

**APPLICATION FOR  
URBAN DESIGN COMMISSION  
REVIEW AND APPROVAL**

**AGENDA ITEM #** \_\_\_\_\_

**Project #** \_\_\_\_\_

**Legistar #** \_\_\_\_\_

DATE SUBMITTED: August 29, 2012

**Action Requested**

\_\_\_\_ Informational Presentation

\_\_\_\_ Initial Approval and/or Recommendation

UDC MEETING DATE: September 5, 2012

☒ Final Approval and/or Recommendation

PLEASE PRINT!

PLEASE PRINT!

PROJECT ADDRESS: 6350 Town Center Drive

ALDERMANIC DISTRICT: 3

OWNER/DEVELOPER (Partners and/or Principals) ARCHITECT/DESIGNER/OR AGENT:

City of Madison

Zimmerman Architectural Studios

CONTACT PERSON: Jack Blume

Address: 2122 W. Mount Vernon Ave.  
Milwaukee, WI 53233

Phone: 414 225-0857

Fax: \_\_\_\_\_

E-mail address: jack.blume@zastudios.com

**TYPE OF PROJECT:**

(See Section A for:)

☒ Planned Unit Development (PUD)

☒ General Development Plan (GDP)

\_\_\_\_ Specific Implementation Plan (SIP)

\_\_\_\_ Planned Community Development (PCD)

\_\_\_\_ General Development Plan (GDP)

\_\_\_\_ Specific Implementation Plan (SIP)

\_\_\_\_ Planned Residential Development (PRD)

\_\_\_\_ New Construction or Exterior Remodeling in an Urban Design District \* (A public hearing is required as well as a fee)

☒ School, Public Building or Space (Fee may be required)

\_\_\_\_ New Construction or Addition to or Remodeling of a Retail, Hotel or Motel Building Exceeding 40,000 Sq. Ft.

\_\_\_\_ Planned Commercial Site

(See Section B for:)

\_\_\_\_ New Construction or Exterior Remodeling in C4 District (Fee required)

(See Section C for:)

\_\_\_\_ R.P.S.M. Parking Variance (Fee required)

(See Section D for:)

\_\_\_\_ Comprehensive Design Review\* (Fee required)

\_\_\_\_ Street Graphics Variance\* (Fee required)

\_\_\_\_ Other \_\_\_\_\_

\*Public Hearing Required (Submission Deadline 3 Weeks in Advance of Meeting Date)

Where fees are required (as noted above) they apply with the first submittal for either initial or final approval of a project.





REDgraphx © 2012



Madison Fire Station 13  
Madison, Wisconsin

View of Fire Station 13 from  
Town Center Drive looking Northwest

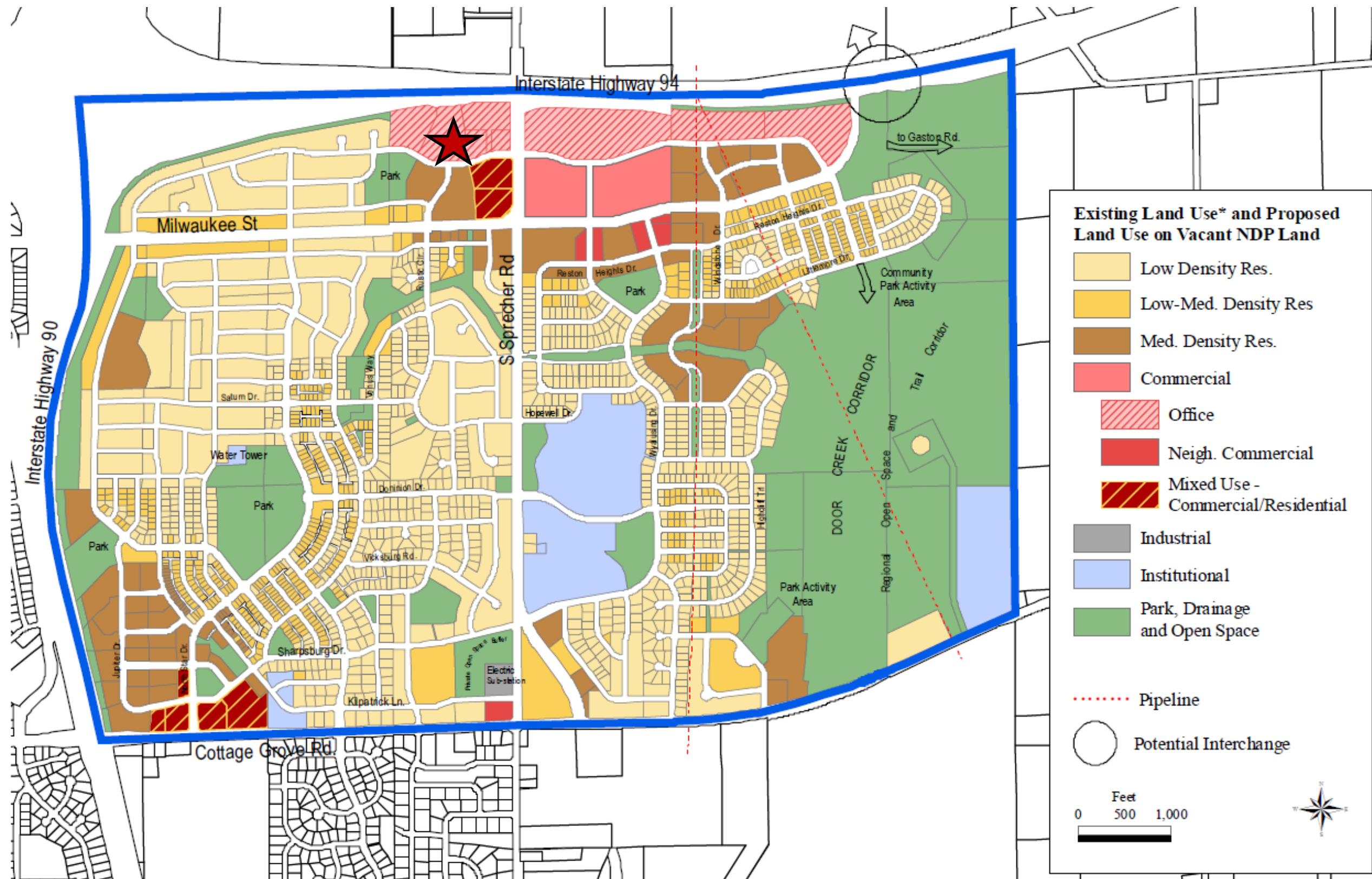




Madison Fire Station 13  
Madison, Wisconsin

Location Map

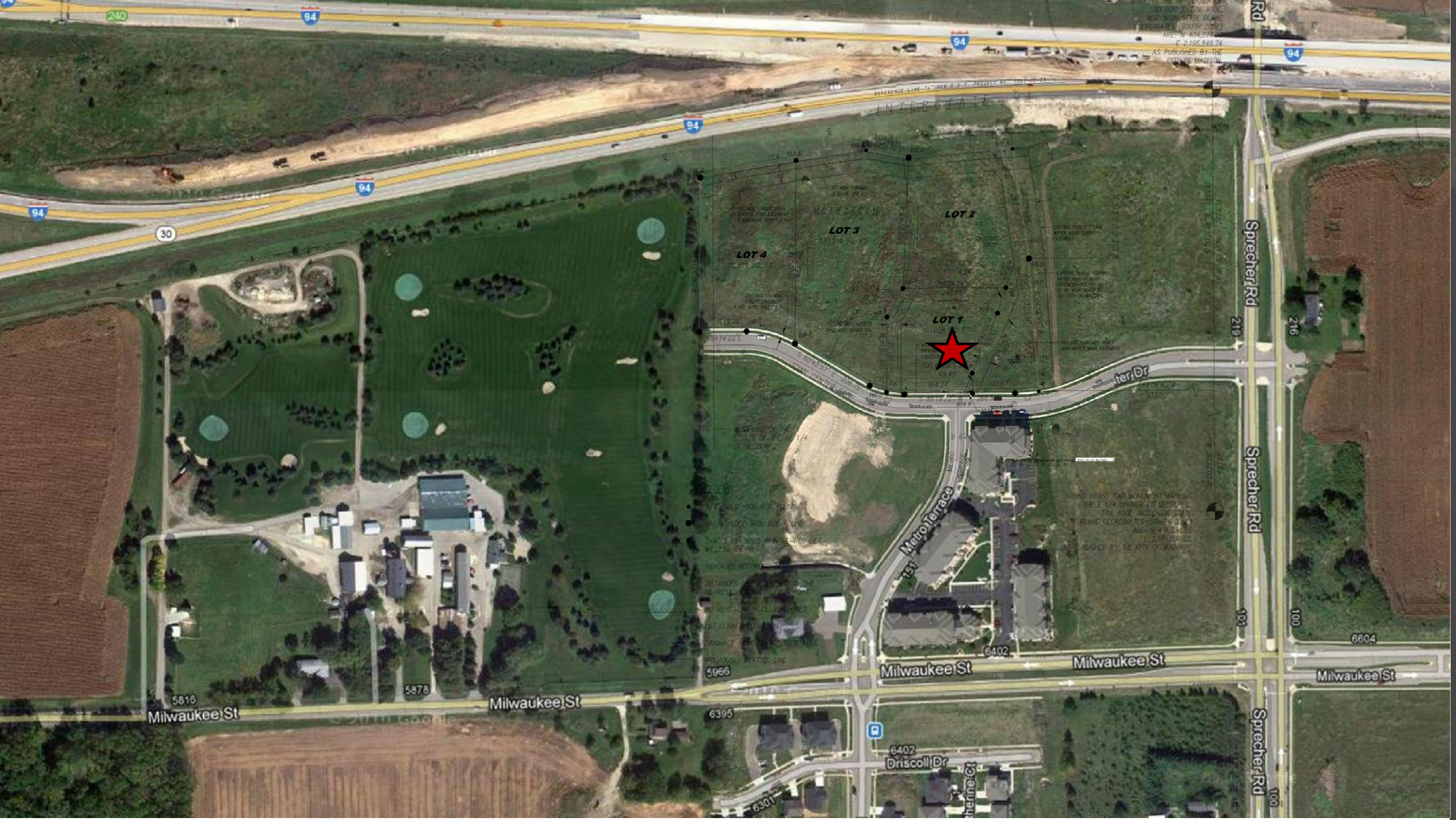




Madison Fire Station 13  
Madison, Wisconsin

Neighborhood Development Plan





Madison Fire Station 13  
Madison, Wisconsin

Neighborhood Aerial View





Madison Fire Station 13  
Madison, Wisconsin

Neighborhood Context (NE)





Madison Fire Station 13  
Madison, Wisconsin

Neighborhood Context (NE)  
with Proposed Fire Station 13





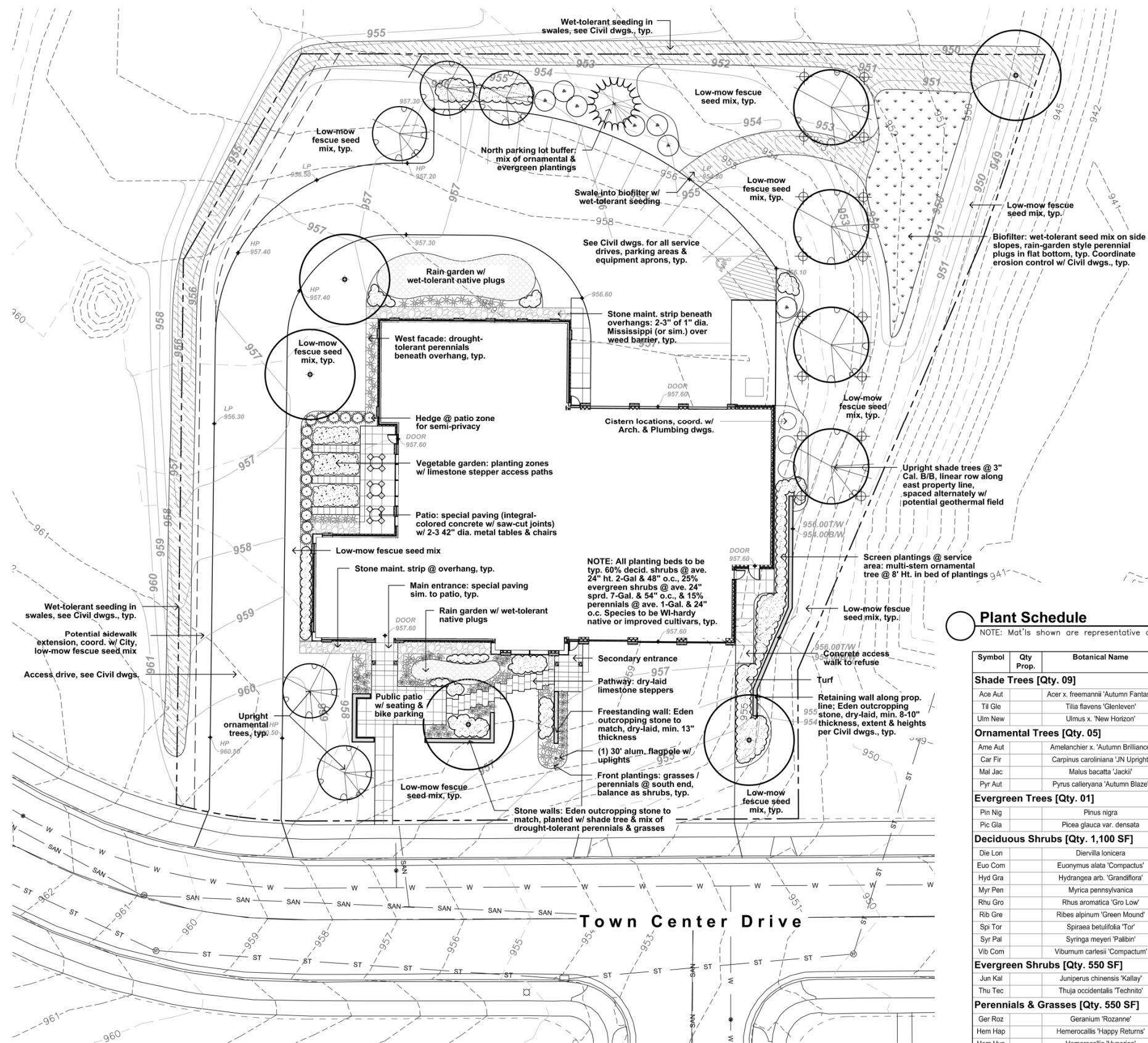
Madison, Wisconsin

# Site Plan









#### Plant Schedule

NOTE: Mat'ls shown are representative only. Final species, sizes & qty's TBD.

Symbol	Qty. Prop.	Botanical Name	Common Name	Installed Size	Root	Spacing	Notes
<b>Shade Trees [Qty. 09]</b>							
Ace Aut		Acer x. freemannii 'Autumn Fantasy'	Autumn Fantasy Maple	3" Cal.	B/B	As Shown	
Til Gle		Tilia flavens 'Glenleven'	Glenleven Linden	3" Cal.	B/B	As Shown	
Ulm New		Ulmus x. 'New Horizon'	New Horizon Hybrid Elm	3" Cal.	B/B	As Shown	
<b>Ornamental Trees [Qty. 05]</b>							
Amc Aut		Amelanchier x. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	8-10' Ht.	B/B	As Shown	Heavy Three Stem
Car Fir		Carpinus caroliniana 'JN Upright'	Firespire Muscadewood	2.5" Cal.	B/B	As Shown	
Mal Jac		Malus bacatta 'Jackii'	Jackii Crabapple	8' Ht.	B/B	As Shown	Heavy Three Stem
Pyr Aut		Pyrus calleryana 'Autumn Blaze'	Autumn Blaze Ornamental Pear	2.5" Cal.	B/B	As Shown	Single Stem
<b>Evergreen Trees [Qty. 01]</b>							
Pin Nig		Pinus nigra	Austrian Pine	7-8' Ht.	B/B	As Shown	
Pic Gla		Picea glauca var. densata	Black Hills Spruce	7-8' Ht.	B/B	As Shown	
<b>Deciduous Shrubs [Qty. 1,100 SF]</b>							
Die Lon		Diervilla lonicera	Dwarf bush Honeysuckle	24" Ht.	2 Gal.	54" o.c.	
Euo Com		Euonymus alata 'Compactus'	Compact Burning Bush	48" Ht.	B/B	As Shown	
Hyd Gra		Hydrangea arb. 'Grandiflora'	Snowhill Hydrangea	24" Ht.	2 Gal.	48" o.c.	
Myr Pen		Myrica pennsylvanica	Northern Bayberry	24" Ht.	2 Gal.	48" o.c.	
Rhu Gro		Rhus aromatica 'Gro Low'	Grow Low Sumac	18" Ht.	2 Gal.	48" o.c.	
Rib Gre		Ribes alpinum 'Green Mound'	Green Mound Alpine Currant	24" Ht.	2 Gal.	48" o.c.	
Spi Tor		Spiraea betulifolia 'Tor'	Tor Birchleaf Spirea	24" Ht.	2 Gal.	42" o.c.	
Syr Pal		Syringa meyeri 'Palibin'	Palibin Dwf. Lilac	24-30" Ht.	2 Gal.	48-54" o.c.	
Vib Com		Viburnum carlesii 'Compactum'	Compact Koreanspice Viburnum	36" Ht.	7 Gal.	60" o.c.	
<b>Evergreen Shrubs [Qty. 550 SF]</b>							
Jun Kal		Juniperus chinensis 'Kallay'	Kallay Compact Juniper	24" sprd.	7 Gal.	54-60" o.c.	
Thu Tec		Thuja occidentalis 'Technito'	Dwarf Techny Arborvitae	5' Ht.	B/B	As Shown	
<b>Perennials &amp; Grasses [Qty. 550 SF]</b>							
Ger Roz		Geranium 'Rozanne'	Rozanne Geranium	4.5"	Cont.	18" o.c.	
Hem Hap		Hemerocallis 'Happy Returns'	Happy Returns Daylily	4.5"	Cont.	18-24" o.c.	
Hem Hyp		Hemerocallis 'Hyperion'	Hyperion Daylily	4.5"	Cont.	24" o.c.	
Hos Roy		Hosta 'Royal Standard'	Royal Standard Hosta	1 Gal.	Cont.	30" o.c.	
Per Lit		Perovskia atr. 'Little Spire'	Little Spire Russian Sage	1 Gal.	Cont.	30" o.c.	

