

June 15, 2016

Alan Martin
City of Madison
Urban Design Commission
215 Martin Luther King, Jr. Blvd
Madison, WI 53701

RE: **Midtown District Police Station**
4018 Mineral Point Rd.
Madison, WI 53705

Dear Mr. Martin,

Please accept this document as additional information in an attempt to clarify the revised Urban Design Commission submission documents. The following information addresses the comments and questions raised at the informational presentation as outlined in the June 1, 2016 summary report. The comments, questions and responses are reprinted clarity. Additional comments are italicized.

Comments and questions from the Commission were as follows:

I like the architecture. Can you explain how it relates to the neighborhood?

There are some rather modern homes within this existing neighborhood. The use of brick and stone brings in texture and vernacular.

Is there any programming for the open space?

It is a place for some of the police officers to come out, but I don't see it being heavily used, but not necessarily a programmed space.

There's a community room directly adjacent to this, and a break room in this vicinity so they have access to that outside area.

If you want to maintain context with the neighborhood and minimize conflicts with the Spruce growing into deciduous trees, I would make a lot of those trees White Burr Oak.

Refer to the revised landscaping documents for implementation of comment.

Why do you need the second driveway?

The client wanted dual access.

Extend walk to the entry from Mineral Point Road.

Refer to the revised documents for implementation of comment.

When you come back, please bring pictures of what the gate/fencing is going to look like.
Refer to the documents for elevations of the privacy fence.
Refer to the following images for general information regarding the parking gate.



The civic building on the block with the rest of the neighborhood, once you start encroaching onto that front or side yard, you start to overpower the street. If you were tucked back a bit and had your actual entry face Mineral Point Road rather than face your parking lot, you could have a lesser impact on the neighborhood.

The building is adjacent to the allowed set-backs for several reasons.

- *Saving the existing large tree on the corner of Mineral Point Rd and Westmorland Blvd. reduces the buildable site area.*
- *The neighborhood desire to have enclosed / underground parking of marked squad cars creates a large building foot print.*
- *Due to the existing property grades and vehicle access to the enclosed / underground parking, there are limited options for the garage entry point.*
- *We wanted to provide as much of a buffer between the adjacent houses and the building as possible. Moving the building east will negatively impact the closest neighbor on /mineral Point road.*
- *Moving the building east also creates difficulties with accessibility to the entry due to the existing grades.*
- *Only a small portion of the building is at the 15-foot setback along Westmorland Blvd. The balance of the building is an additional 5-feet back.*

The building entry is currently located on the southeast corner of the building for several reasons.

- *The building public spaces face Mineral Point Rd.*

- *The entry is easily identifiable for users that arrive via automobile, bicycle, as a pedestrian, or via metro transit.*
- *The entry has a strong Mineral Point Rd presence through the use of glazing, design elements, exterior materials including the site landscaping and hardscapes, signage, flag pole location....*

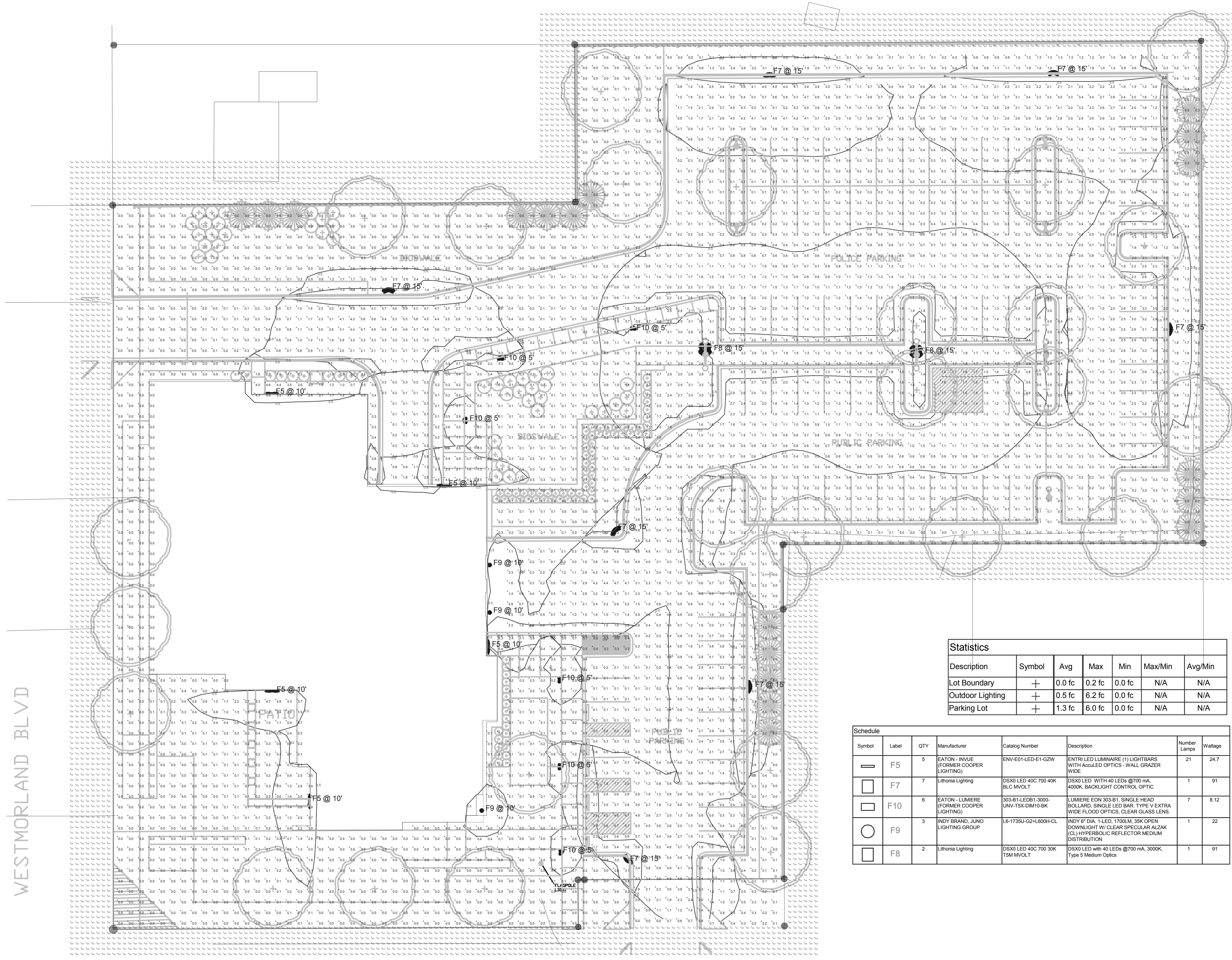
Sincerely,

James F. Brown, Jr, AIA
Principal

Copied J Whitney | City of Madison

J Lengfeld | Madison Police Department

EA File Name: P:\Madison\2015 2398\152413 Midtown Police Station\1-Project Administration\6-Codes & Zoning\UDC Response Letter.Docx



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Lot Boundary	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Outdoor Lighting	+	0.5 fc	6.2 fc	0.0 fc	N/A	N/A
Parking Lot	+	1.3 fc	6.0 fc	0.0 fc	N/A	N/A

Schedule							
Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Number Lamps	Wattage
+	F5	5	EATON - INVUE (FORMER COOPER LIGHTING)	ENV-E01-LED-E1-GZW	ENTRI LED LUMINAIRE (1) LIGHTBARS WITH ACCOLED OPTICS - WALL GRAZER WIDE	21	24.7
+	F7	7	Lithonia Lighting	DSX0 LED 40C 700 40K BLC MVOLT	DSX0 LED WITH 40 LEDs @700 mA, 4000K, BACKLIGHT CONTROL OPTIC	1	91
+	F10	6	EATON - LUMIERE (FORMER COOPER LIGHTING)	303-B1-LED61-3000-INV-T5X-DIM10-BK	LUMIERE EON 303-B1, SINGLE HEAD ROLLARD, SINGLE LED BAR, TYPE V EXTRA WIDE FLOOD OPTICS, CLEAR GLASS LENS.	7	8.12
○	F9	3	INDY BRAND, JUNO LIGHTING GROUP	L6-173BU-G2+L600H-CL	INDY 6" DIA. 1-LED, 1700LM, 35K OPEN DOWNLIGHT W/ CLEAR SPECULAR ALZAK (CL) HYPERBOLIC REFLECTOR MEDIUM DISTRIBUTION	1	22
+	F8	2	Lithonia Lighting	DSX0 LED 40C 700 30K T5M MVOLT	DSX0 LED with 40 LEDs @700 mA, 3000K, Type 5 Medium Optics	1	91

MINERAL POINT ROAD
Midtown Police Station

E001 - UDC SUBMITTAL

SCALE: 1" = 30'-0"
 June 15, 2016
 Engberg Anderson Project No. 152413.01



Midtown Police Station

RENDERED
 SITE PLAN
 June 15, 2016
 Engberg Anderson Project No. 152413.01



MILWAUKEE | MADISON | TUCSON | CHICAGO

AYRES ASSOCIATES
 101 East Badger Road
 Madison, WI 53713
 608.255.0800
 www.AyresAssociates.com
 Ayres Project No. 27-1034.00



View at Corner of Mineral Point & Westmorland Blvd



View at Entry

Midtown Police Station

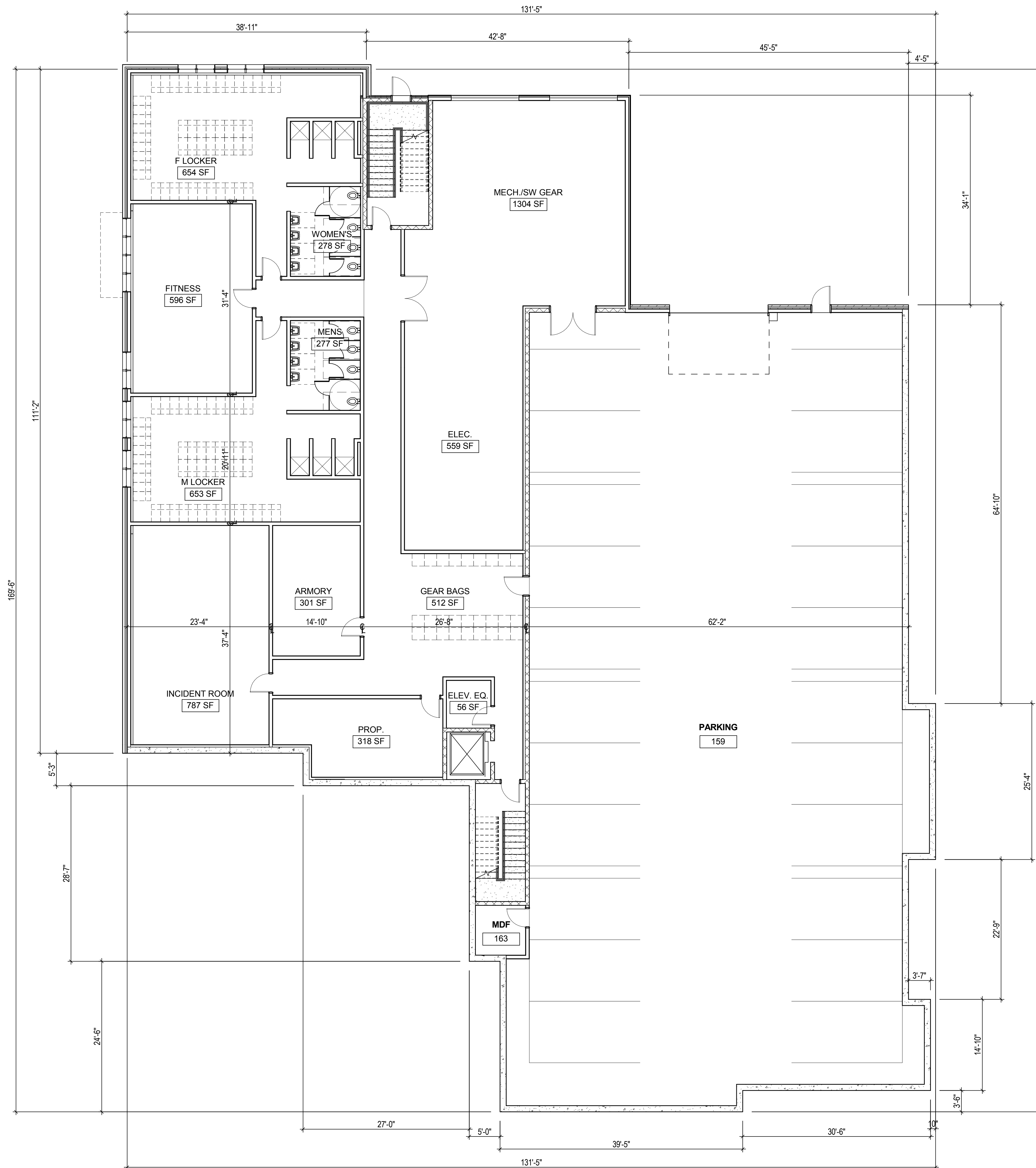


Building Perspectives

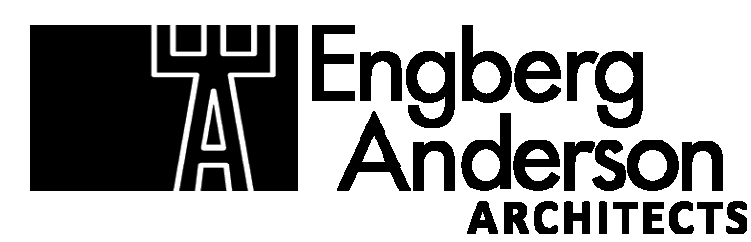
SCALE: N.T.S.

June 15, 2016

Engberg Anderson Project No. 152413.01



Midtown Police Station



Lower Level

SCALE: 1/8":1'0"

June 15, 2016

Engberg Anderson Project No. 152413.01

DESCRIPTION

Eon 303-B1-LEDB1 is a compact, low profile, dimmable, LED bollard that provides downlight only via a fixed head. 303-B1-LEDB1 has a single head on one side of the luminaire. The bollard comes standard with universal input LED driver (120-277V, 50/60 Hz). Dimming is achieved with a standard ELV, reverse phase dimming driver or an optional 0-10V dimming driver. Eon fixtures may be used indoors or outdoors and carry an IP66 rating. The patented LumaLevel™ leveling system provides quick installation, easy adjustment, secure mounting and protection from vibration.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

The head of the 303-B1-LEDB1 is precision machined from corrosion-resistant 6061-T6 aluminum. Body is extruded aluminum and adjustable mounting base is cast from corrosion resistant aluminum alloy. Stainless steel hardware is included. Four (4) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Specify option -LAB and order the anchor bolt/template kit separately (Catalog: 7581-01PK).

Optical

LightBAR™ and optical assembly are sealed by a clear, impact resistant tempered glass lens. The optical assembly is available in three distributions: T2 (lateral throw), T4 (forward throw) and T5X (Flood). Available in several color temperatures: 2700K, 3000K, 3500K,

4000K and TSAM (Amber). Both color temperature and distribution must be specified when ordering – see catalog logic for details. An edge-lit option is available.

Electrical

The bollard is standard with an ELV trailing edge phase dimmable driver that accepts a universal input (120-277, 50/60Hz). An optional 0-10V universal dimming driver is also available. Both driver options incorporate surge protection. The receptacle option incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. The photocell option comes in either a 120V or 277V. Please see Option section for more detail.

Finish

Luminaire and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish. The mounting base is painted black. The luminaire housing and head are available in a variety of standard colors. RAL and custom color matches are available upon request. As an option, the Eon bollards are also available in colors to match other outdoor Eaton product lines, such as Invue. See the Finish section in the ordering detail for more detail.

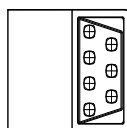
Warranty

Lumiere warrants the EON series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.

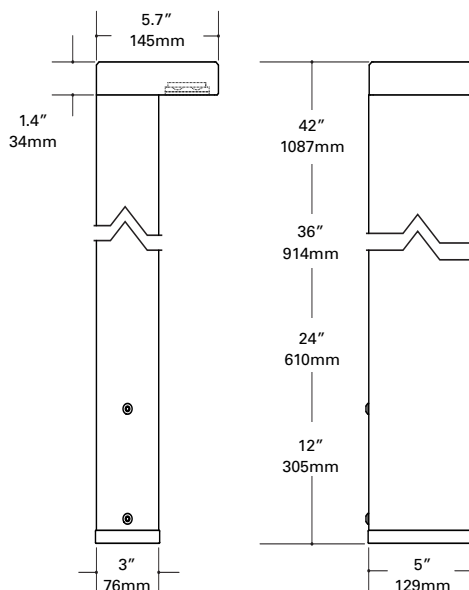


303-B1-LEDB1
EON LED

APPLICATIONS:
BOLLARD



Under side profile view



CERTIFICATION DATA

UL and cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
IP66 Ingressed Protection Rated

TECHNICAL DATA

50°C Maximum Temperature Rating
External Supply Wiring 90°C Minimum



ORDERING INFORMATION

Sample Number: 303-B1-LEDB1-2700-120-T2-DIM10-BK-42-EDGE-PC1-RFL-LAB

Series ⁹	Color Temperature	Input Voltage	Optics	Dimming	Finish ³	Height ⁴	Options ⁶
303-B1-LEDB1 Head contains one (1) Mini LightBAR™	2700=2700K 3000=3000K 3500=3500K 4000= 4000K TSAM=Turtle Safe Amber (585-595nm)	UNV=120-277V ¹ 120=120V 277=277V ²	T2 =Type II, Lateral Throw T4 = Type IV, Forward Throw T5X =Type V, Extra Wide Flood	DIMELV=Trailing Edge Phase Dimming Driver DIM10=0-10V Dimming Driver	Painted BK=Black BZ=Bronze CS=City Silver WT=White Premium Paint AP=Grey DP=Dark Platinum GM=Graphite Metallic	12=12" ⁵ 24=24" 36=36" 42=42"	EDGE=Edge lit glass lens PC1=Photocontrol 120V ⁷ PC2=Photocontrol 208-277V ⁷ RIU=Receptacle - In Use (120V Only) ⁷ RFL=Receptacle - Flip-Lid (120V Only) ⁷ LAB=Less Anchor Bolts & Template ⁸

NOTES: 1 Universal Voltage (UNV) is standard unless specifying Photocontrol or Receptacle (RIU or RFL - 120V) options. 2 Specify for PC2 option only. 3 Custom and RAL color matching available upon request. Consult factory for further information. 4 Bollard heights are nominal (shown in inches). 5 12" length not available with RIU or RFL options. 6 Add suffix in the order shown. 7 Must specify voltage when ordering. 8 When specifying LAB option the anchor bolts and template need to be ordered separately 7581-01PK. 9 DesignLights Consortium™ Qualified and classified for DLC Standard. Refer to www.designlights.org for details on exact qualified EON 303-B1-LEDB1 product as not all configurations are DLC classified.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 60,000	365,000
40°C			
50°C			

CURRENT DRAW

Model	Line Voltage	Current Draw
303-B1-LEDB1	120-277V, 50/60Hz	0.068A

MAX LOAD RATING

Options	Line Voltage	Max Load Rating
PC1	120V, 50/60Hz	1000VA, 8.3A
PC2	208-277V, 50/60Hz	
RIU or RFL	120V, 50/60Hz	1800VA, 15A

LUMENS - CRI/CCT TABLE

Optic Type	Distribution	Watts	Delivered Lumens	LPW	CCT (K) / Color	CRI nom./ Wavelength	B-U-G Rating
T2 (Lateral Throw)		8.5	361	44	2700	95	B0-U0-G0
			600	74	3000	75	
			419	51	3500	85	
			661	81	4000	75	
		6.5	184	28	TSAM (Amber)	585-595nm	
T4 (Forward Throw)		8.5	353	43	2700	95	B0-U0-G0
			587	72	3000	75	
			410	50	3500	85	
			647	79	4000	75	
		6.5	180	28	TSAM (Amber)	585-595nm	
T5X (Extra Wide Flood)		8.5	316	39	2700	95	B0-U0-G0
			525	65	3000	75	
			367	45	3500	85	
			579	71	4000	75	
		6.5	161	25	TSAM (Amber)	585-595nm	

OPTIONS

Receptacle Options (120V Only)

RIU - Receptacle In-Use

Rugged UV-resistant polycarbonate clear cover and gray body protects GFCI without cracking or breaking and is non-corrosive. Note: Cover is weatherproof with the cord plugged in and the receptacle is not required to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

RFL - Receptacle Flip Lid

Cover is constructed of a durable, die-cast zinc-alloy and is painted to match fixture. Cover is only weatherproof without the cord plugged in and the cover closed. The receptacle will need to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

Photocontrol

PC1 (120V) or PC2 (277V)

Photocontrol cover is precision machined from corrosion-resistant 6061-T6 aluminum and is secured to bollard head with tamper resistant stainless steel hardware. The photocontrol option is available in dedicated 120V or 208-277V. When specifying a photocontrol option make sure to designate the appropriate voltage within the catalog logic.

Edge

When specifying with the EDGE option, the diffused glass becomes thicker adding a visible line of light around the edge accentuating the luminaries' aesthetics and styling.

TECHNICAL NOTES:

- Adjustable mounting base - Cast aluminum mounting base is equipped with the patented LumaLevel™ leveling system that includes mounting base, 70 shore neoprene base, stainless steel hardware and a slot to accommodate two inbound and outbound 3/4" conduits. It provides quick installation, easy adjustment, secure mounting and protection from vibration.

ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT

- Lumen packages suitable for ceiling heights ranging from 8' to in excess of 100'
- Efficacies up to 110 lm/w
- Superior-quality white LED light output using Chip on Board technology
- No harmful ultraviolet or infrared wavelengths
- No lead or mercury

PRODUCT SPECIFICATIONS

Optics

Reflector: Unique hyperbolic shape optimized for small, directional LED source, maximizes fixture efficiency while creating the "Silent Ceiling" appearance by reducing lamp image and aperture brightness

• Geometry of hyperbolic curve provides unique aperture appearance and smoother light distribution • Narrow Flood, medium flood and wide flood distributions available

Finishes: Low iridescent specular, semi-specular and satin Alzak® finishes available with integral flange of same finish • See reflector options for other colors and finishes

Electrical

LED Light Engine: Compact light source delivers uniform illumination without pixilation, enabling excellent beam control • Consistent fixture-to-fixture color temperature within 3 SDCM • Replaceable light engine with quick connector mounts directly to heat sink and is easily replaceable • CRI> 80 standard, 90 & 97 CRI available, see options for compatibility

Passive Cooling: Aluminum heat sink integrated directly with housing provides superior thermal management to ensure the long life of LED

LED Driver: Power factor >0.9 • Easily replaceable from above or below the ceiling.

Dimming: Dimmable via 0-10V protocol standard • Optional drivers available for use with Lutron EcoSystem or 2-wire dimmers • For a list of compatible dimmers, see [LED-DIM](#).

Life: Rated for 50,000 hours at 70% lumen maintenance • Available with optional Lumen Depreciation Indicator (LDI)

Emergency Battery Pack (Optional) output: Provides a minimum of 600 (BR), or 1100 (HBR) lumens for a minimum duration of 90 minutes

Mechanical

Housing: Low profile, universal housing design installs in suspended grid, plaster or drywall

• Integral heat sink conducts heat away from LED light engine • Driver is accessible from above and below ceiling and can be upgraded to accommodate future technology improvements.

Mounting Frame: Heavy gauge steel lower housing ring accommodates ceilings up to 2" thick

• For thicker ceilings; consult factory

Mounting Bracket: Mounting brackets have 3" vertical adjustment and accepts most commercial bar hangers, including our proprietary Tru-Lock bar hangers • Our one-piece Tru-Lock bar hangers have integral T-bar locking screws and alignment notches for locating and locking fixture in the center or 1/4" tile increments

Junction Box: Over size 4" x 6" galvanized steel junction box with (6) 1/2" (2) 3/4" knockouts facilitate quick wiring • Junction box rated for four (4) No. 12 AWG 90° C branch circuit conductors (2-in, 2-out)

Labels and Listings

• UL listed for feed through and damp locations • UL spacing requirement for 4000 lumen and above: minimum of 4' between fixture centers, 3" overhead clearance, 2' from fixture center to side wall • UL and cUL, RoHS compliant • EMI complies with FCC 47, Part 15, Class A • ENERGY STAR® Qualified, see back page for designated products • I.B.E.W. Union made • ARRA Compliant

Warranty: 5 years when used in accordance with manufacturing guidelines.

Product specifications subject to change without notice.

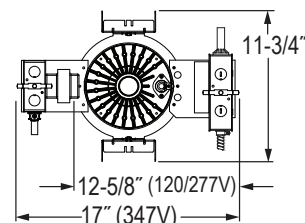
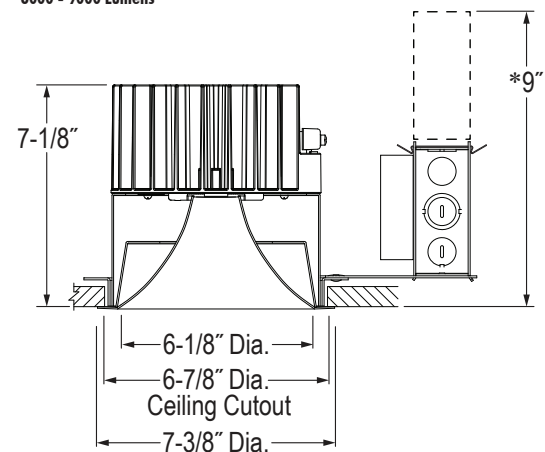


800 TO 9000 LUMEN 6" LED SILENT CEILING DOWNLIGHT HYPERBOLIC OPEN APERTURE L6 SERIES

Type	Cat. No.
_____	_____
Project: _____	
Notes: _____	

DIMENSIONS

*6000 - 9000 Lumens



ORDERING INFORMATION: Rough-in, reflector and accessories each ordered separately.

Example: **L6-40352-G3-LDI**

ROUGH-IN	LIGHT ENGINE LUMENS	CCT	VOLTAGE	GENERATION	OPTIONS
L6				G3	
08	800 lm	27	U Universal	G3	90 90 CRI
13	1300 lm	2700			97 97 CRI (2700 & 3000 CCT only)
15	1500 lm	30	1		Fuse and Fuse Holder
17	1700 lm	3000	120V		Chicago Plenum
23	2300 lm	35	2		+ BR Emergency Battery Pack w/ Remote Test Switch
28	2800 lm	3500	277V		+ HBR High Lumen Emergency Battery Pack w/ Remote Test Switch
33	3300 lm	40	3		+ PD Driver compatible with 3-wire fluorescent controls & Lutron Programmable Dimming EcoSystem®
40	4000 lm	4000	347V		+ FDL Forward Phase Dimming Lutron Driver - 120V only (2-wire dimming, neutral wire required)
45	4500 lm				LDI Lumen Depreciation Indicator (Cannot be used w/ BR or HBR options)
50	5000 lm				FD Phase Cut Dimming, Forward and Reverse, (800-4000 lumen only) - 120V only
55	5500 lm				
60	6000 lm				
65	6500 lm				
70	7000 lm				
75	7500 lm				
80	8000 lm				
85	8500 lm				
90	9000 lm				

- Only 800, 1300 & 1500 lumen fixtures are universal voltage (120/277V)
- ◆ Not Available for 4000 Lumens and up
- + Not Available for 347V

Example: **L600HW-PTS-WH**

CONE	COLOR	FINISH	OPTIONS
L600HN Narrow Flood	C Clear	Low Iridescent Alzak Finishes: L Specular	WH White Flange
L600H Medium Flood	G Gold	S Satin	
L600HW Wide Flood	WT Wheat	* Q Semi-Specular (*Clear only)	
	PT Pewter	Blank for White & Baffle	
	BZ Bronze		
	B Black		
	W White		

Example: **HB-TL**

ACCESSORIES
HB-TL 25" Tru-Lock grid ceiling bar hangers, Pair
HB-52 52" C-Channel Bar Hangers, Pair
HB-28 28" C-Channel Bar Hangers, Pair
LB-27 27" Linear Bar Hangers, Pair
SCA6 -* Sloped Ceiling adapter
* Angle must be specified when ordering; Available in 5°, 10°, 15°, 20°, 25°, 30°
Example: SCA6-20

800 TO 9000 LUMEN 6" LED SILENT CEILING DOWNLIGHT

HYPERBOLIC OPEN APERTURE
L6 SERIES

ENGINEERING DATA: 347 Volt available, consult factory

120																		
VOLTAGE																		
LIGHT ENGINE LUMENS	800	1300	1500	1700	2300	2800	3300	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000
CCT	2700K/3000K/3500K/4000K																	
INPUT CURRENT	0.064	0.102	0.12	0.151	0.202	0.250	0.290	0.375	0.358	0.383	0.426	0.457	0.501	0.553	0.604	0.645	0.694	0.769
INPUT WATTAGE	7.7W	12.2W	14.4W	18.1W	24.1W	29.8W	34.6W	45.0W	42.3W	45.3W	50.4W	54.7W	59.9W	66.2W	72.2W	77.1W	82.9W	92.0W
INPUT FREQUENCY	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
THD%	6.67	4.30	4.01	3.68	5.59	5.70	4.16	3.93	14.00	13.26	14.48	4.61	4.66	3.97	4.24	3.81	3.74	3.53
POWER FACTOR	0.991	0.993	0.993	0.995	0.994	0.995	0.997	0.998	0.996	0.996	0.996	0.996	0.996	0.997	0.996	0.996	0.996	0.996
277																		
VOLTAGE																		
LIGHT ENGINE LUMENS	800	1300	1500	1700	2300	2800	3300	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000
CCT	2700K/3000K/3500K/4000K																	
INPUT CURRENT	0.032	0.050	0.058	0.073	0.095	0.113	0.135	0.168	0.177	0.192	0.204	0.220	0.222	0.251	0.288	0.306	0.334	0.345
INPUT WATTAGE	8.2W	12.5W	14.6W	18.3W	24.3W	29.5W	35.0W	44.3W	42.8W	45.9W	50.8W	54.8W	61.1W	63.4W	72.7W	77.0W	83.7W	88.9W
INPUT FREQUENCY	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
THD%	11.15	10.45	10.99	11.11	10.06	8.38	8.48	7.98	21.91	19.95	21.30	22.02	23.02	21.97	20.07	19.57	17.10	14.74
POWER FACTOR	0.915	0.889	0.903	0.911	0.921	0.942	0.935	0.955	0.874	0.864	0.898	0.900	0.994	0.910	0.912	0.908	0.904	0.906

DELIVERED LUMENS/LUMENS PER WATT (4K 80CRI)																		
	L6-0840U		L6-1340U		L6-1540U		L6-1740I		L6-2340I		L6-2840I		L6-3340I		L6-4040I		L6-4540I	
TRIM	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
L600HN-CL	781	104.1	1282	102.6	1481	102.1	1661	90.3	2196	91.1	2641	88.6	3036	87.7	3684	82.0	4049	97.6
L600HN-CQ	736	98.1	1208	96.6	1395	96.2	1565	85.1	2068	85.8	2488	83.5	2859	82.6	3470	77.3	3840	92.5
L600HN-CS	676	90.1	1109	88.8	1282	88.4	1438	78.1	1900	78.8	2286	76.7	2627	75.9	3188	71.0	3489	84.1
L600H-CL	814	108.5	1336	106.9	1543	106.4	1731	94.1	2288	94.9	2753	92.4	3163	91.4	3839	85.5	4295	103.5
L600H-CQ	791	105.5	1299	103.9	1501	103.5	1684	91.5	2225	92.3	2677	89.8	3076	88.9	3733	83.1	4138	99.7
L600H-CS	699	93.2	1147	91.8	1325	91.4	1487	80.8	1965	81.5	2364	79.3	2717	78.5	3297	73.4	3565	85.9
L600HW-CL	830	110.7	1363	109.0	1574	108.6	1766	96.0	2334	96.8	2808	94.2	3227	93.2	3916	87.2	4315	104.0
L600HW-CQ	802	106.9	1316	105.3	1520	104.9	1706	92.7	2254	93.5	2712	91.0	3116	90.1	3782	84.2	4152	100.0
L600HW-CS	735	97.9	1206	96.5	1393	96.1	1563	84.9	2065	85.7	2484	83.4	2855	82.5	3465	77.2	3686	88.8
	L6-5040I		L6-5540I		L6-6040I		L6-6540I		L6-7040I		L6-7540I		L6-8040I		L6-8540I		L6-9040I	
TRIM	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
L600HN-CL	4408	96.2	4926	94.0	5079	93.0	5567	94.2	6101	91.9	6452	90.0	6757	89.0	7199	87.5	7626	83.3
L600HN-CQ	4180	91.3	4672	89.2	4816	88.2	5279	89.3	5786	87.1	6118	85.3	6408	84.4	6827	83.0	7232	79.0
L600HN-CS	3797	82.9	4244	81.0	4376	80.1	4796	81.2	5256	79.2	5558	77.5	5821	76.7	6202	75.4	6570	71.8
L600H-CL	4675	102.1	5225	99.7	5387	98.7	5904	99.9	6470	97.4	6842	95.4	7166	94.4	7635	92.8	8088	88.4
L600H-CQ	4504	98.3	5034	96.1	5189	95.0	5688	96.2	6234	93.9	6592	91.9	6904	91.0	7356	89.4	7792	85.2
L600H-CS	3880	84.7	4337	82.8	4471	81.9	4900	82.9	5370	80.9	5679	79.2	5948	78.4	6337	77.0	6713	73.4
L600HW-CL	4697	102.6	5250	100.2	5413	99.1	5933	100.4	6502	97.9	6875	95.9	7201	94.9	7672	93.2	8127	88.8
L600HW-CQ	4519	98.7	5051	96.4	5207	95.4	5708	96.6	6255	94.2	6615	92.3	6928	91.3	7381	89.7	7819	85.5
L600HW-CS	4012	87.6	4484	85.6	4623	84.7	5067	85.7	5553	83.6	5872	81.9	6150	81.0	6552	79.6	6941	75.9



Catalog Number: L6-1340U-W-G3 + L600HN-CL
 PHOTOMETRIC REPORT
 Test Number: PR05152785
 Total Lumen Output: 1282
 Center Beam Candpower: 8843
 Luminaire Efficacy: 102.6 lm/w (4K)
 Luminaire Spacing Criteria: 0.29
 Luminaire: Clear Specular Alzak®,
 Narrow Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	245.6	119.6	1.6'
7'	180.5	87.9	1.9'
8'	138.2	67.3	2.1'
9'	109.2	53.2	2.4'
10'	88.4	43.1	2.7'
11'	73.1	35.6	2.9'
12'	61.4	29.9	3.2'
13'	52.3	25.5	3.5'
14'	45.1	22.0	3.7'
15'	39.3	19.1	4.0'

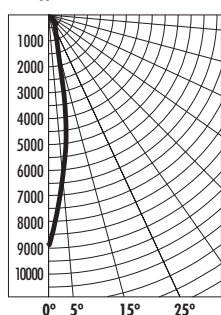
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	58	50	44
6' x 6'	40	35	31
7' x 7'	30	26	23
8' x 8'	23	20	17
9' x 9'	18	16	14
10' x 10'	14	13	11
11' x 11'	12	10	9
12' x 12'	10	9	8

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	0
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	8843	
5°	6199	592
15°	949	269
25°	495	229
35°	305	192
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	1090	85.0
0-40°	1282	100.0
0-60°	1282	100.0
0-90°	1282	100.0
90-180°	0	0
0-180°	1282	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0		
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	115	115	115	115	113	113	113	113	108	108	108	103	103	103	99	99	99	97
1	111	109	107	106	109	107	105	104	103	102	101	100	99	98	96	96	95	93
2	107	104	101	98	105	102	99	97	99	97	95	96	95	93	94	92	91	90
3	104	99	95	92	102	98	94	92	95	93	90	93	91	89	91	89	88	86
4	100	95	91	88	99	94	90	87	92	89	86	90	87	85	88	86	84	83
5	97	91	87	84	96	90	86	83	89	85	83	87	84	82	86	83	81	80
6	94	88	83	80	93	87	83	80	86	82	80	84	81	79	83	81	79	77
7	91	85	80	77	90	84	80	77	83	79	77	82	79	76	81	78	76	75
8	88	82	77	75	87	81	77	74	80	77	74	79	76	74	79	76	74	73
9	86	79	75	72	85	79	75	72	78	74	72	77	74	72	77	74	71	70
10	84	77	73	70	83	76	73	70	76	72	70	75	72	70	75	72	69	68

Catalog Number: L6-1340U-W-G3 + L600H-CL
 PHOTOMETRIC REPORT
 Test Number: PR05152681
 Total Lumen Output: 1336
 Center Beam Candpower: 1818
 Luminaire Efficacy: 106.9 lm/w (4K)
 Luminaire Spacing Criteria: 0.73
 Luminaire: Clear Specular Alzak®,
 Medium Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	50.5	17.9	6.1'
7'	37.1	13.2	7.1'
8'	28.4	10.1	8.1'
9'	22.4	8.0	9.1'
10'	18.2	6.5	10.1'
11'	15.0	5.3	11.1'
12'	12.6	4.5	12.2'
13'	10.8	3.8	13.2'
14'	9.3	3.3	14.2'
15'	8.1	2.9	15.2'

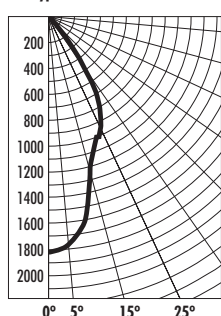
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	59	49	38
6' x 6'	41	34	26
7' x 7'	30	25	19
8' x 8'	23	19	15
9' x 9'	18	15	12
10' x 10'	15	12	9
11' x 11'	12	10	8
12' x 12'	10	8	7

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	5955
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	1818	
5°	1733	165
15°	1226	348
25°	953	441
35°	513	322
45°	77	59
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	954	71.4
0-40°	1276	95.5
0-60°	1336	100.0
0-90°	1336	100.0
90-180°	0	0
0-180°	1336	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0		
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	118	118	118	118	115	115	115	115	110	110	110	105	105	105	101	101	101	99
1	113	110	108	105	110	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	84	87	85	82	81
4	97	90	84	80	95	89	84	80	86	82	79	84	81	78	83	80	77	76
5	92	84	78	74	91	83	78	74	81	77	73	80	76	73	78	75	72	71
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66
7	83	74	69	64	82	74	68	64	72	68	64	71	67	64	70	66	63	62
8	79	70	64	60	78	70	64	60	68	64	60	67	63	60	67	62	59	58
9	76	66	61	57	75	66	60	57	65	60	56	64	59	56	63	59	56	55
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	52

Catalog Number: L6-1340U-W-G3 + L600HW-CL
 PHOTOMETRIC REPORT
 Test Number: PR05152782
 Total Lumen Output: 1363
 Center Beam Candpower: 1121
 Luminaire Efficacy: 109.0 lm/w (4K)
 Luminaire Spacing Criteria: 1.05
 Luminaire: Clear Specular Alzak®,
 Wide Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	30.4	8.5	8.5'
7'	22.3	6.2	9.9'
8'	17.1	4.8	11.3'
9'	13.5	3.8	12.7'
10'	10.9	3.1	14.1'
11'	9.0	2.5	15.5'
12'	7.6	2.1	16.9'
13'	6.5	1.8	18.3'
14'	5.6	1.6	19.7'
15'	4.9	1.4	21.2'

