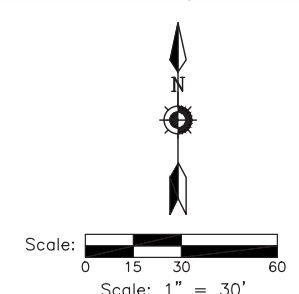


PROPOSED BUILDING
ELEVATION VARIES - REFER TO GRADING PLANS
EVENT LEVEL CIVIL FFE: 14.00 = ARCH FFE 0.00



DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

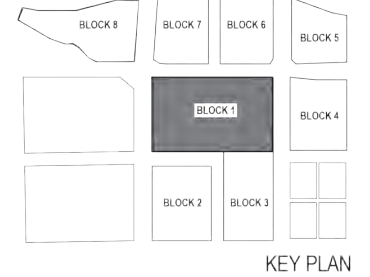


WISCONSIN ENTERTAINMENT & SPORTS CENTER
1111 N. 4TH STREET
MILWAUKEE WI

DPD - MINOR MODIFICATION

REVISIONS

NO.	DATE	DESCRIPTION
1	03.17.2016	ISSUED
2	04.04.2016	REVISED
3	05.09.2016	REVISED
4	01.27.2017	REVISED



PROJECT NUMBER: 15.4017
ISSUE DATE: 01.27.2017

OVERALL UTILITY PLAN

POPULOUS **HNTB** **eua**

SHEET
A1 - 10



CITY PLAN REVIEW INFORMATION	
RIGHT OF WAY LANDSCAPE: LANDSCAPE ELEMENTS THAT OCCUR BEYOND THE PROPERTY LINES AND IN THE RIGHT OF WAY ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND FINAL STREETSCAPE DESIGN WILL BE CREATED AND IS OUTSIDE THE SCOPE OF THE REQUIRED DRAWINGS.	
PLANT KEY	
SHADE TREES	
AFM	AUTUMN FANTASY MAPLE
ECT	COFFEE TREE, KENTUCKY
SMH	HONEYLOCUST
SWO	OAK, SWAMP WHITE
ORNAMENTAL TREES	
RHS	SERVICEBERRY
ERB	EASTERN REDBUD
SHRUBS	
CSA	DOGWOOD, ARTIC FIRE
JSB	JUNIPER, BLUE STAR
RHA	SUMAC, GRO-LOW
TMA	YEW, ANDERSON
WBP	HOLLY, WINTERBERRY (FEMALE)
WMP	HOLLY, WINTERBERRY (MALE)
PERENNIALS, GRASSES, GROUNDCOVERS	
BI	BOSTON IVY
CAE	SEDGE, IVORY
MSG	GRASS, HEAVY METAL SWITCH
PC	CONEFLOWER, PURPLE
PDS	GRASS, PRAIRIE DROPSEED
SSC	COREOPSIS 'SIENNA SUNSET'
WJ	JUNIPER, CREEPING WISCONSIN
STONE MULCH & STRUCTURAL SOIL	
(Pattern)	MAINTENANCE STRIP, DECORATIVE STONE CHIP
(Pattern)	CU STRUCTURAL SOIL AREA

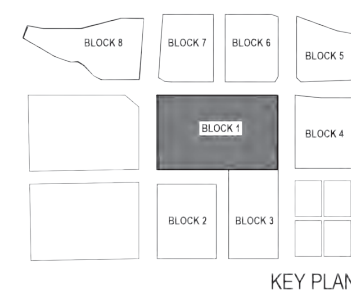


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ENLARGED LANDSCAPE PLAN -
 4TH & JUNEAU

POPULOUS **HNTB** **eu**

SHEET
A1 - 11



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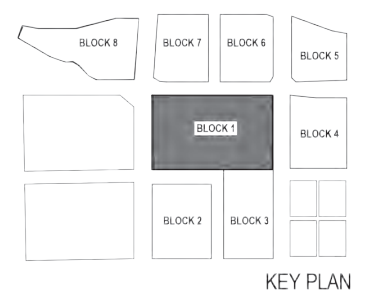


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ENLARGED LANDSCAPE PLAN -
 4TH & HIGHLAND



SHEET
A1 - 12



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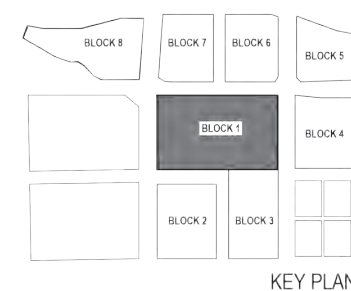


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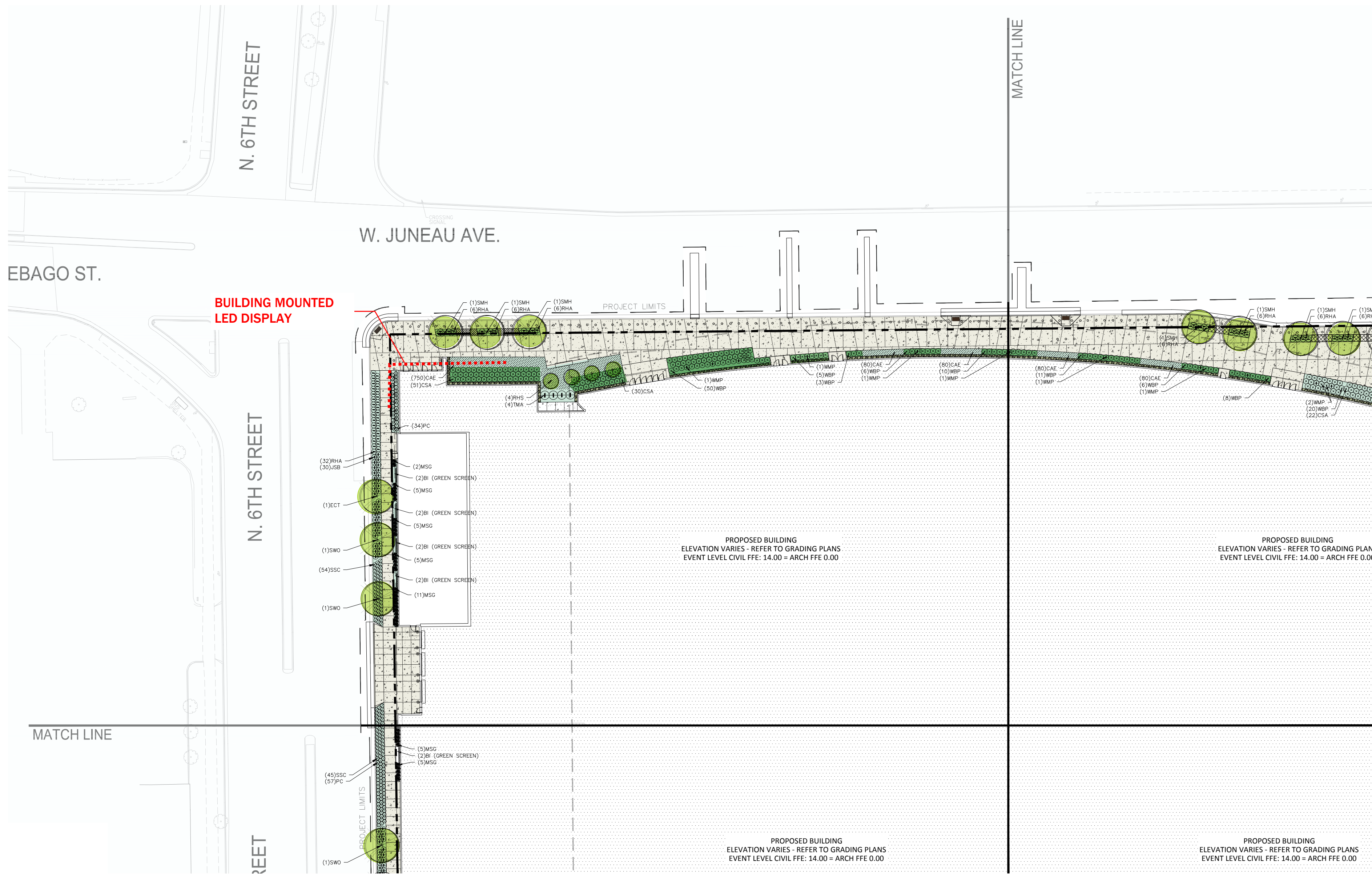


