

2019 ICC A117.1: 2017

NFPA 20:

MEMORIAL STADIUM NORTH CONCOURSE VIDEO BOARD REPLACEMENT PROJECT NUMBER: CP241291

AT: UNIVERSITY OF MISSOURI - COLUMBIA, MISSOURI FOR: THE CURATORS OF THE UNIVERSITY OF MISSOURI ISSUE FOR BID: 03/22/2024

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PROJECT ADDRESS

Columbia, MO.

PROJECT DESCRIPTION

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	X						

Memorial Stadium, 1100 South Providence Road,

Removal of existing field-side video board, scoreboard and ribbon board; removal of existing street-side video board; selective demolition of existing audio system in accordance with new system; selective demolition of existing formed metal wall panels and associated trim.

New structural framing and catwalk at east and west ends of existing structure/catwalk for attachment of and access to new field-side and street-side video boards; modifications to audio system; covering of exposed structure/catwalk with formed metal wall panels matching existing; enclosing top of new structure with standing seam metal roof matching existing and bottom of new catwalk with bird control netting.

	CHECKED BY:
	DRAWN BY:
IEMORIAL STADIUM JONE COUNTY, MISSOURI 65211 JRSE VIDEO BOARD REPLACEMENT COVER SHEET	
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GENERAL NOTES:

- 1. All design, fabrication, installation and construction shall conform to the following specifications, unless specifically noted otherwise on the drawing:
- The 2021 International Building Code
- American Concrete Institute Building Code Requirements for Reinforced Concrete (318-19).
- American Institute of Steel Construction, Inc
- Manual of Steel Construction (360-16). American Welding Society ANSI/AWS D1.1 & D1.2
- Structural Welding Code Steel or Alum
- The Aluminum Association Design Manual, 2020 Edition.
- 2. All steel components shall be as listed below,
- unless noted otherwise: • All structural aluminum shall be 6061-T6, 6063-T5,
- 5052-H32, or equal.
- All rolled steel shapes, plates and bars shall be ASTM A36, or equal.
- All steel I-beams shall be ASTM A572, Grade 50, or ASTM A992, Grade 50, or equal.
- All steel structural tubing shall be ASTM A500, Grade C, or equal.
- Mechanical fasteners shall be installed
- according to manufacturers specifications. • Threaded rod for display attachment shall be
- ASTM A307, A36, Grade 2, or equal.
- All bolted connections shall be made with ASTM A325 Bolts, or equal.
- All stainless steel bolts shall be in accordance with AISI 304 or 316.
- All ferrous to non-ferrous materials shall be adequately separated to prevent corrosion.
- All exposed materials shall be properly protected
- from weathering and/or corrosion. 3. All field welds shall be made by a welder certified in the specified position.
- Steel welds shall be made with E70XX electrode, or equal.
- All welds shall be made in a sequence that will balance the applied heat of welding while the welding progresses.
- All aluminum welding shall be performed with 4043 or 5356 aluminum alloy.
- 4. The structure has been designed to support its own weight, the noted weights of the attached cabinets, and the loads listed below:
- 110 mph (3-sec gust) design wind speed with a design pressure of 42.9 psf according to ASCE 7-16. (Exposure C - Risk Cat. II)
- Seismic design was considered as per ASCE 7-16 assuming Sds=0.173, I=1.0 and Site Class D-default.
- 5. Cornerstone is in no way responsible for the safety of the work site during installation. The installer shall take appropriate measures to make sure that the erection of the structure is performed using methods in compliance with applicable OSHA regulations.
- 6. If existing and proposed conditions are not as detailed in this design drawing the installer shall cease work and notify Cornerstone immediately. Cornerstone will not be performing on-site inspections or verification of conditions. It is the responsibility of the installer, the structure
- owner, and the property owner to identify the on-site conditions and to contact Cornerstone with any discrepancies or concerns. 7. Any deviation from these plans or non-compliance
- with the general notes without written approval from Cornerstone will render the entire design certification to be void.

Sheet: 1 of 6

OF CORROSION, CRACKING OR OTHER DAMAGE AND THEN REPAIR, REPAINT, OR REPLACE DAMAGED COMPONENTS AS NEEDED. DO NOT REMOVE, CUT, OR NOTCH EXISTING COMPONENTS WITHOUT APPROVAL FROM CORNERSTONE AND DAKTRONICS. THE INSTALLER SHALL CAREFULLY INSPECT THE EXISTING BEAM SEAT/SADDLE/COLUMN CONNECTIONS AS DETAILED ON SHEET 3 OF D3053R AND CONFIRM THAT THESE

CONNECTIONS ARE FULLY WELDED AND INSTALLED AS ORIGINALLY DESIGNED AND

THE INSTALLER SHALL CONTACT CORNERSTONE AND DAKTRONICS WITH QUESTIONS, DISCREPANCIES, OR CONCERNS ABOUT THE EXISTING STRUCTURE.

BY THIS DRAWING, CORNERSTONE ENGINEERING, INC. IS RESPONSIBLE ONLY FOR THE STRUCTURAL DESIGN OF THE NEW SUPPORT FRAME COMPONENTS AND FOR THE DISPLAY ATTACHMENT AS SHOWN. THE INCREASE IN LOADS IMPARTED INTO THE EXISTING COLUMNS, FOUNDATIONS, AND SUPPORT FRAME BY THE PROPOSED NEW AND EXISTING DISPLAYS AND NEW SUPPORT FRAMES ARE WITHIN THE LIMITS FOR MODIFICATIONS AS PER THE INTERNATIONAL EXISTING BUILDING CODE. SEE EXISTING STRUCTURE NOTE. THE ELECTRICAL AND THE MECHANICAL PERFORMANCE OF THE SYSTEM IS THE RESPONSIBILITY OF OTHERS.

DAKTRONICS, INC. 201 Daktronics Dr - Brookings, SD 57006 Memorial Stadium North Concourse Video Board Replacement 600 E Stadium Blvd. - Columbia, Missouri Cornerstone ENGINEERING, INC. S 1020 William Blount Drive - Maryville, TN 37801 (865) 273-2688 - www.CornerstoneTN.com Project #: 240068 Dwg #: D7570R Date: 03/27/2024 MO P.E. # E-29952 Drawn By: Scale: 1/8"-1'-0"

RF

					MAIN	DISPLAY					
					DVX-2102-13	3HD-924X2128					
SECTION #	SECTION SIZE (HXW-MODS)	SECTION SIZE (HXW-PIXELS)	SECTION WEIGHT (LB)	SECTION #	SECTION SIZE (HXW-MODS)	SECTION SIZE (HXW-PIXELS)	SECTION WEIGHT (LB)	SECTION #	SECTION SIZE (HXW-MODS)	SECTION SIZE (HXW-PIXELS)	SECTIC WE I GHT
101	3X4	84X112	156	401	4X4	112X112	208	701	4X4	112X112	208
102	3X4	84X112	156	402	4X4	112X112	208	702	4X4	112X112	208
103	3X4	84X112	156	403	4X4	112X112	208	703	4X4	112X112	208
104	3X4	84X112	156	404	4X4	112X112	208	704	4X4	112X112	208
105	3X3	84X84	117	405	4X3	112X84	156	705	4X3	112X84	156
106	3X3	84X84	117	406	4X3	112X84	156	706	4X3	112X84	156
107	3X4	84X112	156	407	4X4	112X112	208	707	4X4	112X112	208
108	3X4	84X112	156	408	4X4	112X112	208	708	4X4	112X112	208
109	3X4	84X112	156	409	4X4	112X112	208	709	4X4	112X112	208
110	3X4	84X112	156	410	4X4	112X112	208	710	4X4	112X112	208
111	3X4	84X112	156	411	4X4	112X112	208	711	4X4	112X112	208
112	3X4	84X112	156	412	4X4	112X112	208	712	4X4	112X112	208
113	3X4	84X112	156	413	4X4	112X112	208	713	4X4	112X112	208
114	3X4	84X112	156	414	4X4	112X112	208	714	4X4	112X112	208
115	3X3	84X84	117	415	4X3	112X84	156	715	4X3	112X84	156
116	3X3	84X84	117	416	4X3	112X84	156	716	4X3	112X84	156
117	3X4	84X112	156	417	4X4	112X112	208	717	4X4	112X112	208
118	3X4	84X112	156	418	4X4	112X112	208	718	4X4	112X112	208
119	3X4	84X112	156	419	4X4	112X112	208	719	4X4	112X112	208
120	3X4	84X112	156	420	4X4	112X112	208	720	4X4	112X112	208
201	3X4	84X112	156	501	4X4	112X112	208	801	4X4	112X112	208
202	3X4	84X112	156	502	4X4	112X112	208	802	4X4	112X112	208
203	3X4	84X112	156	503	4x4	112X112	208	803	4X4	112X112	208
204	384	84X112	117	504	4X4	112X112	208	804	4X4	112X112	208
205	3X3	84X84	117	505	4X3	112X84	156	805	4X3	112X84	156
206	3X3	84X84	117	506	4×3	112X84	208	806	4X3	112X84	150
207	384	84X112	156	507	4×4	112X112	208	807	4X4	112X112	208
208	384	04X112 94X112	156	508	484	112X112	208	808	4×4	112X112	200
209	374	84V112	156	510	4,4	112X112	200	810	4,4	112X112	200
210	384	84X112	156	510	4×4	112X112	208	811	4X4	112X112	200
217	384	84X112	156	512	4X4	112X112	208	812		112X112	200
212	3X4	84X112	156	513	4×4	112X112	208	813	4×4	112X112	208
214	3X4	84X112	156	514	4X4	112X112	208	814	4X4	112X112	208
215	3X3	84X84	117	515	4X3	112X84	156	815	4X3	112X84	156
216	3X3	84X84	117	516	4X3	112X84	156	816	4X3	112X84	156
217	3X4	84X112	156	517	4X4	112X112	208	817	4X4	112X112	208
218	3X4	84X112	156	518	4X4	112X112	208	818	4X4	112X112	208
219	3X4	84X112	156	519	4X4	112X112	208	819	4X4	112X112	208
220	3X4	84X112	156	520	4X4	112X112	208	820	4X4	112X112	208
301	3X4	84X112	156	601	4X4	112X112	208	901	4X4	112X112	208
302	3X4	84X112	156	602	4X4	112X112	208	902	4X4	112X112	208
303	3X4	84X112	156	603	4X4	112X112	208	903	4X4	112X112	208
304	3X4	84X112	156	604	4X4	112X112	208	904	4X4	112X112	208
305	3X3	84X84	117	605	4X3	112X84	156	905	4X3	112X84	156
306	3X3	84X84	117	606	4X3	112X84	156	906	4X3	112X84	156
307	3X4	84X112	156	607	4X4	112X112	208	907	4X4	112X112	208
308	3X4	84X112	156	608	4X4	112X112	208	908	4X4	112X112	208
309	3X4	84X112	156	609	4X4	112X112	208	909	4X4	112X112	208
310	3X4	84X112	156	610	4X4	112X112	208	910	4X4	112X112	208
311	3X4	84X112	156	611	4X4	112X112	208	911	4X4	112X112	208
312	3X4	84X112	156	612	4X4	112X112	208	912	4X4	112X112	208
313	3X4	84X112	156	613	4X4	112X112	208	913	4X4	112X112	208
314	3X4	84X112	156	614	4X4	112X112	208	914	4X4	112X112	208
315	3X3	84X84	117	615	4X3	112X84	156	915	4X3	112X84	156
316	3X3	84X84	117	616	4X3	112X84	156	916	4X3	112X84	156
317	3X4	84X112	156	617	4X4	112X112	208	917	4X4	112X112	208
318	3X4	84X112	156	618	4X4	112X112	208	918	4X4	112X112	208
319	3X4	84X112	156	619	4X4	112X112	208	919	4X4	112X112	208
320	3X4	84X112	156	620	4X4	112X112	208	920	4X4	112X112	208

L	DVX-2102-13HD-924X2128 TOTALS				
	# OF SECTIONS	DISPLAY SIZE (HXW-MODS)	DISPLAY SIZE (HXW-PIXELS)	TOTAL WEIGHT (LB)	
l	180	33X76	924X2128	32604	

ATTACHMENTS ALONG HORIZONTAL SEAMS WILL SHARE MTG BRACKETS WITH ADJACENT SECTIONS ABOVE AND BELOW AND SHOWN IN DETAIL D. DISPLAY MTG BRACKETS ALONG THE TOP AND BOTTOM OF THE OVERALL DISPLAY WILL ATTACH TO THE REAR OF THE DISPLAY CABINET WITH ONE BOLT AND TO THE SIDE OF THE VERT TUBE WITH TWO SCREWS IN THE HOLES NEAREST THE BOLT. DISPLAY CABINETS SHALL BE NEAR TO FLUSH AGAINST THE FACE OF THE VERT TUBE WITH A MAXIMUM GAP OF 1" BETWEEN THE REAR OF THE DISPLAY AND THE HSS VERT.

