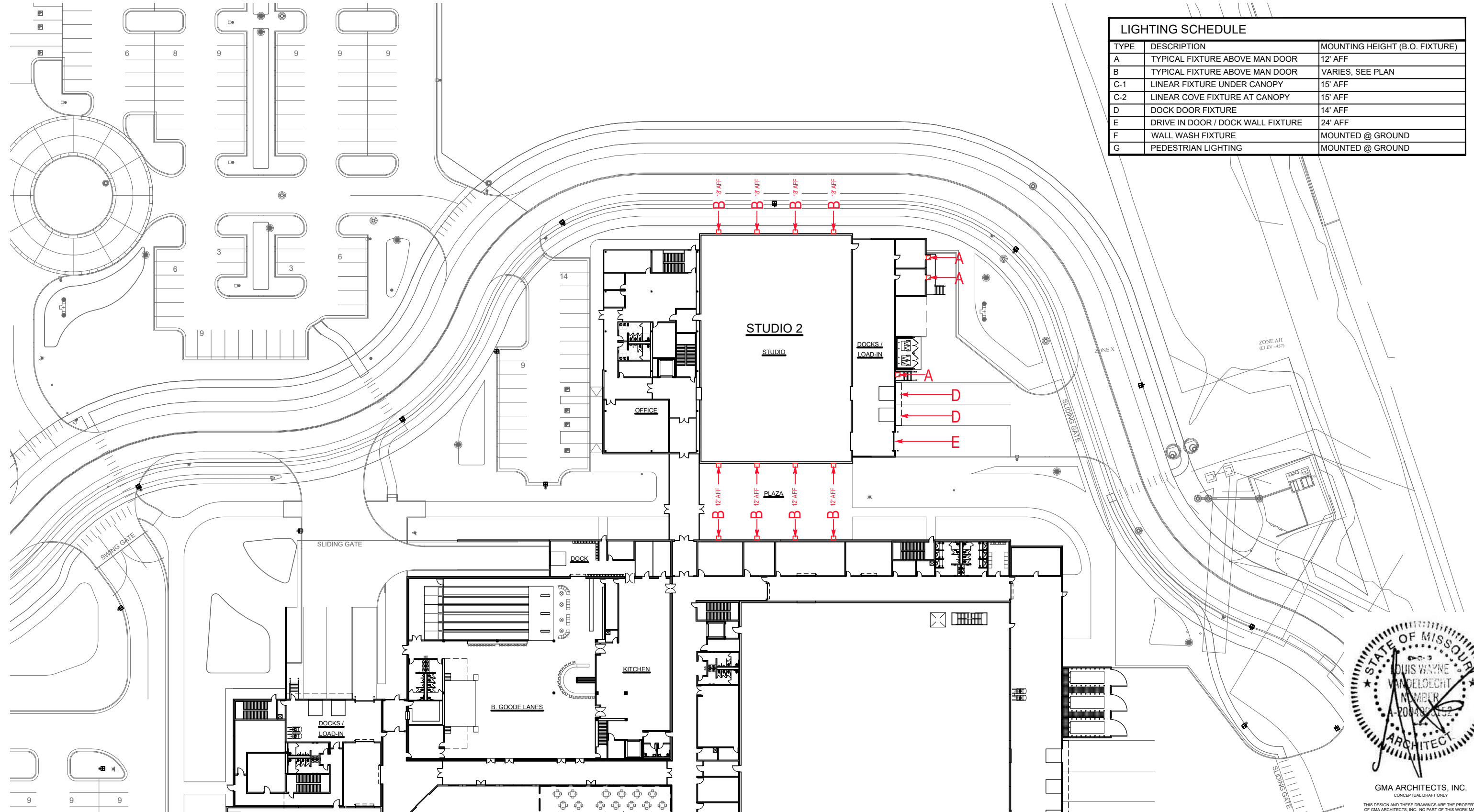


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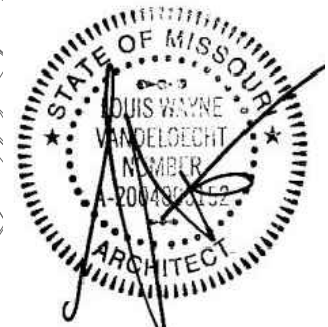
## EXTERIOR BUILDING LIGHTING PLAN - MAIN BUILDING

# GATEWAY STUDIOS | CHESTERFIELD, MO

GMA JOB NUMBER: SJ2324 DATE:04.22.2021



LIGHTING SCHEDULE		
TYPE	DESCRIPTION	MOUNTING HEIGHT (B.O. FIXTURE)
A	TYPICAL FIXTURE ABOVE MAN DOOR	12' AFF
B	TYPICAL FIXTURE ABOVE MAN DOOR	VARIES, SEE PLAN
C-1	LINEAR FIXTURE UNDER CANOPY	15' AFF
C-2	LINEAR COVE FIXTURE AT CANOPY	15' AFF
D	DOCK DOOR FIXTURE	14' AFF
E	DRIVE IN DOOR / DOCK WALL FIXTURE	24' AFF
F	WALL WASH FIXTURE	MOUNTED @ GROUND
G	PEDESTRIAN LIGHTING	MOUNTED @ GROUND



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# MAIN BUILDING | NIGHTTIME RENDERINGS

GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021





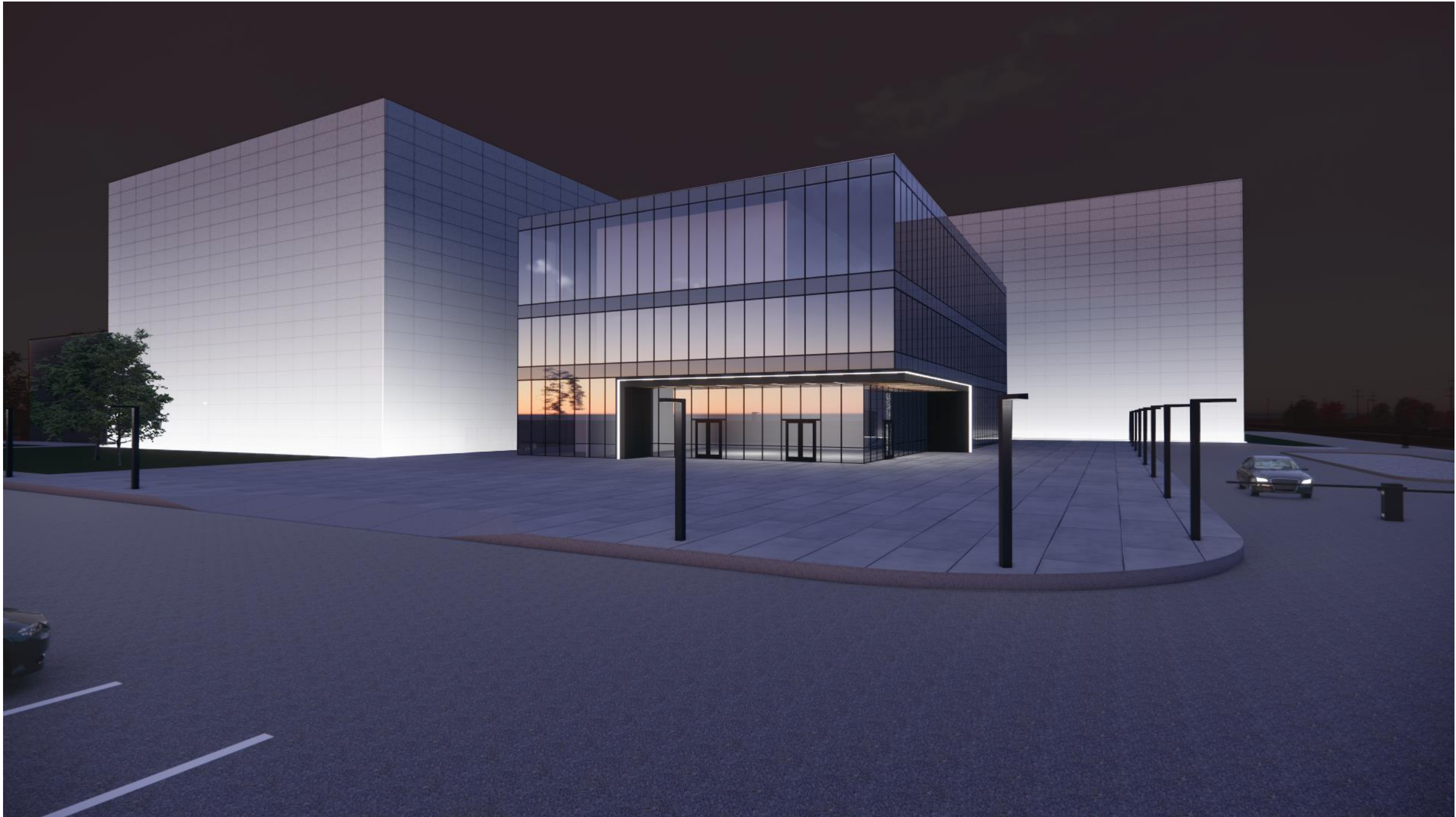


MAIN BUILDING: FRONT FAÇADE FACING CHESTERFIELD AIRPORT ROAD



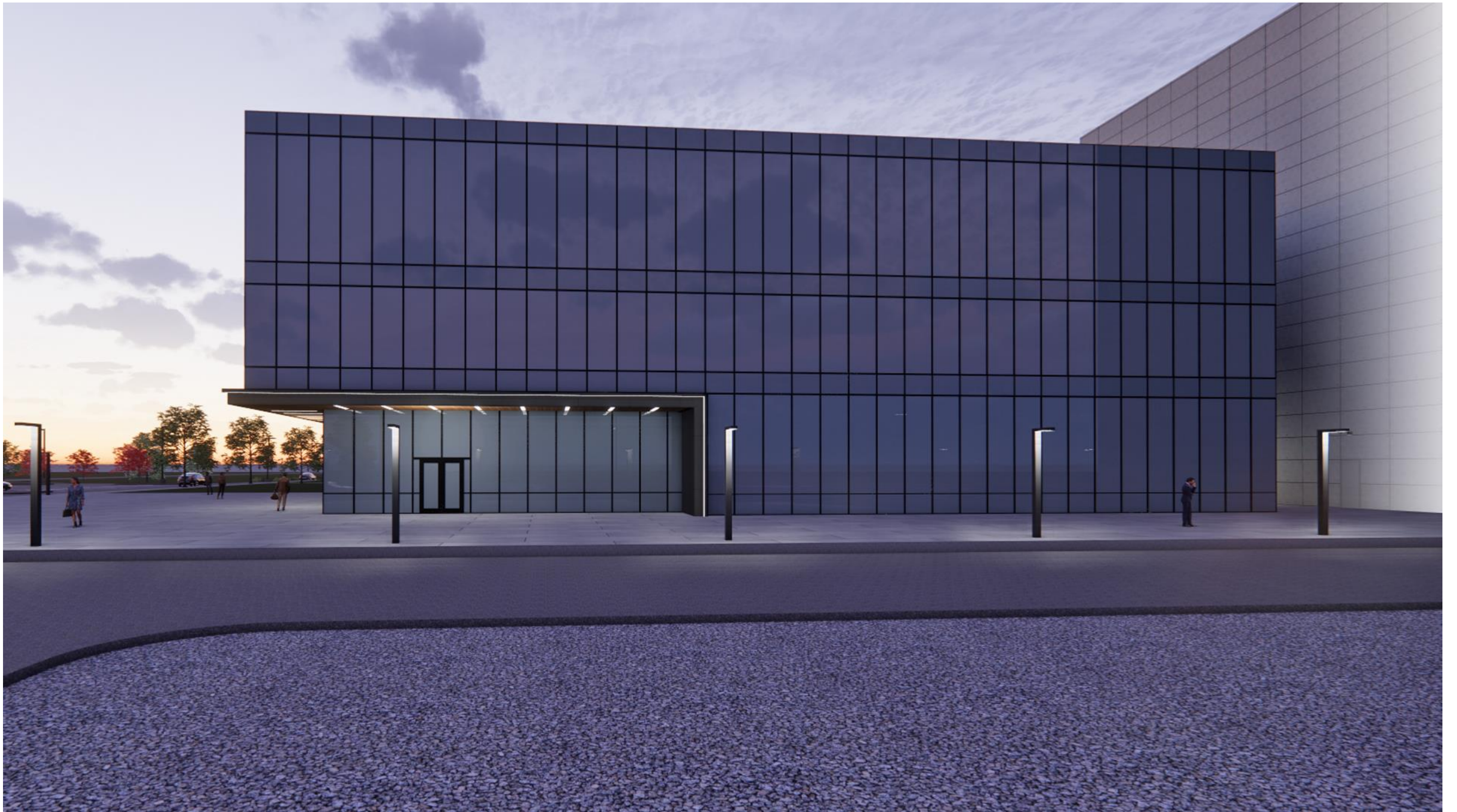
MAIN BUILDING AND STUDIO 2: FACING SPIRIT OF ST. LOUIS BLVD





