



URBAN DESIGN COMMISSION APPLICATION CITY OF MADISON

215 Martin Luther King Jr. Blvd; Room LL-100
PO Box 2985; Madison, Wisconsin 53701-2985
Phone: 608.266.4635 | Facsimile: 608.267.8739

This form may also be completed online at:
<http://www.cityofmadison.com/planning/documents/UDCApplication.pdf>

Please complete all sections of the application, including the desired meeting date and the type of action requested.

Date Submitted: _____	<input type="checkbox"/> Informational Presentation
UDC Meeting Date: <u>3/25/2015</u>	<input checked="" type="checkbox"/> Initial Approval
Combined Schedule Plan Commission Date (if applicable): _____	<input checked="" type="checkbox"/> Final Approval

1. Project Address: 1600 Emil St.
 Project Title (if any): Larry D. Nelson Engineering Service Building Addition

2. This is an application for (Check all that apply to this UDC application):

New Development Alteration to an Existing or Previously-Approved Development

A. Project Type:

- Project in an Urban Design District* (public hearing-\$300 fee)
- Project in the Downtown Core District (DC) or Urban Mixed-Use District (UMX) (\$150 fee, Minor Exterior Alterations)
- Suburban Employment Center (SEC) or Campus Institutional District (CI) or Employment Campus District (EC)
- Planned Development (PD)
 - General Development Plan (GDP)
 - Specific Implementation Plan (SIP)
- Planned Multi-Use Site or Planned Residential Complex

CITY OF MADISON
 MAR 18 2015
 10:20
 Planning & Community
 & Economic Development

B. Signage:

- Comprehensive Design Review* (public hearing-\$300 fee) Street Graphics Variance* (public hearing-\$300 fee)
- Signage Exception(s) in an Urban Design District (public hearing-\$300 fee)

C. Other:

Please specify: _____

AGENDA ITEM #	_____
LEGISTAR #	<u>3778</u>
ALD. DIST.	<u>14</u>

3. Applicant, Agent & Property Owner Information:

Applicant Name: Robert Phillips Company: City of Madison
 Street Address: 210 Martin Luther King Jr. Blvd., Rm 115 City/State: Madison Zip: 53703
 Telephone: (608) 266-4090 Fax: () Email: rphillips@cityofmadison.com

Project Contact Person: Kay Schindel Company: City of Madison
 Street Address: 1600 Emil St. City/State: Madison Zip: 53713
 Telephone: (608) 266-4668 Fax: () Email: kschindel@cityofmadison.com

Project Owner (if not applicant): _____
 Street Address: _____ City/State: _____ Zip: _____
 Telephone: () Fax: () Email: _____

4. Applicant Declarations:

A. Prior to submitting this application, the applicant is required to discuss the proposed project with Urban Design Commission staff. This application was discussed with Al Martin on 10/27/2014.

B. The applicant attests that all required materials are included in this submittal and understands that if any required information is not provided by the application deadline, the application will not be placed on an Urban Design Commission agenda for consideration.

Name of Applicant Robert Phillips Relationship to Property City Engineer

Authorized Signature [Signature] Date 3/4/15



Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Assistant City Engineer
Michael R. Dailey, P.E.
Principal Engineer 2
Gregory T. Fries, P.E.
Principal Engineer 1
Christina M. Bachmann, P.E.
Eric L. Dundee, P.E.
John S. Fahrney, P.E.
Christopher J. Petykowski, P.E.
Facilities & Sustainability
Jeanne E. Hoffman, Manager
Operations Manager
Kathleen M. Cryan
Mapping Section Manager
Eric T. Pederson, P.S.
Financial Manager
Steven B. Danner-Rivers

March 16, 2015

Mr. Alan Martin, Secretary
City of Madison Urban Design Commission
215 Martin Luther King Jr. Blvd; Room LL-100
PO Box 2985
Madison, Wisconsin 53701-2985

Dear Mr. Martin:

The City of Madison Engineering Division is seeking Urban Design Commission approval of its proposed addition to the Engineering Operations Vehicle Storage & Maintenance Facility located at 1600 Emil Street on Madison's southwest side. The facility is located on a 401,203 ft² parcel shared with the City of Madison Streets Division's west-side location. Engineering occupies approximately 30% of the parcel with frontage along Emil Street. The parcel is located in an employment district and zoned IL – Industrial – Limited.

The existing Engineering vehicle storage and maintenance facility was constructed in 1972 and is severely overcrowded. The City has expanded considerably since 1972 yet this will be the first expansion for this facility. The existing space is drastically undersized and hinders the ability of the Engineering Division to provide sanitary, storm sewer and landfill maintenance activities in a safe and efficient manner.

The objectives of this project are to:

- Alleviate overcrowded conditions to provide a safe, productive work environment and protect significant investment in vehicles and equipment.
- Reduce net energy consumption by at least 50% when compared to a comparable facility designed to meet current code requirements.
- Enhance the existing streetscape.
- Meet these objectives in a cost-effective and sustainable manner.

Key project highlights are provided below:

Renewable Energy:

- 60 kW Photovoltaic roof top installation.
- Expansion of the facility's existing solar thermal system

Enhanced building envelope construction to minimize heat loss/gain reducing energy

March 17, 2015

Page 2

consumption:

- High-efficiency metal insulated panels (MIP) for roof and exterior wall construction.
- Detailing to avoid air infiltration and thermal bridging.
- Triple insulated, low-e, windows.
- White roof to minimize heat island effect.

HVAC:

- In-floor radiant heat.
- High, efficiency modulating, condensing boilers.
- Solar wall on south exterior wall to naturally preheat outside air used for ventilation, provide supplemental heating and reduce demands on HVAC system.
- Centralized Building Automation System (BAS) to optimize efficient operation and provide remote ability to troubleshoot, diagnose and at times resolve operational issues.

Lighting:

- Incorporation of daylighting to minimize daytime use of artificial lighting.
- High Efficiency LED lighting with enhanced motion and daylighting control.

Landscaping:

- Green wall features on façade.
- Native, low maintenance plantings with deep root systems to promote infiltration.
- Provide food source for pollinators.

We look forward to meeting with the Urban Design Commission discuss this projects and respond to any questions that members may have.

Sincerely,

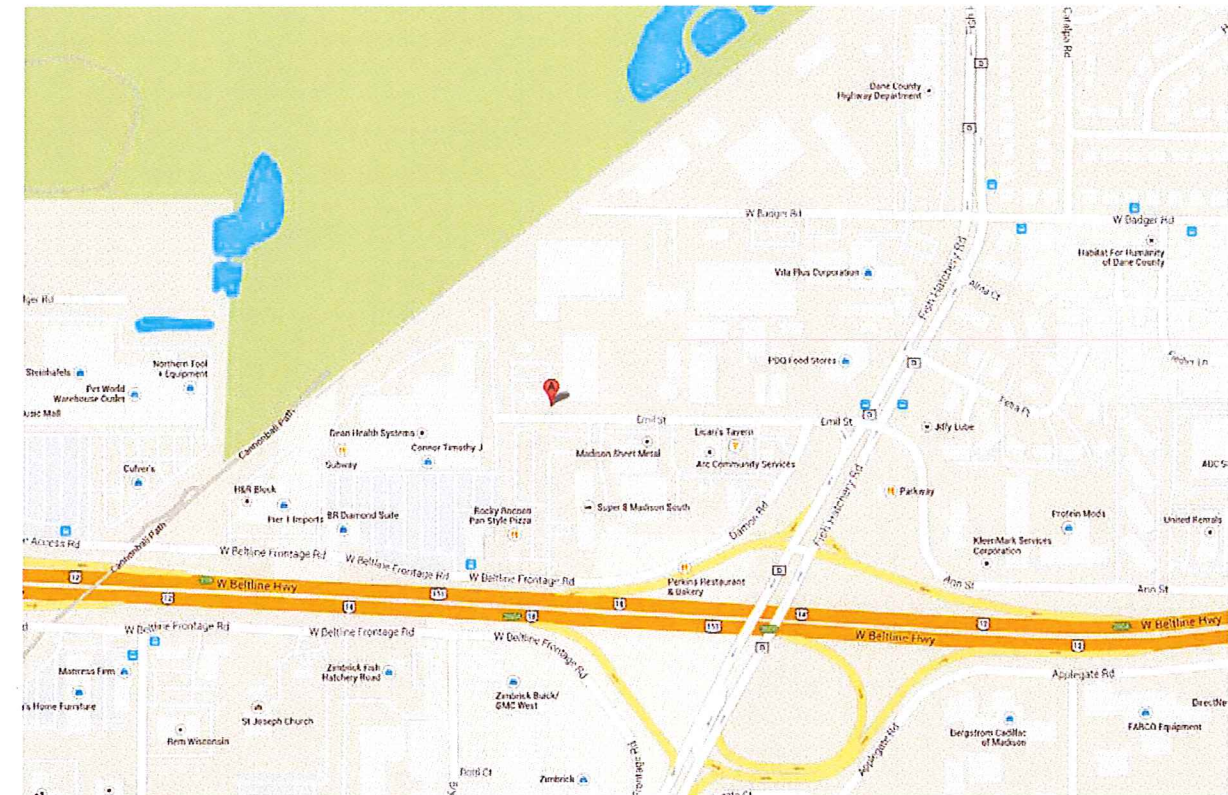


Robert F. Phillips, P.E.
City Engineer

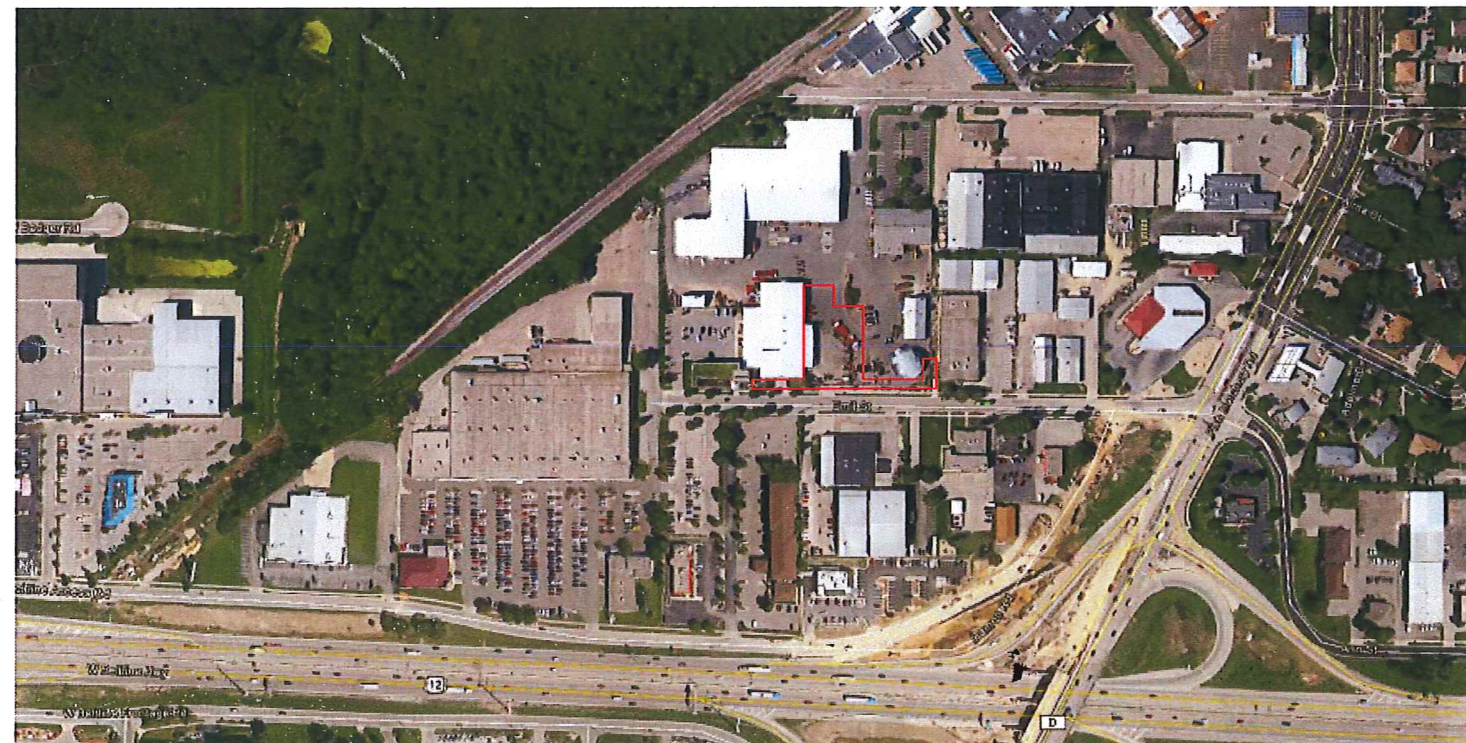
Engineering Operations Building Addition - 2015