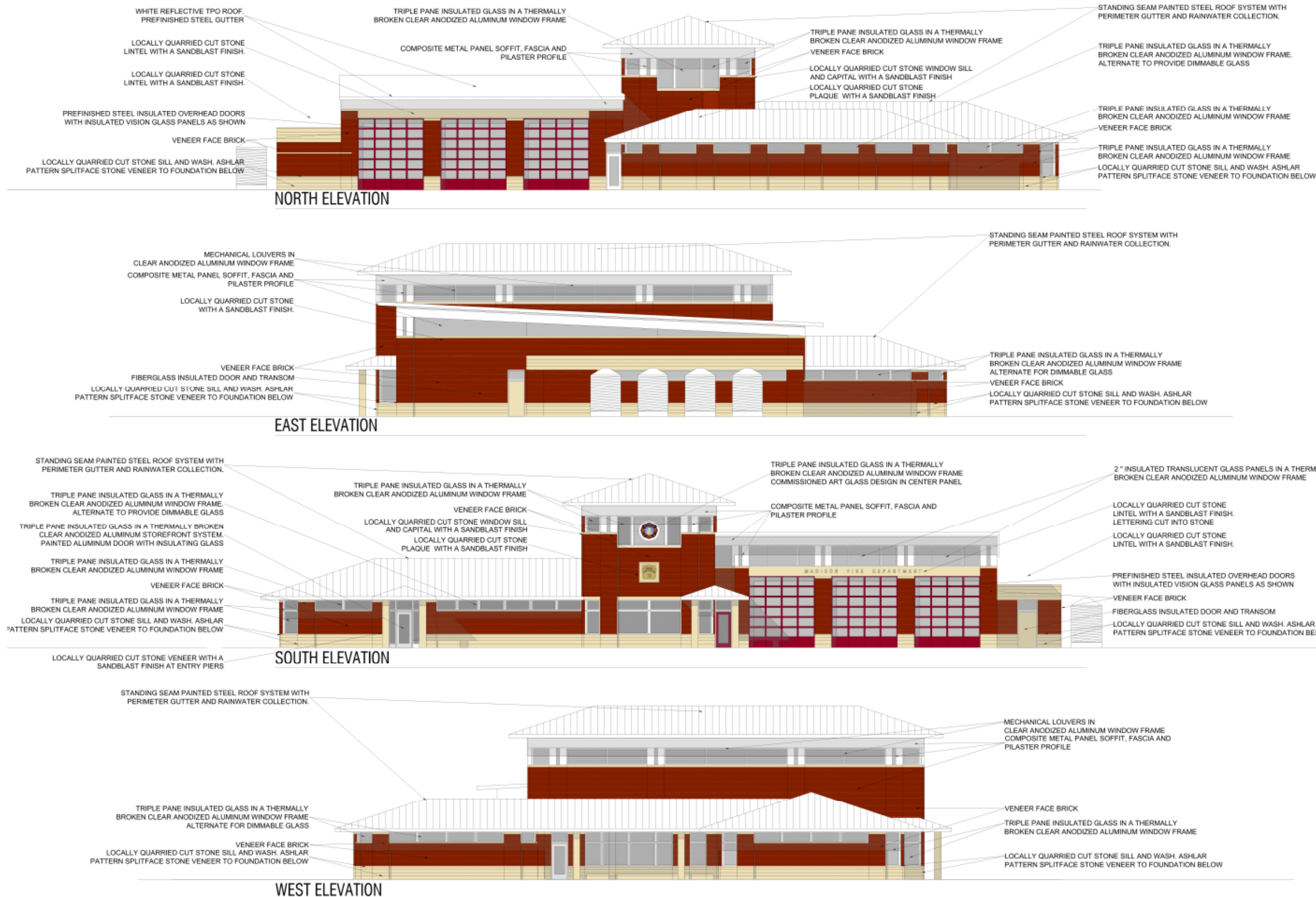


# Madison Fire Station 13

Madison, Wisconsin

## Landscape Plan



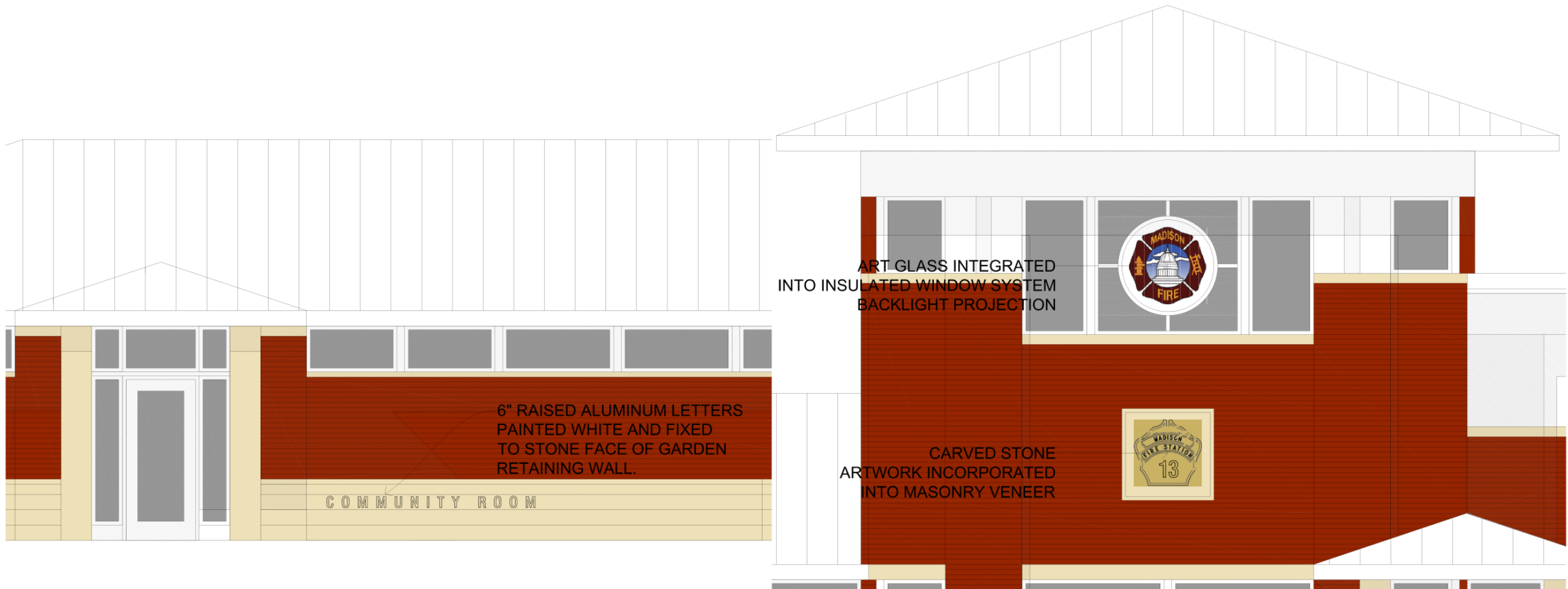


# Madison Fire Station 13

Madison, Wisconsin

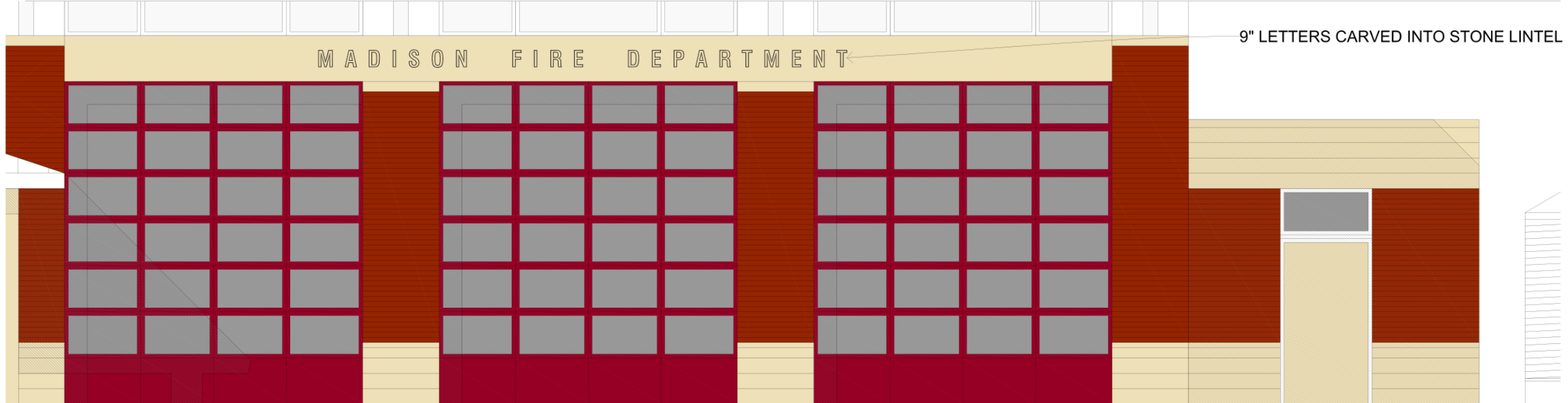
## Building Elevations





SOUTH ELEVATION AT COMMUNITY ROOM ENTRANCE

SOUTH ELEVATION AT MECHANICAL PENTHOUSE



SOUTH ELEVATION AT APPARATUS BAY DOORS

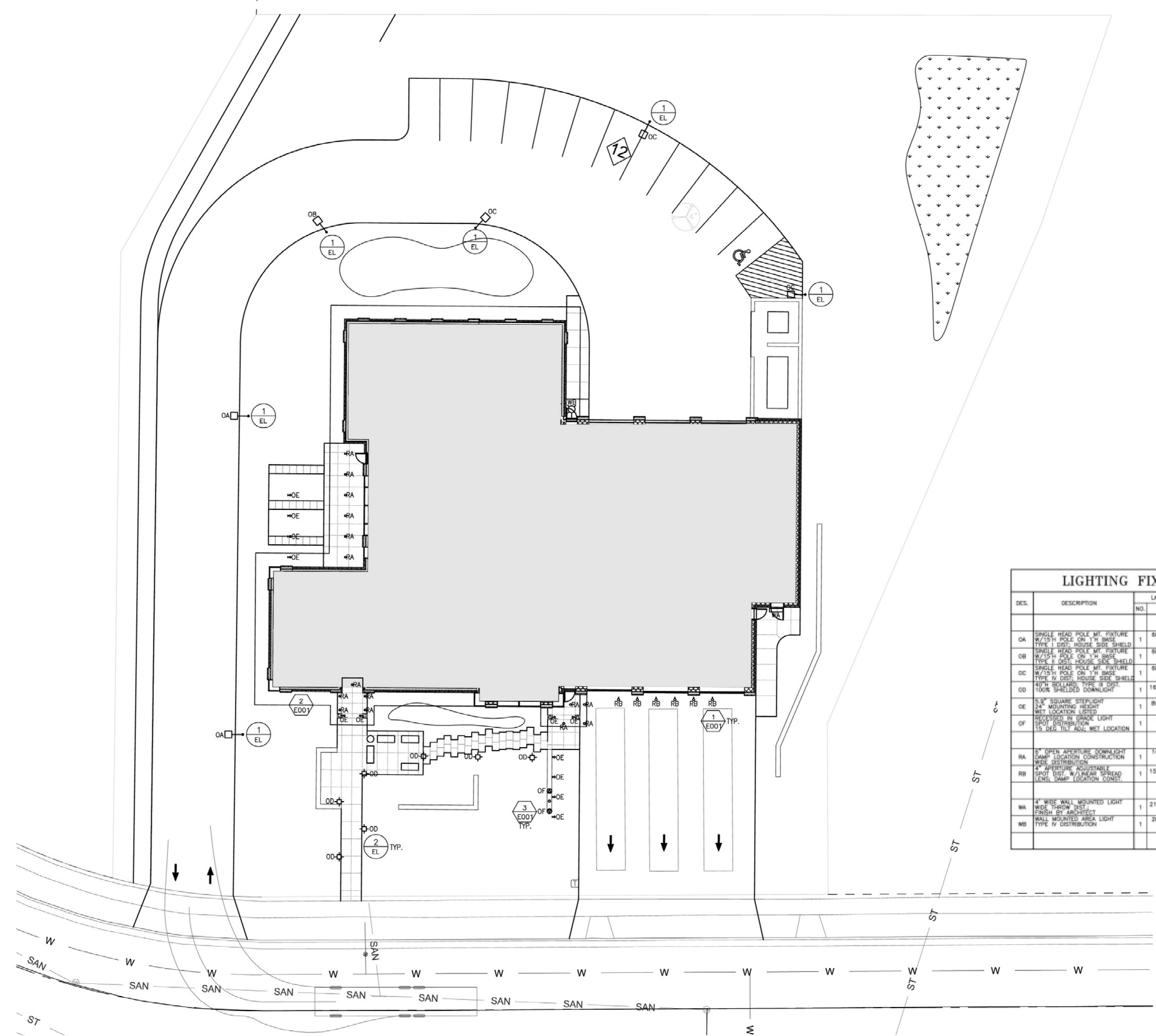


Madison Fire Station 13

Madison, Wisconsin

Signage





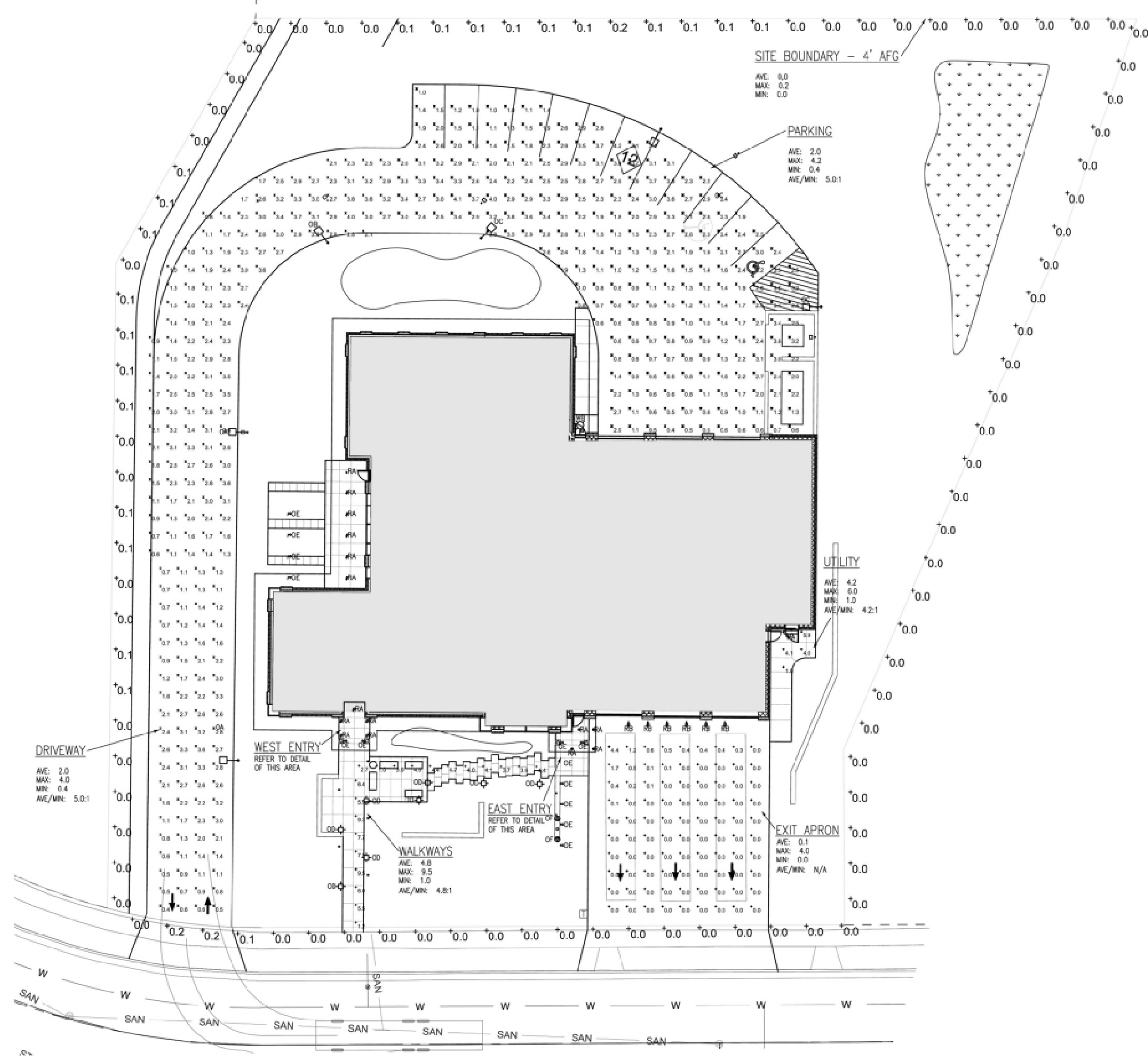
LIGHTING FIXTURE SCHEDULE									
DES.	DESCRIPTION	LAMP DATA		VOLT	DEPTH	LIGHTING FIXTURE		MFR.	SERIES
		NO.	TYPE						
OA	SINGLE HEAD POLE MT. FIXTURE W/15' H POLE ON 1" H BASE TYPE I DIST. HOUSE SIDE SHIELD	1	60 LED MODULE 4000K 525mA/102W	MVOLT	-	BETA/CREE	ARE EDG SERIES		
OB	SINGLE HEAD POLE MT. FIXTURE W/15' H POLE ON 1" H BASE TYPE II DIST. HOUSE SIDE SHIELD	1	60 LED MODULE 4000K 525mA/102W	MVOLT	-	BETA/CREE	ARE EDG SERIES		
OC	SINGLE HEAD POLE MT. FIXTURE W/15' H POLE ON 1" H BASE TYPE IV DIST. HOUSE SIDE SHIELD	1	60 LED MODULE 4000K 525mA/102W	MVOLT	-	BETA/CREE	ARE EDG SERIES		
OD	40" H BOLLARD, TYPE II DIST. 100% SHIELDED DOWNLIGHT	1	16W LED MODULE 4000K	MVOLT	-	BEGA LIGHTING	8650LED SERIES		
OE	5" SQUARE STEPLIGHT 24" MOUNTING HEIGHT WET LOCATION LISTED	1	8W LED MODULE 4000K	MVOLT	-	JO LIGHTING	PLANE SLE SERIES		
OF	RECESSED IN ORANGE LIGHT SPOT DISTRIBUTION 15 DEG TILT ADJ. WET LOCATION	1	70W T6 CMH 4000K	MVOLT	-	LUMIERE	MONACO 6000A SERIES		
RA	8" OPEN APERTURE DOWNLIGHT DAMP LOCATION CONSTRUCTION WIDE DISTRIBUTION	1	14 LED MODULE 4000K 27W	MVOLT	7.25"	BETA/CREE	ESA ADR SERIES		
RB	4" APERTURE ADJUSTABLE SPOT DIST. W/ LINEAR SPREAD LENS, DAMP LOCATION CONST.	1	15W LED MODULE 4000K	120	5"	HALO	ELG4 05 SERIES		
WA	4" WIDE WALL MOUNTED LIGHT WIDE THROW DIST. FINISH BY ARCHITECT	1	21W LED MODULE 4000K	120		LUMINAIRE	AEI 48" SERIES		
WB	WALL MOUNTED AREA LIGHT TYPE IV DISTRIBUTION	1	20 LED MODULE 4000K 525mA/37W	MVOLT	-	BETA/CREE	SEC EDG SERIES		



Madison Fire Station 13  
Madison, Wisconsin

Site Lighting





# Madison Fire Station 13

Madison, Wisconsin

Site Photometrics



The City of Madison intends to construct a new Fire Station (titled Number 13) on a 1.4 acre site on Madison's east side in Aldermanic District 3. The building is part of the Metrotech General Development Plan and the site lies in a Commercial Office/Municipal Fire Station zone. The current design for the station has a 12,655 gsf footprint with a 2,037 gsf penthouse. The sustainable goal for the building is to achieve LEED silver accreditation. Zimmerman Architectural Studios, Harwood Engineering Consultants and Sustainable Engineering Group have been hired to design and commission the building.

The function of the building is to provide fire services to the east side of Madison. The building on the site is aligned to allow for apparatus to enter on the west side of Town Center Drive, wrap around and enter the north end of the apparatus bay, and exit at the south end of the apparatus bay back onto Town Center Drive. There are eleven parking stalls provided for staff and an additional accessible stall on the site. Public will be directed to park on Town Center Drive. The "front" of the building is considered to be the south side, which faces the growing neighborhood in which it resides.

The building separates the apparatus bay on the east side from the living space and community room on the west side. The living area has 8 sleep spaces for fire department staff and EMT personnel. The community room will be sized to accommodate 38 occupants. The building materials are generally masonry in nature with cut stone base and concrete brick field. Doors and windows are to be anodized storefront aluminum with tinted glass; translucent glass is planned for above the south apparatus bay doors. Building trim materials are to predominantly be composite aluminum. Apparatus bay roof to be white TPO membrane and living space roof to be vegetative trays on membrane with standing seam aluminum mansard on three sides.



## Madison Fire Station 13

Madison, Wisconsin

Project Narrative



# THE EDGE® ARE-EDG-1S-DA

Area Luminaire - Type I Short - Direct Arm Mount

Madison Fire Station #13  
Site Lighting - Proposed  
Type OA

## Product Description

Slim, low profile design minimizes wind load requirements. Luminaire sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heat sinks. Convenient, interlocking mounting method. Mounting housing is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole. Luminaire is secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers.

## Performance Summary

Utilizes BetaLED® Technology

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 5700K (+/- 500K) Standard, 4000K (+/- 300K)

Warranty: 5 years on luminaire / 10 years on Colorfast DeltaGuard® finish

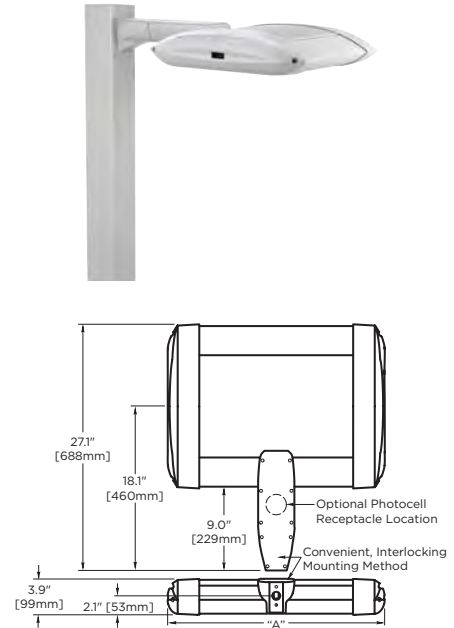
EPA and Weight: Reference EPA and Weight spec sheet

## Accessories

### Field Installed Accessories

XA-BRDSPK  
Bird Spikes

Proposed:  
Type I Optics  
16' High Pole  
60 LED Module @ 525mA  
4000K Color Temperature



LED Count (x10)	Dim. "A"
02	12.1" [306mm]
04	12.1" [306mm]
06	14.1" [357mm]
08	16.1" [408mm]
10	18.1" [459mm]
12	20.1" [510mm]
14	22.1" [560mm]
16	24.1" [611mm]
20	28.1" [713mm]
24	32.1" [814mm]

## Ordering Information

Example: ARE-EDG-1S-DA-02-D-UL-SV-350-OPTIONS

ARE-EDG	1S	DA		D				
Product	Optic	Mounting	LED Count (x10)	Version	Voltage	Color Options	Drive Current	Options
ARE-EDG	1S Type I Short	DA Direct Arm	02 04 06 08 10 12 14 16 20 24	D	UL Universal 120-277V UH Universal 347-480V 34 347V	SV Silver (Standard) BK Black BZ Bronze PB Platinum WH White	350 350mA 525* 525mA 700** 700mA	<b>40K 4000K Color Temperature</b> - Color temperature per luminaire <b>DIM 0-10V Dimming</b> - Control by others - Refer to dimming spec sheet for details - Can't exceed specified drive current <b>F Fuse</b> - When code dictates fusing, use time delay fuse - Not available with all ML options. Refer to ML spec sheet for availability with ML options <b>HL Hi / Low (175/350/525 Dual Circuit Input)</b> - Refer to ML spec sheet for details - Sensor not included <b>P Photocell</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Must specify voltage other than UH <b>R NEMA Photocell Receptacle</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Intended for horizontal mounting - Photocell by others <b>ML Multi-Level</b> - Refer to ML spec sheet for details

\* Available on luminaires with 20-160 LEDs

\*\* Available on luminaires with 20-60 LEDs



Rev. Date: 6/26/2012





## Area Luminaire – Type I Short – Direct Arm Mount

### Product Specifications

#### CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weather-tight LED driver compartments and high performance heat sinks
- Convenient interlocking mounting method. Mounting housing is rugged die cast aluminum mounting to 3–6" (76–152mm) square or round pole, secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Includes leaf / debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver. Bronze, black, white, and platinum bronze are also available

#### ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weather-tight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

#### REGULATORY & VOLUNTARY QUALIFICATIONS

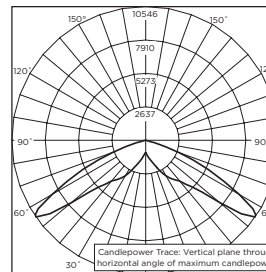
- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL") when ordered without the backlight control shield
- Dark Sky Friendly, IDA Approved
- RoHS Compliant
- Meets Buy American requirements within ARRA

#### PATENTS

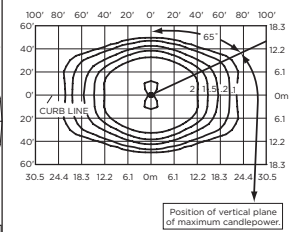
- Visit website for patents that cover these products:  
Patents <http://www.cree.com/patents>

### Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by Independent Testing Laboratories, a NVLAP certified laboratory.



ITL Test Report #: 68091  
ARE-EDG-1S-\*\*-12-D-UL-525-43K  
Initial Delivered Lumens: 17,295



ARE-EDG-1S-\*\*-12-D-UL-525-40K  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 17,235  
Initial FC at grade

#### IES Files

To obtain an IES file specific to your project consult:  
<http://www.cree.com/lighting/tools-and-support/exterior-ies-configuration-tool>

### Lumen Output, Electrical, and Lumen Maintenance Data

Type I Short Distribution												
LED Count (x10)	5700K		4000K		System Watts 120-480V	TOTAL CURRENT						50K Hours Projected Lumen Maintenance Factor @ 15° C (59° F)**
	Initial Delivered Lumens	BUG Ratings* Per TM-15-11	Initial Delivered Lumens	BUG Ratings* Per TM-15-11		120V	208V	240V	277V	347V	480V	
350mA @ 25° C (77° F)												
02	2,261	B1 U0 G0	2,084	B1 U0 G0	26	0.20	0.13	0.11	0.10	0.09	0.07	93%
04	4,522	B2 U0 G0	4,168	B2 U0 G0	47	0.40	0.24	0.21	0.19	0.15	0.12	
06	6,695	B2 U0 G0	6,171	B2 U0 G0	68	0.58	0.34	0.30	0.26	0.20	0.16	
08	8,927	B3 U0 G1	8,228	B3 U0 G1	90	0.77	0.44	0.38	0.34	0.26	0.20	
10	11,131	B3 U0 G1	10,259	B3 U0 G1	111	0.95	0.55	0.47	0.42	0.32	0.24	
12	13,357	B3 U0 G1	12,311	B3 U0 G1	132	1.15	0.66	0.56	0.50	0.38	0.28	
14	15,513	B4 U1 G1	14,297	B4 U0 G1	157	1.34	0.78	0.67	0.61	0.47	0.35	
16	17,729	B4 U1 G1	16,340	B4 U1 G1	179	1.54	0.89	0.76	0.68	0.53	0.39	
20	22,161	B4 U1 G2	20,425	B4 U1 G2	221	1.92	1.10	0.95	0.84	0.65	0.48	92%
24	26,593	B5 U1 G2	24,510	B5 U1 G2	264	2.30	1.31	1.12	1.00	0.77	0.56	
525mA @ 25° C (77° F)												
02	3,165	B2 U0 G0	2,917	B2 U0 G0	37	0.31	0.19	0.17	0.16	0.12	0.10	
04	6,331	B2 U0 G0	5,835	B2 U0 G0	70	0.57	0.33	0.29	0.26	0.21	0.16	
06	9,374	B3 U0 G1	8,639	B3 U0 G1	102	0.87	0.50	0.44	0.39	0.30	0.22	
08	12,498	B3 U0 G1	11,519	B3 U0 G1	133	1.14	0.65	0.56	0.49	0.39	0.29	
10	15,583	B4 U1 G1	14,362	B4 U0 G1	172	1.47	0.85	0.75	0.67	0.51	0.38	
12	18,700	B4 U1 G1	17,235	B4 U1 G1	204	1.76	1.01	0.88	0.78	0.60	0.44	90%
14	21,718	B4 U1 G2	20,016	B4 U1 G2	233	2.01	1.14	0.99	0.87	0.69	0.51	
16	24,820	B5 U1 G2	22,876	B4 U1 G2	265	2.29	1.29	1.11	0.98	0.78	0.57	
700mA @ 25° C (77° F)												
02	3,866	B2 U0 G0	3,563	B2 U0 G0	50	0.42	0.25	0.22	0.20	0.15	0.12	
04	7,733	B3 U0 G1	7,127	B3 U0 G1	93	0.79	0.45	0.40	0.35	0.27	0.20	
06	11,449	B3 U0 G1	10,552	B3 U0 G1	137	1.18	0.67	0.59	0.51	0.39	0.29	

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf)  
\* Projected L<sub>90</sub> (10K) Hours: >60,000. For recommended lumen maintenance factor data see TD-13

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[www.cree.com/lighting](http://www.cree.com/lighting)

T (800) 236-6800 F (262) 504-5415





# THE EDGE® ARE-EDG-2MB/2MP-DA

Area Luminaire – Type II Medium w/ Backlight Control – Direct Arm Mount

Madison Fire Station #13  
Site Lighting - Proposed  
Type OB

## Product Description

Slim, low profile design minimizes wind load requirements. Luminaire sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heat sinks. Convenient, interlocking mounting method. Mounting housing is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole. Luminaire is secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers.

## Performance Summary

Utilizes BetaLED® Technology

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 5700K (+/- 500K) Standard, 4000K (+/- 300K)

Warranty: 5 years on luminaire / 10 years on Colorfast DeltaGuard® finish

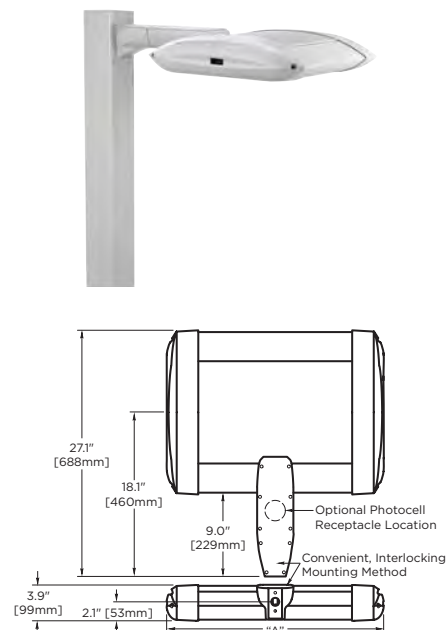
EPA and Weight: Reference EPA and Weight spec sheet

## Accessories

### Field Installed Accessories

XA-BRDSPK  
Bird Spikes

Proposed:  
Type II Optics  
16' High Pole  
60 LED Module @ 525mA  
4000K Color Temperature



LED Count (x10)	Dim. "A"
02	12.1" [306mm]
04	12.1" [306mm]
06	14.1" [357mm]
08	16.1" [408mm]
10	18.1" [459mm]
12	20.1" [510mm]
14	22.1" [560mm]
16	24.1" [611mm]
20	28.1" [713mm]
24	32.1" [814mm]

## Ordering Information

Example: ARE-EDG-2MB-DA-02-D-UL-SV-350-OPTIONS

ARE-EDG		DA		D				
Product	Optic	Mounting	LED Count (x10)	Version	Voltage	Color Options	Drive Current	Options
ARE-EDG	2MB Type II Medium w/ BLS 2MP Type II Medium w/ Partial BLS	DA Direct Arm	02 04 06 08 10 12 14 16 20 24	D	UL Universal 120-277V UH Universal 347-480V 34 347V	SV Silver (Standard) BK Black BZ Bronze PB Platinum Bronze WH White	350 350mA 525* 525mA 700** 700mA	<b>40K 4000K Color Temperature</b> - Color temperature per luminaire <b>DIM 0-10V Dimming</b> - Control by others - Refer to dimming spec sheet for details - Can't exceed specified drive current <b>F Fuse</b> - When code dictates fusing, use time delay fuse - Not available with all ML options. Refer to ML spec sheet for availability with ML options <b>HL Hi / Low (175/350/525 Dual Circuit Input)</b> - Refer to ML spec sheet for details - Sensor not included <b>P Photocell</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Must specify voltage other than UH <b>R NEMA Photocell Receptacle</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Intended for horizontal mounting - Photocell by others <b>ML Multi-Level</b> - Refer to ML spec sheet for details

\* Available on luminaires with 20-160 LEDs

\*\* Available on luminaires with 20-60 LEDs



Rev. Date: 7/9/2012





## Product Specifications

### CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weather-tight LED driver compartments and high performance heat sinks
- Convenient interlocking mounting method. Mounting housing is rugged die cast aluminum mounting to 3–6" (76–152mm) square or round pole, secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Includes leaf / debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver. Bronze, black, white, and platinum bronze are also available

### ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weather-tight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

### REGULATORY & VOLUNTARY QUALIFICATIONS

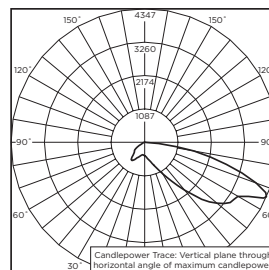
- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL") when ordered without the backlight control shield
- Dark Sky Friendly, IDA Approved
- RoHS Compliant
- Meets Buy American requirements within ARRA

### PATENTS

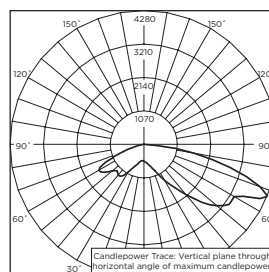
- Visit website for patents that cover these products:  
Patents <http://www.cree.com/patents>

## Photometry

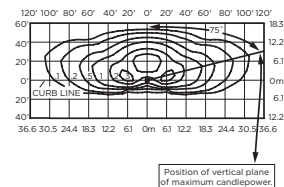
All published luminaire photometric testing performed to IESNA LM-79-08 standards by Independent Testing Laboratories, a NVLAP certified laboratory.