REAR BILLBOARD DISPLAY					
	DVX-2102-13	3HD-336X1092			
SECTION #	SECTION SIZE (HXW-MODS)	SECTION SIZE (HXW-PIXELS)	SECTION WE I GHT (LB)		
101	4X3	112X84	156		
102	4X4	112X112	208		
103	4X4	112X112	208		
104	4X3	112X84	156		
105	4X4	112X112	208		
106	4X3	112X84	156		
107	4X4	112X112	208		
108	4X3	112X84	156		
109	4X4	112X112	208		
110	4X4	112X112	208		
111	4X3	112X84	156		
201	4X3	112X84	156		
202	4X4	112X112	208		
203	4X4	112X112	208		
204	4X3	112X84	156		
205	4X4	112X112	208		
206	4X3	112X84	156		
207	4X4	112X112	208		
208	4X3	112X84	156		
209	4X4	112X112	208		
210	4X4	112X112	208		
211	4X3	112X84	156		
301	4X3	112X84	156		
302	4X4	112X112	208		
303	4X4	112X112	208		
304	4X3	112X84	156		
305	4X4	112X112	208		
306	4X3	112X84	156		
307	4X4	112X112	208		
308	4X3	112X84	156		
309	4X4	112X112	208		
310	4X4	112X112	208		
311	4X3	112X84	156		

	DVX-2102-13HD-	336X1092 TOTALS	
# OF SECT I ONS	DISPLAY SIZE (HXW-MODS)	DISPLAY SIZE (HXW-PIXELS)	TOTAL WE I GHT (LB)
33	12X39	336X1092	6084

CLOSED CAPTIONING DISPLAY					
DVX-2102-13HD-84X812					
SECTION #	SECTION SIZE (HXW-MODS)	SECTION SIZE (HXW-PIXELS)	SECTION WE I GHT (LB)		
101	3X3	84X84	117		
102	3X4	84X112	156		
103	3X3	84X84	117		
104	3X3	84X84	117		
105	3X3	84X84	117		
106	3X3	84X84	117		
107	3X3	84X84	117		
108	3X4	84X112	156		
109	3X3	84X84	117		
DVX-2102-13HD-84X812 TOTALS					

	BIX EIGE ISHB		
# OF SECT I ONS	DISPLAY SIZE (HXW-MODS)	DISPLAY SIZE (HXW-PIXELS)	TOTAL WE I GHT (LB)
9	3X29	84X812	1131



TYPICAL DVX DISPLAY ATTACHMENT DETAIL D ISOMETRIC VIEW



3X3 MOD ELEVATION VIEW



4X4 MOD ELEVATION VIEW 3/8"=1"-0"





NEW END FRAME ELEVATION VIEW 3/16"=1'-0'

<u>NEW KICKER NOTE:</u> AT EACH OF THE FOUR COLUMNS FOR THE SADDLE/BEAM SEAT/COLUMN CONNECTIONS ON LEVEL 1, TWO NEW HSS4X4X3/8 STEEL VERTICAL KICKERS SHALL BE INSTALLED AS SHOWN BELOW. THE KICKERS SHALL BE ALIGNED SO THAT THE TOP OF THE TUBE IS FLUSH AGAINST THE FRONT OF THE 48" arnothing pipe and the BOTTOM OF THE TUBE IS FLUSH AGAINST THE TOP OF THE FRONT HSS6X6 STRINGER. EACH END OF THE KICKER SHALL BE MITERED, MOON CUT, AND/OR NOTCHED AS NEEDED TO FIT SNUGLY AND THEN WELDED ALL AROUND AS SHOWN. THE LOCATION OF THE KICKERS SHALL BE FIELD ADJUSTED TO AVOID THE EXISTING VERTICAL MEMBERS AND THE NEW DISPLAY VERTICALS AND THEIR MOUNTING ANGLES. THE INSTALLER SHALL CONTACT CORNERSTONE AND DAKTRONICS WITH QUESTIONS, DISCREPANCIES, OR CONCERNS ABOUT THESE CONNECTIONS.

3/

8'-6

10--8 9/16

(SIMILAR 4 PLACES - LEVEL 1 ONLY) LEVEL 1 SADDLE NEW REINFORCEMENT DETAIL

THE NEW LEFT AND RIGHT END FRAMES SHALL BE LIFTED IN PLACE SO THAT EACH OF THE SIX LEVELS ON THE NEW FRAMES ALIGN VERTICALLY AND HORIZONTALLY WITH THE EXISTING STEEL PLATFORMS. THE INSTALLER SHALL CONFIRM THAT THE NEW FRAMES ARE FLUSH AND IN CONTACT WITH THE EXISTING END HORZ HSS ACROSS THE WIDTH OF THE FRAME. THE NEW AND EXISTING FRAMES SHALL BE WELDED TOP AND BOTTOM AS SHOWN ALONG THE SEAM. THE INSTALLER SHALL CONTACT CORNERSTONE AND DAKTRONICS WITH QUESTIONS, DISCREPANCIES, OR CONCERNS ABOUT THESE CONNECTIONS.

MO P.E. # E-29952

Drawn By:

RF

Scale: 1/8"-1'-0"

S4 Date: 03/27/2024 Sheet: 4 of 6

MO P.E. # E-29952

Drawn By:

RF

Scale: 1/8"-1'-0"

Sheet: 5 of 6

ING		BOXES, LIC	GHTING CONTROL & WIRING DEVICES	ELECTRICA	L ONE-LINE & RIS	ER DIAGRAM
			SWITCH LETTER DESIGNATIONS AS FOLLOWS: BLANK = SINGLE POLE	##A 3P	SWITCH (RATING AS IND	ICATED)
	 a - LOWER CASE LETTER IS SWITCH IDENTIFIER A = UPPER CASE LETTER INDICATES LIGHT FIXTURE TYPE 		2 = TWO POLE 3 = THREE-WAY 4 = FOUR-WAY	,	DRAWOUT CIRCUIT BRE/	AKER (RATINGS AS INDICATED)
Ю	L = WALL MOUNT	\$ [#]	D = DIMMER F = FAN SPEED CONTROL FH = FRACTIONAL HORSEPOWER MANUAL CONTROLLER	₩#AS 3P ##AF	FUSED SWITCH (RATING	, POLES AND FUSE TYPE AS INDIC
	= ARROW INDICATES AIMING DIRECTION		IH = INTEGRAL HORSEPOWER MANUAL CONTROLLER K = KEYED V# = I OW VOLTAGE / DIGITAL		COMBINATION FUSED SV	WITCH/STARTER AND STARTER SI
	LIGHT FIXTURE CIRCUITED AS A NIGHT LIGHT (NL)		M = MANUAL MOTOR STARTER DISCONNECT OS# = OCCUPANCY SENSOR		CIRCUIT BREAKER (RATI	NGS AS INDICATED)
	EMERGENCY LIGHT FIXTURE WITH EMERGENCY LIGHTING BATTERY		P = SPST PILOT LIGHT WP = WEATHER PROOF # = REFER TO LIGHTING CONTROL DEVICE SCHEDULE			
	NIGHT LIGHT/EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY	ALC	AUTOMATIC LOAD CONTROL RELAY	<u> </u>	COMBINATION CIRCUITE	DREARER/STARTER AND STARTER
	PACK OR CONNECTED TO EMERGENCY SOURCE	BTS			PANELBOARD, SINGLE O	R MULTI-SECTION (REFER TO SCI
	(SHADING IMPLIES EMERGENCY LIGHT FIXTURE)		(# INDICATES TYPE PER SCHEDULE)		ISOLATED POWER PANE (REFER TO SCHEDULES)	LBOARD W/ INTEGRAL TRANSFOR
00	MIRROR LIGHTS		ONE-DIRECTION SENSING, CEILING/WALL MOUNT CEILING MOUNT, TWO-DIRECTION SENSING		TRANSFORMER (TYPE A	ND RATINGS AS INDICATED)
ᠳ	EXTERIOR PARKING LOT LIGHT FIXTURE	C #	CEILING MOUNT, FOUR-DIRECTION SENSING			
0	EXTERIOR PEDESTRIAN POST TOP LIGHT FIXTURE				SHIELDED TRANSFORME	ER (TYPE AND RATINGS AS INDICA
ً⊗	EXIT SIGN - CEILING / WALL MOUNTED, ARROWS AS INDICATED, FACE HATCHED		DAYLIGHT SENSOR (# INDICATES TYPE PER SCHEDULE)		AUTOMATIC TRANSFER	SWITCH (RATINGS AS INDICATED)
€	EMERGENCY LIGHTING UNIT EQUIPMENT WITH BATTERY PACK -		LIGHTING CONTROLS PROCESSOR AND/OR EQUIPMENT		AUTOMATIC TRANSFER	SWITCH WITH BYPASS (RATINGS /
	AFEA (AREA FOR EVACUATION ASSISTANCE) SIGN - CEILING/WALL	(P#) (PS#)	POWER PACK (# INDICATES TYPE PER SCHEDULE) PHOTOELECTRIC SWITCH		INDICATED)	
—	MOUNTED, ARROWS AS INDICATED	R##	ROOM CONTROLLER (# INDICATES TYPE PER SCHEDULE)	## KW GENERATOR 480Y/277V, 30, 4W	GENERATOR (RATINGS A	AS INDICATED)
					INDICATES C	ONNECTION TO GROUNDING ELE
	ELECTRICAL PANELBOARD (SURFACE OR FLUSH MOUNT)	ц ф	SIMPLEX RECEPTACLE - NEMA 5-20R, UNO	MDD	SYSTEM IF G SEPARATELY	ENERATOR IS CONNECTED AS A / DERIVED SOURCE
	ELECTRICAL CABINET (SURFACE OR FLUSH MOUNT), TYPE AS NOTED	₩	DOUBLE DUPLEX RECEPTACLE - NEMA 5-20R, UNO		/ 30/4W SWITCHGEA	R, SWITCHBOARD AND/OR DISTRI
	PLYWOOD TERMINAL BOARD FOR TELEPHONE SYSTEM, UNO. SIZE AS NOTED		SPECIAL RECEPTACLE - NEMA TYPE AS NOTED	<u> </u>	PANELBOARI ACCESSORIE	D (TYPE, RATING, DEVICES AND ES AS INDICATED)
	SWITCHBOARD OR MOTOR CONTROL CENTER ON HOUSEKEEPING PAD	↓ ¢	TWIST-LOCK TYPE RECEPTACLE BLANK FACE GFCI FEED THROUGH DEVICE	DIGITAL VM AM	COMBINATION DIGITAL V	OLT METER/AMMETER
	ELECTRICAL DISTRIBUTION PANELBOARD		FCI GFCI TYPE RECEPTACLE*			I (REFER TO CIRCUIT SCHEDULE)
/150/3R	DISCONNECT SWITCH - "200/3/150/3R" DENOTES AMPERES/POLE/EUSE/NEMA ENCLOSURE RATING, NE= NON-EUSED.		ISOLATED GROUND TYPE RECEPTACLE*	PFR	GROUND FAULT RELAY	
	CB= CIRCUIT BREAKER (200/3/CB), NO VALUE (200/3/150) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 RATING	₩	RECEPTACLE INSTALLED ABOVE COUNTER OR BACKSPLASH*	КК#	KIRK-KEY INTERLOCK (#	INDICATES KEY PAIR)
15/1/3R	COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER "30/3/15/1/3R" DENOTES AMPERES/POLE/FUSE/NEMA STARTER	¢	RECEPTACLE INSTALLED IN CEILING*	ST	SHUNT TRIP	
\mathbf{X}	SIZE/NEMA ENCLOSURE RATING. NF= NON-FUSED, CB= CIRCUIT BREAKER (30/3/CB/1), NO VALUE (200/3/150/1) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 ENCLOSURE RATING			XM VM	VOLTMETER (RANGE AS S	SPECIFIED OR REQUIRED)
2	MAGNETIC MOTOR STARTER, NEMA SIZE AS NOTED. 3-POLE, UNO	₩ ¥	ADDITIONAL RECEPTACLE LETTER DESIGNATIONS AS FOLLOWS:		UTILITY METER (AS REQ	UIRED BY UTILITY)
FD			C = AUTOMATICALLY CONTROLLED CH = CLOCK HANGER TYPE G = RCPT PROTECTED BY GFCI CIRCUIT BREAKER OR UPSTREAM	(AS) (VS)	AMMETER SWITCH	
-⊙ ਨ	INDICATING LIGHT EMERGENCY POWER OFF BUTTON		GFCI DEVICE H = HORIZONTALLY MOUNTED S = MANUALLY SWITCHED		WATT-HOUR METER, "D"	DENOTES DEMAND REGISTER, "1
	STOP-START PUSH BUTTON CONTROL STATION		SP / TVSS = SURGE PROTECTION TR = TAMPER RESISTANT		CURRENT TRANSFORME	DEMAND IN LERVAL R RATING AS SPECIFIED OR REQ
••	HAND-OFF-AUTO PUSH BUTTON CONTROL STATION		TV = TELEVISION USB = USB/DUPLEX WP = WEATHER PROOF COVER		POTENTIAL TRANSFORM	ER RATING AS SPECIFIED OR REC
	OVERHEAD PADDLE FAN	<u></u>	WR = WEATHER RESISTANT MULT-OUTLET ASSEMBLY	SPD	SURGE-PROTECTIVE DE	VICE
0			TELEPHONE OUTLET		GROUND CONNECTION	WITH TEST WELL
			DATA OUTLET		GROUND ROD	
			MULTI-SERVICE OUTLET; TELEPHONE AND DATA		LIGHTNING ARRESTER	
			WALL, TYP FLOOR, TYP	$= \neq$	CONTACT (OPEN OR CLO	DSED)
			MULTI-SERVICE POWER POLE WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND		HEATER	
		A	SPECIFICATIONS MULTI-SERVICE FLOOR BOX WITH TELEPHONE, DATA AND POWER		MOTOR BLOCK LOAD KW OR KVA	Α
			OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS	► F# × FP [‡]	FAULT POINT REFERENCE	ED IN SHORT CIRCUIT CURRENT
		$\odot^{\scriptscriptstyle A}$	POKE THROUGH, A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS		VOLTAGE DROP SPREAL	JSHEET
			THERMOSTAT			
			CEILING/FLOOR MOUNT JUNCTION/OUTLET BOX			
				CALL OUTS		
				ENLARGED PLA	N GALLOUT	
		* SYMBOL DEM	IONSTRATED WITH DUPLEX RECEPTACLE, WHEN USED IN COMBINATION			
		WITH OTHER REFER TO LIGHT	DEVICES MEANING IS SIMILAR FOR THOSE DEVICE TYPES. NG CONTROL DEVICE SCHEDULE FOR MORE INFORMATION.	NUT IN SCOPE		