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ENLARGED LANDSCAPE PLAN -
 6TH & HIGHLAND

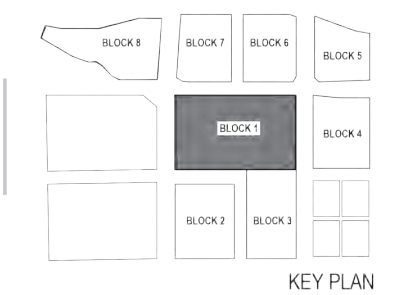


SHEET
 A1 - 13



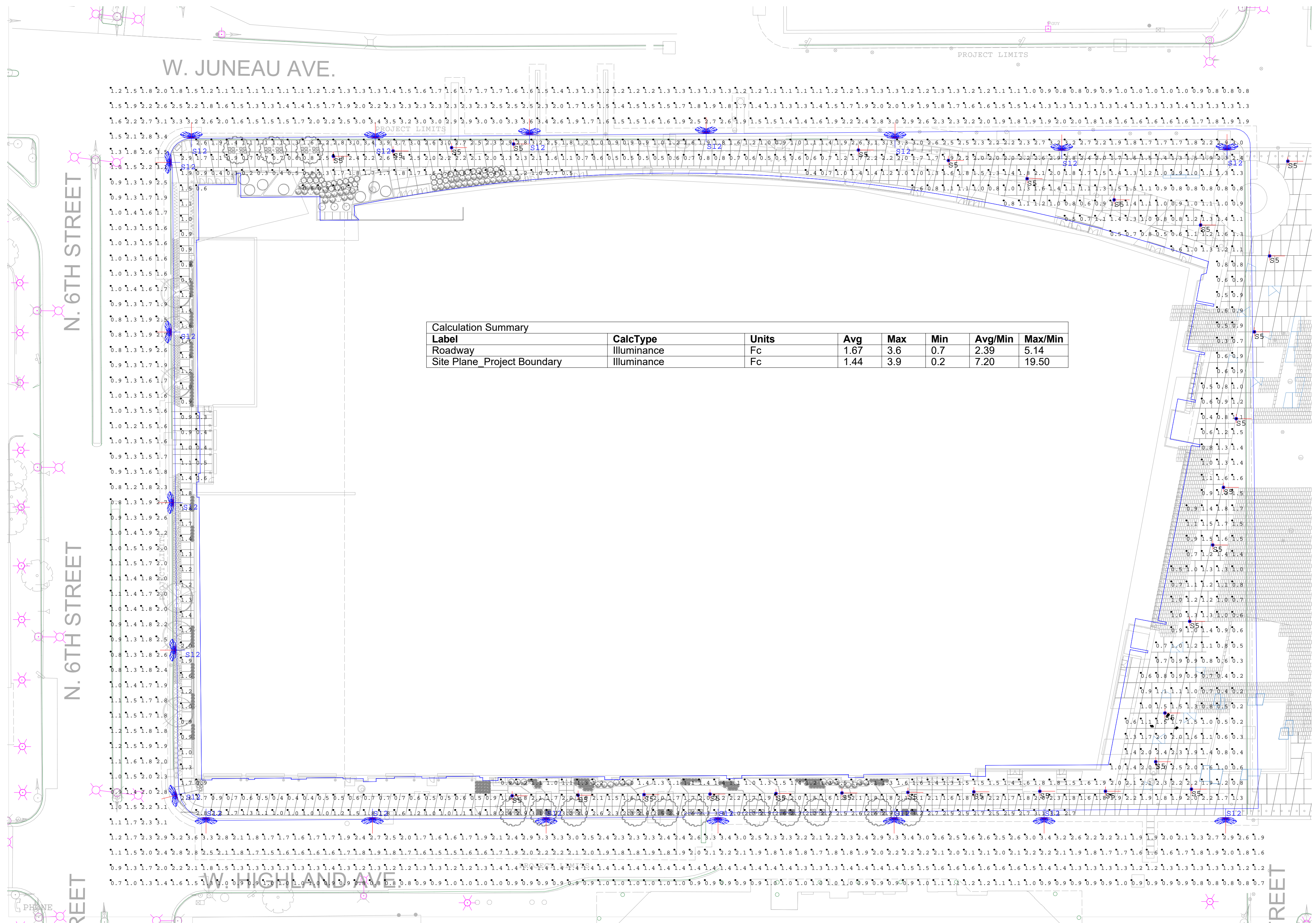
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ENLARGED LANDSCAPE PLAN -
 6TH & JUNEAU



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Roadway	Illuminance	Fc	1.67	3.6	0.7	2.39	5.14
Site Plane Project Boundary	Illuminance	Fc	1.44	3.9	0.2	7.20	19.50