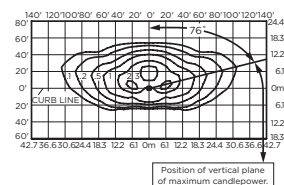
**ITL Test Report #: 69542**  
**STR-LWY-2MB--04-D-UL-700-43K**  
**Initial Delivered Lumens: 4,969**



**ITL Test Report #: 68432**  
**STR-LWY-2MP--04-D-UL-700-43K**  
**Initial Delivered Lumens: 5,725**



**ARE-EDG-2MB--12-D-UL-525-40K**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 10,985**  
**Initial FC at grade**



**ARE-EDG-2MP--12-D-UL-525-40K**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 12,879**  
**Initial FC at grade**

### IES Files

To obtain an IES file specific to your project consult:  
<http://www.cree.com/lighting/tools-and-support/exterior-ies-configuration-tool>

## Lumen Output, Electrical, and Lumen Maintenance Data

Type II Medium Distribution w/ BLS																
LED Count (x10)	5700K				4000K				System Watts 120-480V	TOTAL CURRENT						50K Hours Projected Lumen Maintenance Factor @ 15° C (59° F)**
	Initial Delivered Lumens w/ BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ Partial BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ Partial BLS	BUG Ratings* Per TM-15-11		120V	208V	240V	277V	347V	480V	
350mA @ 25° C (77° F)																
02	1,441	B0 U1 G1	1,690	B0 U1 G1	1,328	B0 U1 G1	1,557	B0 U1 G1	26	0.20	0.13	0.11	0.10	0.09	0.07	93%
04	2,882	B1 U1 G1	3,379	B1 U1 G1	2,656	B1 U1 G1	3,114	B1 U1 G1	47	0.40	0.24	0.21	0.19	0.15	0.12	
06	4,267	B1 U1 G1	5,003	B1 U1 G1	3,933	B1 U1 G1	4,611	B1 U1 G1	68	0.58	0.34	0.30	0.26	0.20	0.16	
08	5,690	B1 U1 G2	6,671	B1 U1 G1	5,244	B1 U1 G1	6,148	B1 U1 G1	90	0.77	0.44	0.38	0.34	0.26	0.20	
10	7,095	B1 U1 G2	8,318	B2 U1 G2	6,539	B1 U1 G2	7,666	B1 U1 G2	111	0.95	0.55	0.47	0.42	0.32	0.24	
12	8,513	B1 U1 G2	9,981	B2 U1 G2	7,846	B1 U1 G2	9,199	B2 U1 G2	132	1.15	0.66	0.56	0.50	0.38	0.28	
14	9,887	B1 U1 G2	11,592	B2 U1 G2	9,113	B1 U1 G2	10,684	B2 U1 G2	157	1.34	0.78	0.67	0.61	0.47	0.35	
16	11,300	B1 U1 G2	13,248	B2 U1 G2	10,414	B1 U1 G2	12,210	B2 U1 G2	179	1.54	0.89	0.76	0.68	0.53	0.39	
20	14,125	B2 U1 G3	16,560	B2 U1 G3	13,018	B2 U1 G3	15,262	B2 U1 G2	221	1.92	1.10	0.95	0.84	0.65	0.48	
24	16,950	B2 U1 G3	19,872	B3 U1 G3	15,621	B2 U1 G3	18,315	B3 U1 G3	264	2.30	1.31	1.12	1.00	0.77	0.56	
525mA @ 25° C (77° F)																
02	2,017	B0 U1 G1	2,365	B1 U1 G1	1,859	B0 U1 G1	2,180	B1 U1 G1	37	0.31	0.19	0.17	0.16	0.12	0.10	92%
04	4,035	B1 U1 G1	4,731	B1 U1 G1	3,719	B1 U1 G1	4,360	B1 U1 G1	70	0.57	0.33	0.29	0.26	0.21	0.16	
06	5,974	B1 U1 G2	7,004	B1 U1 G2	5,506	B1 U1 G1	6,456	B1 U1 G1	102	0.87	0.50	0.44	0.39	0.30	0.22	
08	7,966	B1 U1 G2	9,339	B2 U1 G2	7,342	B1 U1 G2	8,607	B2 U1 G2	133	1.14	0.65	0.56	0.49	0.39	0.29	
10	9,932	B1 U1 G2	11,645	B2 U1 G2	9,154	B1 U1 G2	10,732	B2 U1 G2	172	1.47	0.85	0.75	0.67	0.51	0.38	
12	11,919	B1 U1 G2	13,974	B2 U1 G2	10,985	B1 U1 G2	12,879	B2 U1 G2	204	1.76	1.01	0.88	0.78	0.60	0.44	
14	13,842	B1 U1 G3	16,229	B2 U1 G3	12,758	B1 U1 G3	14,957	B2 U1 G2	233	2.01	1.14	0.99	0.87	0.69	0.51	
16	15,820	B2 U1 G3	18,547	B3 U1 G3	14,580	B2 U1 G3	17,094	B3 U1 G3	265	2.29	1.29	1.11	0.98	0.78	0.57	
700mA @ 25° C (77° F)																
02	2,450	B1 U1 G1	2,889	B1 U1 G1	2,258	B1 U1 G1	2,663	B1 U1 G1	50	0.42	0.25	0.22	0.20	0.15	0.12	90%
04	4,900	B1 U1 G2	5,778	B1 U1 G1	4,516	B1 U1 G1	5,325	B1 U1 G1	93	0.79	0.45	0.40	0.35	0.27	0.20	
06	7,255	B1 U1 G2	8,555	B2 U1 G2	6,686	B1 U1 G2	7,885	B2 U1 G2	137	1.18	0.67	0.59	0.51	0.39	0.29	

\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf)

\*\* Projected L<sub>70</sub> (10K) Hours: >60,000. For recommended lumen maintenance factor data see TD-13

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# THE EDGE® ARE-EDG-4MB/4MP-DA

Area Luminaire - Type IV Medium w/ Backlight Control - Direct Arm Mount

Madison Fire Station #13  
Site Lighting - Proposed  
Type OC

## Product Description

Slim, low profile design minimizes wind load requirements. Luminaire sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heat sinks. Convenient, interlocking mounting method. Mounting housing is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole. Luminaire is secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers.

## Performance Summary

Utilizes BetaLED® Technology

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 5700K (+/- 500K) Standard, 4000K (+/- 300K)

Warranty: 5 years on luminaire / 10 years on Colorfast DeltaGuard® finish

EPA and Weight: Reference EPA and Weight spec sheet

## Accessories

### Field Installed Accessories

XA-BRDSPK  
Bird Spikes

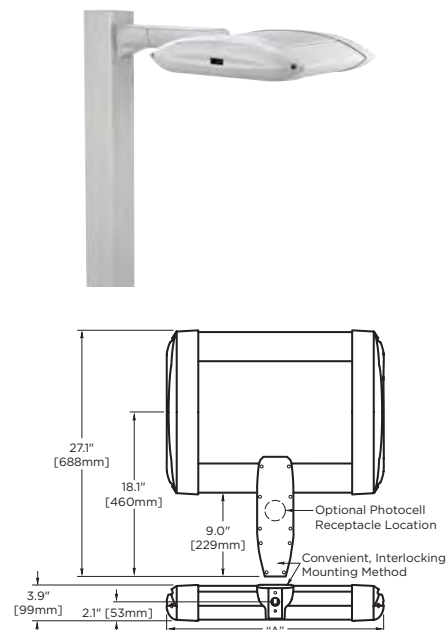
Proposed:

Type IV Optics

16' High Pole

60 LED Module @ 525mA

4000K Color Temperature



LED Count (x10)	Dim. "A"
02	12.1" [306mm]
04	12.1" [306mm]
06	14.1" [357mm]
08	16.1" [408mm]
10	18.1" [459mm]
12	20.1" [510mm]
14	22.1" [560mm]
16	24.1" [611mm]
20	28.1" [713mm]
24	32.1" [814mm]

## Ordering Information

Example: ARE-EDG-4MB-DA-02-D-UL-SV-350-OPTIONS

ARE-EDG		DA		D				
Product	Optic	Mounting	LED Count (x10)	Version	Voltage	Color Options	Drive Current	Options
ARE-EDG	4MB Type IV Medium w/ BLS 4MP Type IV Medium w/ Partial BLS	DA Direct Arm	02 04 06 08 10 12 14 16 20 24	D	UL Universal 120-277V UH Universal 347-480V 34 347V	SV Silver (Standard) BK Black BZ Bronze PB Platinum WH White	350 350mA 525* 525mA 700** 700mA	<b>40K 4000K Color Temperature</b> - Color temperature per luminaire <b>DIM 0-10V Dimming</b> - Control by others - Refer to dimming spec sheet for details - Can't exceed specified drive current <b>F Fuse</b> - When code dictates fusing, use time delay fuse - Not available with all ML options. Refer to ML spec sheet for availability with ML options <b>HL Hi / Low (175/350/525 Dual Circuit Input)</b> - Refer to ML spec sheet for details - Sensor not included <b>P Photocell</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Must specify voltage other than UH <b>R NEMA Photocell Receptacle</b> - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Intended for horizontal mounting - Photocell by others <b>ML Multi-Level</b> - Refer to ML spec sheet for details

\* Available on luminaires with 20-160 LEDs

\*\* Available on luminaires with 20-60 LEDs



Rev. Date: 7/9/2012





## Product Specifications

### CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weather-tight LED driver compartments and high performance heat sinks
- Convenient interlocking mounting method. Mounting housing is rugged die cast aluminum mounting to 3–6" (76–152mm) square or round pole, secured by two (2) 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Includes leaf / debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver. Bronze, black, white, and platinum bronze are also available

### ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weather-tight electrical box with terminal strips (12Ga–20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

### REGULATORY & VOLUNTARY QUALIFICATIONS

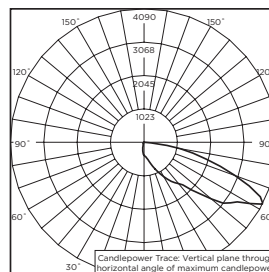
- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Product qualified on the DesignLights Consortium ("DLC") Qualified Products List ("QPL") when ordered without the backlight control shield
- Dark Sky Friendly, IDA Approved
- RoHS Compliant
- Meets Buy American requirements within ARRA

### PATENTS

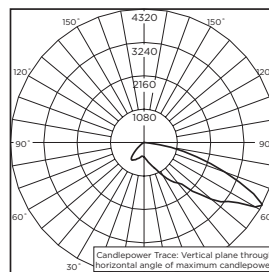
- Visit website for patents that cover these products:  
Patents <http://www.cree.com/patents>

## Photometry

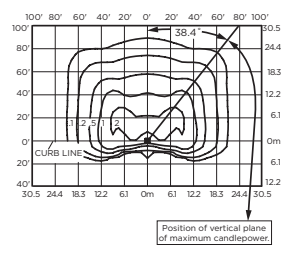
All published luminaire photometric testing performed to IESNA LM-79-08 standards by Independent Testing Laboratories, a NVLAP certified laboratory.



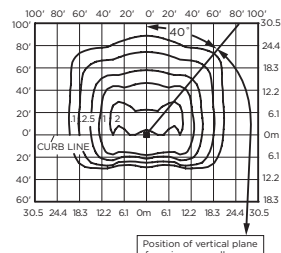
**ITL Test Report #: 66639**  
STR-LWY-4MB-\*\*-04-D-UL-700-43K  
Initial Delivered Lumens: 4,926



**ITL Test Report #: 72169**  
STR-LWY-4MP-\*\*-04-D-UL-700-43K  
Initial Delivered Lumens: 5,849



**ARE-EDG-4MB-\*\*-12-D-UL-525-40K**  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 10,985  
Initial FC at grade



**ARE-EDG-4MP-\*\*-12-D-UL-525-40K**  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 12,879  
Initial FC at grade

### IES Files

To obtain an IES file specific to your project consult:  
<http://www.cree.com/lighting/tools-and-support/exterior-ies-configuration-tool>

## Lumen Output, Electrical, and Lumen Maintenance Data

Type IV Medium Distribution w/ BLS																
LED Count (x10)	5700K				4000K				System Watts 120-480V	TOTAL CURRENT						50K Hours Projected Lumen Maintenance Factor @ 15°C (59°F)**
	Initial Delivered Lumens w/ BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ Partial BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ BLS	BUG Ratings* Per TM-15-11	Initial Delivered Lumens w/ Partial BLS	BUG Ratings* Per TM-15-11		120V	208V	240V	277V	347V	480V	
350mA @ 25°C (77°F)																
02	1,441	B0 U0 G1	1,690	B1 U0 G1	1,328	B0 U0 G1	1,557	B1 U0 G1	26	0.20	0.13	0.11	0.10	0.09	0.07	93%
04	2,882	B1 U0 G1	3,379	B2 U0 G2	2,656	B1 U0 G1	3,114	B2 U0 G2	47	0.40	0.24	0.21	0.19	0.15	0.12	
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12	8,513	B3 U0 G3	9,981	B4 U0 G4	7,846	B2 U0 G2	9,199	B4 U0 G4	132	1.15	0.66	0.56	0.50	0.38	0.28	
14	9,887	B3 U0 G3	11,592	B4 U0 G4	9,113	B3 U0 G3	10,684	B4 U0 G4	157	1.34	0.78	0.67	0.61	0.47	0.35	
16	11,300	B3 U0 G3	13,248	B4 U0 G5	10,414	B3 U0 G3	12,210	B4 U0 G5	179	1.54	0.89	0.76	0.68	0.53	0.39	
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24	16,950	B2 U0 G3	19,872	B5 U0 G5	15,621	B2 U0 G3	18,315	B5 U0 G5	264	2.30	1.31	1.12	1.00	0.77	0.56	
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04	4,035	B2 U0 G1	4,731	B2 U0 G2	3,719	B2 U0 G1	4,360	B2 U0 G2	70	0.57	0.33	0.29	0.26	0.21	0.16	
06	5,974	B2 U0 G2	7,004	B3 U0 G3	5,506	B2 U0 G2	6,456	B3 U0 G3	102	0.87	0.50	0.44	0.39	0.30	0.22	
08	7,966	B2 U0 G2	9,339	B3 U0 G4	7,342	B2 U0 G2	8,607	B3 U0 G4	133	1.14	0.65	0.56	0.49	0.39	0.29	
10	9,932	B3 U0 G3	11,645	B4 U0 G4	9,154	B3 U0 G3	10,732	B4 U0 G4	172	1.47	0.85	0.75	0.67	0.51	0.38	
12	11,919	B3 U0 G3	13,974	B4 U0 G5	10,985	B3 U0 G3	12,879	B4 U0 G5	204	1.76	1.01	0.88	0.78	0.60	0.44	
14	13,842	B3 U0 G3	16,229	B4 U0 G5	12,758	B3 U0 G3	14,957	B4 U0 G5	233	2.01	1.14	0.99	0.87	0.69	0.51	
16	15,820	B3 U0 G3	18,547	B5 U0 G5	14,580	B3 U0 G3	17,094	B5 U0 G5	265	2.29	1.29	1.11	0.98	0.78	0.57	
700mA @ 25°C (77°F)																
02	2,450	B0 U0 G1	2,889	B2 U0 G2	2,258	B0 U0 G1	2,663	B2 U0 G2	50	0.42	0.25	0.22	0.20	0.15	0.12	90%
04	4,900	B2 U0 G2	5,778	B3 U0 G3	4,516	B2 U0 G2	5,325	B3 U0 G3	93	0.79	0.45	0.40	0.35	0.27	0.20	
06	7,255	B2 U0 G2	8,555	B3 U0 G4	6,686	B2 U0 G2	7,885	B3 U0 G4	137	1.18	0.67	0.59	0.51	0.39	0.29	

\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf)

\*\* Projected L<sub>70</sub> (10K) Hours: >60,000. For recommended lumen maintenance factor data see TD-13

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Bollards for light directed downwards

**Post construction:** One piece extruded aluminum with a one piece die-cast aluminum top housing and a base internally welded into an assembly. All aluminum used in the construction is marine grade and copper free.

**Lamp enclosure:** One piece die-cast aluminum top housing removable for relamping, secured by two captive stainless steel screws threaded into stainless steel inserts. Clear tempered safety glass. Reflector made from pure anodized aluminum. Fully gasketed using a molded silicone high temperature gasket. Fully shielded to comply with LEED Zones 1 and higher

**Electrical:** 13W LED luminaire, 15.3 total system watts, -25°C start temperature. Integral 120V through 277 V electronic LED driver, dimming available with reverse phase control (trailing edge) dimmers. The LED and driver are mounted on a removable plate for easy replacement. Standard LED color temperature is 5000K with a 65 CRI. Available in 3000K (85 CRI) and 4000K (85 CRI); add suffix K3 or K4 respectively to order.

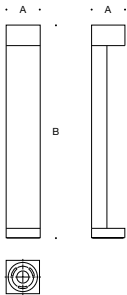
**Finish:** Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

**Anchor base:** Heavy cast aluminum, slotted for precise alignment. Mounts to BEGA #895A anchorage kit. Bollards are secured to the post with one (1) stainless steel set screw.

**UL** listed, suitable for wet locations. Protection class: IP65.

Proposed:  
Type III Optics  
40" High Bollard  
16w LED Module  
4000K Color Temperature

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



	Lamp	Lumen	A	B	C	Anchorage
8659 LED	13W LED	1440	6%	39%	6%	895 A

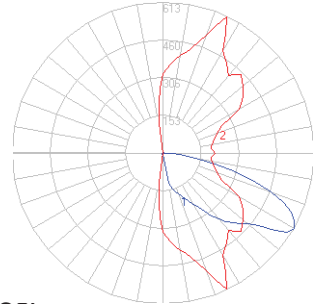




# BEGA

Photometric Filename: 8659LED.ies

TEST: BE2917  
TEST LAB: BEGA  
DATE: 12/15/2009  
LUMINAIRE: 8659LED  
LAMP: 13W LED



## Characteristics

IES Classification	Type III
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	729
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	46
Total Luminaire Watts	16
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	612.864 (65H, 60V)
Max. Cd. (<90 Vert.)	612.864 (65H, 60V)
Max. Cd. (At 90 Deg. Vert.)	2.304 (0.3%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	144.144 (19.8%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

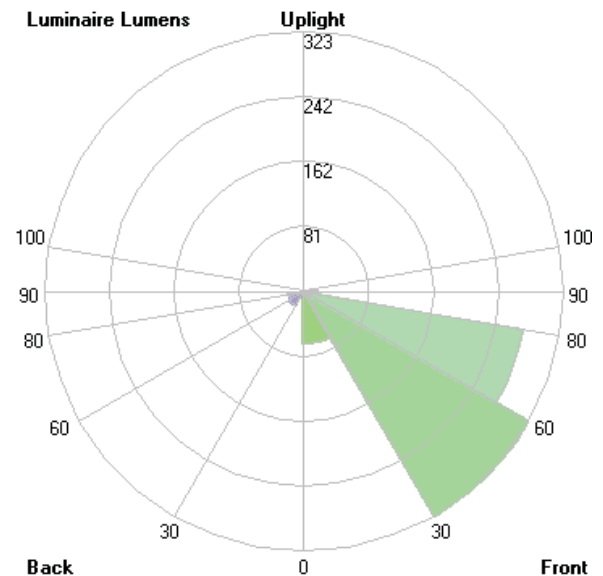
## Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	64.8	N.A.	8.9
FM (30-60)	323.2	N.A.	44.3
FH (60-80)	276.5	N.A.	37.9
FVH(80-90)	17.9	N.A.	2.5
BL (0-30)	4.0	N.A.	0.5
BM (30-60)	20.7	N.A.	2.8
BH (60-80)	18.4	N.A.	2.5
BVH(80-90)	1.4	N.A.	0.2
UL (90-100)	0.7	N.A.	0.1
UH (100-180)	1.3	N.A.	0.2
Total	728.9	N.A.	100.0

**BUG Rating B0-U1-G1**



Grid Spacing = 5 ft.



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

**BEGA** 1000 Bega Way, Carpinteria, CA 93013 (805)684-0533 Fax (805)566-9474 [www.bega-us.com](http://www.bega-us.com) © Copyright BEGA-US 2012

7/24/2012

# plane

## STEP LIGHT



Madison Fire Station #13  
Site Lighting - Proposed  
Type OE

### Application

The **plane** step light is an LED-based luminaire that offers a variety of different color combinations for edge glow accents and functional pathway lighting. For use in exterior and interior architectural applications. **plane** mounts directly to a recessed junction box for wall mount applications. UL listed for wet / damp locations.

### Light Output

**plane** delivers illuminance levels that exceed the National Electrical Codes (NEC) requirement for emergency egress. Recommended mounting 18" to 24" A.G. IES format photometric data available at [www.iolighting.com](http://www.iolighting.com).

### Construction

Environmentally sealed, enclosed and gasketed 5.9" sq. corrosion resistant metal casting (stainless steel optional). Mounts directly to a UV stable, optically clear, high-strength polycarbonate housing. LED luminaire modules contained within the housing are replaceable by factory.

### Mounting Options

**plane** mounts directly to a junction box while the driver (power supply) resides within the junction box. Three types of junction box configurations are compatible with **plane**:

- 1) 1½" deep, 4" octagonal junction box. Hanger bars must be side mounted.
- 2) 2⅞" deep, 4" octagonal junction box with side mounted hanger bars.
- 3) 2⅞" deep, 4" square junction box with plaster ring.

### Electrical

120v or 277v energy saving current limiting Class 2 power supply (driver) must be located within a 1½" or 2⅞" deep, 4" square junction box with plaster ring.

### LED Magnetic Driver Specifications

Input voltage:	120v or 277v
Output Load:	8 watts including center and perimeter LEDs
Operating Temperature of the Luminaire:	-20°F + 140°F -30°C + 60°C
UL Class:	2
Surface Temperature:	25°C
Expected Life:	50,000 hours

### Power Consumption

Standard Output: 8 w

### Step Optic

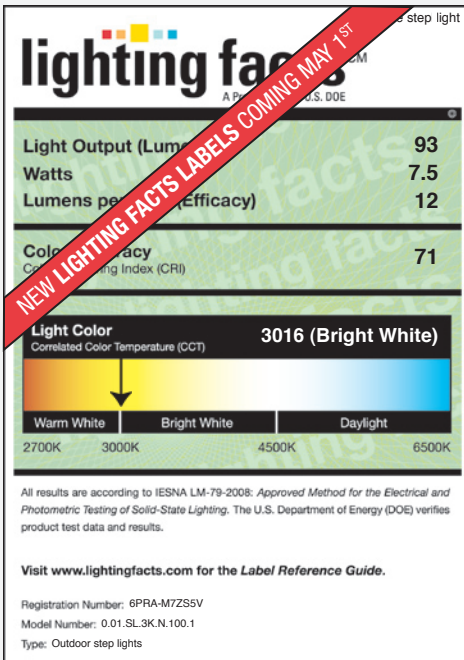
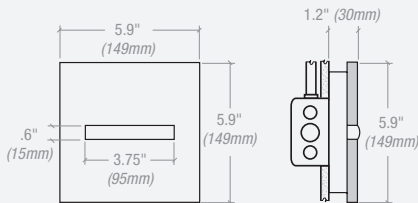
Precision molded polycarbonate lens with superior optical properties offers a 90° cut-off with 70% fixture efficiency. Full cut-off visor option is available. Visor option meets IDA Dark Sky requirements.

### Finish

Metal die-cast face plate may be polyester powder coated or plated. Plated finishes are for interior applications only. Face plate may also be specified in stainless steel.



Dimensions

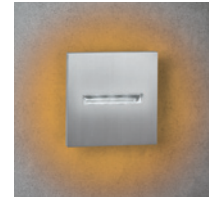
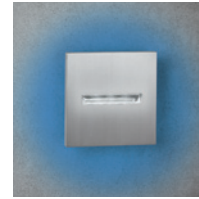
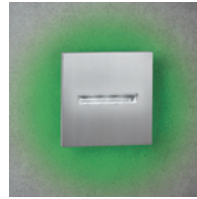
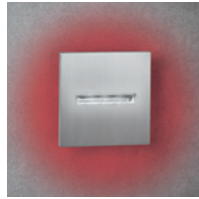


Label references **plane** step light in 3000K with no perimeter LEDs.

Proposed:  
24" Mounting Height  
8w LED Module  
3000K Color Temperature

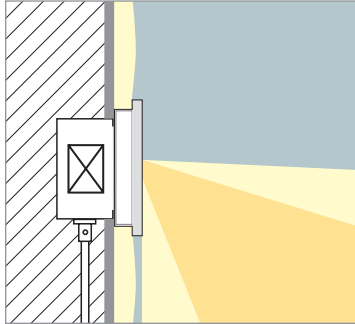


Color Options

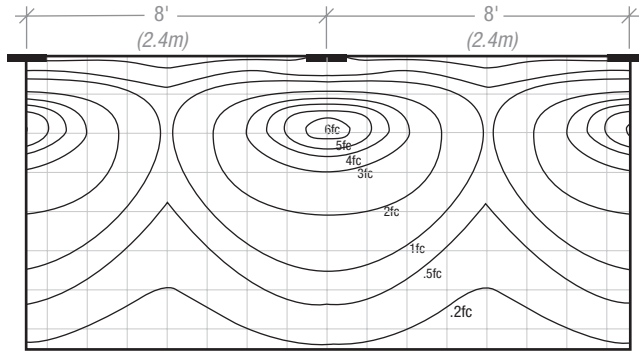


Note: Any combination of Red, Green, Blue, Amber, 3000K White, and 5000K White may be specified for the center and perimeter accent.

Light Details



ISO FOOTCANDLE CHART

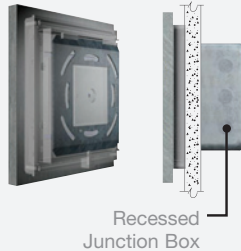
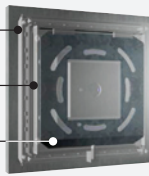


Note: Illuminance levels based on 24" mounting height above grade.

plane's step light optic has been designed to focus the luminous flux down onto a pathway keeping almost all light below 90°. plane may be spaced up to 8'-0" O.C. delivering footcandles that exceed the National Electrical Code's (NEC) requirement for emergency egress (1 FC AVE.). IES Format photometric data available on the **io** website.