V3.01	LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS AND LOCAL REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.	1801 MAIN STREET, SUITE 300 KANSAS CITY, MO 64108 TEL 816.663.8700 FAX 816.663.8701
1	ELECTRICAL CODE: 2020 NATIONAL ELECTRICAL CODE, (NFPA 70)	WWW.HENDERSONENGINEERS.COM 2350004894
	BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE ENERGY CODE: 2019 ASHRAE 90.1, WITH LOCAL AMENDMENTS	MO. CORPORATE NUMBER: E-556D 10/31/24
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ND STARTER SIZE		MULVANY
EFER TO SCHEDULES)		RE 2013039892
L TRANSFORMER		TE-201500000000000000000000000000000000000
CATED)		ANDREA C. MULVANY
GS AS INDICATED)		LICENSE # PE-2013039892
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HENDERSON

ENGINEERS

1801 MAIN STREET, SUITE 300

APPLICABLE ELECTRICAL CODES:

NOTE: PROJECT IS DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES. THIS IS NOT AN EXHAUSTIVE

ELECTRIC UTILITY CONTACT NOTE:

UTILITY COMPANY: UNIVERSITY OF MISSOURI UTILITY CONTACT: MU ENERGY MANAGEMENT PHONE: (573) 882-3094

FOLLOWING:

ARC FLASH GENERAL NOTE:

FEEDER SCHEDULE: SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNO. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE, AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNO. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNO. CONDUIT SIZES FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

104	100A, (4)#3, (1)#8G, 1
E124	EXISTING 125A, (4)# ⁻
E204	EXISTING 200A, (4)#3
E804	EXISTING 800A, (3) 3

<u>\ONE-LINE DIAGRAM</u>

2

PNLBD

ELEC	TRICAL	_/SYSTEM	
SHE	ET NO.	DRAWING NO.	TI
200		5381137	RI
201		5381138	RI

	SIGNAL DISTRIBUTION SYSTEM LEGEND											
			DAKTRONICS	CONDUIT PROVIDED		CABLE						
ID TAG	CABLE TIFE	512L (0.D.)	PART NUMBER	& INSTALLED BY	PROVIDED BY	INSTALLED BY	TERMINATED BY					
А	12 STRAND, MM 50µm DX FIBER -P	0.23"	W-1490	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
В	NOT USED	-	-	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
С	6 STRAND, MM 50µm DX FIBER -P	0.20"	W-1489	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
D	6 STRAND, SM DX FIBER -P	0.25"	W-2515	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
E	4 STRAND, MM 50µm DX FIBER -P	0.18"	W-2121	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
F	4 STRAND, MM 50µm BX FIBER -NP	0.31"	W-1494	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
G	2 STRAND, MM 50µm DX FIBER -P	0.17"	W-2120	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
н	6 STRAND, MM 62.5µm DX FIBER -P	0.22"	W-1456	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
J	6 PAIR, 22 AWG W/SHIELD	0.362"	W-1245	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
к	6 PAIR, 22 AWG PLENUM	0.30"	W-2035	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
L	2 PAIR, 22 AWG W/SHIELD	0.168"	W-1234	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
М	2 PAIR, 22 AWG PLENUM	0.14"	W-2034	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
N	NOT USED	-	-	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
Р	1 PAIR, 18 AWG W/SHIELD	0.162"	W-1117	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
R	2 PAIR, 18 AWG W/SHIELD	0.38"	W-1852	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
S	4 PAIR, 24 AWG CAT5E	0.21"	W-1384	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
Т	4 PAIR, 24 AWG CAT6 SHIELDED	0.26"	W-4143151	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
U	1 PAIR 22 AWG W/SHIELD	0.138"	W-1077	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
AA-Z	AUDIO W OR PR CABLES	-	W OR PR	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					
XA-Z	OTHER W OR PR CABLES	-	W OR PR	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS					

-P = PLENUM -NP = NON PLENUM

RS+GND ATION TY	PE)	
ES		
PPER SND /IRE \WG	MIN. CONDUIT SIZE	(PF /
14	1/2"	
12	1/2"	
10	1/2"	
10	1/2"	
10	1/2"	
10	1/2"	
10	1/2"	
10	1/2"	
10	3/4"	
8	3/4"	
8	3/4"	
8	1"	
8	1"	
6	1"	
6	1 1/4"	
6	1 1/4"	
6	1 1/4"	
6	1 1/2"	

(SEE SPECIFICATIONS FOR INSULATION TYPE)								
		2	WIRES					
CURRENT PROTECTION AMPACITY	FDR REF	COPPER WIRE AWG- KCMIL	COPPER GND WIRE AWG	MIN. CONDUIT SIZE				
15	A15	(2)14	14	1/2"				
20	A20	(2)12	12	1/2"				
25	A25	(2)10	10	1/2"				
30	A30	(2)10	10	1/2"				
35	A35	(2)8	10	1/2"				
40	A40	(2)8	10	1/2"				
45	A45	(2)8	10	1/2"				
50	A50	(2)8	10	1/2"				
60	A60	(2)6	10	3/4"				
70	A70	(2)4	8	3/4"				
80	A80	(2)4	8	3/4"				
90	A90	(2)3	8	1"				
100	A100	(2)3	8	1"				
110	A110	(2)2	6	1"				
125	A125	(2)1	6	1 1/4"				
150	A150	(2)1/0	6	1 1/4"				
175	A175	(2)2/0	6	1 1/4"				
200	A200	(2)3/0	6	1 1/2"				
	7ES APE							
		IVITINITY OTVI, IN						

FEEDER TABLE - 2 CONDUCTORS+GND

DIFFICULT RUNS. B. ABOVE 86 F AMBIENT INCREASE WIRE SIZE PER NEC.

- CONDUIT AND CONDUCTOR SIZES ARE BASED ON 90° C. TYPE THHN COPPER CURRENT CARRYING CONDUCTORS IN SCH. 40 PVC CONDUIT, TERMINATING TO 75°C TERMINALS. CONDUIT AND CONDUCTOR SIZES MAY NEED TO BE INCREASED PER LOCAL AND NATIONAL ELECTRIC CODES IF OTHER CONDUCTOR OR CONDUIT TYPES ARE USED.
- IF WIRE OR CONDUIT SIZES OTHER THAN THOSE SHOWN D. IN THESE CHARTS ARE TO BE USED, CONTACT A DAKTRONICS ELECTRICAL ENGINEERING REPRESENTATIVE.

NOTE: ALL FIBER TERMINATIONS TO BE DESIGNATED BY TEXT IN UPPER RIGHT CORNER OF DEVICES. DAKTRONICS USES ST AND LC TERMINATIONS THROUGHOUT THE SYSTEM. DESIGNATION IS FOR ALL TERMINATIONS LOCATED AT EACH DEVICE.

EXAMPLE: ST (OR LC) DEVICE

TITLE RISER; 200; ELECTRICAL NOTES AND INDEX RISER; 201; DVX-2102-13HD MAIN VIDEO

POWER DISTRIBUTION SYSTEM LEGEND FEEDER TABLE - 3 CONDUCTORS+GND

(SEE SPECIFICATIONS FOR INSULATION TYPE)								
	3 WIRES							
CURRENT PROTECTION AMPACITY	FDR REF	COPPER WIRE AWG- KCMIL	COPPER GND WIRE AWG	MIN. CONDUIT SIZE				
15	B15	(3)14	14	1/2"				
20	B20	(3)12	12	1/2"				
25	B25	(3)10	10	1/2"				
30	B30	(3)10	10	1/2"				
35	B35	(3)8	10	3/4"				
40	B40	(3)8	10	3/4"				
45	B45	(3)8	10	3/4"				
50	B50	(3)8	10	3/4"				
60	B60	(3)6	10	3/4"				
70	B70	(3)4	8	1"				
80	B80	(3)4	8	1"				
90	B90	(3)3	8	1"				
100	B100	(3)3	8	1"				
110	B110	(3)2	6	1 1/4"				
125	B125	(3)1	6	1 1/4"				
150	B150	(3)1/0	6	1 1/2"				
175	B175	(3)2/0	6	1 1/2"				
200	B200	(3)3/0	6	2"				
225	B225	(3)4/0	4	2"				
250	B250	(3)250	4	2"				
300	B300	(3)350	4	2 1/2"				
350	B350	(3)400	3	2 1/2"				
400	B400	(3)600	3	3"				

FEEDER TABLE - 4 CONDUCTORS+GND (SEE SPECIFICATIONS FOR INSULATION TYPE)									
OVER		4	WIRES						
CURRENT PROTECTION AMPACITY	FDR REF	COPPER WIRE AWG- KCMIL	COPPER GND WIRE AWG	MIN. CONDUIT SIZE					
15	C15	(4)14	14	1/2"					
20	C20	(4)12	12	1/2"					
25	C25	(4)10	10	1/2"					
30	C30	(4)10	10	1/2"					
35	C35	(4)8	10	3/4"					
40	C40	(4)8	10	3/4"					
45	C45	(4)8	10	3/4"					
50	C50	(4)8	10	3/4"					
60	C60	(4)6	10	1"					
70	C70	(4)4	8	1 1/4"					
80	C80	(4)4	8	1 1/4"					
90	C90	(4)3	8	1 1/4"					
100	C100	(4)3	8	1 1/4"					
110	C110	(4)2	6	1 1/4"					
125	C125	(4)1	6	1 1/2"					
150	C150	(4)1/0	6	1 1/2"					
175	C175	(4)2/0	6	2"					
200	C200	(4)3/0	6	2"					
225	C225	(4)4/0	4	2 1/2"					
250	C250	(4)250	4	2 1/2"					
300	C300	(4)350	4	3"					
350	C350	(4)400	3	3"					
400	C400	(4)600	3	3 1/2"					
450	C450	(8)4/0	(2)2	(2) 2 1/2"					
500	C500	(8)250	(2)2	(2) 2 1/2"					
600	C600	(8)350	(2)1	(2) 3"					
800	C800	(8)600	(2)1/0	(2) 3 1/2"					
1000	C1000	(16)250	(4)2/0	(4) 2 1/2"					
1200	C1200	(12)600	(3)3/0	(3) 3 1/2"					
1600	C1600	(16)600	(4)4/0	(4) 3 1/2"					
2000	C2000	(20)600	(5)250	(5) 3 1/2"					
2500	C2500	(40)250	(10)350	(10)3"					
3000	C3000	(48)250	(12)400	(12)3"					
4000	C4000	(40)600	(10)500	(10) 4"					

BE CONTACTED. OVERSIZED. UL 489 LISTED.

NOTES:

THE CONTRACTUAL AGREEMENT WILL DETERMINE THE PARTY OR PARTIES RESPONSIBLE FOR ITEMS LISTED AS FIELD INSTALLED. THIS DRAWING IS NOT INTENDED TO DETERMINE RESPONSIBILITIES AND SHOULD BE USED FOR REFERENCES ONLY.

U OF MISSOURI MEMORIAL STADIUM

MEMORIAL STADIUM 600 E STADIUM BLVD COLUMBIA, MO 65201

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

DATE:

SUBMITTAL APPROVAL

COMPANY:

SIGNED:

TITLE:

THE FOLLOWING 200 SERIES ARE NOT SCALED DRAWINGS AND SHOULD BE USED FOR POWER AND SIGNAL REQUIREMENTS ONLY.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES. ALL SIGNAL CABLE RUNS SHOULD BE LABELED WITH THEIR ORIGIN AND DESTINATION ON EACH END.

FIBER OPTIC CABLE RUNS MUST BE CONTINUOUS WITH A MINIMUM BEND RADIUS OF 15XO.D. OF THE FIBER CABLE.

IF A SHIELDED SIGNAL CABLE IS UTILIZED IN YOUR SYSTEM, ENSURE THAT THE CABLES SHIELD IS GROUNDED ON THE DISPLAY END ONLY, AND TO THE SHIELD TERMINAL AT THE SIGNAL CABLE SURGE ARRESTER CARD WHEN AVAILABLE.

ALL DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE.

THE OVER CURRENT PROTECTION DEVICE MUST BE MATCHED TO THE FAULT CURRENT THAT IS AVAILABLE IN THE POWER DELIVERY CIRCUIT. TO DETERMINE THE AVAILABLE FAULT CURRENT OF A SITE, AN ONSITE FAULT CURRENT SURVEY MAY NEED TO BE PERFORMED BY QUALIFIED PERSONNEL. IF THE AVAILABLE FAULT CURRENT IN THE ELECTRICAL SYSTEM EXCEEDS 10,000 AMPS, A DAKTRONICS REPRESENTATIVE SHOULD

DUE TO THE INRUSH CURRENT (MOMENTARY SURGE) CREATED BY THE DISPLAY EQUIPMENT ON STARTUP, THE OVER CURRENT PROTECTION DEVICE(S) MAY HAVE TO BE

DAKTRONICS UTILIZES BOTH STANDARD AND SUPPLEMENTARY CIRCUIT BREAKERS IN THE DISPLAY ASSEMBLY PROCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT ALL PRIMARY FEEDER CIRCUIT BREAKERS TO EACH DISPLAY/DISPLAY SECTION ARE

DAKTRONICS IS NOT RESPONSIBLE FOR THE QUALITY OF THE POWER DELIVERY SYSTEM TO THE DISPLAY SYSTEM.

BECAUSE EACH INSTALLATION IS UNIQUE, DAKTRONICS OFFERS THESE INSTRUCTIONS AS GUIDELINES ONLY. DAKTRONICS, INC. ASSUMES NO LIABILITY IF INSTALLATION STEPS HAVE BEEN OMITTED OR OTHER NECESSARY PROCEDURES ARE NOT INCLUDED IN THIS SYSTEM RISER DIAGRAM.