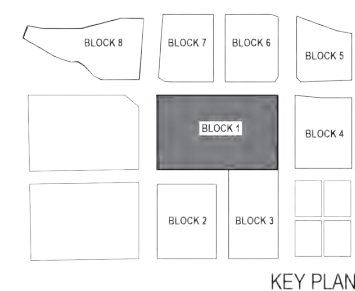


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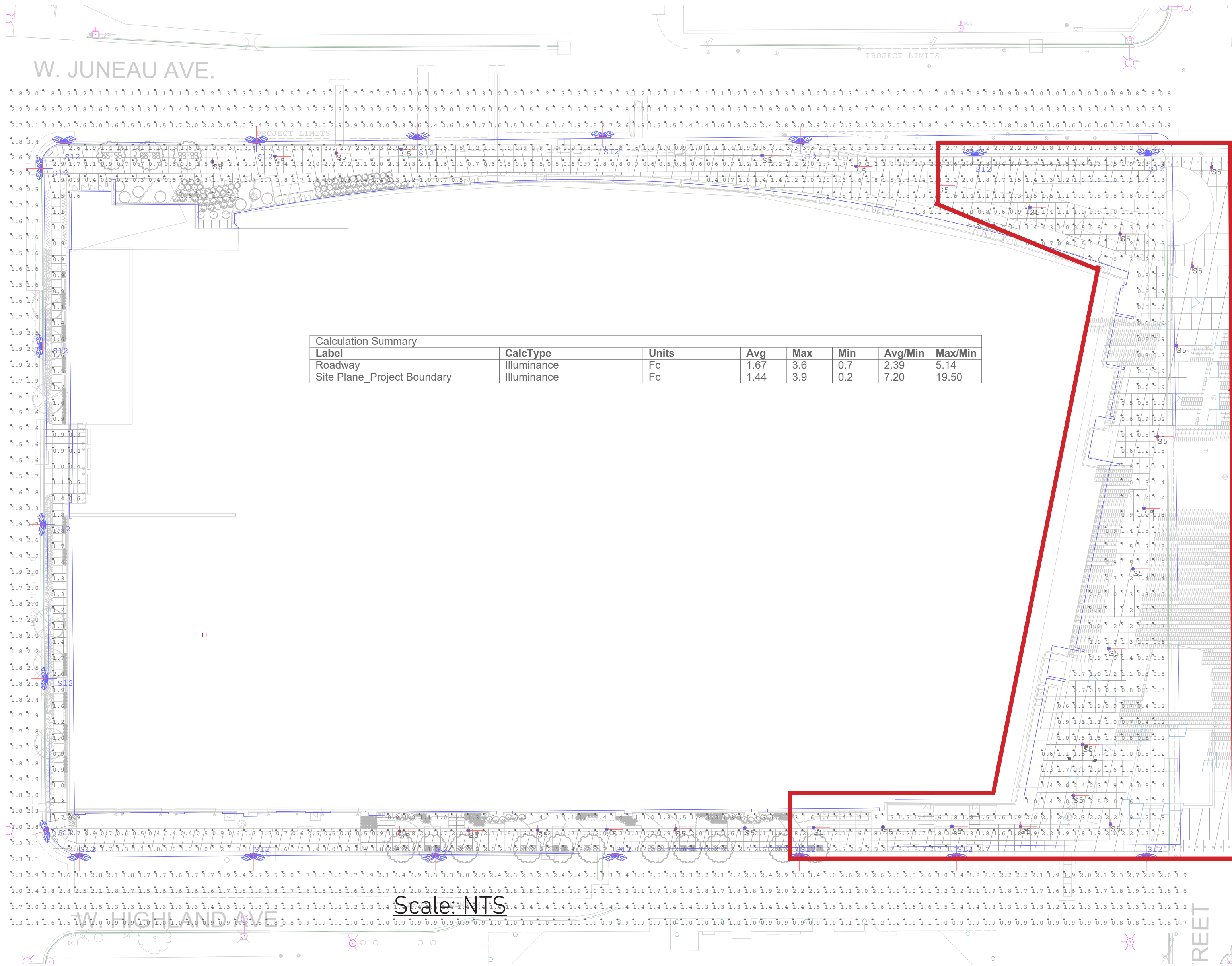


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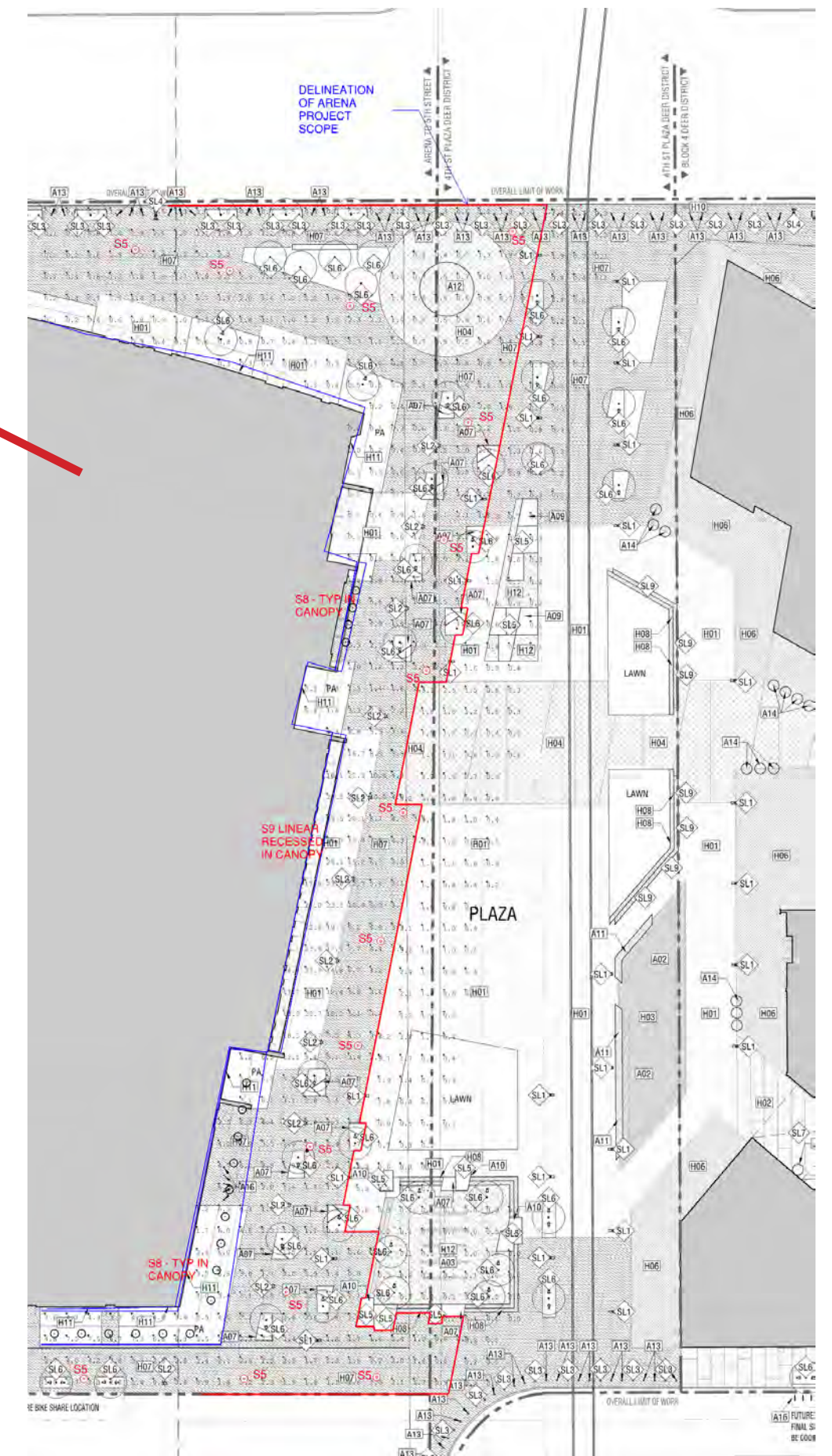
SITE AREA LIGHTING - LIGHTING
 PLAN & CALCULATIONS