Urban Design Commission Review Sheets

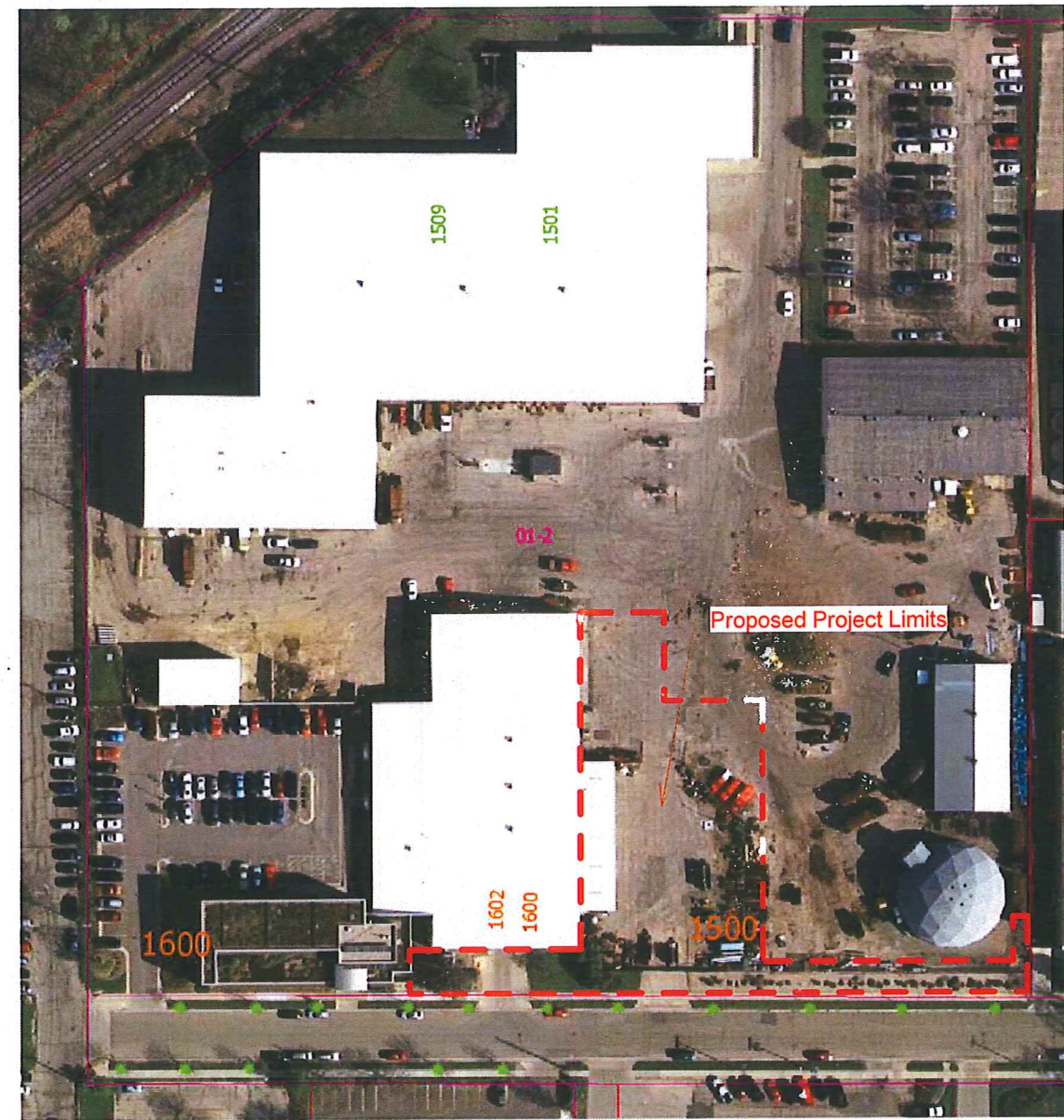
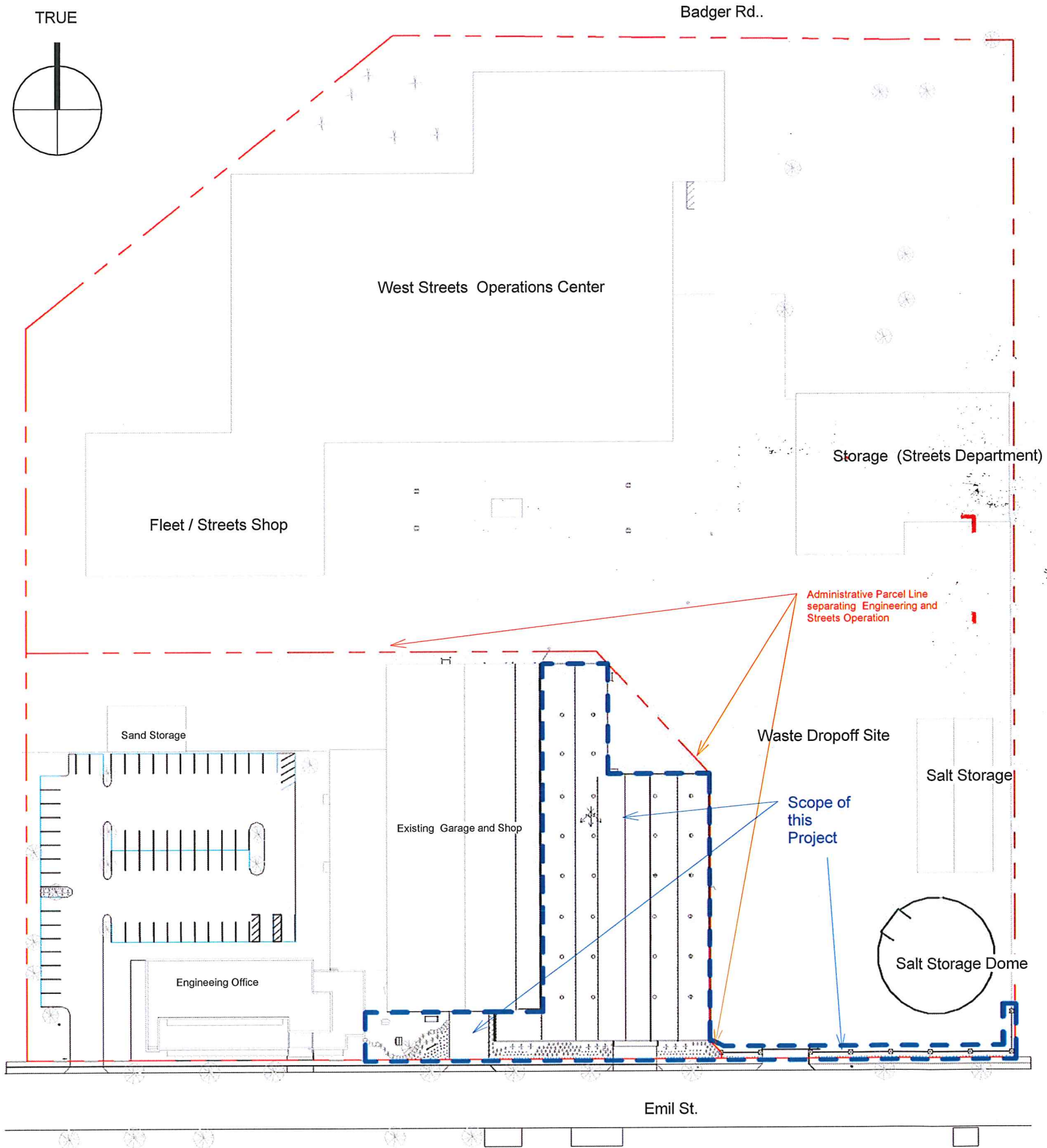
Sheet Number	Sheet Name
UDC 001	Cover UDC
UDC 100	Site Plan Overview
UDC 110	Siteplan Detail
UDC 200	South Elevation Rendering
UDC 210	Streetview from West
UDC 220	Streetview from East
UDC 230	East Elevation Rendering
UDC 240	North Elevation Rendering
UDC 250	Existing Area Views
UDC 300	Existing Bird's View from South
UDC 310	Bird's Views from North East and West
UDC 320	Bird's Views from South East and West
UDC 400	South Elevation
UDC 410	East Elevation
UDC 420	North Elevation
UDC 430	West Elevation and Elevationmarker
UDC 500	Roofplan
UDC 510	Roof Schedules
UDC 600	Landscaping Plan
UDC 700	Outdoor Lighting
UDC 710	Lighting Schedules
UDC 720	Exterior Light Fixtures



Location Map



Aerial View (Project Footprint outlined in red)