MAIN BUILDING ENTRY PLAZA





MAIN BUILDING ENTRY PLAZA





STUDIO 2 FACING INTERSTATE





PLAZA BETWEEN MAIN BUILDING AND STUDIO 2





MAIN BUILDING AND STUDIO 2: DOCK SIDE

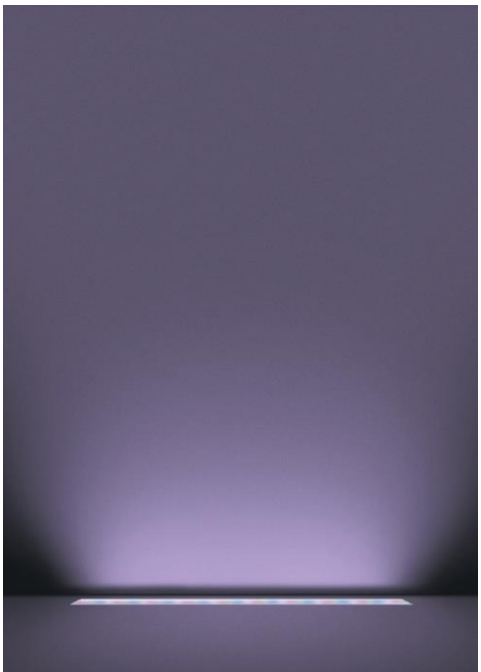
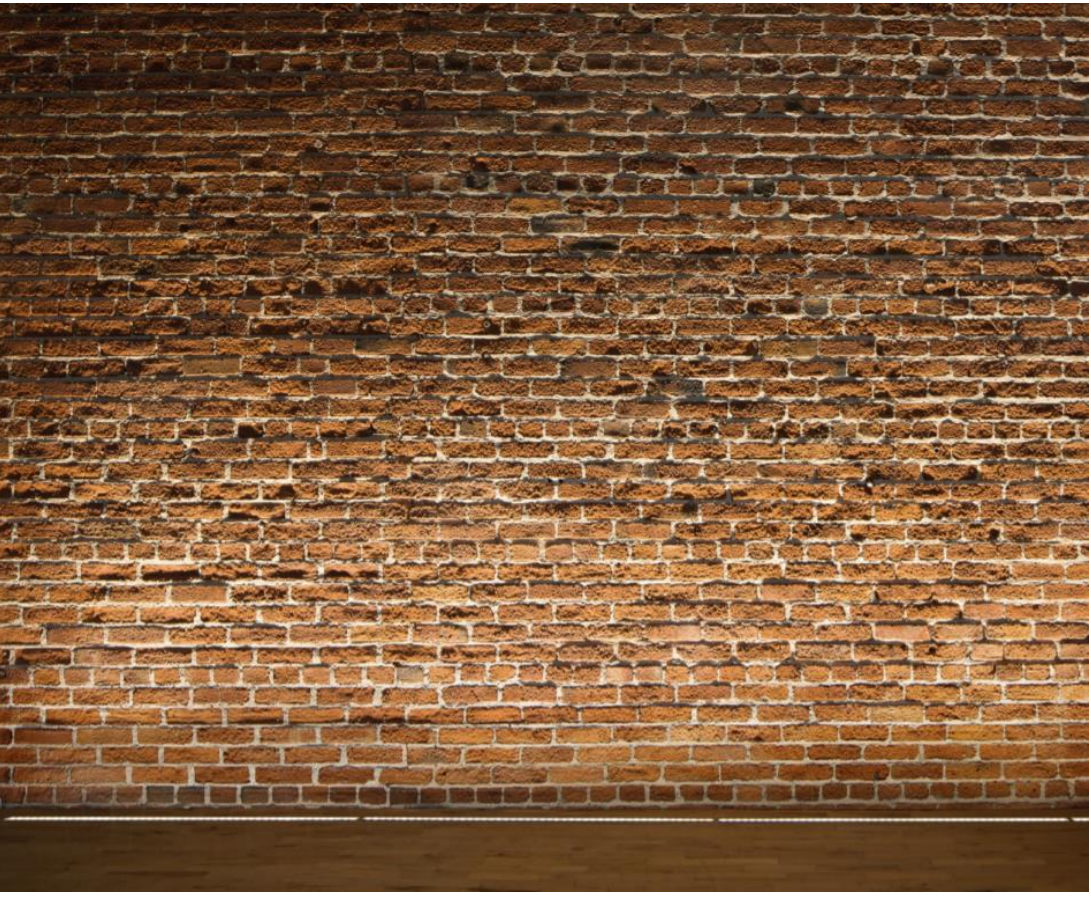
# MAIN BUILDING | SPECIALITY FIXTURE

GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021



Main Building



Install images:  
Lumenfacade inground, color change, wall wash fixture

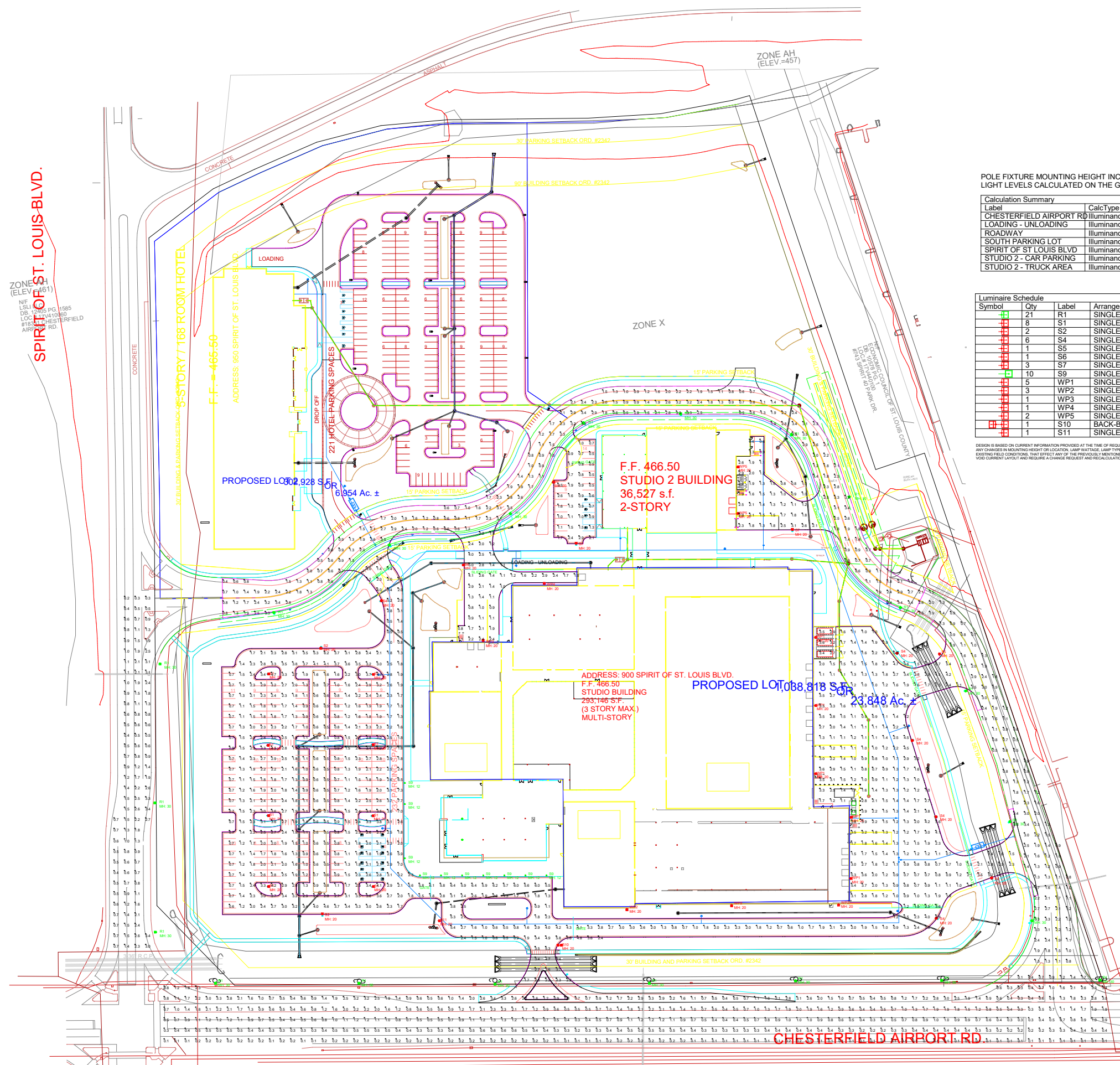


# MAIN BUILDING | SITE PHOTOMETRICS

GMA JOB NUMBER: SJ2324

SUBMITTED 04.22.2021

ZONE AH (ELEV. =461)  
 SPIRIT OF ST. LOUIS BLVD.



POLE FIXTURE MOUNTING HEIGHT INCLUDES BASE  
 LIGHT LEVELS CALCULATED ON THE GROUND

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CHESTERFIELD AIRPORT RD	Illuminance	Fc	0.85	3.4	0.1	8.50	34.00
LOADING - UNLOADING	Illuminance	Fc	1.86	5.0	0.8	2.33	6.25
ROADWAY	Illuminance	Fc	1.72	3.5	0.4	4.30	8.75
SOUTH PARKING LOT	Illuminance	Fc	2.09	7.7	0.5	4.18	15.40
SPIRIT OF ST LOUIS BLVD	Illuminance	Fc	1.27	3.4	0.2	6.35	17.00
STUDIO 2 - CAR PARKING	Illuminance	Fc	1.28	3.5	0.5	2.56	7.00
STUDIO 2 - TRUCK AREA	Illuminance	Fc	1.63	3.1	0.6	2.72	5.17

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	LLF	Lum. Watts	Total Watts	Description
[Symbol]	21	R1	SINGLE	1.000	166	3486	GLEON-SA3C-740-U-T3
[Symbol]	8	S1	SINGLE	1.000	166	1328	GLEON-SA3C-740-U-5WQ
[Symbol]	2	S2	SINGLE	1.000	113	226	GLEON-SA2C-740-U-SL2
[Symbol]	6	S4	SINGLE	1.000	113	678	GLEON-SA2C-740-U-SL4
[Symbol]	1	S5	SINGLE	1.000	113	113	GLEON-SA2C-740-U-SLR
[Symbol]	1	S6	SINGLE	1.000	113	113	GLEON-SA2C-740-U-SL4-HSS
[Symbol]	3	S7	SINGLE	1.000	67	201	GLEON-SA1D-740-U-SL4
[Symbol]	10	S9	SINGLE	1.000	54	540	ACL-R4-X-5G1800-30-XX-UNV
[Symbol]	5	WP1	SINGLE	1.000	113	565	GLEON-SA2C-740-U-T4FT-WM
[Symbol]	3	WP2	SINGLE	1.000	113	339	GLEON-SA2C-740-U-SL3-WM
[Symbol]	1	WP3	SINGLE	1.000	66	66	GLEON-SA2A-740-U-T4FT-WM
[Symbol]	1	WP4	SINGLE	1.000	66	66	GLEON-SA2A-740-U-SL3-WM
[Symbol]	2	WP5	SINGLE	1.000	59	118	GLEON-SA1C-740-U-T4FT-WM
[Symbol]	1	S10	BACK-BACK	1.000	166	332	GLEON-SA3C-740-U-5WQ TWIN
[Symbol]	1	S11	SINGLE	1.000	166	166	GLEON-SA3C-740-U-T4FT

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST. ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE AND EXISTING FIELD CONDITIONS THAT AFFECT ANY OF THE PREVIOUSLY MENTIONED WILL VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RE-CALCULATION.