SHEET
A1 - 15



-Redesigned east plaza - Preliminary lighting layout for type S5

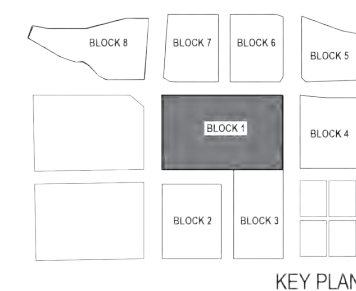


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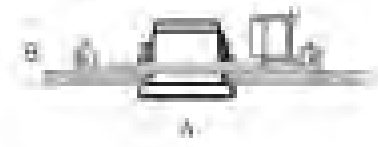


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SITE AREA LIGHTING -
 PHOTOMETRIC STUDY



SHEET
 A1 - 16



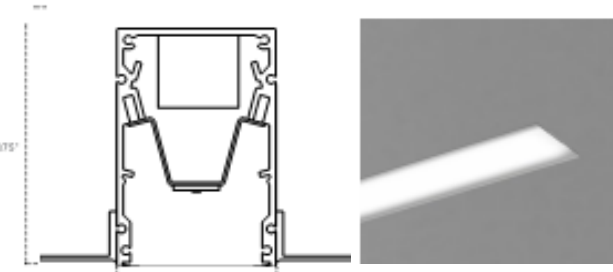
Recessed ceiling downlights - narrow beam

Lamp	H	A	B	C
55 923	12.0W LED	15"	4 3/8"	2 1/2" 18"



Housing: Constructed of die-cast and extruded aluminum. Housing is provided with mounting clamps that provide a vibration proof installation. Rough-in housing constructed of galvanized steel with through wiring box. Rough-in housing included. Die castings are marine grade, copper free (\leq 0.3% copper content) A360.0 aluminum alloy.

Enclosure: Tempered clear glass, retained by a one piece, die-cast aluminum frame threaded into luminaire housing. Internal reflector made from pure, anodized aluminum. Fully gasketed for weather tight operation using a molded silicone gasket.



Construction:
60% recycled aluminum extruded housing. Steel endcaps with earthquake suspension cable attachment holes. Optional MRI housing configuration is specially built with all non-ferrous materials.

Listing:
UL/CUL. Damp or Wet Location.

Type S8- Recessed Canopy Downlight - Retail/VIP/Ticketing

Type S9- Recessed Canopy Linear - Main East Gate Entry

Post construction: One piece extruded aluminum, 1/8" wall thickness, with one piece die-cast aluminum top. Provided with access plate to driver/ballast. Die castings are marine grade, copper free (\leq 0.3% copper content) A360.0 aluminum alloy.

Enclosure: Clear polycarbonate diffuser and reflector made of pure anodized aluminum held in place by die-cast aluminum frame and stainless steel rods. Fully gasketed for weather tight operation using a molded silicone rubber gasket.

Electrical: 40W LED luminaire, 46 total system watts, -30°C start temperature, surge protection. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >80 CRI. Available in 3000K (>80 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: 66.5 lbs.

Type: BEGA
Project: Project
Voltage: Voltage
Color: Color
Options: Options
Modified: Modified

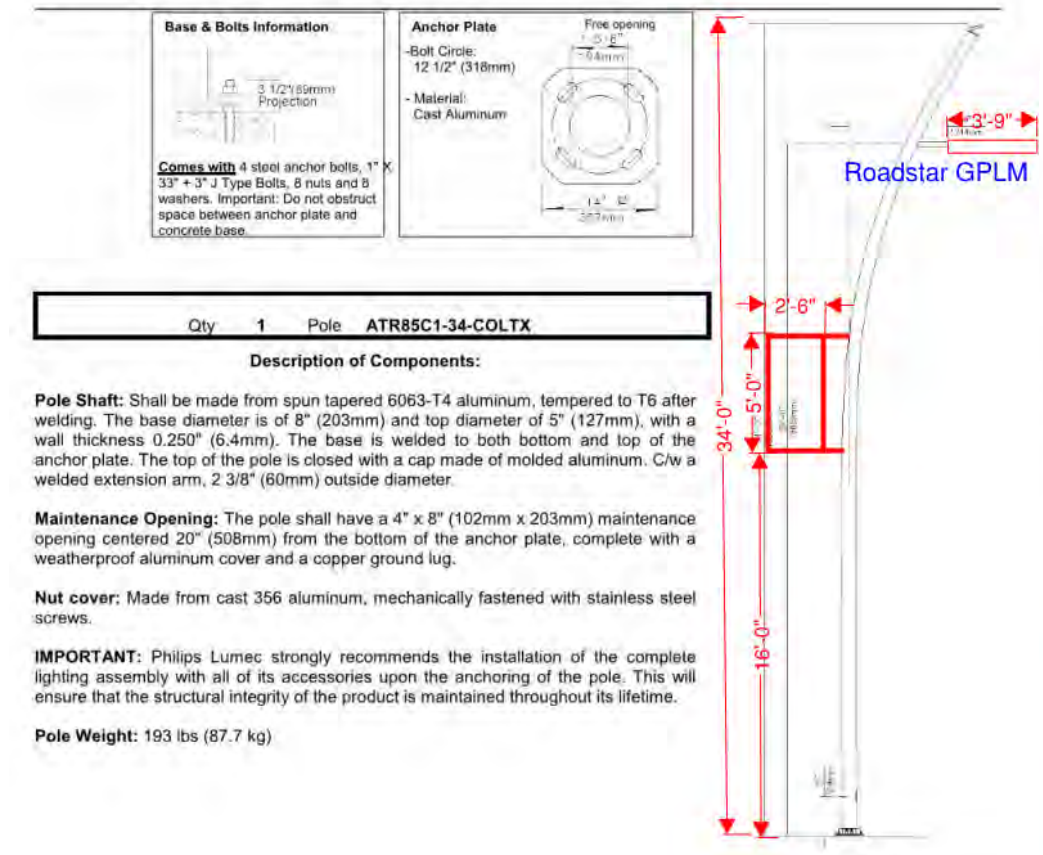


Luminaire Lumens: 1878
Tested in accordance with LM-79-08

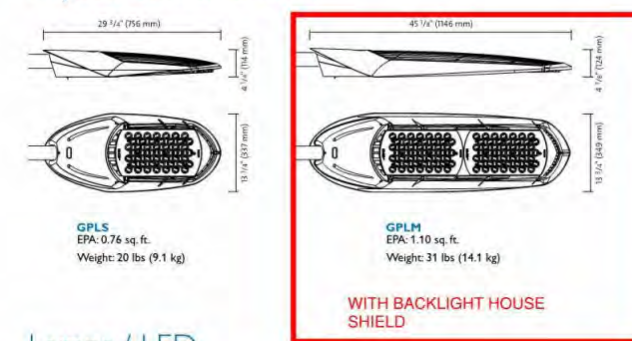
Lamp	A	B	C	D
8464 LED 40W LED	6 1/2"	23 1/2"	177	31 1/2"

