



June 13, 2012

City of Madison Urban Design Commission
215 Martin Luther King Jr. Blvd.- Room LL-100
P.O. Box 2985
Madison, Wisconsin 53701-2985

RE: **Urban Design Submission**
Animal Health Center, Henry Vilas Zoo

To Urban Design Commission Members:

The following along with the attachments indicated is an overview of the proposed Animal Health Center at the Henry Vilas Zoo located at 702 South Randall Avenue in the City of Madison, and a request for final Urban Design Commission approval of the project.

Design Team:

The building design team specializes in zoological projects:

WDM Architects- Wichita, Kansas (architecture and landscape architecture)

MKEC- Wichita, Kansas (structural engineering)

Alvine Engineering- Omaha, Nebraska (mep engineering)

Site utility work by:

MSA Professional Services- Madison, Wisconsin

Project Description:

The project site is at the southeast corner of the zoo; in front of the existing maintenance building. Most of the area is currently covered with natural growth. The only structures on the site are old stone walls previously used as containment for animal yards. The disturbed site area is 21,600sf. No new parking is proposed.

The new Animal Health Center at the Henry Vilas Zoo is a 5,900sf facility that will assist the staff in providing the highest level of veterinary care for the animal collection. The building includes; animal holding areas, office area, hospital (treatment, radiology, surgery) and an education area. Its location near the edge of the zoo is ideal for receiving new animals from other institutions and separating animals as necessary from the rest of the collection.

Design and materials:

The building is designed to tie into the immediate context of the zoo as well as other park and residential structures in the vicinity. It provides a new face of the zoo at the southeast corner.

Roofing: standing seam metal roof – gray w/ green tint. The color has been selected to tie into the asphalt shingles on other recent buildings at the zoo while meeting the requirements of a “cool roof” as part of the zoos sustainability initiatives.

Siding and trim: wood lap siding painted to maintain a natural brown color.

Masonry: Stone base similar to other recent projects at the zoo (carousel, flamingos) capped with a burnished block of similar color and contrasting dark brown brick piers around the areas primarily visible to the public. A burnished block base around the areas that are less visible or facing service areas will be of a similar color to the stone.

EIFS: The upper portions of the back and sides of the building less visible to the public will be an eifs system in a lighter shade of the siding color. These areas will be largely screened by landscaping.

Elevations of the building with material indications and a street view as the public will be able to view the new Animal Health Center from the southeast are included with this submittal.

Sincerely,



Scott Ramser, AIA

WDM Architects

Attachments:

Application

Cover	title sheet, index, location, zoo context
SA0.1	existing site
SA0.2	grading plan
SA0.3	landscaping plan
A0.1	floor plan
A0.2	building elevations
A0.3	building elevations
A0.4	perspective view
A0.5	perspective view
E0.1	site lighting plan
E0.2	fixture cut sheets

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

AGENDA ITEM # _____
Project # _____
Legistar # _____

DATE SUBMITTED: <u>6/13/2012</u>	Action Requested
UDC MEETING DATE: <u>6/20/2012</u>	<input type="checkbox"/> Informational Presentation
	<input checked="" type="checkbox"/> Initial Approval and/or Recommendation
	<input checked="" type="checkbox"/> Final Approval and/or Recommendation

PLEASE PRINT!

PLEASE PRINT!

PROJECT ADDRESS: 702 SOUTH RANDALL AVE

ALDERMANIC DISTRICT: 13

OWNER/DEVELOPER (Partners and/or Principals)	ARCHITECT/DESIGNER/OR AGENT:
<u>CITY OF MADISON PARKS</u>	<u>WDM ARCHITECTS</u>
<u>HENRY VILAS 200</u>	<u>105 N WASHINGTON</u>
	<u>WICHITA, KS 67202</u>

CONTACT PERSON: RONDA SCHWETZ
Address: 702 SOUTH RANDALL AVE
MADISON, WI 53715
Phone: (608) 266-4732
Fax: (608) 266-5923
E-mail address: Schwetz@countyofdane.com

TYPE OF PROJECT:

(See Section A for:)

- Planned Unit Development (PUD)
- General Development Plan (GDP)
- Specific Implementation Plan (SIP)
- Planned Community Development (PCD)
- General Development Plan (GDP)
- Specific Implementation Plan (SIP)
- Planned Residential Development (PRD)
- New Construction or Exterior Remodeling in an Urban Design District * (A public hearing is required as well as a fee)
- School, Public Building or Space (Fee may be required)
- New Construction or Addition to or Remodeling of a Retail, Hotel or Motel Building Exceeding 40,000 Sq. Ft.
- Planned Commercial Site

(See Section B for:)

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

(See Section C for:)

- R.P.S.M. Parking Variance (Fee required)

(See Section D for:)

- Comprehensive Design Review* (Fee required)
- Street Graphics Variance* (Fee required)
- Other _____

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

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

ANIMAL HEALTH CENTER

HENRY VILAS ZOO - MADISON, WISCONSIN

sheet index:

COVER	SHEET INDEX CONTEXT PLAN LOCATION MAP
SA0.1	CONTEXT PLAN
SA0.2	SITE PLAN GRADING PLAN
SA0.3	LANDSCAPE PLAN
A0.1	FLOOR PLAN
A0.2	BUILDING ELEVATIONS
A0.3	BUILDING ELEVATIONS
A0.4	PERSPECTIVE VIEW
A0.5	PERSPECTIVE VIEW
E0.1	SITE LIGHTING PLAN
E0.2	FIXTURE CUT SHEETS



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more

owner



architect / landscape architect



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

mechanical / electrical / plumbing engineer



Alvine Engineering
Omaha: 1181 Douglas St. Suite 101, Omaha, NE 68102, Phone: (402) 346-7800, Fax: (402) 346-7870
Lincoln: 1800 O Street, Suite 101, Lincoln, NE 68503, Phone: (402) 477-6461, Fax: (402) 477-9916
Oklahoma City: 13401 Broadway, Suite 101, Oklahoma City, Oklahoma 73114, Phone: (405) 958-3400, Fax: (405) 958-6807
Des Moines: 280 East Leavelle, Suite 213, Des Moines, Iowa 50319, Phone: (515) 281-8889, Fax: (515) 281-1789

structural engineer



411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

civil engineer



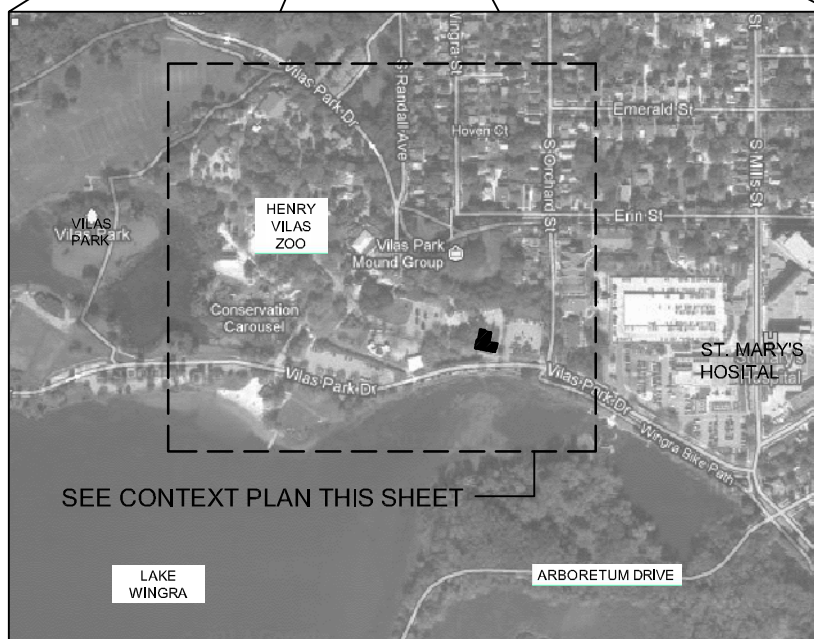
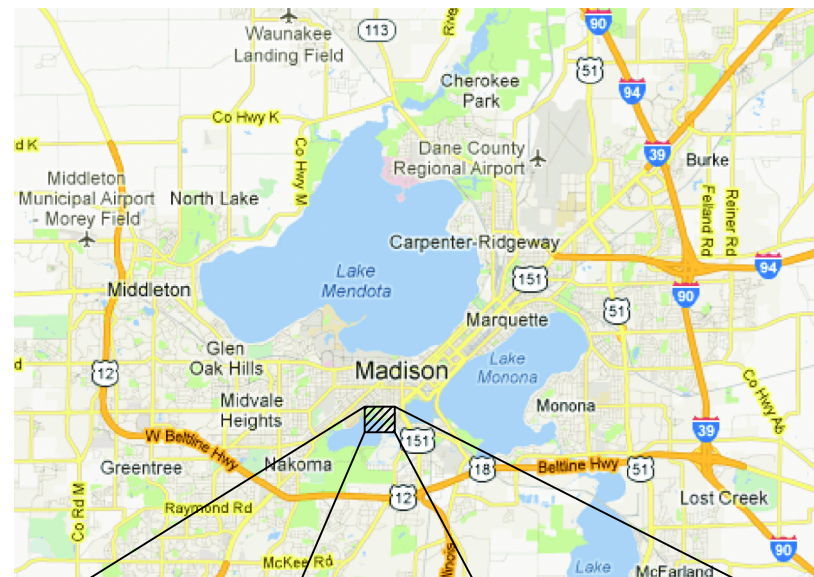
PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL
2901 International Lane, Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664
MSA PROFESSIONAL SERVICES