F.F. 466.50  
 STUDIO 2 BUILDING  
 36,527 s.f.  
 2-STORY

ADDRESS: 900 SPIRIT OF ST. LOUIS BLVD.  
 F.F. 466.50  
 STUDIO BUILDING  
 293,146 S.F.  
 (3 STORY MAX.)  
 MULTI-STORY

ADJ. LOT 1  
 PE. 315 PG. 26-27  
 SPIRIT PARK PROPERTIES LLC  
 DB. 20058 PG. 254  
 LOC.# 17V420113  
 #707 SPIRIT 40 PARK DR.

CHESTERFIELD AIRPORT RD

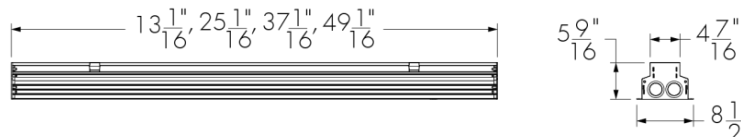
**MAIN BUILDING**  
**COLOR-CHANGE WALL**  
**WASH LIGHTING FOR CONC.**  
**TILT WALLS AT MAIN ENTRY**



Project Name \_\_\_\_\_ Qty \_\_\_\_\_  
 Type \_\_\_\_\_ Catalog / Part Number \_\_\_\_\_



Top view



Front and side views

**Photometric Summary**

Delivered output (lm)	Intensity (peak cd)
810	316

Based on 4000K, 4ft [1219mm] configuration.  
 Photometric performance is measured in compliance with IESNA LM-79-08.

**Optics**



Direct view

**Colors and Color Temperatures**

2200K 2700K 3000K 3500K **4000K**

Red Green Blue

**Controls**

ON/OFF 0-10V DALI

lumen talk™ DMXrdm EcoSystem Enabled

**Ratings**

IP68 IK10

**Certifications**



**Description**

The Lumenfacade Inground Direct View is an LED luminaire designed for ground-recessed lighting applications, including asymmetric wall washing, grazing, and linear wayfinding. An innovative, plug and play design simplifies installation, protecting the system from water infiltration and ensuring long-lasting performance. Featuring second generation LED technology, the Lumenfacade Inground is available in four different sizes (12 in, 24 in, 36 in or 48 in), with a wide choice of outputs, color temperatures, color-mixing systems, optics and controls. A unique asymmetric wallwash distribution is also available, providing exceptional uniformity and brightness for walls and signage.

**Features**

<b>Construction</b>	Walk over compliant up to 500 kg in any type of ground, Walk over compliant up to 1000 kg in concrete
<b>Color and Color Temperature</b>	2200K, 2700K, 3000K, 3500K, 4000K, Red, Green, Blue
<b>Length (nominal)</b>	12 in, 24 in, 36 in, 48 in
<b>Optics</b>	Direct view
<b>Options</b>	Anti-slip lens, CE (certification covers European Economic Area)
<b>Power Consumption</b>	5 W/ft, Typically 20% higher for 12 in fixture lengths
<b>Warranty</b>	5-year limited warranty

**Performance**

<b>Color Consistency</b>	2 SDCM, 3 SDCM (2200K)
<b>Color Rendering</b>	Minimum CRI 80
<b>Lumen Maintenance</b>	L70 280,000 hrs, L95 35,000 hrs

**Physical**

<b>Optical Chamber Material</b>	Aluminum
<b>Blockout Material</b>	Polymer recycled PVC reinforced with a stainless steel frame



<b>Trim Material</b>	Anodized aluminum
<b>Lens Material</b>	Frosted glass
<b>End Cap Material</b>	Die cast aluminum
<b>Hardware Material</b>	Stainless steel
<b>Weight</b>	12 in: 7.5 lbs, 24 in: 15.3 lbs, 36 in: 21.4 lbs, 48 in: 27 lbs

**Electrical and control**

<b>Voltage</b>	120 to 277 volts
<b>Fixture Cable</b>	Power and data in one cable
<b>Leader Cable Conductor</b>	5C #16-5
<b>Connectors</b>	IP68 push-lock
<b>Control</b>	On/Off control, Lumentalk, 0-10V dimming, DALI dimming, Lutron® EcoSystem® Enabled dimming, DMX/RDM enabled
<b>Resolution (DMX/RDM)</b>	Per foot or per fixture (configured with LumenID V3 software), 8-bit or 16-bit

**Environmental**

<b>Storage Temperature</b>	-40 °F to 185 °F (device must reach start-up temperature value before operating)
<b>Start-up Temperature</b>	-13 °F to 122 °F
<b>Operating Temperature</b>	-40 °F to 122 °F
<b>Ingress Protection Rating</b>	IP68 rated for up to 1 ft, not suitable for permanent immersion applications
<b>Impact Resistance Rating</b>	IK10

**Accessories (order separately)**

<b>Cables</b>	Lumenfacade Inground Leader Cable, Lumenfacade Inground Jumper Cable
<b>Electrical Accessories</b>	Lumenfacade Inground Junction Box
<b>Control Boxes</b>	DMX/RDM enabled (daisy chain or star configuration), Ethernet enabled (daisy chain or star configuration)
<b>Control Systems</b>	Lumentone™ 2, Pharos® kit
<b>Diagnostic and Addressing Tools</b>	LumenID, LumentalkID

## Cables (order separately)

### LOILC - Leader cable for Lumenfacade Inground



#### LOILC-CERTIFICATION-LENGTH

Please specify:

**CERTIFICATION:** UL or CE; **LENGTH:** 10 ft, 25 ft or 50 ft

- Suitable for dimming/data and non-dimming applications.
- Consult Lumenfacade Inground leader cable specification sheet for details.