BEGA-US 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com
Copyright BEGA-US 2015 Updated 04/15

Milwaukee Bucks Arena (77257)



Physical characteristics



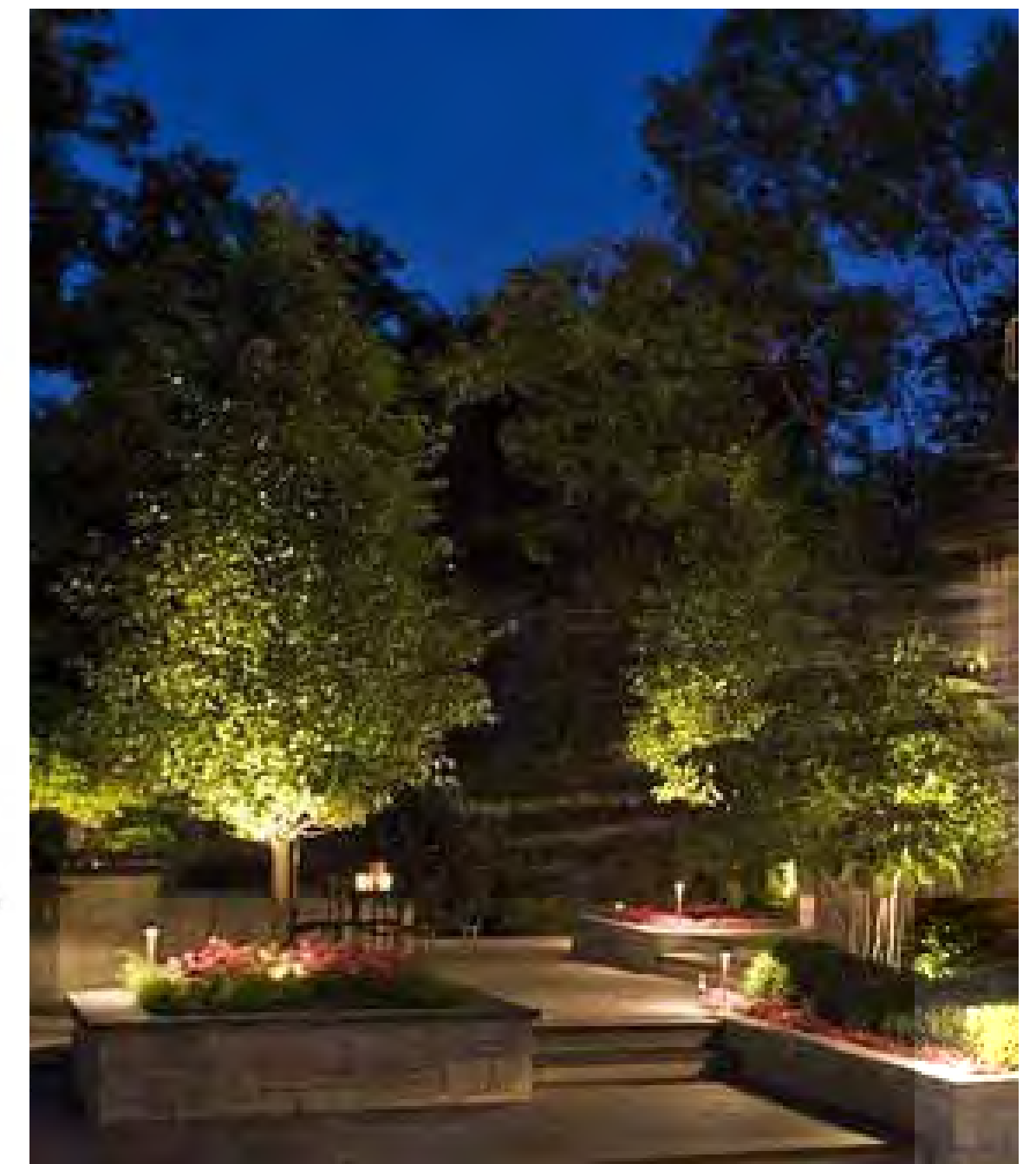
Lamps / LED

Lamp	Luminaire availability	Rated life hrs.	Color temperature	Lamp wattage	System wattage
40W30LED4K	GPLS	75,000	4000K	40W	43W
40W40LED4K	GPLS	75,000	4000K	42W	47W
40W30LED4K	GPLS	75,000	4000K	60W	68W
65W40LED4K	GPLS	75,000	4000K	65W	73W
90W40LED4K	GPLS	75,000	4000K	90W	102W
105W70LED4K	GPLM	75,000	4000K	105W	119W
135W90LED4K	GPLM	75,000	4000K	135W	147W
152W70LED4K	GPLM	75,000	4000K	150W	170W
180W90LED4K	GPLM	75,000	4000K	180W	204W

Voltage

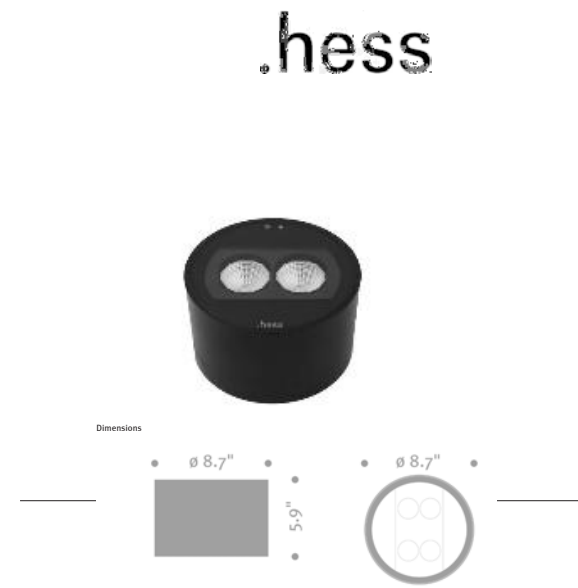
120 / 208 / 240 / 277 / 347 / 480V
Includes surge protector 50kV
*347 and 480 volts for 90W90LED4K and 180W90LED4K only

all pole to S12 SPEC20160323_150710_77257_2.doc
04-06-2016 Page 3 / 5



ACCADIA 220 R Specification

ACCADIA satisfies architectural facade lighting and accenting requirements through precision optics and refined styling. Clear tempered glass lens with black screen printing is bonded flush to the stainless steel luminaire housing, showing no visible hardware for an elegant appearance. High power, illumination grade LEDs paired with sophisticated faceted reflectors deliver uniform illumination free of striations. Asymmetric optics may be adjusted to one of four positions for optimal illumination of vertical surfaces and may be factory set on request. Fixed symmetric optics in a choice of beamspreads for uplighting are also available. Luminaire is prewired with cable to allow easy installation into the stainless steel installation box without opening the luminaire.