Existing Aerial View

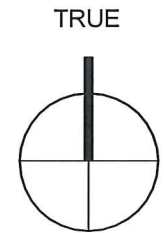
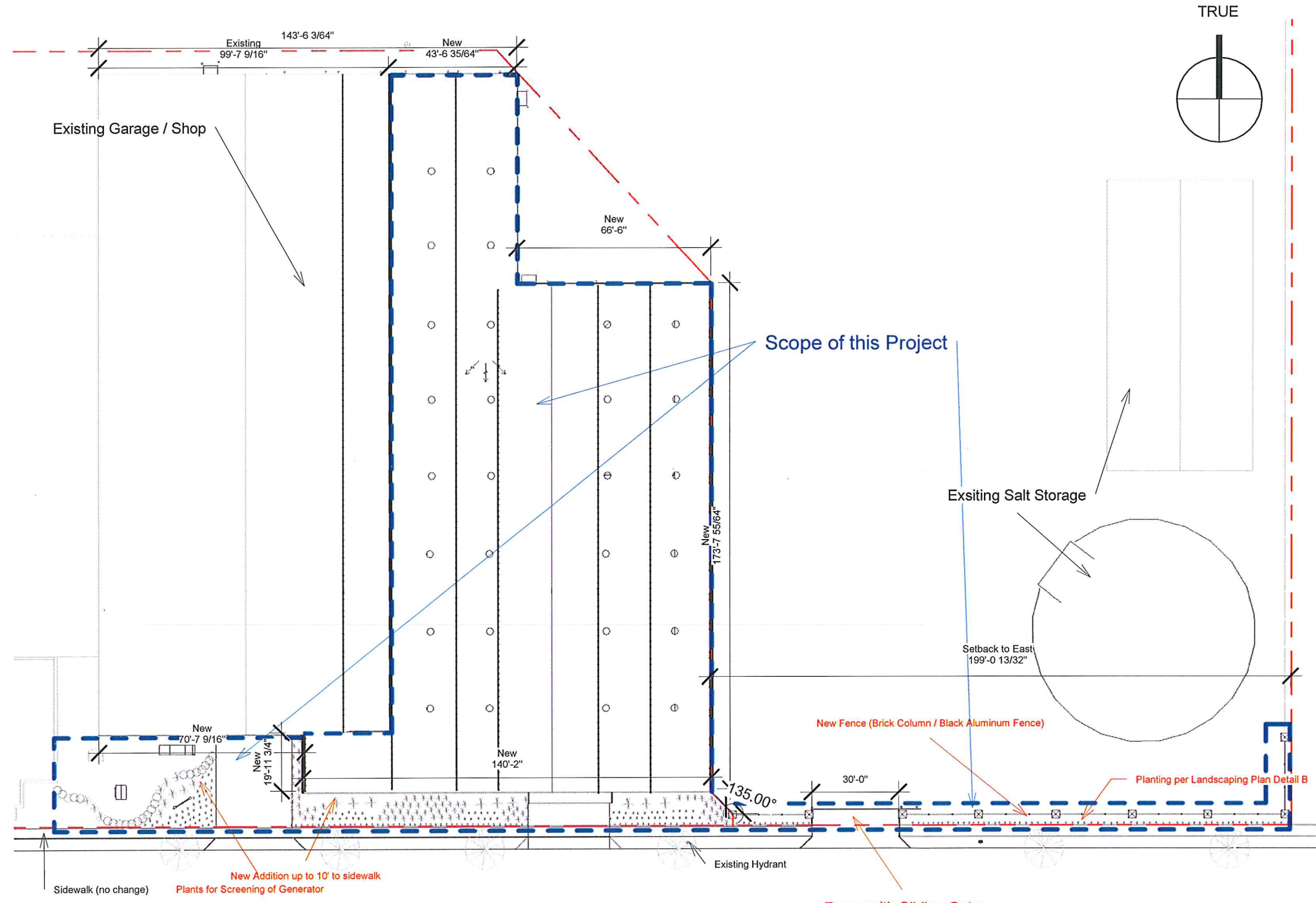
1 UDC - Site Plan Entire Lot
1" = 80'-0"

Engineering Operations Building Addition - 2015
Site Plan Overview

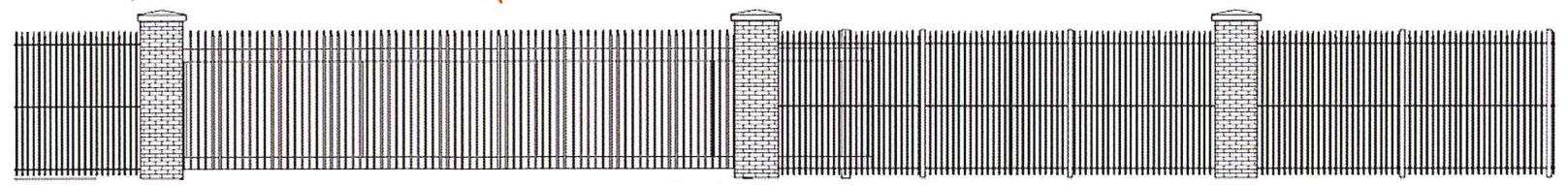
Engineering Division
1600 Emil St.
Madison, WI 53713

Project: 10349
Scale: 1" = 80'-0"
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3/17/2015 4:26:01 PM

UDC 100



1 UDC - Site Plan Detail
1" = 40'-0"



2 UDC - Fence Detail Elevation
1" = 10'-0"



Existing View from South



1 Rendering from South
12" = 1'-0"

Engineering Operations Building Addition - 2015

South Elevation Rendering

Engineering Division

1600 Emil St.
Madison, WI 53713

Project: 10349

Scale: 12" = 1'-0"

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3/17/2015 4:26:07 PM

UDC 200



Existing View from SW



1 Rendering Street View from SW
12" = 1'-0"

Engineering Operations Building Addition - 2015

Streetview from West

Engineering Division

1600 Emil St.
Madison, WI 53713

Project: 10349

Scale: 12" = 1'-0"

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3/17/2015 4:26:10 PM

UDC 210



Existing View from SE



Existing View from SSE



1 Rendering Street View from SE
12" = 1'-0"

Engineering Operations Building Addition - 2015

Streetview from East

Engineering Division

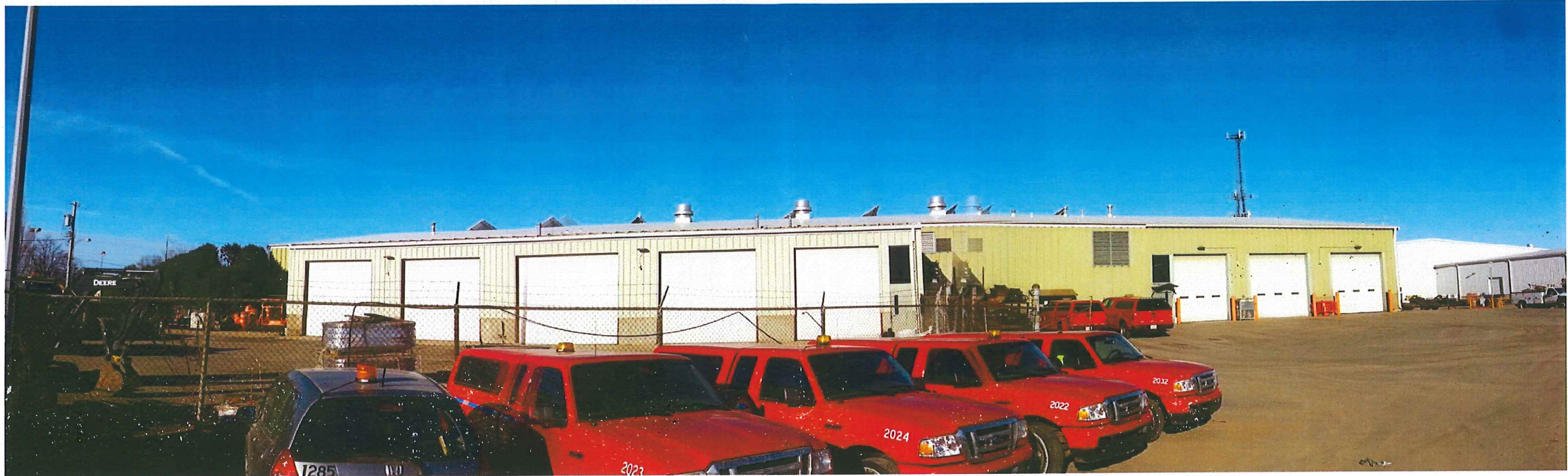
1600 Emil St.
Madison, WI 53713

Project: 10349

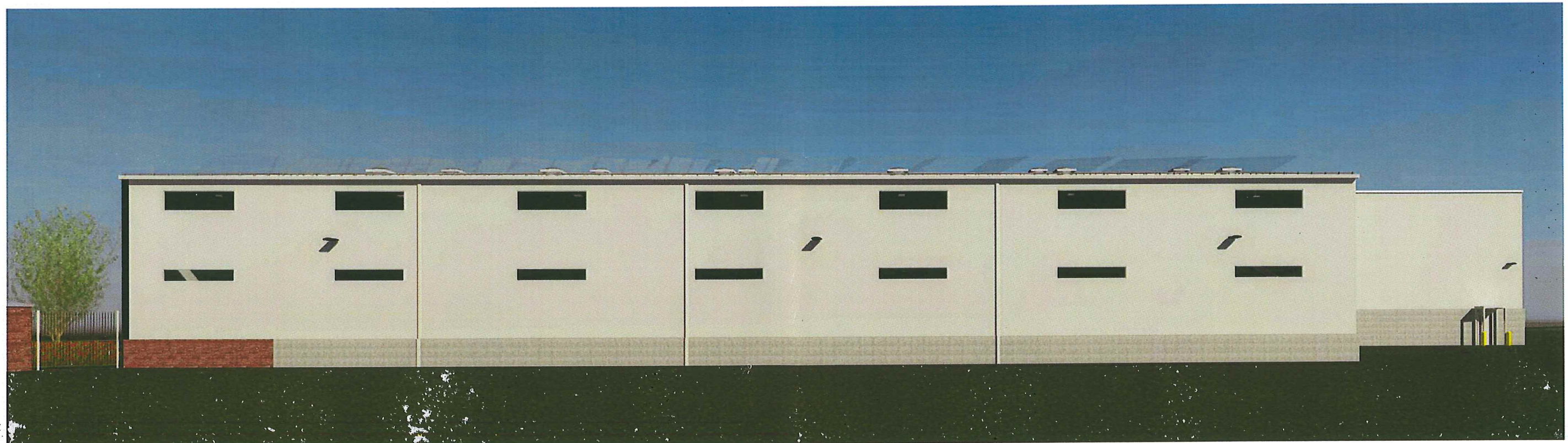
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UDC 220



Existing View of East Elevation



1 Rendering from East
12" = 1'-0"

Engineering Operations Building Addition - 2015

East Elevation Rendering

Engineering Division

1600 Emil St.
Madison, WI 53713

Project: 10349

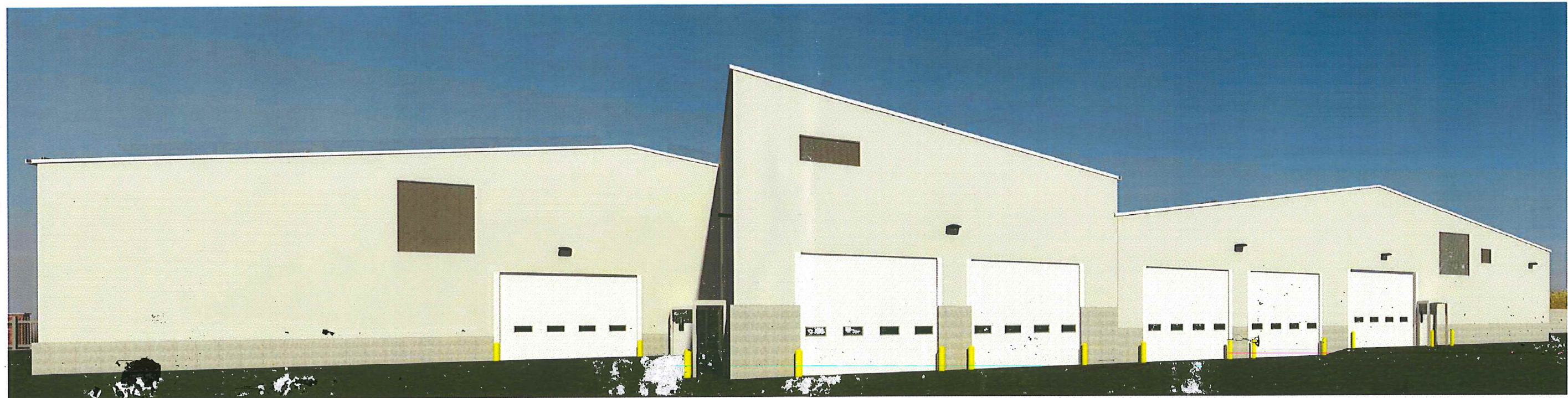
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3/17/2015 4:26:15 PM

UDC 230



Existing View of North Elevation



3 Rendering from North
12" = 1'-0"

Engineering Operations Building Addition - 2015

North Elevation Rendering

Engineering Division

1600 Emil St.
Madison, WI 53713

Project: 10349

Scale: 12" = 1'-0"
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3/17/2015 4:26:18 PM

UDC 240



View to SE across Emil St.