POWER AND SIGNAL REQUIREMENTS ARE SPECIFIED TO THE EQUIPMENT AND SETUP SHOWN. ANY CHANGES MADE TO EQUIPMENT OR THEIR SETUP SHOULD BE DISCUSSED WITH DAKTRONICS DESIGN PERSONNEL AND WILL REQUIRE AN UPDATED RISER DIAGRAM DRAWING.

ACTUAL PLACEMENT OF ELECTRICAL COMPONENTS, SUCH AS PANEL BOARDS, A/C'S, AND SPLICE PANELS, MAY VARY. LOCATION OF SUCH EQUIPMENT TO BE FIELD VERIFIED.

_____ EXTERNALLY MOUNTED HARDWARE ---- INTERNALLY MOUNTED HARDWARE

DAKTR		TS EXPRESSED AND D IDENTIAL AND PROPRIE ANS WITHOUT THE EXP ONICS, INC. OR ITS WHO COPYRIGHT 2023 DAK	ETAILS SHOWN ON THIS ETARY. DO NOT REPRO RESS WRITTEN CONSE DLLY OWNED SUBSIDIA TRONICS, INC. (USA)	S DRAWING DUCE BY INT OF RIES.	THIRD ANGLE PRO	JECTION
PROJECT:	U OF MISSOUR	I MEMORIAL	STADIUM			
TITLE:	RISER; 200; ELI	ECTRICAL NO	TES AND IND	EX		
DATE:	22 DEC 23	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV
SCALE:	NONE	DO NOT S	SCALE DRAW	ING	V200	Α
DESIGN:		JOB NO.	FUNC - TYPE - SIZE	L	20011	70
DRAWN:	APAGE	C32591	F - 01 - D	,	00011	57

MAIN VIDEO DVX-2102-13HD-7500-C-924X2128-230BR-LT-MR

CAPTIONING DVX-2102-13HD-7500-C-84X812-230BR-LT-MR

INSTALLERS NOTE: AC POWER WIRING INSTALLED FROM THE FACTORY FOR RIGHT TO LEFT HORIZONTAL SECTION INTERCONNECTION (VIEWED FROM THE REAR). A RECONFIGURATION OF INTERNAL AC HARNESSING WILL BE REQUIRED FOR VERTICAL POWER INTERCONNECTION. THE LEFT TO RIGHT CONFIGURATION ALSO REQUIRES A W-2561 PER J-BOX. THIS SHOULD BE DONE THROUGH THE REAR DOORS BEFORE SECTION INSTALLATION.

PANEL:	CRP1	I_1	SEF	RVIO	CE:	208	Y/1	20_V		_3	PH	_	4+GND_W
CIRCUIT	AN	/IP LO	AD	В	RKR	C۲	KT.	BRK	٦	AN	IP LO	AD	CIRCUIT
	А	В	С	Ρ	AMP	N	0.	AMP	Ρ	А	В	С	CIRCUIT
JBOX1 1	10.6			2	20	1	2	20	2	12.4			JBOX1 31
		10.6				3	4	-			12.4		
JBOX1_2			10.6	2	20	5	6	20	2			12.4	JBOX1_32
	10.6	10.6				/	8			12.4	12 4		
JBOX1_3			10.6	2	20	9 11	10	20	2		12.4	12.4	JBOX1_33
	14.2					13	14			12.4			
JBOX1_4	////	14.2		2	20	15	16	20	2		12.4		JBOX1_34
			14.2	2	20	17	18	20	2			12.4	
JDOX1_J	14.2			2	20	19	20	20	2	12.4			3DOX1_33
JBOX1 6		14.2		2	20	21	22	20	2		12.4		JBOX1 36
			14.2			23	24					12.4	
JBOX1_7	14.2	14.2		2	20	25	26	20	2	10.6	10.6		JBOX1_37
		14.2	14 2			21	20 30					10.6	
JBOX1_8	14.2			2	20	31	32	20	2	10.6		/////	JBOX1_38
		14.2				33	34		_		10.6		
JBOX1_9			14.2	2	20	35	36	20	2		////	10.6	JBOX1_39
	9.2			2	20	37	38	20	2	14.2			
JDOX1_10		9.2		2	20	39	40	20	2		14.2		3DOX1_40
JBOX1 11			9.2	2	20	41	42	20	2			14.2	JBOX1 41
	9.2 /////					43	44			14.2			
JBOX1_12		9.2		2	20	45	46	20	2		14.2	14.2	JBOX1_42
	12 4		9.2			47	48 50			14 2		14.Z	
JBOX1_13	/////	12.4		2	20	4 3	52	20	2		14.2		JBOX1_43
		////	12.4			53	54					14.2	
JBOX1_14	12.4			2	20	55	56	20	2	14.2			JBOX1_44
		12.4		S	20	57	58	20	2		14.2		
JPOV1_12			12.4	2	20	59	60	20	2			14.2	JBOX1_45
JBOX1 16	12.4			2	20	61	62	20	2	10.5			JBOX1 46
		12.4		_		63	64		_		10.5		
JBOX1_17			12.4	2	20	65 07	66	20	2			8.6 /////	JBOX1_47
	12.4	12 4				67 60	68 70			8.6		///// NIK	
JBOX1_18		12.4	12.4	2	20	71	70				BLA	NK	
	10.6					73	74			24.2		V////	
JBOX1_19	////	10.6		2	20	75	76	35	3	////	24.2		FAN 1
			10.6	S	20	77	78					24.2	
JDOX1_20	10.6			2	20	79	80			24.2			
JBOX1 21		10.6		2	20	81	82	35	3		24.2		FAN 2
			10.6			83	84					24.2	
JBOX1_22	14.2	14.2		2	20	85	86	25	2	24.Z	24.2		EAN 2
		14.2	14 2			07 89	00 90	35	3		24.Z	24.2	FAN 3
JBOX1_23	14.2			2	20	91	92			24.2		/////	
150144.04		14.2		_		93	94	35	3		24.2		FAN 4
JBOX1_24			14.2	2	20	95	96					24.2	
	14.2			2	20	91	98	20	2	10.4			
JDOX1_23		14.2		2	20	99	6	20	2		10.4		3DOX1_40
JBOX1 26			14.2	2	20	'07 7	02	20	2			10.4	JBOX1 49
	14.2 //////					.03 20	100			10.4	10 1		
JBOX1_27	<i>\}}}</i>	14.2	14.2	2	20	いる	るろ	20	2		10.4	10 4	JBOX1_50
	<u>/////</u> 92	V////	14.Z			51	30 7,			///// 10 4		10.4	
JBOX1_28	1////	9.2		2	20	-0 7,	17.	20	2		///// 10.4		JBOX1_51
	V////		9.2			17.3	12		~			10.4	
JBOX1_29	9.2	V////		2	20	13	12	20	2	10.4		////	JBOX1_52
IBOX1 20		9.2		2	20	3	720	20	r		10.4		IBOY1 52
350X1_30	¥////	X////	9.2	2	20	75	3	20	4			10.4	30071_33
SPARE	-	¥////		1	20	2	3	20	2	9.7			JBOX1 54
SPARE	V////	-	<i>[]]]]</i>	1	20	(2) Z-	2		-	\////	9.7		•1
SPARE	<i>\/////</i>	¥////	-	1	20	15	10	20	2		(////	9.7	JBOX1_55
	-	¥/////		2	30	でい	100 2.3			9.1	<u>/////</u> 07		
JUNGLOUFF	¥////		-	J	50	<u>ن</u> درک	3	20	2		3.1 //////	///// 9.7	JBOX1_56
TOTAL LOAD	<u>v////</u>): A:	<u>v/////</u> 546.9	B: _5	38.	<u>3</u> C: {	536	.4	то	TA	<u>v////</u> L (KVA	<u>v////</u> \): <u>19</u> 4	4.6	L
L							-						
FEEDER CALCULATION (100% NON-CONTINUOUS + 125% CONTINUOUS LOADS)													