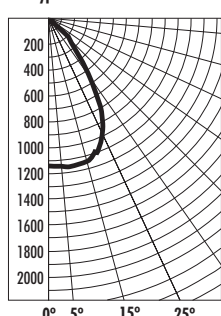
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	60	48	36
6' x 6'	42	33	25
7' x 7'	31	24	18
8' x 8'	23	19	14
9' x 9'	19	15	11
10' x 10'	15	12	9
11' x 11'	12	10	7
12' x 12'	10	8	6

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	15130
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	1095	
5°	1101	105
15°	1089	309
25°	947	438
35°	571	359
45°	195	151
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	852	62.6
0-40°	1211	88.9
0-60°	1362	100.0
0-90°	1362	100.0
90-180°	0	0
0-180°	1362	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0		
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
0	115	115	115	115	113	113	113	113	108	108	108	103	103	103	99	99	99	97
1	110	107	104	102	107	105	103	101	101	99	98	97	96	95	94	93	92	90
2	104	99	95	92	102	97	94	91	94	91	89	91	89	87	89	87	85	83
3	98	92	87	83	96	91	86	82	88	84	81	86	82	80	83	81	78	77
4	93	85	80	76	91	84	79	75	82	78	74	80	76	73	78	75	72	71
5	88	80	74	69	86	79	73	69	77	72	68	75	71	68	74	70	67	66
6	83	74	68	64	82	73	68	63	72	67	63	70	66	63	69	65	62	61
7	79	69	63															

Catalog Number: L6-4540-G3; L600HN-CL
 PHOTOMETRIC REPORT
 Test Number: PR04152185
 Total Lumen Output: 4050
 Center Beam Candelper: 13,148
 Luminaire Efficacy: 97.6 lm/w (4K)
 Luminaire Spacing Criteria: 0.42
 Luminaire: Clear Specular Alzak®,
 Narrow Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	365.2	169.9	2.7'
7'	268.3	124.8	3.1'
8'	205.4	95.6	3.6'
9'	162.3	75.5	4.0'
10'	131.5	61.2	4.4'
11'	108.7	50.5	4.9'
12'	91.3	42.5	5.3'
13'	77.8	36.2	5.8'
14'	67.1	31.2	6.2'
15'	58.4	27.2	6.7'

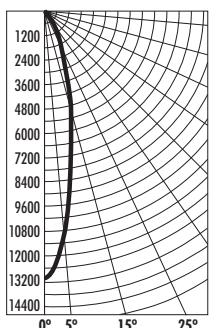
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	181	156	131
6' x 6'	126	108	91
7' x 7'	93	79	67
8' x 8'	71	61	51
9' x 9'	56	48	41
10' x 10'	45	39	33
11' x 11'	37	32	27
12' x 12'	32	27	23

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	187
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	13148	
5°	11555	1103
15°	4984	1413
25°	2090	968
35°	895	562
45°	3	2
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	3483	86.1
0-40°	4045	100.0
0-60°	4047	100.0
0-90°	4047	100.0
90-180°	0	0
0-180°	4047	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0			
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95
2	110	106	102	100	108	104	101	98	101	98	96	94	92	91	98	96	94	92	91
3	106	110	96	93	104	99	95	92	96	93	91	88	86	84	94	91	89	87	86
4	101	95	91	87	100	94	90	87	92	89	86	90	87	85	88	86	84	83	83
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79	79
6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75	75
7	90	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72	72
8	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69	69
9	84	76	72	68	83	76	71	68	75	71	68	74	70	68	73	70	68	66	66
10	81	73	69	66	80	73	69	65	72	68	65	72	68	65	71	67	65	64	64

Catalog Number: L6-4540-G3; L600H-CL
 PHOTOMETRIC REPORT
 Test Number: PR04152081
 Total Lumen Output: 4295
 Center Beam Candelper: 4655
 Luminaire Efficacy: 103.5 lm/w (4K)
 Luminaire Spacing Criteria: 0.93
 Luminaire: Clear Specular Alzak®,
 Medium Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	129.1	41.1	7.1'
7'	94.8	30.2	8.3'
8'	72.6	23.1	9.5'
9'	57.4	18.3	10.7'
10'	46.5	14.8	11.9'
11'	38.4	12.2	13.0'
12'	32.3	10.3	14.2'
13'	27.5	8.8	15.4'
14'	23.7	7.6	16.6'
15'	20.6	6.6	17.8'

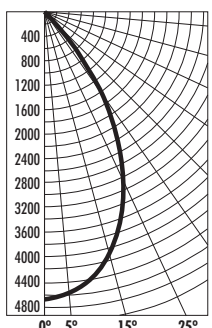
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	191	155	120
6' x 6'	132	107	84
7' x 7'	97	79	61
8' x 8'	74	60	47
9' x 9'	59	48	37
10' x 10'	48	39	30
11' x 11'	39	32	25
12' x 12'	33	27	21

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	18419
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	4646	
5°	4608	440
15°	4156	1178
25°	3113	1441
35°	1657	1041
45°	248	192
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	3059	71.3
0-40°	4100	95.5
0-60°	4291	100.0
0-90°	4291	100.0
90-180°	0	0
0-180°	4291	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0			
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	90	89	87	87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83	81	81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70	70
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	66	66
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61	61
8	79	70	64	60	78	69	63	60	68	63	59	67	62	59	66	62	59	57	57
9	75	66	60	56	74	65	60	56	64	59	56	63	59	55	63	58	55	54	54
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	51	51

Catalog Number: L6-4540-G3; L600HW-CL
 PHOTOMETRIC REPORT
 Test Number: PR04152084
 Total Lumen Output: 4315
 Center Beam Candelper: 3304
 Luminaire Efficacy: 103.9 lm/w (4K)
 Luminaire Spacing Criteria: 1.12
 Luminaire: Clear Specular Alzak®,
 Wide Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	85.8	23.6	9.0'
7'	63.0	17.3	10.5'
8'	48.3	13.2	12.0'
9'	38.1	10.5	13.5'
10'	30.9	8.5	15.0'
11'	25.5	7.0	16.5'
12'	21.4	5.9	18.0'
13'	18.3	5.0	19.5'
14'	15.8	4.3	21.0'
15'	13.7	3.8	22.5'

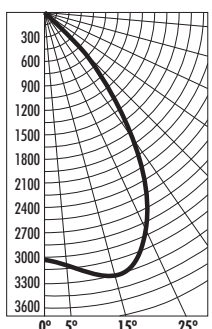
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	190	150	114
6' x 6'	132	104	79
7' x 7'	97	77	58
8' x 8'	74	59	44
9' x 9'	59	46	35
10' x 10'	47	38	28
11' x 11'	39	31	24
12' x 12'	33	26	20

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	49811
55°	0
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	3088	
5°	3123	298
15°	3302	936
25°	2964	1372
35°	1894	1190
45°	670	519
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	2606	60.4
0-40°	3795	88.0
0-60°	4314	100.0
0-90°	4314	100.0
90-180°	0	0
0-180°	4314	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0			
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10				
0	118	118	118	118	115	115	115	115	110	110	110	110	105	105	105	101	101	101	99
1	112	109	106	104	109	107	104	102	103	101	99	99	98	96	96	94	93	92	92
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84	84
3	100	93	88	84	98	92	87	83	89	85	82	87	83	80	84	82	79	78	78
4	94	86	80	76	92	85	80	76	83	78	75	81	77	74	79	76	73	71	71
5	89	80	74	69	87	79	73	69	77</										

Catalog Number: L6-9040-G3; L600HN-CL
PHOTOMETRIC REPORT
 Test Number: PR04152195
 Total Lumen Output: 7626
 Center Beam Candpower: 24,761
 Luminaire Efficacy: 83.3 lm/w (4K)
 Luminaire Spacing Criteria: 0.42
 Luminaire: Clear Specular Alzak®
 Narrow Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	687.8	319.9	2.7'
7'	505.3	235.1	3.1'
8'	386.9	180.0	3.6'
9'	305.7	142.2	4.0'
10'	247.6	115.2	4.4'
11'	204.6	95.2	4.9'
12'	171.9	80.0	5.3'
13'	146.5	68.2	5.8'
14'	126.3	58.8	6.2'
15'	110.0	51.2	6.7'

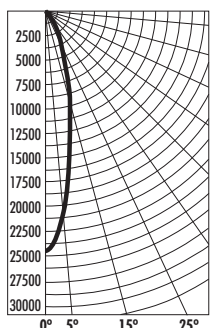
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	342	293	247
6' x 6'	237	203	172
7' x 7'	174	149	126
8' x 8'	133	114	97
9' x 9'	105	90	76
10' x 10'	85	73	62
11' x 11'	71	61	51
12' x 12'	59	51	43

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	352
55°	201
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	24761	
5°	21760	2077
15°	9385	2660
25°	3937	1822
35°	1686	1059
45°	5	4
55°	0	0
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	6560	86.0
0-40°	7618	99.9
0-60°	7624	100.0
0-90°	7624	100.0
90-180°	0	0
0-180°	7624	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0				
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10					
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95	95	
2	110	106	102	100	108	104	101	98	101	98	96	94	91	89	96	94	92	91	91	
3	106	110	96	93	104	99	95	92	96	93	91	88	85	84	91	89	92	90	88	87
4	101	95	91	87	100	94	90	87	92	89	86	90	87	85	88	86	84	83	83	83
5	98	91	86	82	96	90	85	82	88	84	81	87	83	81	85	82	80	79	79	79
6	94	87	82	78	93	86	81	78	85	81	78	83	80	77	82	79	77	75	75	75
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72	72	72
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69	69	69
9	84	76	72	68	83	76	71	68	75	71	68	74	70	68	73	70	68	66	66	66
10	81	73	69	66	80	73	69	65	72	68	65	72	68	65	71	68	65	64	64	64

Catalog Number: L6-9040-G3; L600H-CL
PHOTOMETRIC REPORT
 Test Number: PR04152091
 Total Lumen Output: 8088
 Center Beam Candpower: 8767
 Luminaire Efficacy: 88.4 lm/w (4K)
 Luminaire Spacing Criteria: 0.93
 Luminaire: Clear Specular Alzak®
 Medium Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	243.0	77.5	7.1'
7'	178.6	56.9	8.3'
8'	136.7	43.6	9.5'
9'	108.0	34.4	10.7'
10'	87.5	27.9	11.9'
11'	72.3	23.1	13.0'
12'	60.8	19.4	14.2'
13'	51.8	16.5	15.4'
14'	44.6	14.2	16.6'
15'	38.9	12.4	17.8'

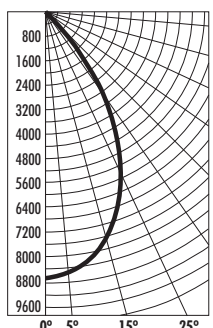
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	359	291	226
6' x 6'	249	202	157
7' x 7'	183	149	116
8' x 8'	140	114	88
9' x 9'	111	90	70
10' x 10'	90	73	57
11' x 11'	74	60	47
12' x 12'	62	51	39

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	34688
55°	237
65°	0
75°	490
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	8750	
5°	8679	828
15°	7826	2218
25°	5862	2713
35°	3121	1961
45°	466	361
55°	3	2
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	5760	71.2
0-40°	7721	95.5
0-60°	8084	100.0
0-90°	8087	100.0
90-180°	0	0
0-180°	8087	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0				
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10					
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	100
1	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94	94	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87	87	87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81	81	81
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	75	75	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70	70	70
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	66	66	66
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61	61	61
8	79	70	64	60	78	69	63	60	68	63	59	67	62	59	66	62	59	57	57	57
9	75	66	60	56	74	65	60	56	64	59	56	63	59	55	63	58	55	54	54	54
10	72	62	56	52	71	62	56	52	61	56	52	60	55	52	59	55	52	51	51	51

Catalog Number: L6-9040-G3; L600HW-CL
PHOTOMETRIC REPORT
 Test Number: PR04152094
 Total Lumen Output: 8127
 Center Beam Candpower: 6223
 Luminaire Efficacy: 88.8 lm/w (4K)
 Luminaire Spacing Criteria: 1.12
 Luminaire: Clear Specular Alzak®
 Wide Flood Hyperbolic Reflector.
 CIE-Type: Direct



INITIAL FOOTCANDLES

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6'	161.5	44.4	9.0'
7'	118.7	32.6	10.5'
8'	90.9	24.9	12.0'
9'	71.8	19.7	13.5'
10'	58.2	16.0	15.0'
11'	48.1	13.2	16.5'
12'	40.4	11.1	18.0'
13'	34.4	9.4	19.5'
14'	29.7	8.1	21.0'
15'	25.8	7.1	22.5'

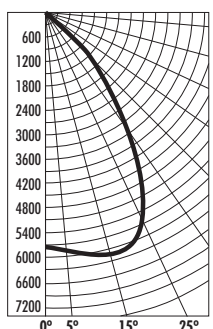
AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 30% Floors

Luminaire Spacing	Room Cavity Ratio		
	RCR1	RCR4	RCR8
5' x 5'	364	283	215
6' x 6'	253	196	149
7' x 7'	186	144	109
8' x 8'	142	110	84
9' x 9'	112	87	66
10' x 10'	91	71	54
11' x 11'	75	58	44
12' x 12'	63	49	37

LUMINANCE DATA

Angle in Degrees	Candela/M ²
45°	93807
55°	186
65°	0
75°	0
85°	0



CANDLEPOWER DISTRIBUTION (Candelas)

Angle	Candela	Lumens
0°	5816	
5°	5881	561
15°	6219	1763
25°	5581	2583
35°	3566	2240
45°	1261	977
55°	2	2
65°	0	0
75°	0	0
85°	0	0

ZONAL LUMEN SUMMARY

Zone	Lumens%	%Fixtures
0-30°	4907	60.4
0-40°	7148	88.0
0-60°	8126	100.0
0-90°	8126	100.0
90-180°	0	0
0-180°	8126	100.0

CCT MULTIPLIER

(3300-4000 Lumens)
 27K = 0.91 35K = 0.99
 3K = 0.96 4K = 1.00

COEFFICIENTS OF UTILIZATION - % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80			70			50			30			10			0				
	PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10					
0	117	117	117	117	115	115	115	115	110	110	110	105	105	105	101	101	101	99	99	99
1	112	109	106	104	109	107	104	102	103	101	99	99	98	96	96	94	93	92	92	92
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84	84	84
3	100	93	88	84	98	92	87	83	89	85	82	87	83	80	84	82</				



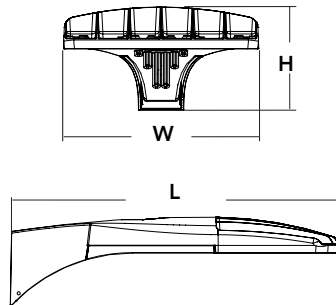
D-Series Size 0 LED Area Luminaire



d#series

Specifications

EPA:	0.95 ft ² (.09 m ²)
Length:	26" (66.0 cm)
Width:	13" (33.0 cm)
Height:	7" (17.8 cm)
Weight (max):	16 lbs (7.25 kg)



Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED 40C 1000 40K T3M MVOLT SPA DDBXD

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting
DSX0 LED	Forward optics 20C 20 LEDs (one engine) 40C 40 LEDs (two engines) Rotated optics¹ 30C 30 LEDs (one engine)	530 530 mA 700 700 mA 1000 1000 mA (1 A) ²	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted ³	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide BLC Backlight control ² LCCO Left corner cutoff ² RCCO Right corner cutoff ²	MVOLT ⁴ 120 ⁴ 208 ⁴ 240 ⁴ 277 ⁴ 347 ⁵ 480 ⁵	Shipped included SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor ⁶ RPUMBA Round pole universal mounting adaptor ⁶ Shipped separately⁷ KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)

Control options	Other options	Finish (required)
Shipped installed PER NEMA twist-lock receptacle only (no controls) ⁸ PER5 Five-wire receptacle only (no controls) ^{8,9} PER7 Seven-wire receptacle only (no controls) ^{8,9} DMG 0-10V dimming driver (no controls) ¹⁰ DCR Dimmable and controllable via ROAM® (no controls) ¹¹ PIR Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ¹² PIRH Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ¹²	Shipped installed HS House-side shield ¹⁶ SF Single fuse (120, 277, 347V) ¹⁷ DF Double fuse (208, 240, 480V) ¹⁷ L90 Left rotated optics ¹ R90 Right rotated optics ¹ DDL Diffused drop lens ¹⁶	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLTXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Accessories	
DLI127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹⁸
DLI347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹⁸
DLI480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹⁸
SC U	Shorting cap ¹⁸
DSX0HS 20C U	House-side shield for 20 LED unit ¹⁶
DSX0HS 30C U	House-side shield for 30 LED unit ¹⁶
DSX0HS 40C U	House-side shield for 40 LED unit ¹⁶
DSX0DDL U	Diffused drop lens (polycarbonate) ¹⁶
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish) ⁷
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) ⁷

For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

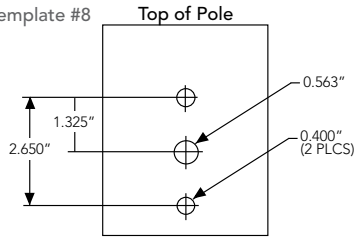
- 30 LEDs (30C option) and rotated options (L90 or R90) only available together.
- Not available with AMBPC.
- AMBPC only available with 530mA or 700mA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120V, 208V, 240V or 277V options only when ordering with fusing (SF, DF options).
- Not available with single board, 530mA product (20C 530 or 30C 530). Not available with BL30, BL50 or PNMT options.
- Available as a separate combination accessory: PUMBA (finish) U; 1.5 G vibration load rating per ANCI C136.31.
- Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Not available with DCR.
- DMG option for 347V or 480V requires 1000mA.

- Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A with PIR options PER5, PER7, BL30, BL50 or PNMT options.
- PIR and PIR1FC3V specify the [SensorSwitch SBGR-10-ODP](#) control; PIRH and PIRH1FC3V specify the [SensorSwitch SBGR-6-ODP](#) control; see [Motion Sensor Guide](#) for details. Dimming driver standard. Not available with PER5 or PER7. Ambient sensor disabled when ordered with DCR. Separate on/off required.
- Requires an additional switched circuit.
- Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, PER5, PER7 or PNMT options.
- Dimming driver standard. MVOLT only. Not available with 347V, 480V, DCR, PER5, PER7, BL30 or BL50.
- Also available as a separate accessory; see Accessories information.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Controls.



Drilling

Template #8



DSXO shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	DM29AS	2 at 90° *
DM28AS	2 at 180°	DM39AS	3 at 90° *
DM49AS	4 at 90° *	DM32AS	3 at 120° **

Example: SSA 20 4C DM19AS DDBXD

Visit Lithonia Lighting's **POLES CENTRAL** to see our wide selection of poles, accessories and educational tools.

*Round pole top must be 3.25" O.D. minimum.

**For round pole mounting (RPA) only.

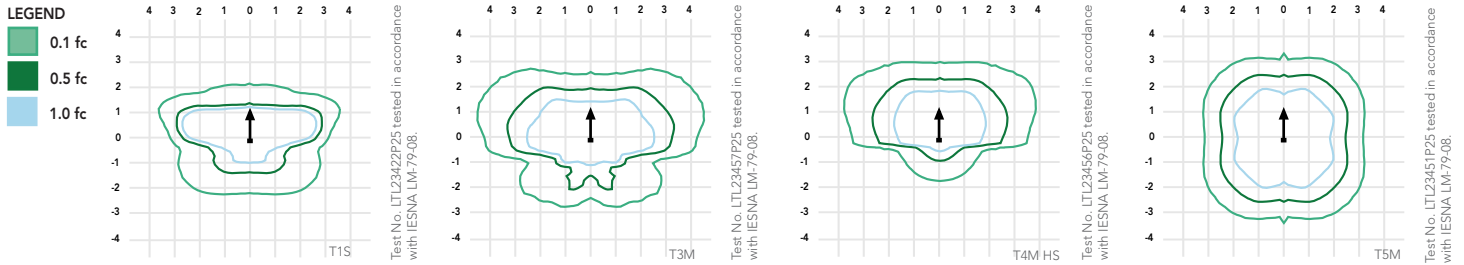
Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [D-Series Area homepage](#).

Isofootcandle plots for the DSXO LED 40C 1000 40K. Distances are in units of mounting height (20').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

Number of LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
20C	530	35	0.34	0.22	0.21	0.20	--	--
	700	45	0.47	0.28	0.24	0.22	0.18	0.14
	1000	72	0.76	0.45	0.39	0.36	0.36	0.26
30C	530	52	0.51	0.31	0.28	0.25	--	--
	700	70	0.72	0.43	0.37	0.34	0.25	0.19
	1000	104	1.11	0.64	0.56	0.49	0.47	0.34
40C	530	68	0.71	0.41	0.36	0.33	0.25	0.19
	700	91	0.94	0.55	0.48	0.42	0.33	0.24
	1000	138	1.45	0.84	0.73	0.64	0.69	0.50

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSXO LED 20C 1000			
	1	0.98	0.96	0.93
	DSXO LED 40C 1000			
	1	0.98	0.95	0.90
	DSXO LED 40C 700			
	1	0.99	0.99	0.99



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																							
LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)				40K (4000 K, 70 CRI)				50K (5000 K, 70 CRI)				AMBPC (Amber Phosphor Converted)							
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	530 mA	35 W	T1S	4,079	1	0	1	117	4,380	1	0	1	125	4,408	1	0	1	126	2,541	1	0	1	73
			T2S	4,206	1	0	1	120	4,516	1	0	1	129	4,544	1	0	1	130	2,589	1	0	1	74
			T2M	4,109	1	0	1	117	4,413	1	0	1	126	4,440	1	0	1	127	2,539	1	0	1	73
			T3S	4,104	1	0	1	117	4,407	1	0	1	126	4,435	1	0	1	127	2,558	1	0	1	73
			T3M	4,142	1	0	1	118	4,447	1	0	1	127	4,475	1	0	1	128	2,583	1	0	1	74
			T4M	4,198	1	0	1	120	4,508	1	0	1	129	4,536	1	0	1	130	2,570	1	0	1	73
			FTM	4,135	1	0	1	118	4,440	1	0	2	127	4,468	1	0	2	128	2,540	1	0	1	73
			TSVS	4,368	2	0	0	125	4,691	2	0	0	134	4,720	2	0	0	135	2,650	1	0	0	76
			T5S	4,401	2	0	2	126	4,725	2	0	0	135	4,755	2	0	0	136	2,690	1	0	0	77
			T5M	4,408	2	0	1	126	4,734	3	0	1	135	4,763	3	0	1	136	2,658	2	0	0	76
			TSW	4,344	3	0	1	124	4,664	3	0	1	133	4,693	3	0	1	134	2,663	2	0	1	76
			BLC	3,071	1	0	1	88	3,297	1	0	1	94	3,318	1	0	1	95					
	LCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92							
	RCCO	2,983	1	0	1	85	3,204	1	0	1	92	3,224	1	0	1	92							
	T1S	5,181	1	0	1	115	5,563	1	0	1	124	5,598	1	0	1	124	3,144	1	0	1	70		
	T2S	5,342	1	0	1	119	5,736	1	0	1	127	5,772	1	0	1	128	3,203	1	0	1	71		
	T2M	5,219	1	0	1	116	5,605	1	0	1	125	5,640	1	0	1	125	3,141	1	0	1	70		
	T3S	5,213	1	0	1	116	5,598	1	0	1	124	5,633	1	0	1	125	3,165	1	0	1	70		
	T3M	5,260	1	0	1	117	5,649	1	0	2	126	5,684	1	0	2	126	3,196	1	0	1	71		
	T4M	5,332	1	0	1	118	5,725	1	0	2	127	5,761	1	0	2	128	3,179	1	0	1	71		
	FTM	5,252	1	0	2	117	5,640	1	0	2	125	5,675	1	0	2	126	3,143	1	0	1	70		
	TSVS	5,548	2	0	0	123	5,958	2	0	0	132	5,995	2	0	0	133	3,278	2	0	0	73		
	T5S	5,589	2	0	0	124	6,002	2	0	0	133	6,039	2	0	0	134	3,328	2	0	0	74		
	T5M	5,599	3	0	1	124	6,012	3	0	1	134	6,050	3	0	1	134	3,288	2	0	1	73		
	TSW	5,517	3	0	1	123	5,924	3	0	1	132	5,961	3	0	1	132	3,295	2	0	1	73		
	BLC	3,909	1	0	1	87	4,198	1	0	1	93	4,224	1	0	1	94							
	LCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91							
	RCCO	3,798	1	0	1	84	4,078	1	0	1	91	4,104	1	0	1	91							
	T1S	7,085	1	0	1	98	7,608	2	0	2	106	7,656	2	0	2	106							
	T2S	7,305	1	0	1	101	7,845	2	0	2	109	7,894	2	0	2	110							
	T2M	7,138	1	0	2	99	7,665	2	0	2	106	7,713	2	0	2	107							
	T3S	7,129	1	0	1	99	7,656	2	0	2	106	7,704	2	0	2	107							
	T3M	7,194	1	0	2	100	7,725	2	0	2	107	7,773	2	0	2	108							
	T4M	7,292	1	0	2	101	7,830	2	0	2	109	7,879	2	0	2	109							
	FTM	7,183	1	0	2	100	7,713	1	0	2	107	7,761	1	0	2	108							
	TSVS	7,588	2	0	0	105	8,148	3	0	0	113	8,199	3	0	0	114							
T5S	7,644	2	0	0	106	8,208	2	0	0	114	8,259	2	0	0	115								
T5M	7,657	3	0	1	106	8,222	3	0	1	114	8,274	3	0	1	115								
TSW	7,545	3	0	1	105	8,102	3	0	2	113	8,153	3	0	2	113								
BLC	5,162	1	0	1	72	5,543	1	0	2	77	5,578	1	0	1	77								
LCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75								
RCCO	5,015	1	0	2	70	5,386	1	0	2	75	5,419	1	0	2	75								

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																							
LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40C (40 LEDs)	530 mA	68 W	T1S	7,926	2	0	2	117	8,511	2	0	2	125	8,564	2	0	2	126	4,878	1	0	1	72
			T2S	8,172	2	0	2	120	8,775	2	0	2	129	8,830	2	0	2	130	4,969	1	0	1	73
			T2M	7,985	2	0	2	117	8,574	2	0	2	126	8,628	2	0	2	127	4,874	1	0	1	72
			T3S	7,975	1	0	2	117	8,564	2	0	2	126	8,617	2	0	2	127	4,910	1	0	1	72
			T3M	8,047	2	0	2	118	8,642	2	0	2	127	8,696	2	0	2	128	4,958	1	0	2	73
			T4M	8,157	1	0	2	120	8,759	2	0	2	129	8,813	2	0	2	130	4,932	1	0	2	73
			TFTM	8,035	1	0	2	118	8,628	2	0	2	127	8,682	2	0	2	128	4,876	1	0	2	72
			TSVS	8,488	2	0	0	125	9,115	3	0	0	134	9,172	3	0	0	135	5,086	2	0	0	75
			T5S	8,550	2	0	0	126	9,182	3	0	1	135	9,239	3	0	1	136	5,163	2	0	0	76
			T5M	8,565	3	0	1	126	9,198	3	0	2	135	9,255	3	0	2	136	5,102	3	0	1	75
			TSW	8,440	3	0	2	124	9,063	3	0	2	133	9,120	3	0	2	134	5,112	3	0	1	75
			BLC	6,142	1	0	2	90	6,595	1	0	2	97	6,636	1	0	2	98					
	LCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95							
	RCCO	5,967	1	0	2	88	6,407	1	0	2	94	6,447	1	0	2	95							
	T1S	10,066	2	0	2	111	10,810	2	0	2	119	10,877	2	0	2	120	6,206	2	0	2	68		
	T2S	10,379	2	0	2	114	11,145	2	0	2	122	11,215	2	0	2	123	6,322	2	0	2	69		
	T2M	10,141	2	0	2	111	10,890	2	0	2	120	10,958	2	0	2	120	6,201	2	0	2	68		
	T3S	10,129	2	0	2	111	10,877	2	0	2	120	10,945	2	0	2	120	6,247	1	0	2	69		
	T3M	10,221	2	0	2	112	10,975	2	0	2	121	11,044	2	0	2	121	6,308	2	0	2	69		
	T4M	10,359	2	0	2	114	11,124	2	0	2	122	11,194	2	0	2	123	6,275	1	0	2	69		
	TFTM	10,205	2	0	2	112	10,958	2	0	3	120	11,027	2	0	3	121	6,203	1	0	2	68		
	TSVS	10,781	3	0	0	118	11,576	3	0	1	127	11,649	3	0	1	128	6,569	2	0	0	72		
	T5S	10,860	3	0	1	119	11,662	3	0	1	128	11,734	3	0	1	129	6,569	2	0	0	72		
	T5M	10,879	3	0	2	120	11,682	3	0	2	128	11,755	3	0	2	129	6,491	3	0	1	71		
	TSW	10,719	3	0	2	118	11,511	4	0	2	126	11,583	4	0	2	127	6,504	3	0	2	71		
	BLC	7,819	1	0	2	86	8,396	1	0	2	92	8,448	1	0	2	93							
	LCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90							
	RCCO	7,596	1	0	2	83	8,157	1	0	2	90	8,208	1	0	2	90							
	T1S	13,767	2	0	2	100	14,783	3	0	3	107	14,876	3	0	3	108							
	T2S	14,194	2	0	2	103	15,242	3	0	3	110	15,338	3	0	3	111							
	T2M	13,869	2	0	2	101	14,893	3	0	3	108	14,986	3	0	3	109							
	T3S	13,852	2	0	2	100	14,875	2	0	2	108	14,968	2	0	2	108							
	T3M	13,978	2	0	2	101	15,010	3	0	3	109	15,104	3	0	3	109							
	T4M	14,168	2	0	2	103	15,214	3	0	3	110	15,309	3	0	3	111							
	TFTM	13,956	2	0	3	101	14,987	2	0	3	109	15,080	2	0	3	109							
	TSVS	14,744	3	0	1	107	15,832	3	0	1	115	15,931	4	0	1	115							
T5S	14,852	3	0	1	108	15,948	3	0	1	116	16,048	3	0	1	116								
T5M	14,878	4	0	2	108	15,976	4	0	2	116	16,076	4	0	2	116								
TSW	14,660	4	0	2	106	15,742	4	0	2	114	15,840	4	0	2	115								
BLC	10,325	1	0	2	75	11,087	1	0	2	80	11,156	1	0	2	81								
LCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79								
RCCO	10,031	2	0	2	73	10,771	2	0	3	78	10,839	2	0	3	79								