MOUNTING OPTIONS

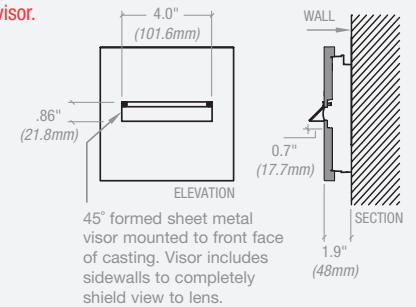
Metal Die-Casting  
Clear Polycarbonate Backplate  
Universal Steel Mounting Bracket



VISOR OPTION  
Dark Sky compliancy requires visor.



Note: A visor may be specified for full visual cut-off.



Order Code

0	01								
io	1	2	3	4	5	6	7	8	

1. PRODUCT FAMILY

01 Plane

2. TYPE

SL Step light

SLE Step light Exterior

3. CENTER COLOR

3K Warm White

5K Cool White

R Red

G Green

B Blue

A Amber

CC Custom Color<sup>(2)</sup>

4. PERIMETER COLOR

3K Warm White

5K Cool White

R Red

G Green

B Blue

A Amber

N None

CC Custom Color<sup>(2)</sup>

5. MOUNTING

100 J-Box

999 Custom

6. FINISH

METAL CASTING (POWDER COATED)

1 Black

2 Bronze

3 Satin Aluminum

4 White

METAL CASTING (PLATED)

INTERIOR APPLICATIONS ONLY

5 Satin Nickel

6 Chrome

7 Satin Brass

STAINLESS STEEL

8 Brushed

CUSTOM COLOR

9 Custom

7. VOLTAGE

0 120v

1 277v

2 Other (International voltage)

Note: Consult factory for custom voltage options.

Dimming not available.

8. SHIELDING

V Visor <sup>(1)</sup>

Note: Leave blank if visor is not required.

Footnotes

1. Visor not available in metal castings (plated).

2. Non-standard color temperature and CRI are available. Consult factory for availability.

For Metric Conversion		
1"	1"	1'
25.4mm	2.54cm	0.3m

## DESCRIPTION

Monaco 6000A is a versatile, HID inground illuminator for use with T4.5, T6 or ED17 metal halide, E17 high pressure sodium and triple tube compact fluorescent lamps. It includes the Ventera™ heat & water management system, insuring years of uninterrupted performance. The exclusive Beam-Driver™ aiming system provides up to 15° tilt and 360° rotation of the lamp beam allowing precision aiming without disturbing the sealed lamp module or looking into the energized lamp source, simply by using a conventional cordless drill or screwdriver. Adjustment mechanisms are then concealed securely beneath the trim ring. Fixture includes lamp, factory-installed in a waterproof lamp module.

## SPECIFICATION FEATURES

### A ... Material

Recessed housing and side-mounted wiring compartment are constructed from corrosion-proof, injection-molded polycarbonate. Trim ring is constructed from corrosion-resistant brass or stainless steel.

### B ... Finish: Painted Brass, Natural Brass or Stainless Steel

Painted trim rings are constructed from solid brass and double protected by a chemical film undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors available. Machined natural brass or stainless steel trim rings are unpainted to reveal the natural beauty of the material and are available in either round or square forms (for square, specify option -SQ). Brass will patina naturally over time.

### C ... Lens

Domed 1/2" thick tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion. Suitable for drive-over applications to 5000 lbs. when -DSB option is specified. An internal temperature reduction lens is available to reduce outer lens temperatures even further (specify option -TRL).

### D ... Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance. Outer trim ring includes captive fasteners.

### E ... Socket

T4.5: Ceramic socket with 250° C Teflon® coated lead wires and G8.5 bi-pin base. T6: Ceramic socket with 250° C Teflon® coated lead wires and G12 bi-pin base. E17 & ED17: Ceramic socket with 250° C Teflon® coated lead wires and medium base. TTT: High temperature plastic socket with 250° C Teflon® coated lead wires and GX24 base.

### F ... Electrical

Fixture includes integral core & coil ballast assembly (120/208/240/277/347V). Rated for minimum -30° C starting temperature. Ballast assembly is encapsulated in UL-approved waterproof potting material. Electronic ballasts are also available (specify option EL). Core and coil ballast for 150W is no longer available, and must now be specified with electronic ballast only (specify electronic option -EL).

### G ... Reflector

Reflector is constructed from spun aluminum, clear anodized with Alzak® finish.

### H ... Lamp

Included as standard. Lamp is factory-installed in sealed lamp module.

### I ... Labels & Approvals

UL and cUL listed, standard wet label. IP68 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made.

### J ... Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

### K ... Recessed Housing

Recessed housing is available to ship in advance of complete fixture for rough-in purposes. Specify option -LBB and order separately recessed housing and accompanying components from below:

6000A-BB  
recessed housing;

6000-CP  
order in conjunction w/recessed housing when CP option is selected;

6000-DSB  
order in conjunction w/recessed housing when DSB option is selected



## MONACO 6000A

**70W (max.) T4.5**  
Metal Halide

**150W (max.) T6**  
Metal Halide

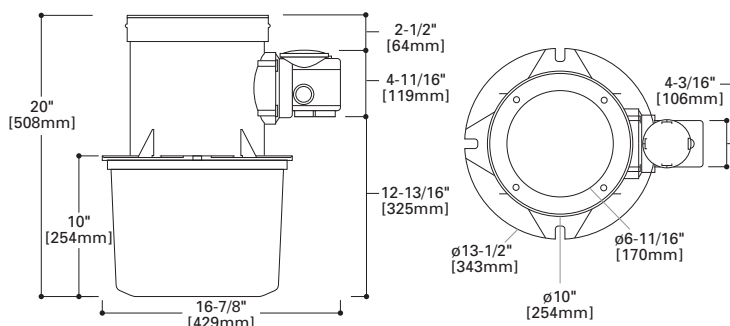
**150W (max.) E17**  
High Pressure Sodium

**57W (max.) TTT**  
Compact Fluorescent

**Inground**

**IP68**

Proposed:  
Spot Optics  
In Grade Mount Lighting Flagpole  
70w CMH Lamp  
4000K Color Temperature



Monaco 6000A



## LAMP INFORMATION

Lamp	ANSI Code	Watts	Lumens	CRI	°K	Life (hrs.)	Base	Volts
CF26	60901-IEC-3426-1	26	1710	82	3000	12000	GX24q-3	120-347
CF32	60901-IEC-7432-2	32	2200	82	3000	12000	GX24q-3	120-347
CF42	60901-IEC-7442-2	42	3200	82	3000	12000	GX24q-4	120-347
CF57	60901-IEC-7457-1	57	4300	82	3000	12000	GX24q-5	120-347
HPS35	S76	35	2250	22	1900	16000	medium	120-347
HPS50	S68	50	4000	22	1900	24000	medium	120-347
HPS70	S62	70	6400	22	1900	24000	medium	120-347
HPS100	S54	100	9500	22	2000	24000	medium	120-347
HPS150	S55	150	16000	22	2000	24000	medium	120-347
MH39T4	M130	39	3300	81	3000	9000	G8.5	120-347
MH70T4	M139	70	6400	83	3000	6000	G8.5	120-347
MH39T6	M130PO-REM J	39	3400	81	3000	12,000	G12	120-347
MH70T6	M139PO-REM J	70	6600	82	3000	12,000	G12	120-347
MH150T6	M142PP-REN J	150	14,000	85	3000	12,000	G12	120-347
MH50	M148/M110	50	4250	82	3000	10,000	medium	120-347
MH70	M143/M98	70	6200	82	3000	10,000	medium	120-347
MH100	M140/M90	100	9300	85	3000	12,500	medium	120-347
MH150	M102/M142	150	13,500	93	4200	9000	medium	120-347
MH175	M57	175	13,500	65	4000	10,000	medium	120-347

NOTE: Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTE: MH150T6, MH150 & MH175 are only available with electronic ballasts (-EL)

## ORDERING INFORMATION

Sample Number: 6000A-MH70T6-120-SP1-BK

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## Series

**6000A**=Beam-Driver Aiming System with 15° Tilt, 360° Rotation Monaco

## Source

## Compact Fluorescent

**CF26**=26W Compact Fluorescent TTT, GX24q-3 Base

**CF32**=32W Compact Fluorescent TTT, GX24q-3 Base

**CF42**=42W Compact Fluorescent TTT, GX24q-3 Base

**CF57**=57W Compact Fluorescent TTT, GX24q-3 Base

## High Pressure Sodium

**HPS35**=35W High Pressure Sodium E17, Medium Base

**HPS50**=50W High Pressure Sodium E17, Medium Base

**HPS70**=70W High Pressure Sodium E17, Medium Base

**HPS100**=100W High Pressure Sodium E17, Medium Base

**HPS150**=150W High Pressure Sodium E17, Medium Base

## Metal Halide

**MH39T4**=39W Metal Halide T4, G8.5 Base

**MH70T4**=70W Metal Halide T4, G8.5 Base

**MH39T6**=39W Metal Halide T6, G12 Base

**MH70T6**=70W Metal Halide T6, G12 Base

**MH150T6**=150W Metal Halide T6, G12 Base

**MH50**=50W Metal Halide ED17, Medium Base

**MH70**=70W Metal Halide ED17, Medium Base

**MH100**=100W Metal Halide ED17, Medium Base

**MH150**=150W Metal Halide ED17, Medium Base

Distribution <sup>1</sup>

**SP**=Spot

**NFL**=Narrow Flood

**MFL**=Medium Flood

**WFL**=Wide Flood

**WW**=Wall Wash

## Voltage

**120**=120V

**277**=277V

**208**=208V

**240**=240V

**347**=347V

**UNV**=120-277<sup>2</sup> Volts

## Finish

**Painted**

**BK**=Black

**BZ**=Bronze

**CS**=City Silver

**VE**=Verde

**WT**=White

## Metal

**NBR**=Brass

**NSS**=Stainless Steel

## Options

**CP**=Concrete Pour Cover

**AXL5**=5 Degree Spread Lens in lieu of standard

**DL**=DL - Diffused Lense in Lieu of standard

**FUS**=Fusing

**RSL**=Radial Spread Lens in lieu of standard

**SQ**=Square trim in lieu of round

**TL10**=10 Degree Tilt Lens in lieu of standard

**TL20**=20 Degree Tilt Lens in lieu of standard

**DSB**=Drive-Over Structural Bracket

**EL**=Electronic HID Ballast

**NSL**=Non-slip Lens

**TRL**=Temperature Reduction Lens

**LBB**=Housing Shipped in Advance (select LBB option and order -BB Back Box Recessed Housing separately)

## Recessed Housing (order separately)

Select housing from Recessed Housing section on previous page

## Accessories

**HVL**=Horizontal/Vertical Louver

**RG**=Rock Guard

**DG**=Domed Glare Shield

**SG**=Straight Glare Shield

**SGR**=Straight Glare Shield / Rock Guard

## Filters

**F71-6**=Peach Dichroic Filter, 6.75 Dia

**F72-6**=Amber Dichroic Filter, 6.75 Dia

**F73-6**=Green Dichroic Filter, 6.75 Dia

**F74-6**=Medium Blue Dichroic Filter, 6.75 Dia

**F75-6**=Yellow Dichroic Filter, 6.75 Dia

**F76-6**=Red Dichroic Filter, 6.75 Dia

**F77-6**=Dark Blue Dichroic Filter, 6.75 Dia

**F78-6**=Light Blue Dichroic Filter, 6.75 Dia

**F79-6**=Neutral Density Dichroic Filter, 6.75 Dia

**F80-6**=Magenta Dichroic Filter, 6.75 Dia

## Optical Lenses

**LSL-6**=Linear Spread Lens (elongate standard beam spread), 6.75 Dia

## Optical Louver

**LVR-6**=Hex Cell Louver (reduce glare), 6.75 Dia

- Notes: 1 Compact Fluorescent available in MFL and WW distribution only.  
 2 Not available in all wattages; electronic only.  
 \* LLB Option - Order 6000A-BB - Back Box (Recessed Housing).  
 \* Lamp included - factory installed.  
 \* Consult your Cooper Lighting representative for additional options and finishes.

## ESA-ADR-414-C

### DESCRIPTION

Downlight luminaire with 4" round aperture, designed for 14 high output LEDs maximum. Two piece optical assembly provides a broad, even light distribution, combining low brightness, with maximum visual cutoff and efficiency. Three light distributions available – narrow, medium, and wide.

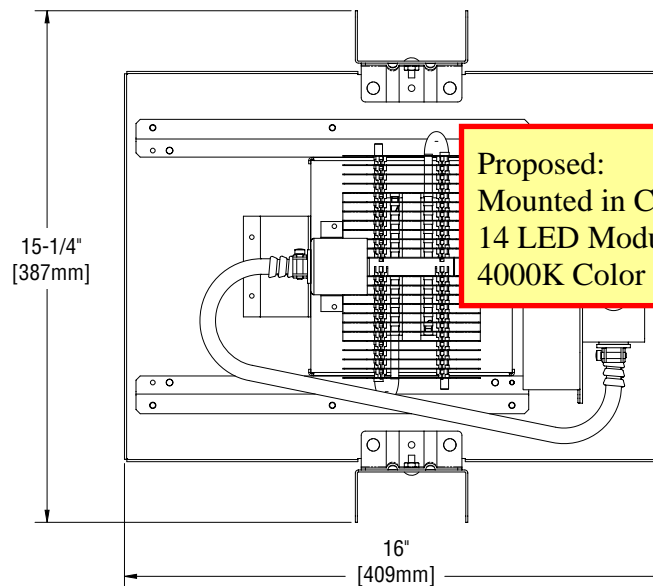
### FEATURES

- Luminaire uses 14 high output LEDs, tolerance to be within a 2-step McAdam Ellipse. See table for specific color tolerance (at right).
- Axial and Tilted Axial TIR NanoOptic® on each individual LED to maximize light delivered through aperture.
- Light distribution available in narrow, medium, or wide.
- Low brightness parabolic spun Alzak aluminum cone, 0.06" thick with polished radius and continuous self-flange.
- Soft satin Glow Clear finish, standard.
- Precision nickel plated cone retainers assure that the lower cone is held in position.
- Formed cone blackout baffle to minimize stray light.
- Top access
- 2" aperture throat to accommodate all standard and extra-thick ceilings and provide flexibility in mounting within grid.
- Custom heatpipe to optimize cooling of LEDs.
- Provided with quick mounting brackets for optional carrying channels.
- High Efficiency constant current driver, 120-277VAC input, 525mA drive current.
- 0-10V dimming, standard. 100% - 10% full-range continuous dimming.
- Patented Slideways™ feature for ease of maintenance from below the ceiling.
- Light engine, optics, and driver accessible from above or below ceiling.
- UL/CUL listed for thru-wiring 8#12AWG-90°C and damp location.
- Thermally protected.

### Notes:

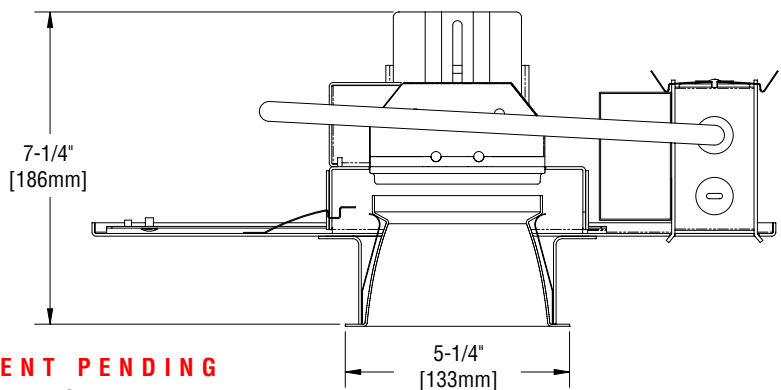
## LED Architectural Downlight

Madison Fire Station #13  
Site Lighting - Proposed  
Type RA



Recommended Ceiling Cutout 4-1/4"

Color Tolerance	
2700K	+/- 42K
3000K	+/- 50K
3500K	+/- 63K
4250K	+/- 95K



**PATENT PENDING**

US7478931 CA2560566

Family/ Series	Product	Aperture (Inches)	LED Count (# of LEDs)	LED Performance Generation	Optic	Reflector/Cone Finish	Flange Finish	Voltage	Drive Current	Options Please type additional options in manually on the lines provided below.
<b>ESA</b>	<b>ADR</b>	<b>4</b>	<b>14</b>	<b>C</b>	<b>WD</b> Wide <b>MD</b> Medium <b>ND</b> Narrow	<b>SSGC</b> Soft Satin Glow Al Clear <b>SSGGR</b> Soft Satin Glow Al Graphite <b>SSGBR</b> Soft Satin Glow Al Bronze <b>SSGCG</b> Soft Satin Glow Al Champagne Gold <b>SSGPE</b> Soft Satin Glow Al Pewter <b>SSGWH</b> Soft Satin Glow Al Wheat <b>SSGB</b> Soft Satin Glow Al Black <b>W</b> White Paint	<b>FF</b> Flat Flange <b>WF</b> White Flange <b>XF</b> Custom Color Flange	<b>120</b> 120V <b>277</b> 277V	<b>525</b> 525mA	<b>27K</b> 2700K (90 Nominal CRI) <b>30K</b> 3000K (85+ CRI) <b>35K</b> 3500K (80+ CRI) <b>43K</b> 4250K (70+ CRI) <b>DH</b> Dimming Lutron HiLume (525mA) <b>LM</b> Lens Media <b>FS</b> Fusing <b>SCA</b> Slope Ceiling Adapter <b>MC</b> Mounting Channels <b>WL</b> Wet Location <b>ES</b> Flangeless
<b>ESA</b>	<b>ADR</b>	<b>4</b>	<b>14</b>	<b>C</b>	<b>WD</b>	<b>SSGC</b>	<b>FF</b>	<b>120</b>	<b>525</b>	

Example:





### PHOTOMETRICS

#### LED COLOR MULTIPLIER

COLOR TEMPERATURE	LUMEN MULTIPLIER	COLOR TEMPERATURE	LUMEN MULTIPLIER
2700K	0.93	3500K	1.00
3000K	1.00	4250K	1.14

#### ESAADR414CND5GCF12052535K

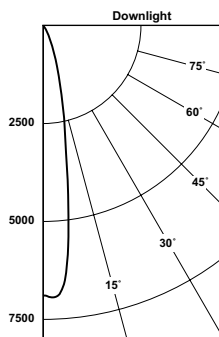
LED Count: 14  
Efficacy: 51.8 lm/W  
S/M: 0.3  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1377  
Test No.: ITL65684

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	3090
	55°	1524
	65°	776
	75°	0
	85°	0

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	6895
5°	6494
15°	1812
25°	527
35°	100
45°	20
55°	8
65°	3
75°	0
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	192	2.0'
8'	108	2.8'
10'	69	3.5'
12'	48	4.0'
14'	35	4.8'

#### ESAADR414CND5GCF12052535K

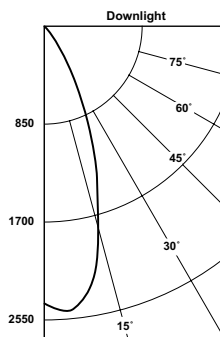
LED Count: 14  
Efficacy: 50.5 lm/W  
S/M: 0.7  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1334  
Test No.: ITL65312

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	4481
	55°	1905
	65°	1034
	75°	844
	85°	0

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	2406
5°	2479
15°	1811
25°	866
35°	234
45°	29
55°	10
65°	4
75°	2
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	67	4.0'
8'	38	5.5'
10'	24	6.7'
12'	17	8.0'
14'	12	9.7'

#### ESAADR414CWD5GCF12052535K

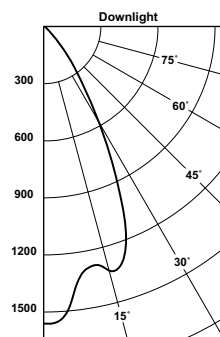
LED Count: 14  
Efficacy: 48.1 lm/W  
S/M: 0.88  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1242  
Test No.: LTL20196

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	8250
	55°	2771
	65°	1396
	75°	760
	85°	376

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	1556
5°	1488
15°	1325
25°	925
35°	330
45°	53
55°	15
65°	5
75°	2
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	43	5.3'
8'	24	7.2'
10'	16	9.0'
12'	11	10.7'
14'	8	12.5'

### PHOTOMETRICS - LENSED

#### ESAADR414CND5GCF12052535KLM

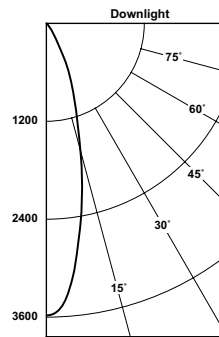
LED Count: 14  
Efficacy: 43.5 lm/W  
S/M: 0.5  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1158  
Test No.: ITL65685

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	6335
	55°	2095
	65°	776
	75°	422
	85°	0

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	3579
5°	3261
15°	1616
25°	593
35°	163
45°	41
55°	11
65°	3
75°	1
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	99	2.7'
8'	56	3.5'
10'	36	4.5'
12'	25	5.3'
14'	18	6.3'

#### ESAADR414CND5GCF12052535KLM

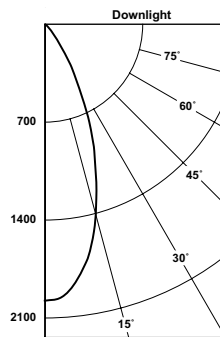
LED Count: 14  
Efficacy: 42.6 lm/W  
S/M: 0.7  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1125  
Test No.: ITL65313

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	9117
	55°	2667
	65°	1293
	75°	844
	85°	0

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	1977
5°	1921
15°	1407
25°	735
35°	250
45°	59
55°	14
65°	5
75°	2
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	55	4.0'
8'	31	5.3'
10'	20	6.5'
12'	14	7.8'
14'	10	9.3'

#### ESAADR414CWD5GCF12052535KLM

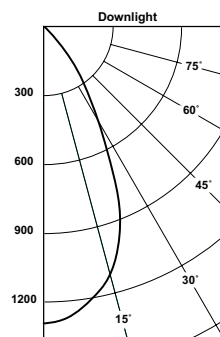
LED Count: 14  
Efficacy: 40.5 lm/W  
S/M: 0.85  
Color Temperature: 3500K  
Drive Current: 525mA  
Delivered Lumens: 1045  
Test No.: LTL20194

#### LUMINANCE DATA

candela/meter <sup>2</sup>	VERTICAL ANGLE	AVERAGE
	45°	11065
	55°	3310
	65°	1472
	75°	822
	85°	376

#### CANDELA DISTRIBUTION

DEGREES	CD
0°	1290
5°	1267
15°	1114
25°	727
35°	309
45°	72
55°	17
65°	6
75°	2
85°	0
90°	0



#### CONE OF LIGHT

DISTANCE FROM WORKPLANE	FOOTCANDLES	BEAM DIAMETER
6'	36	5.0'
8'	20	6.8'
10'	13	8.5'
12'	9	10.2'
14'	7	11.5'

All photometric files available for your convenience at our web site: [www.BetaLED.com](http://www.BetaLED.com)

## DESCRIPTION - H4 LED ADJUSTABLE GIMBALS

Halo H4 LED Adjustable Gimbals, ELG4058xxxx series, combine an adjustable gimbal trim and LED light engine. The H4 LED adjustable gimbal family features 35° tilt and offers interchangeable optics with three beam distributions of 25°, 35°, and 50°; in addition the choice of four color temperatures 2700°K, 3000°K, 3500°K, 4000°K. Three high-quality trim finishes of White, Satin Nickel, and Tuscan Bronze are offered. Halo LED offers high quality, fit, finish, and performance in an energy-efficient, high-efficacy gimbal.

## SPECIFICATION FEATURES

### MECHANICAL

#### Heat Sink

- Durable aluminum construction.
- Conducts heat away from the LED keeping the junction temperatures below specified maximums, even when installed in insulated ceiling housings.

#### Gimbal

- Precision designed fit and finish
- Die-cast aluminum with snap-in front loading ring allowing interchange of beam forming reflectors
- Gimbal front ring holds one lens media. Clear glass lens is included. Optional lens media such as L111 soft focus may be used in place of clear glass lens.
- 35° tilt adjustment with friction fit to heat sink.
- Smooth travel from nadir to 35°
- Works with the upper heat sink for thermal conduction away from the LED

### MOUNTING

#### Friction Blades

- Precision formed steel spring blades provide retention of the ELG4058xxxx series of light engines in the H4 LED series housings.
- Friction blade design allows the light engine to be installed in any position within the housing aperture (360 degrees).
- Tether security cable included on the light engine for attachment to the housing during installation, as recommended and when required by code.

### ELECTRICAL

#### LED Connection

- LED connector is a non-screw base plug-in connector offering easy installation with any of the H4 LED series housings.
- LED connector meets California Title-24 high-efficacy luminaire requirement for a non-screw base socket, and where required to qualify as a high-efficacy luminaire.

### Finish Options

ELG405830WH	White
ELG405830SN	Satin Nickel
ELG405830TBZ	Tuscan Bronze

### OPTICS

- Three beam distribution options with interchangeable round beam forming reflectors
- Reflector options: 25°, 35°, 50° beam angle
- Gimbal is supplied with 25° reflector pre-installed
- Clear glass cover lens included with gimbal. One optional accessory lens may be used in place of clear lens.
- Reflector and lens are accessible behind the gimbal's snap-in front ring.

### Optical Accessory Reflector Kit -- TL412RK

- Includes all three reflector options
- 25° beam angle reflector (one is included with gimbal)
- 35° beam angle reflector
- 50° beam angle reflector

### LED COLOR SPECIFICATION & QUALITY STANDARDS

- LED consists of multiple LED die in a chip-on-board array to create one virtual source that provides a uniform and productive "cone of light"
- Halo employs a tight chromaticity specification and LED color binning process to ensure LED color uniformity, sustainable Color Rendering Index (CRI) and Correlated Color Temperature (CCT) consistency over the useful life of the LED
- Halo LED chromaticity specification exceeds ENERGY STAR® SSL color standards (as per ANS IC78.377-2008).
- Every Halo LED Module is quality tested and performance measured on the production line, and then serialized to register lumens, wattage, CRI and CCT.

Catalog #	
Project	
Comments	
Prepared by	

Madison Fire Station #13  
Site Lighting - Proposed  
Type RB

Proposed:  
Adjustable Optics with Spread Lens  
Mounted in Canopy to Light Sign  
4000K Color Temperature  
Damp Location Listed

- Halo LED serialized production and measurement process further ensures color and lumen consistency to meet stringent Cooper Lighting specifications and exceed ENERGY STAR® SSL standards.

- Halo LED Modules and light engines include Color Rendering Index and Correlated Color Temperature in the model number.