S120 84X112	S119 84X112	S118 84X112	S117 84X112 J-BOX
	~ ~ ~	~~~	
S220 84X112	S219 84X112	S218 84X112	S217 84X112 J-BOX
		~~~	
S320 84X112	S319 84X112	S318 84X112	S317 84X112 J-BOX 1_39
		~~~	~~
S420 112X112	S419 112X112	S418 112X112	S417 112X112 J-BOX 1_40
		~~~	
S520 112X112	S519 112X112	S518 112X112	S517 112X112 J-BOX 1_41
S620 112X112	S619 112X112	S618 112X112	S617 112X112 J-BOX
		~~~	
S720 112X112	S719 112X112	S718 112X112	S717 112X112 J-BOX 1_43
S820 112X112	S819 112X112	S818 112X112	S817 112X112 J-BOX
	~~~	~~~	
S920 112X112	S919 112X112	S918 112X112	S917 112X112 J-BOX 1_45
	INTERNAL INTERCONN DAKTRONI	POWER ECTS BY CS (TYP)	EXISTING D.O.G. CLOCK 2.5 AMPS @120V ST FS

FIBER RECEIVER KIT TO BE ADDED

# REAR BILLBOARD DVX-2102-13HD-7500-C-336X1092-230BR-LT-MR

TOTAL LOAD: A: <u>571.1</u> B: <u>562.5</u> C: <u>560.6</u>

S111 112X84	S110 112X112	S109 112X112 J-BOX	S108 112X84	S107 112X112	S106 112X84	S105 112X112 J-BOX	S104 112X84	S103 112X112	S102 112X112	S101 112X84
	~ + \					 		~		
S211 112X84	S210 112X112	S209 112X112 J-BOX 1_55	S208 112X84	S207 112X112	S206 112X84	S205 112X112 J-BOX 1_52	S204 112X84	S203 112X112	S202 112X112	S201 112X84
S311 112X84	S310 112X112	S309 112X112	S308 112X84	S307 112X112	S306 112X84	S305 112X112 J-BOX	S304 112X84	S303 112X112	S302 112X112	S301 112X84
				/ .				·-、	/-、	

FAN #3 CUS CUS

# EXISTING AUDIO SYSTEM & EXHAUST FANS

FAN #1 CUS C35 CUSTO CRP1_1 FAN #2 CUS CUSTO CRP1_1

□ S116 □ 84X84 
 S108
 S107

 J-BOX
 84X112

 J-I
 1

 1
 1
 S109 84X112 S115 S114 S113 S112 S110 S106 84X112 84X84 84X112 84X112 84X112 84X112 84X84 J-BOX 1_28 S216 
 S209
 S208
 S207

 84X112
 J-BOX
 84X112
 J-BOX

 1_20
 1_11
 4X112
 S206 S214 S213 S212 S210 S209 84X112 84X84 84X84 84X84 84X112 84X112 84X112 84X112 J-BOX _1_29 
 S309
 S308
 S307

 84X112
 J-BOX
 84X112
 J-BOX

 1_21
 1_12
 1_12
 S316 84X84 S313 S306 S314 S312 S311 S310 S315 84X112 84X84 84X112 84X112 84X112 84X84 84X112 J-BOX 1_30 S416 S415 S414 S413 S410 S409 S408 S406 112X84 112X84 112X112 112X112 112X112 112X112 112X112 112X112 ___ 112X112 112X84 J-BOX 1_13 1_22 J-BOX 1_31 S516 S515 S513 S510 \$506 112X112 J-BOX L 1_14 L 1_14 J-BOX 112X112 112X112 112X112 112X112 112X112 112X112 ____ 112X84 112X84 112X84 J-BOX 1_23 J-BOX 1_32 S616 S615 S613 S609 112X112 S606 S614 S612 S611 S610 S608 112X112 112X112 112X84 112X112 112X112 112X112 112X112 112X112 112X84 112X84 J-BOX 1_15 1_24 J-BOX 1_33 S716 S715 S714 S713 S712 S711 S710 S709 S708 S706 112X84 112X112 112X112 112X112 112X112 112X112 112X84 112X112 112X112 112X84 J-BOX 1_16 ___1_25 J-BOX 1_34 S813 112X112 S816 S815 S812 S810 S814 112X84 112X112 112X112 112X112 112X112 112X84 112X112 112X112 112X112 112X84 J-BOX 1_17 J-BOX 1_26 J-BOX 1_35 S916 112X84 112X84 112X112 112X112 112X112 112X112 112X112 112X112 112X112 112X112 112X84 J-BOX J-BOX 1_18 J-BOX 1_36 S109 S106 S108 S105 S102 S101 S107 S104 S103 84X84 84X112 84X84 84X84 84X84 84X84 84X84 84X112 84X84 J-BOX 1_47 J-BOX 1_46 LC FE 1_2 CUS CUS TO FP1_1

![](_page_10_Figure_11.jpeg)

# POWER AND SIGNAL DISTRIBUTION SYSTEM LEGEND REFERENCE DRAWING 5381137, SHEET 200

#### COMPONENT IDENTIFICATION LEGEND

TYP. FOR EACH POWER J-BOX

@56

		MANUFACTURER'S	COMPONENT	COMPONENT
ID TAO		PART NUMBER	PROVIDED BY	INSTALLED BY
FP	FIBER PATCH PANEL	0A-1076-0131/P-1389	DAKTRONICS	CUSTOMER
FE	FIBER ENTRANCE	-	DAKTRONICS	CUSTOMER
J-BOX	INTERNAL POWER J-BOX		DAKTRONICS	CUSTOMER
CRP	CUSTOM REMOTE POWER PANEL	PR-XXX	DAKTRONICS	CUSTOMER
MD	MAIN DISTRIBUTION PANEL		EXISTING	EXISTING
PS	INTERNAL POWER & SIGNAL TERM PANEL		EXISTING	EXISTING
DS	POWER DISCONNECT SWITCH		EXISTING	EXISTING
PB	MAIN LUG 1200 AMP PANELBOARD		EXISTING	EXISTING
	•			

# **U OF MISSOURI** MEMORIAL STADIUM

#### MEMORIAL STADIUM 600 E STADIUM BLVD COLUMBIA, MO 65201

SUBMITTAL APPROVAL APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBM

COMPANY

SIGNED

TITLE:

DATE:

	TO CRP1_1	J-BOXES AF 2 HOTS + ( (2	RE WIRED WITH GND TO EACH 208V)	
S105	S104	S103	S102	S101
84X84	84X112 J-BOX	84X112	84X112	84X112
~		Ť,	~* `	
S205	S204	S203	S202	S201
84X84	84X112 J-BOX	84X112	84X112	84X112
· 、		† \ 	~	
S305	\$304	S303	S302	S301
84X84		84X112	84X112	84X112
``				
S405	S404	S403	S402	S401
112704	J-BOX		112/11/2	
· 、	,	+、	/1~	~
S505	S504	S503	S502	S501
112X84	112X112 J-BOX 1_5	112X112	112X112	112X112
- 、	,	+ \	~	
S605	S604	S603	S602	S601
112X84	112X112 J-BOX 1_6	112X112	112X112	112X112
~ ``	,	+、	~ ~ ~	/*
S705	S704	S703	S702	S701
112X84	112X112	112X112	112X112	112X112
~	,	<b>†</b> `		
\$805		5803	<u></u>	 \$801
112X84	112X112	112X112	112X112	112X112
~ \	· · · · · · · · · · · · · · · · · · ·	+`	×+×	
S005	5004	5002	5000	5001
112X84	112X112 J-BOX     1_9 !	112X112	112X112	112X112
		1		LC

![](_page_10_Picture_24.jpeg)

SOUND @4
CW REC 1&2
CW REC 3&4

PANEL:	MD2	_1	SEF	RVI	CE:	208	Y/1	20_V		3	PH	_	4+GND_W
CIDCUIT	A	AMP LOAD		D BRKR		Cł	CKT. BRKR		R	AMP LOAD		AD	
CIRCUIT	Α	В	С	Ρ	AMP	N	0.	AMP	Ρ	А	В	С	CIRCUIT
NOT USED	-	-		2	50	1 3	2 4	50	2	-	-		NOT USED
		X////	-	2	50	5	6	60	2			-	
NOT USED	-			2	2 50	7	8	00	2	-			NOTUSEL
CW1-2 LTS		16		1	20	9	10	20	1		12		CW3-4 REC
CW3-4 LTS	V//	X////	16	1	20	11	12	20	1			12	CW5 REC+
BLANK					13	14	BLANK						
CW 5 LTS+		16	////	1	20	15	116	20	1		16		SOUNE
SOUND		X////	16	1	20	17	18	20	1			2.5	PS 2_2
SOUND	16			1	20	19	20				BLA	NK	
SOUND		16		1	20	21	22				BLA	NK	
CW1&2 REC		X////	12	1	20	23	24				BLA	NK	
TOTAL LOAD: A: <u>16.0</u> B: <u>76.0</u> C: <u>58.5</u> TOTAL (KVA): <u>18.0</u>													
FEEDER CA	EEEDER CALCULATION (100% NON-CONTINUOUS + 125% CONTINUOUS LOADS)												

TOTAL LOAD: A: <u>16.0</u> B: <u>84.0</u> C: <u>62.5</u>

EXISTING CATWALK LIGHTS & CONVENIENCE RECEPTACLES.

TO 1200 AMP CIRCUIT BREAKER ENCLOSURE FED BY 750KVA CUSTOMER TRANSFORMER. CALCULATED AIC AT TRANSFORMER: 24,800-PROVIDED BY CUSTOMER.

THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS. NC. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2023 DAKTRONICS, INC. (USA)							
PROJECT:	U OF MISSOUR	I MEMORIAL S	STADIUM				
TITLE:	RISER; 201; DV	X-2102-13HD I	MAIN VIDEO				
DATE:	22 DEC 23	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV	
SCALE:	NONE	DO NOT S	CALE DRAW	ING	V201	Α	
DESIGN:		JOB NO.	FUNC - TYPE - SIZE	1	20011	20	
DRAWN:	APAGE	C32591	F - 01 - D		11000	30	

#### PROJECT MECHANICAL/STRUCTURAL DRAWING INDEX SHEET TITLE DRAWING 300 5369913 SHOP, 300, INDEX & NOTES SHOP, 301, FRONT ELEVATION VIEW 301 5369914 SHOP, 302, REAR ELEVATION VIEW 302 5369915 303 5369916 SHOP, 303, PLAN VIEWS 304 5369917 SHOP, 304, SECTION VIEWS 305 5380448 SHOP, 305, STRUCTURE ELEVATION 306 5380449 SHOP, 306, DISPLAY DETAILS

#### University of Missouri Memorial Stadium **Responsibility Matrix**

Description	Provided By	Installed By
Main LED Video Display & Attachment Hardware	Owner	Contractor
Captioning LED Video Display & Attachment Hardware	Owner	Contractor
Rear Billboard LED Video Display & Attachment Hardware	Owner	Contractor
Remote Power Panel	Owner	Contractor
Fiber Signal Cable for Video Board	Owner	Contractor
Video Board Interconnect Cabling	Owner	Contractor
Structural Steel & Catwalk Extensions	Contractor	Contractor
Metal Clad Siding & Associated Framing	Contractor	Contractor
Metal Roofing & Associated Framing	Contractor	Contractor
Fulcrum Acoustic Dual 18" Subwoofers & Attachment Hardware	Owner	Contractor
Amplifier Rack	Owner	Contractor
Audio Cabling	Owner	Contractor

LED

LLH

# **ABBREVIATIONS**

& @	AND AT	LL LF LT LV
# ACOUST ADJ AFF ALUM APC APPROX ARCH AISC ASD ASME AV	NUMBER OR POUND ACOUSTICAL ADJUSTABLE ABOVE FINISHED FLOOR ALUMINUM ARCHITECTURAL PRECAST CONCRETE APPROXIMATE ARCHITECTURAL AMERICAN INSTITUTE OF STEEL CONSTRUCTION ALLOWABLE STRENGTH DESIGN AMERICAN SOCIETY OF MECHANICAL ENGINEERS AUDIO/VISUAL	M M M M M M M M
BD BLDG BLKG BM BOD BRG	BOARD BUILDING BLOCKING BEAM BOTTOM OF DISPLAY BEARING	N/ NI NC NC NC
CFMF CIP CJ CLG CMU COL CONC CONC CONSTR CONSTR CONT CONTR COOR COOR CTR	COLD FORMED METAL FRAMING CAST-IN-PLACE CONTROL JOINT CEILING CONCRETE MASONRY UNIT COLUMN CONCRETE CONNECTION CONSTRUCTION CONSTRUCTION CONTINUOUS CONTRACTOR CORRIDOR CENTER	OI OI OI PI PI PI PI PI PI QI
DAK DBL DEPT DIA DIM DN DR DTL DVN DVX DWG(S)	DAKTRONICS DOUBLE DEPARTMENT DIAMETER DIMENSION DOWN DOOR DETAIL DIGITAL VIDEO INTERIOR DIGITAL VIDEO EXTERIOR DRAWING(S)	RI RI RI RI RI RI RI RI RI SI SI SI
E ELEV EA EJ ELEC EOS EQ EQUIP EXIST EXP EXT	EAST ELEVATION EACH EXPANSION JOINT ELECTRICAL EDGE OF SLAB EQUAL EQUIPMENT EXISTING EXPANSION EXTERIOR	SI SI SI SI SI SI SI SI SI SI SI SI
FDN FIN FL FOC FOF FOS FR (FRM) FT FURR FV	FOUNDATION FINISH FLOOR FACE OF CONCRETE FACE OF FINISH FACE OF STUD FRAME FOOT OR FEET FURRING FIELD VERIFY	T TE TC TC TC TC TC
GA GALV GC GL GYP BD	GAUGE GALVANIZED GENERAL CONTRACTOR GLASS GYPSUM BOARD	VE VE W W
HC HDWE HORIZ HT	HOLLOW CORE HARDWARE HORIZONTAL HEIGHT	W W W W
ID IN INFO INSUL INT	INSIDE DIAMETER / DIMENSION INCH INFORMATION INSULATION INTERIOR	
JST JT JBT (#)	JOIST JOINT JUNCTION BOX (NUMBER)	
KIP	1000 POUNDS-FORCE	
L LB LDH	LONG / LENGTH POUND LONG DIMENSION HORIZONTAL	

LONG DIMENSION VERTICAL

	Owner	Contractor
) .TG)	LIGHT-EMITTING DIC LONG LEG HORIZON LONG LEG VERTICA LOAD AND RESISTA LIGHT (LIGHTING) LIGHTWEIGHT CONC	DDE ITAL L NCE FACTOR DESIGN CRETE
н ;	METER MASONRY MAXIMUM MECHANICAL MANUFACTURING MANUFACTURER MINIMUM MISCELLANEOUS MOUNTED METAL	
I	NORTH NOT APPLICABLE NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE	
G	ON CENTER OUTSIDE DIAMETER OPENING OUNCE	R / DIMENSION
ND	PRECAST CONCRET PLATE PLYWOOD PAIR POUNDS PER SQUA POINT PAINTED	re Re foot
IF 'D	QUANTITY RADIUS REFLECTED CEILING REFERENCE REINFORCED REQUIRED REVISION ROOM ROUGH OPENING	G PLAN
ED T C R UCT SQ YD)	SOUTH SOLID CORE SCHEDULE SCUPPER DRAIN SECTION SQUARE FOOT (FEE SHEET SPACING SPECIFICATION SPEAKER SQUARE STAINLESS STEEL STANDARD STEEL STRUCTURE / STRU SQUARE YARD(S)	T) CTURAL
1	TREAD TO BE DETERMINED TOP OF CONCRETE TOP OF DISPLAY TOP OF STAB / TOP TOP OF WALL TYPICAL	) OF STEEL
	UNLESS NOTED OTH	HERWISE
VPR BR) T	VAPOR BARRIER VERTICAL	