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Sheet Index
Project Narrative

COVER

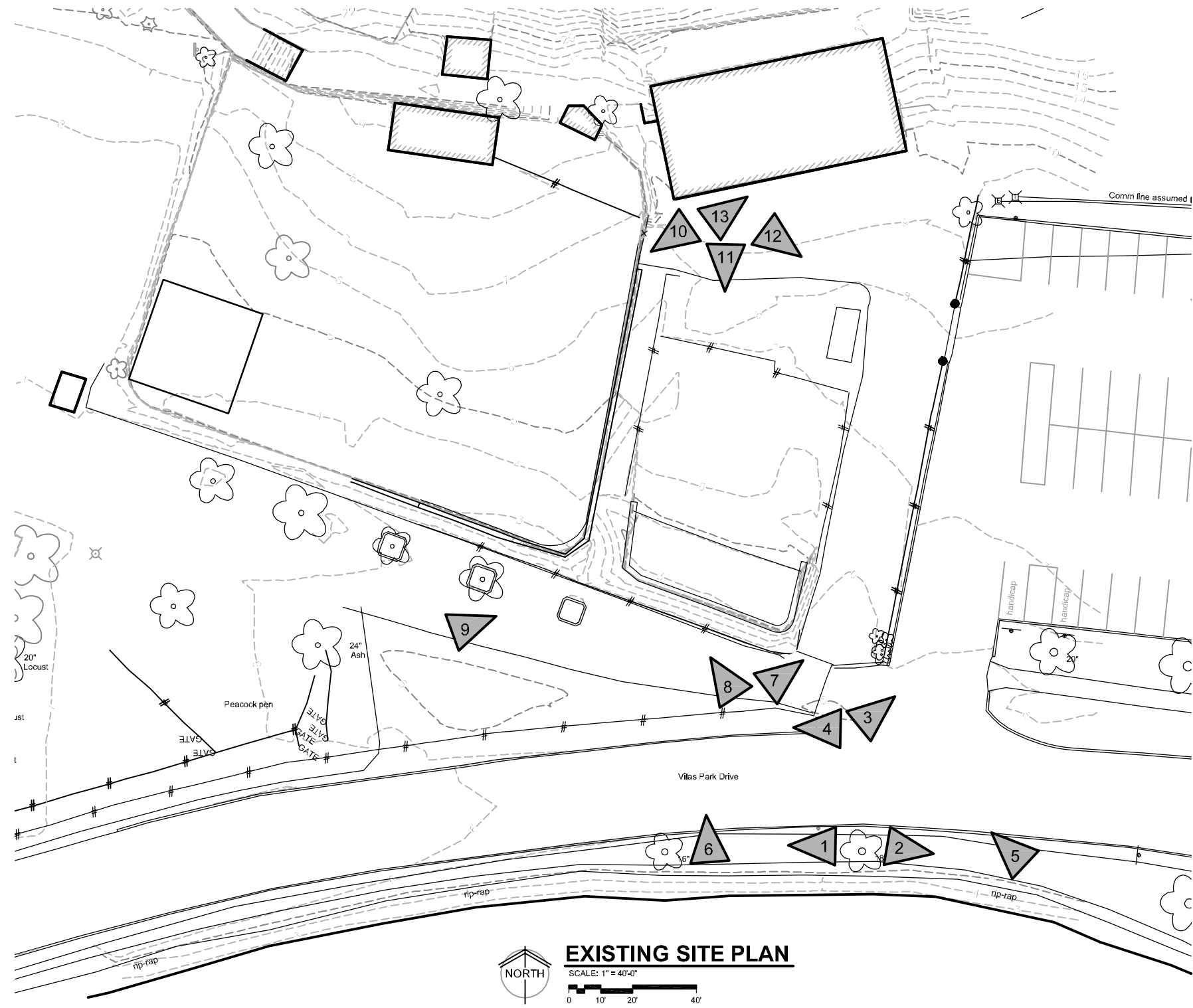
© copyright 2012 WDM Architects P.A.



LOCATION MAP
NOT TO SCALE



CONTEXT PLAN
NOT TO SCALE



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more

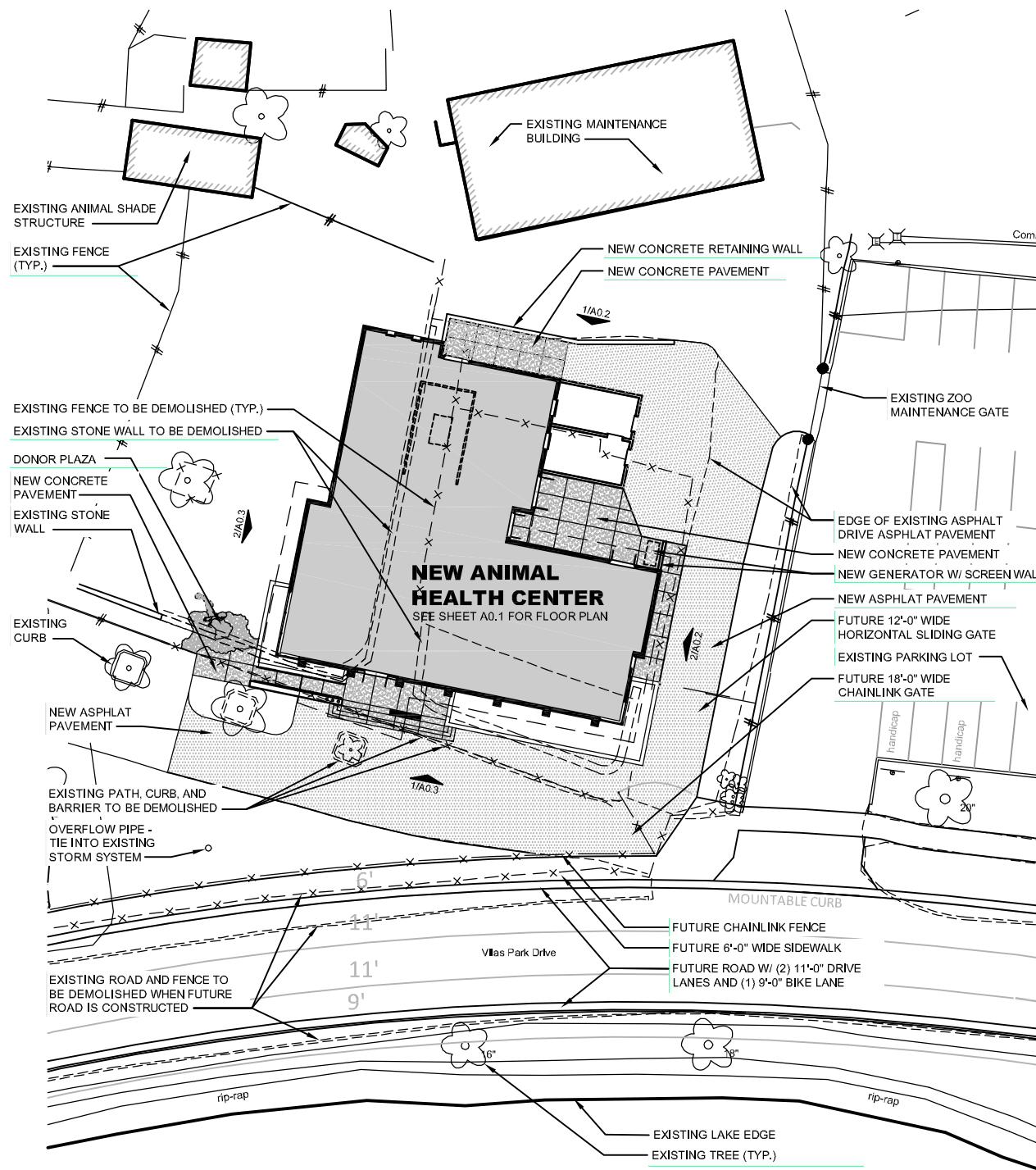


**Henry Vilas Zoo
Animal Health Center**
702 South Randall Ave
Madison, Wisconsin

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Context Plan

SA0.1



SITE LAYOUT PLAN
 SCALE: 1" = 40'-0"
 0 10' 20' 40'

LEGAL DESCRIPTION

ALL LAND IN SECTIONS 22 & 27, T7N R9E, USED FOR VILAS PARK AND ZOO INCLUDING: WINGRA PARK, LOTS 7 THRU 12, BLK 22; LOTS 6 THRU 12, BLK 23; AND ALL OF BLKS 24, 25, 26, 27, 28, 29, 34, 35, 36, 37, 38, 39 & 40, EXC THAT PART DESC AS FOL: BEG SELV COR OF LOT 1 BLOCK 22 OF WINGRA PARK, TH S 45 DEG 01 MIN 52 SEC E ALG SWLY ROW OF GRANT ST EXTENDED 10 FT, TH S 45 DEG W 88 FT, TH S 55 DEG 52 MIN 01 SEC W 53.04 FT TO SWLY COR OF SD LOT 2, TH N 45 DEG E ALG SELV LN OF LOTS 1 & 2 120.09 FT TO POB.