HOUSING

Round luminaire housing is fabricated from stainless steel and shows no visible welds. Housing is finished in matte black powder coat paint. Tempered glass lens with screen printing is bonded to the housing for a weather tight seal. Access plate with gasketing is secured to bottom of luminaire with threaded fasteners to allow entry into the housing for servicing as needed. Housing is prewired with power cable and weather-tight strain relief bushing, eliminating the need to access the luminaire during installation. Luminaire installs into recessed stainless installation housing. All hardware is stainless steel.

OPTICS

Two reflectors direct light upward from individual high power LEDs for uplighting. The reflectors are faceted for improved visual comfort and uniform illumination. Optics are available in spot distribution with 2° beam angle or medium distribution with 26° beam angle.

ELECTRICAL

Electronic LED driver supplies 350mA drive current to two individual LEDs and has an input voltage range from 120v to 277v at 50/60Hz. Total power consumption is 10 watts.

LED DELIVERED LUMEN OUTPUT*

Spot 2° Beam:
Medium 26° Beam:

* Lumen output is same for 3000K and 4000K color temperatures.

FINISH

Standard finish is finely textured matte black.

WARRANTY

Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Type S10 - In-grate tree accent lighting

Type S5 - Pedestrian Pole Area Light

Type S12 with custom pole - City Standard Street Light



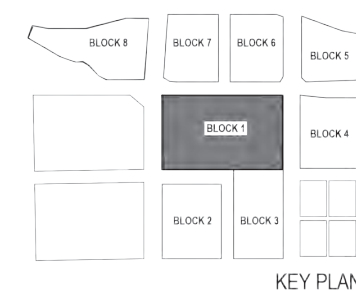
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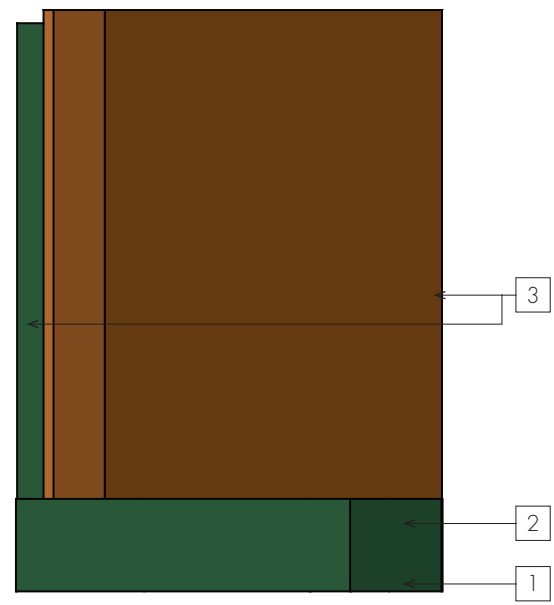
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SITE AREA LIGHTING - PRODUCT CUTSHEETS