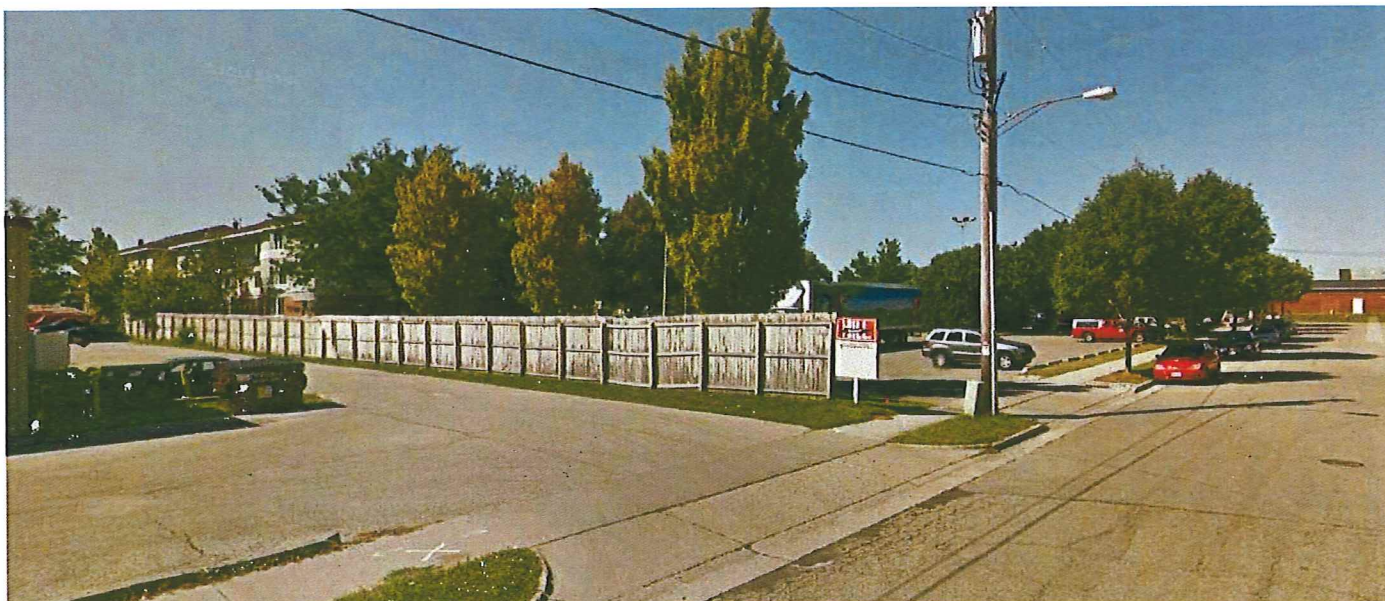
View to E of Emil St.



View to SE across Emil St.



View to NE from Emil St.



View to SE across Emil St.



View to S from across Emil St.

Engineering Operations Building Addition - 2015

Existing Area Views

Engineering Division

1600 Emil St.
Madison, WI 53713

Project: 10349

Scale:

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3/17/2015 4:26:20 PM

UDC 250



Existing Bird's View from S (Scope of project outlined in red)

Engineering Operations Building Addition - 2015

Existing Bird's View from South

Engineering Division

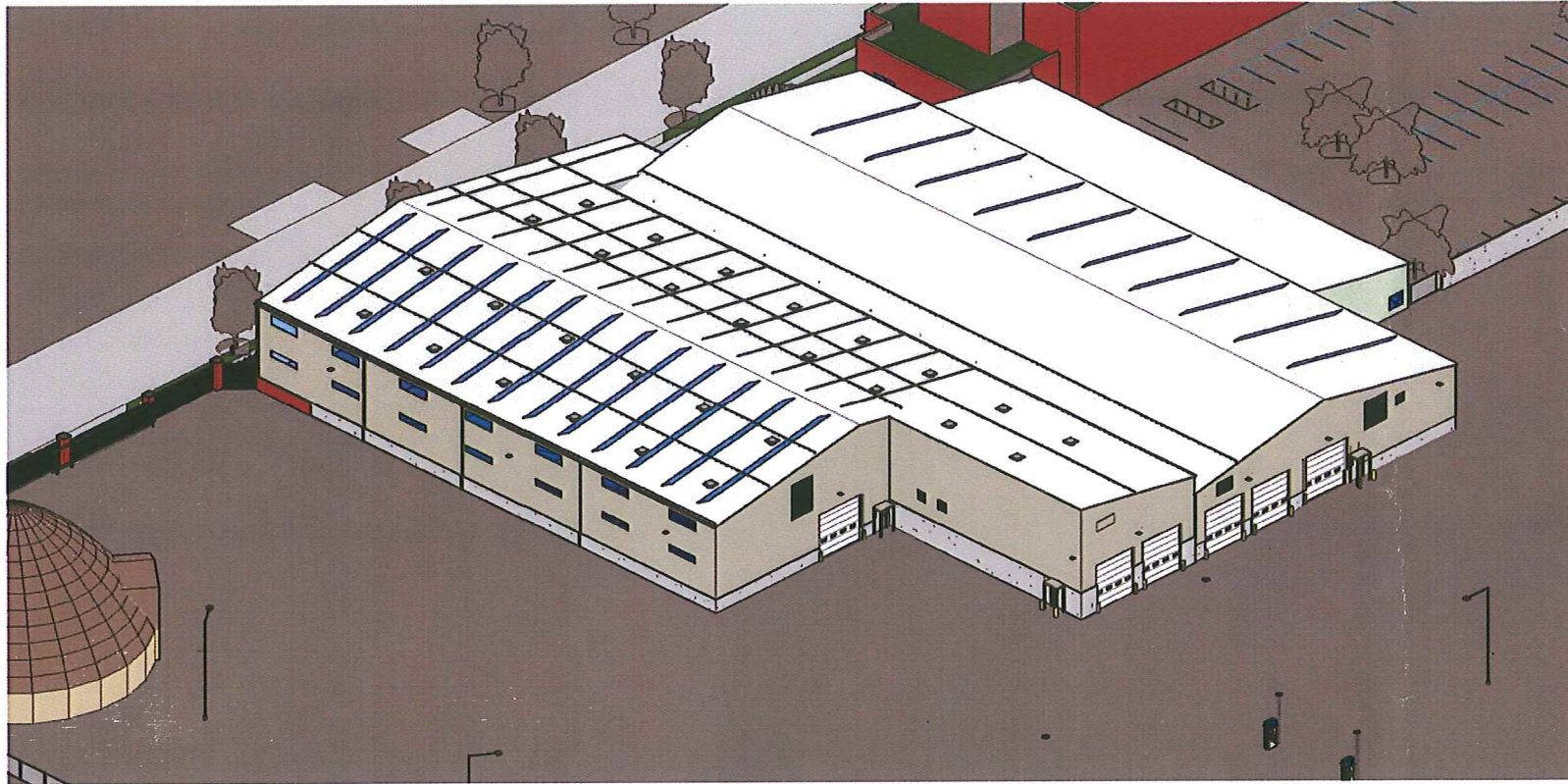
1600 Emil St.
Madison, WI 53713

Project: 10349

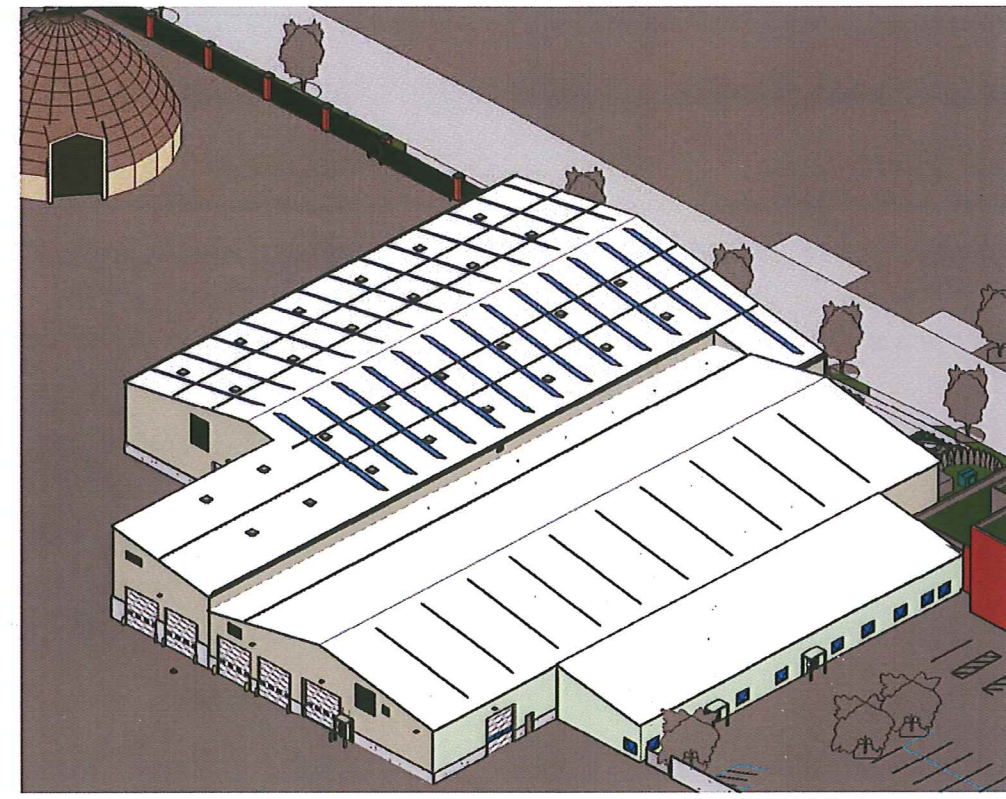
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UDC 300