ZONING INFORMATION

ZONED C- CONSERVANCY



SITE GRADING PLAN
 SCALE: 1" = 40'-0"
 0 10' 20' 40'



WDM Architects P.A.
 105 North Washington
 Wichita, KS 67202-2815
 T 316.262.4700
 F 316.262.0002
 wdmarchitects.com

we do more

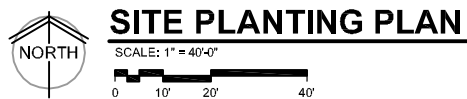
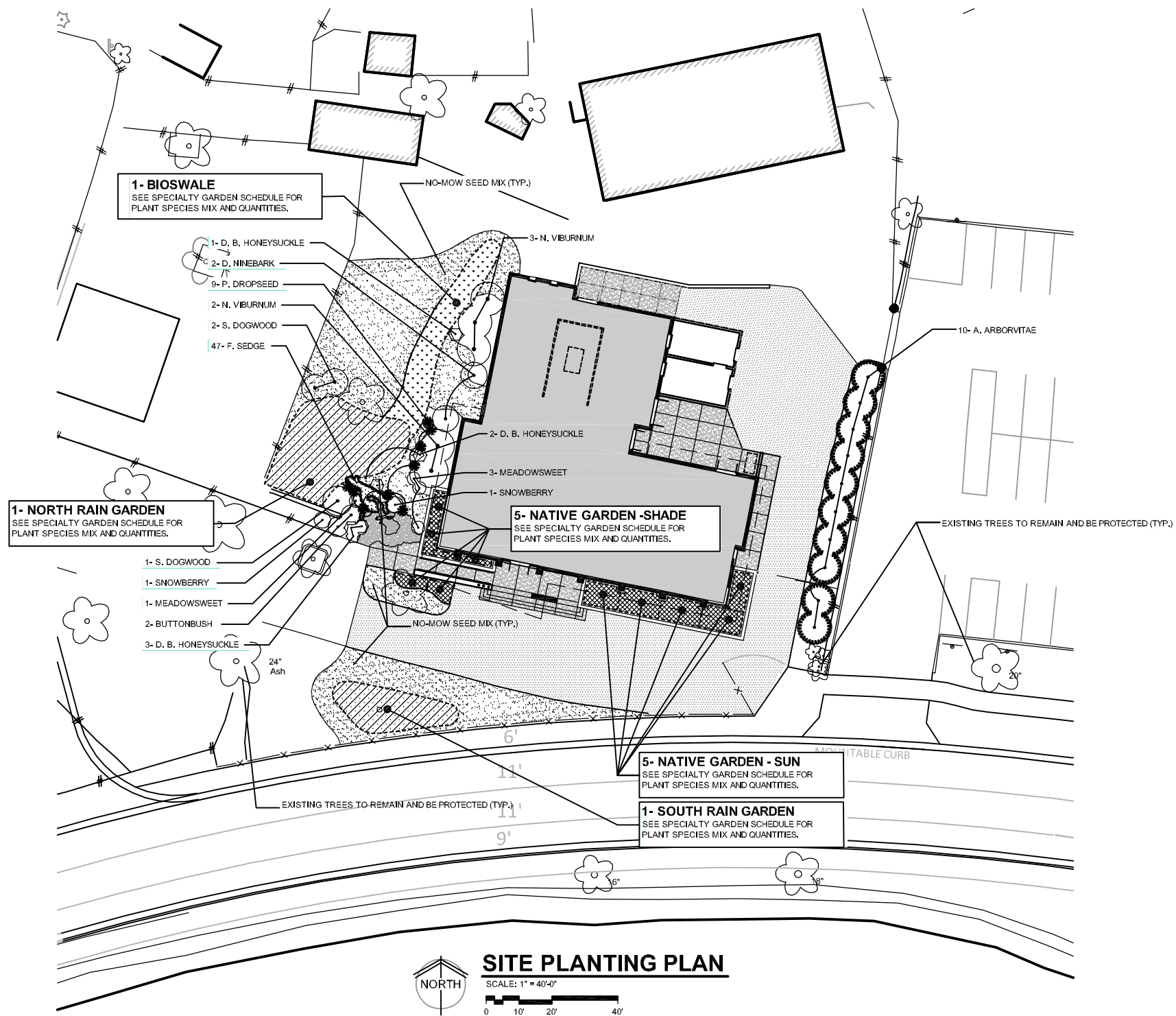


**Henry Vilas Zoo
 Animal Health Center**
 702 South Randall Ave
 Madison, Wisconsin

PRINTS ISSUED
 City Submittal - 6/4/2012

WDM No. 12014
 drawn: DJ
 checked: SR
 Site Plan
 Grading Plan

SA0.2



GRASS SEEDING SCHEDULE

QNTY.	COMMON NAME	BOTANICAL NAME	MIX %
0.8 AC	NO-MOW SEED MIX		
	COVER CROP - ANNUAL GRASS		
	GULF ANNUAL RYEGRASS	Lolium multiflorum	10 LBS.
	GRASS MIX		
	JAMESTOWN IV CHEWINGS FESCUE	Festuca commutata	10 LBS.
	SHEEP FESCUE	Festuca ovina	3 LBS.
	AURORA HARD FESCUE	Festuca brevipila (F. longifolia)	
	RHINO HARD FESCUE	Festuca brevipila (F. longifolia)	
	SEABREEZE SLENDER CREEPING RED FESCUE	Festuca rubra	
	CROSSBOW CREEPING RED FESCUE	Festuca rubra subsp. rubra	

NOTE: NO-MOW GRASS MIX BASIS OF DESIGN IS "NO-MOW LAWN MIX WITH ANNUAL RYE NURSE CROP" BY: PRAIRIE NURSERY, INC., P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453)

PLANT SCHEDULE

QNTY.	COMMON NAME	BOTANICAL NAME	MATURE SIZE	SIZE	COND.	REMARKS
	EVERGREEN TREES					
10	AMERICAN ARBORVITAE	Thuja occidentalis	20'-10'	8'-0" H	CONT.	
	SHRUBS					
2	BUTTONBUSH	Cephalanthus occidentalis	6'W-6'H	5 GAL.	CONT.	
2	SNOWBERRY	Symphoricarpos alba	5'W-4'H	5 GAL.	CONT.	
3	SILKY DOGWOOD	Cornus amomum	8'W-8'H	10 GAL.	CONT.	
4	MEADOWSWEET	Spiraea alba	4'W-4'H	3 GAL.	CONT.	
6	DWARF BUSHHONEYBUCKLE	Diervilla lonicera	4'W-3'H	3 GAL.	CONT.	
2	DWARF NINEBARK	Physocarpus opulifolius var. intermedius	7'W-7'H	10 GAL.	CONT.	
5	NANNYBERRY VIBURNUM	Viburnum lantago	12'W-10'H	10 GAL.	CONT.	
	GRASSES					
9	PRAIRIE DROPSEED	Cephalanthus occidentalis	3'W-4'H	3" POT	CONT.	
47	FOX SEDGE	Carex vulpinoidea	2'W-2'H	3" POT	CONT.	