Performance Data

L90 and R90 Rotated Optics

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)					AMBPC (Amber Phosphor Converted)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
				<table border="1"> <tr> <td rowspan="30">30C (30 LEDs)</td> <td rowspan="15">530 mA</td> <td rowspan="15">52 W</td> <td>T1S</td><td>6,130</td><td>2</td><td>0</td><td>2</td><td>118</td><td>6,583</td><td>2</td><td>0</td><td>2</td><td>127</td><td>6,624</td><td>2</td><td>0</td><td>2</td><td>127</td><td>3,841</td><td>2</td><td>0</td><td>2</td><td>74</td> </tr> <tr> <td>T2S</td><td>6,321</td><td>2</td><td>0</td><td>2</td><td>122</td><td>6,787</td><td>2</td><td>0</td><td>2</td><td>131</td><td>6,830</td><td>3</td><td>0</td><td>3</td><td>131</td><td>3,912</td><td>2</td><td>0</td><td>2</td><td>75</td> </tr> <tr> <td>T2M</td><td>6,176</td><td>2</td><td>0</td><td>2</td><td>119</td><td>6,632</td><td>3</td><td>0</td><td>3</td><td>128</td><td>6,673</td><td>3</td><td>0</td><td>3</td><td>128</td><td>3,837</td><td>2</td><td>0</td><td>2</td><td>74</td> </tr> <tr> <td>T3S</td><td>6,168</td><td>2</td><td>0</td><td>2</td><td>119</td><td>6,624</td><td>3</td><td>0</td><td>3</td><td>127</td><td>6,665</td><td>3</td><td>0</td><td>3</td><td>128</td><td>3,866</td><td>2</td><td>0</td><td>2</td><td>74</td> </tr> <tr> <td>T3M</td><td>6,224</td><td>3</td><td>0</td><td>3</td><td>120</td><td>6,684</td><td>3</td><td>0</td><td>3</td><td>129</td><td>6,726</td><td>3</td><td>0</td><td>3</td><td>129</td><td>3,904</td><td>2</td><td>0</td><td>2</td><td>75</td> </tr> <tr> <td>T4M</td><td>6,309</td><td>3</td><td>0</td><td>3</td><td>121</td><td>6,775</td><td>3</td><td>0</td><td>3</td><td>130</td><td>6,817</td><td>3</td><td>0</td><td>3</td><td>131</td><td>3,884</td><td>2</td><td>0</td><td>2</td><td>75</td> </tr> <tr> <td>TFTM</td><td>6,215</td><td>3</td><td>0</td><td>3</td><td>120</td><td>6,673</td><td>3</td><td>0</td><td>3</td><td>128</td><td>6,715</td><td>3</td><td>0</td><td>3</td><td>129</td><td>3,839</td><td>2</td><td>0</td><td>2</td><td>74</td> </tr> <tr> <td>TSVS</td><td>6,565</td><td>2</td><td>0</td><td>0</td><td>126</td><td>7,050</td><td>2</td><td>0</td><td>0</td><td>136</td><td>7,094</td><td>2</td><td>0</td><td>0</td><td>136</td><td>4,005</td><td>2</td><td>0</td><td>0</td><td>77</td> </tr> <tr> <td>T5S</td><td>6,613</td><td>2</td><td>0</td><td>0</td><td>127</td><td>7,102</td><td>2</td><td>0</td><td>0</td><td>137</td><td>7,146</td><td>2</td><td>0</td><td>0</td><td>137</td><td>4,065</td><td>2</td><td>0</td><td>0</td><td>78</td> </tr> <tr> <td>T5M</td><td>6,625</td><td>3</td><td>0</td><td>1</td><td>127</td><td>7,114</td><td>3</td><td>0</td><td>1</td><td>137</td><td>7,159</td><td>3</td><td>0</td><td>1</td><td>138</td><td>4,017</td><td>2</td><td>0</td><td>1</td><td>77</td> </tr> <tr> <td>TSW</td><td>6,528</td><td>3</td><td>0</td><td>1</td><td>126</td><td>7,010</td><td>3</td><td>0</td><td>2</td><td>135</td><td>7,054</td><td>3</td><td>0</td><td>2</td><td>136</td><td>4,025</td><td>3</td><td>0</td><td>1</td><td>77</td> </tr> <tr> <td>BLC</td><td>4,747</td><td>2</td><td>0</td><td>2</td><td>91</td><td>5,098</td><td>2</td><td>0</td><td>2</td><td>98</td><td>5,130</td><td>2</td><td>0</td><td>2</td><td>99</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>LCCO</td><td>4,612</td><td>1</td><td>0</td><td>2</td><td>89</td><td>4,953</td><td>1</td><td>0</td><td>2</td><td>95</td><td>4,984</td><td>1</td><td>0</td><td>2</td><td>96</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>RCCO</td><td>4,612</td><td>1</td><td>0</td><td>2</td><td>89</td><td>4,953</td><td>1</td><td>0</td><td>2</td><td>95</td><td>4,984</td><td>1</td><td>0</td><td>2</td><td>96</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td rowspan="15">700 mA</td> <td rowspan="15">70 W</td> <td>T1S</td><td>7,786</td><td>2</td><td>0</td><td>2</td><td>111</td><td>8,361</td><td>3</td><td>0</td><td>3</td><td>119</td><td>8,413</td><td>3</td><td>0</td><td>3</td><td>120</td><td>4,783</td><td>2</td><td>0</td><td>2</td><td>68</td> </tr> <tr> <td>T2S</td><td>8,028</td><td>2</td><td>0</td><td>2</td><td>115</td><td>8,620</td><td>3</td><td>0</td><td>3</td><td>123</td><td>8,674</td><td>3</td><td>0</td><td>3</td><td>124</td><td>4,873</td><td>2</td><td>0</td><td>2</td><td>70</td> </tr> <tr> <td>T2M</td><td>7,844</td><td>3</td><td>0</td><td>3</td><td>112</td><td>8,423</td><td>3</td><td>0</td><td>3</td><td>120</td><td>8,476</td><td>3</td><td>0</td><td>3</td><td>121</td><td>4,779</td><td>2</td><td>0</td><td>2</td><td>68</td> </tr> <tr> <td>T3S</td><td>7,834</td><td>3</td><td>0</td><td>3</td><td>112</td><td>8,413</td><td>3</td><td>0</td><td>3</td><td>120</td><td>8,465</td><td>3</td><td>0</td><td>3</td><td>121</td><td>4,815</td><td>2</td><td>0</td><td>2</td><td>69</td> </tr> <tr> <td>T3M</td><td>7,905</td><td>3</td><td>0</td><td>3</td><td>113</td><td>8,489</td><td>3</td><td>0</td><td>3</td><td>121</td><td>8,542</td><td>3</td><td>0</td><td>3</td><td>122</td><td>4,862</td><td>3</td><td>0</td><td>3</td><td>69</td> </tr> <tr> <td>T4M</td><td>8,013</td><td>3</td><td>0</td><td>3</td><td>114</td><td>8,604</td><td>3</td><td>0</td><td>3</td><td>123</td><td>8,658</td><td>3</td><td>0</td><td>3</td><td>124</td><td>4,837</td><td>3</td><td>0</td><td>3</td><td>69</td> </tr> <tr> <td>TFTM</td><td>7,893</td><td>3</td><td>0</td><td>3</td><td>113</td><td>8,476</td><td>3</td><td>0</td><td>3</td><td>121</td><td>8,529</td><td>3</td><td>0</td><td>3</td><td>122</td><td>4,781</td><td>3</td><td>0</td><td>3</td><td>68</td> </tr> <tr> <td>TSVS</td><td>8,338</td><td>2</td><td>0</td><td>0</td><td>119</td><td>8,954</td><td>3</td><td>0</td><td>0</td><td>128</td><td>9,010</td><td>3</td><td>0</td><td>0</td><td>129</td><td>4,988</td><td>2</td><td>0</td><td>0</td><td>71</td> </tr> <tr> <td>T5S</td><td>8,400</td><td>2</td><td>0</td><td>0</td><td>120</td><td>9,020</td><td>3</td><td>0</td><td>0</td><td>129</td><td>9,076</td><td>3</td><td>0</td><td>0</td><td>130</td><td>5,063</td><td>2</td><td>0</td><td>0</td><td>72</td> </tr> <tr> <td>T5M</td><td>8,414</td><td>3</td><td>0</td><td>1</td><td>120</td><td>9,036</td><td>3</td><td>0</td><td>2</td><td>129</td><td>9,092</td><td>3</td><td>0</td><td>2</td><td>130</td><td>5,003</td><td>3</td><td>0</td><td>1</td><td>71</td> </tr> <tr> <td>TSW</td><td>8,291</td><td>3</td><td>0</td><td>2</td><td>118</td><td>8,903</td><td>3</td><td>0</td><td>2</td><td>127</td><td>8,959</td><td>3</td><td>0</td><td>2</td><td>128</td><td>5,013</td><td>3</td><td>0</td><td>1</td><td>72</td> </tr> <tr> <td>BLC</td><td>6,044</td><td>2</td><td>0</td><td>2</td><td>86</td><td>6,490</td><td>3</td><td>0</td><td>3</td><td>93</td><td>6,530</td><td>3</td><td>0</td><td>3</td><td>93</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>LCCO</td><td>5,872</td><td>1</td><td>0</td><td>2</td><td>84</td><td>6,305</td><td>1</td><td>0</td><td>2</td><td>90</td><td>6,345</td><td>1</td><td>0</td><td>2</td><td>91</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>RCCO</td><td>5,872</td><td>1</td><td>0</td><td>2</td><td>84</td><td>6,305</td><td>1</td><td>0</td><td>2</td><td>90</td><td>6,345</td><td>1</td><td>0</td><td>2</td><td>91</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td rowspan="15">1000 mA</td> <td rowspan="15">104 W</td> <td>T1S</td><td>10,648</td><td>3</td><td>0</td><td>3</td><td>102</td><td>11,434</td><td>3</td><td>0</td><td>3</td><td>110</td><td>11,506</td><td>3</td><td>0</td><td>3</td><td>111</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T2S</td><td>10,979</td><td>3</td><td>0</td><td>3</td><td>106</td><td>11,789</td><td>3</td><td>0</td><td>3</td><td>113</td><td>11,863</td><td>3</td><td>0</td><td>3</td><td>114</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T2M</td><td>10,727</td><td>3</td><td>0</td><td>3</td><td>103</td><td>11,519</td><td>3</td><td>0</td><td>3</td><td>111</td><td>11,591</td><td>3</td><td>0</td><td>3</td><td>111</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T3S</td><td>10,714</td><td>3</td><td>0</td><td>3</td><td>103</td><td>11,505</td><td>3</td><td>0</td><td>3</td><td>111</td><td>11,577</td><td>3</td><td>0</td><td>3</td><td>111</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T3M</td><td>10,812</td><td>3</td><td>0</td><td>3</td><td>104</td><td>11,610</td><td>4</td><td>0</td><td>4</td><td>112</td><td>11,682</td><td>4</td><td>0</td><td>4</td><td>112</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T4M</td><td>10,958</td><td>3</td><td>0</td><td>3</td><td>105</td><td>11,767</td><td>3</td><td>0</td><td>3</td><td>113</td><td>11,841</td><td>3</td><td>0</td><td>3</td><td>114</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TFTM</td><td>10,795</td><td>3</td><td>0</td><td>3</td><td>104</td><td>11,592</td><td>3</td><td>0</td><td>3</td><td>111</td><td>11,664</td><td>4</td><td>0</td><td>4</td><td>112</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TSVS</td><td>11,404</td><td>3</td><td>0</td><td>0</td><td>110</td><td>12,245</td><td>3</td><td>0</td><td>1</td><td>118</td><td>12,322</td><td>3</td><td>0</td><td>1</td><td>118</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T5S</td><td>11,487</td><td>3</td><td>0</td><td>1</td><td>110</td><td>12,336</td><td>3</td><td>0</td><td>1</td><td>119</td><td>12,413</td><td>3</td><td>0</td><td>1</td><td>119</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>T5M</td><td>11,508</td><td>3</td><td>0</td><td>2</td><td>111</td><td>12,357</td><td>4</td><td>0</td><td>2</td><td>119</td><td>12,434</td><td>4</td><td>0</td><td>2</td><td>120</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>TSW</td><td>11,339</td><td>4</td><td>0</td><td>2</td><td>109</td><td>12,176</td><td>4</td><td>0</td><td>2</td><td>117</td><td>12,252</td><td>4</td><td>0</td><td>2</td><td>118</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>BLC</td><td>7,981</td><td>3</td><td>0</td><td>3</td><td>77</td><td>8,570</td><td>3</td><td>0</td><td>3</td><td>82</td><td>8,624</td><td>3</td><td>0</td><td>3</td><td>83</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>LCCO</td><td>7754</td><td>1</td><td>0</td><td>2</td><td>75</td><td>8326</td><td>2</td><td>0</td><td>2</td><td>80</td><td>8378</td><td>2</td><td>0</td><td>2</td><td>81</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>RCCO</td><td>7754</td><td>1</td><td>0</td><td>2</td><td>75</td><td>8326</td><td>2</td><td>0</td><td>2</td><td>80</td><td>8378</td><td>2</td><td>0</td><td>2</td><td>81</td><td></td><td></td><td></td><td></td><td></td> </tr> </table>																					30C (30 LEDs)	530 mA	52 W	T1S	6,130	2	0	2	118	6,583	2	0	2	127	6,624	2	0	2	127	3,841	2	0	2	74	T2S	6,321	2	0	2	122	6,787	2	0	2	131	6,830	3	0	3	131	3,912	2	0	2	75	T2M	6,176	2	0	2	119	6,632	3	0	3	128	6,673	3	0	3	128	3,837	2	0	2	74	T3S	6,168	2	0	2	119	6,624	3	0	3	127	6,665	3	0	3	128	3,866	2	0	2	74	T3M	6,224	3	0	3	120	6,684	3	0	3	129	6,726	3	0	3	129	3,904	2	0	2	75	T4M	6,309	3	0	3	121	6,775	3	0	3	130	6,817	3	0	3	131	3,884	2	0	2	75	TFTM	6,215	3	0	3	120	6,673	3	0	3	128	6,715	3	0	3	129	3,839	2	0	2	74	TSVS	6,565	2	0	0	126	7,050	2	0	0	136	7,094	2	0	0	136	4,005	2	0	0	77	T5S	6,613	2	0	0	127	7,102	2	0	0	137	7,146	2	0	0	137	4,065	2	0	0	78	T5M	6,625	3	0	1	127	7,114	3	0	1	137	7,159	3	0	1	138	4,017	2	0	1	77	TSW	6,528	3	0	1	126	7,010	3	0	2	135	7,054	3	0	2	136	4,025	3	0	1	77	BLC	4,747	2	0	2	91	5,098	2	0	2	98	5,130	2	0	2	99						LCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96						RCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96						700 mA	70 W	T1S	7,786	2	0	2	111	8,361	3	0	3	119	8,413	3	0	3	120	4,783	2	0	2	68	T2S	8,028	2	0	2	115	8,620	3	0	3	123	8,674	3	0	3	124	4,873	2	0	2	70	T2M	7,844	3	0	3	112	8,423	3	0	3	120	8,476	3	0	3	121	4,779	2	0	2	68	T3S	7,834	3	0	3	112	8,413	3	0	3	120	8,465	3	0	3	121	4,815	2	0	2	69	T3M	7,905	3	0	3	113	8,489	3	0	3	121	8,542	3	0	3	122	4,862	3	0	3	69	T4M	8,013	3	0	3	114	8,604	3	0	3	123	8,658	3	0	3	124	4,837	3	0	3	69	TFTM	7,893	3	0	3	113	8,476	3	0	3	121	8,529	3	0	3	122	4,781	3	0	3	68	TSVS	8,338	2	0	0	119	8,954	3	0	0	128	9,010	3	0	0	129	4,988	2	0	0	71	T5S	8,400	2	0	0	120	9,020	3	0	0	129	9,076	3	0	0	130	5,063	2	0	0	72	T5M	8,414	3	0	1	120	9,036	3	0	2	129	9,092	3	0	2	130	5,003	3	0	1	71	TSW	8,291	3	0	2	118	8,903	3	0	2	127	8,959	3	0	2	128	5,013	3	0	1	72	BLC	6,044	2	0	2	86	6,490	3	0	3	93	6,530	3	0	3	93						LCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91						RCCO	5,872	1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91						1000 mA	104 W	T1S	10,648	3	0	3	102	11,434	3	0	3	110	11,506	3	0	3	111						T2S	10,979	3	0	3	106	11,789	3	0	3	113	11,863	3	0	3	114						T2M	10,727	3	0	3	103	11,519	3	0	3	111	11,591	3	0	3	111						T3S	10,714	3	0	3	103	11,505	3	0	3	111	11,577	3	0	3	111						T3M	10,812	3	0	3	104	11,610	4	0	4	112	11,682	4	0	4	112						T4M	10,958	3	0	3	105	11,767	3	0	3	113	11,841	3	0	3	114						TFTM	10,795	3	0	3	104	11,592	3	0	3	111	11,664	4	0	4	112						TSVS	11,404	3	0	0	110	12,245	3	0	1	118	12,322	3	0	1	118						T5S	11,487	3	0	1	110	12,336	3	0	1	119	12,413	3	0	1	119						T5M	11,508	3	0	2	111	12,357	4	0	2	119	12,434	4	0	2	120						TSW	11,339	4	0	2	109	12,176	4	0	2	117	12,252	4	0	2	118						BLC	7,981	3	0	3	77	8,570	3	0	3	82	8,624	3	0	3	83						LCCO	7754	1	0	2	75	8326	2	0	2	80	8378	2	0	2	81						RCCO	7754	1	0	2	75	8326	2	0	2	80	8378	2	0	2	81	
30C (30 LEDs)	530 mA	52 W	T1S	6,130	2	0	2	118	6,583	2	0	2	127	6,624	2	0	2	127	3,841	2	0	2	74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T2S	6,321	2	0	2	122	6,787	2	0	2	131	6,830	3	0	3	131	3,912	2	0	2	75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T2M	6,176	2	0	2	119	6,632	3	0	3	128	6,673	3	0	3	128	3,837	2	0	2	74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T3S	6,168	2	0	2	119	6,624	3	0	3	127	6,665	3	0	3	128	3,866	2	0	2	74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T3M	6,224	3	0	3	120	6,684	3	0	3	129	6,726	3	0	3	129	3,904	2	0	2	75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T4M	6,309	3	0	3	121	6,775	3	0	3	130	6,817	3	0	3	131	3,884	2	0	2	75																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			TFTM	6,215	3	0	3	120	6,673	3	0	3	128	6,715	3	0	3	129	3,839	2	0	2	74																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			TSVS	6,565	2	0	0	126	7,050	2	0	0	136	7,094	2	0	0	136	4,005	2	0	0	77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T5S	6,613	2	0	0	127	7,102	2	0	0	137	7,146	2	0	0	137	4,065	2	0	0	78																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			T5M	6,625	3	0	1	127	7,114	3	0	1	137	7,159	3	0	1	138	4,017	2	0	1	77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			TSW	6,528	3	0	1	126	7,010	3	0	2	135	7,054	3	0	2	136	4,025	3	0	1	77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			BLC	4,747	2	0	2	91	5,098	2	0	2	98	5,130	2	0	2	99																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			LCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			RCCO	4,612	1	0	2	89	4,953	1	0	2	95	4,984	1	0	2	96																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			700 mA	70 W	T1S	7,786	2	0	2	111	8,361	3	0	3	119	8,413	3	0	3	120	4,783	2	0	2		68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	T2S	8,028			2	0	2	115	8,620	3	0	3	123	8,674	3	0	3	124	4,873	2	0	2	70																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T2M	7,844			3	0	3	112	8,423	3	0	3	120	8,476	3	0	3	121	4,779	2	0	2	68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T3S	7,834			3	0	3	112	8,413	3	0	3	120	8,465	3	0	3	121	4,815	2	0	2	69																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T3M	7,905			3	0	3	113	8,489	3	0	3	121	8,542	3	0	3	122	4,862	3	0	3	69																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T4M	8,013			3	0	3	114	8,604	3	0	3	123	8,658	3	0	3	124	4,837	3	0	3	69																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	TFTM	7,893			3	0	3	113	8,476	3	0	3	121	8,529	3	0	3	122	4,781	3	0	3	68																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	TSVS	8,338			2	0	0	119	8,954	3	0	0	128	9,010	3	0	0	129	4,988	2	0	0	71																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T5S	8,400			2	0	0	120	9,020	3	0	0	129	9,076	3	0	0	130	5,063	2	0	0	72																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	T5M	8,414			3	0	1	120	9,036	3	0	2	129	9,092	3	0	2	130	5,003	3	0	1	71																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	TSW	8,291			3	0	2	118	8,903	3	0	2	127	8,959	3	0	2	128	5,013	3	0	1	72																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	BLC	6,044			2	0	2	86	6,490	3	0	3	93	6,530	3	0	3	93																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	LCCO	5,872			1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	RCCO	5,872			1	0	2	84	6,305	1	0	2	90	6,345	1	0	2	91																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	1000 mA	104 W			T1S	10,648	3	0	3	102	11,434	3	0	3	110	11,506	3	0	3	111																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
			T2S	10,979	3	0	3	106	11,789	3	0	3	113	11,863	3	0	3	114																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
T2M			10,727	3	0	3	103	11,519	3	0	3	111	11,591	3	0	3	111																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T3S			10,714	3	0	3	103	11,505	3	0	3	111	11,577	3	0	3	111																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T3M			10,812	3	0	3	104	11,610	4	0	4	112	11,682	4	0	4	112																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T4M			10,958	3	0	3	105	11,767	3	0	3	113	11,841	3	0	3	114																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
TFTM			10,795	3	0	3	104	11,592	3	0	3	111	11,664	4	0	4	112																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
TSVS			11,404	3	0	0	110	12,245	3	0	1	118	12,322	3	0	1	118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T5S			11,487	3	0	1	110	12,336	3	0	1	119	12,413	3	0	1	119																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
T5M			11,508	3	0	2	111	12,357	4	0	2	119	12,434	4	0	2	120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
TSW			11,339	4	0	2	109	12,176	4	0	2	117	12,252	4	0	2	118																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
BLC			7,981	3	0	3	77	8,570	3	0	3	82	8,624	3	0	3	83																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
LCCO			7754	1	0	2	75	8326	2	0	2	80	8378	2	0	2	81																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
RCCO			7754	1	0	2	75	8326	2	0	2	80	8378	2	0	2	81																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 0 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (0.8 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 4000 K (70 minimum CRI) or optional 3000 K (70 minimum CRI) or 5000 K (70 CRI) configurations. The D-Series Size 0 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of

100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 0 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 0 utilizes the AERIS™ series pole drilling pattern. Optional terminal block, tool-less entry, and NEMA photocontrol receptacle are also available.

LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



DESCRIPTION

The Entri LED luminaire features a classic and stylish design with the added benefits of solid state lighting technology, offering outstanding uniformity and energy savings. Using Eaton's proprietary LED LightBAR™ technology and AccuLED Optics™ system, the Entri LED luminaire offers designers vast versatility in system design, function and performance. Use Entri LED for wall mount architectural lighting applications and egress lighting requirements. UL/cUL listed for use in wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

HOUSING: Heavy wall, one-piece, die-cast aluminum construction for precise tolerance control and repeatability in manufacturing. Integral extruded aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. **FACEPLATE / DOOR:** One-piece, die-cast aluminum construction. Captive, side hinged faceplate swings open via release of one flush mount die-cast aluminum latch on housing side panel. **GASKET:** One-piece molded silicone gasket mates perfectly between the door and housing for repeatable seal. **LENS:** Uplight lens is impact-resistant, 5/32" thick tempered frosted glass sealed to housing with continuous bead silicone gasket. Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. **HARDWARE:** Stainless steel mounting screws and latch hardware allow access to electrical components for installation and servicing.

Optics

Choice of six patented, high-efficiency AccuLED Optic distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in

4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT.

Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments, occupancy sensor and dimming options available.

Mounting

JUNCTION BOX: Standard with zinc-plated, quick-mount junction box plate that mounts directly to 4" J-Box. LightBARs mount facing downward. Fixture slides over mounting plate and is secured with two stainless steel fasteners. Mounting plate features a one-piece EPDM gasket on back side of plate to firmly seal fixture to

wall surface, forbidding entry of moisture and particulates. Optional mounting arrangements utilize a die-cast mounting adaptor box to allow for LED battery pack, surface conduit and through branch wiring. The Entri LED luminaire is approved for mounting on combustible surfaces.

Finish

Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

Warranty

Five-year warranty.



ENC/ENT/ENV ENTRI LED

1 - 2 LightBARs
Solid State LED

ARCHITECTURAL WALL
LUMINAIRE



CERTIFICATION DATA

UL/cUL Listed
ISO 9001
IP66 LightBARs
LM79 / LM80 Compliant
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz,
480V/60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA

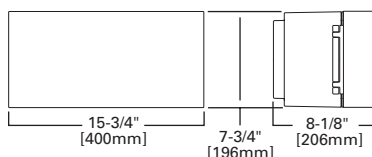
Approximate Net Weight:
16 lbs. (7.3 kgs.)



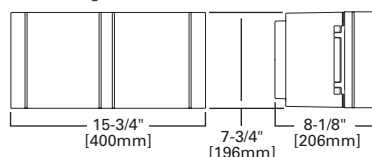
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2015-06-03 10:00:53

DIMENSIONS

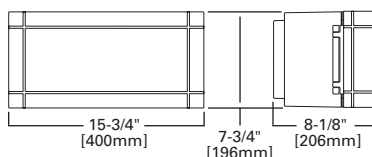
ENC (Round Clean)



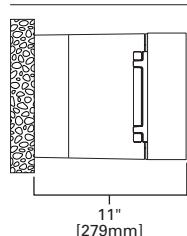
ENT (Triangle Reveals)



ENV (Round Reveals)



CONDUIT MOUNT / BATTERY BACK BOX



POWER AND LUMENS BY BAR COUNT

Number of LightBARs		E01	E02	F01	F02
		21 LED LightBAR		7 LED LightBAR	
Drive Current		350mA		1A	
Power (Watts)	120-277V	25W	47W	26W	50W
Current (A)	120V	0.22	0.40	0.22	0.42
	277V	0.10	0.18	0.10	0.19
Power (Watts)	347V or 480V	31W	52W	32W	55W
Current (A)	347V	0.11	0.16	0.11	0.17
	480V	0.16	0.18	0.16	0.18
Optics					
BL2	Lumens	2,738	5,476	2,260	4,521
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1
BL3	Lumens	2,702	5,405	2,231	4,462
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
BL4	Lumens	2,613	5,225	2,157	4,313
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G1
GZW	Lumens	2,785	5,570	2,299	4,598
	Bug Rating	B2-U0-G2	B3-U0-G3	B1-U0-G1	B2-U0-G2
SLR/SL	Lumens	2,435	4,869	2,010	4,020
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

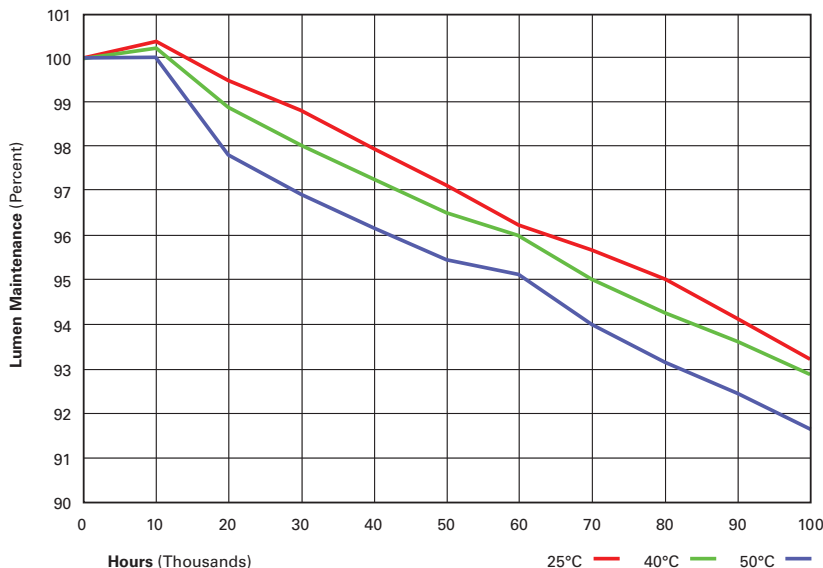
LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

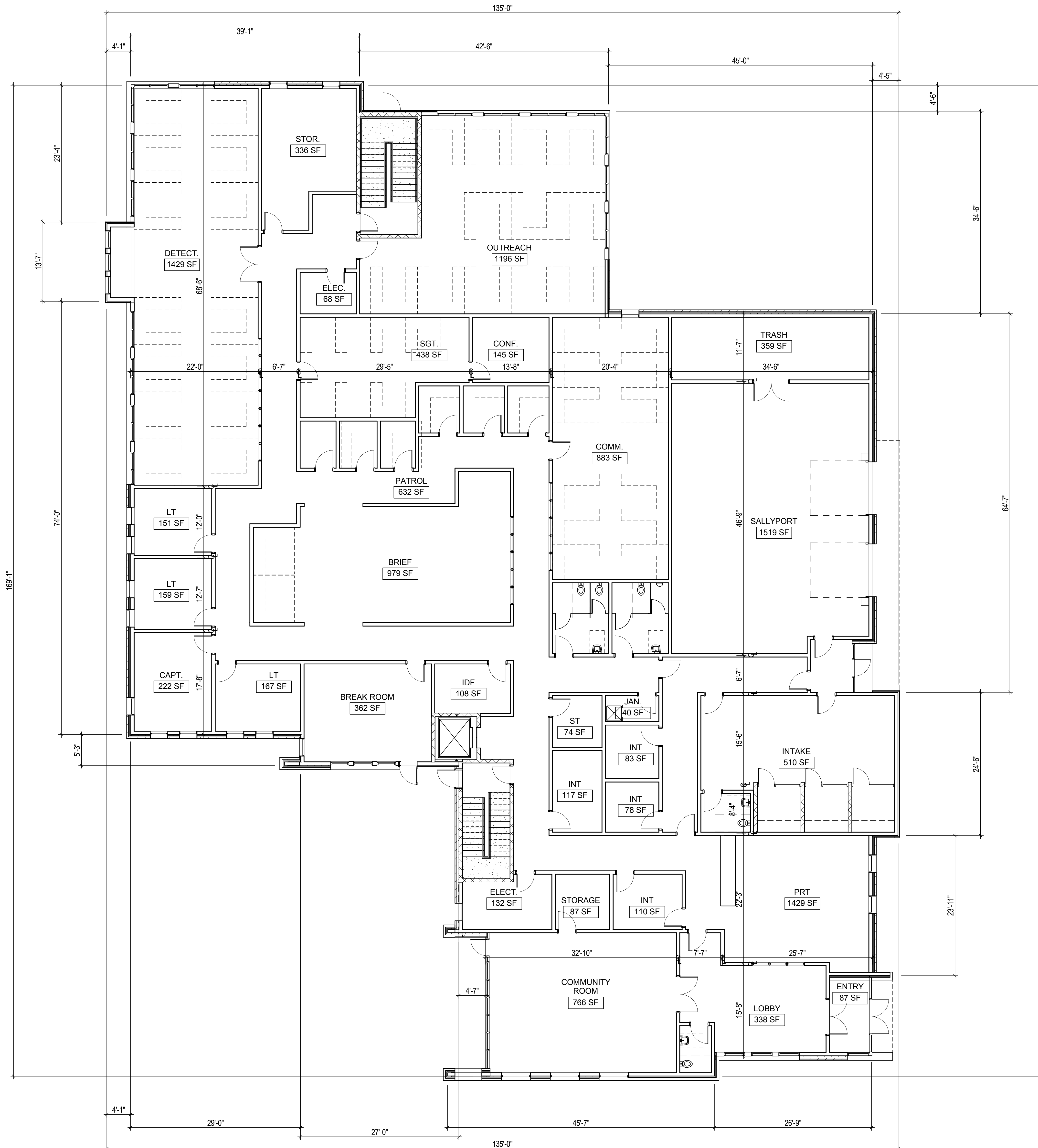


ORDERING INFORMATION

Sample Number: ENC-E02-LED-E1-BL3-GM

Product Family ¹	Number of LightBARs ²	Lamp Type	Voltage	Distribution	Color ⁴
ENC=Entri Round Clean ENT=Entri Triangle Reveals ENV=Entri Round Reveals	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARs F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E1=Electronic (120-277V) 347=347V 480=480V ³	BL2=Type II w/Back Light Control BL3=Type III w/Back Light Control BL4=Type IV w/Back Light Control GZW=Wall Grazer Wide SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)			Accessories (Order Separately) ⁹		
ULG=Uplight Glow (For Uplight Only) PC=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) WG=Wire Guard TP=Tamper Resistant Hardware LCF=LightBAR Cover Plate Matches Housing Finish 7030=70 CRI / 3000K CCT ⁵ 7050=70 CRI / 5000K CCT ⁵ 7060=70 CRI / 5700K CCT ⁵ 8030=80 CRI / 3000K CCT ⁵ OSB=Occupancy Sensor with Back Box (Specify 120V or 277V) ⁶ BBB=Battery Pack with Back Box (Specify 120V or 277V) ⁷ CWB=Cold Weather Battery Pack with Back Box (Specify 120V or 277V) ⁸ DIM=0-10V Dimming Driver			VA2001-XX=Thru-Way Conduit Box VA6172=Wire Guard VA6173=Tamper-Resistant Driver Bit MA1253=10kV Circuit Module Replacement		

- NOTES:**
- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
 - Standard 4000K CCT and greater than 70 CRI. LightBARs for downlight use only.
 - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems)
 - Custom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
 - Extended lead times apply.
 - Available with E02 or F02, only one bar on street side will be wired to sensor. Time delay factory setting 15-minutes. When ordered with PC option, both bars are connected to photocontrol as primary switching means. Standard sensor lens covers 8" mounting height, 360° coverage, maximum 48" diameter. Not available in all configurations or with BBB or CWB options.
 - Specify 120V or 277V. LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
 - Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates one bar for 90-minutes. Not available in all configurations or with OSB option. Consult factory.
 - Replace XX with color suffix.



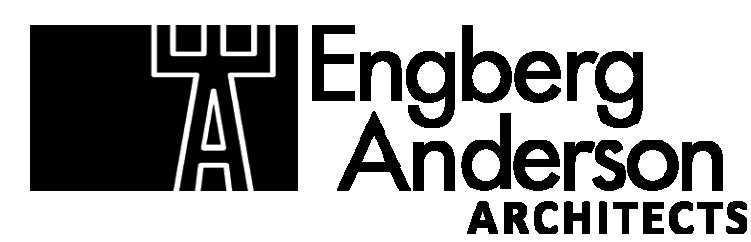
Midtown Police Station

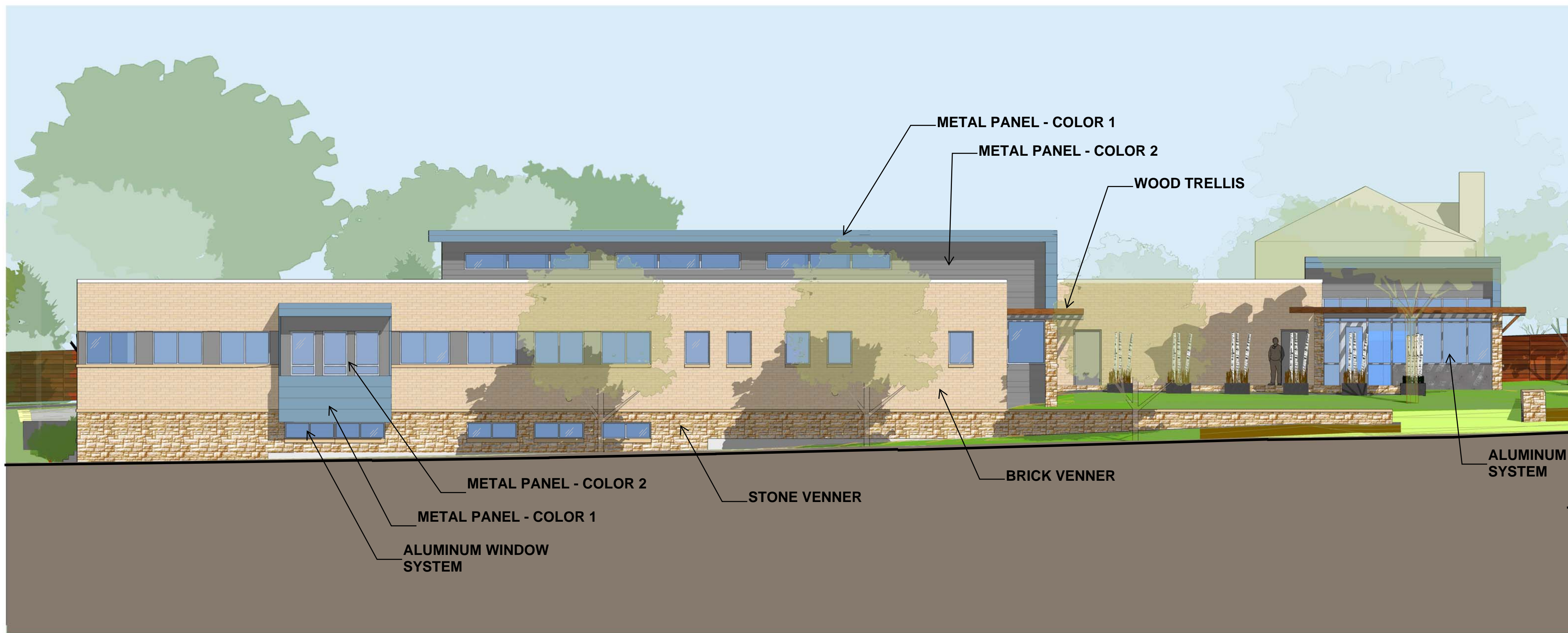
First Floor Plan

SCALE: 1/8"=1'0"

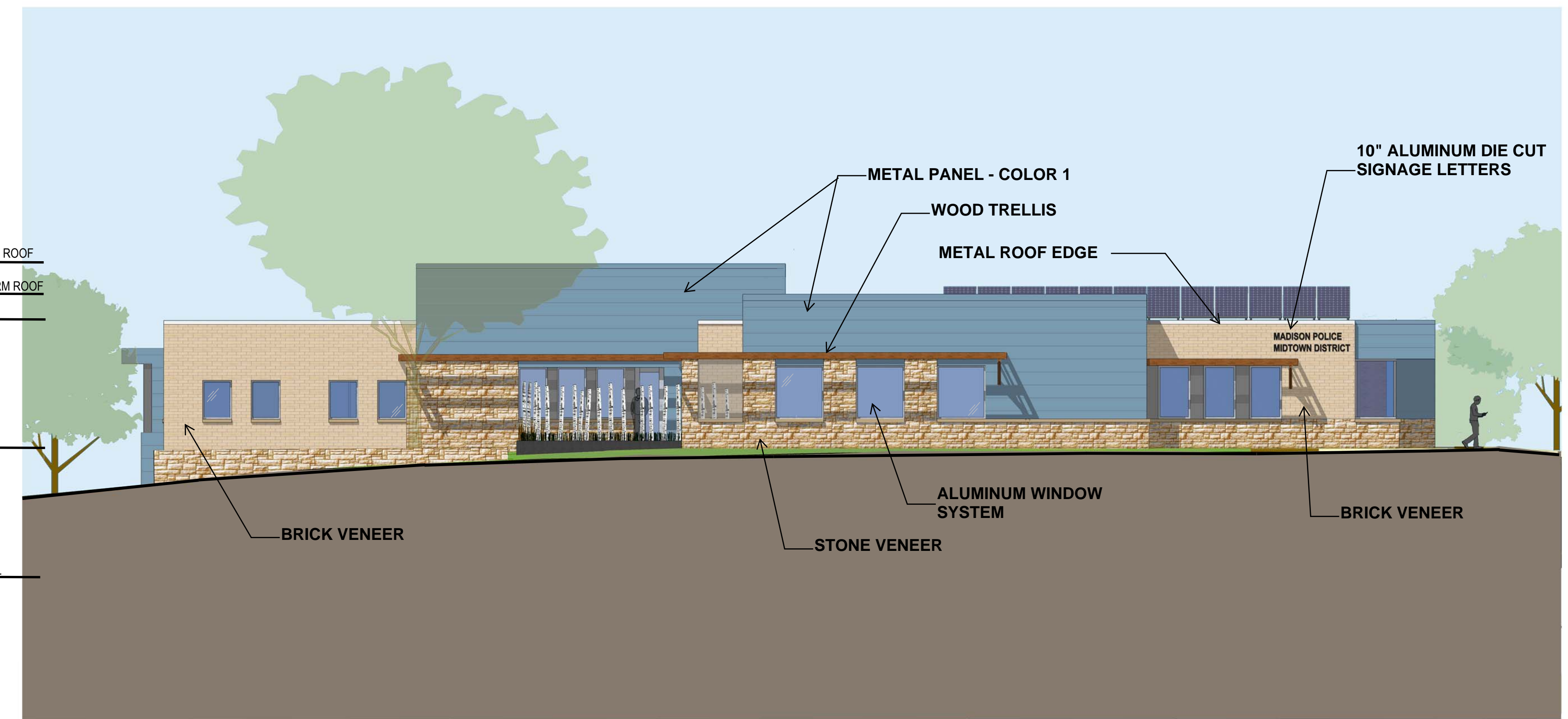
June 15, 2016

Engberg Anderson Project No. 152413.01

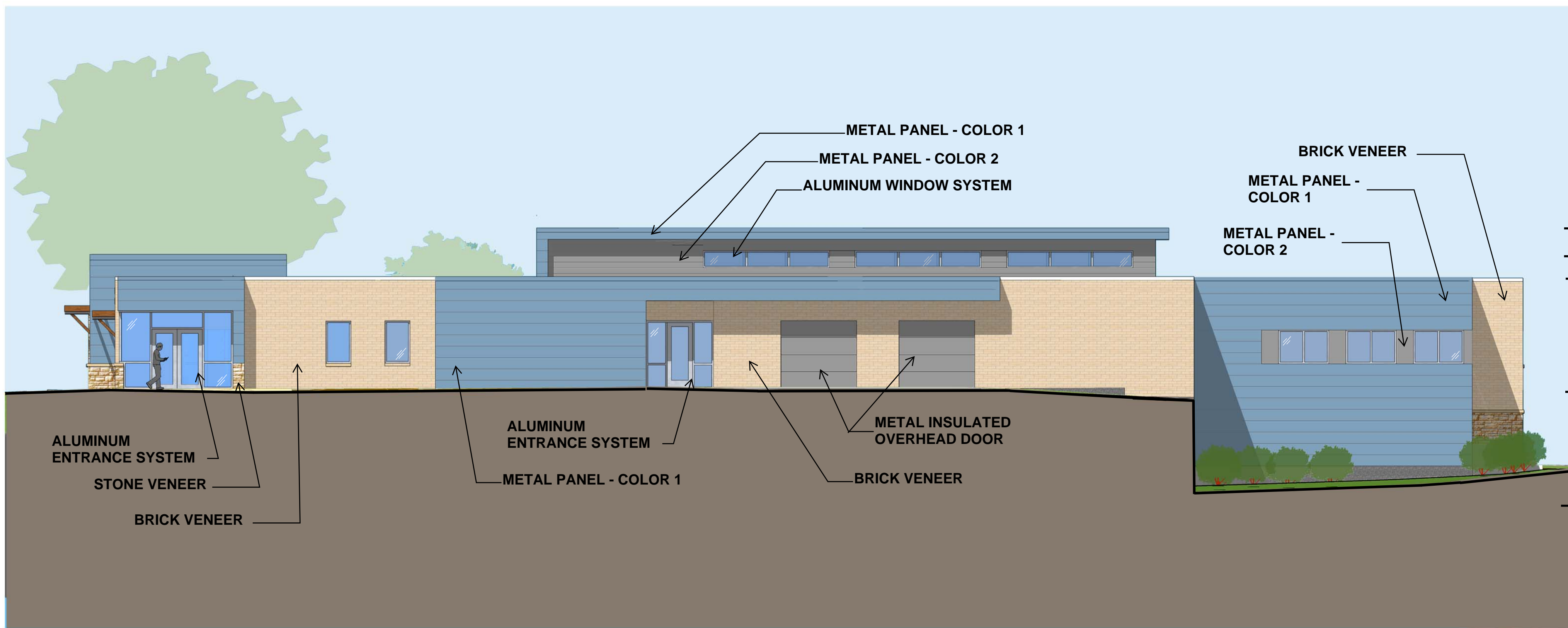




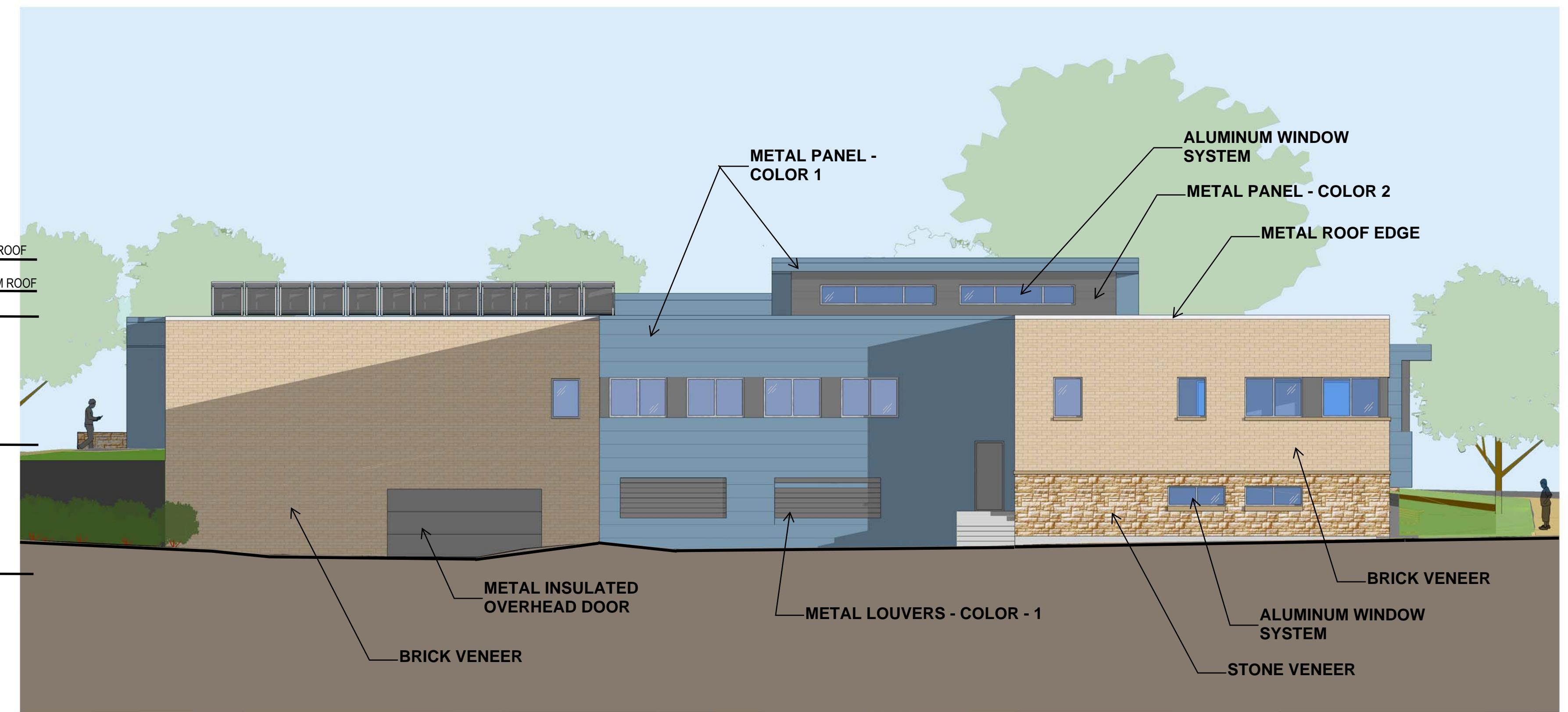
West Elevation



South Elevation



East Elevation



North Elevation

Midtown Police Station



Building Elevations

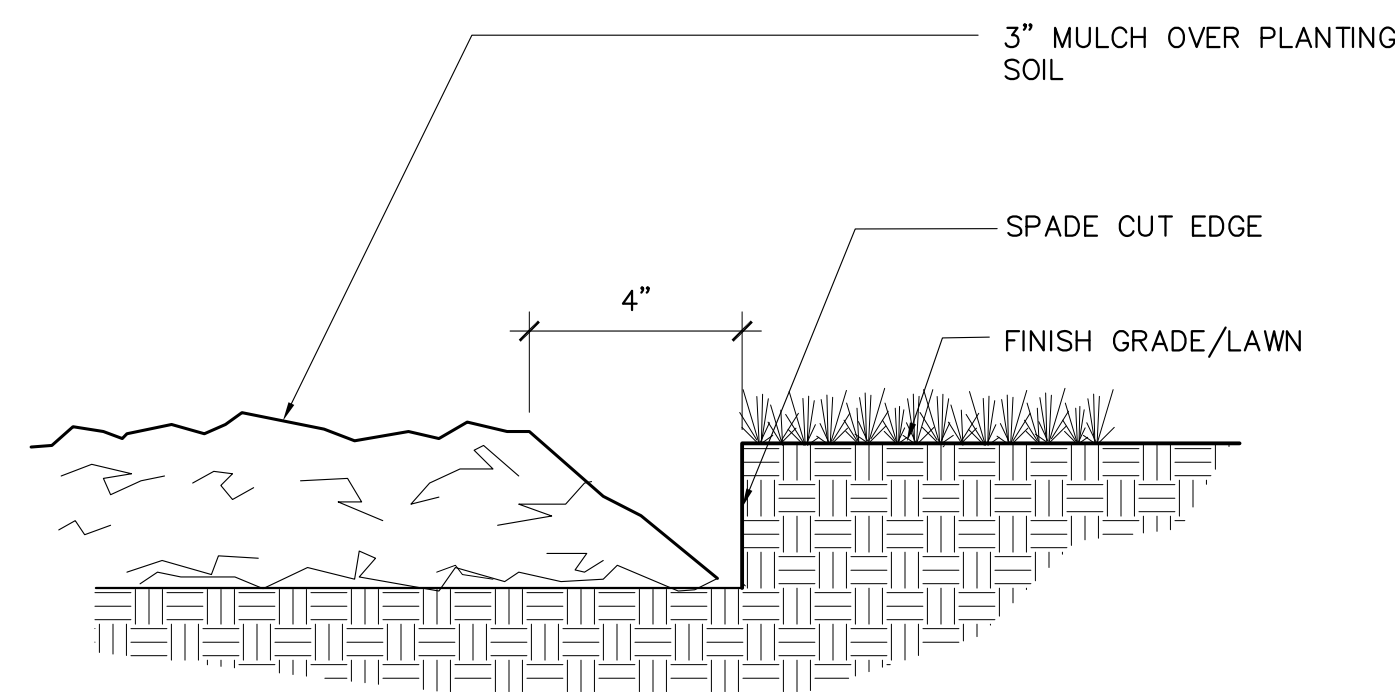
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June 15, 2016