v	WEST OR WIDE OR WITH WITHIN WITHOUT WOOD WINDOW WATERPROOF WEIGHT	WIDTH

#### 1. PROJECT REFERENCE AND GENERAL NOTES

REFER TO DAKTRONICS RISER DIAGRAM FOR ALL ELECTRICAL F 1.1. REFER TO SPECIFIC PRODUCT INSTALLATION AND MAINTENANC 1.2. REFER TO DRAWING INDEX FOR EACH SPECIFIC DISPLAY INFORM 1.3. 1.4. ALL DIMENSIONS ARE IN FEET AND INCHES, DIMENSIONS ARE AF DESIGN CONSIDERATIONS.

#### 2. PROJECT RESPONSIBILITIES

- ALL DRAWINGS MUST BE APPROVED BY THE CUSTOMER AND, IF 2.1. LICENSED IN THE STATE OF MISSOURI BEFORE THEY CAN BE US
- 2.2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL DRA DOCUMENTS.
- DAKTRONICS IS RESPONSIBLE FOR CERTIFYING THE DISPLAY ST 2.3. BUILDING AS DETAILED WITHIN THE DRAWING SET.
- 2.4. DAKTRONICS IS RESPONSIBLE FOR CERTIFYING THE SECONDARY DRAWING SET. DAKTRONICS IS RESPONSIBLE FOR THE PRIMARY SUPPORT STRI
- 2.5. 2.6. SURVEYING AND BY/CUSTOMER'S SUBCONTRACTOR. QUSTOMER'S SUBCONTRACTOR TO VERIFY ALL EXISTING COND 2.7.
- ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT 2.8. ALL WORK RELATED TO THE MEANS AND METHODS SHALL BE C 2.9. ACCORDANCE WITH STANDARD INDUSTRY PRACTICE AND ALL C BUT IS NOT LIMITED TO:
- JOBSITE SAFETY. 2.9.1. STAGING, CONSTRUCTION PRACTICES, SITE CLEANUP, AND DISP 2.9.2.
- PROTECTION OF EXISTING FACILITIES, STRUCTURES, AND UTILIT 2.9.3. STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF T 2.9.4. VISITS TO THE SITE MADE BY THE ENGINEER ARE FOR THE REVI 2.10. WITH THE DRAWINGS AND SPECIFICATIONS AND ARE NOT FOR T RESPONSIBILITIES.
- THE STRUCTURAL DOCUMENTS ARE TO BE USED IN COORDINAT 2.11. DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF
- WORK. ALL REQUESTED CHANGES IN WORK BY THE CONTRACTOR ARE 2.12. OWNER AND ARE CONSIDERED TO BE COMPLETED AT NO ADDIT APPROVAL OF REQUESTED CHANGES DOES NOT CONSTITUTE A

#### 3. DAKTRONICS GENERAL DISPLAY NOTES

- 3.1. ELECTRICAL COMPONENTS ARE ACCESSED FROM THE REAR FO CAPTIONING, AND REAR FOR THE REAR BILLBOARD. 3.2. LIFT POINTS ARE PROVIDED BY DAKTRONICS IN EACH SECTION. THE INSTALLATION OF EACH SECTION. CAP ANY OPEN HOLES O
- DISPLAYS TO PREVENT LIGHT LEAK. WHEN LIFTING SECTIONS THE PREFERRED METHOD IS TO USE
- 3.3. POINTS PROVIDED. FOR ALTERNATE METHOD OF RIGGING REFE
- 3.4. DEPTH OF CABINET MAY VARY DEPENDING ON DISPLAY TECHNO 3.5. DISPLAY MOUNTING HARDWARE PROVIDED BY DAKTRONICS UNI
- WHEN INSTALLING DAKTRONICS DISPLAY SECTIONS, DISPLAY JC 3.6.
- OR LATCHED TOGETHER AS DETAILED IN THE INSTALLATION MA 3.7. IN AN ANECHOIC CHAMBER, THE AVERAGE SOUND PRESSURE L
- FROM A DISTANCE OF 3.28 FEET (1 METER)FROM THE REAR OF DAKTRONICS LED DISPLAYS WILL GENERATE HEAT. CONTACT D 3.8.

#### 4. DAKTRONICS DISPLAY VENTILATION NOTES

- THE AIR INTAKE AND EXHAUST ON THE REAR OF THE DAKTRONIC 4.1.
- MAIN DISPLAY: IN ENCLOSED STRUCTURE SITUATIONS, 57910 CF 4.2. EXHAUST
- CLOSED CAPTIONING: IN ENCLOSED STRUCTURE SITUATIONS, 4.3.
- FOR EXHAUST. REAR BILLBOARD: IN ENCLOSED STRUCTURE SITUATIONS, 2678 4.3.
- EXHAUST TOTAL SYSTEM: IN ENCLOSED STRUCTURE SITUATIONS, 71394 ( 4.3.
- EXHAUS

#### 5. CODES AND DESIGN CRITERIA

- PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. THE PROJECT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, U.N.O.: 5.1. INTERNATIONAL BUILDING CODE, 2021 AND THE FOLLOWING REFERENCED WITHIN: 5.2. 5.2.1. STRUCTURAL CONCRETE 5.2.1.1. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318) 5.2.1.2. ACI MANUAL OF CONCRETE PRACTICE, (ACI 446)
- 5.2.2. MASONRY 5.2.2.1. BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES (ACI 530)
- 5.2.3. STRUCTURAL STEEL

	5231	SPECIFICATIONS FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (AISC 360)	7 1	4.1 200 LB CON
	5.2.3.2.	CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303)	7.1	.4.2. 50 LB/FT LIN
	5.2.3.3.	SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS	7.1.5	. KICK PLATES
YOWER AND SIGNAL SPECIFICATIONS.	5.2.3.4.	SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS (AISI S100)	7.1	.5.1. KICK PLATE
MATION AND ITS CORRESPONDING WEIGHT.	5.2.4.	WELDING	7.1	.5.2. KICK PLATE
PPROXIMATE AND SUBJECT TO CHANGE DUE TO DETAILED	5.2.4.1.	STRUCTURAL WELDING CODE: STEEL (AWS D1.1)	7.2.	BAR GRATING
	5.2.4.2.	STRUCTURAL WELDING CODE: ALUMINUM (AWS D1.2)	7.2.1	. STEEL BAR GRA
	5.2.4.3.	STRUCTURAL WELDING CODE: STAINLESS STEEL (AWS D1.6)		PER CONTRACT
	5.2.4.4. 525	STRUCTURAL WELDING CODE: WELDING ZING-COATED STEEL (AWS D19.0)		U.N.O. IN THE C
	<b>5250</b>	1 REFER TO ENGINEER OF RECORD STAMPED DRAWINGS AND CALCULATIONS FOR INFORMATION REGARDING DESIGN	7.2.2	. THE END OF TH
SED FOR FABRICATION OR ERECTION	0.2.0.0	CRITERIA		SUPPORT A MIN
RAWINGS, SPECIFICATIONS, AND OTHER CONTRACT				
	6. <u>STE</u>	EL	7.2.3	IF GRATING IS V
TRUCTURAL SUPPORT SYSTEM AND ITS INTERFACE TO THE				A780 OR THE PI
RY DISPLAY BACKUP STRUCTURE AS DETAILED WITHIN THE	6.1.	MATERIAL GRADES. U.N.O.	7.2.4	. TO PREVENT IN
	6.1.1.	ALL PLATES SHALL BE ASTM A572 GR50 (F _Y = 50 KSI), U.N.O.		
RUCTURE.	6.1.2.	FORMED PLATES SHALL BE ASTM A1018 HSLAS-F GR50 (F _Y = 50 KSI), U.N.O.	725	MAXIMUM GADI
NITIONS AND DIMENSIONS PRIOR TO INSTALLATION	6.1.3.	HOLLOW STRUCTURAL STEEL TUBE SHALL BE ASTM A500 GR. C ( $F_Y$ = 50 KSI)	1.2.5	FLOOR MATERIA
SCALE DRAWINGS.	6.2.	HARDWARE, U.N.O.		OR 40 PSF ARE
OMPLETED BY THE INSTALLATION CONTRACTOR IN	6.2.1.	FOR EXTERIOR STRUCTURES, ALL HARDWARE GALVANIZED PER ASTM F2329 OR B695 CLASS 55		
CODES AND STANDARDS. MEANS AND METHODS INCLUDES,	6.2.2.	BOLTS SHALL BE HEAVY HEX, ASTM F3125 GRADE A325, TYPE 1	8. S	PECIAL INSPI
	6.2.3.	BOLTED NUTS SHALL BE HEAVY HEX, ASTM A563 GRADE DH		
POSAL OF WASTE MATERIALS.	0.2.4. 6.2.5	WHERE LONG-SLOTTED HOLES ARE NOTED ON DRAWINGS, PROVIDE PLATE WASHERS PER AISC, 13	8.1.	STEEL FABRICA
TIES FROM DAMAGE.	626	GRADE 5. ZINC-PLATED HARDWARE SHALL BE ACCEPTABLE ONLY WHERE SPECIFIED ON DRAWINGS		
HE STRUCTURE HAS REACHED ITS FINAL CONDITION.	6.2.7.	ALL BOLTS IN CONTACT WITH ALUMINUM SHALL BE ZINC PLATED, GALVANIZED, OR STAINLESS STEEL		FABRICATOR
THE PURPOSE OF REVIEW OF CONTRACTOR	6.2.8.	ALL BOLTS SHALL BE FULLY PRETENSIONED PER APPROVED METHODS LISTED IN AISC AND RCSC STANDARDS, U.N.O.	8.2.	NO FIELD WELD
	6.3.	COATINGS	8.3.	THE FOLLOWIN
TION WITH DOCUMENTS FROM OTHER TRADES AND ANY	6.3.1.	PAINT		CODE.
THE DESIGN TEAM PRIOR TO THE COMMENCEMENT OF	6.3.1.1.	IF SPECIFIED IN CONTRACT DOCUMENTS, ALL STRUCTURAL STEEL SHALL MEET CUSTOMER'S AND PAINT SUPPLIER'S	8.3.1	. PERIODIC SPEC
SUBJECT TO THE APPROVAL OF THE DESIGN TEAM AND	0040	SPECIFICATIONS.	8.3.2	. SPECIAL INSPE
FIONAL COSTS UNLESS SPECIFICALLY APPROVED.	0.3.1.2.	SHALL BE FOLLOWED	8.4.	
APPROVAL OF AN INCREASE IN PROJECT COSTS.	6.3.1.3.	TOUCH UP PAINT AFTER INSTALLATION.		APPROPRIATE I
	6.3.1.4.	DISSIMILAR METALS IN CONTACT SHALL BE INSULATED WITH PAINT OR OTHER APPROVED COATING TO PREVENT	8.5.	NO STRUCTURA
		GALVANIC CORROSION.		
	6.3.2.	SLIP-CRITICAL SURFACES		
OR THE MAIN DISPLAY, FRONT FOR THE CLOSED	6.3.2.1.	FAYING SURFACES SHALL BE COATED WITH A CLASS A COMPLIANT PAINT AND/OR PRIMER		
ALL REMOVABLE LIET POINTS SHALL BE REMOVED AFTER	6.3.2.2.	FAYING SURFACES SHALL BE PREPARED IN COMPLIANCE WITH THE COATING MANUFACTURER'S SPECIFICATIONS AND		
N AD PANELS OR OTHER INTERNALLY ILLUMINATED	6323	FABRICATORS SHALL SUBMIT COATING SPECIFICATIONS TO DAKTRONICS FOR APPROVAL PRIOR TO PREPARATION OF		
	0.0.2.0.	THE FAYING SURFACES.		
A SPREADER BEAM TO DISTRIBUTE WEIGHT AMONG ALL LIFT	6.5.	GALVANIZING		
ER TO INSTALLATION MANUAL.	6.5.0.1.	IF SPECIFIED IN CONTRACT DOCUMENTS, THE STRUCTURE SHALL BE GALVANIZED PER ASTM A123.		
	6.5.0.2.	GALVANIZED STRUCTURE SHALL BE DETAILED PER ASTM A385.		
OINTS BETWEEN CONSECUTIVE SECTIONS MUST BE BOI TED	6.6.	ALL HOLLOW STRUCTURAL STEEL SECTIONS SHALL BE CAPPED AND WELDED ALL-AROUND TO PREVENT WATER FROM		
NUAL.		OF HSS TO DREVENT BIRDS FROM MESTING. THERE SHALL BE NO ODENING LARGER THAN ³ " WIDE		
EVEL OF ONE DISPLAY SECTION IS 37.8 dBA, AS MEASURED	661	SELE-DRILLING TEK SCREWS SHALL NOT BE USED FOR ATTACHMENT INTO HOLLOW STRUCTURAL STEEL SECTIONS UNLESS		
THE CABINET.	0.0.11	A THREAD SEALANT IS USED TO PREVENT WATER FROM ENTERING SECTION.		
AKTRONICS IF HEAT GENERATION INFORMATION IS NEEDED.	6.6.2.	ANY OTHER PENETRATIONS INTO HOLLOW STRUCTURAL STEEL SECTIONS SHALL BE PROPERLY SEALED TO PREVENT		
		WATER INTRUSION.		
	6.6.3.	DRAIN HOLES SHALL BE ADDED TO UNDERSIDE OF TUBES AT LOW-POINTS.		
	6.7.	WELDING		
ICS DISPLAYS CANNOT BE OBSTRUCTED.	0.7.1.	ALL WELDING (SHOP AND FIELD) SHALL BE PERFORMED BY A QUALIFIED WELDER FOR THE SPECIFIED TYPE AND POSITION OF THE REQUIRED WELD PER RELEVANT AWS STANDARD		
FM OF FORCED VENTILATION MUST BE PROVIDED FOR	6.7.2.	ALL STEEL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 AND D19.0.		
	6.7.3.	GAS METAL ARC WELDING (GMAW) OR GAS-SHIELDED FLUX-CORED ARC WELDING (FCAW-G) SHALL BE USED TO PERFORM		
10806 CFM OF FORCED VENTILATION MUST BE PROVIDED		ALL SHOP WELDS, U.N.O.		
CEM OF FORCED VENTILATION MUST BE PROVIDED FOR	6.7.4.	LOW HYDROGEN E70 SERIES (70 KSI) ELECTRODES TO BE USED.		
	6.7.5.	FOR WELDING GALVANIZED STEEL, AWS APPROVED PROCEDURES FOR WELDING GALVANIZED STEEL MUST BE ADHERED		
CFM OF FORCED VENTILATION MUST BE PROVIDED FOR		TO, INCLUDING REMOVAL OF GALVANIZED COATING ON SURFACES TO BE WELDED OR FIELD CERTIFICATION OF PROCEDURES TO WELD THROUGH GALVANIC COATING		
	6.7.6	REPAIR SURFACES WHERE GALVANIC COATING HAS BEEN DAMAGED WITH TWO COATS OF "BRUSH-ON" ZINC ENRICHED		
	0.7.0.	PAINT PER ASTM A780 AND TOP COAT OF PAINT, IF APPLICABLE.		
	6.7.7.	REMOVE PAINT PRIOR TO WELDING AND TOUCH-UP AFTER WELDING IS COMPLETE.		
II DING AND DESIGN CODES REFERENCED WITHIN THESE	7. ACC	JESS / USHA REQUIREMENTS		

![](_page_11_Picture_42.jpeg)

GUARDRAILS 7.1.

- 7.1.1. GUARDRAILS MUST COMPLY WITH OSHA INDUSTRY 1910 REQUIREMENTS. GUARDRAILS REQUIRE A TOP RAIL AT 42" ABOVE THE WALKING SURFACE AND A MID RAIL 21" ABOVE THE WALKING 7.1.2.
- SURFACE WITH A KICK PLATE.
- 7.1.3. IN MAINTENANCE ENVIRONMENT, TOP RAIL AND POSTS ARE DESIGNED TO ONE CASE: 7.1.3.1. 200 LB CONCENTRATED LOAD ON THE TOP RAIL.