SPECIALTY GARDEN SCHEDULE

QNTY.	COMMON NAME	BOTANICAL NAME	MATURE HEIGHT	SIZE	COND.	REMARKS
SOUTH RAIN GARDEN NOTE: RAIN GARDEN IS CUSTOM DESIGNED BY PRAIRIE NURSERY, INC.; P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453) - LAYOUT AND INSTALL PLANTS PER SUPPLIERS INSTRUCTIONS						
SEDGES						
128	FOX SEDGE	Carex vulpinoidea	1'-3'	3" POT	CONT.	
FORBS						
12	NODDING PINK ONION	Allium cernuum	1'-2'	3" POT	CONT.	
8	RED MILKWEED	Asclepias incarnata	3'-5'	3" POT	CONT.	
10	CROOKED STEM ASTER	Aster prenanthoides	1'-3'	3" POT	CONT.	
12	WHITE TURTLEHEAD	Chelone glabra	2'-4'	3" POT	CONT.	
8	MISTFLOWER	Eupatorium coelestinum	1'-3'	3" POT	CONT.	
12	BONESET	Eupatorium perfoliatum	3'-4'	3" POT	CONT.	
12	BOTTLE GENTIAN	Gentiana andrewsii	1'-2'	3" POT	CONT.	
16	WILD IRIS	Iris shrevei	2'-3'	3" POT	CONT.	
18	PRAIRIE BLAZINGSTAR	Allium cernuum	3'-5'	3" POT	CONT.	
12	GREAT BLUE LOBELIA	Lobelia aliphilica	1'-4'	3" POT	CONT.	
12	MARSH PHLOX	Phlox glaberrima	2'-4'	3" POT	CONT.	
10	OHIO GOLDENROD	Solidago ohioensis	3'-4'	3" POT	CONT.	
6	STEEPLEBUSH	Spiraea tomentosa	2'-3'	3" POT	CONT.	
12	CULVER'S ROOT	Veronicastrum virginicum	3'-5'	3" POT	CONT.	
12	GOLDEN ALEXANDERES	Zizia aurea	1'-2'	3" POT	CONT.	
NORTH RAIN GARDEN NOTE: RAIN GARDEN IS CUSTOM DESIGNED BY PRAIRIE NURSERY, INC.; P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453) - LAYOUT AND INSTALL PLANTS PER SUPPLIERS INSTRUCTIONS						
SEDGES						
320	FOX SEDGE	Carex vulpinoidea	1'-3'	3" POT	CONT.	
FORBS						
48	NODDING PINK ONION	Allium cernuum	1'-2'	3" POT	CONT.	
32	CROOKED STEM ASTER	Aster prenanthoides	1'-3'	3" POT	CONT.	
32	WHITE TURTLEHEAD	Chelone glabra	2'-4'	3" POT	CONT.	
32	MISTFLOWER	Eupatorium coelestinum	1'-3'	3" POT	CONT.	
48	PURPLE CONEFLOWER	Echinacea coelestinum	3'-4'	3" POT	CONT.	
48	BOTTLE GENTIAN	Gentiana andrewsii	1'-2'	3" POT	CONT.	
32	WILD IRIS	Iris shrevei	2'-3'	3" POT	CONT.	
32	GREAT BLUE LOBELIA	Lobelia aliphilica	1'-4'	3" POT	CONT.	
32	MARSH PHLOX	Phlox glaberrima	2'-4'	3" POT	CONT.	
48	CULVER'S ROOT	Veronicastrum virginicum	3'-5'	3" POT	CONT.	
48	GOLDEN ALEXANDERES	Zizia aurea	1'-2'	3" POT	CONT.	
BIOSWALE NOTE: BIOSWALE IS CUSTOM DESIGNED BY PRAIRIE NURSERY, INC.; P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453) - LAYOUT AND INSTALL PLANTS PER SUPPLIERS INSTRUCTIONS						
SEDGES						
128	FOX SEDGE	Carex vulpinoidea	1'-3'	3" POT	CONT.	
96	BICKNELL'S SEDGE	Carex bicknellii	1'-3'	3" POT	CONT.	
FORBS						
32	LAVENDER HYSSOP	Agastache foeniculum	1'-3'	3" POT	CONT.	
32	NODDING PINK ONION	Allium cernuum	1'-2'	3" POT	CONT.	
16	SMOOTH ASTER	Aster laevis	2'-4'	3" POT	CONT.	
16	CROOKED STEM ASTER	Aster prenanthoides	1'-3'	3" POT	CONT.	
32	SHOOTINGSTAR	Dodecatheon coelestinum	1'-2'	3" POT	CONT.	
32	MISTFLOWER	Eupatorium coelestinum	1'-3'	3" POT	CONT.	
48	PURPLE CONEFLOWER	Echinacea coelestinum	3'-4'	3" POT	CONT.	
16	BOTTLE GENTIAN	Gentiana andrewsii	1'-2'	3" POT	CONT.	
32	WILD GERANIUM	Geranium maculatum	1'-2'	3" POT	CONT.	
32	GREAT BLUE LOBELIA	Lobelia aliphilica	1'-4'	3" POT	CONT.	
32	OHIO SPIDERWORT	Tradescantia ohlensis	2'-4'	3" POT	CONT.	
16	CULVER'S ROOT	Veronicastrum virginicum	3'-5'	3" POT	CONT.	
32	GOLDEN ALEXANDERES	Zizia aurea	1'-2'	3" POT	CONT.	
NATIVE GARDEN - SUN NOTE: BASIS-OF-DESIGN "50 PLANT LOW GROWING GARDEN" BY PRAIRIE NURSERY, INC.; P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453) - LAYOUT AND INSTALL PLANTS PER SUPPLIERS INSTRUCTIONS						
SEDGE/GRASSES						
15	PRAIRIE DROPSEED	Sporobolus heterolepis	2'-4'	3" POT	CONT.	
WILDFLOWERS/FORBS						
3	NODDING PINK ONION	Allium cernuum	1'-2'	3" POT	CONT.	
3	HEATH ASTER	Aster ericoides	1'-3'	3" POT	CONT.	
3	CROOKED STEM ASTER	Aster prenanthoides	1'-3'	3" POT	CONT.	
3	PURPLE PRAIRIE CLOVER	Dalea purpurea	1'-2'	3" POT	CONT.	
3	MISTFLOWER	Eupatorium coelestinum	1'-3'	3" POT	CONT.	
2	PRAIRIE SMOKE	Geum triflorum	6"	3" POT	CONT.	
3	BROAD-LEAVED PENSTEMON	Penstemon avatus	1'-3'	3" POT	CONT.	
2	DOWNY PHLOX	Phlox pilosa	1'-2'	3" POT	CONT.	
3	COLUMBINE	Aquilegia canadensis	1'-3'	3" POT	CONT.	
3	PRAIRIE BLUE-EYED GRASS	Sisyrinchium campestre	6"-1'	3" POT	CONT.	
3	SHOWY GOLDENROD	Solidago speciosa	1'-3'	3" POT	CONT.	
1	WESTERN SPIDERWORT	Tradescantia occidentalis	1'	3" POT	CONT.	
NATIVE GARDEN - SHADE NOTE: BASIS-OF-DESIGN "25 PLANT WOODLAND SHADE GARDEN" BY PRAIRIE NURSERY, INC.; P.O. BOX 306; WESTFIELD, WI 53964 (1-800-476-9453) - LAYOUT AND INSTALL PLANTS PER SUPPLIERS INSTRUCTIONS						
SEDGE/GRASSES						
5	PALM SEDGE	Carex muskingumensis	2'-3'	3" POT	CONT.	
2	NORTHERN SEA OATS	Chasmanthium latifolium	3'-4'	3" POT	CONT.	
WILDFLOWERS/FORBS						
1	COLUMBINE	Aquilegia canadensis	1'-3'	3" POT	CONT.	
2	JACK IN THE PULPIT	Arisaema triphyllum	1'-2'	3" POT	CONT.	
2	WHITE WOODLAND ASTER	Aster divaricatus	2'-4'	3" POT	CONT.	
2	CALICO ASTER	Aster lateriflorus	2'-3'	3" POT	CONT.	
2	WILD BLEEDING HEART	Dicentra eximia	1'-2'	3" POT	CONT.	
1	MAPLE LEAVED ALUM ROOT	Heuchera villosa var. Atropurpurea	1'-3'	3" POT	CONT.	
2	VIRGINIA BLUEBELLS	Mertensia virginica	1'-2'	3" POT	CONT.	
1	WILD BLUE PHLOX	Phlox divaricata	1'-2'	3" POT	CONT.	
2	JACOB'S LADDER	Polemonium reptans	1'-2'	3" POT	CONT.	
1	SOLOMON'S SEAL	Polygonatum biflorum	1'-3'	3" POT	CONT.	
2	CULVER'S ROOT	Veronicastrum virginicum	3'-6'	3" POT	CONT.	