Example: ELG405830WH

**8** **30**  
>80 CRI 3000°K nominal CCT

- LED emits no ultraviolet and minimal infrared wavelengths

### QUALIFICATION

- Up to 637 lumens (with 3000°K color temperature) - Refer to Photometric and Compliance Summary Chart
- Halo LED offers the widest choice of four correlated color temperatures in recessed LED downlighting, including: 2700°K, 3000°K, 3500°K, 4000°K
- 80 CRI
- L70/50 Lumen Maintenance 70% lumens / 50,000 hours
- Up to 46.6 Lumens per Watt
- ENERGY STAR® Qualified
- Can be used to meet State of California Title 24 and International Energy Conservation Code - IECC High Efficacy requirements
- H4 LED is ROHS compliant

### Dimming

- The HALO H4 LED luminaires are dimmable. Refer to housing specifications for dimming notes, and refer to dimmer manufacturers for compatibility.

### Warranty

Cooper Lighting provides a three year limited warranty on Halo LED Luminaires which includes the LED Recessed Housing, LED Light Engine, and LED trims. (Subject to all of the limitations set forth in Cooper Lighting Terms and Conditions of sale. Refer to [www.cooperlighting.com](http://www.cooperlighting.com).)



Qualified and Compliant as designated.  
Refer to Photometric and Compliance Summary Chart.



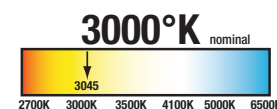
## H4 LED Gimbal - 3000°K

**ELG405830WH**  
**ELG405830SN**  
**ELG405830TBZ**

**4-Inch LED Adjustable Gimbal Trim & Light Engine**

**FOR USE WITH H455 and H456 Series 4" LED Housings**

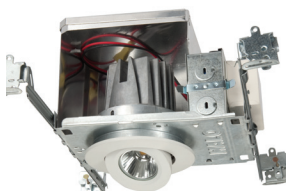
**High Efficacy LED**



**ELG405830WH**  
**ELG405830SN**  
**ELG405830TBZ**  
4" Gimbal Light Engine - 3000°K

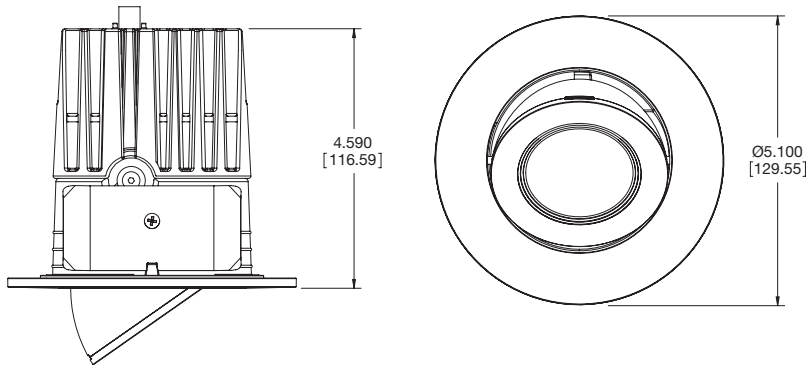
### Typical 3000°K Performance Values

Lumens: up to 637  
Lumens per watt: up to 46.6  
Color Rendering Index (CRI, Ra): 80





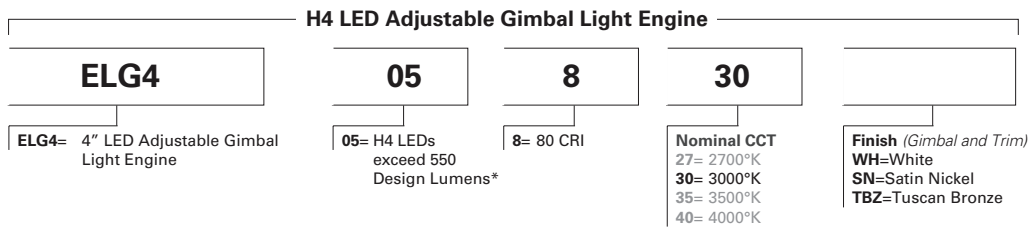
## DIMENSIONS



## ORDERING INFORMATION

### SAMPLE NUMBER: ELG405830TBZ

Complete unit includes H4 LED housing, Adjustable Gimbal and optional Reflector Kit; ordered separately.  
Housing: Refer to housing specification sheets for selection and details.  
(Note H4 LED TL4xx Downlight Trims are not compatible with H4 LED ELG4xx Adjustable Gimbals.)



\* Lumen output of 636 lumens based upon 3000°K color temperature.

### Optional Accessory Reflector Kit *(ordered separately)*

TL412RK includes:

- 25° reflector *(one is included with gimbal)*
- 35° reflector
- 50° reflector

TL412RK is for use with ELGxx and ELSGxx Gimbals only.

### Optional Lens Media *(ordered separately)*

One lens media may be used in place of clear lens.

#### Optical Lenses

- L110 Diffuse Sand Blasted Lens
- L111 Soft Focus Textured Lens
- L113 Prismatic Lens
- L115 Linear Spread Lens

#### Dichroic Color Films

- L114 UV Filter
- L120 Red
- L121 Amber
- L122 Yellow
- L123 Green
- L124 Daylight
- L125 Blue
- L127 Cosmetic Color Filters
- L130 Yellow

## GIMBAL SUMMARY



**ELG405830WH**



**ELG405830TBZ**



**ELG405830SN**

H4 LED Round Gimbal Photometric and Compliance Summary

H4 LED Adjustable Gimbal Collection		H4 LED Gimbal 2700°K	H4 LED Gimbal 3000°K	H4 LED Gimbal 3500°K	H4 LED Gimbal 4000°K
		ELG405827 (WH / SN / TBZ)	ELG405830 (WH / SN / TBZ)	ELG405835 (WH / SN / TBZ)	ELG405840 (WH / SN / TBZ)
Trim Type	Photometric Test Trim Model*	LUMENS (1)	ENERGY STAR (2)	California T24 (3)	IECC (4)
		598			
4" ROUND ADJUSTABLE GIMBAL Trim - Light Engine	ELG405830TBZ	598	ENERGY STAR (2)	California T24 (3)	IECC (4)
		636	ENERGY STAR (2)	California T24 (3)	IECC (4)
		671	ENERGY STAR (2)	California T24 (3)	IECC (4)
		703	ENERGY STAR (2)	California T24 (3)	IECC (4)

(1) Adjustable gimbals tested with standard 25 degree beam reflector (measured at Nadir). Tested in accordance with IES Photometric Measurement Standards to represent relative SSL fixture performance. Field results may vary.  
\*Values are scaled, for other color temperatures, from IESNA LM-79-08 test data.

(2) Refer to the ENERGY STAR® Qualified product list online for the qualification listing. (Halo is committed to providing the latest in qualification testing to ENERGY STAR® standards. As an ENERGY STAR® Partner, Cooper Lighting adheres to the stringent standards of ENERGY STAR® and maintains the highest level of compliance qualification.)

(3) California Title 24 High Efficacy Luminaire registered with State of California LED Light Fixture database

(4) International Energy Conservation Code High Efficacy Compliant

Gimbal Finish Codes

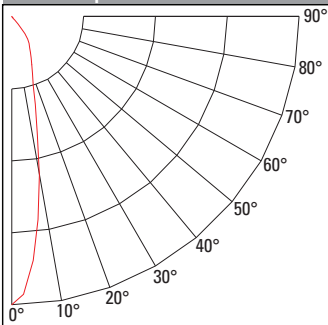
WH = White  
SN = Satin Nickel  
TBZ = Tuscan Bronze



## PHOTOMETRY

**4" Adjustable Gimbal - 3000K  
ELG405830xx (25° Beam-0° tilt)**

**Spacing Criteria = 0.38**  
**Lumens per Watt = 46.6 LpW**  
**Test No. P21162**  
**Test Model: ELG405830TBZ (25° reflector)**

**Candlepower Distribution Curve**

Luminance (Average Candela/M²)	
Degrees	Avg. 0° Luminance
45	5402
55	1719
65	583
75	476
85	1414

Candela Distribution	
Degrees Vertical	Candela
0*	2010
5	1710
15	635
25	320
35	193
45	31
55	8
65	2
75	1
85	1
90	0

\*CBCP

**Cone of Light Horizontal Footcandles**

Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	66	2.1
7' 0"	41	2.6
8' 0"	31	3.0
9' 0"	25	3.4
10' 0"	20	3.8

**Cone of Light Vertical Footcandles on Wall**

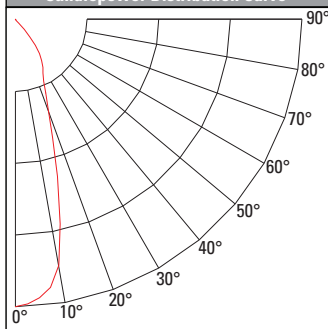
35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	113	2.1	1.2
3' 0"	50	3.1	1.8
4' 0"	28	4.2	2.4
5' 0"	18	5.2	3.0
6' 0"	13	6.3	3.6
8' 0"	7	8.4	4.9
10' 0"	5	10.5	6.1
12' 0"	3	12.6	7.3

**Zonal Lumen Summary**

Zone	Lumens	% Lamp	% Fixture
0-30	478.43	75.5	75.1
0-40	594.23	93.7	93.2
0-60	633.71	100	99.4
0-90	637.42	100.5	100

**4" Adjustable Gimbal - 3000K  
ELG405830xx (35° Beam-0° tilt)**

**Spacing Criteria = 0.56**  
**Lumens per Watt = 44.5 LpW**  
**Test No. P21163**  
**Test Model: ELG405830TBZ (35° reflector)**

**Candlepower Distribution Curve**

Luminance (Average Candela/M²)	
Degrees	Avg. 0° Luminance
45	4008
55	645
65	292
75	0
85	0

Candela Distribution	
Degrees Vertical	Candela
0*	1291
5	1255
15	729
25	305
35	189
45	23
55	3
65	1
75	0
85	0
90	0

\*CBCP

**Cone of Light Horizontal Footcandles**

Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	43	3.0
7' 0"	26	3.9
8' 0"	20	4.4
9' 0"	16	5
10' 0"	13	5.5

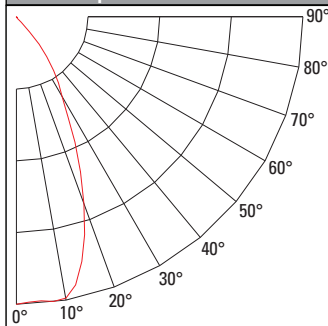
**Cone of Light Vertical Footcandles on Wall**

35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	98	2.1	1.5
3' 0"	43	3.1	2.2
4' 0"	24	4.1	2.9
5' 0"	16	5.2	3.7
6' 0"	11	6.2	4.4
8' 0"	6	8.3	5.9
10' 0"	4	10.4	7.4
12' 0"	3	12.4	8.8

Refer to Optional Accessory Reflector Kit TL412RK for 35° reflector.

**4" Adjustable Gimbal - 3000K  
ELG405830xx (50° Beam-0° tilt)**

**Spacing Criteria = 0.80**  
**Lumens per Watt = 44.6 LpW**  
**Test No. P21165**  
**Test Model: ELG405830TBZ (50° reflector)**

**Candlepower Distribution Curve**

Luminance (Average Candela/M²)	
Degrees	Avg. 0° Luminance
45	3660
55	430
65	292
75	476
85	0

Candela Distribution	
Degrees Vertical	Candela
0*	829
5	823
15	732
25	400
35	190
45	21
55	2
65	1
75	1
85	0
90	0

\*CBCP

**Cone of Light Horizontal Footcandles**

Distance to Illuminated Plane	Initial Nadir Foot Candles	Beam Diameter (ft)
5' 6"	27	4.4
7' 0"	17	5.6
8' 0"	13	6.3
9' 0"	10	7.1
10' 0"	8	7.9

**Cone of Light Vertical Footcandles on Wall**

35° Aiming Angle			
Distance to Illuminated Plane	Initial Foot Candles	Beam (ft) L	Beam (ft) W
2' 0"	82	2.0	1.9
3' 0"	37	3.0	2.8
4' 0"	21	4.0	3.7
5' 0"	13	5.0	4.7
6' 0"	9	6.0	5.6
8' 0"	5	8.0	7.5
10' 0"	3	10.0	9.4
12' 0"	2	12.1	11.2

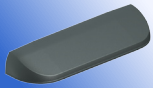
Refer to Optional Accessory Reflector Kit TL412RK for 50° reflector.

Photometric tests are per IES measurement standards. Tests represent typical SSL fixture performance.  
 Field results may vary.

Note: Specifications and Dimensions subject to change without notice.

Visit our web site at [www.cooperlighting.com](http://www.cooperlighting.com)

Madison Fire Station #13  
Site Lighting - Proposed  
Type WA



WALL MOUNT  
LAMPS: LED

Proposed:  
Wide Throw Optics  
Mounted Over Door  
21w LED Module  
4000K Color Temperature

lighting  
facts  
LED Product Partner

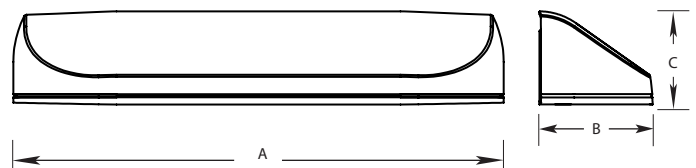


## SPECIFICATIONS

<b>Description</b>	The Architectural Egress Luminaire combines a unique, patented design shaped with high performance, full cut-off optics to achieve completely unobtrusive illumination of a space or path of egress. When mounted over a doorway, the fixture is perceived as an element of the building structure and, additionally, provides water protection in the form of a drip cap over the doorway. Multiple lengths are available to match a given door opening and our unique quick mount system facilitates installation and maintenance.
<b>Housing</b>	Marine grade heat treated extruded aluminum. Chemically primed and finished with robotically applied polyester powder coat.
<b>Wall Mount</b>	Marine grade heat treated extruded aluminum. Chemically primed and finished with robotically applied polyester powder coat. Designed to provide quick mounting to housing and secured with (2) captive stainless steel TORX® head screws.
<b>Lens Frame</b>	Marine grade heat treated extruded aluminum, clear anodized. Secured to fixture via integral concealed hinge and (3) captive stainless steel TORX® head screws.
<b>Lens</b>	UV stabilized diffused extruded polycarbonate.
<b>End Caps</b>	Die-cast marine grade aluminum continuously welded to housing. All welds ground smooth.
<b>Reflector</b>	Electrolytically brightened anodized aluminum PVD coated and absolutely color-free of iridescence. Shaped to provide full cutoff, LED point dispersion and maximum efficiency.
<b>Drivers</b>	Constant current drivers at 350mA.
<b>LED</b>	Cree XPG @ 4320K and 80.2 CRI. L <sub>70</sub> projected life of 75,000 hours at 50°C. Tested in accordance with LM-80.
<b>Gaskets</b>	Closed cell self-adhesive neoprene to provide watertight seal between fixture and wall and between fixture and lens frame.
<b>UL Listing</b>	U.L., C.U.L., Wet standard.
<b>Warranty</b>	One year warranty on fixtures and accessories against defects. Five year warranty on LED boards against operational defects. Lifetime warranty on any fixture damaged due to vandalism.

## DIMENSIONAL DATA

	A	B	C
AEL24	32.04	5.40	3.60
AEL36	43.29	5.40	3.60
AEL48	54.75	5.40	3.60
AEL72	78.75	5.40	3.60





## ORDERING INFORMATION

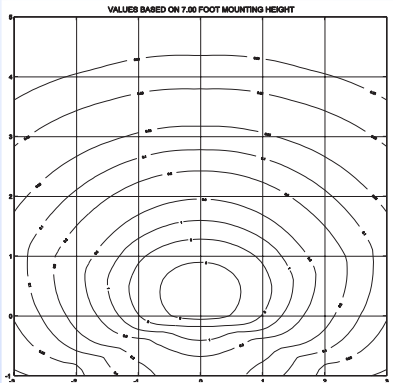
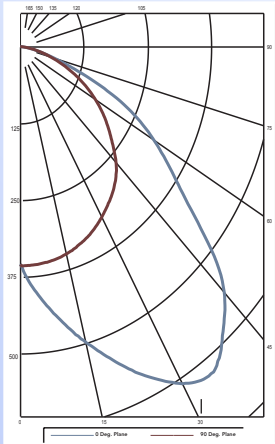
SERIES	LENGTH-LED	VOLTS	LENS	COLORS	OPTIONS	TX/SD (REQUIRED)
AEL						
	LENGTH - LED	VOLTS	LENS	COLORS	OPTIONS	
	24" - 11W LED	120	DP	BKH -	PC	
	36" - 16W LED	277	Diffused	Black	GLR	
	48" - 21W LED		Polycarbonate	Hammertone	EMB20R	
	72" - 32W LED			BZH -	EMB125R	
				Bronze	OCC	
				Hammertone	ST/SC	
				SVH -		
				Silver		
				Hammertone		
				WOP -		
				White Orange		
				Peel		
				PCP -		
				Prime coat,		
				paintable		
				CUST -		
				Custom color,		
				Consult factory		

## OPTIONS

PC	Photoelectric switch.
GLR	Fuse and fuse holder.
EMB20R	Remote mounted micro inverter that will operate a 20W maximum load for 90 minutes. 0°C (32°F) to 50°C (122°F).
EMB125R	Stand-alone inverter that will operate a 125W maximum load for 90 minutes. Select ceiling grid, recessed wall or surface mount. 20°C (68°F) to 30°C (86°F).
OCC	Occupancy sensor. Maximum coverage of 10' radius from 8' height.
ST/SC	Slotted screws instead of TORX® head.
TX/SD	TORX® head bit.

PHOTOMETRIC DATA

MODEL AEL36 CL  
IES FILE: LTL22599  
Lamp: 12 White LEDs. Luminaire Efficacy: 66.5 Lumens per Watt  
Testing was performed in accordance with IES LM-79-08



Mounting Height	5'	6'	7'	8'
Multiplying Factor	1.78	1.31	1.00	0.7

Luminaire Lighting Corp

lighting facts®

A Program of the U.S. DOE

Light Output (Lumens)	1016		
Watts	15.7		
Lumens per Watt (Efficacy)	64		
Color Accuracy Color Rendering Index (CRI)	80		
Light Color Correlated Color Temperature (CCT)	4320 (Bright White)		
Warm White	Bright White	Daylight	
2700K	3000K	4500K	6500K

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: 431H-VRJTSC  
Model Number: AEL36LED  
Type: Outdoor wall pack

7 Olsen Avenue • P.O. Box 2104 • Edison, NJ • 08818  
P. 732.549.0056 F. 732.549.9737



Luminaire Lighting Corporation products are manufactured in the USA with components purchased from USA suppliers, and meet the Buy American requirements under the ARRA.



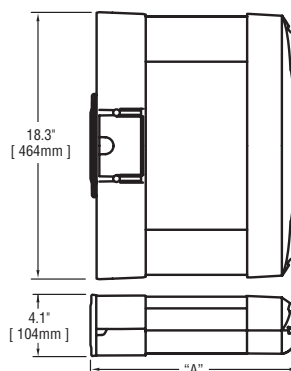
## SEC-EDG-4M-WM

## THE EDGE® LED Wall Pack

Madison Fire Station #13  
Site Lighting - Proposed  
Type OB



## Notes:



# of LEDs	Dim. "A"
20	11.91" [303mm]
40	11.91" [303mm]
60	13.91" [353mm]
80	15.91" [404mm]
100	17.91" [455mm]
120	19.91" [505mm]

Proposed:  
Type IV Optics  
Mounted Over Door  
20 LED Module @ 525mA  
4000K Color Temperature

## Footnotes

- IESNA Type IV Medium distribution
- IESNA Type IV Medium distribution w/ backlight control
- Wall mount
- Available on fixtures with 20-80 LEDs
- Available on fixtures with 20-60 LEDs
- Color temperature per fixture; 5700K standard; minimum 70 CRI

- Control by others
- Refer to dimming spec sheet for availability and additional information
- Not available when UH voltage is selected
- When code dictates fusing use time delay fuse

- Not available with all multi-level options. Refer to multi-level spec sheet for availability and additional information
- Must specify voltage other than UL or UH
- Refer to multi-level spec sheet for availability and additional information

## LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Type IV Medium @ 5700K	B	U	G	Initial Delivered Lumens – Type IV Medium w/ Backlight Control @ 5700K	B	U	G	Initial Delivered Lumens – Type IV Medium @ 4000K	B	U	G	Initial Delivered Lumens – Type IV Medium w/ Backlight Control @ 4000K	B	U	G	Initial Delivered Lumens – Type IV Medium w/ Backlight Control @ 4000K	B	U	G	Rating**	System Watts 120–480V	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	L <sub>70</sub> Hours* @ 25° C (77° F)	50K Hours Lumen Maintenance Factor* @ 15° C (59° F)		
350mA Fixture Operating at 25° C (77° F)																															
20	1,913 (02)	1	0	1	1,441 (02)	0	1	1	1,763 (02)	1	0	1	1,328 (02)	0	0	1	26	0.20	0.11	0.10	0.09	0.07	>150,000	93%							
40	3,826 (04)	1	0	1	2,882 (04)	1	0	1	3,526 (04)	1	0	1	2,656 (04)	1	0	1	47	0.40	0.21	0.19	0.15	0.12	>150,000								
60	5,665 (06)	2	0	2	4,267 (06)	2	0	2	5,221 (06)	1	0	1	3,933 (06)	2	0	1	68	0.58	0.30	0.26	0.20	0.16	>150,000								
80	7,554 (08)	2	0	2	5,690 (08)	2	0	2	6,962 (08)	2	0	2	5,244 (08)	2	0	2	90	0.77	0.38	0.34	0.26	0.20	>150,000								
100	9,419 (10)	2	0	2	7,095 (10)	2	0	2	8,681 (10)	2	0	2	6,539 (10)	2	0	2	111	0.95	0.47	0.42	0.32	0.24	>150,000								
120	11,302 (12)	3	0	3	8,513 (12)	3	0	3	10,417 (12)	2	0	2	7,846 (12)	3	0	3	132	1.15	0.56	0.50	0.38	0.28	>150,000								
525mA Fixture Operating at 25° C (77° F)																															
20	2,678 (02)	1	0	1	2,017 (02)	0	0	1	2,469 (02)	1	0	1	1,859 (02)	0	0	1	37	0.31	0.17	0.16	0.12	0.10	136,000	92%							
40	5,357 (04)	2	0	2	4,035 (04)	2	0	1	4,937 (04)	1	0	1	3,719 (04)	2	0	1	70	0.57	0.29	0.26	0.21	0.16	136,000								
60	7,932 (06)	2	0	2	5,974 (06)	2	0	2	7,310 (06)	2	0	2	5,506 (06)	2	0	2	102	0.87	0.44	0.39	0.30	0.22	129,000								
80	10,575 (08)	2	0	2	7,966 (08)	2	0	2	9,747 (08)	2	0	2	7,342 (08)	2	0	2	133	1.14	0.56	0.49	0.39	0.29	129,000								
700mA Fixture Operating at 25° C (77° F)																															
20	3,271 (02)	1	0	1	2,450 (02)	0	0	1	3,015 (02)	1	0	1	2,258 (02)	0	0	1	50	0.42	0.22	0.20	0.15	0.12	111,000	90%							
40	6,543 (04)	2	0	2	4,900 (04)	2	0	2	6,030 (04)	2	0	2	4,516 (04)	2	0	2	93	0.79	0.40	0.35	0.27	0.20	111,000								
60	9,688 (06)	2	0	2	7,255 (06)	2	0	2	8,929 (06)	2	0	2	6,686 (06)	2	0	2	137	1.18	0.59	0.51	0.39	0.29	111,000								

\* For recommended lumen maintenance factor data see TD-13

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit [www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf](http://www.iesna.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf)

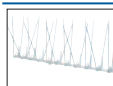
### General Description

Slim, low profile design. Fixture sides are rugged cast aluminum with integral, weather-tight LED driver compartments and high performance aluminum heatsinks specifically designed for LED applications. Housing is rugged aluminum. Furnished with low copper, lightweight mounting box designed for installation over standard and mud ring single gang J boxes. Secures to wall with four (4) 3/16" (4.8mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard. Five year limited warranty on fixture.

### Electrical

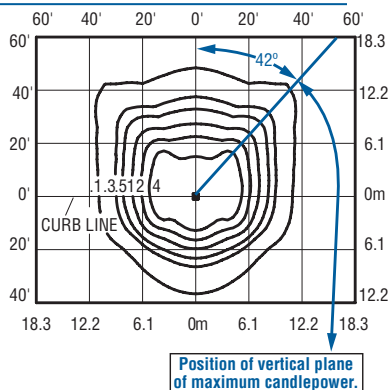
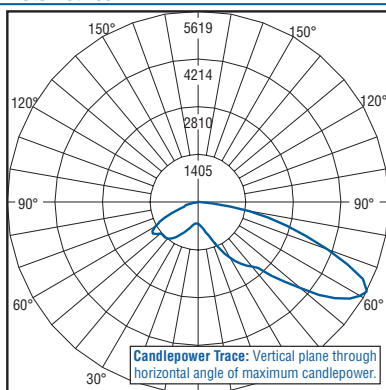
Modular design accommodates varied lighting output from high power, white, 5700K (+/- 500K per full fixture), minimum 70 CRI, long life LED sources. Optional 4000K (+/- 300K per full fixture) also available. 120-277V 50/60 Hz, Class 1 LED drivers are standard. 347-480V 50/60 Hz driver is optional. LED drivers have power factor >90% and THD <20% at full load. Integral weather-tight J-box with leads (wire nuts) for easy power hook-up. Units provided with integral 10kV surge suppression protection standard. Surge protection tested in accordance with IEEE/ANSI C62.41.2.

### Field-Installed Accessories



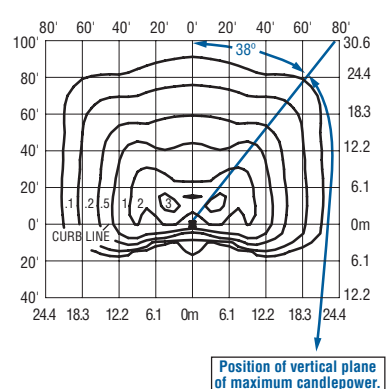
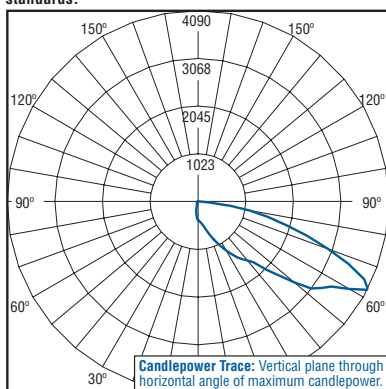
**Bird Spikes**  
XA-BRDSPK

### Photometrics



Independent Testing Laboratories certified test. Report No. ITL70291. Candlepower trace of 4000K, 60 LED Type IV Medium area luminaire with 9,524 initial delivered lumens operating at 700mA. **All published luminaire photometric testing performed to IESNA LM-79-08 standards.**

Isofootcandle plot of 4000K, 60 LED Type IV Medium area luminaire at 10' (3m) A.F.G. Luminaire with 8,929 initial delivered lumens operating at 700mA. Initial FC at grade.