- 7.1.4. IN PUBLIC GATHERING ENVIRONMENT, HANDRAILS AND POSTS ARE DESIGNED TO TWO CASES:(NOT CONCURRENTLY)

![](_page_11_Picture_48.jpeg)

![](_page_11_Picture_49.jpeg)

- PROJECT LOCATION

200 LB CONCENTRATED LOAD ON THE TOP RAIL

50 LB/FT LINEAR LOAD ON THE TOP RAIL KICK PLATES

KICK PLATES MUST COMPLY WITH OSHA INDUSTRY 1910 REQUIREMENTS KICK PLATES ARE DESIGNED TO 50 LB CONCENTRATED LOAD

STEEL BAR GRATING SHALL BE 1"X  $\frac{1}{8}$ " TYPE 19W4 MANUFACTURED TO THE LATEST EDITION OF ANSI/NAAMM MBG 531 AND GALVANIZED TO THE LATEST EDITING OF ASTM A123, U.N.O. THE STEEL STRUCTURE SHALL BE PAINTED OR GALVANIZED PER CONTRACT DOCUMENTS BEFORE GRATING IS INSTALLED. GRATING IS NOT REQUIRED TO HAVE A TOP COAT OF PAINT J.N.O. IN THE CONTRACT DOCUMENTS.

THE END OF THE GRATING PANEL SHALL NOT OVERHANG THE GRATING SUPPORT AND MUST BEAR ON THE GRATING SUPPORT A MINIMUM OF 1 INCH. PER THE CONTRACTOR'S CHOICE, GRATING SHALL BE FIRMLY ANCHORED TO THE SUPPORT STRUCTURE WITH EITHER 3/4" LONG, 3/16" FILLET WELDS OR GRATING CLIPS AT MINIMUM INTERVALS AS SPECIFIED IN THE LATEST EDITION OF ANSI/NAAMM MBG 531. SCREWS MAY NOT BE INSTALLED INTO HSS MEMBERS. F GRATING IS WELDED, WELDS MUST BE TOUCHED UP WITH EITHER A ZINC RICH PAINT PER THE REQUIREMENTS OF ASTM A780 OR THE PRIMER AND TOP COAT USED ON THE PRIMARY STEEL.

TO PREVENT INJURY, ALL GRATING SHALL BE BANDED ON THE ENDS OF THE BEARING BARS WHERE SERVICE PERSONNEL MAY PUNCTURE THEMSELVES ON THE BEARING BAR ENDS. THIS IS NOT REQUIRED ON THE PERIMETER EDGES OF CATWALKS.

MAXIMUM GAP IN FLOOR SURFACE IS 2 INCHES. FILL ALL GRATING GAPS THAT ARE LARGER THAN 2 INCHES WITH SAME FLOOR MATERIAL TO CREATE A FLUSH WALKING SURFACE. INFILL MUST SUPPORT THE LARGER OF A 300 LB POINT LOAD OR 40 PSF AREA LOAD.

#### CIAL INSPECTIONS

STEEL FABRICATION SHALL BE DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED AS REQUIRED BY THE BUILDING CODE TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. ALTERNATIVELY, SPECIAL INSPECTION OF MATERIALS, WELDING, AND FABRICATION PROCEDURES SHALL BE REQUIRED FOR FABRICATION BY AN UNAPPROVED FABRICATOR.

NO FIELD WELDING SHALL BE PERMITTED UNLESS NOTED OTHERWISE.

THE FOLLOWING SPECIAL INSPECTIONS, WHERE APPLICABLE, SHALL BE REQUIRED PER CHAPTER 17 OF THE BUILDING CODE. PERIODIC SPECIAL INSPECTION OF HIGH-STRENGTH BOLTING PER AISC 360, CHAPTER N (IF APPLICABLE)

SPECIAL INSPECTION OF FIELD WELDING PER AISC 360, CHAPTER N (IF APPLICABLE)

SPECIAL INSPECTION IS NOT REQUIRED FOR WORK OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL. THUS, INSPECTION ITEMS ABOVE MAY BE WAIVED AS DEEMED APPROPRIATE BY THE BUILDING OFFICIAL.

NO STRUCTURAL OBSERVATION IS REQUIRED.

#### **U OF MISSOURI** MEMORIAL STADIUM

MEMORIAL STADIUM

600 E STADIUM BLVD COLUMBIA, MO 65201

SUBMITTAL APPROVAL

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

COMPANY:

SIGNED:

TITLE:

APPROVED FOR CONSTRUCTION

DATE:

REV DATE: REVISED TITLE BLOCK TO BE 'APPROVED FOR CONSTRUCTION'						BY:		
02	26MAR24					JAL		
REV	DATE:	REVISION	IS MADE PER CUSTON	IER COMMENTS		BY:		
01	19FEB24	AND EUR	REVIEW			JAL		
DAK	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPIETARY DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WRITTEN CONSENT OF DAKTRONICS, INC. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2023 DAKTRONICS, INC. (USA)							
PROJEC	T: U OF MI	SSOUR						
TITL	E: SHOP, 3	00, IND	EX & NOTES					
DAT	E: 04DEC2	3	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV	
SCAL	E: 1=1		DO NOT S	CALE DRAW	ING	V300	02	
DESIG	N: JLOVSE	TH	JOB NO.	FUNC - TYPE - SIZE	F	2800	112	
DRAW	N: JLOVSE	TH	C32591	F - 10 - D	Ĵ	12033	513	

![](_page_12_Figure_0.jpeg)

ELEVATION VIEW

#### U OF MISSOURI MEMORIAL STADIUM

MEMORIAL STADIUM

600 E STADIUM BLVD COLUMBIA, MO 65201

SUBMITTAL APPROVAL

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMIT

COMPANY:

SIGNED:

TITLE:

APPROVED FOR CONSTRUCTION

DATE:

MAIN DISPLAY
TASK 3320

	DVX-2102-13HD-924X2128							
	SECTION SIZE	SECTION SIZE	SECTION					
SECTION #	(HXW-MODS)	(HXW-PIXELS)	WEIGHT (LB)					
101	224	94×112	156					
101	374	94×112	156					
102	374	04/112	156					
103	384	04X112	156					
104	3/4	04/112	117					
105	3/3	04704	117					
100	3/3	04/04	117					
107	374	04/112	156					
100	374	04/112	156					
109	384	04X112	150					
110	384	04/112	156					
110	374	04X112	150					
112	384	04X112	156					
113	384	04X112	150					
114	3X4	84X112	150					
115	3X3	84X84	117					
116	3X3	84X84	117					
117	3X4	84X112	156					
118	3X4	84X112	156					
119	3X4	84X112	156					
120	3X4	84X112	156					
201	3X4	84X112	156					
202	3X4	84X112	156					
203	3X4	84X112	156					
204	3X4	84X112	156					
205	3X3	84X84	117					
206	3X3	84X84	117					
207	3X4	84X112	156					
208	3X4	84X112	156					
209	3X4	84X112	156					
210	3X4	84X112	156					
211	3X4	84X112	156					
212	3X4	84X112	156					
213	3X4	84X112	156					
214	3X4	84X112	156					
215	3X3	84X84	117					
216	3X3	84X84	117					
217	3X4	84X112	156					
218	3X4	84X112	156					
219	3X4	84X112	156					
220	3X4	84X112	156					
301	3X4	84X112	156					
302	3X4	84X112	156					
303	3X4	84X112	156					
304	3X4	84X112	156					
305	3X3	84X84	117					
306	3X3	84X84	117					
307	3X4	84X112	156					
308	3X4	84X112	156					
309	3X4	84X112	156					
310	3X4	84X112	156					
311	3X4	84X112	156					
312	3X4	84X112	156					
313	3X4	84X112	156					
314	3X4	84X112	156					
315	3X3	84X84	117					
316	3X3	84X84	117					
317	3X4	84X112	156					
318	3X4	84X112	156					
319	3X4	84X112	156					
320	3X4	84X112	156					

DVX-2102-13HD-84X812						
	SECTION SIZE	SECTION SIZE	SECTION			
SECTION #	(HXW-MODS)	(HXW-PIXELS)	WEIGHT (LB)			
101	3X3	84X84	117			
102	3X4	84X112	156			
103	3X3	84X84	117			
104	3X3	84X84	117			
105	3X3	84X84	117			
106	3X3	84X84	117			
107	3X3	84X84	117			
108	3X4	84X112	156			
109	3X3	84X84	117			
	DVX-2102-13HD-	84X812 TOTALS	3			
# OF	DISPLAY SIZE	DISPLAY SIZE	TOTAL			
SECTIONS	(HXW-MODS)	(HXW-PIXELS)	WEIGHT (LB)			
9	3X29	84X812	1131			

404	4X4	112X112	206
405	4X3 4X3	112X84	156
407	4X4	112X112	208
408	4X4	112X112	208
409	4X4 4X4	112X112 112X112	208
411	4X4	112X112	208
412	4X4	112X112	208
413	4X4 4X4	112X112 112X112	208
415	4X3	112X84	156
416	4X3	112X84	156
417	4X4	112X112 112X112	208
419	4X4	112X112	208
420	4X4	112X112	208
501	4X4	112X112	208
502	4X4 4X4	112X112 112X112	208
504	4X4	112X112	208
505	4X3	112X84	156
506	4X3	112X84	156
508	4×4 4X4	112X112	208
509	4X4	112X112	208
510	4X4	112X112	208
511	4X4 4X4	112X112 112X112	208
513	4X4	112X112	208
514	4X4	112X112	208
515	4X3 4X3	112X84 112X84	156
517	4X4	112X04	208
518	4X4	112X112	208
519	4X4	112X112	208
601	4X4 4X4	112X112 112X112	208
602	4X4	112X112	208
603	4X4	112X112	208
605	4X4 4X3	112X112 112X84	208
606	4X3	112X84	156
607	4X4	112X112	208
608	4X4	112X112	208
610	474 4X4	112X112	208
611	4X4	112X112	208
612	4X4	112X112	208
613	4X4 4X4	112X112 112X112	208
615	4X3	112X84	156
616	4X3	112X84	156
617	4X4 4X4	112X112 112X112	208
619	4X4	112X112	208
620	4X4	112X112	208
701	4X4	112X112	208
702	4X4 4X4	112X112	208
704	4X4	112X112	208
705	4X3	112X84	156
706	4X3 4X4	112X84 112X112	208
708	4X4	112X112	208
709	4X4	112X112	208
710	4X4	112X112	208
712	4×4 4X4	112X112	208
713	4X4	112X112	208
714	4X4	112X112	208
715	4X3 4X3	112X84	156
717	4X4	112X112	208
718	4X4	112X112	208
719	4X4	112X112	208
801	4X4	112X112	208
802	4X4	112X112	208
803	4X4	112X112	208
805	4X4 4X3	112X84	156
806	4X3	112X84	156
807	4X4	112X112	208
808	4X4 4X4	112X112 112X112	208
810	4X4	112X112	208
811	4X4	112X112	208
812	4X4 4X4	112X112 112X112	208
814	4X4	112X112	208
815	4X3	112X84	156
816	4X3	112X84	156 208
818	474 4X4	112X112 112X112	208
819	4X4	112X112	208
820	4X4	112X112	208
901	4X4 4X4	112X112 112X112	208
903	4X4	112X112	208
904	4X4	112X112	208
905	4X3 4X3	112X84 112X84	156 156
907	4X4	112X112	208
908	4X4	112X112	208
909	4X4	112X112	208
911	4X4 4X4	112X112 112X112	208
912	4X4	112X112	208
913	4X4	112X112	208
914	4X4	112X112	208
916	4×3 4X3	112X84	156
917	4X4	112X112	208
918	4X4	112X112	208
919 920	4X4 4X4	112X112 112X112	208
	VX-2102-13HD-9	24X2128 TOTAL	S
L			
# OF	DISPLAY SIZE	DISPLAY SIZE	TOTAL

 401
 4X4
 112X112
 208

 402
 4X4
 112X112
 208

 403
 4X4
 112X112
 208

REV	DATE:	REVISED	TITLE BLOCK TO BE	APPROVED FOR CON	ISTRUCTION	BY:	
02	26MAR24					JAL	
REV	DATE:		IS MADE PER CUSTO	MER COMMENTS		BY:	
01	19FEB24					JAL	
		THE CONCEP	TS EXPRESSED AND D	DETAILS SHOWN ON THE	S DRAWING	THIRD ANGLE PRO	
2		ANY ME	ANS WITHOUT THE EXI	PRESS WRITTEN CONSE	INT OF	-(+)+	
DAK	TRONICE	DARTR	COPYRIGHT 2023 DAM	TRONICS, INC. (USA)	INIES.		$\overline{}$
PROJEC	CT: U OF M	SSOUR	1				
TITL	🗉 SHOP, 3	<u>301, FR</u>	<u>ONT ELEVATI</u>	ON VIEW			
		3	DIM UNITS: INC	CHES [MILLIME	TERS]	SHEET	REV
DAT	E U4DEC2		DO NOT	<u>SCALE DRAW</u>	ING	V301	02
DAT SCAL	LE: 3/16"=1		Bonor				
DAT SCAL DESIG	LE: 3/16"=1 SN: JLOVSE	TH	JOB NO.	FUNC - TYPE - SIZE		53600	14
DAT SCAL DESIG DRAW	LE: 3/16"=1' SN: JLOVSE	TH TH	JOB NO. C32591	FUNC - TYPE - SIZE F - 10 - D	5	53699	14
DAT SCAL DESIG DRAW	112: 04DEC2 125: 3/16"=1 13N: JLOVSE 1400/08	TH TH	JOB NO. C32591	FUNC - TYPE - SIZE F - 10 - D	5	53699	14

![](_page_13_Figure_0.jpeg)

#### **U OF MISSOURI** MEMORIAL STADIUM

MEMORIAL STADIUM

600 E STADIUM BLVD COLUMBIA, MO 65201

SUBMITTAL APPROVAL

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

COMPANY:

SIGNED:

TITLE:

APPROVED FOR CONSTRUCTION

DATE:

REAR BILLBOARD

DVX-2102-13HD-336X1092					
OFOTION #	SECTION SIZE	SECTION SIZE	SECTION		
SECTION #	(HXW-MODS)	(HXW-PIXELS)	WEIGHT (LB)		
101	4X3	112X84	156		
102	4X4	112X112	208		
103	4X4	112X112	208		
104	4X3	112X84	156		
105	4X4	112X112	208		
106	4X3	112X84	156		
107	4X4	112X112	208		
108	4X3	112X84	156		
109	4X4	112X112	208		
110	4X4	112X112	208		
111	4X3	112X84	156		
201	4X3	112X84	156		
202	4X4	112X112	208		
203	4X4	112X112	208		
204	4X3	112X84	156		
205	4X4	112X112	208		
206	4X3	112X84	156		
207	4X4	112X112	208		
208	4X3	112X84	156		
209	4X4	112X112	208		
210	4X4	112X112	208		
211	4X3	112X84	156		
301	4X3	112X84	156		
302	4X4	112X112	208		
303	4X4	112X112	208		
304	4X3	112X84	156		