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more

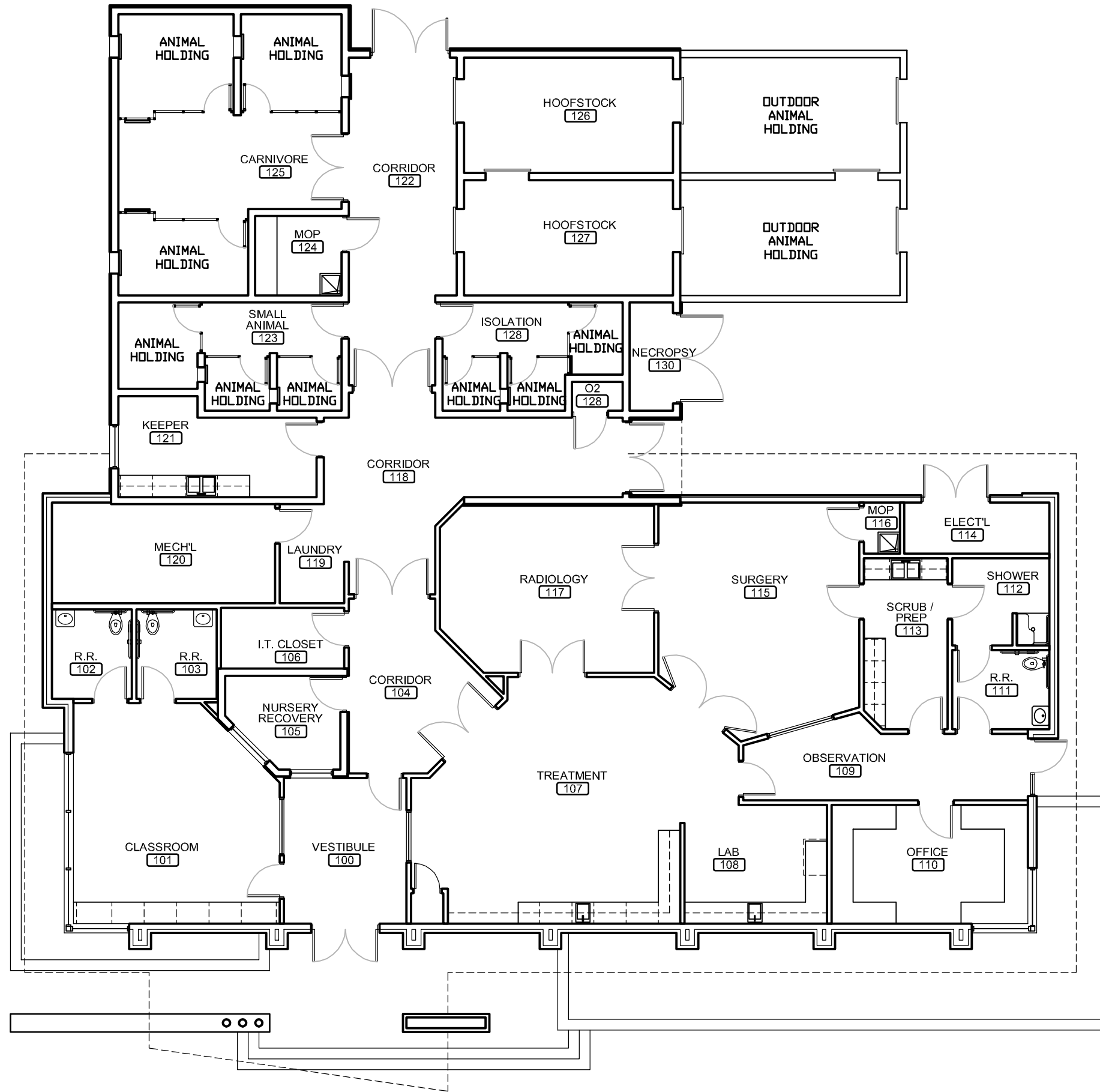


Henry Vilas Zoo
Animal Health Center
702 South Randall Ave
Madison, Wisconsin

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Planting Plan

SA0.3



BUILDING FLOOR PLAN

SCALE: 3/32" = 1'-0"
 0 4' 8' 16'



WDM Architects P.A.
 105 North Washington
 Wichita, KS 67202-2815
 T 316.262.4700
 F 316.262.0002
 wdmarchitects.com

we do more



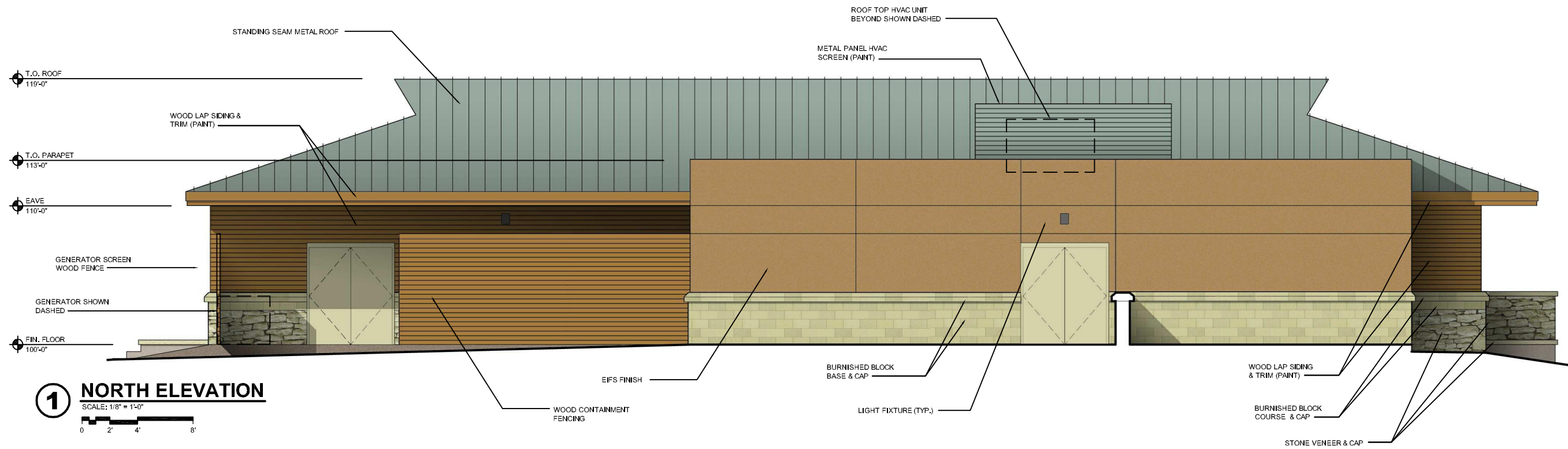
**Henry Vilas Zoo
 Animal Health Center**

702 South Randall Ave
 Madison, Wisconsin

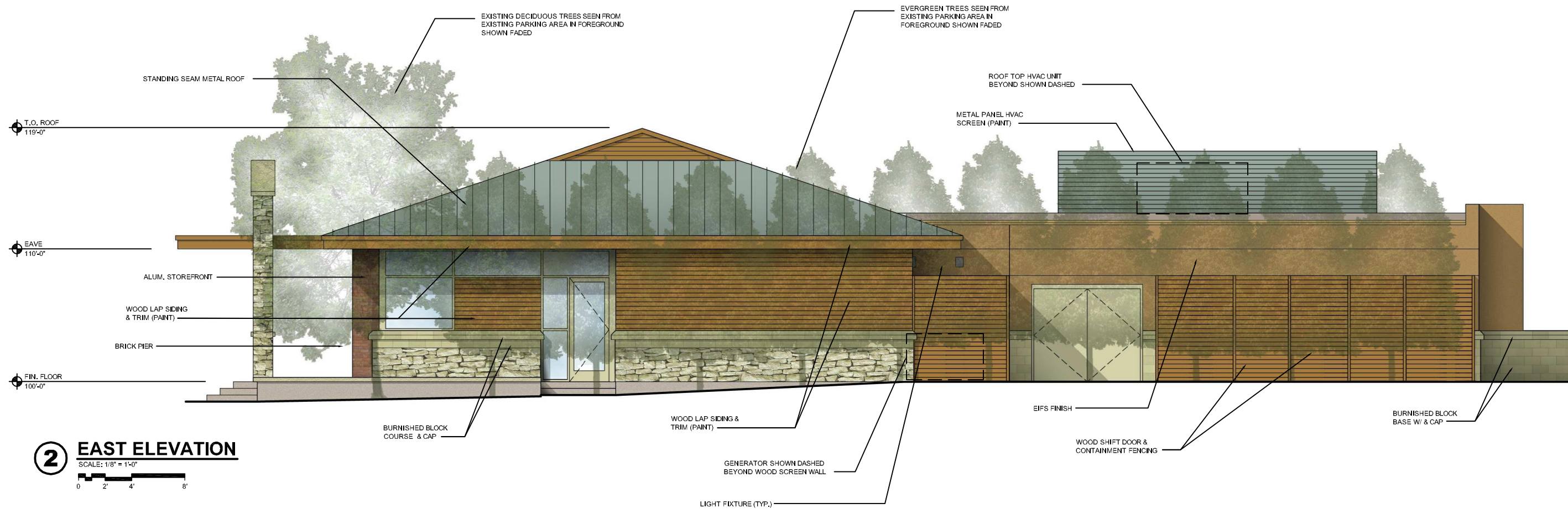
PRINTS ISSUED
 City Submittal - 6/4/2012