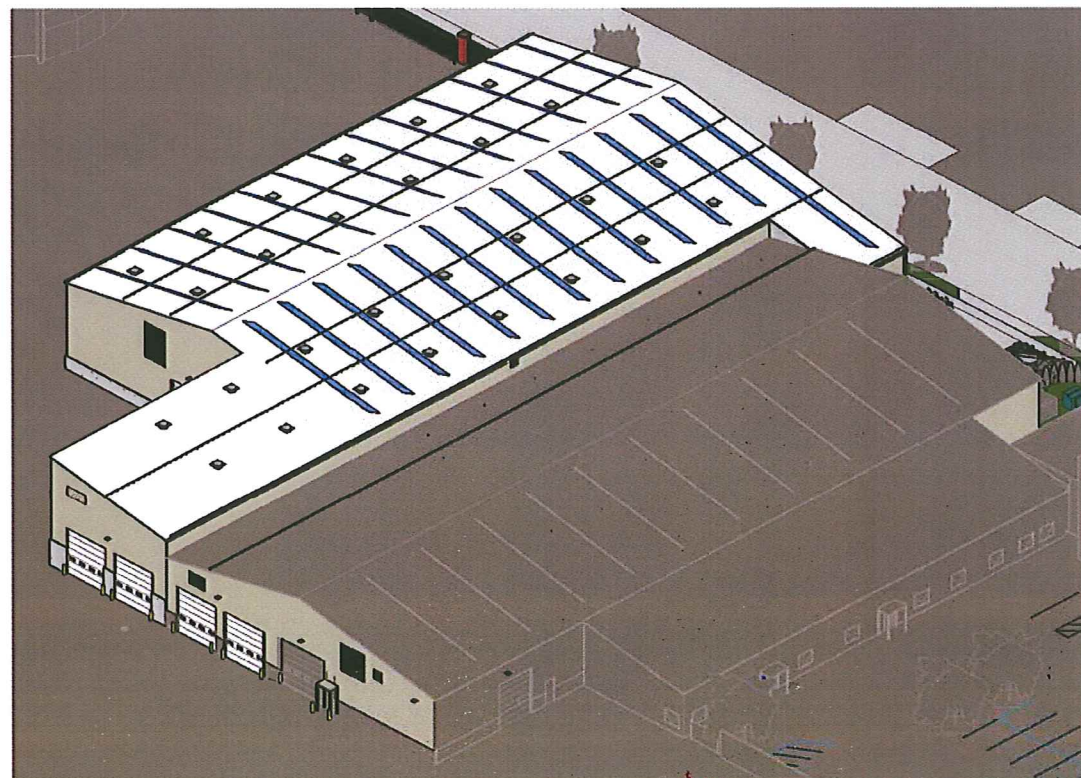
1 Complete - Bird's View from NE



3 Complete - Bird's View from NW



2 Project - Bird's View from NE



4 Project - Bird's View from NW



3 Complete - Bird's View from SW



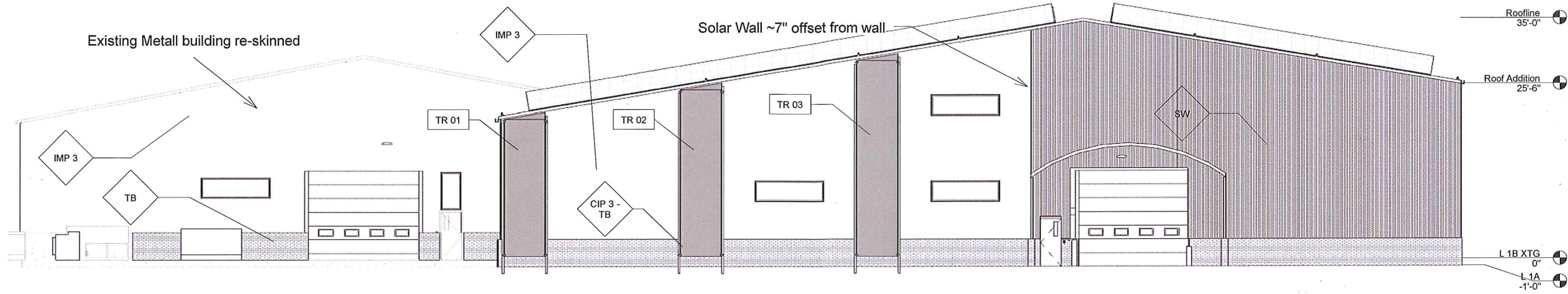
1 Complete - Bird's View from SE



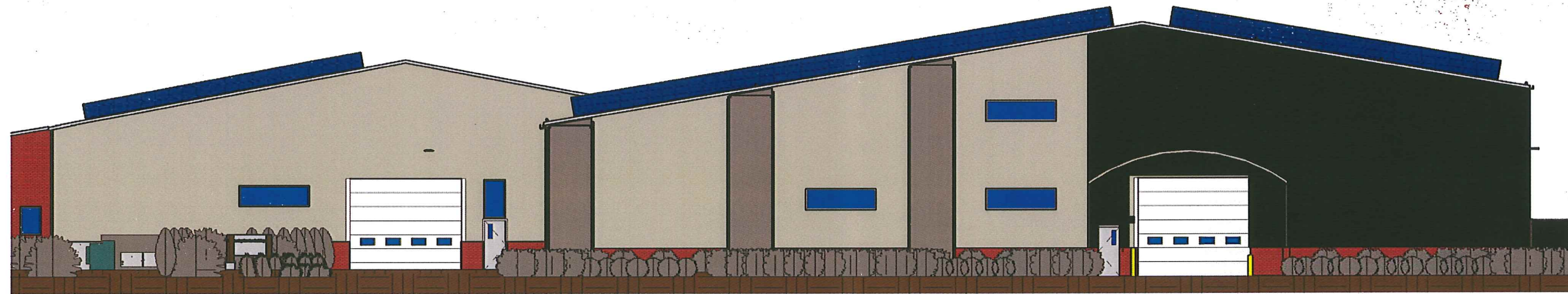
4 Project - Bird's View from SW



2 Project - Bird's View from SE



1 UDC - Elevation South
1/16" = 1'-0"



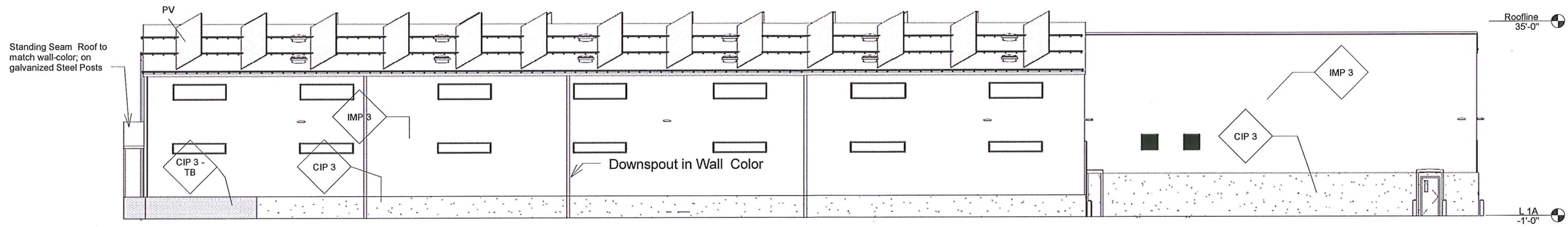
2 UDC - Elevation South Color
1/16" = 1'-0"

Exterior Wall Schedule

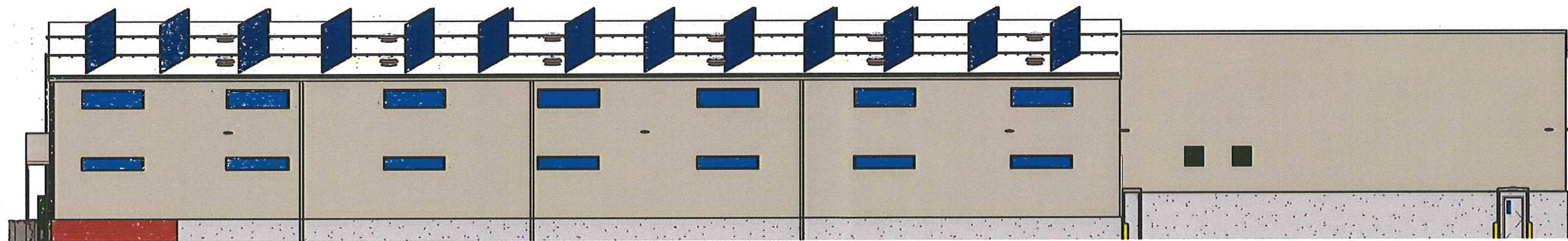
Type Mark	Description	Manufacturer	URL	Model	Estiamted Area (not for bidding)
TB	Match Existing Office Building; use Thickset System	Brick it	www.Brickit.com	Red Belnd Vel	135 ft ²
SW	Solarwall Vertical	Solarwall	www.Solarwall.com	SW-150	1,543 ft ²
IMP 3	Insulated Metal Panel	All Weather Insulated Panels	www.Awipanel.com	Mesa DM40, PVDF Sandstone; 3"	16,038 ft ²
CIP 3 - TB	Cast-in-Place Cocrrete w/ Insulated Core	Thermomass / Brick-It	www.thermomass.com	3" Polyiso	639 ft ²
CIP 3	Cast-in-Place Cocrrete w/ Insulated Core	Thermomass	www.Thermomass.com	3" Polyiso	1,481 ft ²

Trellis Schedule

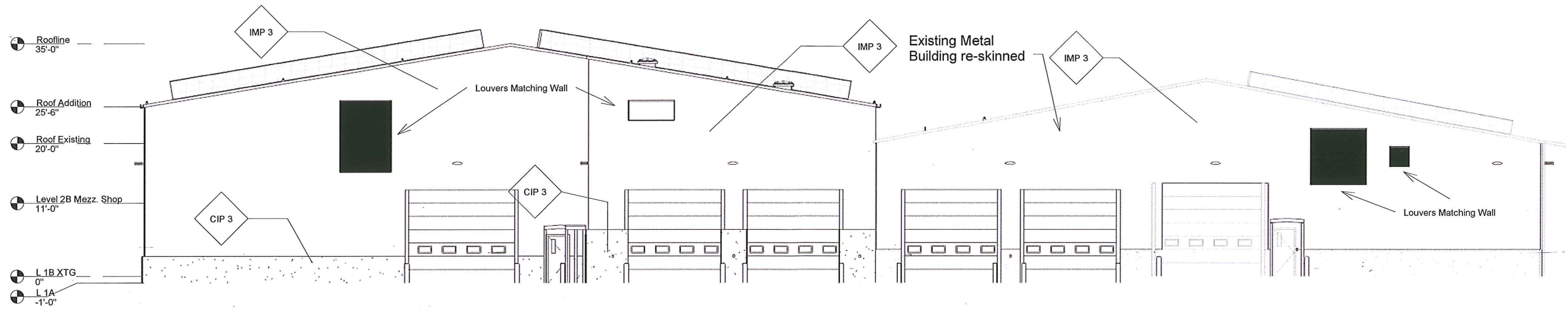
Mark	Description	Manufacturer	URL	Model	Height	Width
TR 01	Trellis for vine growth; galvanized steel	Green Screen	www.greenscreen.com	Enter Panel Size	20'-0"	6'-0"
TR 02	Trellis for vine growth; galvanized steel	Green Screen	www.greenscreen.com	Enter Panel Size	24'-3"	6'-0"
TR 03	Trellis for vine growth; galvanized steel	Green Screen	www.greenscreen.com	Enter Panel Size	28'-6"	6'-0"



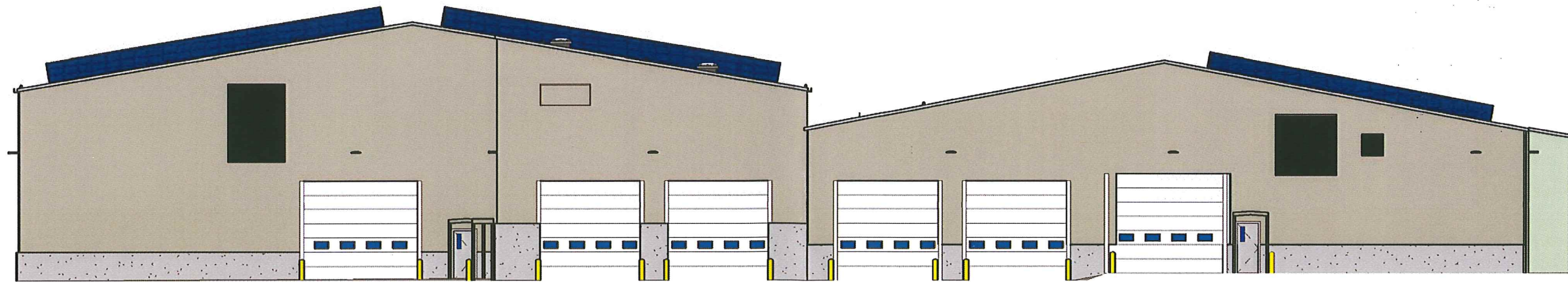
1 UDC - Elevation East
1" = 20'-0"