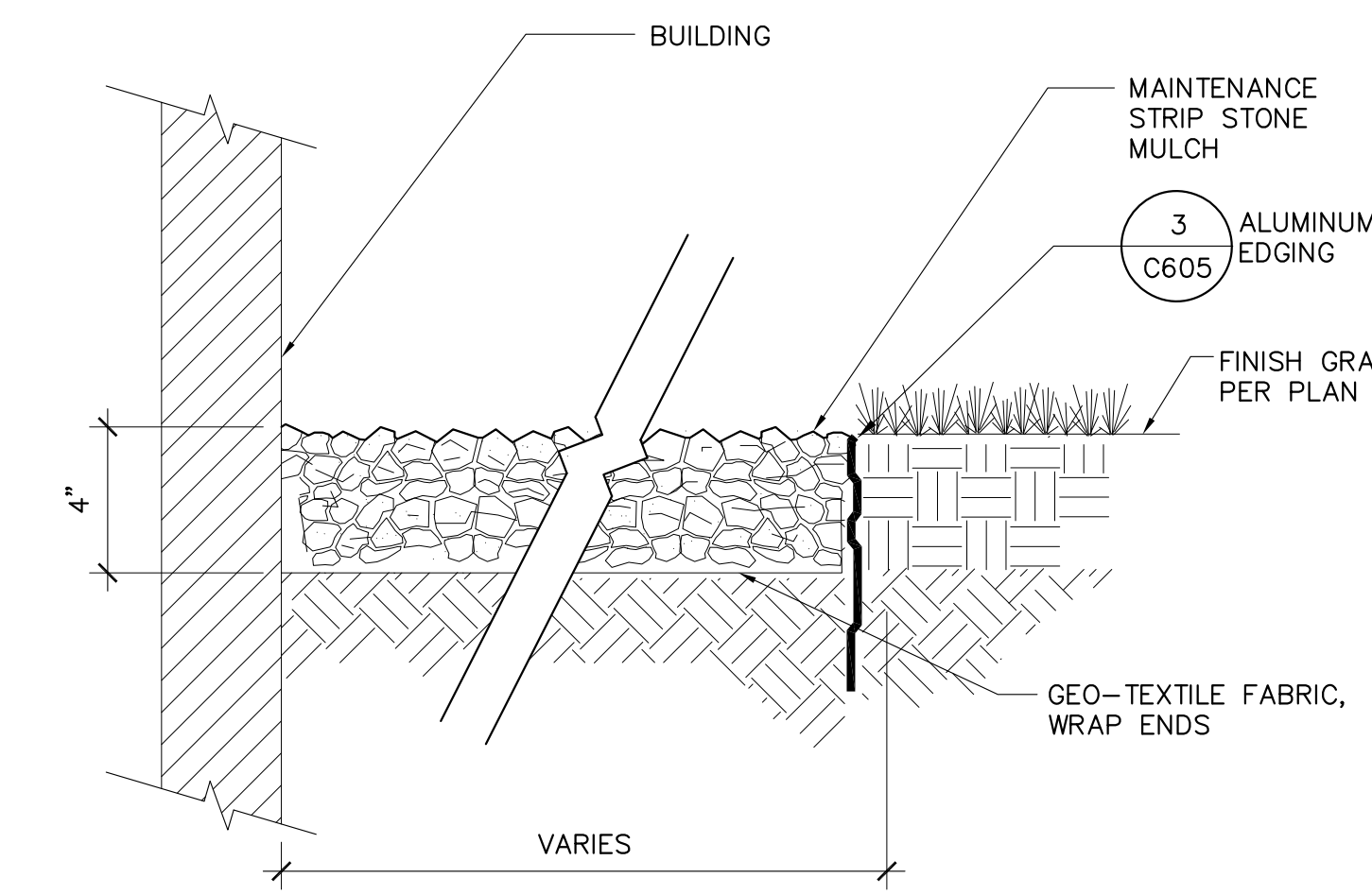
Engberg Anderson Project No. 152413.01

MILWAUKEE | MADISON | TUSCON | CHICAGO

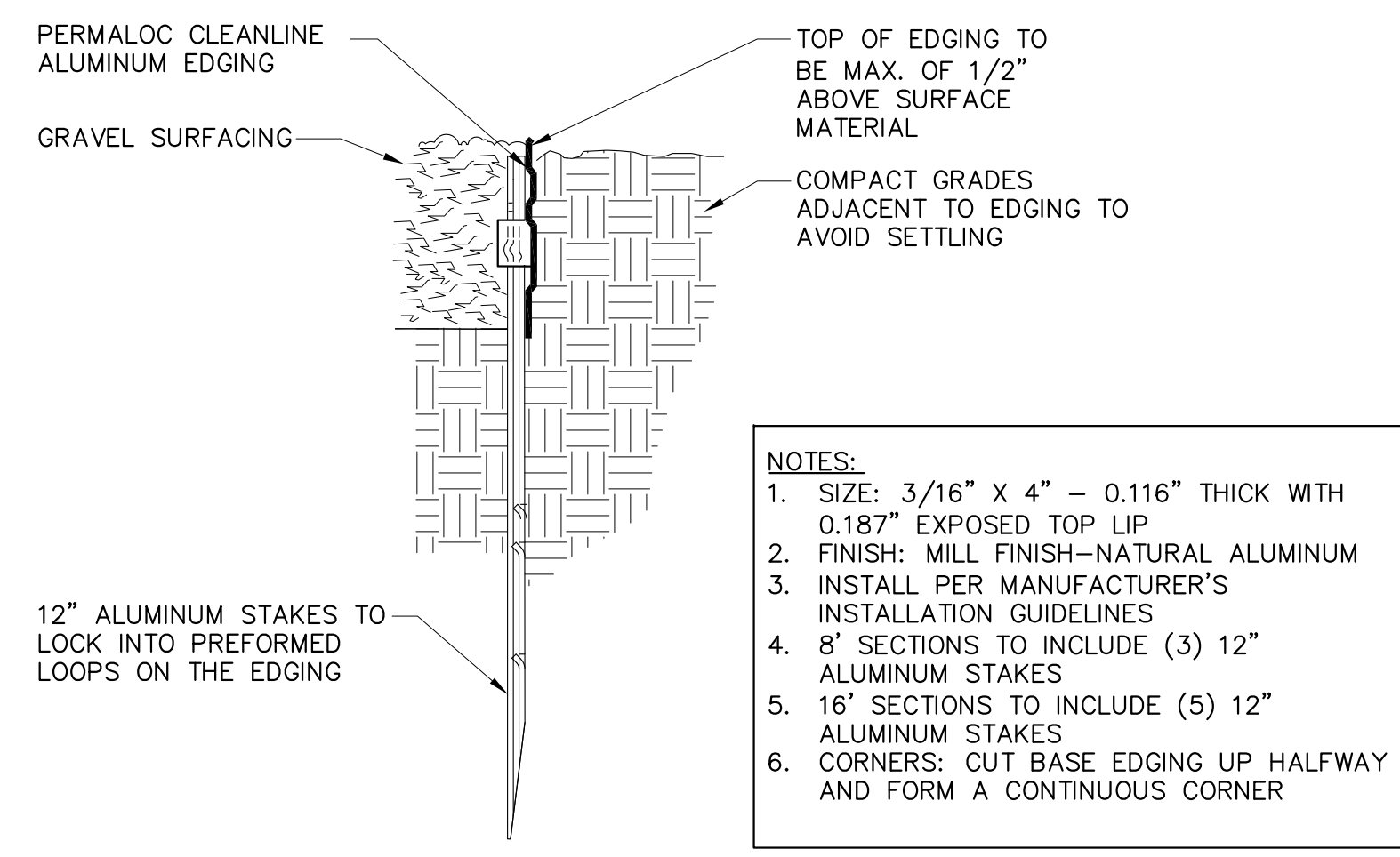




1 SHOVEL CUT EDGE
C604 NTS

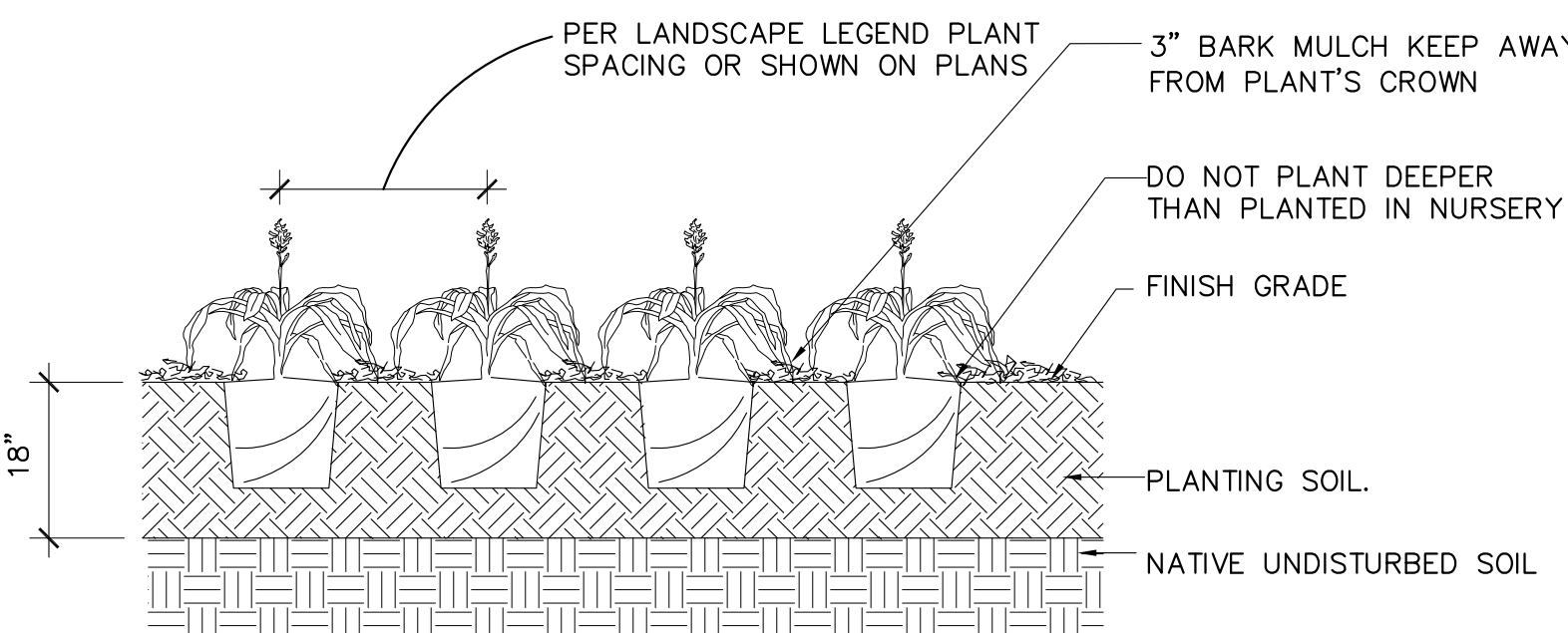


2 GRAVEL SURFACING
C604 NTS

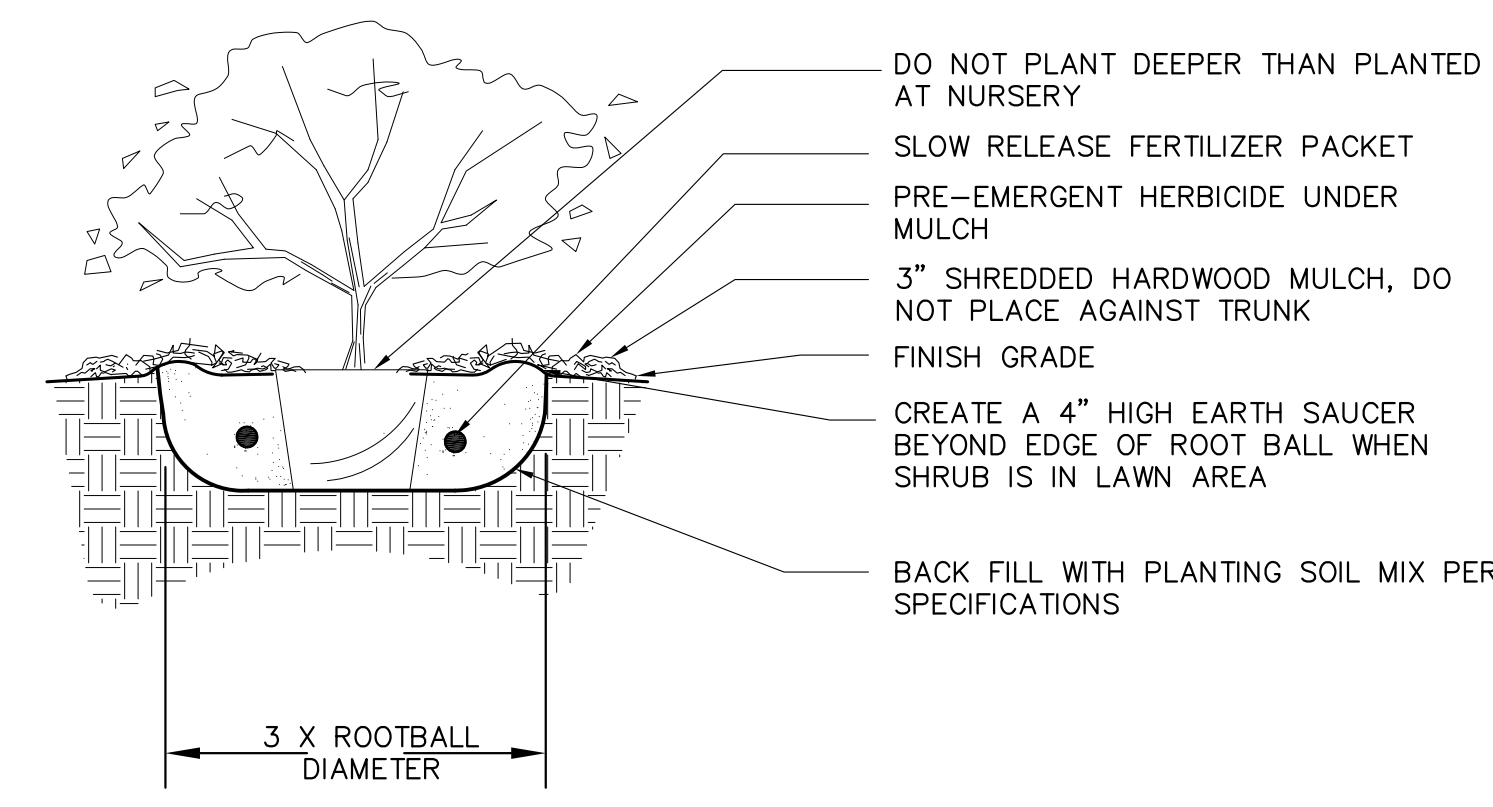


3 ALUMINUM EDGING
C604 NTS

- NOTES:
1. SIZE: 3/16" X 4" - 0.116" THICK WITH 0.187" EXPOSED TOP LIP
 2. FINISH: MILL FINISH-NATURAL ALUMINUM
 3. INSTALL PER MANUFACTURER'S INSTALLATION GUIDELINES
 4. 8' SECTIONS TO INCLUDE (3) 12" ALUMINUM STAKES
 5. 18' SECTIONS TO INCLUDE (5) 12" ALUMINUM STAKES
 6. CORNERS: CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER

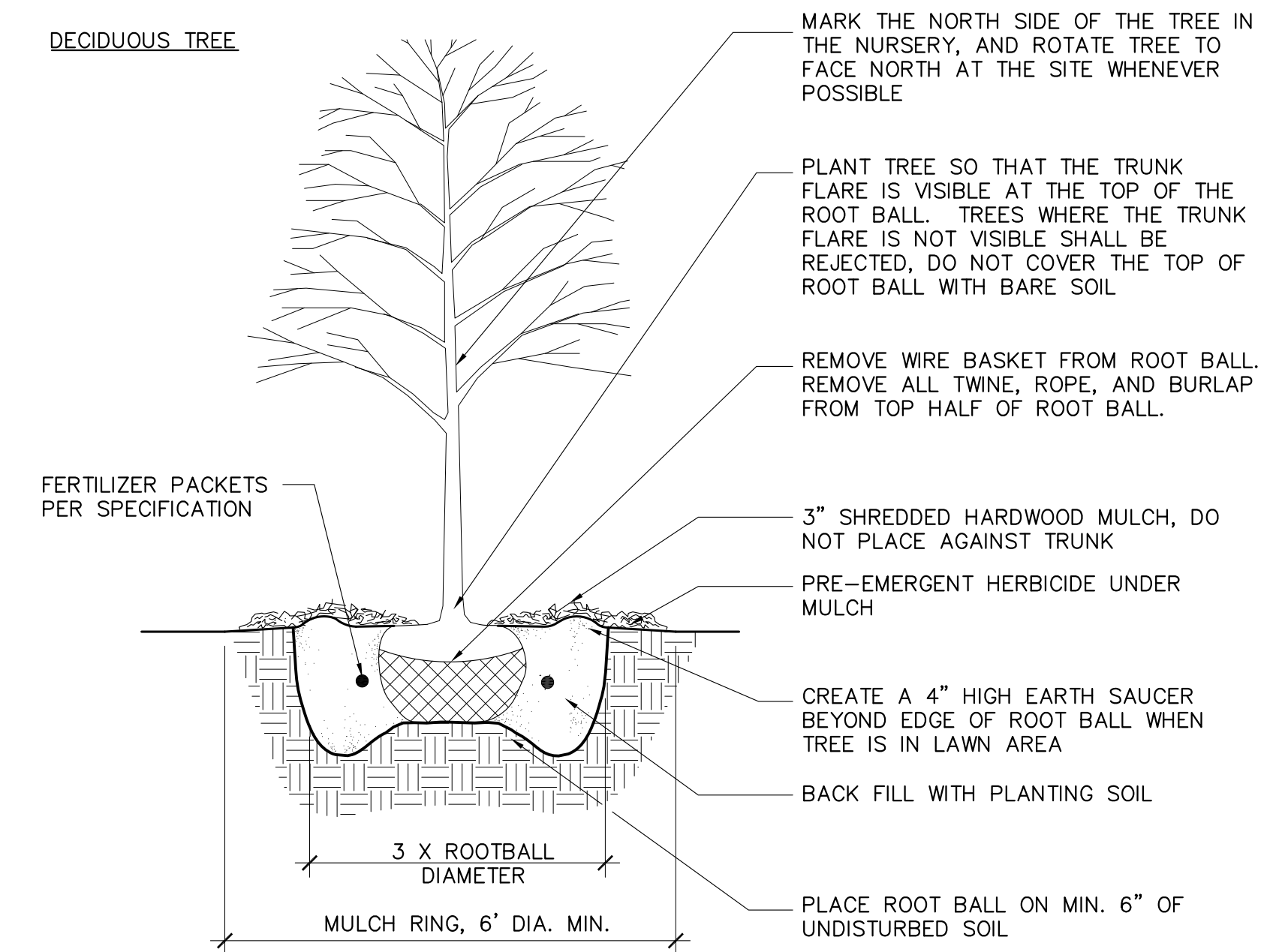


4 PERENNIAL BED
C604 NTS

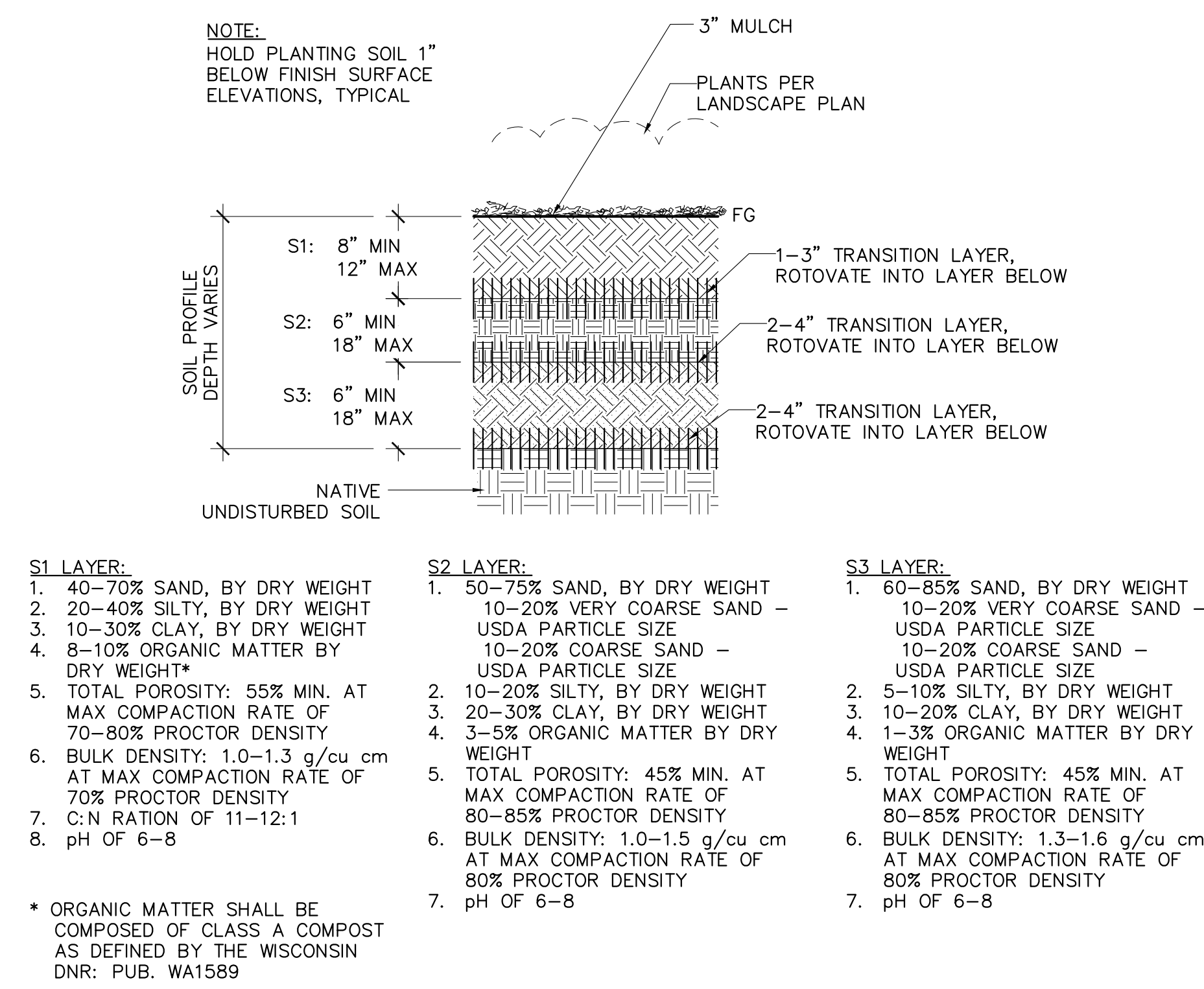


5 CONTAINER SHRUB PLANTING
C604 NTS

- BIO-SWALE GENERAL NOTES:
1. CONTRACTOR SHALL INSTALL 24" OF ENGINEERED SOIL CONSISTING OF: 75% ASTM C33 SAND AND 25% CERTIFIED COMPOST (S-100). FILL BIO-SWALE AREA 2-3" ABOVE SURROUNDING FINISH GRADE TO ACCOMMODATE SETTLING OF BIO-SWALE MATERIAL.
 2. CERTIFIED COMPOST SHALL CONSIST OF: >40% ORGANIC MATTER, <60% ASH CONTENT, pH OF 6-8, AND MOISTURE CONTENT OF 35-50% BY WEIGHT.
 3. SAND/NATIVE SOIL INFILTRATION LAYER SHALL BE FORMED BY A LAYER OF SAND 3 INCHES DEEP, WHICH IS VERTICALLY MIXED WITH THE NATIVE SOIL TO A DEPTH OF 2-4 INCHES.
 4. ANNUAL RYE GRASS SHALL BE SEEDED AT 40 LB/ACRE WITH THE SEED MIX IN THE AREAS SURROUNDING THE BASIN, ON SIDE SLOPES, AND OVER ANY LAND THAT DISCHARGES INTO THE BASIN FOR EROSION CONTROL WHEN BASIN IS BROUGHT ON-LINE. ROOTSTOP AND PLUGS ARE REQUIRED TO ESTABLISH VEGETATION AT THE INVERT OF THE BASIN.
 5. RUNOFF MUST INFILTRATE WITHIN 48-HOURS. BASINS UNABLE TO MAINTAIN THESE RATES MUST BE DEEP TILLED, REGRADED, AND IF NECESSARY REPLANTED TO RESTORE ORIGINAL INFILTRATION RATES.
 6. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH APPLICABLE LOCAL, REGIONAL, AND STATE STORMWATER STANDARDS FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER.
 7. BIO-SWALE AREAS SHALL BE HAND OR BACK HOE LAID. EQUIPMENT SHALL NOT BE DRIVEN ON SOIL MIX DURING OR AFTER INSTALLATION.



6 B&B TREE PLANTING/MULCH RING
C604 NTS

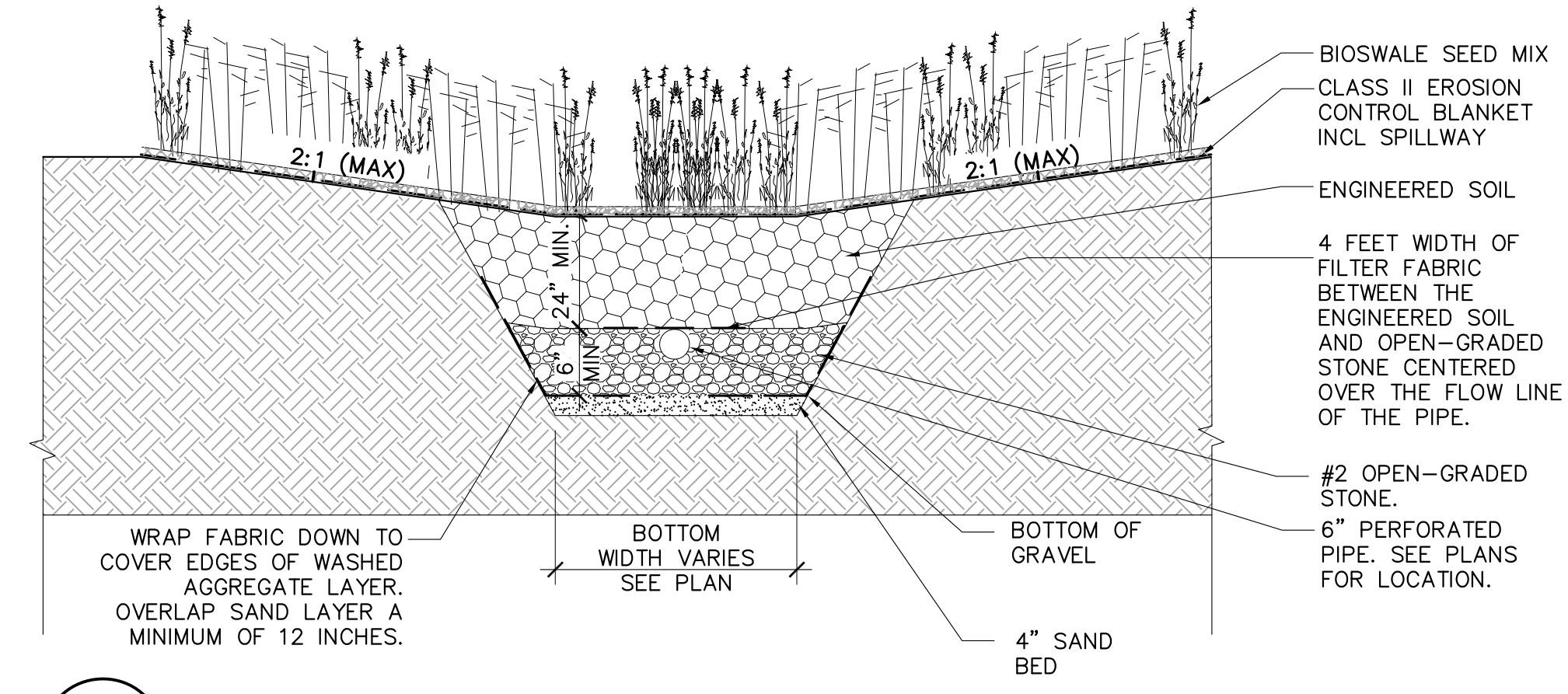


7 PLANTING SOIL
C604 NTS

- NOTE: HOLD PLANTING SOIL 1" BELOW FINISH SURFACE ELEVATIONS, TYPICAL.
- SOIL PROFILE DEPTH VARIES
- S1: 8" MIN 12" MAX
S2: 6" MIN 18" MAX
S3: 6" MIN 18" MAX
- 1-3" TRANSITION LAYER, ROTOVATE INTO LAYER BELOW
2-4" TRANSITION LAYER, ROTOVATE INTO LAYER BELOW
2-4" TRANSITION LAYER, ROTOVATE INTO LAYER BELOW
- NATIVE UNDISTURBED SOIL
- S1 LAYER:
1. 40-70% SAND, BY DRY WEIGHT
2. 20-40% SILTY, BY DRY WEIGHT
3. 10-30% CLAY, BY DRY WEIGHT
4. 8-10% ORGANIC MATTER BY DRY WEIGHT
5. TOTAL POROSITY: 55% MIN. AT MAX COMPACTION RATE OF 70-80% PROCTOR DENSITY
6. BULK DENSITY: 1.0-1.3 g/cu cm AT MAX COMPACTION RATE OF 70% PROCTOR DENSITY
7. C:N RATION OF 11-12:1
8. pH OF 6-8
- S2 LAYER:
1. 50-75% SAND, BY DRY WEIGHT
2. 10-20% VERY COARSE SAND - USDA PARTICLE SIZE
3. 10-20% COARSE SAND - USDA PARTICLE SIZE
4. 10-20% SILTY, BY DRY WEIGHT
5. 20-30% CLAY, BY DRY WEIGHT
6. 3-5% ORGANIC MATTER BY DRY WEIGHT
7. TOTAL POROSITY: 45% MIN. AT MAX COMPACTION RATE OF 80-85% PROCTOR DENSITY
8. BULK DENSITY: 1.0-1.5 g/cu cm AT MAX COMPACTION RATE OF 80% PROCTOR DENSITY
9. pH OF 6-8
- S3 LAYER:
1. 60-85% SAND, BY DRY WEIGHT
2. 10-20% VERY COARSE SAND - USDA PARTICLE SIZE
3. 10-20% COARSE SAND - USDA PARTICLE SIZE
4. 5-10% SILTY, BY DRY WEIGHT
5. 10-20% CLAY, BY DRY WEIGHT
6. 1-3% ORGANIC MATTER BY DRY WEIGHT
7. TOTAL POROSITY: 45% MIN. AT MAX COMPACTION RATE OF 80-85% PROCTOR DENSITY
8. BULK DENSITY: 1.3-1.6 g/cu cm AT MAX COMPACTION RATE OF 80% PROCTOR DENSITY
9. pH OF 6-8
- * ORGANIC MATTER SHALL BE COMPOSED OF CLASS A COMPOST AS DEFINED BY THE WISCONSIN DNR: PUB. WA1589

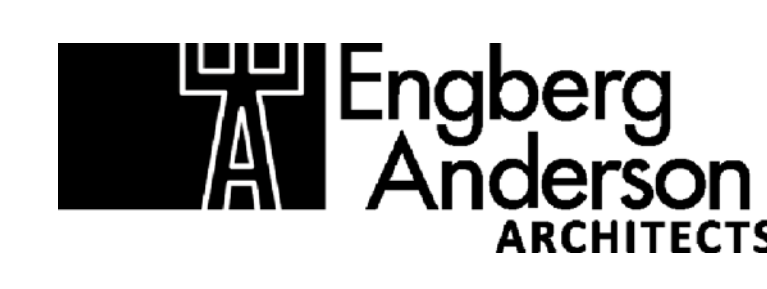
INFILTRATION DEVICES ARE DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR), COUNTY, MUNICIPALITY, AND ENGINEERING STANDARD OF CARE. ALL DESIGNATED INFILTRATION AREAS (e.g. RAIN GARDENS, INFILTRATION BASINS, BIORETENTION DEVICES) SHALL BE FENCED PRIOR TO CONSTRUCTION AND REMAIN UNDISTURBED AND PROTECTED DURING THE CONSTRUCTION OF PROPOSED SITE IMPROVEMENTS. PROPOSED BIORETENTION DEVICES SHALL NOT BE CONSTRUCTED UNTIL THE DEVICE'S CONTRIBUTING WATERSHED AREA MEETS ESTABLISHED VEGETATION REQUIREMENTS SET FORTH WITHIN THE RESPECTIVE WDNR TECHNICAL STANDARDS. IF THE LOCATION OF THE INFILTRATION AREA CONFLICTS WITH CONSTRUCTION STAGING AND/OR CONSTRUCTION TRAFFIC AND IS DISTURBED, COMPACTION MITIGATION WILL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR IS REQUIRED TO PROVIDE QUALIFIED STAFF FOR INSPECTION AND OBSERVATION OF THE CONSTRUCTION ACTIVITIES RELATING TO ALL JOB SITE REGULATORY COMPLIANCE INCLUDING THE PROTECTION AND CONSTRUCTION OF ALL STORMWATER MANAGEMENT FEATURES. ANY OBSERVATION OF PLAN OR SITE DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.