WDM No. 12014
 drawn: DJ
 checked: SR
 Building Elevations

A0.1



1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"
0 2' 4' 8'



2 EAST ELEVATION
SCALE: 1/8" = 1'-0"
0 2' 4' 8'



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more

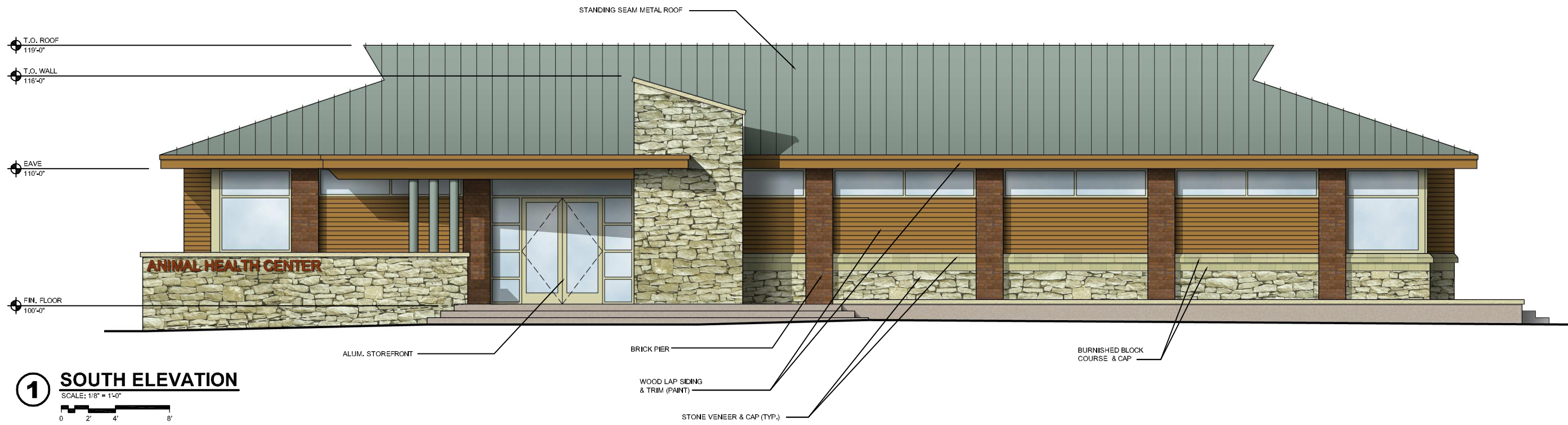


**Henry Vilas Zoo
Animal Health Center**
702 South Randall Ave
Madison, Wisconsin

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Building Elevations

A0.2



1 SOUTH ELEVATION

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



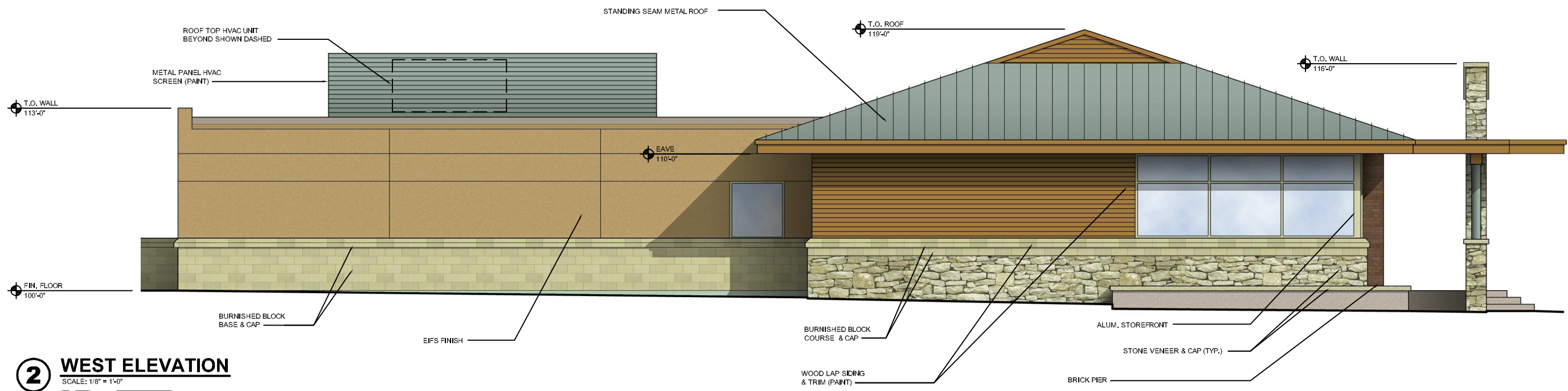
WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more



**Henry Vilas Zoo
Animal Health Center**

702 South Randall Ave
Madison, Wisconsin



2 WEST ELEVATION

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



PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Building Elevations

A0.3



STREET VIEW OF NEW BUILDING
NOT TO SCALE



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com



**Henry Vilas Zoo
Animal Health Center**
702 South Randall Ave
Madison, Wisconsin

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Perspective View

A0.4



ZOO VIEW OF NEW BUILDING
NOT TO SCALE



WDM Architects P.A.
105 North Washington
Wichita, KS 67202-2815
T 316.262.4700
F 316.262.0002
wdmarchitects.com

we do more

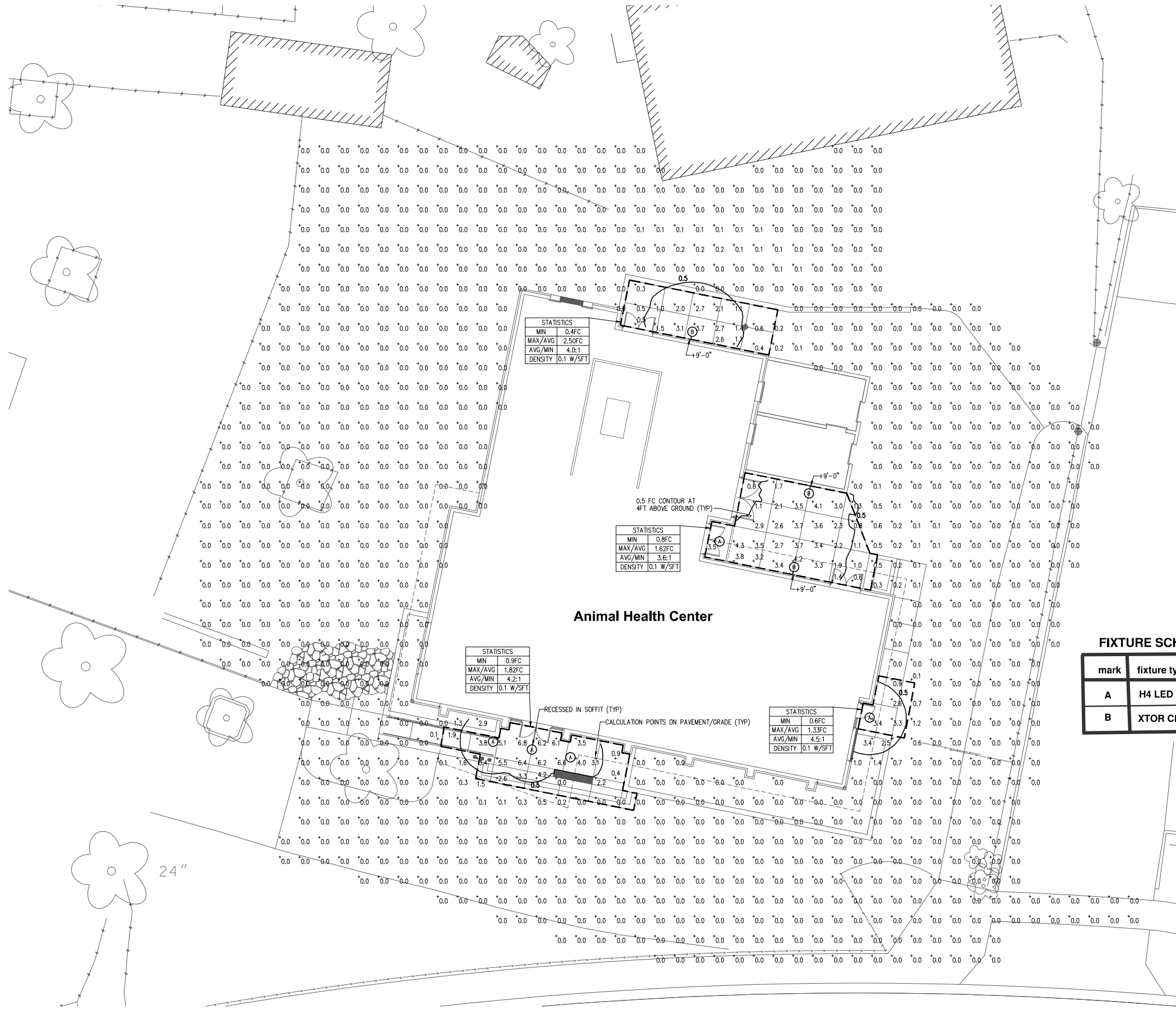


**Henry Vilas Zoo
Animal Health Center**
702 South Randall Ave
Madison, Wisconsin

PRINTS ISSUED
City Submittal - 6/4/2012

WDM No. 12014
drawn: DJ
checked: SR
Perspective View

A0.5



FIXTURE SCHEDULE

mark	fixture type	manufacturer
A	H4 LED DOWNLIGHT	HALO
B	XTOR CROSSTOUR LED	LUMARK

© COPYRIGHT 2012 AE#20112613
 Permission to reproduce all or part of this drawing is hereby granted solely for the limited purpose of construction of this project or archiving. Unauthorized copying, disclosure or construction use without written permission of Alvine Engineering is prohibited by copyright law.