### LOIJC - Jumper cable for Lumenfacade Inground



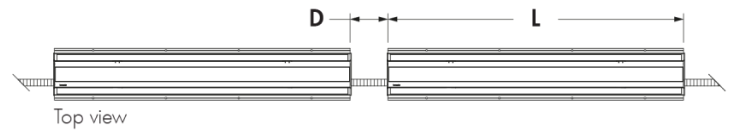
#### LOIJC-CERTIFICATION-LENGTH

Please specify:

**CERTIFICATION:** UL or CE; **LENGTH:** 2 ft, 4 ft or 10 ft

- Suitable for dimming/data and non-dimming applications.
- Consult Lumenfacade Inground jumper cable specification sheet for details.

### Jumper cable length selection



**D** - distance between two fixtures

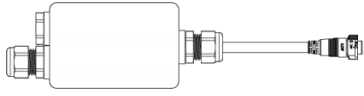
**L** - length of fixture

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

Example: if the distance between two 4 ft fixtures is 0.5 ft,  $L + D = 4.5$  ft, therefore a 10 ft jumper cable is required.

## Electrical accessories (order separately)

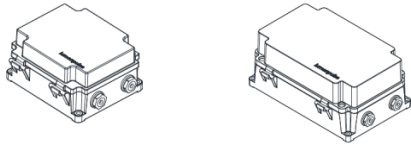
### LOI-JBOX - Lumenfacade Inground Junction Box



Lumenfacade Inground IP68 sealed junction box starter kit. Use for stand alone fixtures and/or first of run installations. The LOI-JBOX accessory does not fit in 12 in fixtures.

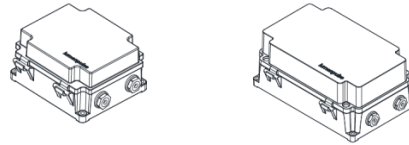
## Control boxes (order separately)

### CBX-DMX/RDM - DMX/RDM enabled (daisy chain or star configuration)



DMX/RDM control box. Up to six power and data outputs to fixtures or fixture runs. Consult CBX specification sheet and installation instructions for details. Lumenterminators provided with CBX (2x for daisy chain configuration, 6x for star configuration), consult factory to order spares.

### CBX-ENET - Ethernet enabled (daisy chain or star configuration)



Ethernet control box. Up to four power and data outputs to fixture or fixture runs. Consult Ethernet CBX specification sheet and installation instructions for details.

## Control systems (order separately)

### LTN2 - Lumentone™ 2



Lumentone 2 is a simple pre-programmed DMX 512 controller with a push button rotary dial and live feedback.

### PHAROS - Pharos® kit



The Pharos kit, available for 1 or 2 DMX universes, allows for complete control of large lighting installations. 2 DMX universes kit shown.

## Diagnostic and addressing tools (order separately)

### LID - LumenID



LumenID is a diagnostic and addressing DMX/RDM tool. It must be specified on all DMX applications. Consult LID specification sheet for details.

### LID-LT - LumentalkID

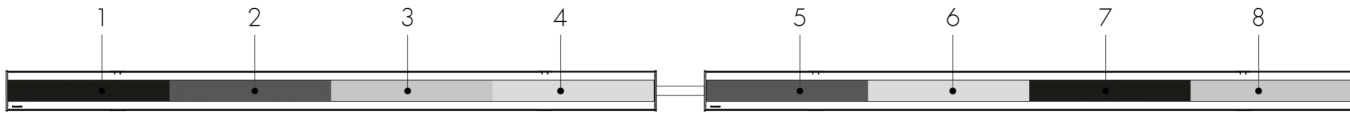


LumentalkID is a diagnostic and addressing tool. It must be specified for all Lumentalk (LT) applications. Consult LID-LT specification sheet for details.

## Resolution details

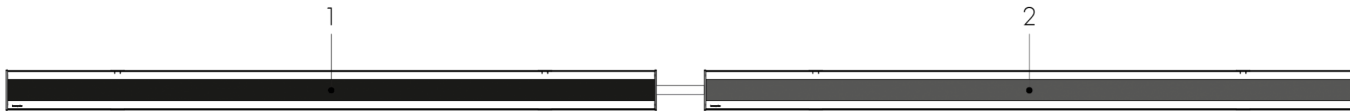
DMX/RDM control, resolution per foot: each 12 in section is addressed independently

DMX addresses:



DMX/RDM control, resolution per fixture: each fixture is addressed independently

DMX addresses:



- 48 in fixtures shown.

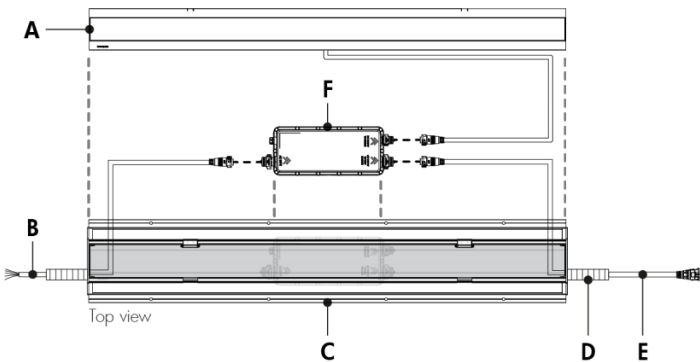
- Applicable for DMX/RDM control option only. Fixture resolution can be configured on-site within the LumenID V3 software. A DMX/RDM enabled CBX is required.