8 BIOSWALE SOIL
C604 SCALE NTS

Midtown Police Station

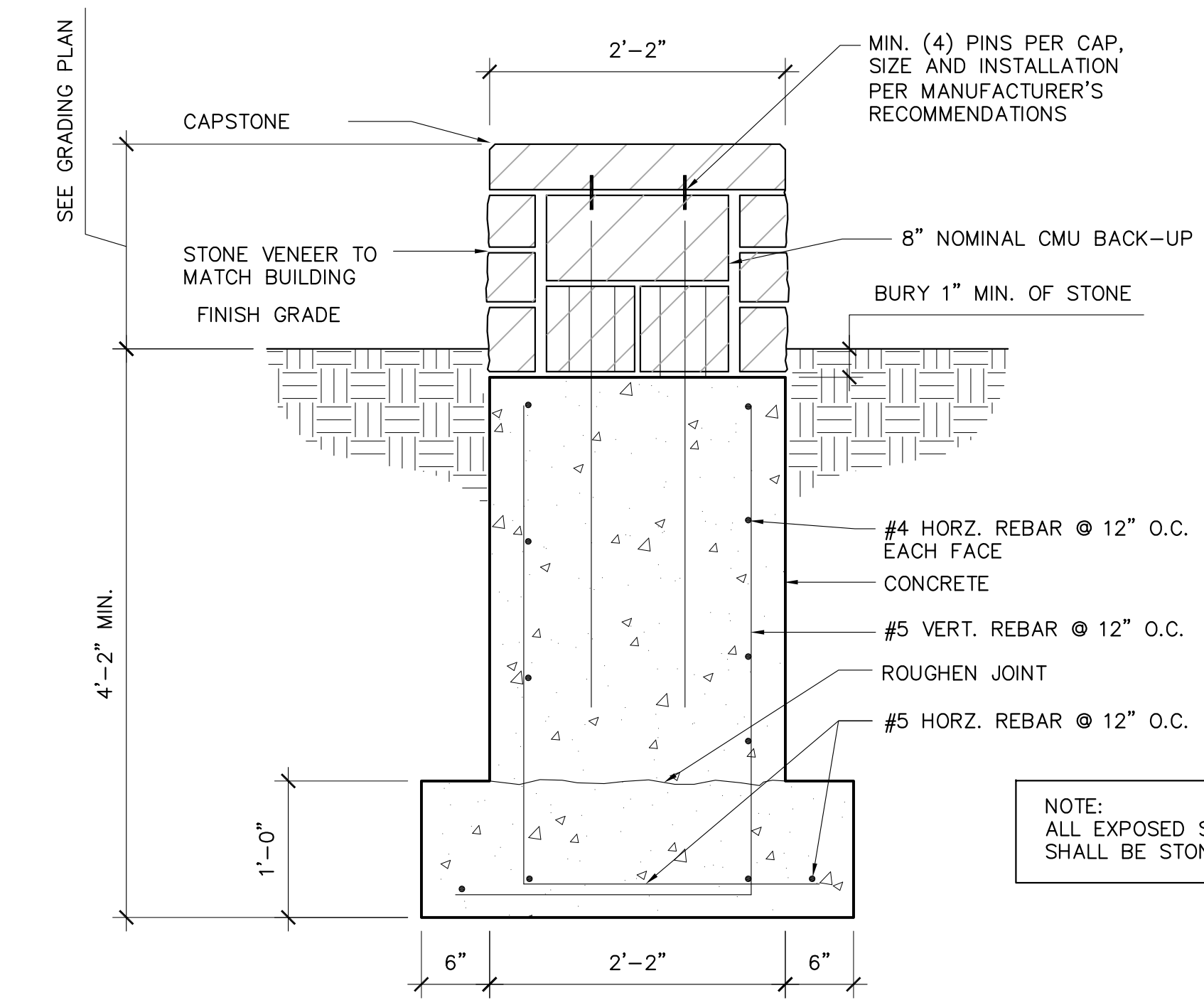


C-604 DETAILS CONSTRUCTION

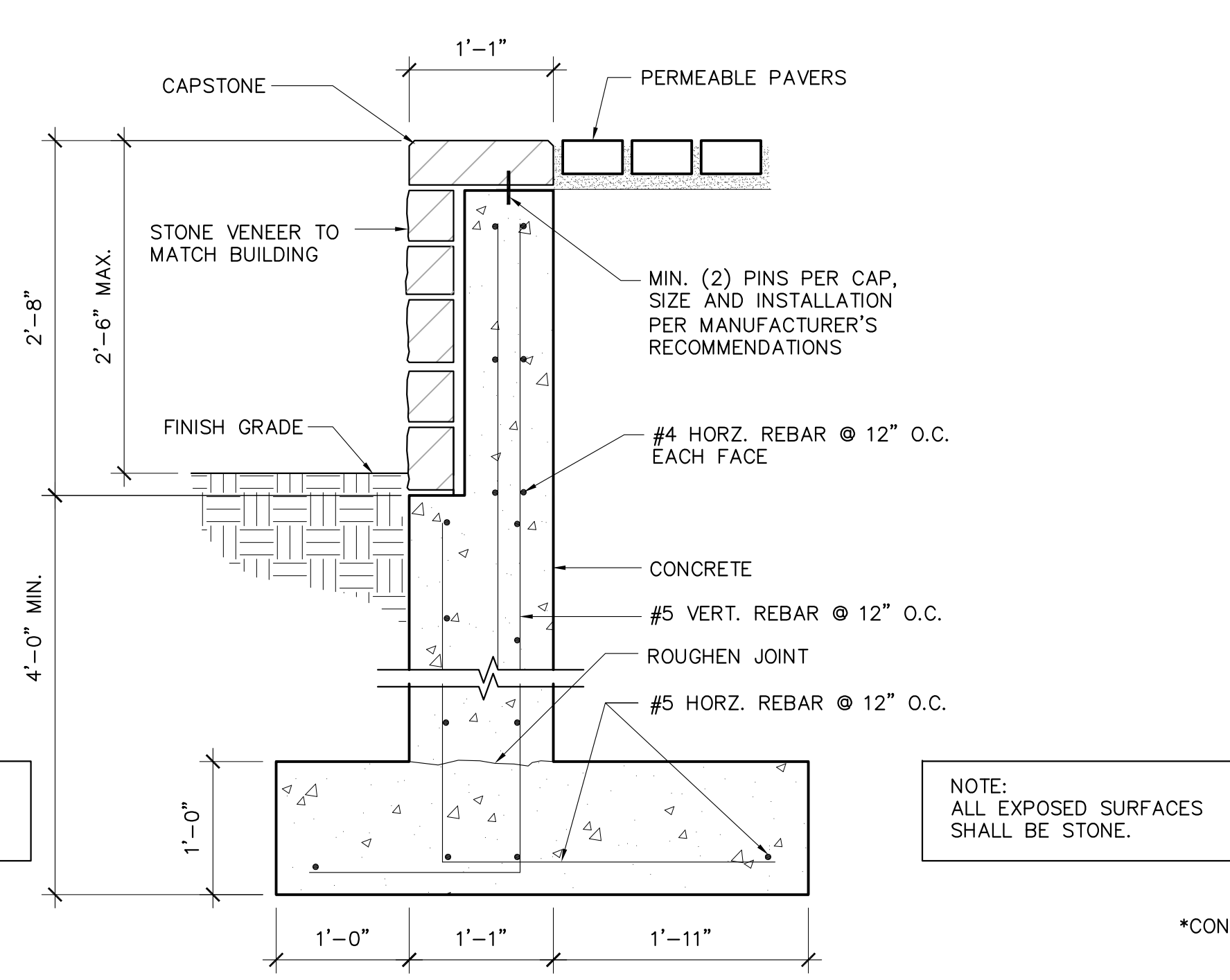
June 15, 2016
Engberg Anderson Project No. 152413.01



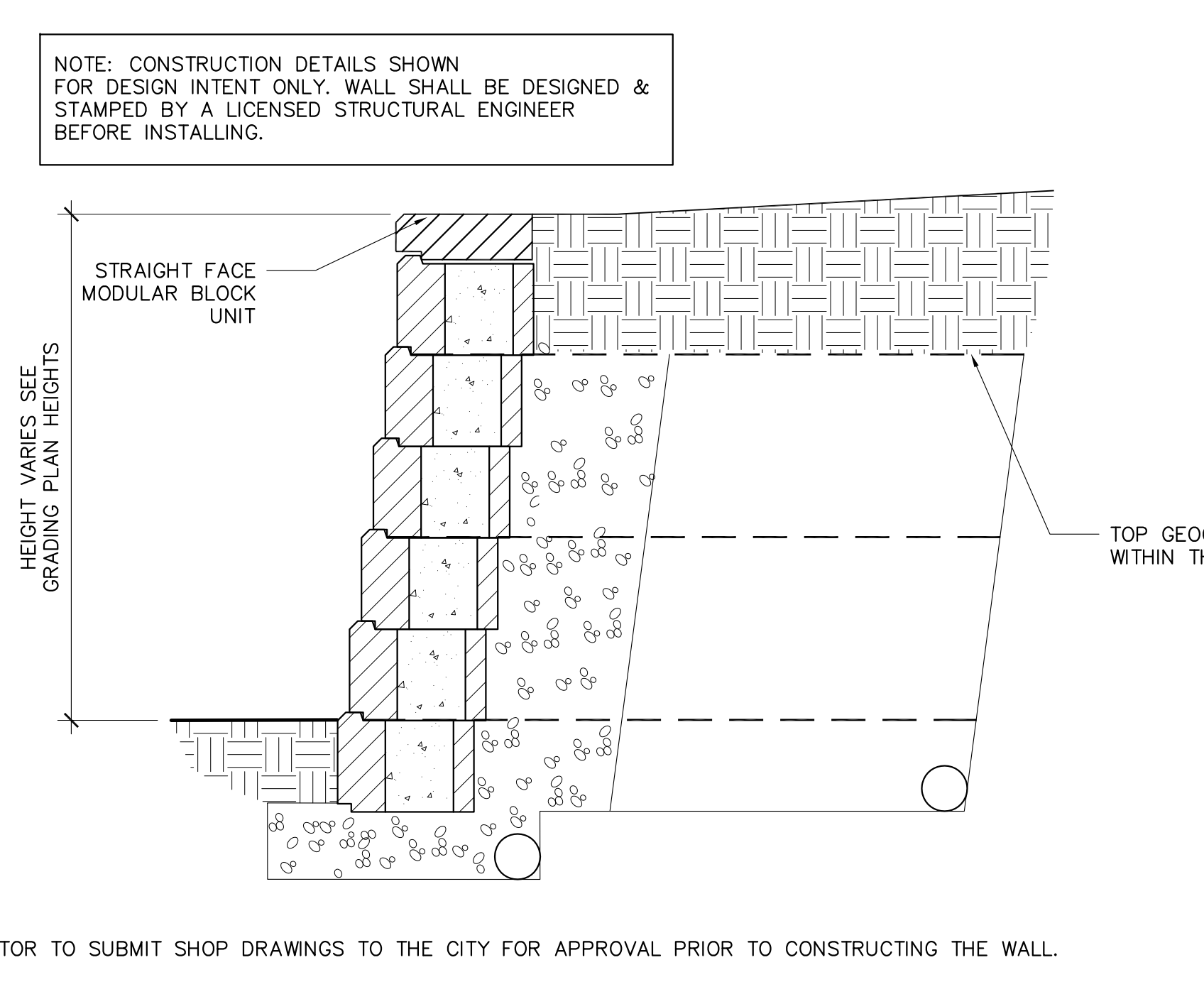
101 East Badger Road
Madison, WI 53713
608.255.0800
www.AyresAssociates.com



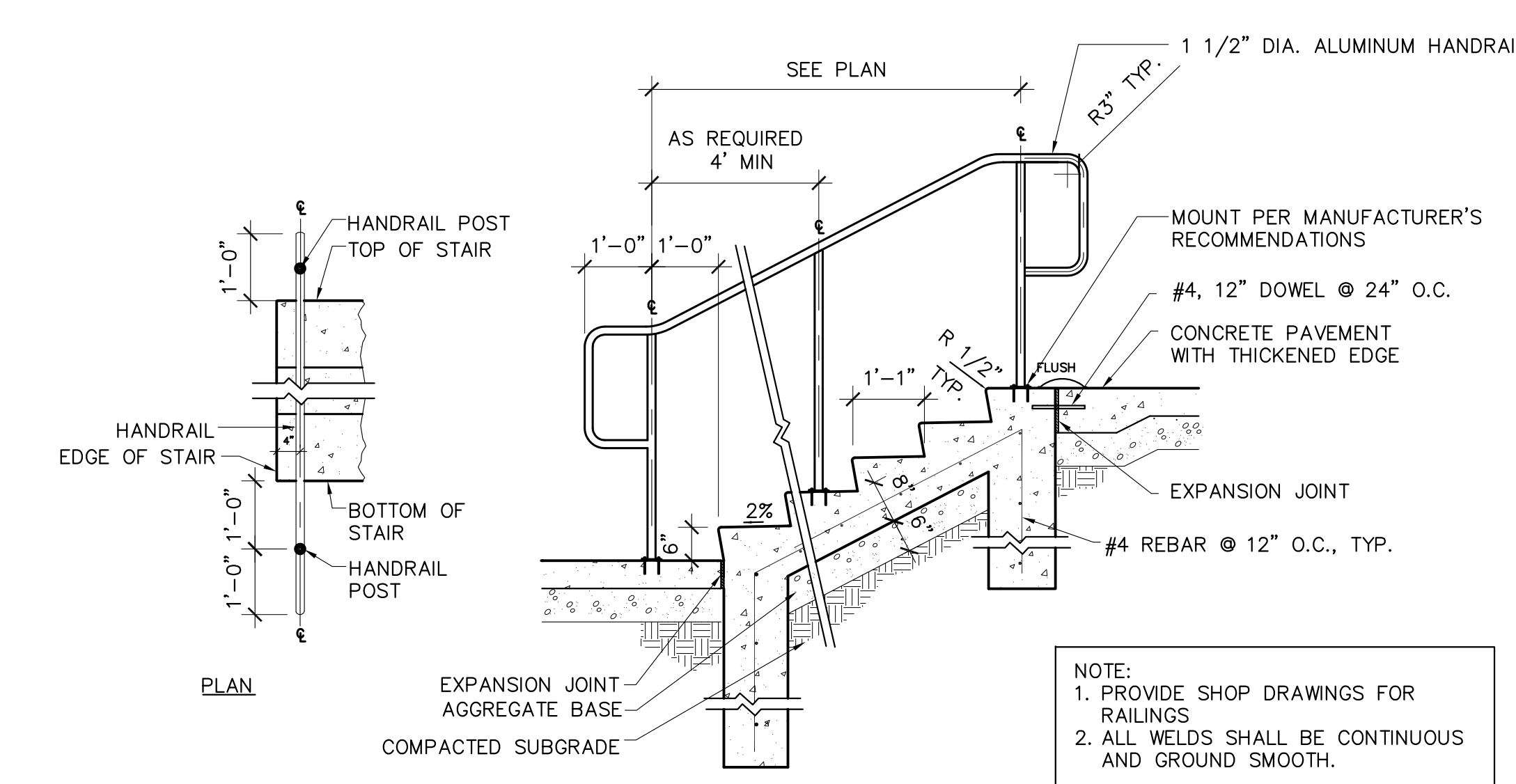
1 ACCENT WALL
C603 SCALE 1" = 1'-0"



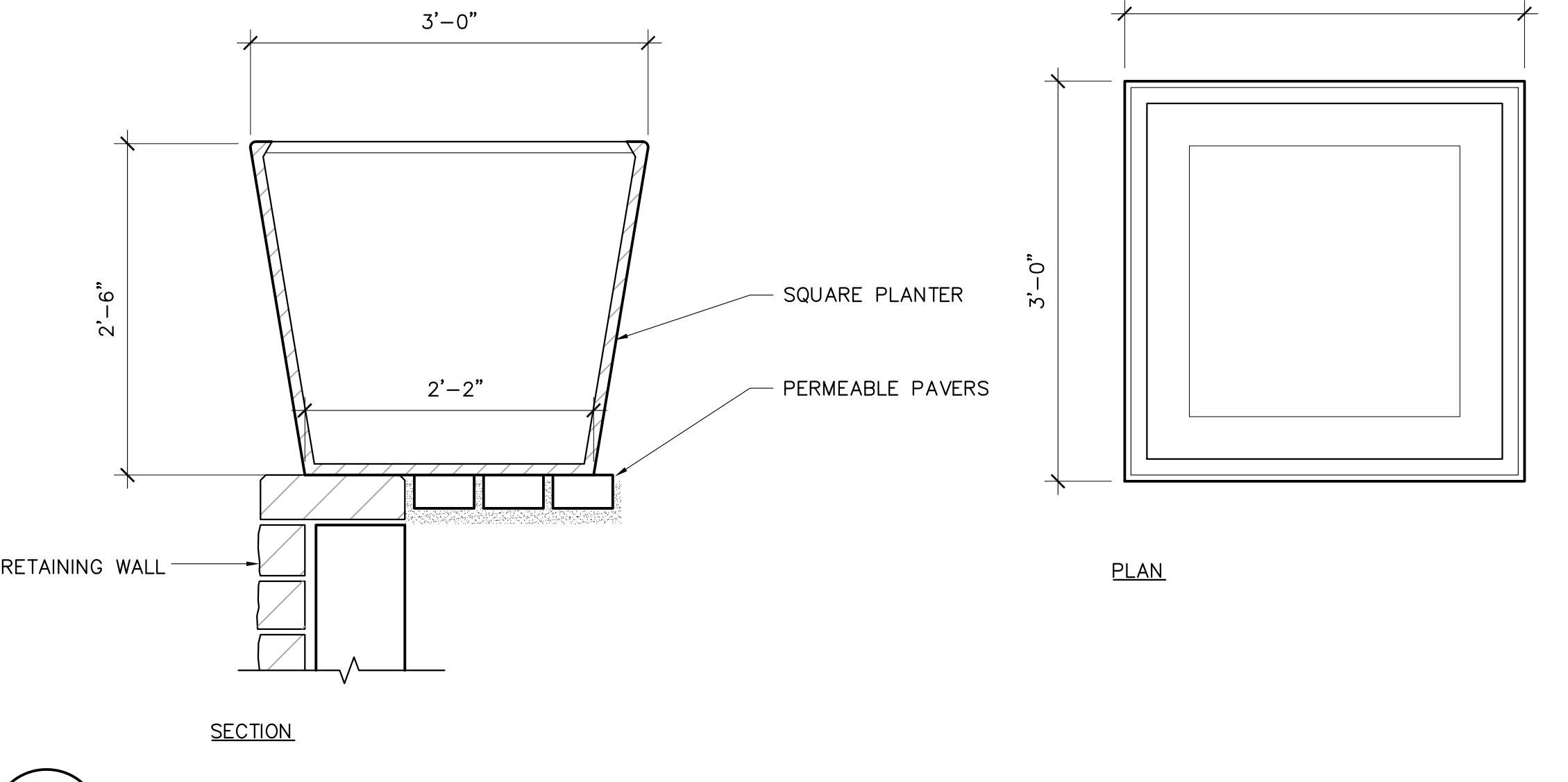
2 RETAINING WALL
C603 SCALE 1" = 1'-0"



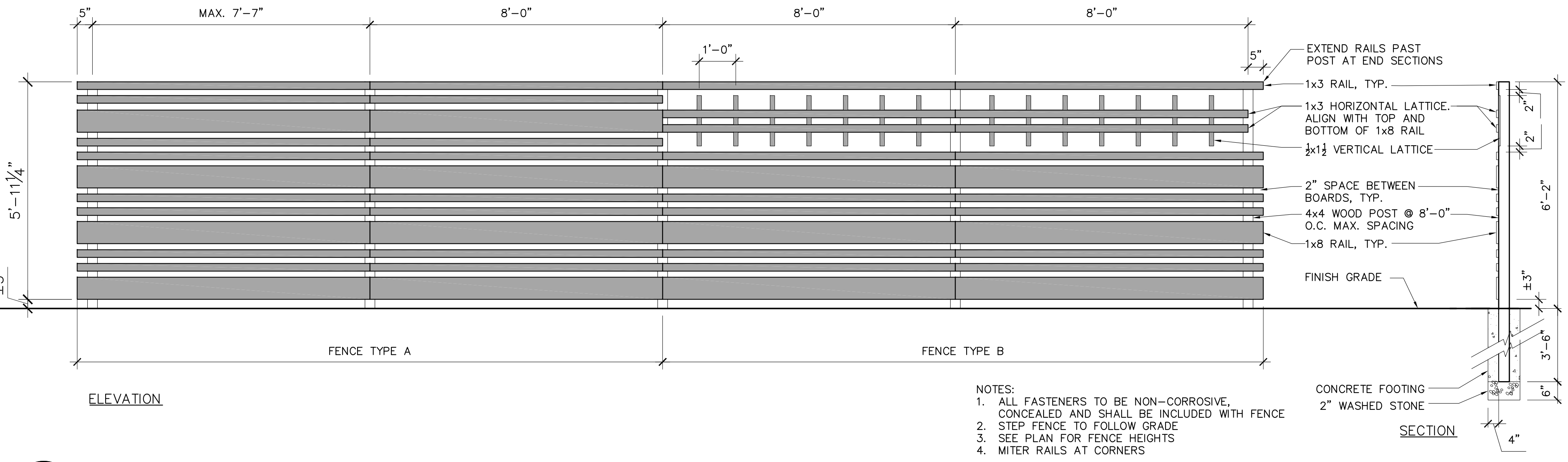
3 MODULAR BLOCK RETAINING WALL
C603 SCALE NTS



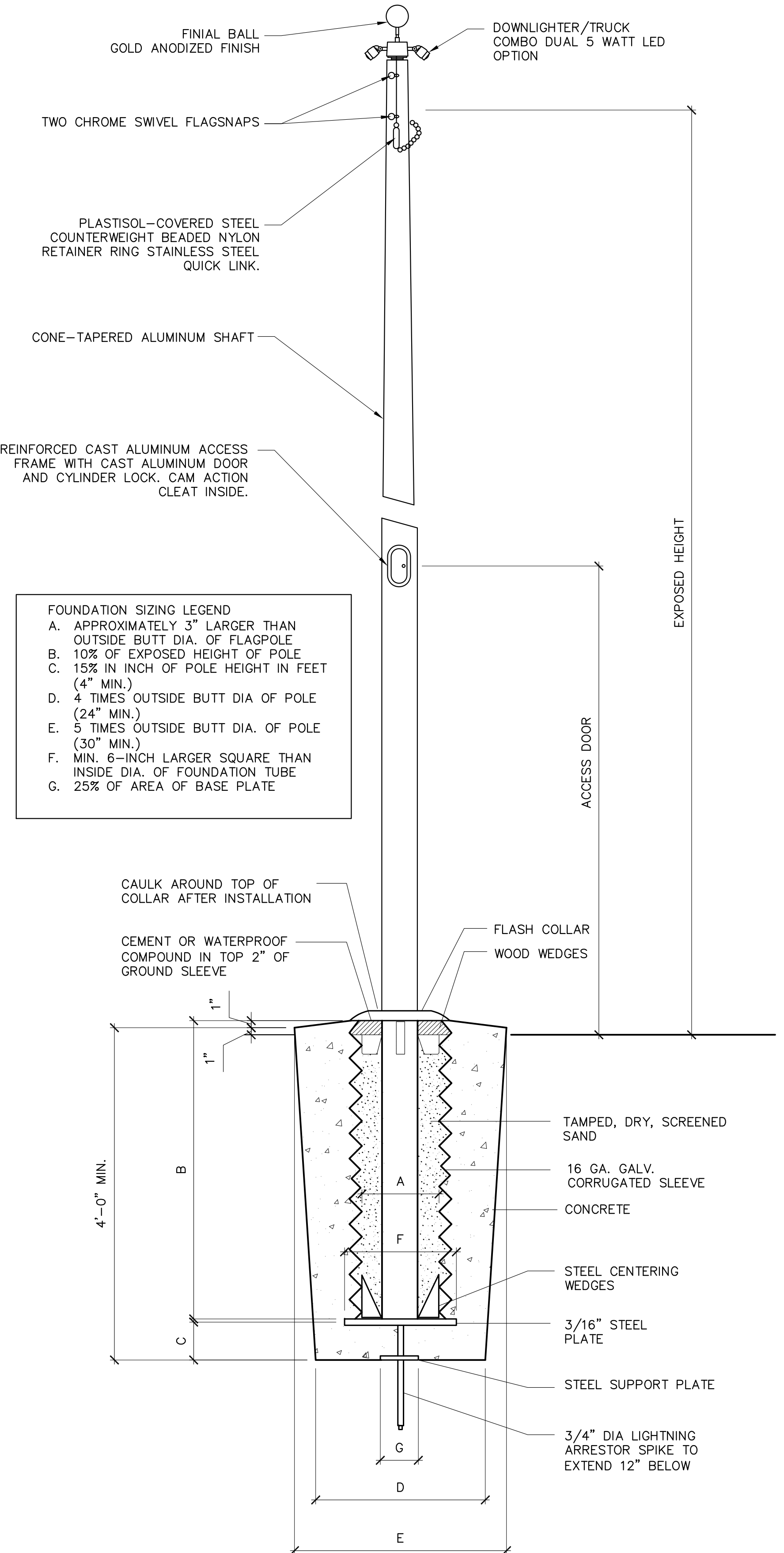
4 CONCRETE STAIRS & HANDRAIL
C603 SCALE 1/2" = 1'-0"



5 RAISED PLANTER
C603 SCALE 1" = 1'-0"



7 FENCE TYPE A & B
C603 SCALE 1/2" = 1'-0"



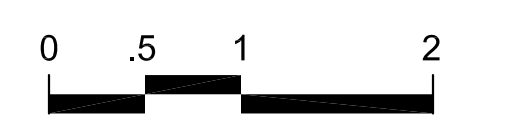
7 FLAG POLE
C603 SCALE NTS

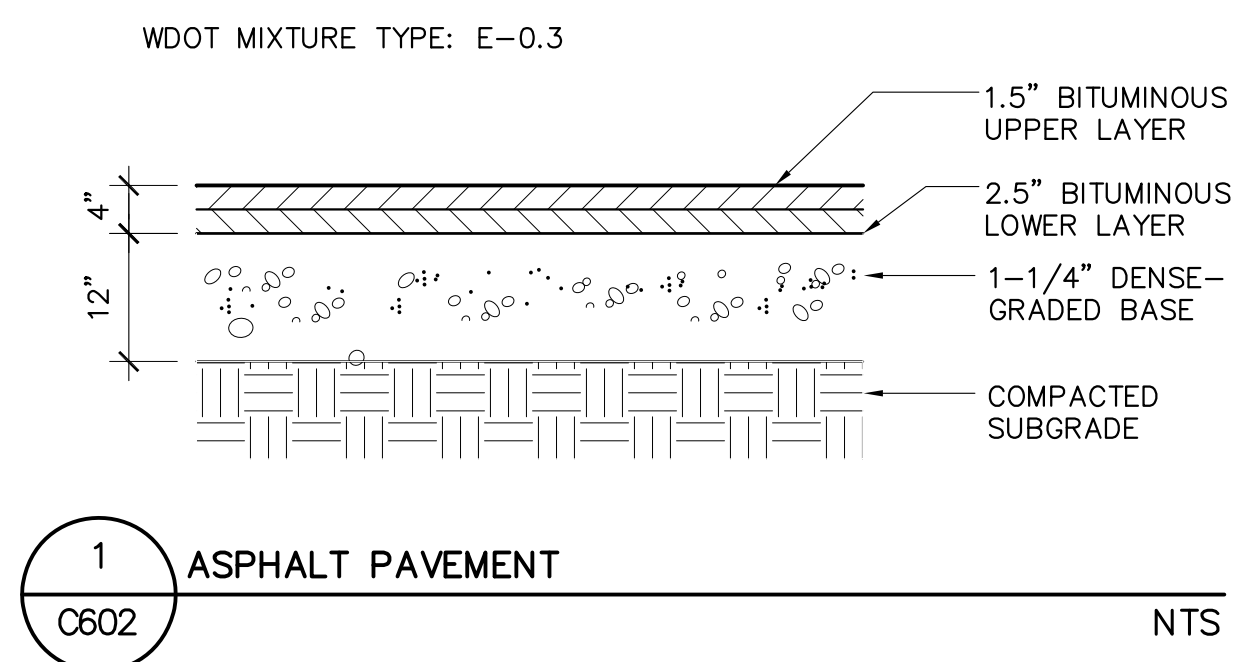
Midtown Police Station



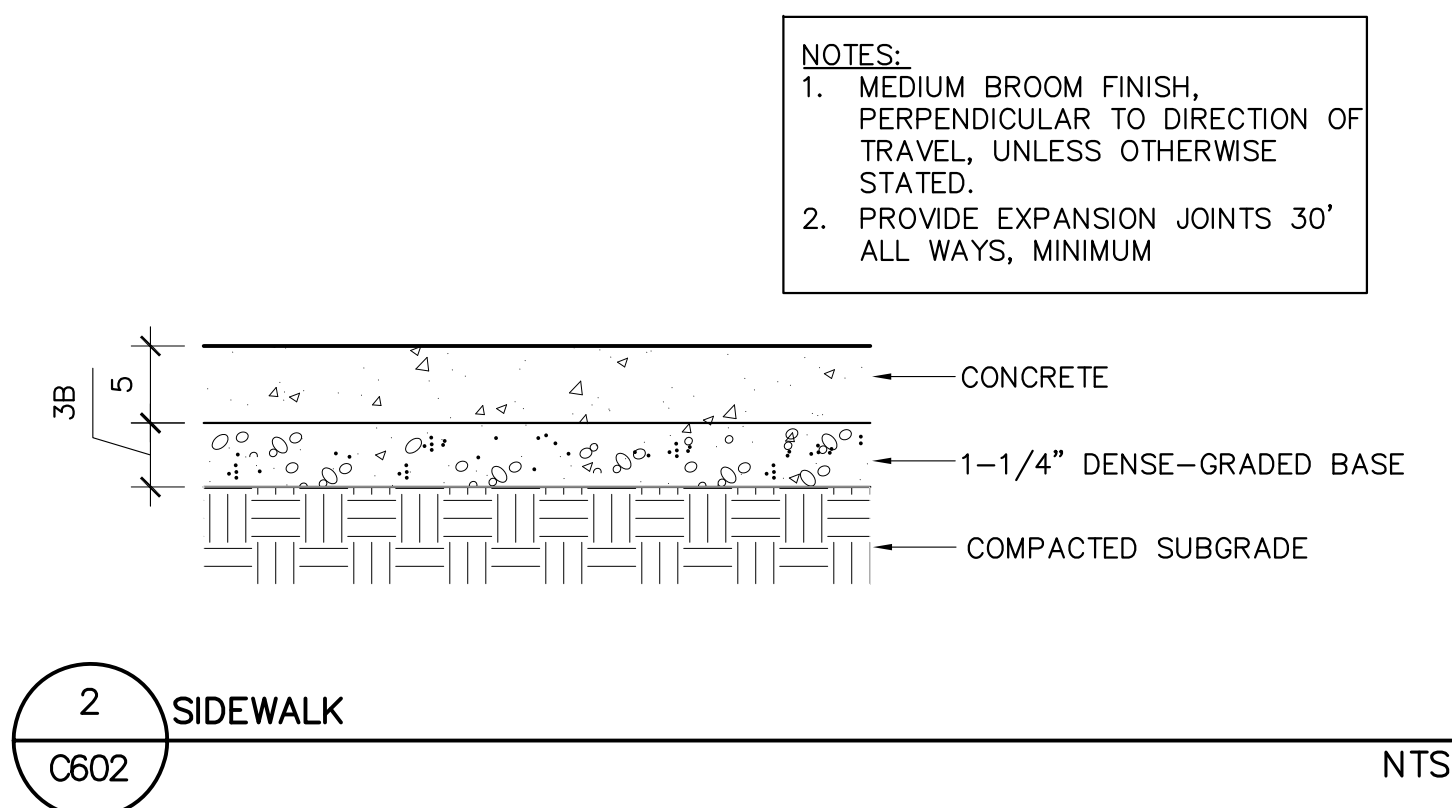
C-603 DETAILS CONSTRUCTION

June 15, 2016
Engberg Anderson Project No. 152413.01

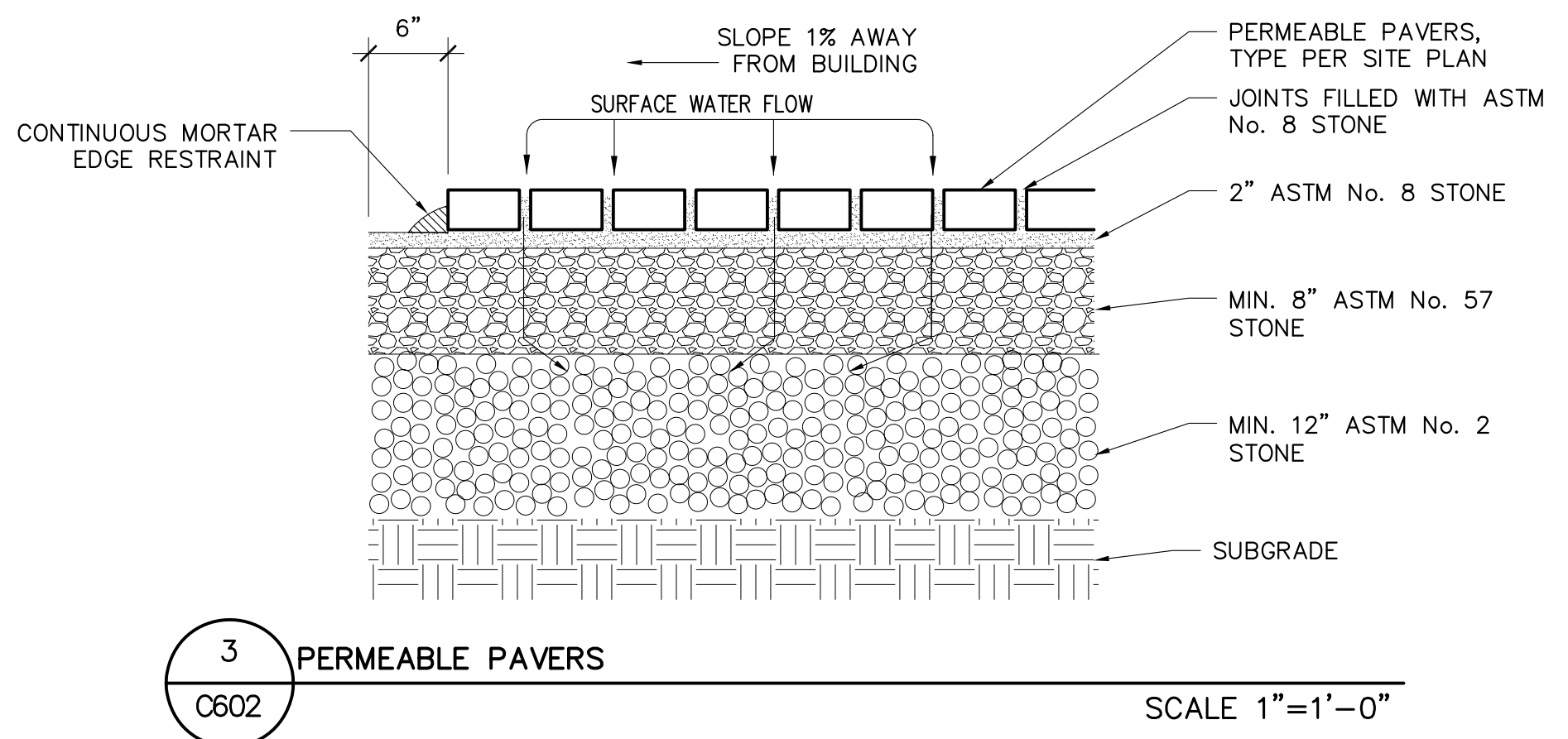




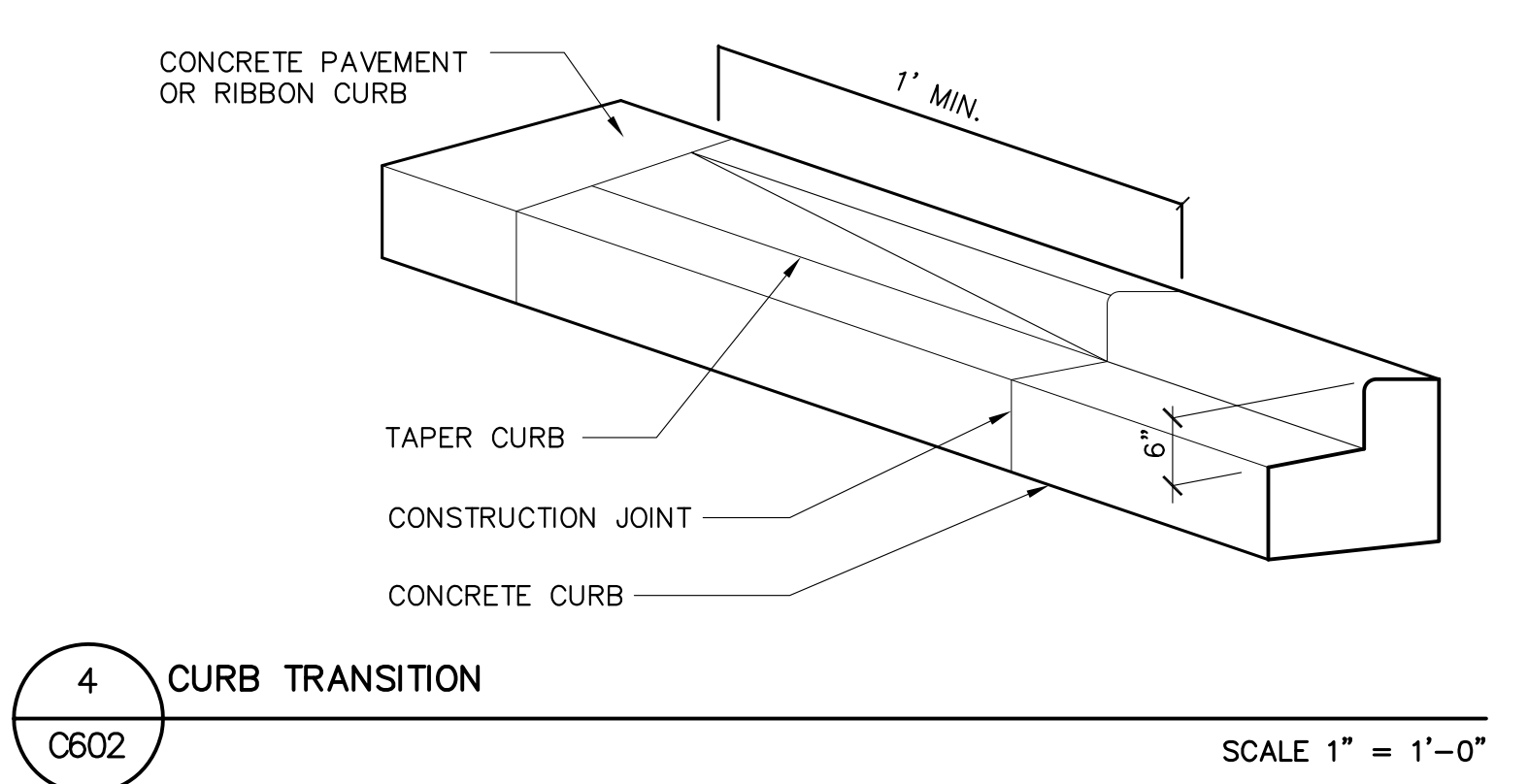
1 ASPHALT PAVEMENT
C602 NTS



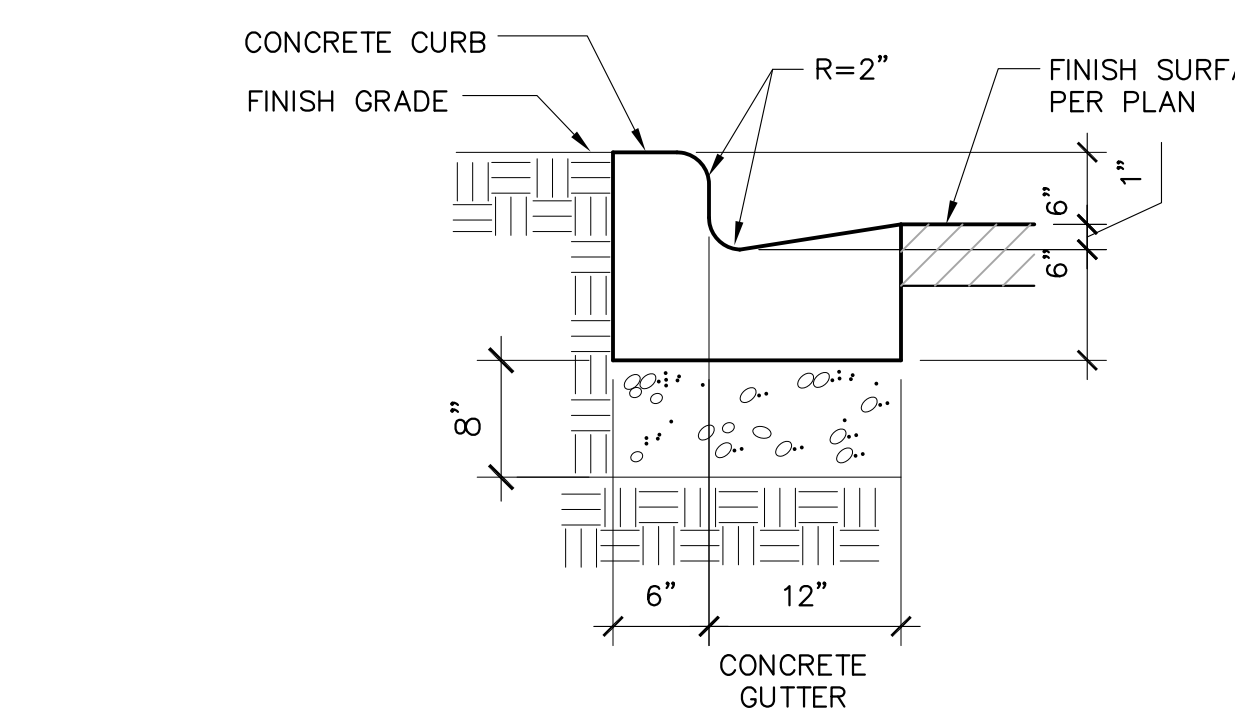
2 SIDEWALK
C602 NTS



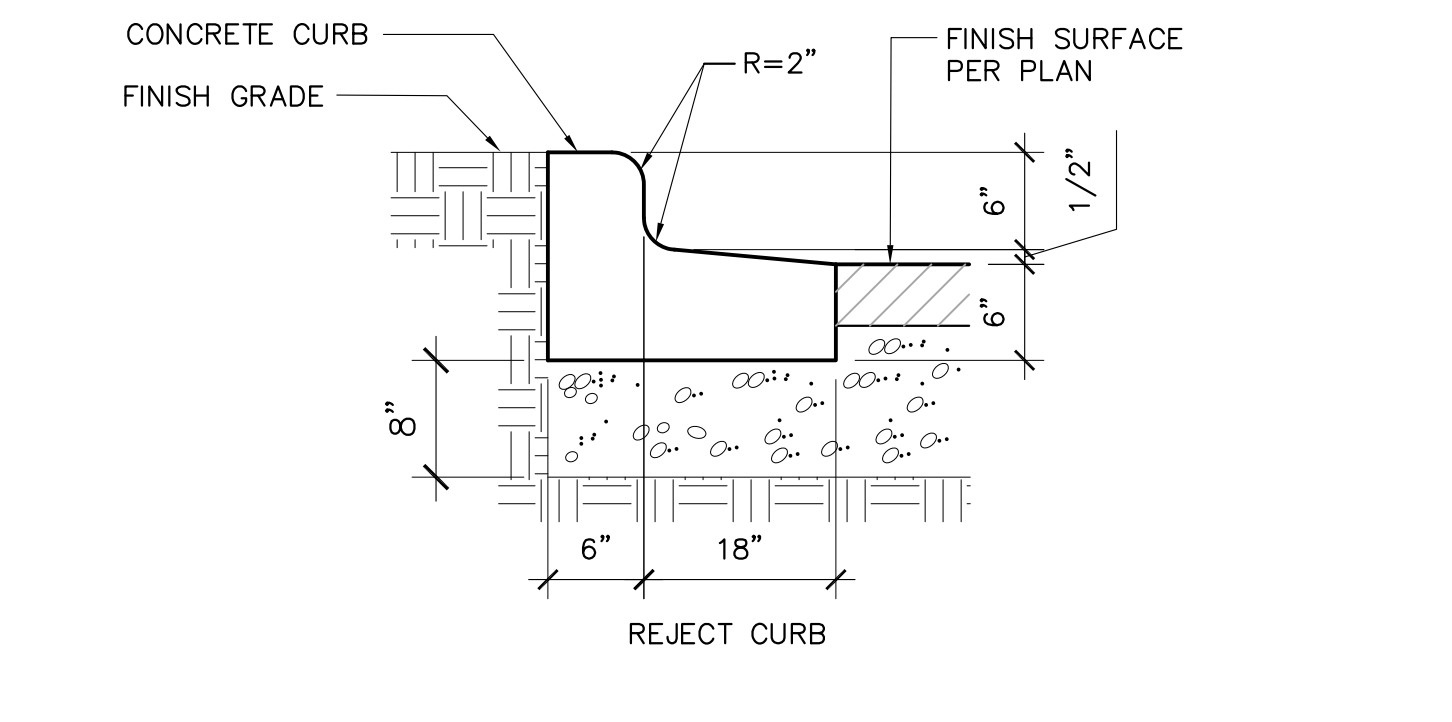
3 PERMEABLE PAVERS
C602 SCALE 1"=1'-0"