POPULOUS HNTB eua

SHEET
A1 - 17

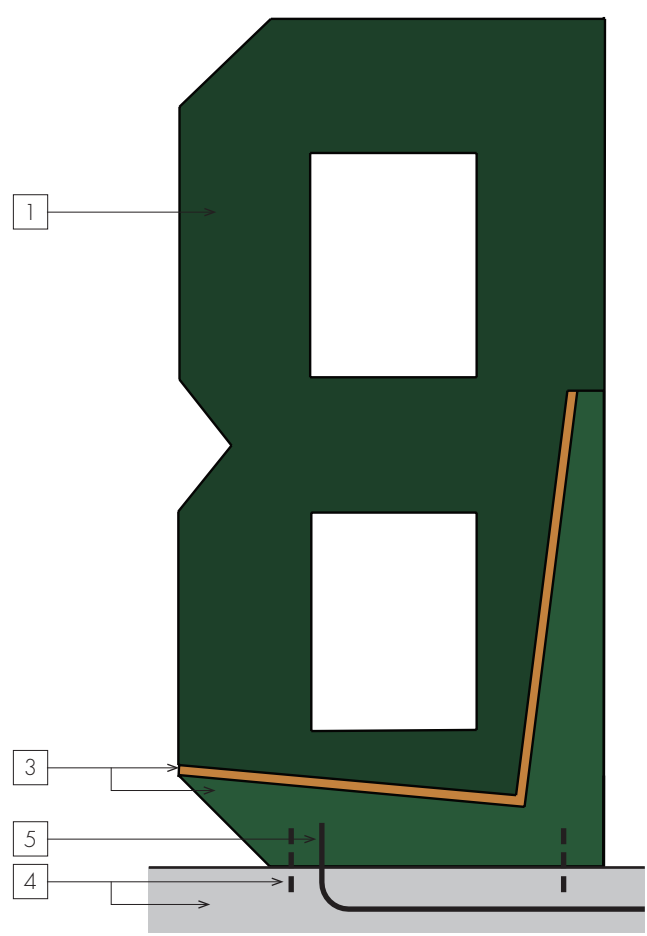


1 PLAN
SCALE: 3/8" = 1' - 0"

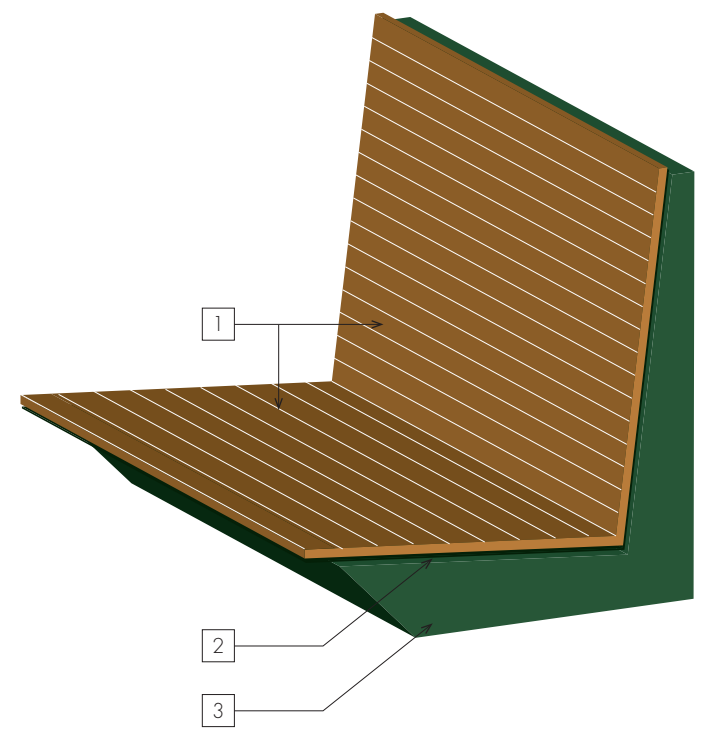
SHEET
A2-3
6



3 FRONT ELEVATION
SCALE: 3/8" = 1' - 0"



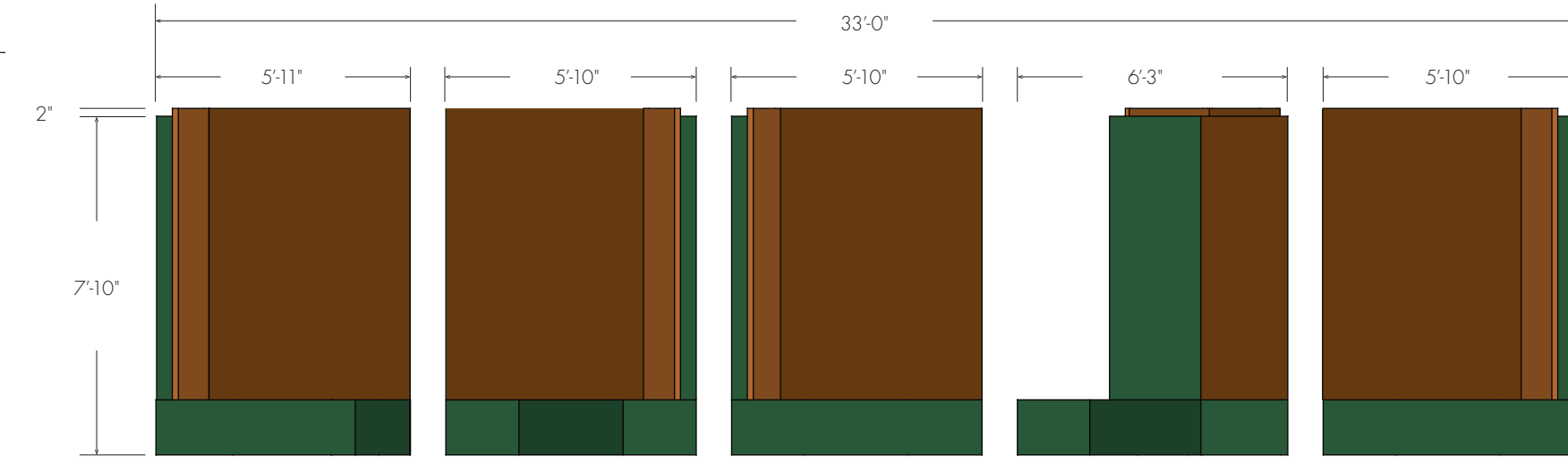
4 BACK ELEVATION
SCALE: 3/8" = 1' - 0"



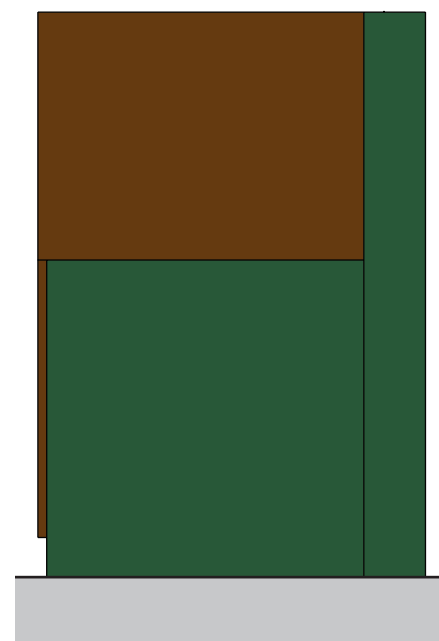
1 PERSPECTIVE - PARTIAL
SCALE: NTS



1 REFERENCE RENDERING
SCALE: NTS



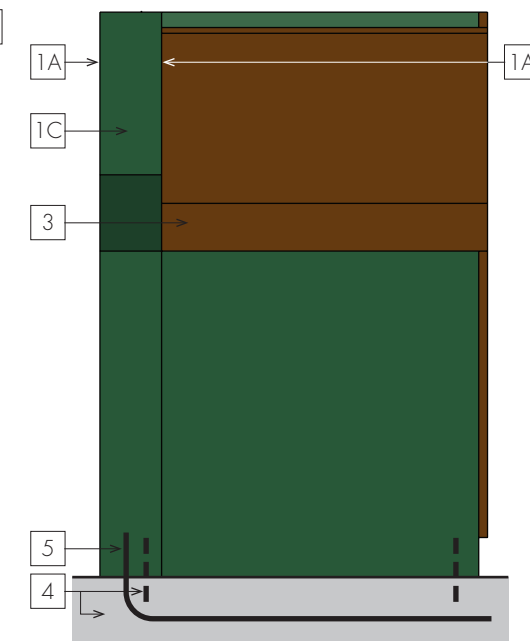
2 PLAN
SCALE: 1/4" = 1' - 0"



3 SIDE (LHS)
SCALE: 1/4" = 1' - 0"



4 FRONT ELEVATION
SCALE: 1/4" = 1' - 0"



5 SIDE (RHS)
SCALE: 1/4" = 1' - 0"

A2 STADIUM MONUMENT LETTERS

- 1A. Sign letter: Fabricated aluminum letters w/ painted returns & back to match PMS350C.
- 1B. Sign face: Clear coated, hotrolled steel to be seamlessly integrated w/ sign letter & returns.
- 1C. Sign return (perfl): Sign return to feature perfl-aluminum panel.
- 1D. Interior acrylic panel: Panel is backed up to perfl panel.

Entire sign letter (including face, returns, back) to be fabricated & finished uniformly across material & color transitions, ensuring appearance as a completely single integrated unit w/ no visible seams or trim caps. Provide interior access for serviceability.

- 2. Internal illumination: Returns of sign letters are lit internally via RGB LED modules. Provide show control, coordinate w/ architecture & design/ownership team for location and integration w/ scheduled BAS system.
- 3. Integrated bench seating/wood slats: "IPE" type faux tongue & groove wood slats to match coloration of project roof finish.
- 4. Mounting & foundation: Entire sign assembly to be mechanically mounted to ground and into foundation. Provide engineered foundation.
- 5. Electrical & Data: Provide concealed electrical & data to sign.
- 6. Structure: Provide steel tube interior structure as needed or engineered.