## Typical wiring diagrams

Wiring color code

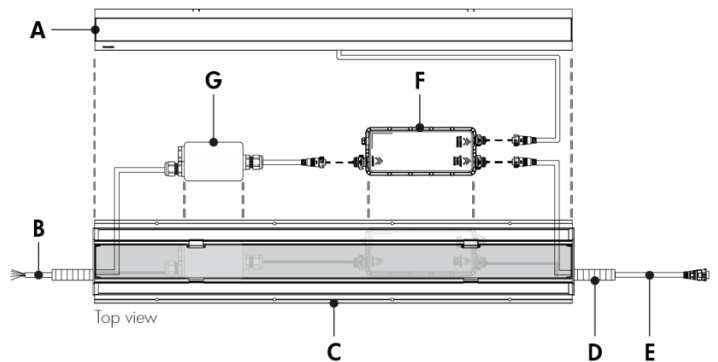
UL Color Code	USE
Green	Ground
Black	Line
White	Line/Neutral
Red or Purple	0-10V / Data +
Orange	0-10V / Data -

Typical installation with leader cable



- A - Optical chamber
- B - Leader cable (LOILC, order separately)
- C - Blockout
- D - Conduit (by others)
- E - Jumper cable to next fixture (LOIJC, order separately, for continuous run installations)
- F - PACBOX

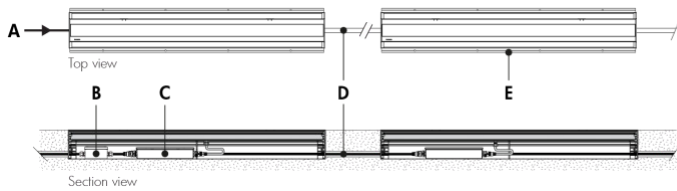
Typical installation with IP68 LOI-JBOX accessory



- A - Optical chamber
- B - Power and data input cable (by others)
- C - Blockout
- D - Conduit (by others)
- E - Jumper cable to next fixture (LOIJC, order separately, for continuous run installations)
- F - PACBOX
- G - IP68 LOI-JBOX (order separately)

The IP68 LOI-JBOX accessory cannot be used with 12 in fixtures.

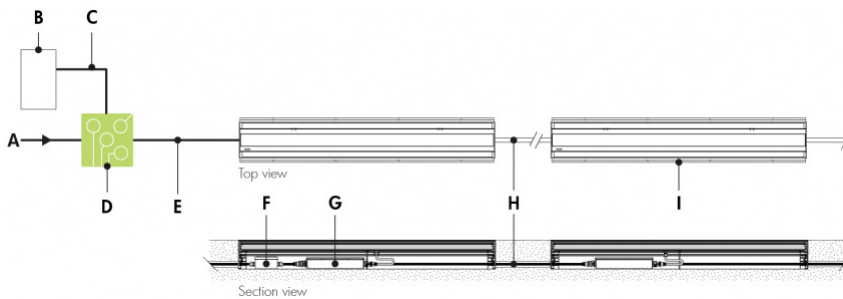
## On/Off Control (NO)



- A** - Power input (120-277V, wiring by others)
- B** - IP68 LOI-JBOX (optional)
- C** - PACBOX
- D** - Jumper cable (LOIJC)
- E** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 5 W/ft.

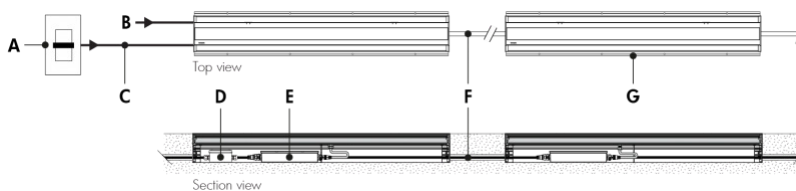
## Lumentalk (LT)



- A** - Power input (100-277V AC, wiring by others)
- B** - Dimmer/controller (order separately from Lumenpulse, or by others)
- C** - Data wiring (by others)
- D** - Lumentranslator 2 (LTL2-DIM, -DMX, -TRIAC, -DALI)
- E** - Power wiring (by others)
- F** - IP68 LOI-JBOX (optional)
- G** - PACBOX
- H** - Jumper cable (LOIJC)
- I** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- For DMX applications: 1 DMX controller per Lumentalk network, maximum of 48 DMX channels per Lumentalk network (minimum step transition update rate is 1 second, minimum fade time between two colors is 1 minute). Consult factory for applications that require additional capabilities.
- Consult factory for DALI Lumentalk applications.
- 1% minimum dimming value.
- 5 W/ft.

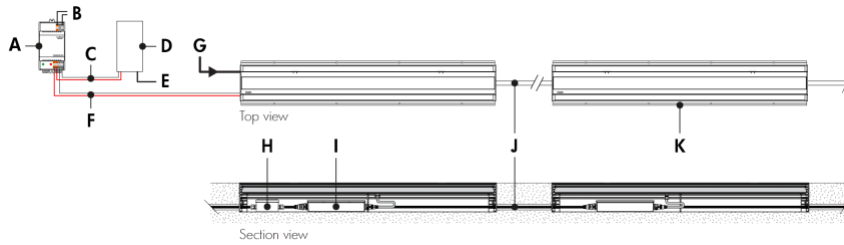
## 0-10V dimming (DIM)



- A** - Dimmer (by others)
- B** - Power input (120-277V, wiring by others)
- C** - Data wiring (by others)
- D** - IP68 LOI-JBOX (optional)
- E** - PACBOX
- F** - Jumper cable (LOIJC)
- G** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3 mA per fixture, active dimmer (Current Source): 0.5 mA per fixture.
- 10% minimum dimming value.
- 5 W/ft.

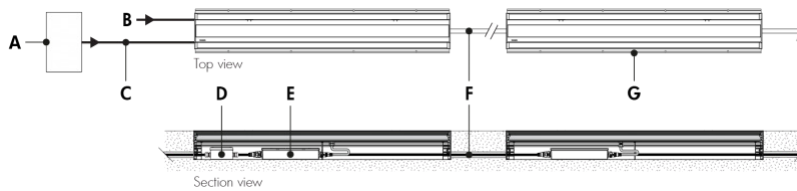
## DALI dimming (DALI)



- A** - DALI bus power supply (by others)
- B** - Power input for DALI bus power supply (wiring by others)
- C** - Data output to DALI controller (wiring by others)
- D** - DALI controller (by others)
- E** - Power input for DALI controller (wiring by others)
- F** - Data output to fixture (wiring by others)
- G** - Power input (120-277V, wiring by others)
- H** - IP68 LOI-JBOX (optional)
- I** - PACBOX
- J** - Jumper cable (LOIJC)
- K** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Maximum of 64 DALI fixtures per DALI loop.
- 1% minimum dimming value.
- 5 W/ft.