NOTE:
 DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS and clearances from ARCHITECTURAL, STRUCTURAL, shop and other appropriate drawing or at site. Lay out and coordinate all work prior to installation to provide clearances required for operation, maintenance, and codes and verify non-interference with other work. DO NOT FABRICATE PRIOR TO VERIFICATION OF CLEARANCE FOR ALL TRADES. READ SPECIFICATIONS.



A

SITE PLAN - PHOTOMETRIC STUDY

1" = 10'-0"
 0 5' 10' 20'



Omaha: 1102 Douglas Blvd, Omaha, NE 68102, Phone: (402) 346-7827, Fax: (402) 344-0224
 Lincoln: 3833 O Street, Suite 114, Lincoln, NE 68502, Phone: (402) 474-6161, Fax: (402) 474-6164
 Oklahoma City: 13421 Ramsey Boulevard, Suite 101, Oklahoma City, Oklahoma 73114, Phone: (402) 955-5488, Fax: (402) 951-4567
 Des Moines: 801 East Court Ave, Suite 200, Des Moines, Iowa 50309, Phone: (515) 283-0289, Fax: (515) 283-1728

PROGRESS PRINT
 NOT FOR CONSTRUCTION

wdm ARCHITECTS
 WDM Architects P.A.
 105 North Washington
 Wichita, KS 67202-2815
 T 316.262.4700
 F 316.262.0002
 wdmarchitects.com

henry vilas
ZOO

**Henry Vilas Zoo
 Animal Health Center**
 702 South Randall Ave
 Madison, Wisconsin

PRINTS ISSUED
 5/30/2012

WDM No. drawn: JRA
12014 checked: GAN
 SITE PLAN - PHOTOMETRIC STUDY

E0.1

H4 LED Downlight Series - LED Light Engines
 The Halo H4 LED is a family of 4" aperture recessed downlights with H4S and H4SE series housings designed for use with Halo EL4 Series LED Light Engines and compatible TL4 and TL54 Series LED trims. Halo H4 LED housings have integral LED drivers that offer dimming as a standard feature.

The Halo LED EL4S2600 Light Engine are designed for use in the LED dedicated housing Series H4S26 and H4SE5. Halo LED EL40585x Series light engines deliver in the range of 534-700 lumens (depending upon the trim and selected color temperature) and the Series offers a selection of four color temperatures: 2700K, 3000K, 3500K, 4000K. Halo LED offers a superior optical design that yields productive beam lumens, good cutoff and low glare.

DESIGN FEATURES

MECHANICAL

- (A) Upper Heat Sink**
 - Durable extruded aluminum construction.
 - Conducts heat away from the LED keeping the junction temperature below specified maximums, even when installed in insulated ceiling environments.
- (B) Lower Heat Sink**
 - Durable die-cast aluminum construction.
 - Precision keyed flange designed to lock with matching keyed slots in H4 trim rings.
 - Works in conjunction with the upper heat sink for heat conduction away from the LED.
- (C) Friction Blades**
 - Precision formed stainless steel spring blades provide retention of the EL series light engines in the H4S and H4SE series housings.
 - Friction blade design allows the light engine to be installed in any position within the housing aperture (360 degrees).
 - Tether security cable included on the light engine for attachment to the housing during installation, as recommended and when required by code.

- MOUNTING**
- (C) Friction Blades**
 - Precision formed stainless steel spring blades provide retention of the EL series light engines in the H4S and H4SE series housings.
 - Friction blade design allows the light engine to be installed in any position within the housing aperture (360 degrees).
 - Tether security cable included on the light engine for attachment to the housing during installation, as recommended and when required by code.
- ELECTRICAL**
- (D) LED Connection**
 - LED connector is a non screw base connector offering easy installation with the H4S and H4SE Series housings.
 - LED connector meets California Title-24 high-efficiency luminaires requirement for a non-screw base socket, and where required to qualify as a high efficiency luminaire.

COLOR SPECIFICATION & QUALITY STANDARDS

- Halo employs a tight chromaticity specification and LED color binning process to ensure LCD color uniformity, sustainable Color Rendering Index (CRI) and Correlated Color Temperature (CCT) consistency over the useful life of the LED.
- Halo LED chromaticity specification not only meets, but exceeds ENERGY STAR® SSL color standards (as per ANSI C78.377-2008).
- Every Halo LED Module is quality tested and performance measured on the production line, and then serialized to register lumens, wattage, CRI and CCT.
- Halo LED's serialized testing and measurement process further ensures color and lumen consistency to meet stringent Cooper Lighting specifications and exceed ENERGY STAR® SSL standards.
- Halo LED Modules and light engines include color designation in the model number.
- Example: EL406827

- Halo LED's serialized testing and measurement process further ensures color and lumen consistency to meet stringent Cooper Lighting specifications and exceed ENERGY STAR® SSL standards.
- Example: EL406827

827 2703K nominal CCT > 80 CRI



QualiNet and Compliant as designed.*



HALO®

ORDERING INFORMATION

SAMPLE NUMBER: H4S26TLUNV010 EL406827 TL400SC
 Complete unit includes LED housing, light engine, and trim, ordered separately

H4 LED Housing	H4 LED Light Engine	Trim Options	Accessories
H4S6ICAT120D 4 Dedicated LED multi-lens Ceiling Air-TITE™ Housing, 120V Driver with standard Dimming	EL406 = 3" = 80 CRI EL407 = 3" = 80 CRI EL408 = 3" = 80 CRI	TL400SC = Spiculer Clear Reflector, White Ring TL400W = Satin Reflector, White Ring TL400WH = White Reflector, White Ring TL400BN = Tuscan Bronze Reflector, Tuscan Bronze Ring TL400BK = Black Spiculer Reflector, White Ring TL400WB = White Satin Reflector, White Ring TL400EB = Black Back Bottle, White Ring TL400ES = Satin Lens, Spiculer Clear Reflector and White Ring, Shower Rated TL400WS = Satin Lens, White Reflector and White Ring, Shower Rated TL400WH = Satin Lens, Satin Nickel Reflector and Satin Nickel Ring, Shower Rated TL400WB = Satin Lens, Tuscan Bronze Reflector and Tuscan Bronze Ring, Shower Rated TL400WBK = Satin Lens, Black Spiculer Reflector and White Ring, Shower Rated TL400WBS = Satin Lens, White Satin Reflector and White Ring, Shower Rated TL400WBS = Satin Lens, Black Back Bottle and White Ring, Shower Rated TL400WHWB = Square Batte Trim, Satin Lens, White Ring with White Batte TL400WHWB = Square Batte Trim, Satin Lens, White Ring with Black Batte TL400WHWB = Square Batte Trim, Satin Lens, Satin Nickel Ring with Black Batte TL400WHWB = Square Batte Trim, Satin Lens, Tuscan Bronze Ring with Black Batte TL400WHWB = Wall Wash, Semi-Spiculer Clear Reflector with White Ring TL400WHWB = Wall Wash, White Reflector with White Ring TL400WB = Polymer Batte & Regressed Lens Shower Trim, White Batte and Ring	Thin Profile Designer Trim Rings For use with Round TL4 trims (not compatible with Square TL54 trims). TRM00WH = White TRM00BK = Black TRM00SN = Satin Nickel TRM00TB = Tuscan Bronze TRM00PC = Polished Chrome

Halo H4 LED Downlight Photometry

Representative photometric test reports are as illustrated for downlighting include open and closed trim in combination with Halo H4 LED Light Engines in 3500K color temperature. For relative lumen values with other color temperature options in Halo LED use the appropriate multiplies.