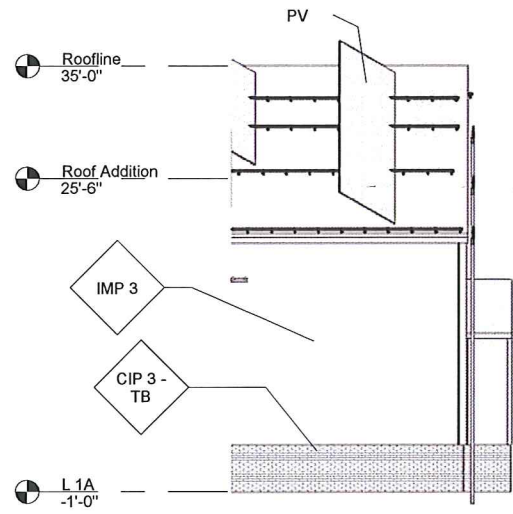
2 UDC - Elevation East Color
1" = 20'-0"



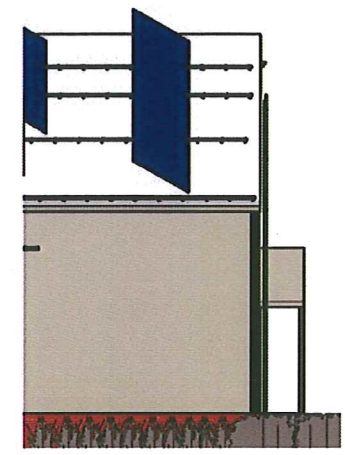
2 UDC - Elevation North
1/16" = 1'-0"



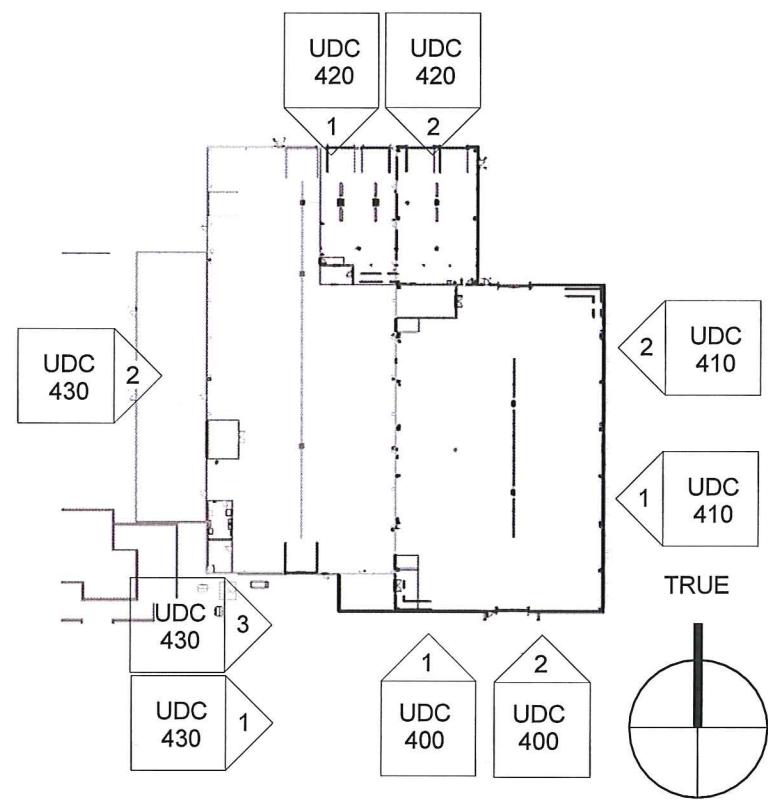
1 UDC - Elevation North Color
1/16" = 1'-0"



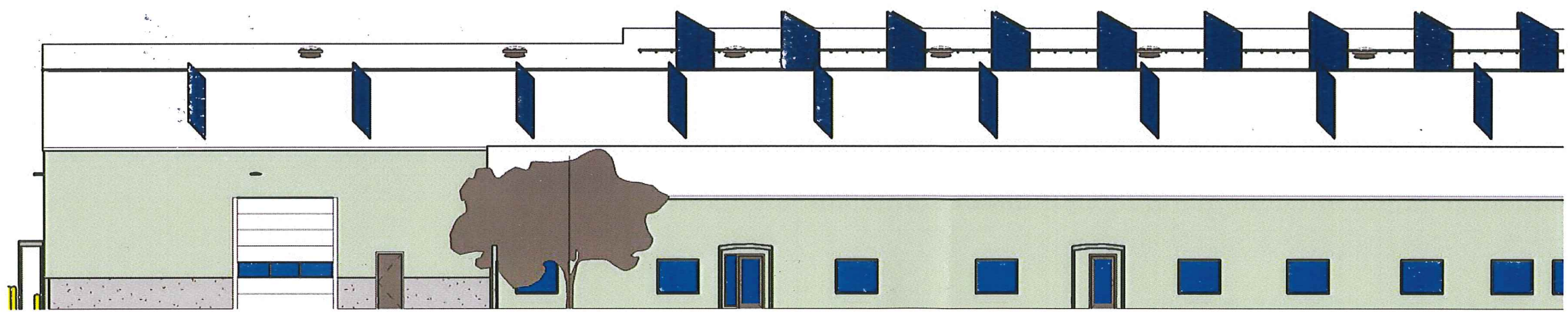
1 UDC - Elevation West - South Side
1/16" = 1'-0"



3 UDC - Elevation West - South side Color
1/16" = 1'-0"

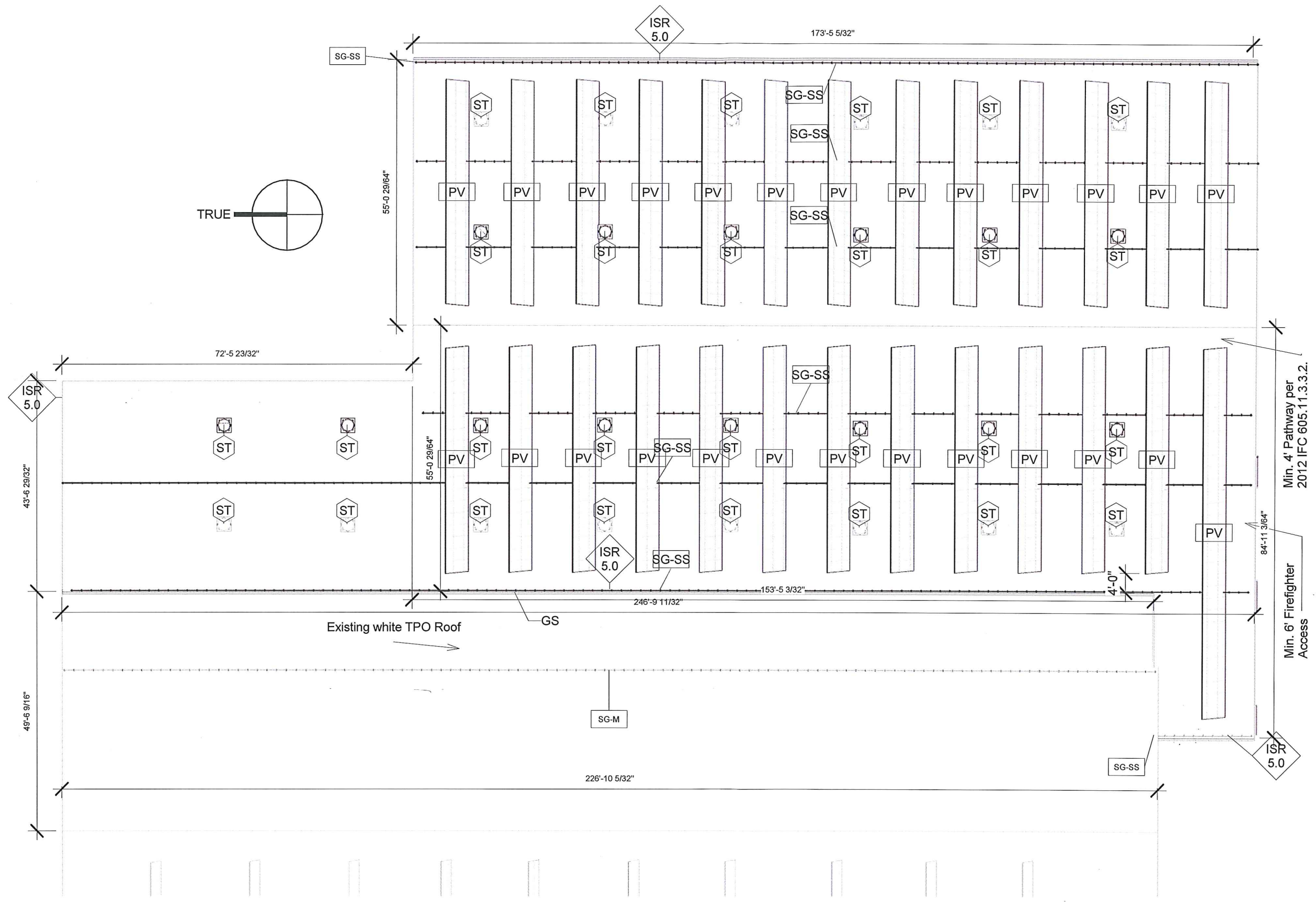
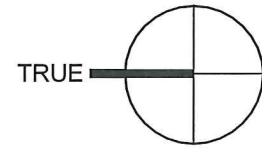


4 UDC - Elevation Marker Plan
1" = 100'-0"



2 UDC Elevation West - North Side Color
1/16" = 1'-0"

Exterior Wall Schedule					
Type Mark	Description	Manufacturer	URL	Model	Estiamted Area (not for bidding)
TB	Match Existing Office Building; use Thickset System	Brick it	www.Brickit.com	Red Belnd Vel	135 ft ²
SW	Solarwall Vertical	Solarwall	www.Solarwall.com	SW-150	1,543 ft ²
IMP 3	Insulated Metal Panel	All Weather Insulated Panels	www.Awipanels.com	Mesa DM40, PVDF Sandstone; 3"	16,038 ft ²
CIP 3 - TB	Cast-in-Place Cocrete w/ Insulated Core	Thermomass / Brick-It	www.thermomass.com	3" Polyiso	639 ft ²
CIP 3	Cast-in-Place Cocrete w/ Insulated Core	Thermomass	www.Thermomass.com	3" Polyiso	1,481 ft ²



Min. 4' Pathway per
2012 IFC 605.11.3.3.2.