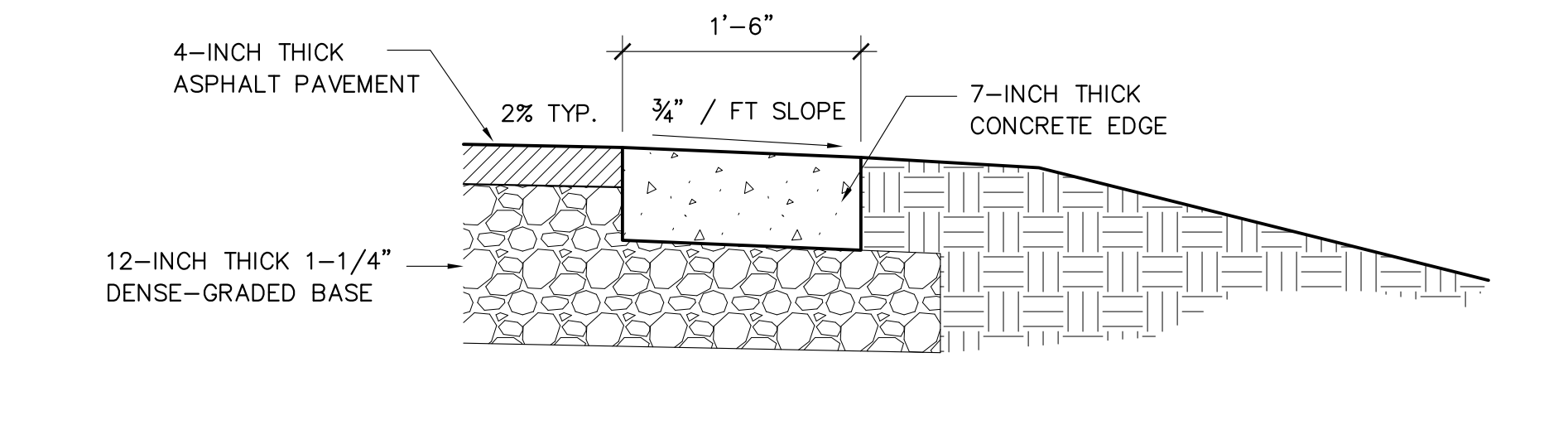
4 CURB TRANSITION
C602 SCALE 1"=1'-0"



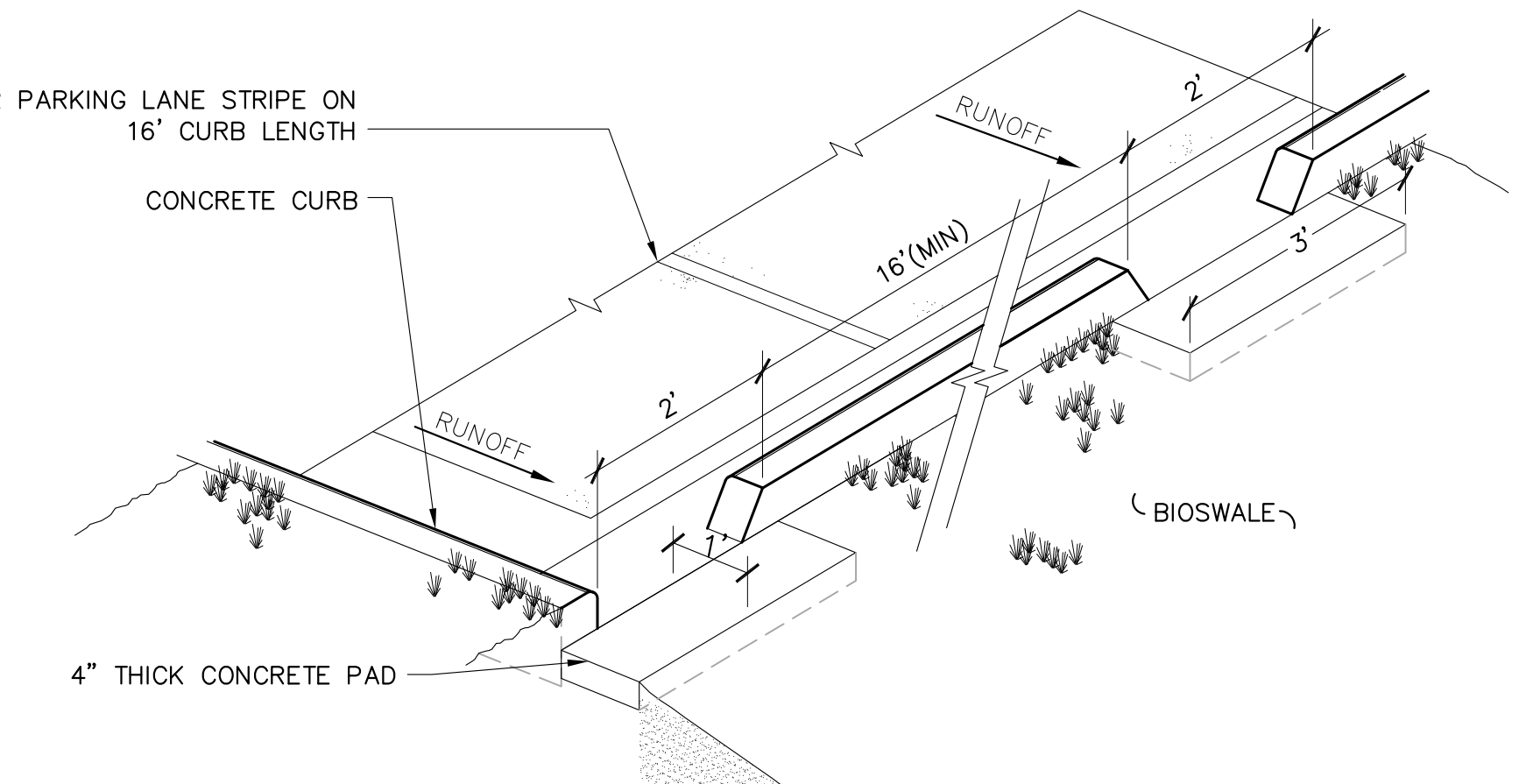
5 18" CURB
C602 SCALE 1"=1'-0"



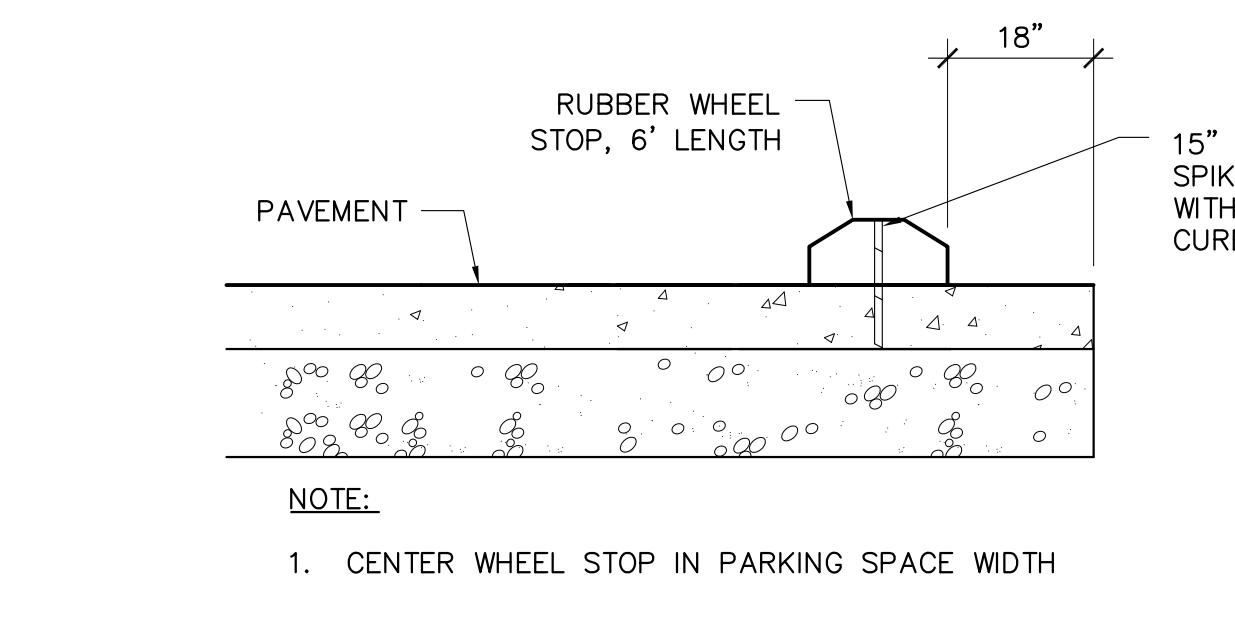
6 18" REJECT CURB
C602 SCALE: NTS



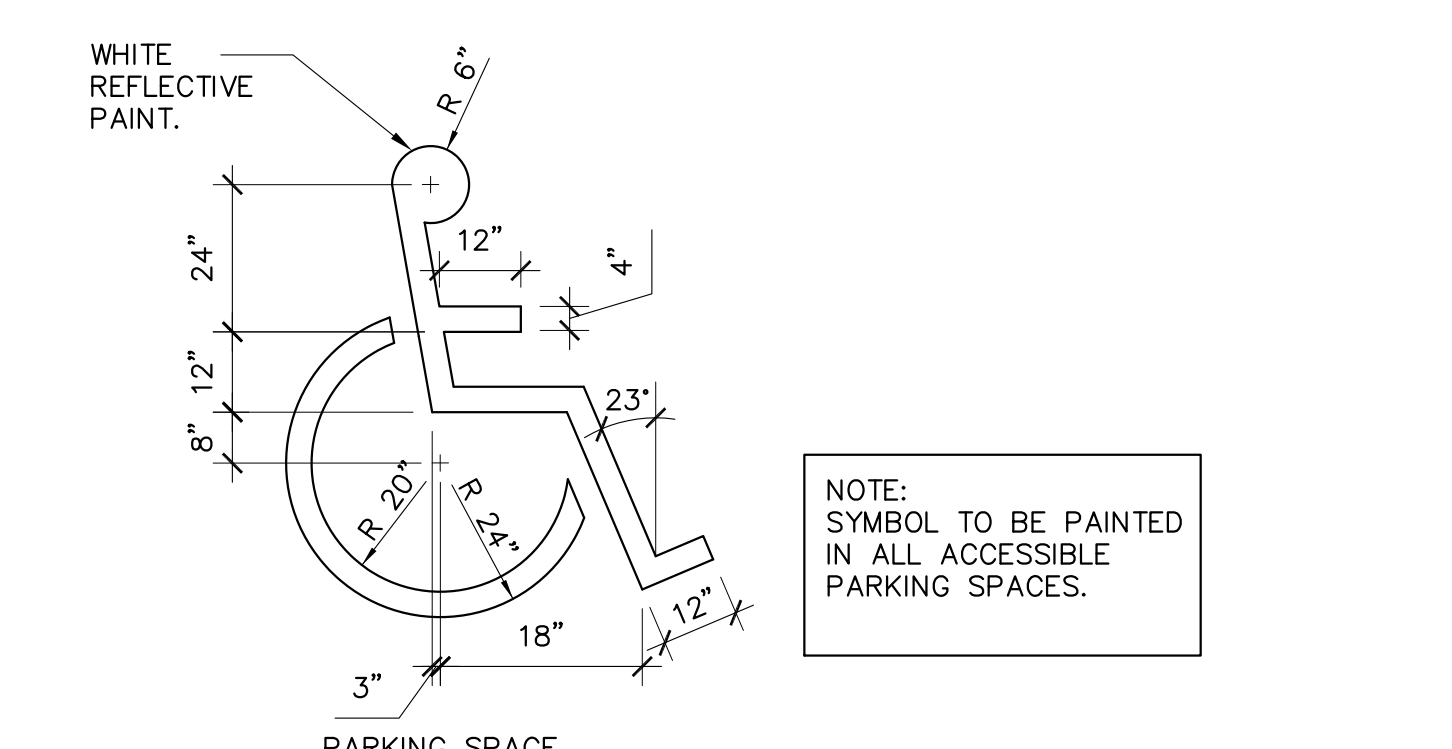
7 18" RIBBON CURB
C602 NTS



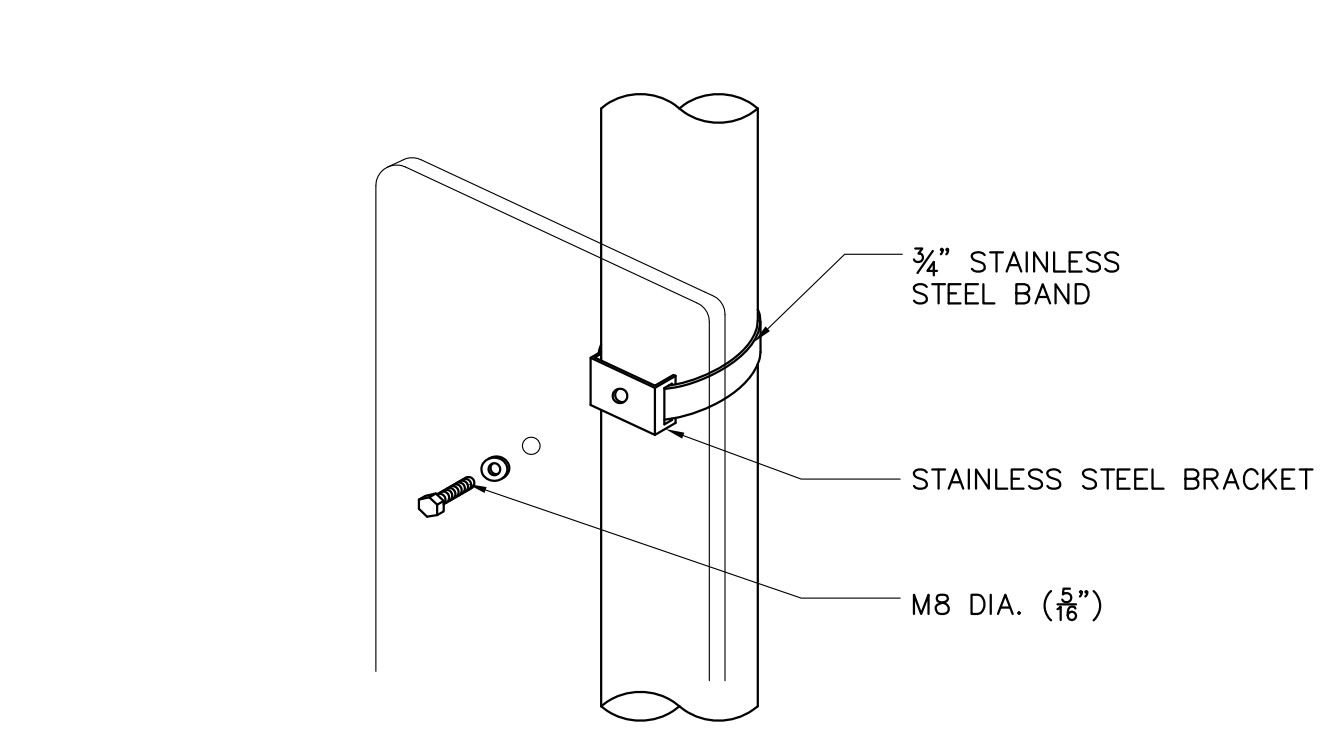
8 CURB OPENING
C602 SCALE NTS



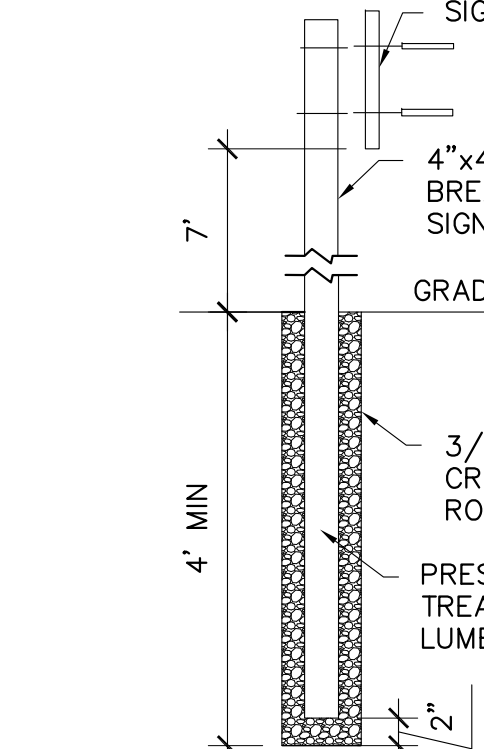
9 WHEEL STOP
C602 SCALE NTS



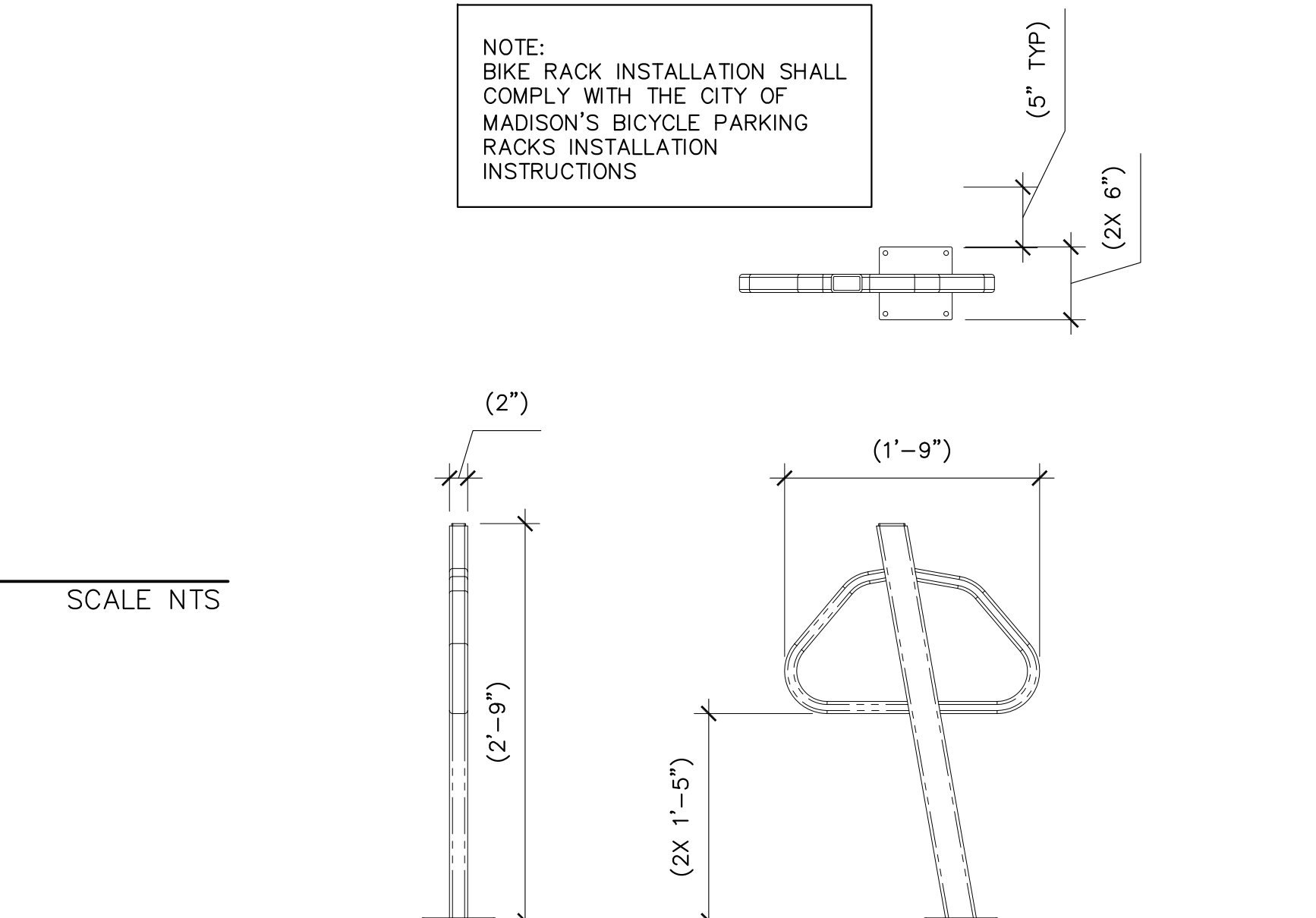
10 ACCESSIBLE PARKING PAVEMENT MARKING
C602 SCALE 1"=1'-0"



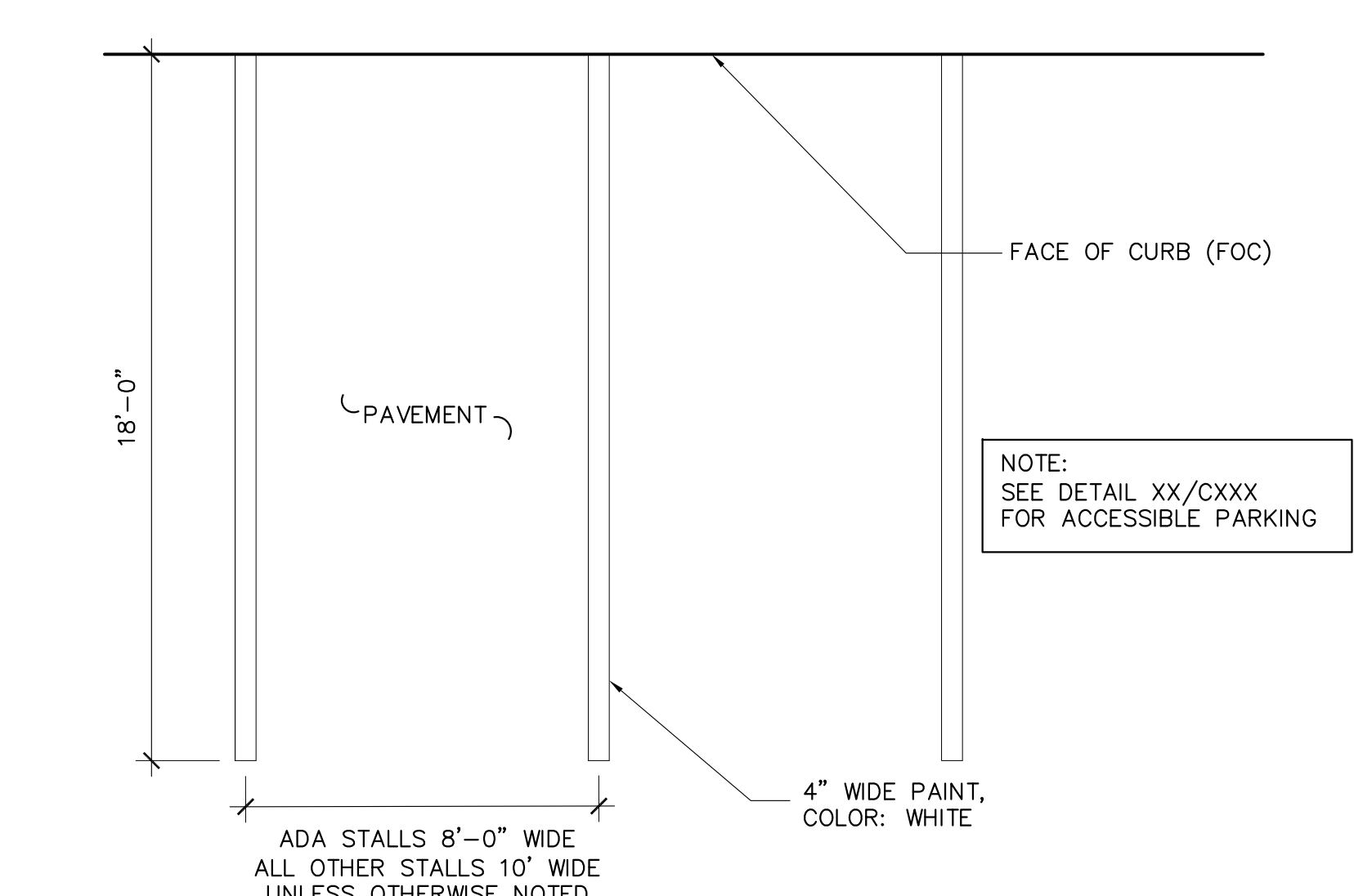
11 SIGN POST ATTACHMENT
C602 SCALE: NTS



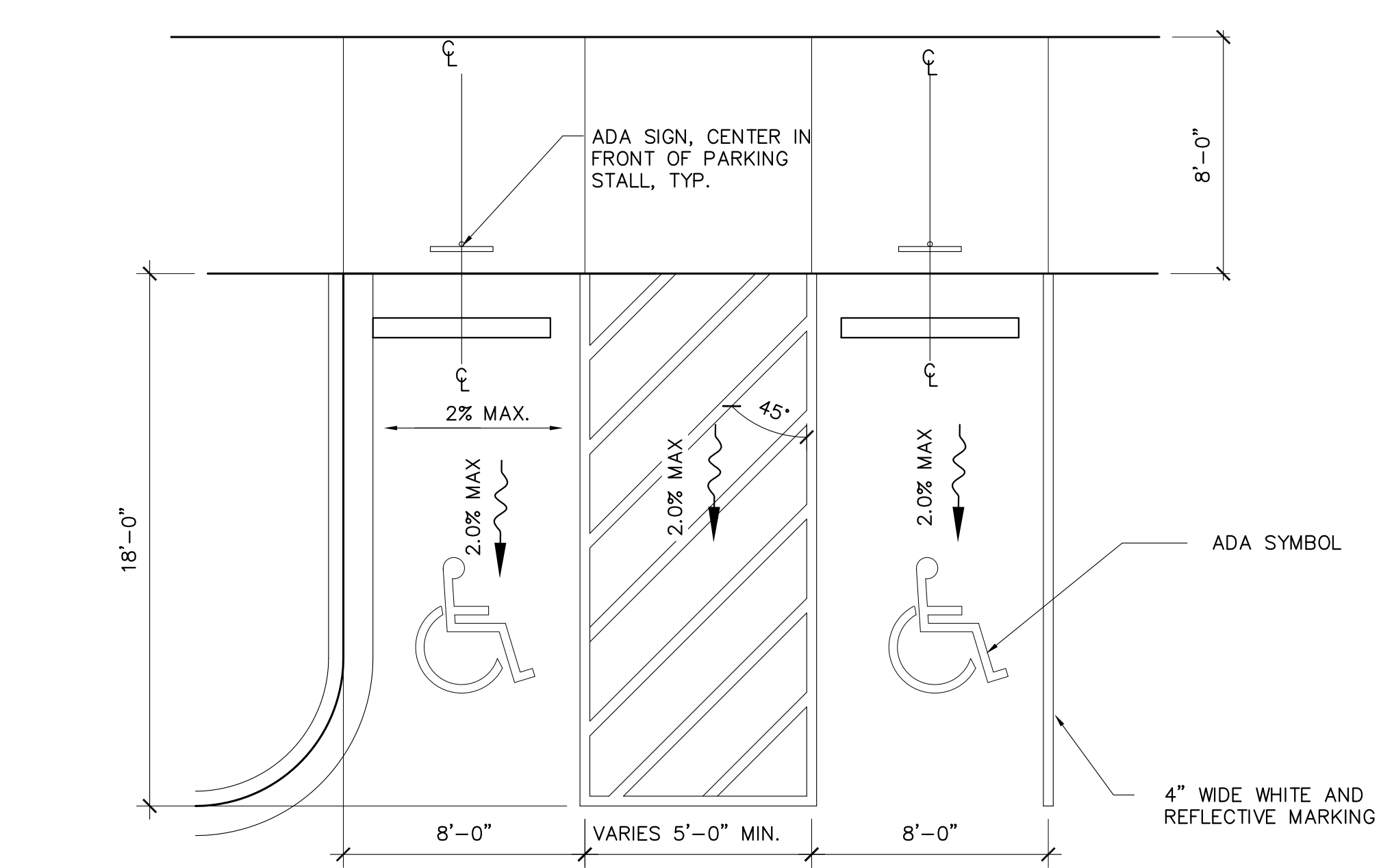
12 REGULATORY SIGNAGE
C602 SCALE NTS



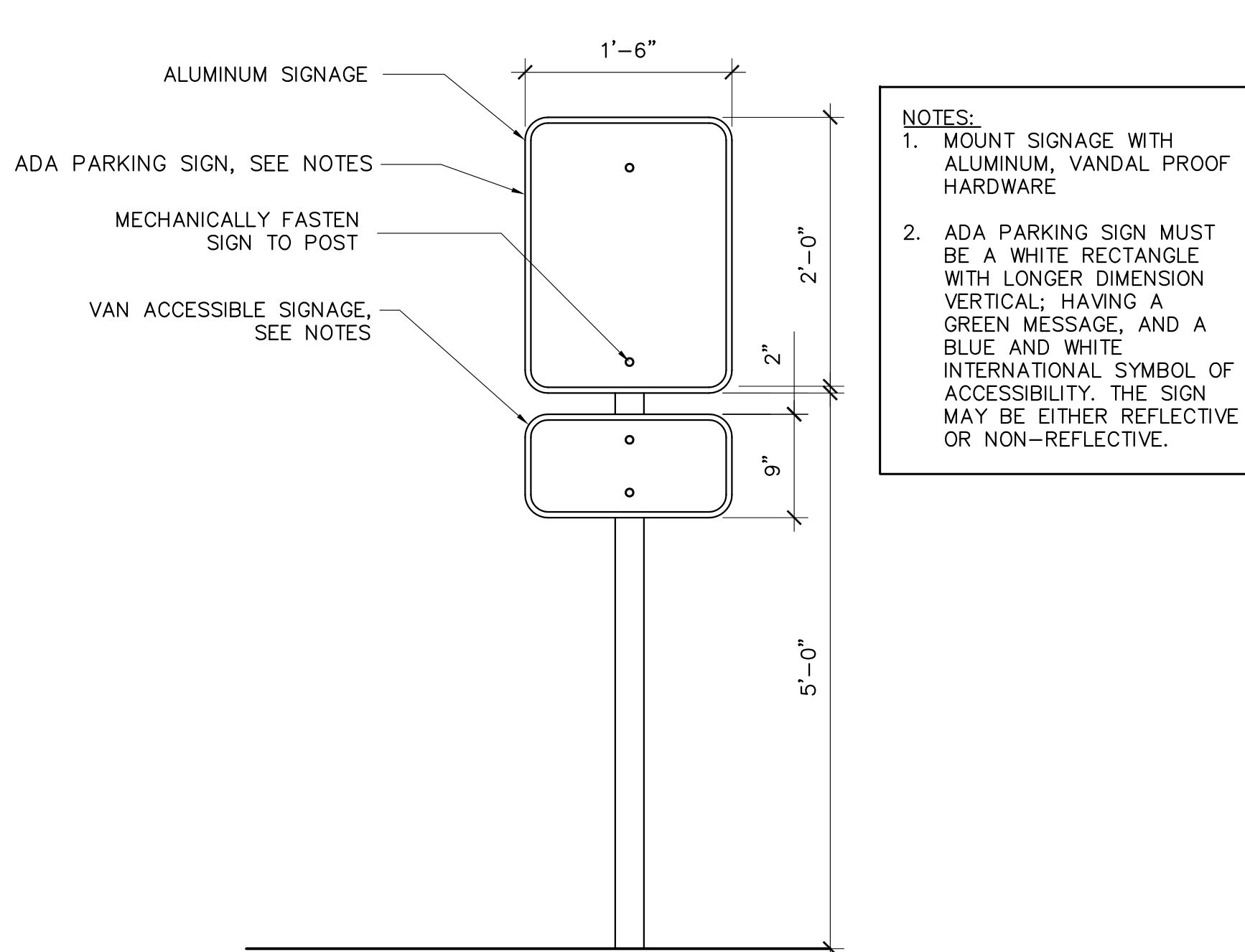
16 BICYCLE PARKING
C602 SCALE 1"=1'-0"



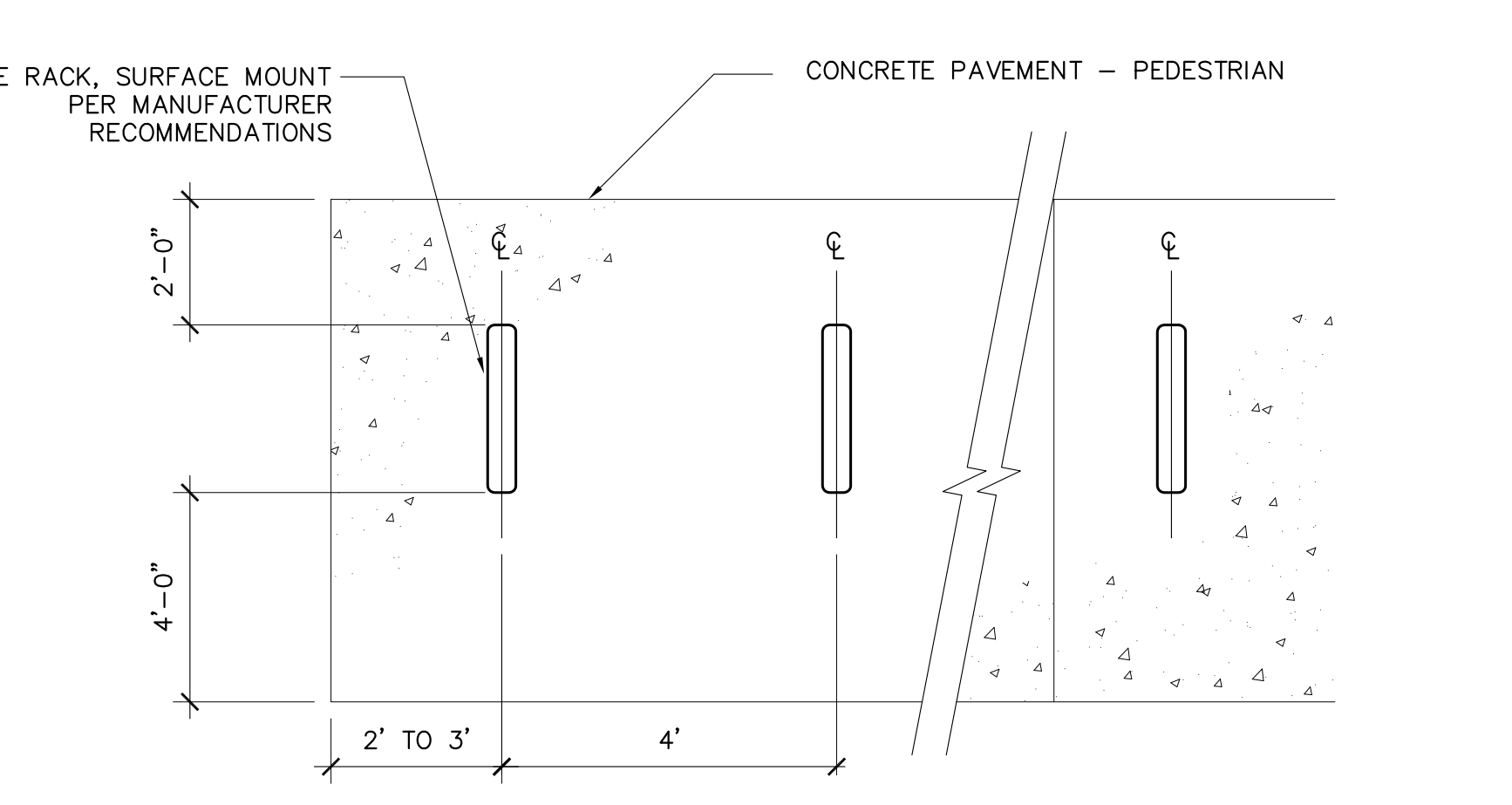
13 PARKING STRIPING
C602 SCALE NTS



14 ACCESSIBLE PARKING AND STRIPING
C602 SCALE NTS

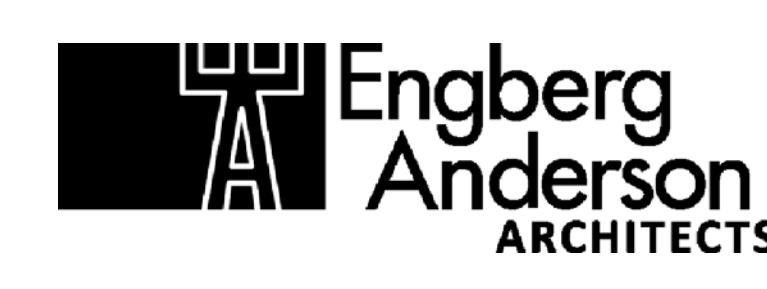


15 ADA ACCESSIBLE PARKING SIGN
C602 SCALE 1"=1'-0"



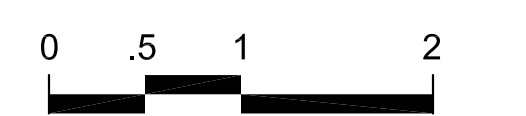
16 BICYCLE PARKING
C602 SCALE 1"=1'-0"