Specular Clear Open TL400SC		Diffuse Batte Trim Satin Lens Ring		Satin Lens Reflector		Satin Lens Reflector with Black Batte		Satin Lens Reflector with White Batte	
Beam Diameter (ft)	Beam Angle (deg)	Beam Diameter (ft)	Beam Angle (deg)	Beam Diameter (ft)	Beam Angle (deg)	Beam Diameter (ft)	Beam Angle (deg)	Beam Diameter (ft)	Beam Angle (deg)
1.3	34	1.3	34	1.3	34	1.3	34	1.3	34
1.7	26	1.7	26	1.7	26	1.7	26	1.7	26
2.1	20	2.1	20	2.1	20	2.1	20	2.1	20
2.5	16	2.5	16	2.5	16	2.5	16	2.5	16
2.9	13	2.9	13	2.9	13	2.9	13	2.9	13

Color Temperature as tested: 3500K	Color Temperature	2700K	3000K	3500K	4000K
Multplier		0.8305	0.9475	1.0000	1.0476



Sollix® is a registered trademark of AGC Flat Glass North America.
 Note: Specifications and Dimensions subject to change without notice.
 Visit our web site at www.cooperlighting.com
 Customer First Center 111 Highway 24 South, Nashville, TN 37203-7400 FAX 770-486-6801
 Cooper Lighting Sales Dept, Nashville, TN 37203-7400 FAX 770-486-6801

HALO®

Catalog #	Type
	A



H4 LED Downlight Series

Available in
2700°K
3000°K
3500°K
4000°K
Correlated Color Temperatures



ADU111995 March 26, 2012 3:07 AM

DESCRIPTION
 The patent pending Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall-to-wall, inverted mount for landscape/way illumination, post-and-rod and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, walkways and loading docks.

SPECIFICATION FEATURES

- Construction**
 Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching stainless steel finish incorporates both a small and large design. The small housing is available in 10W and 20W. The large housing is available in the 30W model. Patent pending secure lock hinge feature allows for safe and easy cool-to-the-touch electrical connections with the supplied lever-lock connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 1" square single gang and recessed junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fan design extracts heat from the fixture surface. One-piece all-weather, weather seal and back box. Not recommended for car wash applications.

- Optical**
 Silicone sealed optical LED chamber incorporates a custom engineered microprism anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets ESNIA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 3000K or neutral warm 3500K LED color temperature (CCT).
- Electrical**
 LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 100W models operate in -40°C to 40°C (-40°F to 104°F). 20W and 30W models operate in -30°C to 40°C (-23°F to 104°F). Crosstour luminaires maintain greater than 70% of initial light output after 50,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for true-brush wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection, 10W, 120V 53/60 Hz, 20W and 20W, 120-277V, 60/60Hz.
- Finish**
 Crosstour is protected with a Super TFC carbon bronze or stainless steel powder coat paint. Super TFC powder coat paint has shown outstanding resistance to conditions while providing optimal color and gloss retention of the installed life.
- Warranty**
 Crosstour features a five-year limited warranty.

Catalog #	Type
	B



XTOR CROSSTOUR LED

WALL / SURFACE MOUNT
 POST / BOLLARD MOUNT
 LOW LEVEL MOUNT
 INVERTED MOUNT



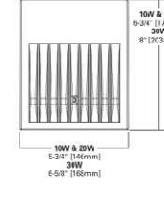
CERTIFICATION DATA
 AIA/CES Learning System
 IPED Program Participation Award
 ADA Compliant
 UL/ETL Listed
 IFC Compliant
 ASHRAE Compliant
 DALI Certified Models
 Lighting Field Approved
 Title 24 Compliant
 NOM Compliant Models

TECHNICAL DATA
 80°C Maximum Ambient Temperature
 External Supply Wiring 90°C Minimum
 EPA
 Effective Equivalent Area
 (See F1)
 XTOR2A, XTOR2A-N, XTOR2A-N-WT

SHIPPING DATA:
 Approximate Net Weight:
 37 - 5.25 lbs. [1.7 - 2.4kg.]

Published 1/16/12 01:04:48 © 2012-2011 Lighting Analysis, Inc. Calculations based on IESNA methods and recommendations. Results derived from current photometric files.

DIMENSIONS



ORDERING INFORMATION

SAMPLE NUMBER: XTOR2A-N-WT-PC1



STOCK ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A = 10W, 5000K, Carbon Bronze	XTOR2A = 20W, 5000K, Carbon Bronze	XTOR3A = 30W, 5000K, Carbon Bronze
XTOR1A-WT = 10W, 5000K, Summit White	XTOR2A-WT = 20W, 5000K, Summit White	XTOR3A-WT = 30W, 5000K, Summit White
XTOR1A-PC1 = 10W, 1000K, 120V PC, Carbon Bronze	XTOR2A-PC1 = 20W, 1000K, 120V PC, Carbon Bronze	XTOR3A-PC1 = 30W, 1000K, 120V PC, Carbon Bronze



5-DAY QUICK SHIP ORDERING INFORMATION

10W Series	20W Series	30W Series
XTOR1A-WT-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC2 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC2 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC1 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC1 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC1 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC2 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC3 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC3 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC3 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC4 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC4 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC4 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC5 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC5 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC5 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC6 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC6 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC6 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC7 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC7 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC8 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC9 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC9 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC9 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC10 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC10 = 30W, 5000K, Summit White, 120V PC
XTOR1A-PC10 = 10W, 5000K, Summit White, 120V PC	XTOR2A-PC11 = 20W, 5000K, Summit White, 120V PC	XTOR3A-PC11 = 30W, 5000K, Summit White, 120V PC

LUMENS - CRI / CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Ballastless Lumens	795	1590	1547	2248	1858
CCT (lm/w)	9000	8000	3500	3000	3500
Color Rendering Index (CRI)	83	87	85	80	84

CURRENT DRAW

	XTOR1A	XTOR2A	XTOR3A
120V	0.5A	1.0A	1.5A
277V	0.2A	0.5A	0.75A



Note: Specifications and dimensions subject to change without notice.
 Visit our web site at www.cooperlighting.com
 ADU111995 2/12/12 01:04:48



Date : 30 May 2012

Title : Fixture Type B Photometric Report

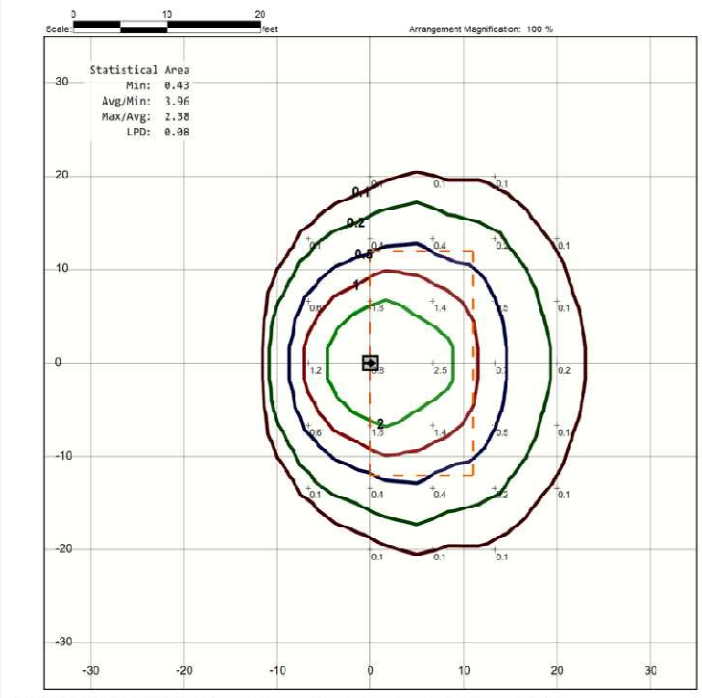
Desc : Enter the description here...

For : HVZ Animal Health Center
 By : Alvine Engineering

Luminaire

IES Filename : XTOR2A-N.ies
 Description : XTOR2A-N
 LUMARK CROSSTOUR LED WALL PACK - 20W - 3500K

Light Loss Factor: 1.00
 Number of Lamps: 1
 Lamp Lumens: -1 lm
 Luminaire Watts: 20 W



Photometric 1/16/12 01:04:48 © 2012-2011 Lighting Analysis, Inc. Calculations based on IESNA methods and recommendations. Results derived from current photometric files.



Henry Vilas Zoo Animal Health Center
 702 South Randall Ave
 Madison, Wisconsin

PRINTS ISSUED
 6/30/2012

WDM No. draw: JRA
12014 checked: GAN
 FIXTURE CUT SHEETS

E0.2



© copyright 2012 WDM ARCHITECTS P.A.