Independent Testing Laboratories certified test. Report No. ITL68090. Candlepower trace of 4300K, 40 LED Type IV Medium w/ backlight control area luminaire with 4,926 initial delivered lumens operating at 525mA. **All published luminaire photometric testing performed to IESNA LM-79-08 standards.**

Isofootcandle plot of 4300K, 40 LED Type IV Medium area luminaire at 25' (7.6 m) A.F.G. Luminaire with 10,985 initial delivered lumens operating at 525mA. Initial FC at grade.

### Testing & Compliance

UL listed in the U.S. and Canada for wet locations and enclosure rated IP66 per IEC 60529. Consult factory for CE Certified products. Dark Sky Friendly. IDA Approved. RoHS compliant.



Product qualified on the Design Lights Consortium ("DLC") Qualified Products List ("QPL") when ordered without backlight control shield.

### Finish

Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable silver powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, white and platinum bronze powder topcoats are also available. The finish is covered by our 10 year limited warranty.

Fixture and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117.

### Patents

U.S. and international patents granted and pending. BetaLED is a division of Ruud Lighting, Inc. For a listing of Ruud Lighting, Inc. patents, visit [www.uspto.gov](http://www.uspto.gov).



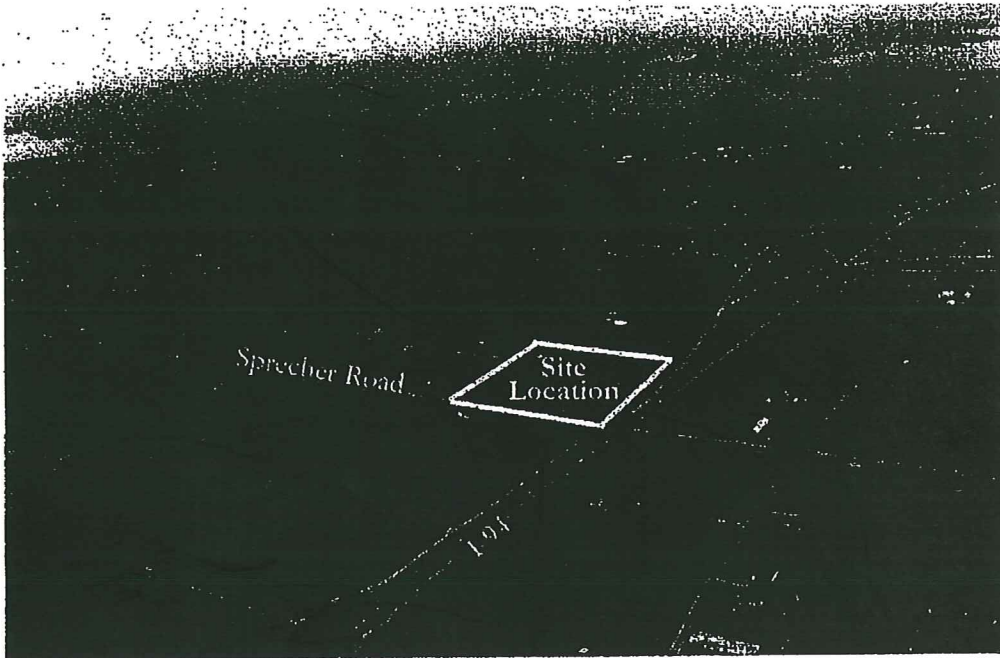


REVISED  
9/1/2009  
000411

A Submittal for the ...

# Metrotech

a Mixed Use Neighborhood



## GENERAL DEVELOPMENT PLAN

### Plan/Parking Facility Approval

☐ CU ☒ PUD (SIP) ☐ PCD (SIP)

Revised 04.04.02<sup>23</sup>

Vanderwall & Associates  
120 East Lakeside Street  
Madison, Wisconsin 53715  
608/255-3288 • 608/255-0814 fx  
info@vanderwall.com  
© Vanderwall & Associates 2000

Address		102 E. SPRECHER	
Contact Person	Joe Marcher	Phone	255-3988
Zoning	Kathy Veck	Date	4-23-02
Planning	Michael Vanderwall	Date	4-23-02
Traffic Engineering	Ed McCann	Date	5-1-02
Parks	Simon W. ...	Date	5-1-02
City Engineering	[Signature]	Date	5/8/02
LDAP	Detention Fee	T.E. Conduit Deposit Fee	Date Paid
Water	4/23/02		
Fire	5/2/02		

## **Intent of Document**

The Purpose of this document is to request Planned Unit Development (PUD) Zoning and approval of a General Development Plan (GDP) for the Metrotech Plat, also known as 102 East Sprecher Road, pursuant to the City of Madison's Zoning Code Section 28.07(6).

## **Zoning Request**

PUD (GDP)—Planned Unit Development District

In keeping with the intent of the Sprecher Neighborhood Plan to create a vibrant mixed-use neighborhood, the Planned Development District will allow for the overall design flexibility needed to create a distinctive development that allows for pedestrian-scaled mixed-use environments. Creative use of setbacks and building massing and diverse land uses that can be achieved within the PUD district would create this environment.

## **Development Team**

### **Applicant**

The Cascade Group, LLC  
120 East Lakeside Street  
Madison, WI 53715  
(608) 259-9097

Attn: Fred Campbell

### **Planning and Design**

Vandewalle & Associates  
120 East Lakeside Street  
Madison, WI 53715  
(608) 255-3988

Attn: Joe Maschek  
Rob Gottschalk

### **Engineering**

Calkins Engineering  
4918 Triangle Street  
McFarland, WI 53558  
(608) 838-0444

Attn: Mike Calkins

## **GENERAL PROJECT INFORMATION**

### **Parcel Size**

The parcel is approximately 37 acres.

### **Parcel Location**

The parcel is located on the north side of Milwaukee Street, bounded by Sprecher Road on the east, and Interstate 94 on the north. It is within the Sprecher Neighborhood.

Aldermanic District 3, Madison Metropolitan School District.

A site location map is attached on page 4.

### **Existing Land Use**

Agriculture

### **Existing Zoning**

A – Agriculture – Please refer to the attached zoning map.

### **Construction Schedule**

The project is slated to begin in summer 2001.

## **Surrounding Land Use and Zoning**

### **North:**

The lands to the north of Interstate 94 are currently in agricultural and scattered commercial uses.

Zoning: A-1 Agriculture

### **East:**

The Lehr property is zoned A-1 and is currently being planned as a “Town Center,” consisting of office, residential, and commercial land uses. We have designed the Metrotech Plat to complement the development of the Lehr property.

Zoning: A-1 Agriculture (future PUD)

### **South:**

The Reston Heights East Neighborhood is southeast of the site and contains a mixture of neighborhood commercial, multi-family residences, four unit residences, duplex residences, and single-family residences, developed through the PUD/SIP process.

The land to the south of the site is currently a large lot rural residential subdivision in the Town of Burke and the City of Madison.

Zoning: PUD-GDP/A-1

### **West:**

The lands to the west of the site consist of a mixture of agricultural, mineral extraction, and open space uses.

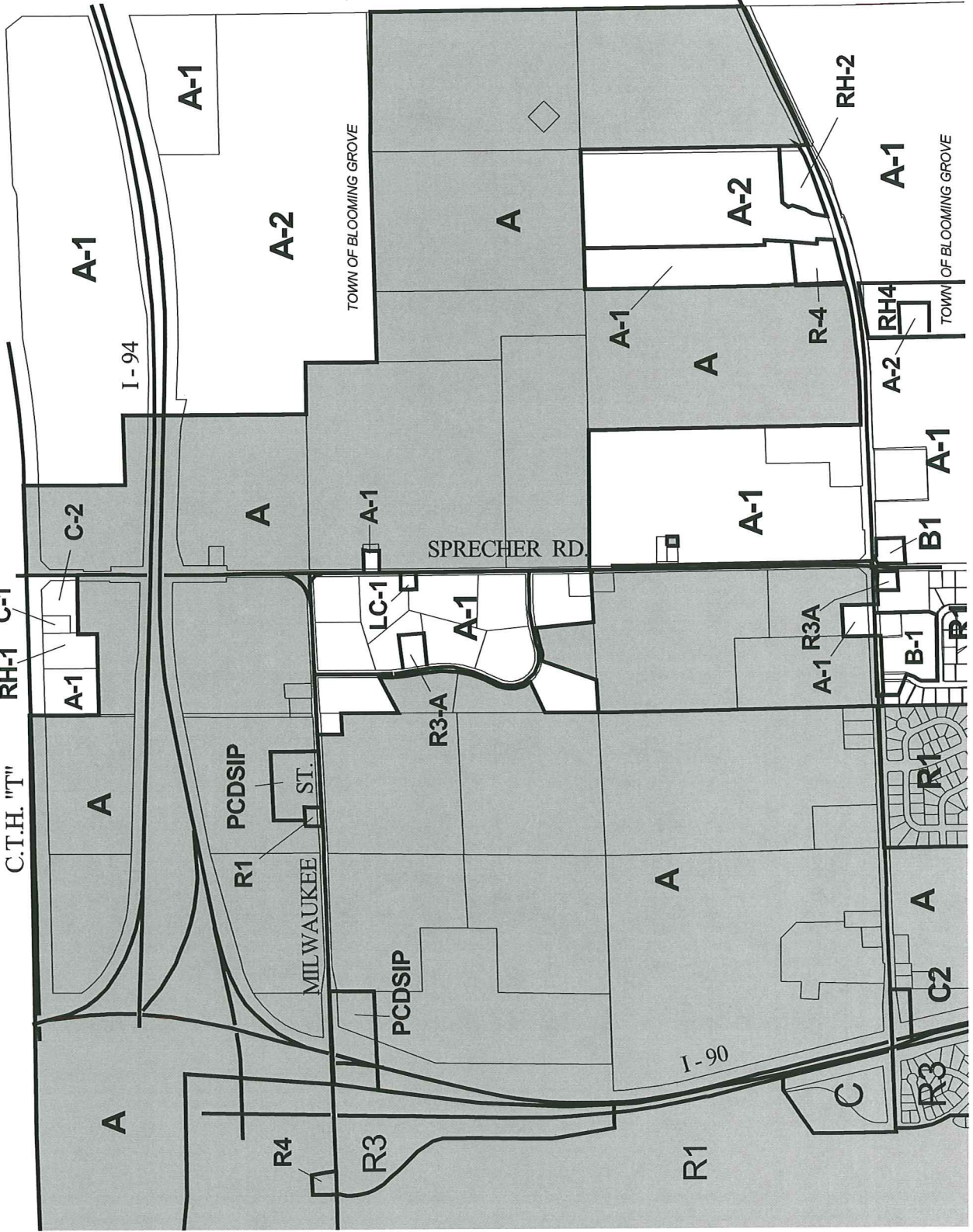
Zoning: A-1 Agricultural (future PUD)



# EXISTING ZONING

## SPRECHER NEIGHBORHOOD DEVELOPMENT PLAN

C.T.H. "T" RH-1 C-1



### Legend



City of Madison

- A Agriculture
- R1 Single-Family Residence
- C2 General Commercial
- PCD Planned Community Development

### Dane County Zoning



- A-1 Agriculture
- A-2 Agriculture
- R3-A Residence
- RH-1 Rural Homes
- RH-2 Rural Homes
- R-4 Rural Homes
- RH-4 Rural Homes
- B-1 Local Business
- C-1 Commercial
- C-2 Commercial
- LC-1 Limited Commercial



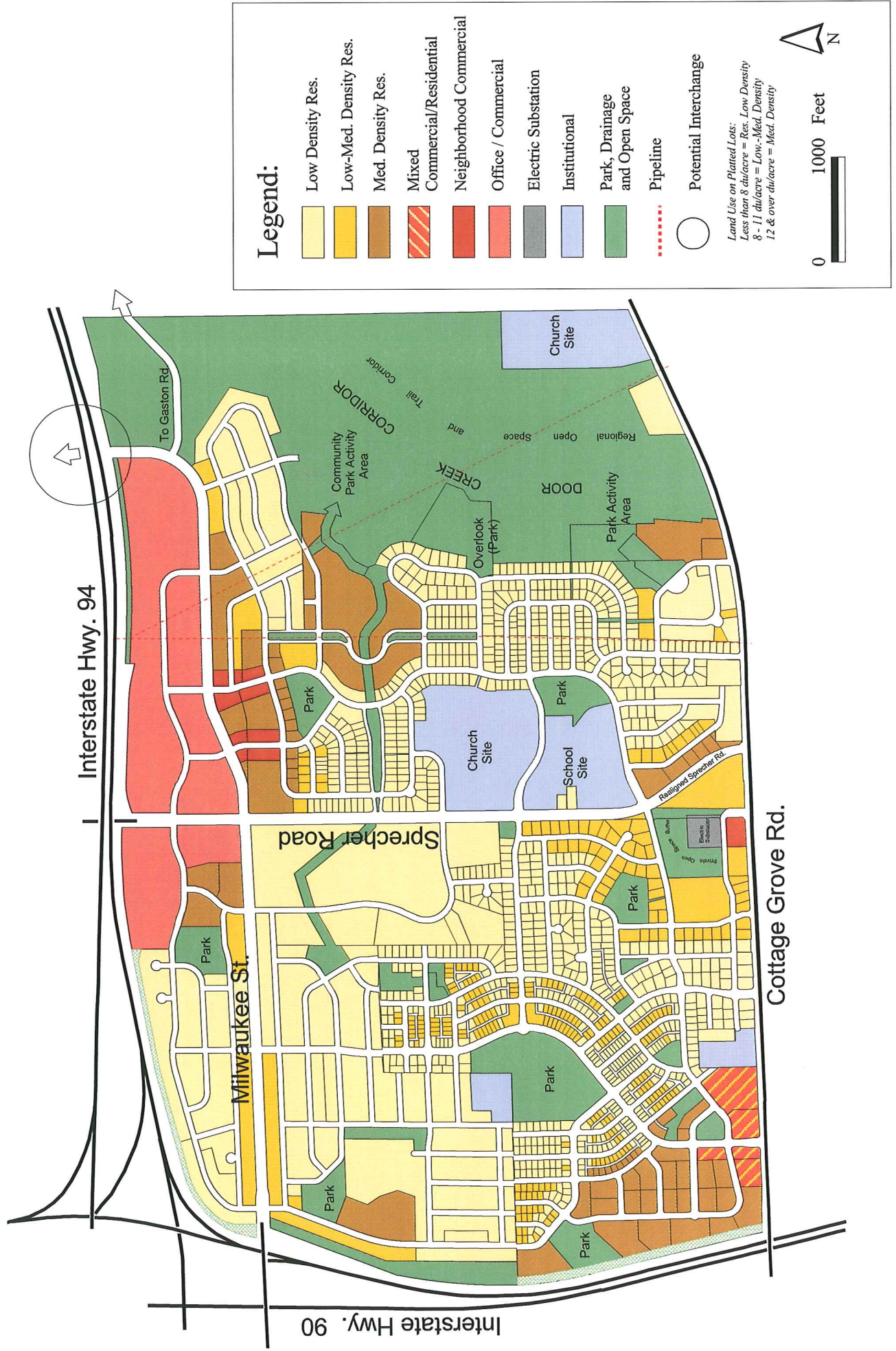
December 1997

Map 3



# Sprecher Neighborhood Development Plan

As Adopted January 1998, Amended May 1999, May 2001 & November 2001  
and implemented through subdivision and zoning approvals.





## **Description of the Metrotech Plat General Development Plan**

The approximately 37 acre Metrotech Plat is proposed to be developed as a mixed-use planned development comprised of professional office uses, multifamily residential and retail-commercial, and a mixed-use area that would encompass retail, office, and multifamily development. There is also a 2.5-acre public park planned for the west side of the site.

The Metrotech Plat design incorporates two public streets. Street “A” provides an east-west connection with Sprecher Road and the future development to the west. Street “B” is a north-south road that would terminate across from the existing Rustic Drive on the south side of Milwaukee Street. An additional public right-of-way is set aside that would connect Street “B” on the south side of site 10 and the park site with the western property line. These public streets provide additional public on-street parking for the office and residential parcels. The proposal also includes additional rights-of-way for Sprecher and Milwaukee Streets. Sites 6 and 7 would share joint access drives onto Sprecher Road, and sites 7 and 8 that front onto Milwaukee Street would use access drives onto Milwaukee Street.

The Metrotech Plat was designed to create a pedestrian scaled mixed-use neighborhood that will provide housing, retail and office uses in order to serve the neighborhood and the larger Madison market.

### **The goals of the General Development Plan are:**

- Create a mixed-use environment that is urban in character
- Use building massing to create a definable public space
- Develop a pedestrian-oriented neighborhood
- Create a neighborhood that reflects the importance of this area as the gateway to Madison
- Develop a neighborhood that can utilize future mass transit opportunities
- Create a neighborhood that integrates into the Sprecher Neighborhood Plan.

### **The Primary and Secondary Building Placement Zones:**

The intent of the primary and secondary building zones is to create a framework to guide architects and developers and to ensure the goals listed above are implemented. The architect, site planner or developer is required to locate at least 50% of the primary buildings within the primary building zone. Parking areas shall not occur between the building façade and any public street within the primary building zone unless necessary to provide disabled access or for safety reasons. The secondary building zone is intended to guide placement of buildings in areas that may not be as important to the character of the streetscape, but would add to the overall feel of the neighborhood.

The primary building zones described in this document on page 44 were designed to reinforce the goals of the General Development Plan and also allow the developer and architect the flexibility and creativity to design a space that is appropriate for their user. If a superior design solution is created, or adjoining areas are combined, the developer, site planner or architect should explain in detail the reasons why the building zone should be redefined and insure that the goals that are presented in the following sections are adhered to.

### **Build-to Lines and Building Setbacks:**

Build-to lines serve to create a more pedestrian friendly neighborhood by requiring buildings to be placed at the front setback lines along public streets. The build-to lines are located at the frontages of public streets within the primary building zones. The architect, site planner or developer is



required to place at least 50% of the primary buildings at the build-to line. Canopies, loggias or other structural elements could satisfy this requirement if the element is attached to the primary building.

Building setbacks are used on side and rear boundaries of the parcels to define where the building limits are. Parking areas, landscaped buffer areas and other features such as signage can occur beyond the building setbacks if those elements conform to existing zoning regulations.

Build-to lines and setbacks are shown on the Site Plan exhibit on page 7.

**Storm Water:**

Storm water will be managed on site by restoring the natural swale that bisects the site and creating an approximately 2-acre retention facility.

The Metrotech Plat project has been broken down into 10 development sites labeled Site 1 through 10 and one Public Park site and are described in the zoning text below.

**Interstate 94 Frontage:**

Guiding the growth and development of the East Madison Gateway through careful building placement, architecture, and site design will be a critical component of the General Development Plan. Buildings within the development areas will be designed to create a unique and interesting gateway for the Madison area with buildings that address the Interstate, provide carefully screened parking areas, and maintain careful signage restrictions. The integration of these components within the development areas will create a distinct entrance to the Madison metropolitan area.

High quality architectural treatments, landscaping, and site design should be utilized to form this site into an attractive and welcoming part of the “gateway” to Madison along Interstate 94.

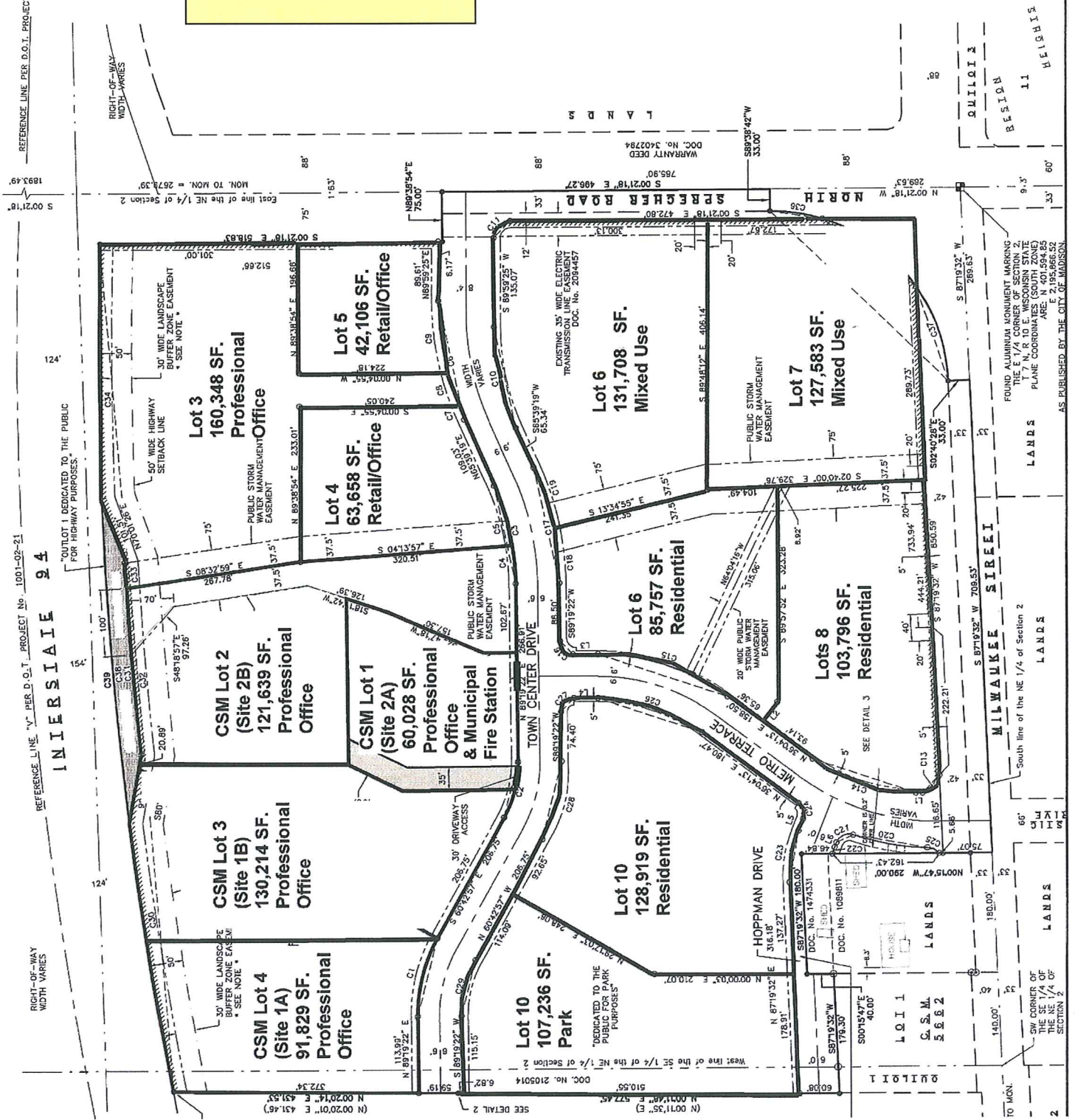
**Proposed Neighboring Land Uses:**

The Lehr parcel to the east of the Metrotech Plat is currently being planned to become a “Town Center” mixed use development combining residential, retail, and office uses. The Metrotech Plat is designed to complement this proposed development by increasing residential densities, creating appropriate building massing, and supplying additional neighborhood retail and office uses. To achieve a thriving Town Center development, it is necessary to create vibrancy in the surrounding areas with compatible uses and integrated pedestrian and vehicular connections.

The lands to the west are currently in agricultural uses. In the Sprecher Neighborhood Plan, this area has been planned to be a mixture of low to medium density residential. The proposed parkland located on the Metrotech Plat is adjacent to land that has been planned to be additional parkland when it is developed. The Metrotech Plat provides road and pedestrian connections to the surrounding properties.

## Revised: 8/31/2009

Revised: 8/31/2009





## URBAN DESIGN REQUIREMENTS

### Statement of Purpose

Good and consistent urban design is critical to the development of a mixed-use neighborhood. This section of the General Development Plan acts as an urban design guide to be used by City staff, City Commissions, and the applicant in regard to development parameters for each of the Sites.

### Development Area Descriptions:

#### SITE 1 – SITE 1A (CSM LOT 4) AND SITE 1B (CSM LOT 3)

##### **Building Massing.**

Buildings should be located to maximize the exposure to the Interstate. Care should be taken to provide an adequate buffer to the proposed residential uses to the west. This could be achieved by placing the buildings on the northeastern portion of the site, or by stepping down the height of the building and providing substantial landscaping on the western portion of the site.

##### **Orientation.**

Building design should reflect the prominence of this highly visible location. The buildings shall have appropriate architectural detailing facing any public street.

##### **Site Design.**

Clear and efficient pedestrian access connections to Street “A” shall be integrated into the design of this site.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings. A vegetative buffer will be provided to help screen the parking areas from Interstate 94.

Lighting should be integrated into the design and the buildings on the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Coordinated site design with Site 2 to accommodate pedestrian and parking access should be considered whenever possible.

##### **Additional Recommendations:**

A human-scaled entrance plaza as well as clear and efficient pedestrian access to the public street system should be incorporated into the design and placement of the building.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.  
Care should be taken to design this area to maximize solar orientation.

#### SITE 2 – SITE 2A (CSM LOT 1) AND SITE 2B (CSM LOT 2)

##### **Building Massing.**

Buildings should be located along Street “A” and on the eastern edge of the site to take advantage of the views of the storm water detention area.

##### **Orientation.**

Building design should reflect the prominence of this highly visible location. The buildings need to incorporate appropriate architectural detailing facing any public street.

**Site Design.**

Clear and efficient pedestrian access connections to Street "A" and future pedestrian connections to Site 1 need to be integrated into the design of this site.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the building or buildings. A vegetative buffer will be provided to help screen the parking areas from Interstate 94

Lighting should be integrated into the design and the buildings on the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

**Additional Recommendations:**

A human scaled entrance plaza as well as clear and efficient pedestrian access to the public street system should be incorporated into the design and placement of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

The storm water management area that occurs on the east side of the site should be integrated into the site design so that it is an attribute to the development. The design of this facility needs to be coordinated with the adjoining areas.

Coordinated site design with Site 1 to accommodate pedestrian and parking access should be considered whenever possible.