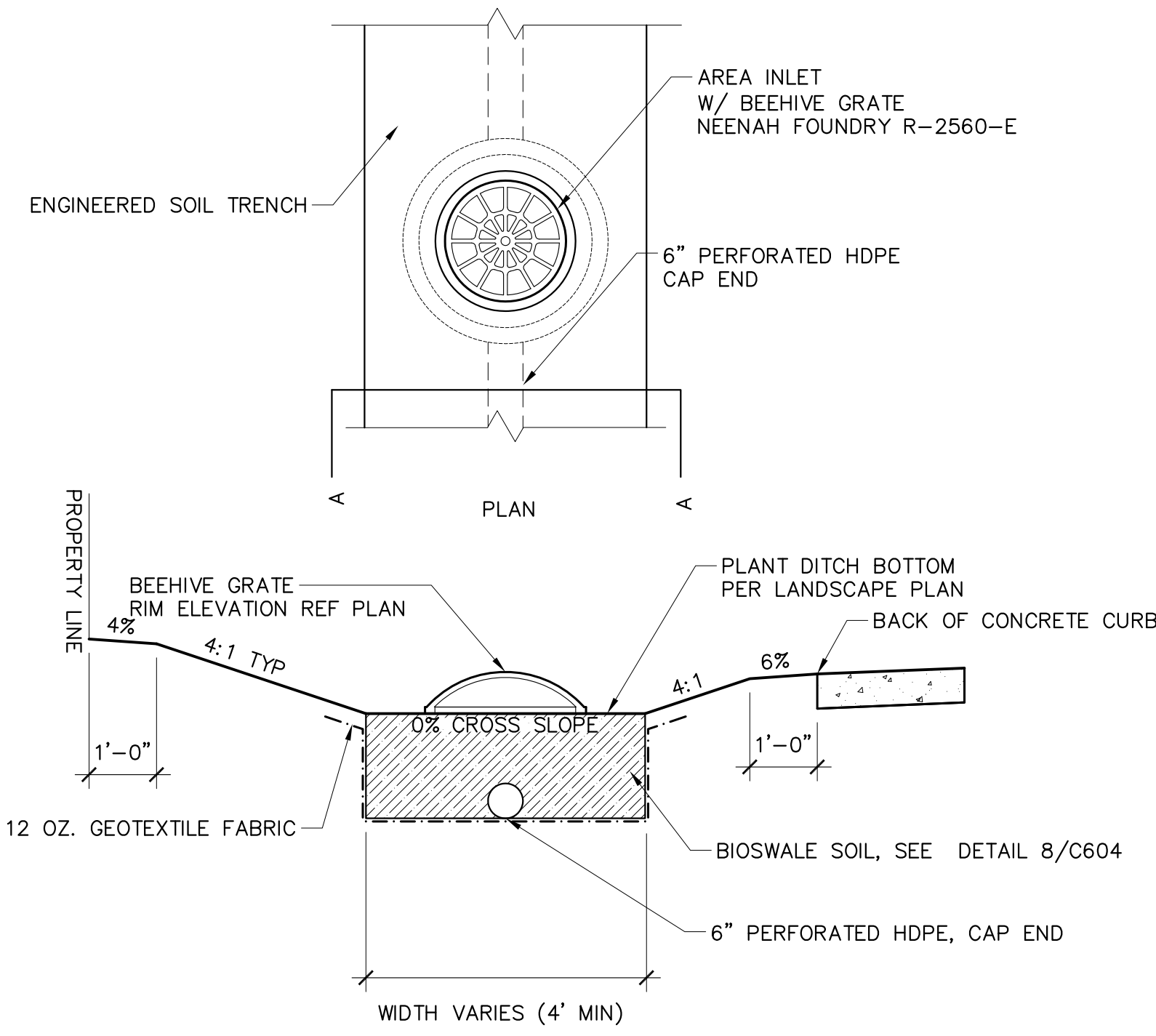
Midtown Police Station



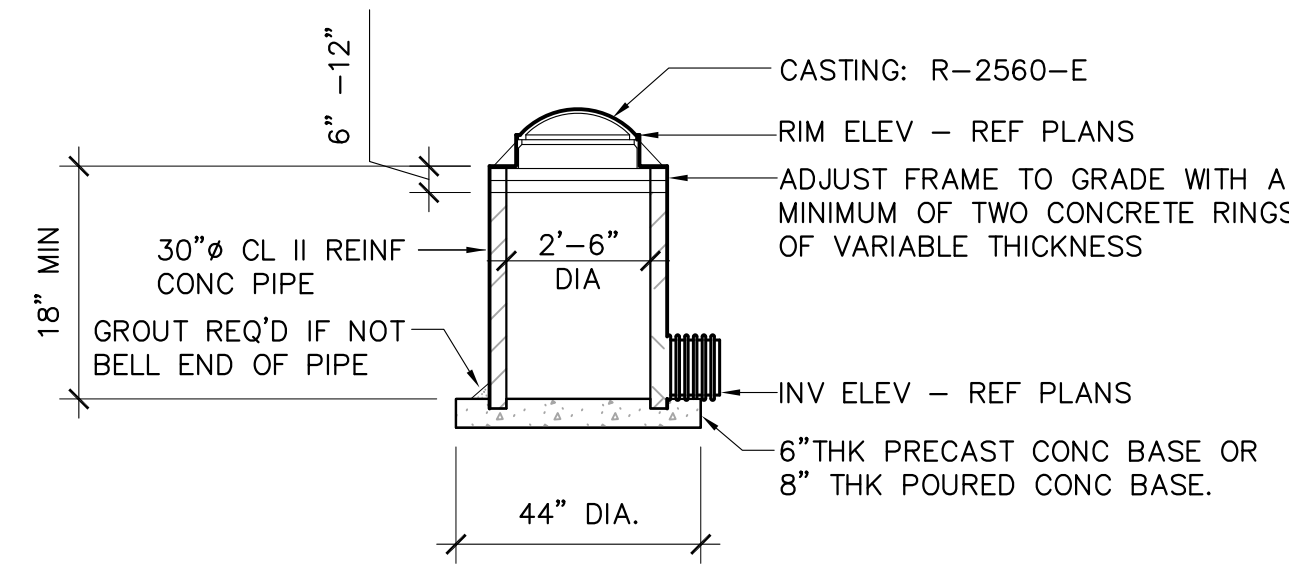
C-602 DETAILS CONSTRUCTION

June 15, 2016
Engberg Anderson Project No. 152413.01

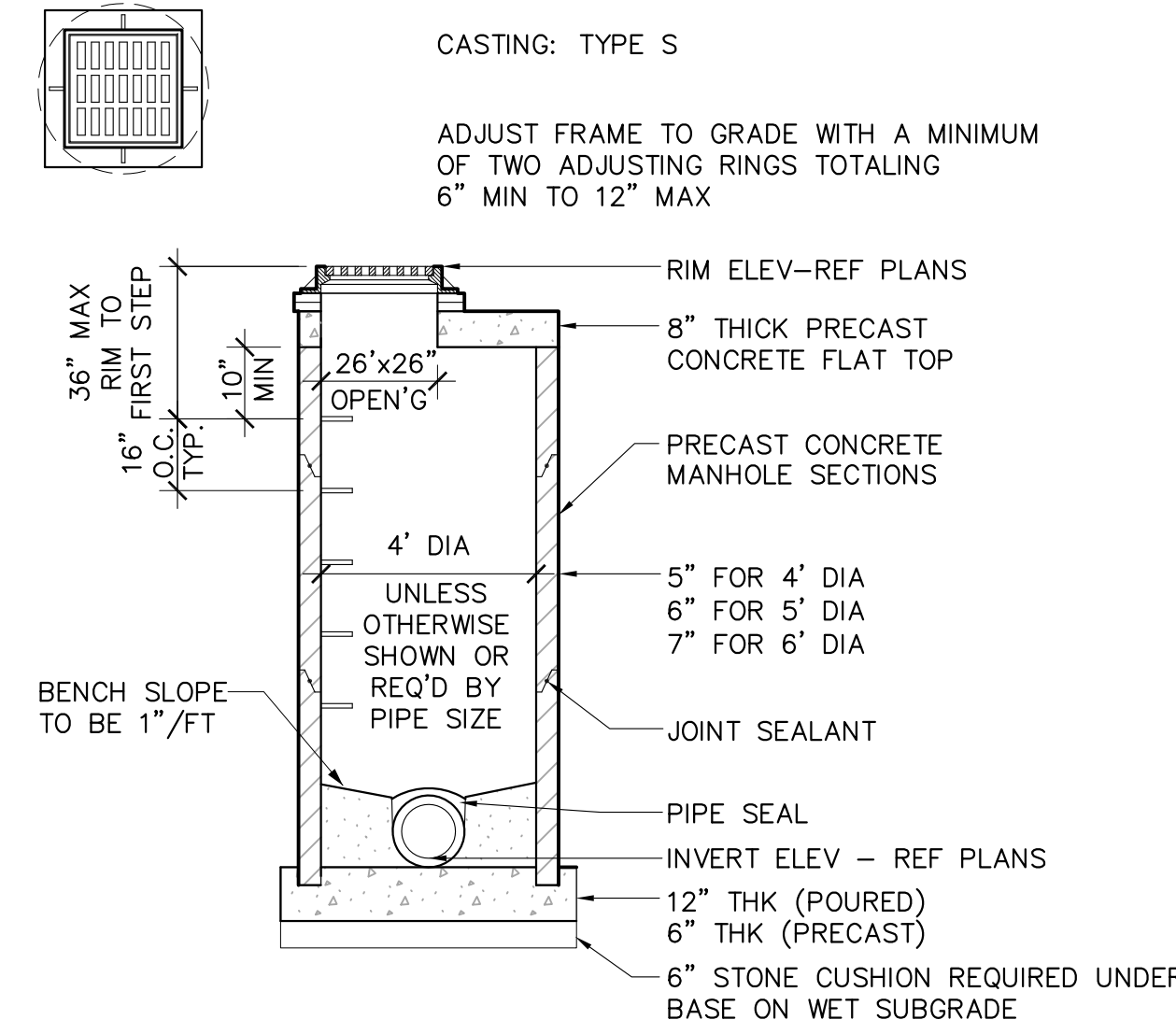




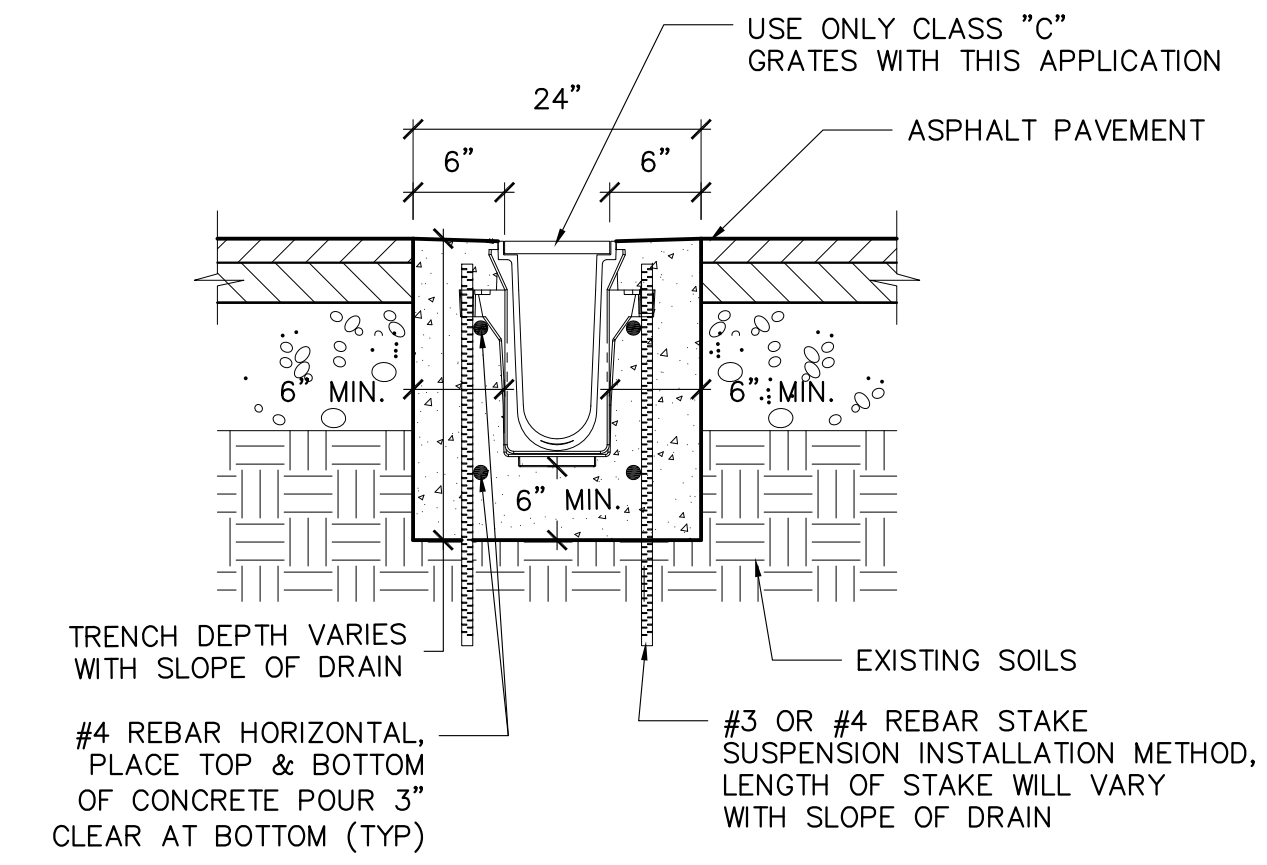
1 BIOFILTRATION TRENCH
C601 NTS



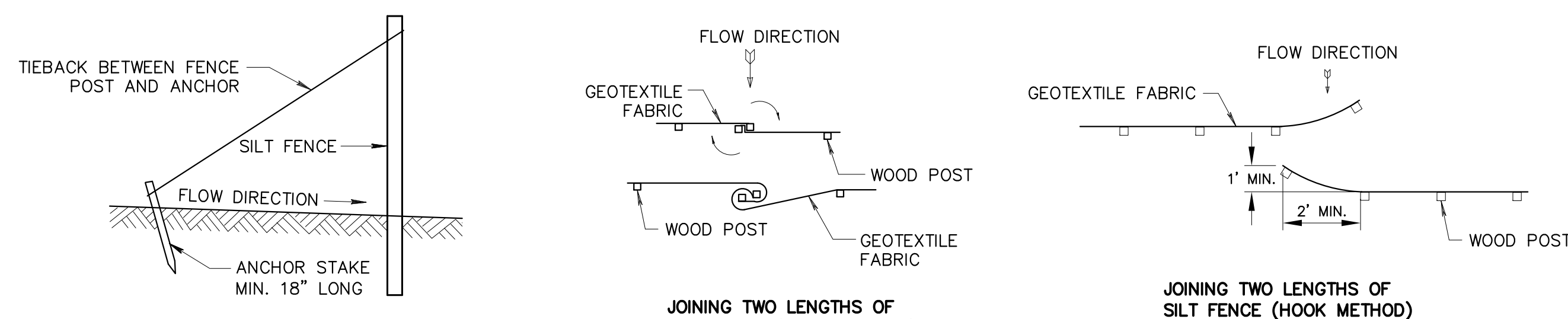
2 2.5-FT AREA INLET WITH BEEHIVE GRATE
C601 NTS



3 4-FT AREA INLET
C601 NTS



4 PRE-SLOPED CHANNEL TRENCH DRAIN
C601 NTS



SILT FENCE TIE BACK (WHEN ADDITIONAL SUPPORT REQUIRED)

JOINING TWO LENGTHS OF SILT FENCE (TWIST METHOD)

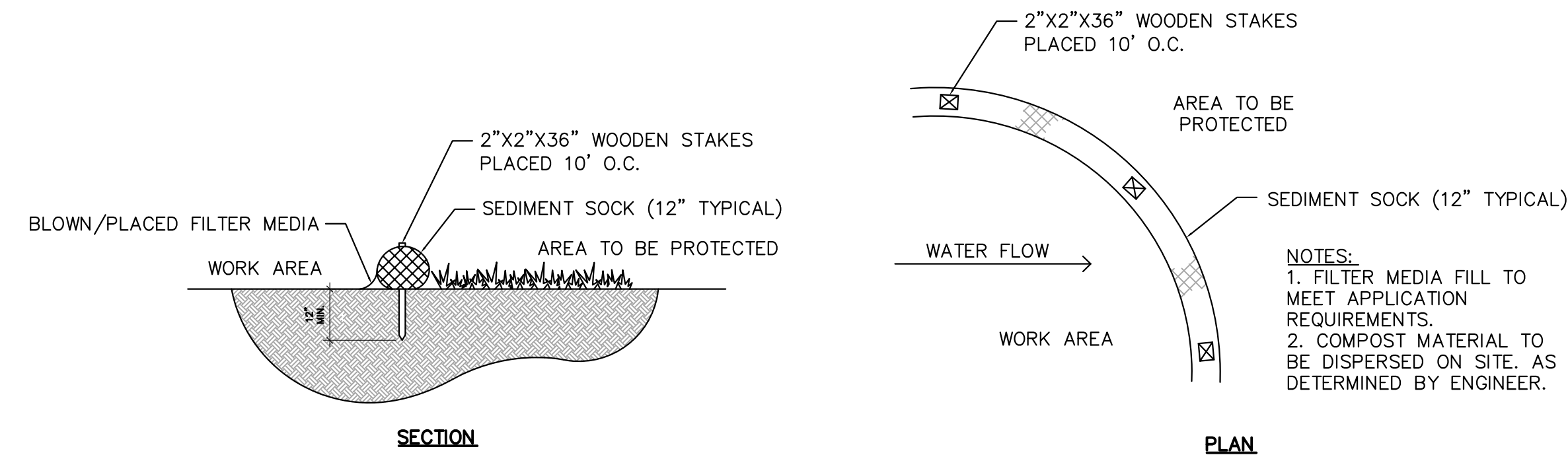
JOINING TWO LENGTHS OF SILT FENCE (HOOK METHOD)

TRENCH DETAIL

NOTES:

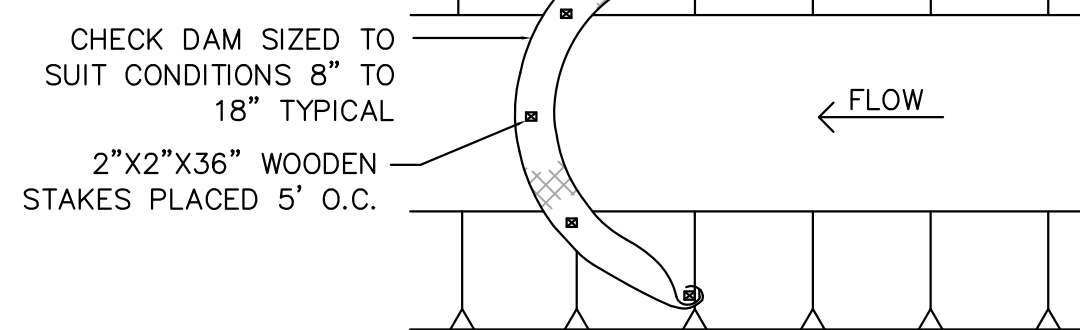
- TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH, BACKFILL, AND COMPACT TRENCH WITH EXCAVATED SOIL.
 - WOOD POSTS SHALL BE A MINIMUM SIZE OF 1"x1" MADE OF OAK OR HICKORY. 3'-4' LENGTH WITH 20" MINIMUM BURIED.
- ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.
- CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE EITHER THE TWIST METHOD OR HOOK METHOD TO JOIN SEGMENTS.
- CONSTRUCTION, OPERATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH WDNR CONSERVATION PRACTICE STANDARD 1056.

5 SILT FENCE
C601 NOT TO SCALE



SECTION

PLAN



NOTES:

- SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 3/4 THE HEIGHT OF THE CHECK DAM.
- CHECK DAM CAN BE DIRECT SEEDDED AT THE TIME OF INSTALLATION.

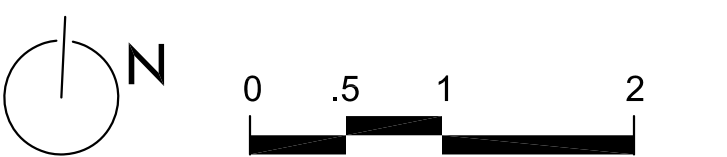
6 SEDIMENT SOCK
C601

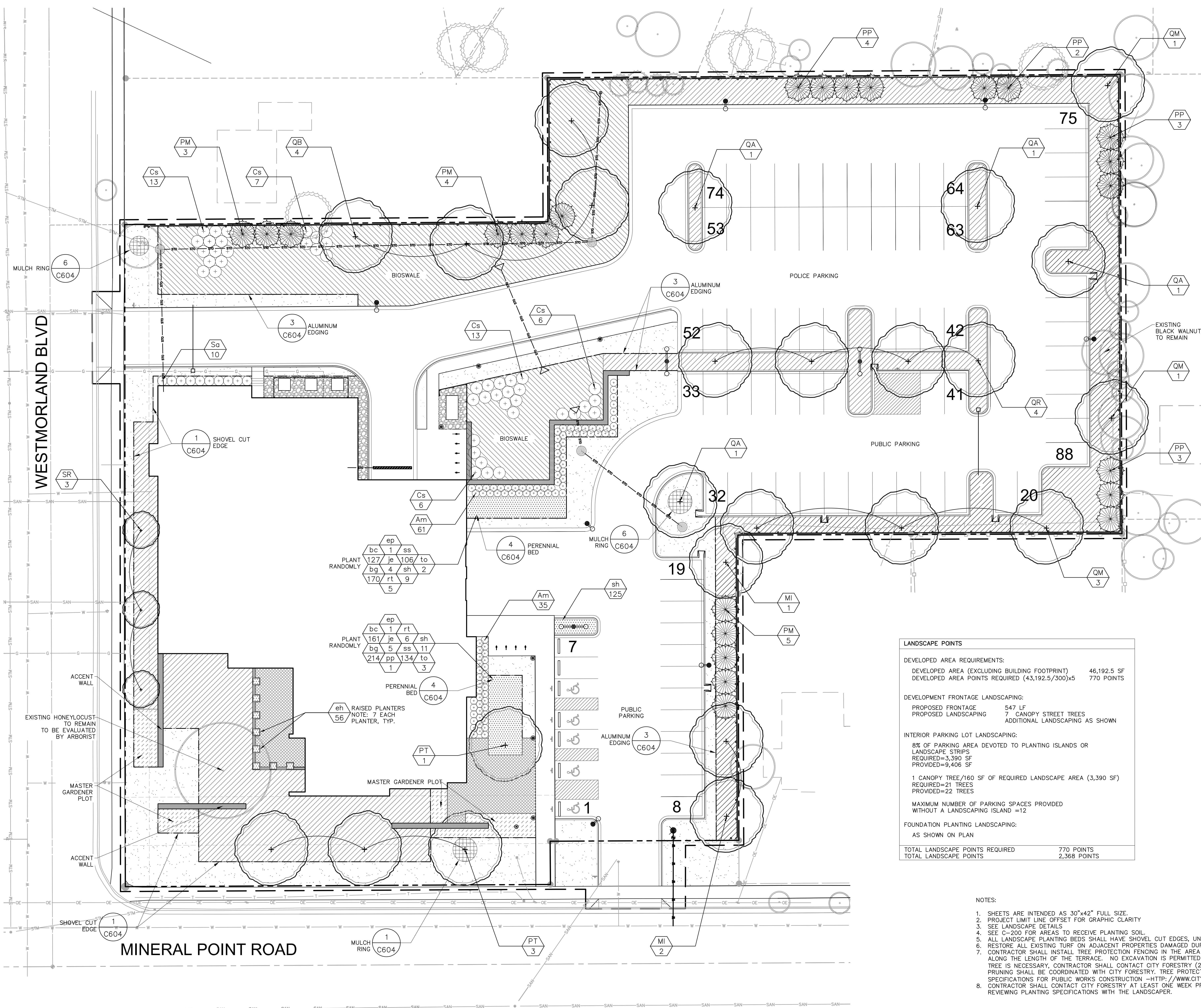
Midtown Police Station



C-601 DETAILS
CONSTRUCTION

June 15, 2016
Engberg Anderson Project No. 152413.01





LEGEND:

	CONCRETE		LIGHT
	GRAVEL		FENCE
	PAVERS		NATIVE PERENNIAL PLANTING
	BIOSWALE		EVERGREEN TREE
	ORNAMENTAL PRAIRIE		SHADE TREE
	PERENNIAL PLANTING		EXISTING TREE TO REMAIN
	MASTER GARDENER PLOT		MULCH RING
	TURF		SHOVEL CUT EDGE
	PROPERTY LINE		ALUMINUM EDGING
	PROJECT LIMIT LINE		

ORNAMENTAL PRAIRIE MIX

Symbol	Botanical Name	Common Name	% of Mix	Seeds/ft ²	Lbs/ac	Qty	Size
GRAMINOIDS							
bc	<i>Bouteloua curtipendula</i>	Sideoats Grama Grass	30.00%	90	24.63	288	Qrt
bg	<i>Bouteloua gracilis</i>	Blue Grama Grass	40.00%	120	7.22	384	Qrt
je	<i>Juncus effusus</i>	Common Rush	1.00%	3	0.01	9	Qrt
ss	<i>Schizachyrium scoparium</i>	Little Bluestem	25.00%	75	22.69	240	Qrt
sh	<i>Sporobolus heterolopsis</i>	Prairie Dropseed	2.00%	6	1.17	145	Qrt
FORBS							
ep	<i>Echinacea pallida</i>	Pale Purple Coneflower	0.20%	0.6	0.36	2	Qrt
pp	<i>Phlox pilosa</i>	Prairie Phlox	0.10%	0.3	0.03	1	Qrt
rt	<i>Rudbeckia triloba</i>	Brown-eyed Susan	1.20%	3.6	0.29	11	Qrt
to	<i>Tradescantia ohimensis</i>	Ohio spiderwort	0.50%	1.5	0.52	5	Qrt
TOTAL			100.00%	300	56.90	1065	

BIOSWALE MIX

Symbol	Botanical Name	Common Name	% of Mix	Seeds/ft ²	Lbs/ac	Qty	Size
GRAMINOIDS							
	<i>Juncus effusus</i>	Common Rush	50.00%	150	0.41		
	<i>Panicum virgatum</i>	Switchgrass	24.00%	72	21.78		
	<i>Schizachyrium scoparium</i>	Little Bluestem	23.00%	69	20.87		
	<i>Spartina pectinata</i>	Red River Prairie Cordgrass	1.00%	3	0.91		
FORBS							
	<i>Bidens cernua</i>	Nodding Bur-marigold	1.00%	3	0.58	50	Qrt
	<i>Iris virginica shrevei</i>	Blue Flag Iris				100	Qrt
	<i>Phlox glaberrima interior</i>	Marsh Phlox				100	Qrt
	<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	1.00%	3	1.03	50	Qrt
TOTAL			100.00%	300	45.58	300	

LANDSCAPE POINTS

DEVELOPED AREA REQUIREMENTS:
 DEVELOPED AREA (EXCLUDING BUILDING FOOTPRINT) 46,192.5 SF
 DEVELOPED AREA POINTS REQUIRED (43,192.5/300) x 5 770 POINTS

DEVELOPMENT FRONTAGE LANDSCAPING:
 PROPOSED FRONTAGE 547 LF
 PROPOSED LANDSCAPING 7 CANOPY STREET TREES
 ADDITIONAL LANDSCAPING AS SHOWN

INTERIOR PARKING LOT LANDSCAPING:
 8% OF PARKING AREA DEVOTED TO PLANTING ISLANDS OR LANDSCAPE STRIPS
 REQUIRED=3,390 SF
 PROVIDED=9,406 SF

1 CANOPY TREE/160 SF OF REQUIRED LANDSCAPE AREA (3,390 SF)
 REQUIRED=21 TREES
 PROVIDED=22 TREES

MAXIMUM NUMBER OF PARKING SPACES PROVIDED WITHOUT A LANDSCAPING ISLAND =12

FOUNDATION PLANTING LANDSCAPING:
 AS SHOWN ON PLAN

TOTAL LANDSCAPE POINTS REQUIRED 770 POINTS
 TOTAL LANDSCAPE POINTS 2,368 POINTS

SPECIES LIST

Symbol	Botanical Name	Common Name	Size	Root	Quantity	Spacing	% of Total Proposed Tree Planting
TREES							
MI	<i>Malus ioensis</i>	Prairie Crabapple	1.5"	B&B	3	na	5.88%
PM	<i>Picea mariana</i>	Black Spruce	6" ht.	B&B	12	na	23.53%
PP	<i>Picea pungens</i>	Blue Spruce	6" ht.	B&B	12	na	23.53%
PT	<i>Populus tremuloides</i>	Quaking Aspen	1.5"	B&B	4	na	7.84%
QA	<i>Quercus alba</i>	White Oak	2.5"	B&B	4	na	7.84%
QB	<i>Quercus bicolor</i>	Swamp White Oak	2.5"	B&B	4	na	7.84%
QM	<i>Quercus macrocarpa</i>	Burr Oak	2.5"	B&B	5	na	9.80%
QR	<i>Quercus rubra</i>	Northern Red Oak	2.5"	B&B	4	na	7.84%
SR	<i>Syringa reticulata 'Ivory Silk'</i>	Japanese Tree Lilac	1.5"	B&B	3	na	5.88%
SHRUBS							
Am	<i>Aronia melanocarpa</i>	Black Chokeberry	#3	Cont.	96	3'	
Cs	<i>Cornus sericea</i>	Red Twig Dogwood	#3	Cont.	45	5'	
Sa	<i>Symphoricarpos albus</i>	Snowberry	#3	Cont.	10	4'	
PERENNIALS							
eh	<i>Equisetum hyemale</i>	Scouring Rush	Quart	Cont.	56	12" o.c.	

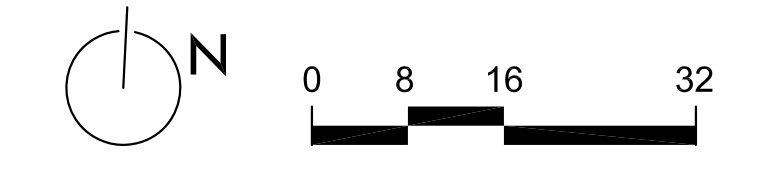
- NOTES:**
- SHEETS ARE INTENDED AS 30"x42" FULL SIZE.
 - PROJECT LIMIT LINE OFFSET FOR GRAPHIC CLARITY.
 - SEE LANDSCAPE DETAILS.
 - SEE C-200 FOR AREAS TO RECEIVE PLANTING SOIL.
 - ALL LANDSCAPE PLANTING BEDS SHALL HAVE SHOVEL CUT EDGES, UNLESS OTHERWISE NOTED.
 - RESTORE ALL EXISTING TURF ON ADJACENT PROPERTIES DAMAGED DURING CONSTRUCTION.
 - CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING IN THE AREA BETWEEN THE CURB AND SIDEWALK AND EXTEND IT AT LEAST 5 FEET FROM BOTH SIDES OF THE TREE TRUNK. IF EXCAVATION WITHIN 5 FEET OF ANY TREE IS NECESSARY, CONTRACTOR SHALL CONTACT CITY FORESTRY (266-4816) PRIOR TO EXCAVATION TO ASSESS THE IMPACT TO THE TREE AND ROOT SYSTEM. TREE PRUNING SHALL BE COORDINATED WITH CITY FORESTRY. TREE PROTECTION SPECIFICATIONS CAN BE FOUND IN SECTION 107.13 OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - [HTTP://WWW.CITYOFMADISON.COM/BUSINESS/PW/DOCUMENTS/STDSPECS/2013/PART1.PDF](http://www.cityofmadison.com/BUSINESS/PW/DOCUMENTS/STDSPECS/2013/PART1.PDF)
 - CONTRACTOR SHALL CONTACT CITY FORESTRY AT LEAST ONE WEEK PRIOR TO PLANTING TO SCHEDULE MARKING THE PLANTING SITES, INSPECTING THE NURSERY STOCK, AND REVIEWING PLANTING SPECIFICATIONS WITH THE LANDSCAPER.

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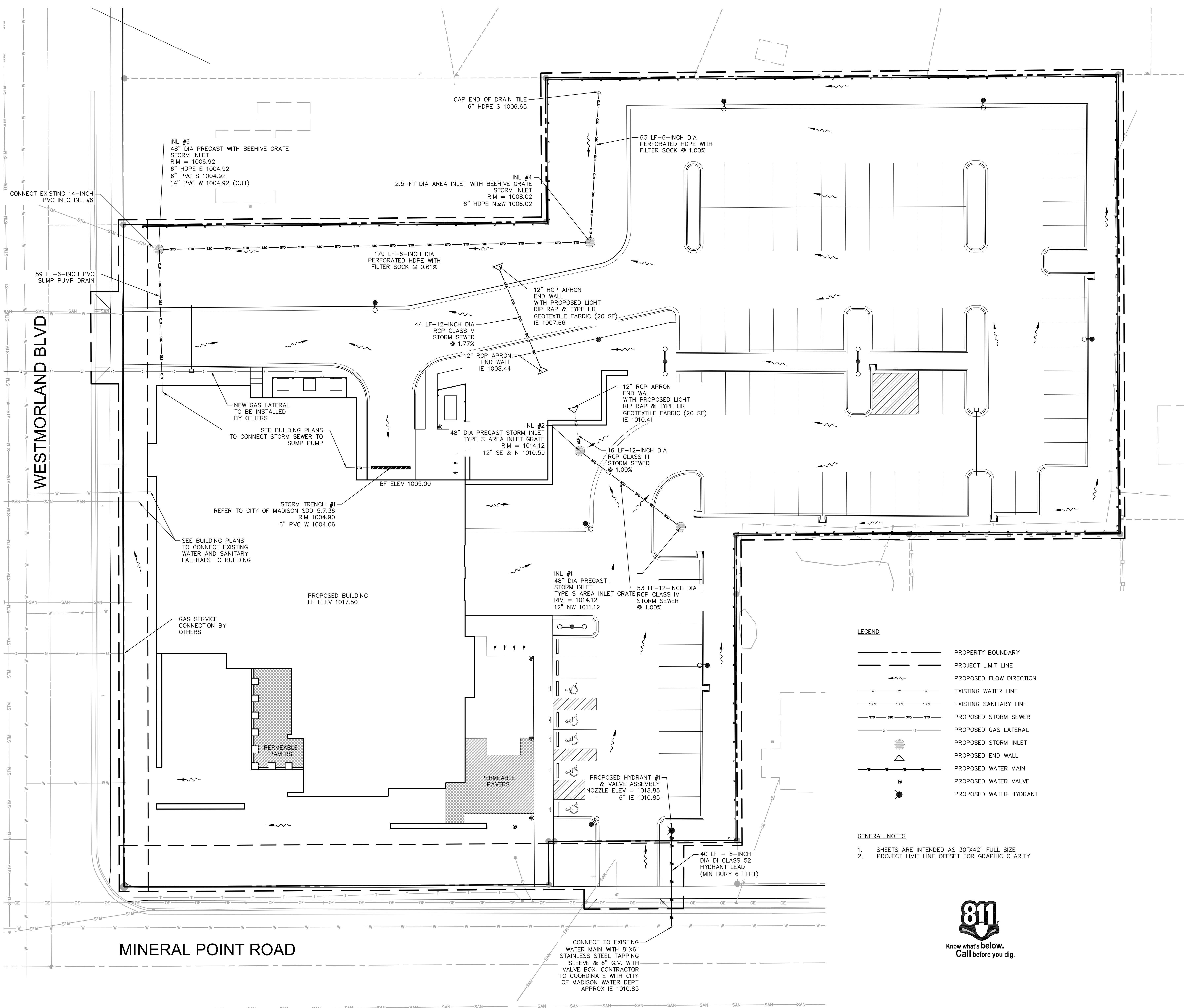


C-500 LANDSCAPE PLAN

June 15, 2016
 Engberg Anderson Project No. 152413.01



AYRES ASSOCIATES
 101 East Badger Road
 Madison, WI 53713
 608.255.0800
 www.AyresAssociates.com
 Ayres Project No. 27-1034.00



UTILITY NOTES:

THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE A MINIMUM OF 3 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

REFER TO CITY OF MADISON SDD 5.4.4 FOR RIPRAP PLACEMENT DETAIL

STANDARD SPECIFICATIONS: PERFORM ALL WORK IN ACCORDANCE WITH THE PROVISIONS OF:

- CITY OF MADISON SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION, LATEST EDITION
- "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN" (SSWC) LATEST EDITION
- STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (WISDOT) LATEST EDITION
- CONTRACTOR SHALL OBTAIN A CURRENT COPY OF THE CITY OF MADISON'S STANDARD SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
- INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND OTHER REVISIONS TO DATE, UNLESS OTHERWISE SPECIFIED IN THE SPECIFICATIONS.
- WITHIN THE RIGHT-OF-WAY OR UNDERNEATH PAVEMENTS OR BUILDINGS, GRANULAR TRENCH BACKFILL MUST BE USED TO FILL THE TRENCH. ALL OTHER AREAS MAY UTILIZE EXCAVATED TRENCH SPOIL FOR BACKFILL PROVIDING THAT THE MATERIAL IS FREE OF ORGANIC MATERIAL AND STONES LARGER THAN 6" IN DIAMETER.
- A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS AND WATER SERVICES/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES.

WATER DISTRIBUTION SYSTEM:

MAIN:

- WATER MAIN SHALL HAVE A MINIMUM BURY DEPTH OF 6 FEET TO THE TOP OF PIPE. IF 6 FEET OF BURY CANNOT BE OBTAINED, CONTRACTOR SHALL PLACE A MINIMUM OF 4 INCHES OF STYROFOAM INSULATION ON TOP AND ON THE SIDES OF THE WATER MAIN TO THE 6 FOOT BURY LINE PER THE SSSWC.
- DUCTILE IRON (D.I.) AWWA C-151 CLASS 52 WITH CABLE BOND CONDUCTORS, FURNISHED AND INSTALLED PER CHAPTER 8.180 (WSWS) OR
- POLYVINYL CHLORIDE (PVC) AWWA C-900, FURNISHED AND INSTALLED PER CHAPTER 8.20.0 (WSWS)
- ALL WATER MAIN JOINTS SHALL BE RESTRAINED.