Min. 6' Firefighter
Access

1 UDC - Roof
1" = 20'-0"

Engineering Operations Building Addition - 2015
Roofplan

Engineering Division
1600 Emil St.
Madison, WI 53713

Project: 10349
Scale: 1" = 20'-0"
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UDC 500

Roof Schedule

Type Mark	Description	Estimated Area (not for Bidding)
ISR 5.0	Insulated Standing Seam; 5" continuous Insulation = R41	23,146 ft ²

Snow Guard Schedule

Type Mark	Description	Estimated Length (not for Bidding)	OmniClass Number	OmniClass Title
SG-M	Snowguard - Membrane Roof	226'-0"	23.13.41.21	Roof Snow Guards
SG-SS	Snowguard - Standing Seam	1,201'-6"	23.13.41.21	Roof Snow Guards

Solar Electric (PV) Schedule

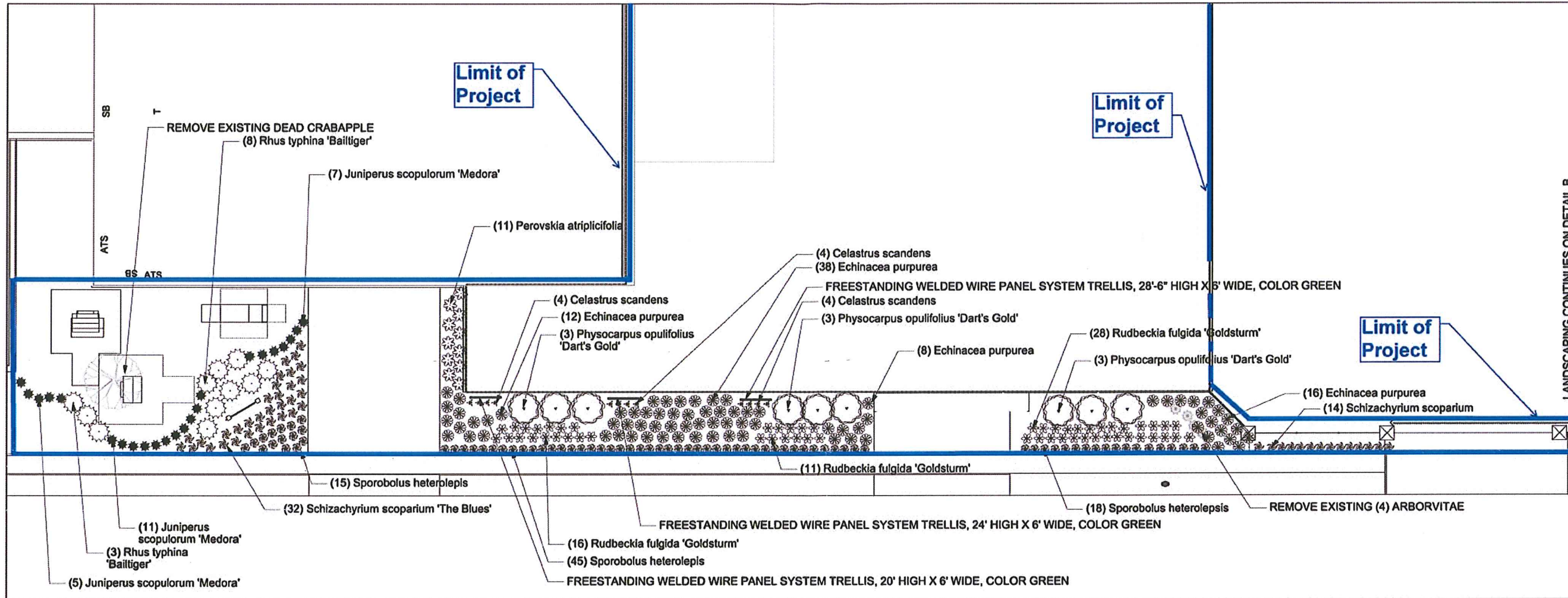
Type Mark	Description
PV	60 kW DC PV Installation

Skylight Schedule

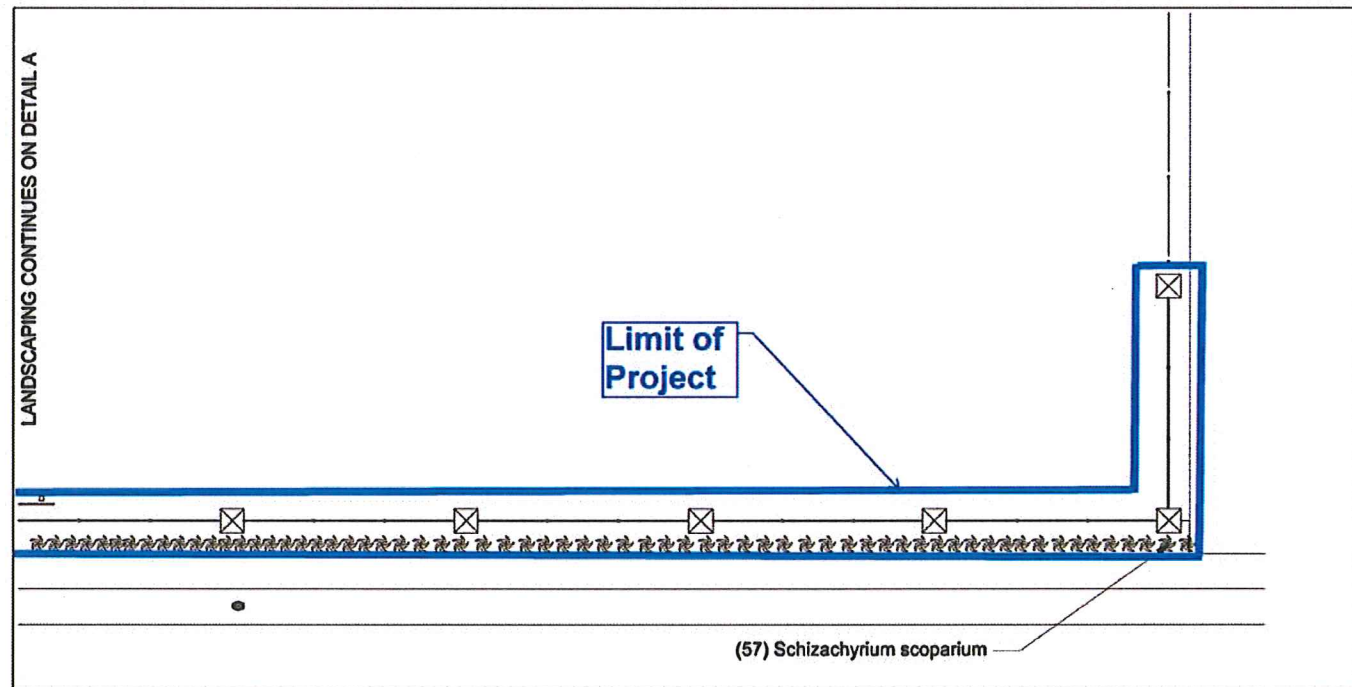
Type Mark	Type Comments	Manufacturer	URL	Model	Count
ST	Skylight	Solatube	www.solatube.com	M74 DS	28

Gutter Schedule

Type Mark	Estimated Length (not for Bidding)
G-1	174'-6"
G-1	226'-0"
G-1	21'-0"



DETAIL A



DETAIL B

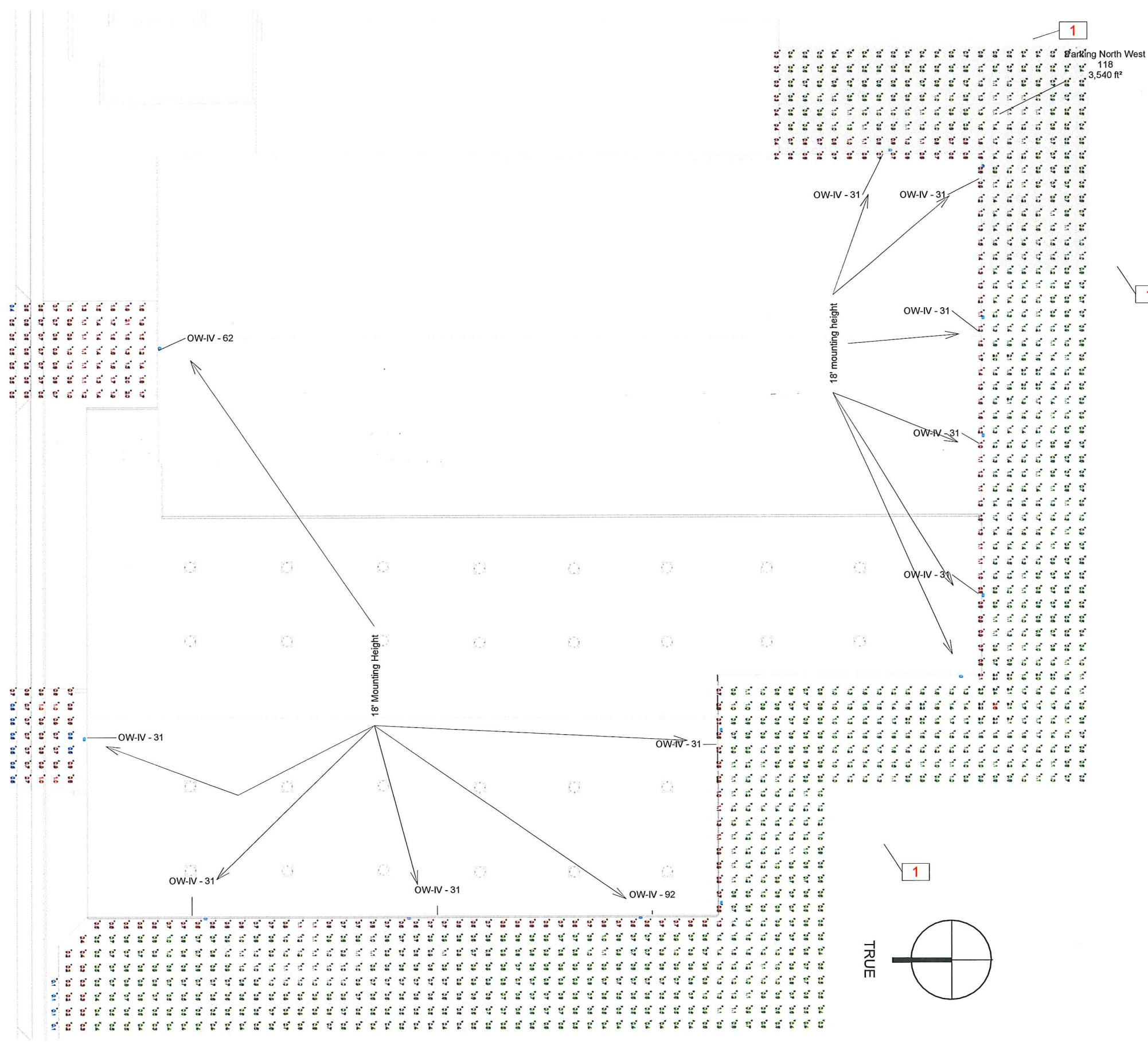
NOTE: ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED BARK MULCH AND SHALL BE PLANTER PER SECTION 209 OF THE CITY OF MADISON STANDARD SPECIFICAITONS FOR PUBLIC WORKS CONSTRUCTION.

Plant Schedule						
Botanical Name	Common Name	Quantity	Size	Root	Points	
Deciduous Shrubs						
Diervilla lonicera	Dwarf Bushhoneysuckle	4	#2	Cont.	12	
Physocarpus opulifolius 'Dart's Gold'	Dart's Gold Ninebark	9	#3	Cont.	27	
Rhus typhina 'Bailtiger'	Tiger Eyes Sumac	11	#2	Cont.	33	
Evergreen Shrubs						
Juniperus scopulorum 'Medora'	Medora Juniper	23	#3	Cont.	92	
Perennials						
Allium 'Summer Beauty'	Summer Beauty Allium	24	1 Gal.	Cont.	48	
Echinacea purpurea	Purple Coneflower	75	1 Gal.	Cont.	150	
Perovskia atriplicifolia	Russian Sage	11	1 Gal.	Cont.	22	
Rudbeckia fulgida 'Goldsturm'	Goldsturm Black Eyed Susan	55	1 Gal.	Cont.	110	
Grasses						
Schizachyrium scoparium 'The Blues'	The Blues Little Bluetem	103	1 Gal.	Cont.	206	
Sporobolus heterolepis	Prairie Dropseed	78	1 Gal.	Cont.	156	
Vines						
Celastrus scandens	American native bittersweet	12	1 Gal.	Cont.	0	
TOTAL					856	

Graphical Scale
0 10 ft



1 UDC - Exterior Lighting
1" = 30'-0"



Keynote Legend	
Key Value	Keynote Text
1	AREAS OUTSIDE THIS SCOPE STAY AS IS AND ARE NOT PART OF THIS PROJECT.