Additional building height may be attained through the use of structured parking and/or underground parking if the building is located on the eastern, lower portion of the site.

Site 2 is an ideal potential location for a Madison Metro Transit stop on or adjacent to this parcel.

Care should be taken to design this area to maximize solar orientation.

**SITE 3****Building Massing.**

This area will serve as an integral part of the eastern gateway to Madison. Any building or buildings within this area will need to be placed to optimize their presence at the corner of Sprecher Road and Interstate 94.

**Orientation.**

Building design should reflect the prominence of this highly visible location. The buildings need to incorporate appropriate architectural detailing facing any public street.

**Site Design.**

Clear and efficient pedestrian access to Street "A" and Sprecher Road needs to be integrated into the design of this site.



Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings. A vegetative buffer will be provided to help screen the parking areas from Interstate 94

Joint parking access and connections together with coordinated site design is recommended with Sites 4 and 5.

Lighting should be integrated into the design and the buildings on the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

**Additional Recommendations:**

Attention should be given to the architectural detailing of the building at the corner of Interstate 94 and Sprecher Road.

A human-scaled entrance plaza as well as clear and efficient pedestrian access to the public street system should be incorporated into the design and placement of the building.

Site design needs to be coordinated with Sites 4 and 5.

Additional building square footage may be attained through the use of structured parking and/or underground parking.

Care should be taken to design this area to maximize solar orientation.

The storm water management area located on the west side of the site should be integrated into the site design so that it is an attribute to the development. The design of this facility needs to be coordinated with the adjoining areas.

**SITE 4**

**Building Massing.**

Building architecture, scale, and site design, will be pedestrian oriented and urban in character. Primary building placement will be along Street "A" with an architecturally articulated, usable entrance on Street "A".

**Orientation.**

The building shall incorporate appropriate architectural detailing facing any public street.

**Site Design.**

Clear and efficient pedestrian access to Street "A" will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 4 and 5 to insure an efficient parking and pedestrian layout.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

**Additional Recommendations:**

An architecturally articulated, human-scaled entrance located on Street A, as well as clear and efficient pedestrian access to the public street should be incorporated into the design and placement of the building.

Additional building square footage may be attained through the use of structured parking and/or underground parking.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

Site design needs to be coordinated with Sites 3 and 5.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.

Accommodation for a storm water swale or detention facility needs to be designed at the western property line of Site 4. The design for this storm water system will need to be coordinated with the adjoining areas.

**SITE 5****Building Massing.**

Building architecture, scale, and site design, will be pedestrian-oriented and urban in character. Primary building placement will be along Street "A". Building massing and/or structural elements need to be located so that they address the corner of Street "A" and Sprecher Road.

**Orientation.**

The building shall incorporate appropriate architectural detailing facing any public street. Additional emphasis on architectural elements and detailing is important at the corner of Street A and Sprecher Road. A usable and articulated primary entrance shall be located at or near the intersection.

**Site Design.**

Clear and efficient pedestrian access to Street A and Sprecher Road will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 3 and 4 to insure an efficient parking and pedestrian layout.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Site design needs to be coordinated with Sites 3 and 4.

Shade trees and landscaping will be provided to screen and shade the parking lots and to create an appropriate pedestrian environment at the entrance to the buildings.

**Additional Recommendations:**

A human-scaled, architecturally articulated entrance located on Street "A" or Sprecher Road, as well as clear and efficient pedestrian access to the public street should be incorporated into the design and placement of the building.



**SITE 6****Building Massing.**

Building architecture, scale, and site design, will be pedestrian-oriented and urban in character. Because of the prominence of this site on the southwest corner of Sprecher Road and Street "A", primary building placement or a detailed structural element should be situated at the intersection. Building massing and design should be done so that it complements building massing and design in Site 7.

**Orientation.**

The building shall incorporate appropriate architectural detailing facing any public street. An architecturally articulated, usable entrance should be located on Street "A".

**Site Design.**

Clear and efficient pedestrian access to Street "A" and Sprecher Road will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 7, 8, and 9 to insure an efficient parking and pedestrian layout.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Accommodation for a storm water swale or detention facility shall be designed at the western property line of Site 6. The design for this storm water system should be coordinated with the adjoining areas.

**Additional Recommendations:**

Care should be taken to design this area to maximize solar orientation.

Pedestrian connections will need to be coordinated with Sites 7, 8, and 9.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.

**SITE 7****Building Massing.**

Building architecture, scale, and site design, will be pedestrian oriented and urban in character. Because of the prominence of this site on the northwest corner of Sprecher Road and Milwaukee Street, primary building placement or a detailed structural element should be situated at the intersection. Building massing and design should relate to building massing and design in Site 6.

**Orientation.**

The building needs to incorporate appropriate architectural detailing facing any public street. First floor retail or office uses shall include a usable articulated entrance at or near the corner of Sprecher Road and Milwaukee Street. The entry must be visible from the adjacent intersection corner.

**Site Design.**

Clear and efficient pedestrian access to Sprecher Road and Milwaukee Street will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 6, 8, and 9 to insure an efficient parking and pedestrian layout.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Accommodation for a storm water swale or detention facility shall be designed at the western property line of Site 7. The design for this storm water system should be coordinated with the adjoining areas.

**Additional Recommendations:**

Care should be taken to design this area to maximize solar orientation.

Interior pedestrian connections will be coordinated with Sites 6, 8, and 9. Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

**SITE 8****Building Massing.**

Building architecture, scale, and site design, will be pedestrian-oriented and urban residential in character. Primary placement of the buildings on Site 8 should be situated at the corner of Milwaukee Street and Street "B", and along Street "B".

**Orientation.**

The building needs to incorporate appropriate architectural detailing facing any public street. First floor non-residential uses should include usable, articulated entrances and transparent windows that face onto Milwaukee Street and Street "B". Residential uses will be required to have architecturally detailed common and private entrances with sidewalks facing Street "B".

**Site Design.**

Clear and efficient pedestrian access to Milwaukee Street and Street "B" will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 7 and 9 to insure an efficient parking and pedestrian layout.

Porches, building entrances, patios, or first floor balconies shall be of a usable size and can extend up to 5 feet into the front or street setback. All of the buildings shall have clear and efficient pedestrian access that connects with any first floor apartment and building entrance to the public sidewalk.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Accommodation for a storm water swale or detention facility shall be designed at the eastern property line of Site 8. The design for this storm water system should be coordinated with the adjoining areas.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

**Additional Recommendations:**

Care should be taken to design this area to maximize solar orientation.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.

Interior pedestrian connections will be coordinated with Sites 6, 7, and 9.

**SITE 9**

**Building Massing.**

Building architecture, scale, and site design, will be pedestrian-oriented and urban residential in character. Primary placement of the buildings in Site 9 will be along the public streets.

**Orientation.**

The building needs to incorporate appropriate architectural detailing facing any public street. Residential uses will be required to have architecturally detailed common and private entrances with sidewalks facing the public streets.

**Site Design.**

Clear and efficient pedestrian access to the public streets will be integrated into the design of this site.

Site design and parking layout should be coordinated with Sites 6, 7, and 8 to insure an efficient parking and pedestrian layout.

Porches, building entrances, patios, or first floor balconies shall be of a usable size and can extend up to 5 feet into the front or public street setback. All of the buildings shall have clear and efficient pedestrian access that connect any first floor apartment and building entrance to the public sidewalk.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Accommodation for a storm water swale or detention facility shall be designed at the eastern property line of Site 9. The design for this storm water system should be coordinated with the adjoining areas.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

**Additional Recommendations:**

Care should be taken to design this area to maximize solar orientation.



Interior pedestrian connections will be coordinated with Sites 6, 7, and 8.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.

## **SITE 10**

### **Building Massing.**

Building architecture, scale, and site design, will be pedestrian-oriented and urban residential in character. Primary placement of the buildings in Site 10 will be along the public streets and the adjacent parkland.

### **Orientation.**

All buildings in this area will be oriented towards the public street and adjacent parkland.

### **Site Design.**

Porches, building entrances, patios, or first floor balconies need to be of a usable size and can extend up to 5 feet into the front or street setback. All of the buildings need to have clear and efficient pedestrian access that connect any first floor apartment and building entrance to the public sidewalk. Pedestrian access should be designed to allow public access to the adjacent public park.

Lighting should be integrated into the design of the site. Exterior lighting levels should not be excessive, but provide for a safe environment.

Shade trees and landscaping will be provided to screen and shade the parking lots and create an appropriate pedestrian environment at the entrance to the buildings.

### **Additional Recommendations:**

Care should be taken to design this area to maximize solar orientation.

Potential location of a Madison Metro Transit stop on or adjacent to this parcel.

## **ZONING TEXT**

### **Statement of Purpose**

The Planned Unit Development District/General Development Plan is established to help provide a framework for a mixed-use neighborhood that would be generally consistent with the Sprecher Neighborhood Plan. The neighborhood is intended to provide a safe and suitable environment to work, shop and live.

### **Metrotech Plat General Guidelines**

#### **The Primary and Secondary Building Placement Zones:**

The intent of the primary and secondary building zones is to create a framework to guide architects and developers and to ensure the goals listed above are implemented. The architect, site planner or developer is required to locate at least 50% of the primary building within the primary building zone. Parking areas shall not occur between the building façade and any public street within the primary building zone. The secondary building zone is intended to guide placement of buildings in areas that may not be as important to the character of the streetscape, but would add to the overall feel of the neighborhood.

The primary building zones described in this document on page 46 were designed to reinforce the goals of the General Development Plan and also allow the developer and architect the flexibility and creativity to design a space that is appropriate for their user. If a superior design solution is created, or adjoining areas are combined, the developer, site planner or architect should explain in detail the reasons why the building zone should be redefined and insure that the goals that are laid out in the following sections are adhered to.

#### **Build-to Lines and Building Setbacks:**

Build-to lines serve to create a more pedestrian friendly neighborhood by requiring buildings to be placed at the front setback lines along public streets. The build-to lines are located at the frontages of public streets within the primary building zones. The architect, site planner or developer is required to place at least 50% of the primary building at the build-to line. Canopies, loggias or other structural elements could satisfy this requirement if the element is attached to the primary building.

Building setbacks are used on side and rear boundaries of the parcels to define where the building limits are. Parking areas, landscaped buffer areas and other features such as signage can occur beyond the building setbacks if those elements conform to existing zoning regulations.

#### **Development Phasing:**

Development phasing on any of the development areas may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

#### **Residential Density:**

The maximum dwelling units-per-acre is 19.4 averaged over the 5 sites that allow residential development. If recommended density cannot be achieved on sites 8, 9 and 10s, then additional density may be allowed on the residential sites 6 and 7, not to exceed 25 dwelling units per acre. In no way will more than 260 units be allowed over the whole development area. Site 10 will not exceed a density of 22 dwelling units per acre.

**Modifications to the Development Areas:**

The development areas that have been described in the General Development Plan can be modified to create a more effective and creative neighborhood, however these modifications shall require approval as part of the Specific Implementation Plan and an amendment to the General Development Plan, or approval as an alteration to the Planned Unit Development

**Proposed Specific Implementation Plans:**

Specific Implementation Plan proposals will be carefully reviewed to ensure maximum feasible consistency with the design objectives of the proposed project as defined by the Urban Design Requirements, the regulations for the Primary and Secondary Building Placement Zones, Build-to lines, minimum height requirements on the Sprecher Road and Milwaukee Street frontages, and the placement of parking areas, which directly support the recommendations of the adopted neighborhood plan to create compact, pedestrian-oriented neighborhoods with an attractive human-scale streetscapes. Reaching the maximum development densities that would be allowed by the GDP zoning regulations, or accommodating the site preferences of particular prospective developments or business establishments will be considered relatively less important than the objective of creating an attractive, pedestrian-oriented neighborhood that provides a suitable and desirable environment for its residents.

**Development Area Descriptions:****SITE 1 – SITE 1A (CSM LOT 4) AND SITE 1B (CSM LOT 3)****Description:**

This professional office development area is located in a prominent location along Interstate-94. This location will become part of the eastern gateway to the city.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses including drive through teller services  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings

Accessory uses to the permitted uses listed above

**Lot Area:**

Site 1A (CSM Lot 4) - 2.1 acres and Site 1B (CSM Lot 3) - 3.8 acres

**Intensity:**

Maximum F.A.R. is .70

**Height Requirements:**

A maximum of 3 stories, or 36' feet in height

**Build-to Lines:**

No build to lines are located on this site.



**Minimum Building Setbacks:**

20' from Street "A" r.o.w.  
50' from Interstate 94 r.o.w.  
20' from eastern property line  
40' from the western property line

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Zoning Code.

Parking areas that occur on Site 1 between the building façade and the public street must have a high level of visual screening or be integrated into the overall design of the building.

Parking for this site may include a mixture of surface and underground parking if necessary. Structured parking entrances should be screened appropriately from adjacent public streets or highways.

**Development Phasing:**

Development phasing on any of the Area 1 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 2 – SITE 2A (CSM LOT 1) AND SITE 2B (CSM LOT 2)****Description:**

This professional office development area is located in a prominent location along Interstate-94. This location will become part of the eastern gateway to the city.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses including drive through teller services  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings  
Adult day care,  
Children's day care and Municipal fire station

Accessory uses limited to those the permitted uses listed above

**Lot Area:**

Site 2A (CSM Lot 1) – 1.4 acres and Site 2B (CSM Lot 3) – 2.8 acres

**Intensity:**

Maximum F.A.R. is .80

**Height Requirements:**

A maximum of 5 stories, or 60' in height

6 stories or 70' could be allowed if the building or buildings are placed on the lower portion of the site and utilize structured or underground parking

**Build-to Lines:**

No build to lines are located on this Site.

**Minimum Building Setbacks:**

20' from Street "A" r.o.w.

50' from Interstate 94 r.o.w.

40' from the western property line

The eastern setback ranges from 60' to approximately 150' to accommodate storm water facility. This setback may change to reflect the final engineering plans of the storm water management basin.

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Zoning Code.

Parking areas that occur on Site 2 between the building façade and the public street must have a high level of visual screening or be integrated into the overall design of the building.

Parking for this site may include a mixture of surface and underground parking if necessary. Structured parking entrances should be screened appropriately from adjacent public streets or highways.

**Development Phasing:**

Development phasing on any of Site 2 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 3****Description:**

This professional office area is located in a prominent location on the southwest corner of the intersection of Interstate 94 and Sprecher Roads. Office uses such as, but not limited to bank or financial institution, medical related clinics, and educational/training centers will be permitted. This location will become part of the eastern gateway to the city.

The boundaries between Sites 3, 4, and 5 shown on the attached map are approximated to allow for a more effective and high quality design solution. Any alteration to lot boundaries may require a change to the GDP.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses including drive through teller services  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings

Children's day care

Accessory uses to the permitted uses listed above

**Lot Area:**

3.7 acres

**Intensity:**

Maximum F.A.R. .85

**Height Requirements:**

A maximum of 7 stories or 80 feet in height

A maximum of 8 stories, or 92 feet in height, would be allowed if a portion of the parking occurs beneath the building or is located in a parking structure.

**Build-to Lines:**

50' from the Interstate 94 r.o.w. within the Primary Building Zone

30' from Sprecher Road r.o.w. within the Primary Building Zone

**Minimum Building Setbacks:**

5' from southern property line

60' from western property line (to accommodate storm water facility)

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.



**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the City of Madison Zoning Code.

Surface or structured parking will be located behind the buildings that front along Sprecher Road to maximize the building presence along the road frontage. Parking for this site may include a mixture of surface and underground parking if necessary.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Structured parking entrances should be screened from adjacent public streets or highways with vegetation or other appropriate screening materials.

Joint parking access and connections are recommended with Sites 4 and 5.

**Development Phasing:**

Development phasing Site 3 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 4****Description:**

Office uses is the land use allowed on Site 4.

The boundaries between Sites 3, 4, and 5 shown on the attached map are approximated to allow for a more effective and high quality design solution. Any alteration to lot boundaries may require a change to the GDP.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings  
Nursery schools or day care establishments

**Lot Area:**

1.4 acre

**Intensity:**

Maximum F.A.R. is .80

**Height Requirements:**

A maximum of three stories or 35 feet in height

**Build-to Lines:**

20' from Street "A" r.o.w. within the Primary Building Zone

**Minimum Building Setbacks:**

5' from northern property line

6' from eastern property line

60' from western property line (to accommodate storm water management)

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the City of Madison Zoning Code.

Parking for this site may include a mixture of surface and underground parking if necessary. Additional building square footage may be attained through the use of structured parking and/or underground parking.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking that is located between any public street and the building façade within the primary building zones should only be implemented to accommodate unusual circumstances, such as disabled accessibility, safety, or other important needs. Parking areas that do occur in this zone must have a high level of visual screening or be integrated into the overall design of the building.

Joint vehicular access and pedestrian connections are recommended with Site 3 and 5.

Parking will be located to accommodate the proposed uses while creating a pedestrian focused streetscape and site layout.

Site 4 will utilize on-street parking on Street "A".

**Development Phasing:**

Development phasing on any of the Site 4 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 5****Description:**

This office and retail oriented area is located at the highly visible corner of Sprecher Road and Street "A". Retail commercial uses will be restricted to no more than a total of 8,000 square feet and will be only uses that will serve the neighborhood and the adjoining offices

The boundaries between Sites 3, 4, and 5 shown on the attached map are approximated to allow for a more effective and high quality design solution. Any alteration to lot boundaries may require a change to the GDP.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings

**Retail uses limited to a total of 8,000 square feet on site 5:**

Adult day care  
Children's day care  
Antique shops  
Coin and philatelic stores  
Carpet and rug stores  
Specialty floor covering/tile stores  
Art supply  
Barbershops  
Beauty parlors  
Blueprinting and photostatting establishments  
Book and stationary stores  
Business machine sales and service establishments  
Candy and ice cream stores  
Food stores not employing more than 8 persons  
Furrier shops  
Jewelry stores  
Laundry establishments  
Leather goods and luggage stores  
Liquor stores  
Locksmith stores  
Florist shops  
Restaurants including outdoor eating areas  
Gift shops  
Hobby shops  
Photography studios and supply stores  
Taverns, except adult entertainment establishments  
Artisan Studio  
Picture framing  
Paint and wallpaper stores  
Compact disc, record, and sheet music stores  
Toyshops



Wearing apparel shops  
Art galleries  
Home Accessory stores

Drive-through services are appropriate in Site 5. No single use retail commercial building will have a drive through facility. Design and management of any drive through facility will be submitted in the SIP stage of development.

**Lot Area:**

1.0 acre

**Intensity:**

Maximum F.A.R. is 0.8

**Height Requirements:**

A maximum of 3 stories or 35 feet in height

A minimum of 2 stories, or 24 feet to the roof eave, is required where the primary building meets the build-to line at the public streets. This height requirement does not include any roof gable or roofing material.

**Build-to Lines:**

20' from Street A r.o.w. within the Primary Building Zone

10' from Sprecher Road r.o.w. within the Primary Building Zone

**Minimum Building Setbacks:**

5' from northern property line

6' from the western property line

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the City of Madison Zoning Code.

A joint driveway will be shared with Sites 3 and 4.

Parking that is located between any public street and the building façade within the primary building zones shall only be implemented to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this zone must have a high level of visual screening or be integrated into the overall design of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking for this site may include surface and underground parking if necessary.

Joint parking access and connections are recommended with Sites 3 and 4.

Parking will be located to accommodate the proposed uses while creating a pedestrian focused streetscape and site layout. Site 5 will utilize on-street parking on Street "A".

**Development Phasing:**

Development phasing on any of the Site 5 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 6**

**Description:**

This mixed-use area is intended to have one or more multi-storied buildings that are proposed for retail and commercial services on the first floor with a potential for professional offices or residential units on the upper floors. Site 6 is limited to 16,000 square feet of total retail use with no single user to be larger than 8,000 square feet. This site also is projected to contain 16 dwelling units per gross acre to achieve approximately 62 multifamily units. The residential density could be increased, but not exceeding a total of 25 dwelling units per acre, by shifting allowed units that are not used on sites 8, 9, and 10 as provided in the GDP zoning text. The offices and potential multifamily units would be served by a combination of underground parking and surface parking. Surface and street parking would serve the retail service component of this area. 16/62

Buildings that are strictly residential could occur within this area as long as factors such as proximity to Sprecher Road, amenities, and overall character is in keeping with the intent of this document.

Residential units need to include amenities that would serve the residents. These amenities could include indoor/outdoor common spaces, rooftop gardens or other community spaces that are dedicated to the enjoyment of the neighborhood.

It is intended that Sites 6 and 7 be designed in a cohesive manner, utilizing shared parking lots, access drives, and unified design themes. The boundaries between Sites 6 and 7 shown on the attached map have been designed to allow for a more effective and high quality design solution. Alterations to the boundaries may require a change to the GDP.

**Permitted Uses:**

Offices, business and professional  
Banks and financial uses  
Medical, dental, and optical clinics  
Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings

Retail uses limited to a total 16,000 square feet of retail use with no single user to be larger than 8,000 square feet:

Antique shops  
Coin and philatelic stores  
Carpet and rug stores  
Specialty floor covering/tile stores  
Art supply  
Barbershops  
Beauty parlors  
Blueprinting and photostatting establishments  
Book and stationary stores  
Business machine sales and service establishments  
Candy and ice cream stores  
Food stores not employing more than 8 persons  
Furrier shops  
Jewelry stores  
Laundry establishments  
Leather goods and luggage stores  
Liquor stores  
Locksmith stores  
Florist shops  
Restaurants including outdoor eating areas  
Gift shops  
Hobby shops  
Photography studios and supply stores  
Taverns, except adult entertainment establishments  
Artisan Studio  
Picture framing  
Paint and wallpaper stores  
Compact disc, record, and sheet music stores  
Toyshops  
Wearing apparel shops  
Art galleries  
Home Accessory stores

Clubs, Lodges or other private gathering places provided that they are adequately buffered and insulated from neighboring residential uses.

Recreational and community centers that are not operated for profit provided that they are adequately buffered and insulated from neighboring residential

Offices for non-profit community service organizations located in recreation or community centers

A drive-through service is appropriate in Site 6. No single use retail building will have a drive-through facility.

Fire stations

Public or private libraries

Multiple family dwellings

Dwelling units and lodging rooms in mixed use buildings

Accessory Residential Uses

Home offices

Home based occupations

Temporary real estate offices



Handicapped person's home occupation provided that the benefit of such a use shall never accrue to other than a handicapped person or become a nonconforming use for the benefit of anyone who is not a handicapped person.

Community living arrangements for not more than 8 persons being served by the program provided:

- a. That the loss of any state license or permit by a community living arrangement be an automatic revocation of that facility's use permit
- b. that the applicant disclose in writing the capacity of the community living arrangement
- c. R. by ord. 10,790, 12-17-93
- d. That the total capacity of all communal living arrangements in an aldermanic district has not and will not by the inclusion of a new community living arrangement exceed twenty five (25) persons or 1% of the population, whichever is greater, of such a district

Family daycare provided:

- a. That the loss of any state license or permit by a family daycare home be an automatic revocation of that facility's use permit
- b. That the facilities pass the inspections of the Director of the Inspection Unit and the Fire Prevention Bureau.

Adult family daycare home provided that the facility pass the inspection of the Director of the Inspection Unit and the Fire Prevention Bureau

Bed and Breakfast facilities provided:

- a. That the establishment has a valid permit from the City Health Department.  
The only meal served is breakfast to registered guests
- b. Off street parking is available pursuant to section 28.11(3)(1)6.d.
- c. Fire protection may be more restricted than State requirements
- d. Length of stay shall not exceed 21 consecutive days

**Lot Area:**

3.0 acres

**Intensity:**

Maximum F.A.R. is .75

Recommended dwelling units per acre is 16, which is the maximum allowed density except as provided below

If the maximum allowed residential density on sites 8, 9, or 10 cannot be achieved the unused residential units may be distributed on sites 6, and 7, provided that neither site may average more than 25 dwelling units per acre

**Height Requirements:**

A maximum of 5 stories or 60 feet

A minimum of 2 stories, or 24 feet to the roof eave, is required where the primary building meets the build-to line at the public streets. This height requirement does not include any roof gable or roofing material.

**Build-to Lines:**

20' from Street A r.o.w. within the Primary Building Zone

15' from Sprecher Road r.o.w. within the Primary Building Zone

**Minimum Building Setbacks:**

30' from southern property line

37.5' from western property line (to accommodate storm water management)

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal

**Family Definition:**

Family Definition is pursuant to the definition in chapter 28.03(2) of the Madison Zoning Ordinances as related to the R-4 District.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the City of Madison Zoning Code.

Parking will be located at the rear of the buildings and will utilize a combination of shared parking and access with Site 7. Surface parking, on-street parking and underground parking could be utilized in this area.

Parking that is located between any public street and the building façade within the primary building zones can only be done to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this zone will need to have a high level of visual screening or be integrated into the overall design of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking areas that are not screened from Sprecher Road and Street "A" by building placement will be landscaped or architecturally screened.

An access drive from Sprecher Road will be shared with Site 7.

Site 6 will utilize on-street parking on Street "A".

**Development Phasing:**

Development phasing on any of Site 6 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (FAR) will be based on the improved area of the development site.

**SITE 7****Description:**

This area is located at the corner of Sprecher Road and Milwaukee Street and has very high visibility. The vision for this area is as a mixed-use residential, retail and office development that has a strong architectural orientation at the intersection of Sprecher Road and Milwaukee Street. The first floor would accommodate retail and office uses and the upper floors would be designed for office and residential uses. Site 7 is limited to a total of 12,000 square feet of retail space. Parking for the area would be located at the rear and sides of the primary building.

Residentially dedicated buildings could occur within this area as long as factors such as proximity to Sprecher Road, amenities, and overall character is in keeping with the intent of this document.

Residential units need to include amenities that would serve the residents. These amenities could include indoor/outdoor common spaces, rooftop gardens or other community spaces that are dedicated to the enjoyment of the neighborhood.

Sites 6 and 7 should be designed in a cohesive manner, utilizing shared parking lots, access drives, and unified design themes. The boundaries between Sites 6 and 7 are approximated to allow for a more effective and high quality design solution.

**Permitted Uses:**

No retail drive through is allowed in Site 7 that occurs in a single use retail building.