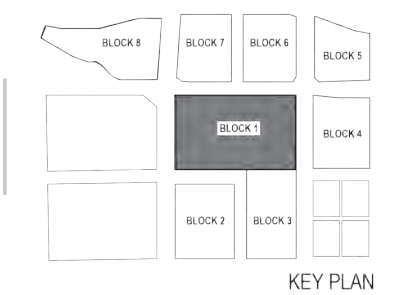


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SITE ELEMENT - INTERACTIVE
MONUMENT SIGNAGE



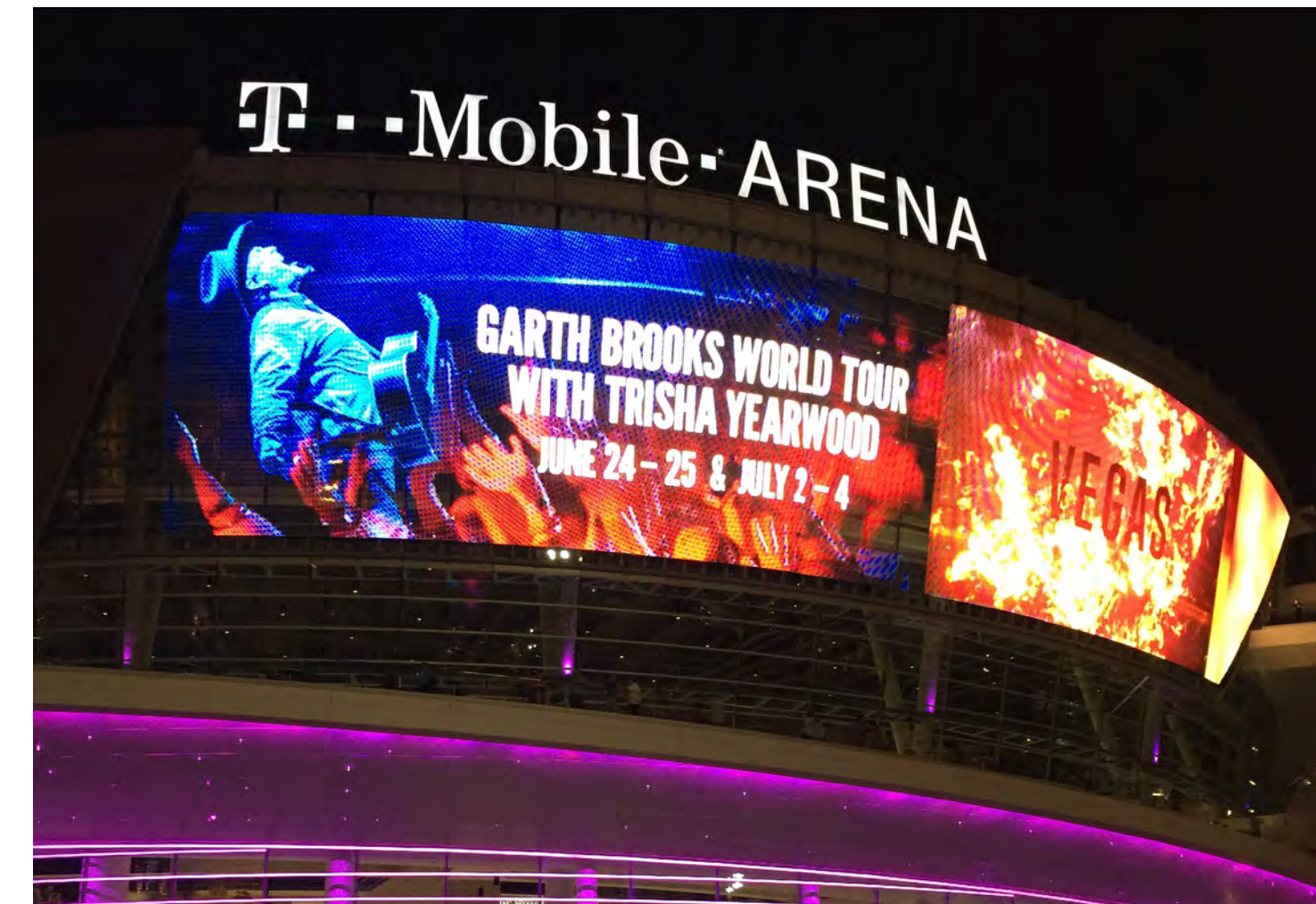
SHEET
A1 - 18



Great Hall
 PSX - 42.5mm LED video display
 68mm vertical stick spacing
 5924 of strips
 452 frames
 111 pixels high x 1336 pixels wide
 7.69 m x 59.56 m (25'0" x 195'6")

East & West Atriums
 PSX - 42.5mm LED video display @2
 68mm vertical stick spacing
 5924 of strips
 452 frames
 163 pixels high x 440 pixels wide
 11.48 m x 19.96 m (37'6" x 65'6")

**REFERENCE PROJECT:
 WEMBLEY STADIUM LONDON, UK**



50mm LED freeform stick display
 262 lines of resolution x 1,280 columns of resolution
 43'0" x 210'0" (13.10 m x 64 m)



**REFERENCE PROJECT:
 T-MOBILE ARENA LAS VEGAS, NV**



UNLIT DISPLAY, SHOWING TRANSPARENCY - T-MOBILE ARENA



FULLY LIT DISPLAY - T-MOBILE ARENA

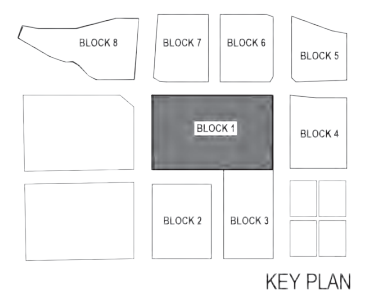


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NO.	DATE	DESCRIPTION
1	03.17.2016	ISSUED
2	04.04.2016	REVISED
3	05.09.2016	REVISED
4	01.27.2017	REVISED



PROJECT NUMBER: 15.4017
 ISSUE DATE: 01.27.2017

NORTHWEST ENTRANCE - LED PRODUCT
 INFORMATION & REFERENCE IMAGES



SHEET
A1 - 19



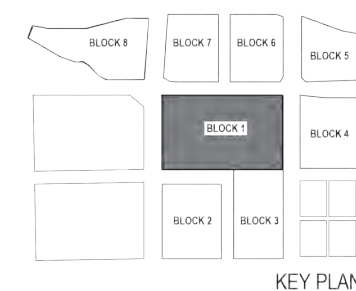
WISCONSIN ENTERTAINMENT & SPORTS CENTER

**1111 N. 4TH STREET
MILWAUKEE WI**

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3D VIEW - NORTHWEST ENTRANCE - DAYTIME

POPULOUS **HNTB** **eua**

**SHEET
A1 - 20**



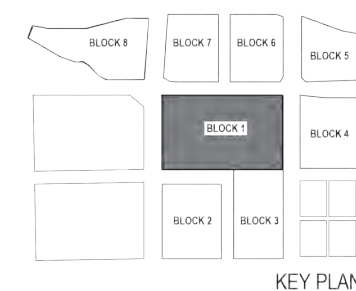
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3D VIEW - NORTHWEST ENTRANCE - EVENING

POPULOUS **HNTB** **eua**

**SHEET
A1 - 21**