Engineering Operations Building Addition - 2015

Outdoor Lighting

Engineering Division
1600 Emil St.
Madison, WI 53713

Project: 10349
Scale: 1" = 30'-0"
Printed:
3/17/2015 4:27:48 PM

UDC 700

Exterior Lighting Fixture Schedule

Type Mark	Manufacturer	Model	URL	Apparent Load	Color	Voltage	Power Factor	Lamp	Initial Color Temperature	Luminous Flux	Lumen Maintenance 50,000 hrs	Count	OmniClass Number	OmniClass Title
OW-IV - 31	Cree	SEC-EDG-4M-WM-02-E-BK-525-ML	www.Cree.com	37 VA	black	277 V	0.9	LED	5700 K	3108 lm	0.92	9	23.35.47.11.15.19	Weather Rated Light Emitting Diode Lighting Fixtures
OW-IV - 62	Cree	SEC-EDG-4M-WM-04-E-BK-525-ML	www.Cree.com	70 VA	black	277 V	0.9	LED	5700 K	6216 lm	0.92	2	23.35.47.11.15.19	Weather Rated Light Emitting Diode Lighting Fixtures
OW-IV - 92	Cree	SEC-EDG-4M-WM-06-E-BK-525-ML	www.Cree.com	101 VA	black	277 V	0.9	LED	5700 K	9218 lm	0.92	1	23.35.47.11.15.19	Weather Rated Light Emitting Diode Lighting Fixtures

Exterior Lighting Levels

Name	Area	Area Type	Min. Illumination on Pavement required	Min. Illumination on Pavement	Max. avg. Illumination	Avg. Illumination	Max. Uniformity required	Uniformity	Max. Power Density required	Power Density	% of Code Power Allowance used	Based on
Driveway North Entrances	3,327 ft ²	Driveway Medium Activity	0.33 fc	0.4 fc	1.5 fc	1.2 fc	5:1	3:1	0.15 W/ft ²	0.033 W/ft ²	22.2%	MGO 10.085 / IECC 2012
Parking North West	3,540 ft ²	Parking Low Activity	0.2 fc	0.3 fc	1.5 fc	0.9 fc	5:1	3:1	0.08 W/ft ²	0.021 W/ft ²	26.1%	MGO 10.085
Driveway North East Entrance	3,061 ft ²	Driveway Medium Activity	0.33 fc	0.5 fc	1.5 fc	1.3 fc	5:1	2.6:1	0.15 W/ft ²	0.035 W/ft ²	23.3%	MGO 10.085 / IECC 2012
Storage Yard West	7,132 ft ²	Storage Yard inactive	0.2 fc	0.3 fc	1.5 fc	0.8 fc	5:1	2.7:1	0.15 W/ft ²	0.025 W/ft ²	16.4%	IES / IEEC 2012
Driveway South West	969 ft ²	Driveway Medium Activity	0.33 fc	0.4 fc	1.5 fc	1.1 fc	5:1	2.8:1	0.15 W/ft ²	0.072 W/ft ²	48.1%	MGO 10.085 / IECC 2012
Driveway South East Entrance	482 ft ²	Driveway Medium Activity	0.33 fc	0.6 fc	1.5 fc	0.8 fc	5:1	1.3:1	0.15 W/ft ²	0.077 W/ft ²	51.2%	MGO 10.085 / IECC 2012

SEC-EDG-4M/4MB-WM

Cree Edge™ Security Wall Pack Luminaire - Type IV Medium - Wall Mount

Product Description

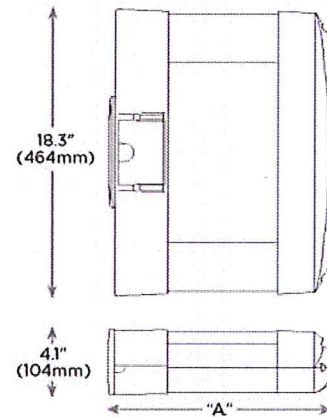
Slim, low profile design. Luminaire end cap is rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Furnished with low copper lightweight mounting box designed for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for upright or downlight. Designed and approved for easy through-wiring. Includes leaf / debris guard.

Performance Summary

- Utilizes BetaLED® Technology
- Patented NanoOptic® Product Technology
- Made in the U.S.A. of U.S. and imported parts
- CRI: Minimum 70 CRI
- CCT: 5700K (+ / - 500K) Standard, 4000K (+ / - 300K)
- Limited Warranty*: 10 years on luminaire / 10 years on Colorfast DeltaGuard® finish

Accessories

Field Installed Accessories	
XA-BROSPK	Bird Spikes



LED Count (x10)	Dim. "A"
02	9.9" (251mm)
04	11.9" (303mm)
06	13.9" (353mm)
08	15.9" (404mm)
10	17.9" (455mm)
12	19.9" (505mm)

Ordering Information

Example: SEC-EDG-4M-WM-02-E-UL-SV-350-OPTIONS

SEC-EDG	WM	E	UL	SV	350	40K 4000K Color Temperature
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options
SEC-EDG	4M Type IV Medium 4MB Type IV Medium w/BLS	WM Wall	02 04 06 08 10 12	E	UL Universal 120-277V UH Universal 347-480V 34 347V	SV Silver (Standard) BK Black BZ Bronze PB Platinum Bronze WH White
						350 350mA 525 525mA 700 700mA
						40K 4000K Color Temperature - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to dimming spec sheet for details - Can't exceed specified drive current F Fuse - Not available with UH or 34 voltages - Not available with all ML options. Refer to ML spec sheet for availability with ML options P Photocell - Not available with all ML options. Refer to ML spec sheet for availability with ML options - Must specify voltage other than UH ML Multi-Level - Refer to ML spec sheet for details
						Options

* See www.cree.com/lighting/products/warranty for warranty terms
 ** Available on luminaires with 20-80 LEDs
 *** Available on luminaires with 20-60 LEDs



Rev. Date: 12/20/13



www.cree.com/lighting T (800) 236-6800 F (262) 504-5415

SEC-EDG-4M/4MB-WM

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for upright or downlight
- Designed and approved for easy through-wiring
- Includes leaf / debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Standard is silver, Bronze, black, white, and platinum bronze are also available

ELECTRICAL SYSTEM

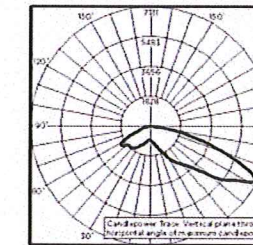
- Input Voltage: 120-277V or 347-480V, 50 / 60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral weathertight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C / D breaker should be used

REGULATORY & VOLUNTARY QUALIFICATIONS

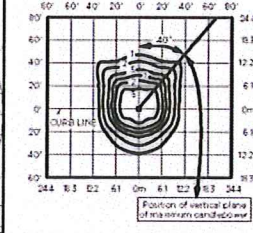
- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or ML options
- Consult factory for CE Certified products
- 10kV surge suppression protection tested in accordance with IEEE / ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000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

Photometry

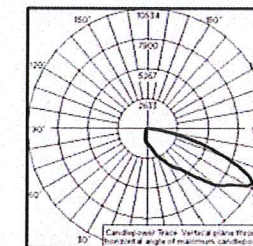
All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory



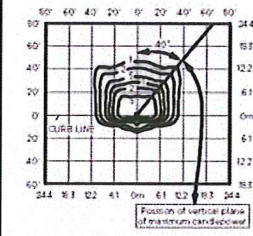
ITL Test Report #: 78793
 SEC-EDG-4M-06-E-UL-700-40K
 Initial Delivered Lumens: 11,607



SEC-EDG-4M-10-E-UL-525-40K
 Mounting Height: 10' (3.0m) A.F.G.
 Initial Delivered Lumens: 11,835
 Initial FC at grade



CSA Test Report #: 6449
 ARE-EDG-4MB-06-E-UL-525-40K
 Initial Delivered Lumens: 13,155



SEC-EDG-4MB-10-E-UL-525-40K
 Mounting Height: 10' (3.0m) A.F.G.
 Initial Delivered Lumens: 8,915
 Initial FC at grade

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

Weight

LED Count (x10)	Weight
02	20 lbs (9.1kg)
04	22 lbs (10.0kg)
06	25 lbs (11.3kg)
08	27 lbs (12.2kg)
10	31 lbs (14.1kg)
12	32 lbs (14.5kg)

Lumen Output, Electrical, and Lumen Maintenance Data

LED Count (x10)	Type IV Medium and Type IV Medium Distribution w/ BLS										50K Hours Projected Lumen Maintenance Factor @ 15°C (59°F)***					
	5700K					4000K						TOTAL CURRENT				
	Initial Delivered Lumens*	BUG Rating** For TH-S-B	Initial Delivered Lumens w/ BLS*	BUG Rating** For TH-S-B	Initial Delivered Lumens*	BUG Rating** For TH-S-B	Initial Delivered Lumens w/ BLS*	BUG Rating** For TH-S-B	System Watts 120-480V	120V		208V	240V	277V	347V	480V
350mA @ 25°C (77°F)																
02	2,220	B1 U0 G1	1,672	B0 U0 G1	2,119	B1 U0 G1	1,630	B0 U0 G1	25	0.21	0.15	0.11	0.30	0.08	0.07	
04	4,440	B1 U0 G1	3,345	B1 U0 G1	4,276	B1 U0 G1	3,271	B1 U0 G1	45	0.36	0.23	0.20	0.20	0.15	0.12	
06	6,660	B2 U0 G2	4,959	B1 U0 G1	6,349	B2 U0 G2	4,776	B1 U0 G1	66	0.52	0.31	0.28	0.26	0.20	0.15	
08	8,880	B2 U0 G2	6,615	B1 U0 G1	8,454	B2 U0 G2	6,368	B0 U0 G1	90	0.75	0.44	0.38	0.34	0.26	0.20	
10	11,100	B2 U0 G2	8,246	B1 U0 G1	10,542	B2 U0 G2	7,941	B1 U0 G1	110	0.92	0.53	0.47	0.41	0.32	0.24	
12	13,320	B3 U0 G3	9,895	B1 U0 G1	12,650	B3 U0 G3	9,529	B1 U0 G1	130	1.10	0.63	0.55	0.48	0.38	0.28	
350mA @ 25°C (77°F)																
02	3,108	B1 U0 G1	2,341	B0 U0 G1	2,995	B1 U0 G1	2,254	B0 U0 G1	37	0.30	0.19	0.17	0.16	0.12	0.10	
04	6,216	B2 U0 G2	4,682	B1 U0 G1	5,986	B2 U0 G2	4,509	B1 U0 G1	70	0.58	0.34	0.31	0.28	0.21	0.16	
06	9,324	B2 U0 G2	6,943	B1 U0 G1	8,976	B2 U0 G2	6,696	B1 U0 G1	101	0.84	0.49	0.43	0.38	0.30	0.22	
08	12,432	B3 U0 G3	9,258	B1 U0 G1	11,635	B2 U0 G2	8,895	B1 U0 G1	133	1.15	0.66	0.58	0.51	0.39	0.28	
350mA @ 25°C (77°F)																
02	3,795	B1 U0 G1	2,860	B0 U0 G1	3,656	B1 U0 G1	2,754	B0 U0 G1	50	0.41	0.25	0.22	0.20	0.15	0.12	
04	7,590	B2 U0 G2	5,719	B1 U0 G1	7,311	B2 U0 G2	5,507	B1 U0 G1	93	0.78	0.46	0.40	0.36	0.27	0.20	
06	11,385	B2 U0 G2	8,481	B1 U0 G1	10,842	B2 U0 G2	8,167	B1 U0 G1	154	1.14	0.65	0.57	0.50	0.39	0.29	

* Actual production yield may vary between -4 and +1% of initial delivered lumens
 ** For more information on the BUG Rating (Backlight Uplight Grade) Rating visit www.iesna.org/06/06/bug-rating
 *** For recommended lumen maintenance factor data see TD-13. Calculated L₈₀ based on 6,000 hours LM-80-08 testing > 100,000 hours

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