Offices, business and professional

Banks and financial uses

Medical, dental, and optical clinics

Telephone (Communication) exchanges, microwave relay towers, and communication transmission equipment buildings

Retail uses limited to a total of 12,000 square feet of retail space:

Antique shops

Coin and philatelic stores

Carpet and rug stores

Specialty floor covering/tile stores

Art supply

Barbershops

Beauty parlors

Blueprinting and photostatting establishments

Book and stationary stores

Business machine sales and service establishments

Candy and ice cream stores

Food stores not employing more than 8 persons

Furrier shops

Jewelry stores

Laundry establishments

Leather goods and luggage stores

Liquor stores

Locksmith stores



- Florist shops
- Restaurants including outdoor eating areas
- Gift shops
- Hobby shops
- Photography studios and supply stores
- Taverns, except adult entertainment establishments
- Artisan Studio
- Picture framing
- Paint and wallpaper stores
- Compact disc, record, and sheet music stores
- Toyshops
- Wearing apparel shops
- Art galleries
- Home accessory stores
- Adult and children day care operating in a storefront
- Clubs, Lodges or other private gathering places provided that they are adequately buffered and insulated from neighboring residential uses.
- Recreational and community centers that are not operated for profit provided that they are adequately buffered and insulated from neighboring residential
- Offices for non-profit community service organizations located in recreation or community centers
- Fire stations
- Public or private libraries
- Multiple family dwellings
- Dwelling units and lodging rooms in mixed use buildings
- Accessory residential uses
  - Home offices
  - Home based occupations
  - Temporary real estate offices
  - Handicapped person's home occupation provided that the benefit of such a use shall never accrue to other than a handicapped person or become a nonconforming use for the benefit of anyone who is not a handicapped person.
- Community living arrangements for not more than 8 persons being served by the program provided:
  - a. That the loss of any state license or permit by a community living arrangement be an automatic revocation of that facility's use permit
  - b. That the applicant disclose in writing the capacity of the community living arrangement
  - c. R. by ord. 10,790, 12-17-93
  - d. That the total capacity of all communal living arrangements in an aldermanic district has not and will not by the inclusion of a new community living arrangement exceed twenty five (25) persons or 1% of the population, whichever is greater, of such a district
- Family daycare provided:
  - a. That the loss of any state license or permit by a family daycare home be an automatic revocation of that facility's use permit
  - b. That the facilities pass the inspections of the Director of the Inspection Unit and the Fire Prevention Bureau.
- Adult family daycare home provided that the facility pass the inspection of the Director of the Inspection Unit and the Fire Prevention Bureau

**Bed and Breakfast facilities provided:**

- a. That the establishment has a valid permit from the City Health Department, the only meal served is breakfast to registered guests
- b. Off street parking is available pursuant to section 28.11(3)(1)6.d.
- c. Fire protection may be more restricted than State requirements
- d. Length of stay shall not exceed 21 consecutive days

**Lot Area:**

2.9 acres

**Intensity:**

Maximum F.A.R. is .75

Recommended dwelling units per acre is 12 which is the maximum allowed density except as provided below.

12 w/a

If the maximum allowed residential density on sites 8, 9, or 10, cannot be achieved the unused residential units may be distributed on sites 6 and 7, provided that neither site may average more than 25 dwelling units per acre.

**Height Requirements:**

A maximum of 5 stories or 60 feet

A minimum of 2 stories, or 24 feet to the roof eave, is required where the primary building meets the build-to line at the public streets. This height requirement does not include any roof gable or roofing material.

**Build-to Lines:**

15' from Milwaukee Street r.o.w. within the Primary Building Zone

15' from Sprecher Road r.o.w. within the Primary Building Zone

**Minimum Building Setbacks:**

30' from northern property line

37.5' from western property line (to accommodate storm water management)

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Family Definition:**

Family Definition is pursuant to the definition in chapter 28.03(2) of the Madison Zoning Ordinances as related to the R-4 District.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Madison Zoning Code.

Parking will be located at the rear of the buildings and will utilize a combination of shared parking and access with Sites 6, 8, and 9. Surface parking, on street parking, and underground parking could be utilized in this area.

Parking that is located between any public street and the building façade within the primary building zones should only be implemented to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this zone will need to have a high level of visual screening or be integrated into the overall design of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking areas that are not screened from Sprecher Road and Milwaukee Street by building placement will be screened with landscaping or with architecturally elements.

An access drive from Sprecher Road will be shared with Site 6 and access from Milwaukee Street will be shared with Sites 8 and 9.

**Development Phasing:**

Development phasing on any of the Site 7 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 8****Description:**

Located at the corner of Milwaukee Street and Street "B", Site 8 is also in a very visible location. The first floor of any building located on or near Milwaukee Street may contain a limited mix of office uses and specialized professional services, and the upper floors will be residential uses. Site 8 is intended to be residential in character, with the exception of limited office and specialized service uses that are listed below.

Any building or portion of building located at the corner of Milwaukee and Street B will be at least two stories in height. Buildings facing Milwaukee Street will be residential in character and scale.

Residential units need to include amenities that would serve the residents. These amenities could include indoor/outdoor common spaces, rooftop gardens or other community spaces that are dedicated to the enjoyment of the neighborhood.

Street B is intended to have an urban residential character with units facing the street that have common and individual entrances that connect to the public sidewalk system. Site 8 serves as a transition from Sites 3, 5, 6, and 7 to the planned residential uses to the west.



**Permitted Uses:**

Office uses and special professional health related services will be restricted to a total of 22,000 square feet and are allowed only on the ground floor within mixed-use buildings of two stories or greater in height.

Professional and business offices andSpecialized professional, health related services limited to:

- Fitness Clubs

- State Licensed wellness professions

- Dance schools

- Medical Services

- Fire stations

- Public or private libraries

- Clubs, Lodges or other private gathering places provided that they are adequately buffered and insulated from neighboring residential uses.

- Recreational and community centers that are not operated for profit provided that they are adequately buffered and insulated from neighboring residential

- Offices for non-profit community service organizations located in recreation or community centers

- Multiple family dwellings

- Dwelling units and lodging rooms in mixed use buildings

- Accessory Residential Uses

- Home offices

- Home based occupations

- Temporary real estate offices

- Handicapped person's home occupation provided that the benefit of such a use shall never accrue to other than a handicapped person or become a nonconforming use for the benefit of anyone who is not a handicapped person.

- Community living arrangements for not more than 8 persons being served by the program provided:

- a. That the loss of any state license or permit by a community living arrangement be an automatic revocation of that facility's use permit
- b. That the applicant disclose in writing the capacity of the community living arrangement
- c. R. by ord. 10,790, 12-17-93
- d. That the total capacity of all communal living arrangements in an aldermanic district has not and will not by the inclusion of a new community living arrangement exceed twenty five (25) persons or 1% of the population, whichever is greater, of such a district

- Family daycare provided:

- a. That the loss of any state license or permit by a family daycare home be an automatic revocation of that facility's use permit
- b. That the facilities pass the inspections of the Director of the Inspection Unit and the Fire Prevention Bureau.

- Adult family daycare home provided that the facility pass the inspection of the Director of the Inspection Unit and the Fire Prevention Bureau

- Bed and Breakfast facilities provided:

- a. That the establishment has a valid permit from the City Health Department.
- b. The only meal served is breakfast to registered guests
- c. Off street parking is available pursuant to section 28.11(3)(1)6.d.
- d. Fire protection may be more restricted than State requirements
- e. Length of stay shall not exceed 21 consecutive days

**Lot Area:**

2.5 acres

**Intensity:**

Maximum F.A.R. is .9

Maximum allowed Dwelling Units per Acre is 25

If the maximum allowed residential density cannot be achieved on this site, the unused residential units may be distributed on sites 6 and 7, provided that neither site may average more than 25 dwelling units per acre. .

**Height Requirements:**

A maximum of 4 stories or 48'

**Build-to Lines:**

10' from Street B r.o.w. within the Primary Building Zone

10' from Milwaukee Street r.o.w. within the Primary Building Zone

**Setbacks:**

37.5' from eastern property line (to accommodate storm water management, if needed)

5' from the northern property line

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Family Definition:**

Family Definition is pursuant to the definition in chapter 28.03(2) of the Madison Zoning Ordinances as related to the R-4 District.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Zoning Code.

Parking will be located at the rear of the buildings and will utilize a combination of shared parking and access with Sites 6, 7, and 9. Surface parking, on-street parking, and underground parking could be utilized on Site 8.

Parking that is located between any public street and the building façade within the primary building zones can only be done to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this zone will need to have a high level of visual screening or be integrated into the overall design of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking areas that are not screened from Sprecher Road and Street A by building placement will be screened with landscaping or with architectural elements.

Access from Milwaukee Street will be shared with Site 7. Access from Street "B" will be shared with Site 9.

**Development Phasing:**

Development phasing on any of Site 8 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 9****Description:**

Site 9 is a 2-acre residential site located at the corner of Street "B" and Street "A", north of Site 8. Street "B" is intended to have an urban residential character with residential units facing the street that have common and individual entrances that connect to the public sidewalk system.

Residential units need to include amenities that would serve the residents. These amenities could include indoor/outdoor common spaces, rooftop gardens or other community spaces that are dedicated to the enjoyment of the neighborhood.

**Permitted Uses:**

Multiple family dwellings

Fire stations

Public or private libraries

Parks and Playgrounds

Accessory Residential Uses

Home offices

Home based occupations

Temporary real estate offices

Handicapped person's home occupation provided that the benefit of such a use shall never accrue to other than a handicapped person or become a nonconforming use for the benefit of anyone who is not a handicapped person.

Community living arrangements for not more than 8 persons being served by the program provided:

- a. That the loss of any state license or permit by a community living arrangement be an automatic revocation of that facility's use permit
- b. That the applicant disclose in writing the capacity of the community living arrangement
- c. R. by ord. 10,790, 12-17-93
- d. That the total capacity of all communal living arrangements in an aldermanic district has not and will not by the inclusion of a new community living arrangement exceed twenty five (25) persons or 1% of the population, whichever is greater, of such a district



Family daycare provided:

- a. That the loss of any state license or permit by a family daycare home be an automatic revocation of that facility's use permit
- b. That the facilities pass the inspections of the Director of the Inspection Unit and the Fire Prevention Bureau.

Adult family daycare home provided that the facility pass the inspection of the Director of the Inspection Unit and the Fire Prevention Bureau

Recreational and community centers that are not operated for profit provided that they are adequately buffered and insulated from neighboring residential and not exceeding 15,000 square feet.

Offices for non-profit community service organizations located in recreation or community centers

Bed and Breakfast facilities provided:

- a. That the establishment has a valid permit from the City Health Department, the only meal served is breakfast to registered guests
- b. Off street parking is available pursuant to section 28.11(3)(1)6.d.
- c. Fire protection may be more restricted than State requirements
- d. Length of stay shall not exceed 21 consecutive days

Institutions for the aged or children

**Lot Area:**

2.0 acres

**Intensity:**

Maximum allowed Dwelling Units per Acre is 25

If the maximum allowed residential density can not be achieved on this site, the unused residential units may be distributed on sites 6 and 7 provided that neither site may average more than 25 dwelling units per acre.

**Height Requirements:**

A maximum of 5 stories or 60'

**Build-to Lines:**

15' from Street A r.o.w. within the Primary Building Zone

10' from Street B r.o.w. within the Primary Building Zone

**Setbacks:**

37.5' from eastern property line (to accommodate storm water management, if needed)

5' from the southern property line

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Family Definition:**

Family Definition is pursuant to the definition in chapter 28.03(2) of the Madison Zoning Ordinances as related to the R-4 District.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Zoning Code.

Parking will be located at the rear of the buildings and will utilize a combination of shared parking and access with Sites 6, 7, and 8. Surface parking, on-street parking, and underground parking could be utilized in this area.

Parking that is located between any public street and the building façade within the primary building zones can only be done to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this should be integrated into the overall design of the building.

Surface or structured parking will be located at the rear of the site. Any surface parking that may be visible from a public street will be screened with landscaping or architectural screening.

Parking areas that are not screened from Street "A" and Street "B" by building placement will be screened with landscaping or with architectural elements.

**Development Phasing:**

Development phasing on any of the Site 9 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

**SITE 10****Description:**

Site 10 is a multifamily residential area located on the western side of the site adjoining a 2.5-acre dedicated public park. This area serves as a transition from the more intensive mixed uses to the east with the proposed residential uses to the west. This area will be designed to have an urban residential feeling that faces the public street and public park.

This area is to be reserved for market rate condominiums, senior oriented living, or upper market rental units. This area is to be designed so that it addresses the public street system and public park. There is a height limit of 3 stories or 36' feet in Site 10 to reduce the impact that a taller building would have on the public parkland.

Site 10 would accommodate up to 65 residential units at a maximum of 22 dwelling units per acre. Market rate condominiums, senior living, or upper market apartment are allowed uses in this area. Residential density that is not used on site 10 may be applied to sites 6, and 7 as provided below.

Residential units need to include amenities that would serve the residents. These amenities could include indoor/outdoor common spaces, rooftop gardens or other community spaces that are dedicated to the enjoyment of the neighborhood.

**Permitted Uses:**

Multiple family dwellings

Parks and Playgrounds

Accessory Residential Uses

Home offices

Home based occupations

Temporary real estate offices

Handicapped person's home occupation provided that the benefit of such a use shall never accrue to other than a handicapped person or become a nonconforming use for the benefit of anyone who is not a handicapped person.

Community living arrangements for not more than 8 persons being served by the program provided:

- a. That the loss of any state license or permit by a community living arrangement be an automatic revocation of that facility's use permit
- b. That the applicant disclose in writing the capacity of the community living arrangement
- c. R. by ord. 10,790, 12-17-93
- d. That the total capacity of all communal living arrangements in an aldermanic district has not and will not by the inclusion of a new community living arrangement exceed twenty five (25) persons or 1% of the population, whichever is greater, of such a district

Family daycare provided:

- a. That the loss of any state license or permit by a family daycare home be an automatic revocation of that facility's use permit
- b. That the facilities pass the inspections of the Director of the Inspection Unit and the Fire Prevention Bureau.

Adult family daycare home provided that the facility pass the inspection of the Director of the Inspection Unit and the Fire Prevention Bureau

Recreational and community centers that are not operated for profit provided that they are adequately buffered and insulated from neighboring residential and not exceeding 8,000 square feet.

Offices for non-profit community service organizations located in recreation or community centers

Bed and Breakfast facilities provided:

- a. That the establishment has a valid permit from the City Health Department, the only meal served is breakfast to registered guests
- b. Off street parking is available pursuant to section 28.11(3)(1)6.d.
- c. Fire protection may be more restricted than State requirements
- d. Length of stay shall not exceed 21 consecutive days

**Lot Area:**

3.0 Acres



**Intensity:**

Maximum allowed dwelling units per acre is 22

If the maximum allowed residential density cannot be achieved on this site, the unused residential units may be distributed on sites 6 and 7 provided that neither site may average more than 25 dwelling units per acre.

**Height Requirements:**

A maximum of 3 stories or 36' in height

**Build-to Lines:**

20' from Street "A" r.o.w. within the Primary Building Zone

10' from Street "B" r.o.w. within the Primary Building Zone

**Minimum Setbacks:**

20' from southern property line

25' from western property line

**Yard Requirements:**

Yard areas will be provided as part of the SIP submittal.

**Family Definition:**

Family Definition is pursuant to the definition in chapter 28.03(2) of the Madison Zoning Ordinances as related to the R-4 District.

**Sign Requirements:**

Finalized signage design will be provided as part of the SIP submittal. Sign requirements will conform to the City of Madison sign regulations.

**Accessory Off-Street Parking and Loading:**

Accessory off-street parking and loading requirements per approved plans shall be provided as part of the SIP submittal.

Bicycle parking will conform to the standards set forth in section 28.11(3) of the Zoning Code.

Parking that is located between any public street and the building façade within the primary building zones should only be implemented to accommodate unusual circumstances, such as disabled accessibility or other important needs. Parking areas that do occur in this zone will need to have a high level of visual screening or be integrated into the overall design of the building.

Surface or structured parking will be located so that it does not negatively impact the public park. Any surface parking that may be visible from a public street or park will be screened with landscaping or architectural screening.

**Development Phasing:**

Development phasing on any of the Site 10 may be appropriate, but all future phases must be shown on any Specific Implementation Plan (SIP) to insure that the goals of this document are achieved. The floor area ratio (F.A.R.) will be based on the improved area of the development site.

## **PUBLIC PARK**

A 2.5-acre public park will be located on the west side of the property. The park adjoins Site 10 to the east and agriculturally zoned property to the west. The parkland dedication generally follows the Sprecher Neighborhood Plan.

## **GENERAL PROJECT PHASING**

The table below lists the general project phasing as a cumulative floor area. The floor area includes residential, retail, and office square feet. This method will allow the most flexibility to complete the neighborhood in a timely and efficient manner and give the City the most predictability to plan for any local improvements.

	Estimated Annual square feet of Additional Floor Area	Cumulative Total % of Floor Area
YEAR ONE –	160,800	10%
YEAR TWO –	241,100	25%
YEAR THREE -	369,750	48%
YEAR FOUR -	321,500	68%
YEAR FIVE -	321,500	88%
YEAR SIX -	193,000	100%

The general project-phasing breakdown is intended as a guide to allow for some predictability for City of Madison staff to project out for infrastructure improvements. The actual numbers may be revised as the project develops and SIP documents are submitted and approved.

## **PUBLIC TRANSPORTATION**

We foresee future public transportation as necessary to the long-term health and vitality of this neighborhood. Bus stops that may include “turn-outs”, structures that could be incorporated into the design of buildings, or stand alone wind breaks need to be incorporated into the design of this neighborhood. The “turn-out” locations and bus shelters will need to be identified and coordinated with Madison Metro. Bus shelters that are incorporated into the design of buildings need to be identified and reviewed as part of the SIP submittal.

## **TRAFFIC**

The table below describes the estimated traffic generation for the Metrotech General Development Plan. Based on the land uses and floor area ratios described in this document, development that exceeds this trip generation will need to demonstrate at the S.I.P. stage that reasonable and adequate transportation accommodations and improvements have been or are being provided consistent with PUD standards.

**Trip Generation Table**

<b>Land Use</b>	<b>Projected Development Intensity</b>	<b>Trip Generation Rate</b>	<b>Potential Trips/Day</b>
Residential	260	9.57 x d.u.	2,488.20
Office	614,300	11.01 x 1000 gross sq.ft.	6,763.44
Retail/Commercial	36,000	40.67 x 1000 gross sq.ft.	1,464.12
<b>TOTAL</b>			<b>10,715.76</b>

Numbers based on the FAR for each of the development areas and the maximum dwelling units per acre.

**PUBLIC STREET SYSTEM**

Street "A" is an east-west 66' right-of-way that will connect Sprecher Road on the east with future development to the west. Street "B" is a north-south 66' right of way that will connect with Street "A" at the north and Milwaukee Street at the south, Street "B" will align with Rustic Drive that currently joins Milwaukee Street on the south side of the Metrotech Plat. A 33' to 66' public access dedication has been included that could connect Street "B" to future development to the west. This could be used as parkland and pedestrian access, or be reserved for a future street connection. Sprecher Road and Milwaukee Street border the site on the eastern and southern sides of the project; they will be improved in accordance with specifications described by City staff and the WisDOT.

**STORMWATER MANAGEMENT**

Storm water management will be handled on this property by providing an approximately 2-acre area for storm water storage as well as storm water swales with native vegetation to slow and disperse storm water runoff. The primary storm water management area will occur within Sites 2, 3, and 4 and will be jointly maintained.

An additional storm water swale will be located on Sites 6, 7, 8, and 9 and is provided for by a joint 75' easement.



**ATTACHMENTS****Legal description****Land Use Table****Primary Building Zones****Legal Description:**

April 18, 2001

FN: 01-CB360

**Legal Description**

Part of the Southeast Quarter of the Northeast Quarter of Section 2 and part of the Southwest Quarter of the Northeast Quarter of Section 2, Township 7 North, Range 10 East, City of Madison, Dane County, Wisconsin, more fully described as follows:

Commencing at the East quarter corner of said Section 2; thence South 87 degrees 19 minutes 32 seconds West, along the South line of the Northeast Quarter of said Section 2, 289.63 feet to the point of beginning of this description; thence continuing South 87 degrees 19 minutes 32 seconds West, along said South line, 709.53 feet; thence North 00 degrees 15 minutes 47 seconds West, 290.00 feet; thence South 87 degrees 19 minutes 32 seconds West, 180.00 feet; thence South 00 degrees 15 minutes 47 seconds East, 40.00 feet; thence South 87 degrees 19 minutes 32 seconds West, 179.30 feet; thence North 00 degrees 11 minutes 48 seconds East, 577.45 feet; thence North 00 degrees 20 minutes 14 seconds East, 431.53 feet to a point of curvature; thence along the arc of a curve to the right through a central angle 13 degrees 03 minutes 40 seconds, an arc distance of 1277.85 feet, a radius of 5605.58 feet and a chord bearing North 85 degrees 06 minutes 40 seconds East, 1275.08 feet; thence South 00 degrees 21 minutes 06 seconds East, 518.83 feet; thence North 89 degrees 38 minutes 54 seconds East, 75.11 feet to the East line of the Northeast Quarter of said Section 2; thence South 00 degrees 21 minutes 18 seconds East, along said East line, 496.27 feet; thence South 89 degrees 38 minutes 42 seconds West, 33.00 feet to a point of curvature; thence along the arc of a curve to the left through a central angle of 87 degrees 40 minutes 50 seconds, an arc distance of 411.04 feet, a radius of 268.60 feet and a chord bearing South 43 degrees 29 minutes 07 seconds West, 372.09 feet; thence South 02 degrees 40 minutes 28 seconds East, 33.00 feet to the South line of the Northeast Quarter of said Section 2 and the point of beginning. This description contains 1,600,415 square feet or 36.7405 acres.

# METROTECH NEIGHBORHOOD

Revised Land Use Tabulations 8/31/2009

Lot Description	Approximate Lot Square Feet	Acres	Maximum Building Square Feet*	Maximum Floor	Maximum Potential Square Feet			Maximum Residential Units	Maximum Dwelling Units per Acre	Maximum FAR
					Retail	Office**	Residential***			
Site 2A (CSM Lot 1)	60,028	1.38	48,022	~5/6		48,022				0.80
Site 2B (CSM Lot 2)	121,639	2.79	97,311	~5/6		97,311				0.80
Site 1B (CSM Lot 3)	130,214	2.99	91,150	~3/6		91,150				0.70
Site 1A (CSM Lot 4)	91,829	2.11	64,280	3		64,280				0.70
Lot 3	160,348	3.68	136,296	~7/8		136,864				0.85
Lot 4	63,658	1.46	50,926	3/2 min.		48,777				0.80
Lot 5	42,106	0.97	33,685	3/2 min.	8,000	26,608				0.80
Lot 6	131,708	3.02	98,781	5/2 min.	16,000	23,580	57,600	48	16 #	0.75
Lot 7	127,583	2.93	95,687	5/2 min.	12,000	42,449	42,000	35	12 #	0.75
Lot 8	112,632	2.59	101,369	4		26,967	74,400	62	25	0.90
Lot 9	86,192	1.98	60,334	5			60,334	50	25	0.70
Lot 10	128,919	2.96	77,351	3			77,351	65	22	0.60
Public Parkland	107,242	2.46								n/a
Public Right of Way	236,500	5.43								n/a
Site Totals	1,600,598	36.74	955,194		36,000	606,009	311,685	260	Average 19.4	Average 0.77

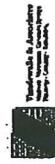
Notes:

- \* Estimated Building Square Feet is based on the FAR or dwelling units per acre.
- \*\* The average office square feet is based on the average FAR minus the retail and estimated residential square feet.
- \*\*\* Residential units are based on the maximum dwelling units that are available to each of the sites and the square footage per unit has been estimated at 1200 sq. ft. per unit.
- # Sites 6 and 7 may receive added dwelling units if not applied to sites 8, 9, and 10. They are not to exceed 25 du/acre
- ~ Maximum height of buildings may be increased with underground or structured parking.

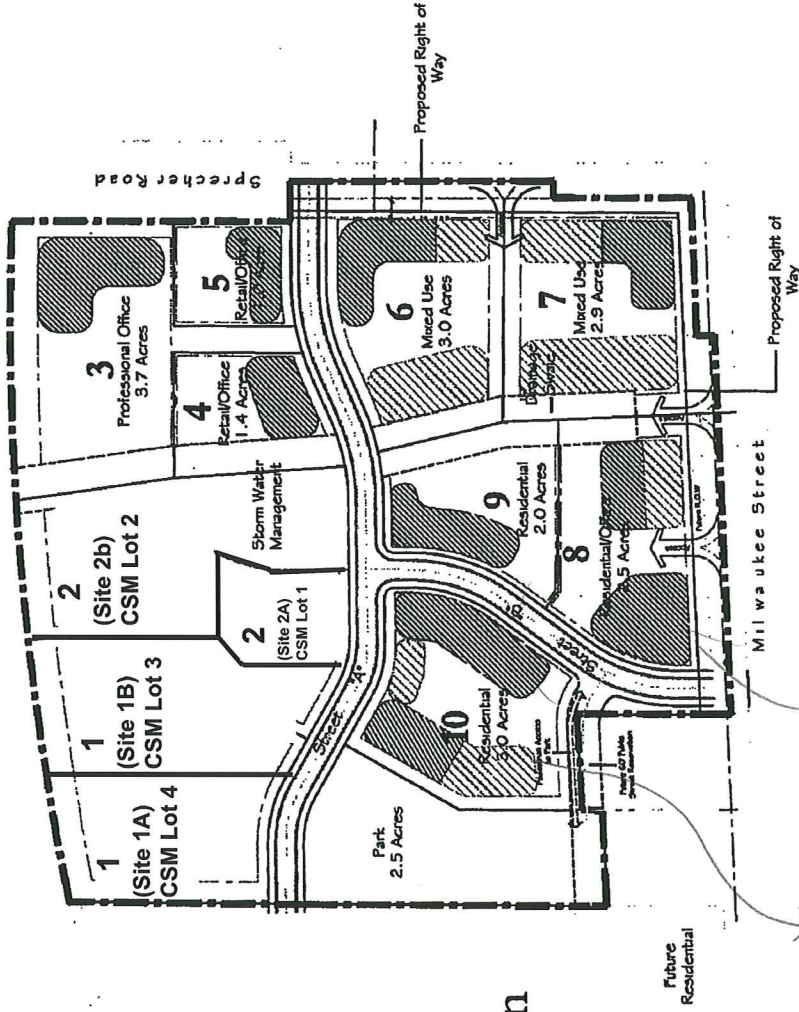
# PRIMARY BUILDING ZONES

## HOPPMAN PROPERTY General Development Plan Madison, Wisconsin

Revised:  
December 10, 2001



Interstate 94



65 APP.  
111 BUILT  
112 APP