LATERALS:

- 6" - PVC AWWA, C-900, CL150, SDR 18 OR DUCTILE IRON AWWA C-151, CLASS-52
- 2" & SMALLER - TYPE K COPPER
- WATER LATERAL AND HYDRANT TEES SHALL BE ANCHORED.

STORM SEWER:

- STORM SEWER SPECIFIED AS RCP SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO THE FOLLOWING SPECIFICATIONS UNLESS OTHERWISE NOTED:
- 12" DIA - CLASS IV RCP
- 12" DIA - CLASS V RCP
- STORM SEWER SPECIFIED AS HDPE SHALL BE CORRUGATED HDPE, SMOOTH INTERIOR ASTM F2306.
- STORM SEWER PIPE: REINFORCED CONCRETE PIPE (RCP) CONFORMING TO ASTM C-76, POLYETHYLENE MATERIAL SHALL CONFORM TO ASTM D3350. AN APPROVED RUBBER GASKET JOINT SHALL BE USED FOR EITHER OPTION. JOINTS FOR RCP SHALL CONFORM TO ASTM D-471. JOINTS FOR HDPE SHALL CONFORM TO ASTM F-477.

REFER TO SHEET C603 FOR MANHOLE INLET DETAILS.

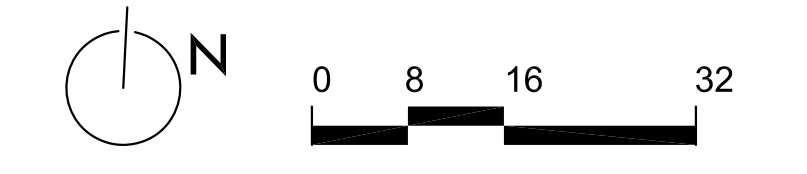
-ALL PERFORATED DRAIN TILE SHALL BE PLASTIC WITHOUT A FILTER SOCK.

LEGEND

	PROPERTY BOUNDARY
	PROJECT LIMIT LINE
	PROPOSED FLOW DIRECTION
	EXISTING WATER LINE
	EXISTING SANITARY LINE
	PROPOSED STORM SEWER
	PROPOSED GAS LATERAL
	PROPOSED STORM INLET
	PROPOSED END WALL
	PROPOSED WATER MAIN
	PROPOSED WATER VALVE
	PROPOSED WATER HYDRANT

GENERAL NOTES

1. SHEETS ARE INTENDED AS 30"x42" FULL SIZE
2. PROJECT LIMIT LINE OFFSET FOR GRAPHIC CLARITY



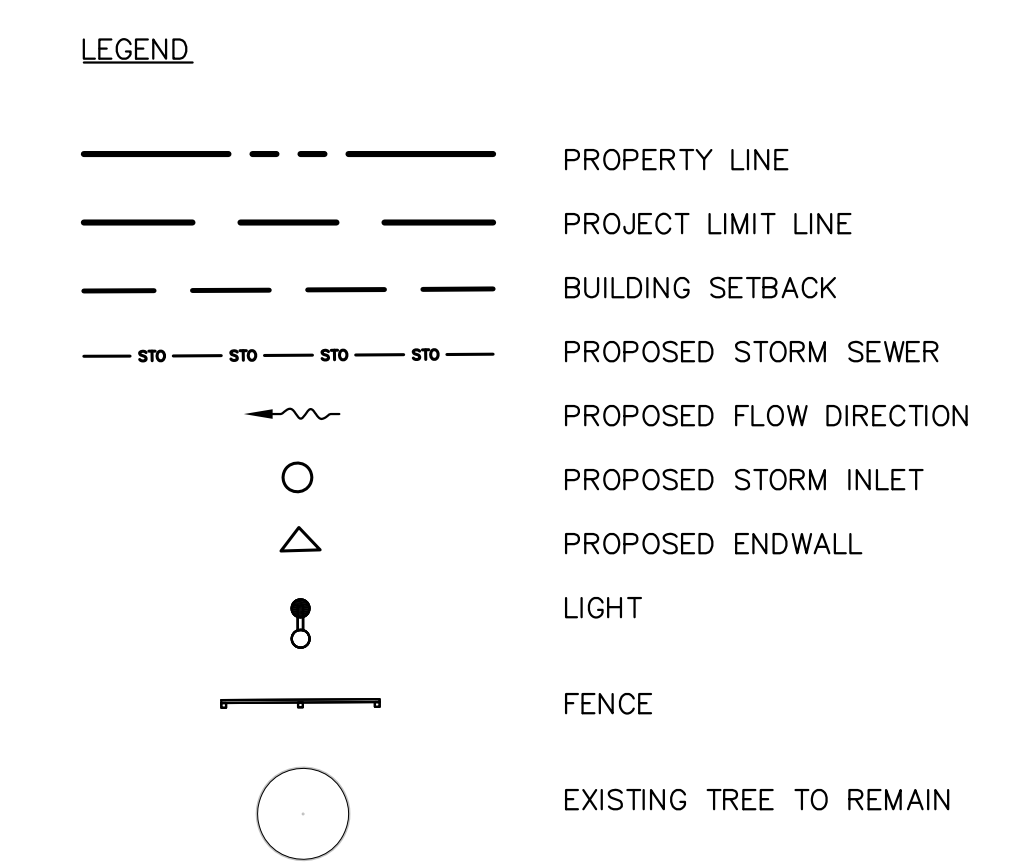
WESTMORLAND BLVD

MINERAL POINT ROAD

PROPOSED BUILDING
FF ELEV 1017.50

SIDE YARD
SETBACK

FRONT YARD
SETBACK



SPOT ELEVATION ABBREVIATIONS:

- P = PROPOSED ASPHALT
- EG = EXISTING GRADE
- EC = EXISTING CONCRETE
- FS = FINISHED SURFACE
- FG = FINISHED GRADE
- TW = TOP OF WALL
- BW = BOTTOM OF WALL
- BC = BACK OF CURB
- FLG = FLANGE OF CURB
- TR = TOP OF ROCK
- TS = TOP OF STAIRS
- BS = BOTTOM OF STAIRS
- IE = INVERT ELEVATION
- R = RIM

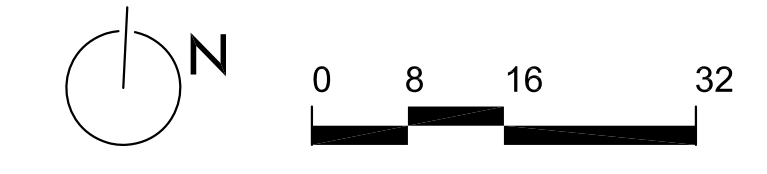


GENERAL NOTES

1. SHEETS ARE INTENDED AS 30"x42" FULL SIZE.
2. PROJECT LIMIT LINE OFFSET FOR GRAPHIC CLARITY.
3. SEE SHEET C-200 FOR CURB AND GUTTER TYPE CALLOUTS.
4. SEE SHEET C-400 FOR SITE UTILITY PLAN.

GRADING NOTES

1. CONTRACTOR SHALL FINE GRADE FOR GRADES AND SWALES AS SHOWN AND SHALL OBTAIN 1% MINIMUM DRAINAGE, UNLESS OTHERWISE DIRECTED.
2. CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBANCE THROUGHOUT THE SITE.
3. CONTRACTOR SHALL ROUGH GRADE ALL AREAS WITHIN THE PROJECT LIMITS TO PROPOSED GRADES.
4. CONTRACTOR SHALL MEET EXISTING GRADE AT PROJECT LIMITS WITH A SMOOTH AND CONTINUOUS TRANSITION.
5. SPOT ELEVATIONS REPRESENT THE DESIGN INTENT OF FINISH GRADES AND FINISH SURFACES.
6. SUBGRADES SHALL BE PER DETAIL DRAWINGS. THERE SHALL BE A MINIMUM OF 4" OF TOPSOIL IN ALL LAWN AND LANDSCAPE AREAS.
7. SIDEWALK CROSS SLOPE MAY VARY BETWEEN MIN 0.5% TO MAX 2%. CONTRACTOR SHALL CONSTRUCT A 1.5% CROSS SLOPE WHEREVER POSSIBLE.



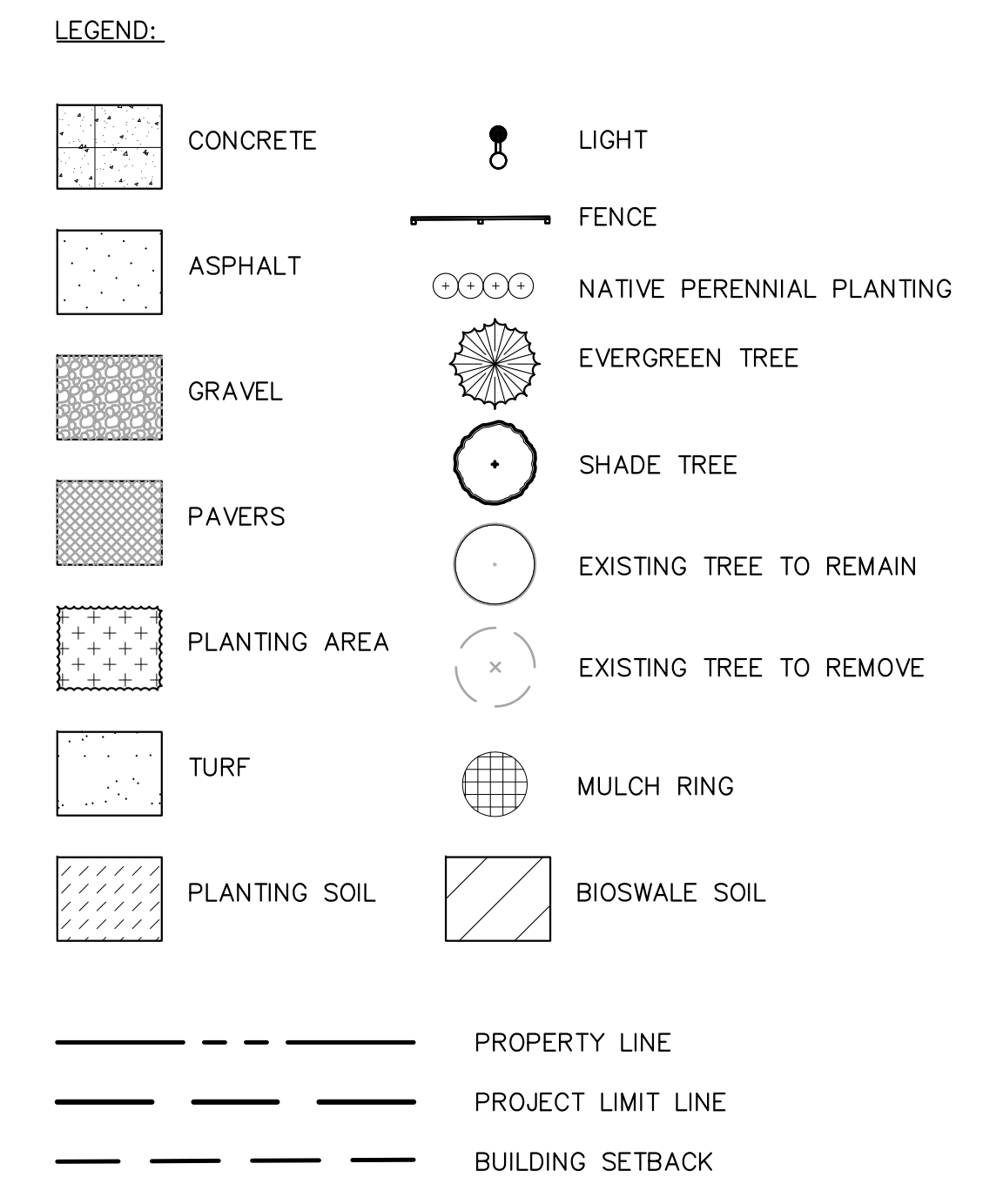
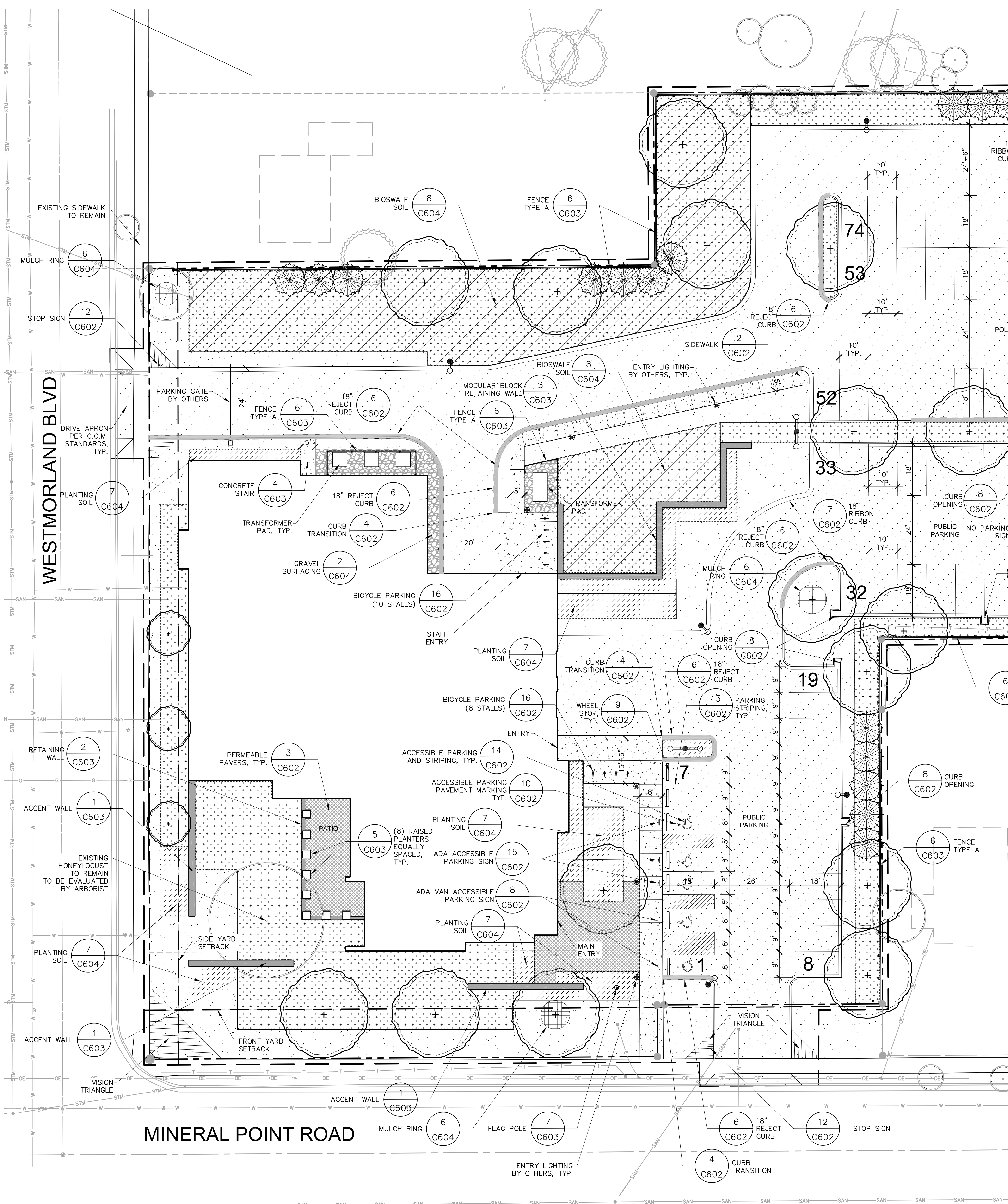
Midtown Police Station



C-300 SITE
GRADING

June 15, 2016
Engberg Anderson Project No. 152413.01

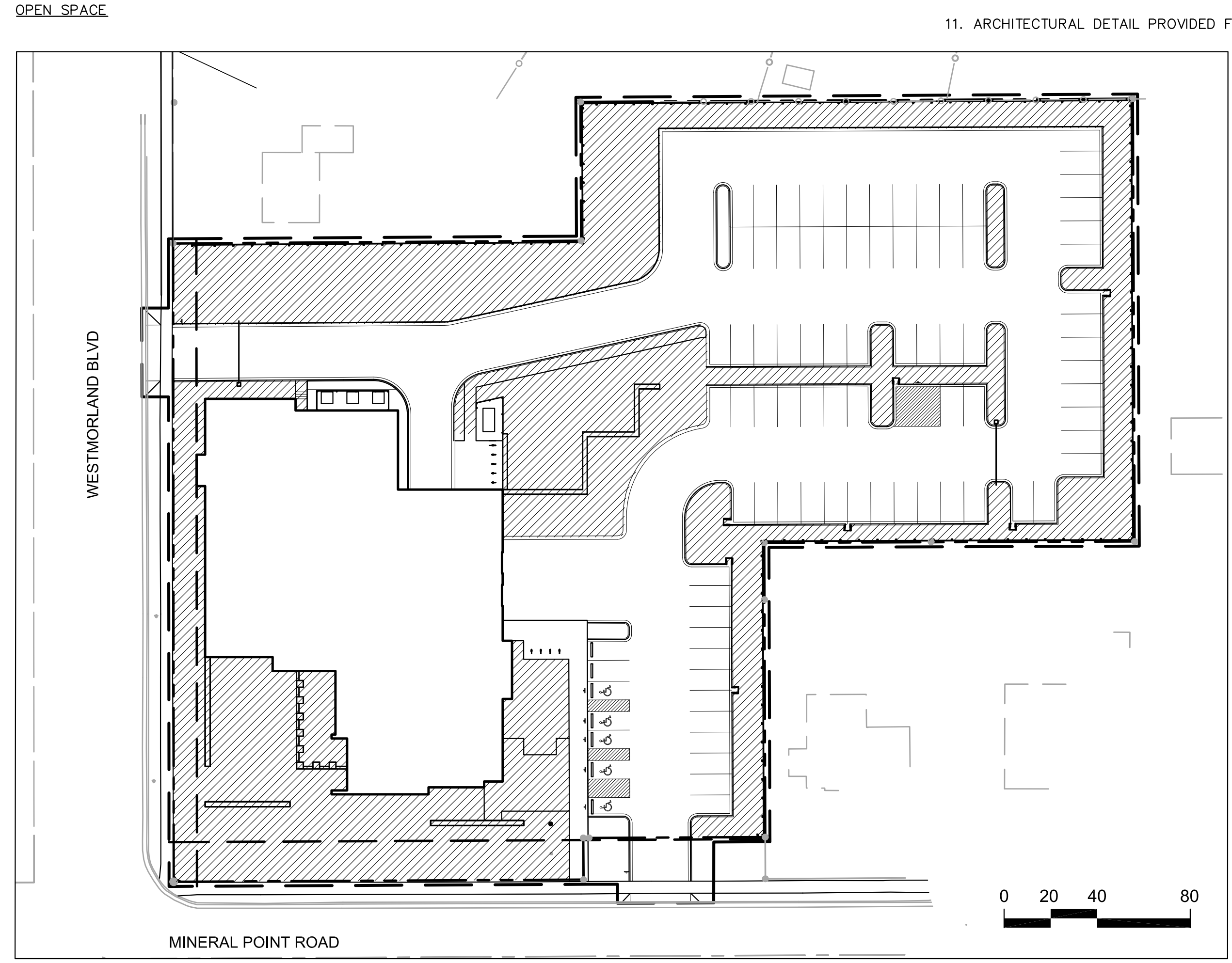
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SITE STATISTICS

SITE AREA 103,216.45 sf (2.37 ac)	BUILDING AREA: 16,544 sf
REQD. OPEN SPACE (35%) 36,125.76 sf	TOTAL PARKING: 88 Surface 21 Below Ground
PROPOSED OPEN SPACE 39,334.3 sf (38.11%)	109 Spaces (Total)

- NOTES:**
1. SHEETS ARE INTENDED AS 30"x42" FULL SIZE.
 2. PROJECT LIMIT LINE OFFSET FOR GRAPHIC CLARITY
 3. ALL WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS.
 4. CONTRACTOR SHALL INSTALL EXPANSION JOINTS BETWEEN CONCRETE PAVING, CURBS, AND EXISTING PAVING OR STRUCTURES.
 5. THE CONTRACTOR IS RESPONSIBLE FOR SITE STAKING. ALL PROPOSED SITE FEATURES SHALL BE STAKED IN THE FIELD PRIOR TO CONSTRUCTION.
 6. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN EPOXY.
 7. PARKING STALL WIDTH 10'-0" UNLESS OTHERWISE NOTED
 8. MAXIMUM SLOPE AT ALL HANDICAP ACCESSIBLE WALKS SHALL BE 1:20; CROSS SLOPES SHALL BE 2% OR LESS.
 9. ALL DRIVEWAYS, CURBS ADJACENT TO DRIVEWAYS, AND SIDEWALK CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE COMPLETED IN ACCORDANCE WITH CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION BY A CONTRACTOR CURRENTLY LICENSED BY THE CITY.
 10. BIKE STALLS SHALL BE IN ACCORDANCE WITH CITY OF MADISON GENERAL ORDINANCE 28.141.
 11. ARCHITECTURAL DETAIL PROVIDED FOR INFORMATION PURPOSES ONLY.

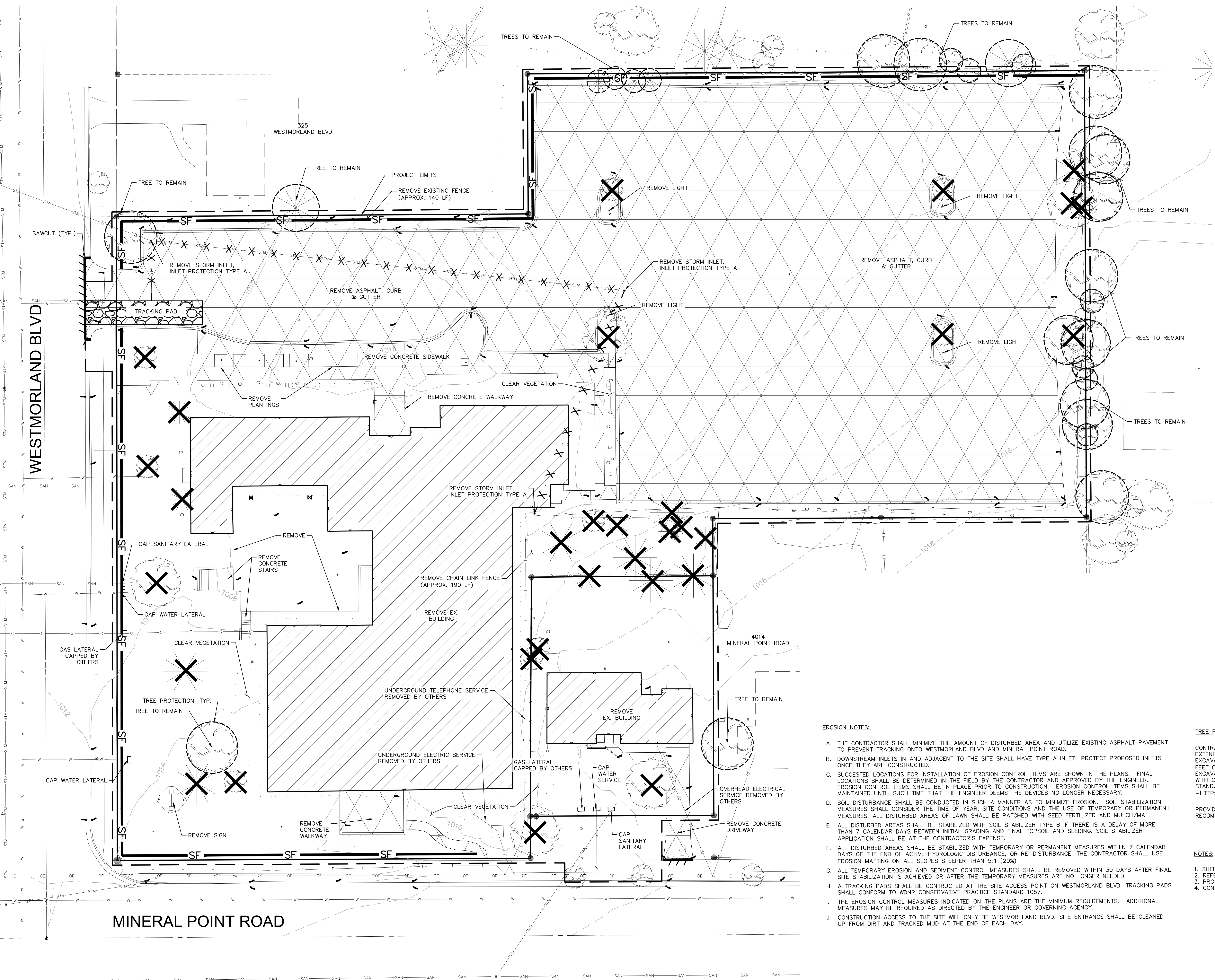


Midtown Police Station



C-200 SITE PLAN

June 15, 2016
Engberg Anderson Project No. 152413.01



LEGEND

	REMOVE ASPHALT/CONCRETE AND ISLANDS (CURB & GUTTER, LANDSCAPING, ETC.)
	DEMOLISH EXISTING BUILDING
	REMOVE TREE
	REMOVE UTILITY
	SILT FENCE
	SAWCUT PAVEMENT
	PROJECT LIMITS
	CONTOUR
	BUILDING
	GAS SERVICE
	SANITARY SEWER
	WATER MAIN
	STORM SEWER
	TELEPHONE LINE
	UNDERGROUND ELECTRIC LINE
	OVERHEAD ELECTRIC LINE
	WOOD FENCE
	CHAIN LINK FENCE
	TREE (DECIDUOUS)
	TREE (EVERGREEN)
	TREE PROTECTION

EROSION NOTES:

- A. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBED AREA AND UTILIZE EXISTING ASPHALT PAVEMENT TO PREVENT TRACKING ONTO WESTMORLAND BLVD AND MINERAL POINT ROAD.
- B. DOWNSTREAM INLETS IN AND ADJACENT TO THE SITE SHALL HAVE TYPE A INLET: PROTECT PROPOSED INLETS ONCE THEY ARE CONSTRUCTED.
- C. SUGGESTED LOCATIONS FOR INSTALLATION OF EROSION CONTROL ITEMS ARE SHOWN IN THE PLANS. FINAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL SUCH TIME THAT THE ENGINEER DEEMS THE DEVICES NO LONGER NECESSARY.
- D. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS OF LAWN SHALL BE PATCHED WITH SEED FERTILIZER AND MULCH/MAT.
- E. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SOIL STABILIZER TYPE B IF THERE IS A DELAY OF MORE THAN 7 CALENDAR DAYS BETWEEN INITIAL GRADING AND FINAL TOPSOIL AND SEEDING. SOIL STABILIZER APPLICATION SHALL BE AT THE CONTRACTOR'S EXPENSE.
- F. ALL DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE, OR RE-DISTURBANCE. THE CONTRACTOR SHALL USE EROSION MATTING ON ALL SLOPES STEEPER THAN 5:1 (20%).
- G. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- H. A TRACKING PADS SHALL BE CONSTRUCTED AT THE SITE ACCESS POINT ON WESTMORLAND BLVD. TRACKING PADS SHALL CONFORM TO WDNR CONSERVATIVE PRACTICE STANDARD 1057.
- I. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
- J. CONSTRUCTION ACCESS TO THE SITE WILL ONLY BE WESTMORLAND BLVD. SITE ENTRANCE SHALL BE CLEANED UP FROM DIRT AND TRACKED MUD AT THE END OF EACH DAY.

TREE PROTECTION:

CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING IN THE AREA BETWEEN THE CURB AND SIDEWALK AND EXTEND IT AT LEAST 5 FEET FROM BOTH SIDES OF THE TREE ALONG THE LENGTH OF THE TERRACE. NO EXCAVATION IS PERMITTED WITHIN 5 FEET OF THE OUTSIDE EDGE OF A TREE TRUNK. IF EXCAVATION WITHIN 5 FEET OF ANY TREE IS NECESSARY, CONTRACTOR SHALL CONTACT CITY FORESTRY (266-4816) PRIOR TO EXCAVATION TO ASSESS THE IMPACT TO THE TREE AND ROOT SYSTEM. TREE PRUNING SHALL BE COORDINATED WITH CITY FORESTRY. TREE PROTECTION SPECIFICATIONS CAN BE FOUND IN SECTION 107.13 OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. --HTTP://WWW.CITYOFMADISON.COM/BUSINESS/PW/DOCUMENTS/STDSPECS/2013/PART1.PDF.

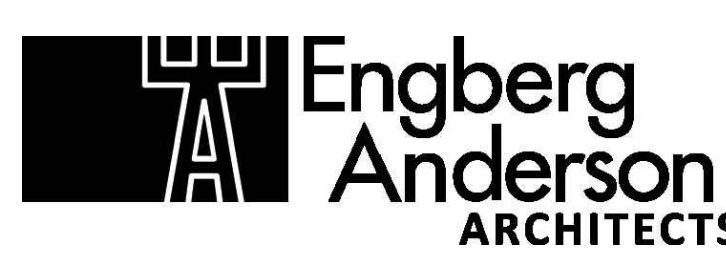
PROVIDE TREE PROTECTION AND ROOT FEEDING, AND PRUNING IN ACCORDANCE WITH THE WRITTEN ARBORIST RECOMMENDATIONS.

NOTES:

1. SHEETS ARE INTENDED AS 30"x42" FULL SIZE.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
3. PROJECT LIMIT LINE AND SILT FENCE LINE OFFSET FOR VISUAL CLARITY.
4. CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY COMPANIES TO REMOVE EXISTING PRIVATE UTILITIES.



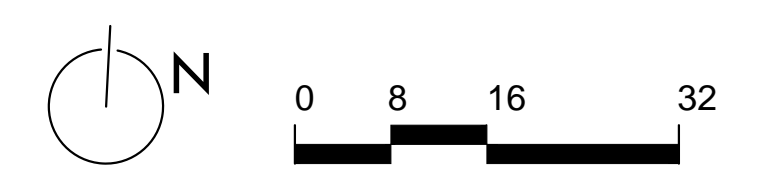
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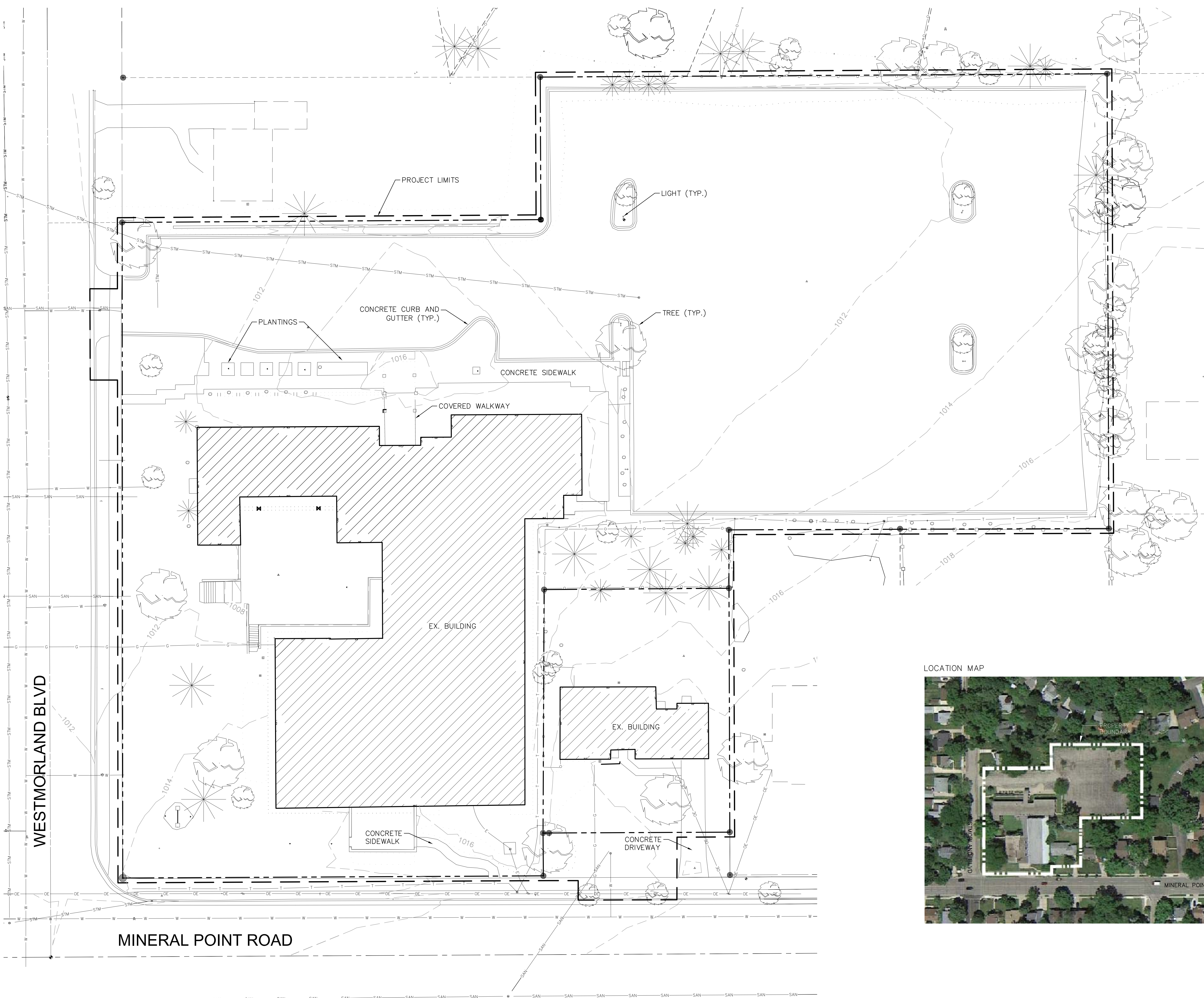
C-100 SITE DEMOLITION AND EROSION CONTROL PLAN

June 15, 2016
Engberg Anderson Project No. 152413.01

MILWAUKEE | MADISON | TUCSON | CHICAGO



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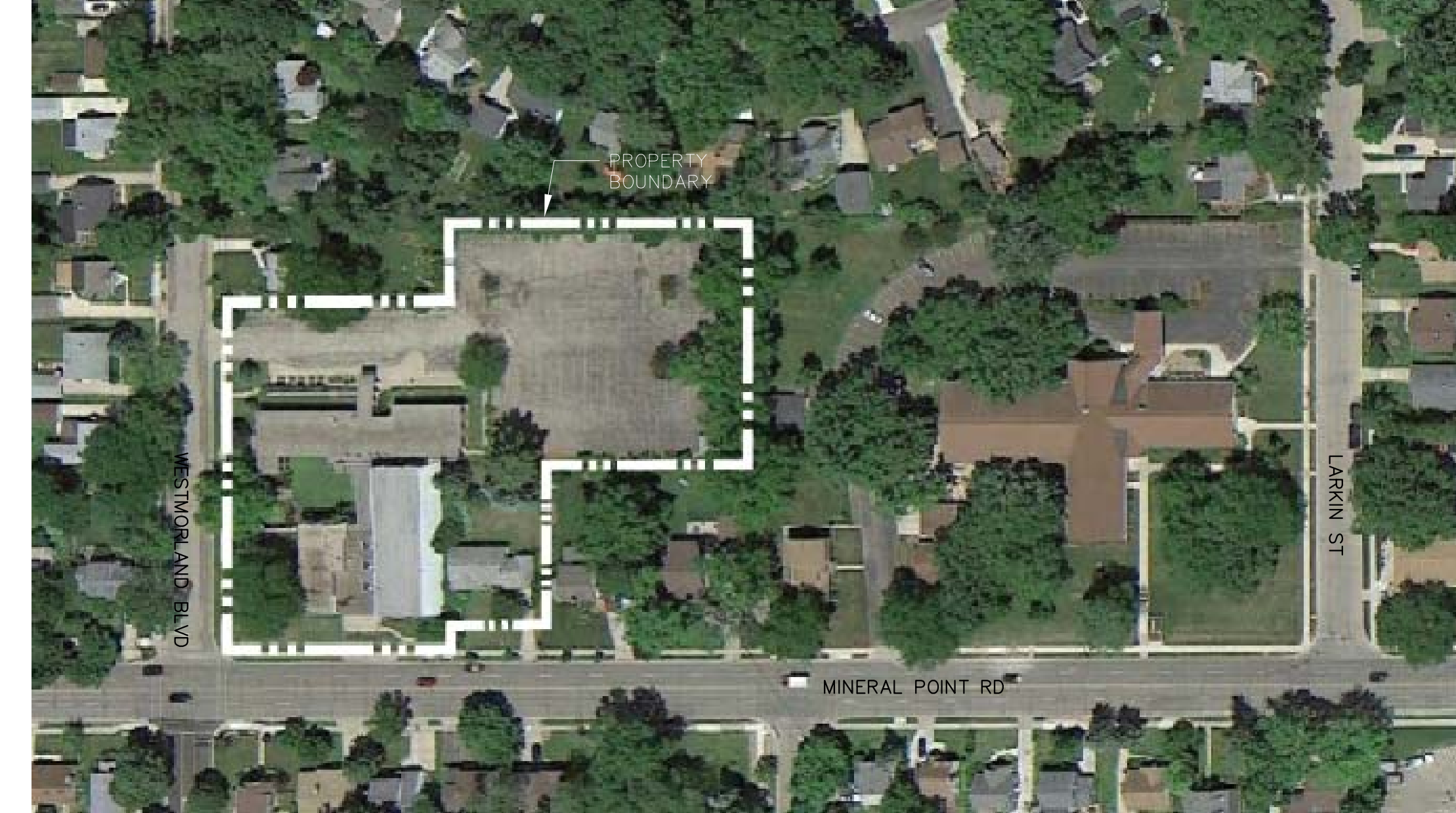
LEGEND

	PROPERTY LINE
	PROJECT LIMIT LINE
	CONTOUR
	BUILDING
	GAS SERVICE
	SANITARY SEWER
	STORM SEWER
	WATER MAIN
	TELEPHONE LINE
	UNDERGROUND ELECTRIC LINE
	OVERHEAD ELECTRIC LINE
	WOOD FENCE
	CHAIN LINK FENCE
	BUSHLINE
	TREE (DECIDUOUS)
	TREE (EVERGREEN)

SURVEY PREPARED BY: CEDAR CORPORATION
ON: DEC 2015

- NOTES:**
1. SHEETS ARE INTENDED AS 30"x42" FULL SIZE.
 2. PROJECT LIMIT LINE OFFSET FOR GRAPHIC CLARITY

LOCATION MAP



WESTMORLAND BLVD

MINERAL POINT ROAD

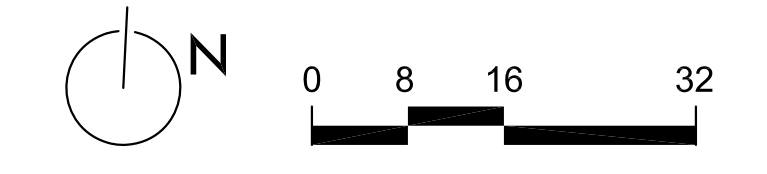
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C-000 EXISTING CONDITIONS

June 15, 2016
Engberg Anderson Project No. 152413.01

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