## Lutron® EcoSystem® Enabled dimming (ES)

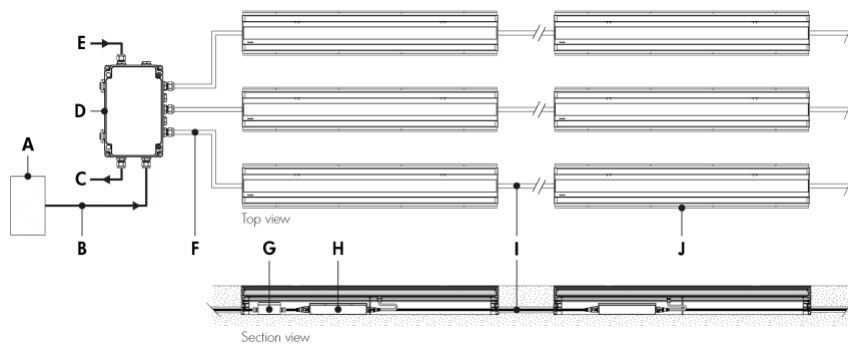


- A** - Lutron® EcoSystem® controller (by others)
- B** - Power input (120-277V, wiring by others)
- C** - Data wiring (by others)
- D** - IP68 LOI-JBOX (optional)
- E** - PACBOX
- F** - Jumper cable (LOIJC)
- G** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Each Lutron® EcoSystem® enabled fixture has its own address; for the example shown, there are a total of 2 EcoSystem® addresses.
- 1% minimum dimming value.
- 5 W/ft.

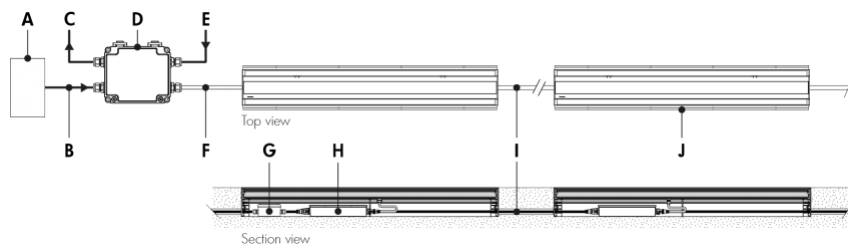


## Star Layout (DMX/RDM)



- A** - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B** - Data input (Belden 9841 or equivalent, by others)
- C** - Data output to next CBX (optional, not isolated/not boosted)
- D** - CBX-ST
- E** - Power input (120-277V, wiring by others)
- F** - Leader cable (LOILC)
- G** - IP68 LOI-JBOX (optional)
- H** - PACBOX
- I** - Jumper cable (LOIJC)
- J** - Lumenfacade Inground

## Daisy Chain Layout (DMX/RDM)



- A** - DMX/RDM controller (order separately from Lumenpulse, or by others)
- B** - Data input (Belden 9841 or equivalent, by others)
- C** - Data output to next CBX (optional, not isolated/not boosted)
- D** - CBX-DS
- E** - Power input (120-277V, wiring by others)
- F** - Leader cable (LOILC)
- G** - IP68 LOI-JBOX (optional)
- H** - PACBOX
- I** - Jumper cable (LOIJC)
- J** - Lumenfacade Inground

- Consult the installation instructions for additional wiring details.
- Consult factory for specific applications and maximum fixture count/cable length recommendations. Maximum run length calculations are typically based on 48 in fixtures.
- The DMX/RDM protocol states a maximum of 32 DMX/RDM enabled fixtures on any single run.
- Maximum of 4 DMX/RDM repeaters/CBX cascading in line.
- Maximum of 6 outputs per CBX-ST; maximum of 1 output per CBX-DS.
- Each fixture requires 1 DMX address.
- 1% minimum dimming value.
- 5 W/ft.

**How to order**

Housing <sup>(1) (2) (3)</sup>	Voltage	Length	Color and Color Temperature <sup>(4)</sup>	Control	Options
<b>LOID</b> Lumenfacade™ Inground Direct View, 5 W/ft	<b>120/277</b> 120-277 volts	<b>12</b> 13 1/16 in (7.5 lbs) <sup>(3)</sup>	<b>22K</b> 2200K	<b>NO</b> On/Off control	<b>ASL</b> Anti-slip lens  <b>CE</b> CE (certification covers European Economic Area) <sup>(8)</sup>
		<b>24</b> 25 1/16 in (15.3 lbs)	<b>27K</b> 2700K	<b>LT</b> Lumentalk <sup>(4)</sup>	
		<b>36</b> 37 1/16 in (21.4 lbs)	<b>30K</b> 3000K	<b>DIM</b> 0-10V dimming	
		<b>48</b> 49 1/16 in (27 lbs)	<b>35K</b> 3500K	<b>DALI</b> DALI dimming	
		<b>40K</b> <b>4000K</b>	<b>ES</b> Lutron® EcoSystem® Enabled dimming		
		<b>RD</b> Red <sup>(5)</sup>	<b>DMX/RDM</b> DMX/RDM enabled <sup>(7)</sup>		
		<b>GR</b> Green <sup>(5)</sup>			
		<b>BL</b> Blue <sup>(5)</sup>			

**Notes:**

1. A Lumenfacade Inground fixture includes one optical chamber (LOIC), one power and control box (PACBOX) and one recessed blackout (RBO). The LOIC, PACBOX and RBO are provided according to the output/color, length and control configuration.
2. Consult the installation instructions to plan all aspects of the fixture installation. A completed Certificate of Installation must be returned to Lumenpulse to activate the warranty.
3. Power consumption is typically 20% higher for 12 in fixture lengths.
4. Consult factory for availability of static Royal Blue, 6500K and 90+ CRI.
5. Static colors made to order 8-10 weeks.
6. A Lumentranslator 2 (LTL2) and LumentalkID (LIDLTI) must be specified for Lumentalk applications. Consult Lumentranslator 2 and Lumentalk pages and specification sheets for details.
7. A control box (CBX) and LumenID (LID) must be specified.
8. Consult European specification sheet and installation instructions for CE wiring information.