305	4X4	112X112	208		
306	4X3	112X84	156		
307	4X4	112X112	208		
308	4X3	112X84	156		
309	4X4	112X112	208		
310	4X4	112X112	208		
311	4X3	112X84	156		
D	VX-2102-13HD-3	36X1092 TOTAL	S		
# OF	DISPLAY SIZE	DISPLAY SIZE	TOTAL		
SECTIONS	(HXW-MODS)	(HXW-PIXELS)	WEIGHT (LB)		

REV 02	DATE: 26MAR24	REVISED	TITLE BLOCK TO BE '4	APPROVED FOR CON	ISTRUCTION'	BY: JAL	
REV 01	DATE: 19FEB24	REVISIONS MADE PER CUSTOMER COMMENTS AND EOR REVIEW					
DAK	THE CONCEPTS EXPRESSED AND DETAILS SHOWN ON THIS DRAWING ARE CONFIDENTIAL AND PROPRIETARY. DO NOT REPRODUCE BY ANY MEANS WITHOUT THE EXPRESS WITTEN CONSENT OF DAKTRONICS, INC. OR ITS WHOLLY OWNED SUBSIDIARIES. COPYRIGHT 2023 DAKTRONICS, INC. (USA)						
PROJEC	T: U OF MI	SSOUR					
TITL	E: SHOP, 3	02, REA	AR ELEVATION	N VIEW			
DAT	E: 04DEC2	3	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV
SCAL	E: 3/16"=1'		DO NOT S	CALE DRAW	ING	V302	02
DESIG	N: JLOVSE	TH	JOB NO.	FUNC - TYPE - SIZE	5	2600	115
DRAW	N: JLOVSE	TH	C32591	F - 10 - D	C	2038	2 I D

![](_page_14_Figure_0.jpeg)

![](_page_14_Figure_1.jpeg)

![](_page_14_Figure_2.jpeg)

#### U OF MISSOURI MEMORIAL STADIUM

MEMORIAL STADIUM

600 E STADIUM BLVD COLUMBIA, MO 65201

SUBMITTAL APPROVAL

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI COMPANY:

SIGNED:

TITLE:

APPROVED FOR CONSTRUCTION

DATE:

REV	DATE:	REVISED 1	TILE BLOCK TO E	E 'APPROVED F(	DR CONSTRUCT	ION' BY:	
REV 01	DATE: 19FEB24	REVISIONS AND EOR F	S MADE PER CUS REVIEW		ITS	BY: JAL	IECTIO
DAK		THE CONCEPT ARE CONFIL ANY MEA DAKTRC	TS EXPRESSED ANI DENTIAL AND PROF INS WITHOUT THE E DNICS, INC. OR ITS V COPYRIGHT 2023 E	D DETAILS SHOWN RIETARY. DO NOT XPRESS WRITTEN WHOLLY OWNED S AKTRONICS, INC.	I ON THIS DRAWIN REPRODUCE BY N CONSENT OF UBSIDIARIES. (USA)	IG IHIRD ANGLE PRO	
PROJEC TITL DAT SCAL	U OF MI	SSOURI 303, PLA 3	N VIEWS dim units: IN DO NOT	CHES [MIL SCALE D		6] SHEET V303	REV

![](_page_15_Figure_0.jpeg)

SECTION A-A

SECTION B-B

![](_page_15_Figure_3.jpeg)

![](_page_15_Figure_4.jpeg)

- 0'-0" FINISHED GRADE

SECTION C-C

SECTION D-D

![](_page_15_Figure_8.jpeg)

![](_page_16_Figure_0.jpeg)

![](_page_16_Figure_3.jpeg)

![](_page_16_Figure_4.jpeg)

![](_page_17_Figure_0.jpeg)

![](_page_18_Figure_0.jpeg)

 PROJECT:
 0 OF MISSOURI MEMORIAL STADIUM

 TITLE:
 SHOP DRAWING, CUSTOM AUDIO SYSTEM

 DATE:
 08-MAR-24
 DIM UNITS:
 INCHES [MILLIMETERS]
 SHEET
 REV

 SCALE:
 1/50
 DO NOT SCALE DRAWING
 V307
 A

 DESIGN:
 JREDICK
 JOB NO.
 FUNC - TYPE - SIZE
 5417450

 DRAWN:
 JREDICK
 C32591
 F - 10 - D
 5417450

#### AUDIO SYSTEM

SHEET NO.	DRAWING NO.	TITLE
500	5423824	AUDIO; ELECTRICAL NOTES AND INDEX - 500
501	5423825	AUDIO; RISER PLAN VIEW - 501
502	5423826	AUDIO; AMP/SPEAKER SCHEMATIC - 502
503	5423827	AUDIO; CONTROL SCHEMATIC - 503
504	5423828	AUDIO; RACK ELEVATIONS - 504

	CABLE LABEL NOMENCLATURE
	LAYOUT: FXYZZ
	F - IDENTIFIES IF CABLE IS FIELD INSTALLED OR INSTALLED IN RACK
F	CABLE IS FIELD INSTALLED
	BLANK IF THE CABLE IS IN THE RACK
	X - IDENTIFIES WHAT IS ON THE CABLE
A	AUDIO CABLING
С	COMMUNICATION CABLING (INTERCOM)
D	DATA CABLE
Р	POWER CABLE
V	VIDEO CABLING
	Y - IDENTIFIES THE SHEET THE CABLE IS ON
	LAST NUMBER OF SHEET IS USED
	Z - IDENTIFIES THE CABLE NUMBER
	START AT 01 AND GOES IN ORDER

	SIGNAL DISTRIBUTION SYSTEM LEGEND							
			DAKTRONICS	CONDUIT PROVIDED	DED CABLE			
ID TAG	CABLE TYPE	SIZE (0.D.)	PART NUMBER	& INSTALLED BY	PROVIDED BY	INSTALLED BY	TERMINATED BY	
A	12 STRAND, MM 50µm DX FIBER	0.23"	W-1490	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
В	NOT USED	-	-	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
С	6 STRAND, MM 50µm DX FIBER	0.20"	W-1489	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
D	6 STRAND, SM DX FIBER	0.25"	W-2515	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
E	4 STRAND, MM 50µm DX FIBER	0.18"	W-2121	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
F	4 STRAND, MM 50µm BX FIBER	0.31"	W-1494	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
G	2 STRAND, MM 50µm DX FIBER	0.17"	W-2120	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
н	6 STRAND, MM 62.5µm DX FIBER	0.22"	W-1456	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
J	6 PAIR, 22 AWG W/SHIELD	0.362"	W-1245	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
К	6 PAIR, 22 AWG PLENUM	0.30"	W-2035	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
L	2 PAIR, 22 AWG W/SHIELD	0.168"	W-1234	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
М	2 PAIR, 22 AWG PLENUM	0.14"	W-2034	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
N	NOT USED	-	-	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
Р	NOT USED	-	-	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
R	2 PAIR, 18 AWG W/SHIELD	0.38"	W-1852	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
S	4 PAIR, 24 AWG CAT5E	0.21"	W-1384	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
Т	4 PAIR, 24 AWG CAT6 SHIELDED	0.26"	W-4140221	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
U	1 PAIR 22 AWG W/SHIELD	0.138"	W-1077	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AA-Z	AUDIO W OR PR CABLES	-	W OR PR	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AA	AUDIO; 1 PAIR, 22 AWG	0.170"	W-1615	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AB	AUDIO; 2 PAIR, 22 AWG	0.220"	W-1614	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AC	1 PAIR, 10 AWG SPEAKER WIRE	0.275"	W-3201036	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AD	1 PAIR, 12 AWG SPEAKER WIRE	0.260"	W-1561	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AE	1 PAIR, 12 AWG OUTDOOR SPEAKER	0.352"	W-1745	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AF	1 PAIR, 14 AWG SPEAKER PLENUM	0.218"	W-3517620	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AG	1 PAIR, 16 AWG SPEAKER PLENUM	0.176"	W-2383	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AH	20' NL2/BLUNT SPEAKER JUMPER	N/A	W-3556945	N/A	DAKTRONICS	SEE TAG	DAKTRONICS	
AJ	20' NL4/BLUNT SPEAKER JUMPER	N/A	W-3556947	N/A	DAKTRONICS	SEE TAG	DAKTRONICS	
AK	20' NL8/BLUNT SPEAKER JUMPER	N/A	W-3556949	N/A	DAKTRONICS	SEE TAG	DAKTRONICS	
AL	RG6 COAXIAL, AM/FM ANTENNA	0.270"	W-2405	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AM	50' PRETERM SHURE ANTENNA	N/A	W-2476	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AN	25' PRETERM ADA ANTENNA	N/A	INC W/ A-2016	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AO	RG8U 50 OHM COAX, (P-1331 TERM)	.285"	W-1570	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AP	2 PAIR, 13 AWG SPEAKER WIRE	0.42"	W-3902519	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AQ	4 PAIR, 13 AWG SPEAKER WIRE	0.60"	W-3371462	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AR	50FT CABLE IN 500HD CABINET	-	W-2317	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AS	60FT CABLE IN 1500HD CABINET	-	W-5103349	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AT	70FT CABLE IN 2050HD CABINET	-	W-5226213	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
AU	50FT LC-LC DUPLEX FIBER	-	W-1865	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	
XA-Z	OTHER W OR PR CABLES	-	W OR PR	SEE TAG	DAKTRONICS	SEE TAG	DAKTRONICS	

![](_page_19_Figure_4.jpeg)

ote: Ll fibei Ight co Ermina Ll term	DTE: L FIBER TERMINATIONS TO BE DESIGNATED BY TEXT IN UPPER GHT CORNER OF DEVICES. DAKTRONICS USES ST AND LC ERMINATIONS THROUGHOUT THE SYSTEM. DESIGNATION IS FOR L TERMINATIONS LOCATED AT EACH DEVICE.						
XAMPLE							
	ST (OR LC)						
DEVICE							
AU	DIO EQUIPMENT ABBREVIATION DESCRIPTION						
ADA	AUDIO DISTRIBUTION AMPLIFIER						
ACM	AUDIO CONTROL MODULE						

ADC ANALOG TO DIGITAL CONVERTER

AIP AUDIO INPUT PANEL

AMP	AMPLIFIER
ANT	ANTENNA & ANTENNA EQUIPMENT
APP	AUDIO PATCH PANEL
ASE	AUDIO SOURCE EQUIPMENT
ASP	AUDIO SOURCE PROCESSOR
ATL	AUDIO TIE LINE (DRY)
ATT	ATTENUATOR
BOP	BREAK OUT PANEL
BKP	ANALOG BACKUP SWITCH
CPU	COMPUTER
DSP	DIGITAL SIGNAL PROCESSOR
FAI	FIRE ALARM INTERFACE
FCC	FIBER COMMUNICATION CONVERTER
FPP	FIBER OPTIC PATCH PANEL
KEY	KEYBOARD
KVE	KVM EXTENDER
KVM	KVM SWITCH
KVR	KVM RECEIVER
IMS	INTERCOM MASTER STATION
JBT	JUNCTION BOX TERMINATION POINT
MCV	MEDIA CONVERTER
MIC	MICROPHONE PRODUCT
MIX	AUDIO MIXER
MON	MONITOR
NET	NETWORK ROUTER/SWITCHER/HUB
POW	POWER SUPPLY / POWER STRIP
RLY	RELAY
RPC	REMOTE POWER CONTACTOR
RPS	REMOTE POWER SEQUENCER
SCV	SIGNAL CONVERTER
SPK	SPEAKER
SPT	SPLITTER
SUM	SUMMING AMPLIFIER
SWT	CONTACT SWITCH
TBL	TERMINAL BLOCK
TEL	TELEPHONE INTERFACE EQUIPMENT
THE	THERMOSTAT
TMP	TEMPERATURE SENSOR
TRX	TRANSFORMER
ULA	UNIVERSAL LINE AMPLIFER
UPS	UNINTERRUPTIBLE POWER SUPPLY
WMS	WIRELESS INTERCOM MASTER STATION
WBS	WIRELESS INTERCOM BASE STATION
WRX	WIRELESS RECEIVER EQUIPMENT
WTX	WIRELESS TRANSMITTER EQUIPMENT

#### **U OF MISSOURI** MEMORIAL STADIUM

#### MEMORIAL STADIUM 600 E STADIUM BLVD COLUMBIA, MO 65201

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

DATE:

SUBMITTAL APPROVAL

THE FOLLOWING 500-549 SERIES ARE NOT SCALED DRAWINGS AND SHOULD BE USED FOR POWER AND SIGNAL REQUIREMENTS ONLY, REFER TO SHEETS 550-599 FOR PHYSICAL SPEAKER/MOUNTING DETAILS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON-SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES. ALL SIGNAL CABLE RUNS SHOULD BE LABELED WITH THEIR ORIGIN AND DESTINATION ON EACH END.

GENERAL NOTES:

FIBER OPTIC CABLE RUNS MUST BE CONTINUOUS WITH A MINIMUM BEND RADIUS OF 15XO.D. OF THE FIBER CABLE. ALL DISPLAYS MUST BE GROUNDED PER ARTICLE 250 AND 600 OF THE NATIONAL ELECTRICAL CODE WITH NO

MORE THAN 10 OHMS GROUND RESISTANCE. THE OVER CURRENT PROTECTION DEVICE MUST BE MATCHED TO THE FAULT CURRENT THAT IS AVAILABLE IN THE POWER DELIVERY CIRCUIT. TO DETERMINE THE AVAILABLE FAULT CURRENT OF A SITE, AN ONSITE FAULT CURRENT SURVEY MAY NEED TO BE PERFORMED BY QUALIFIED PERSONNEL. IF THE AVAILABLE FAULT CURRENT IN THE ELECTRICAL SYSTEM EXCEEDS 10,000 AMPS, A DAKTRONICS REPRESENTATIVE SHOULD BE

CONTACTED. DAKTRONICS UTILIZES BOTH STANDARD AND SUPPLEMENTARY CIRCUIT BREAKERS IN THE DISPLAY ASSEMBLY PROCESS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT ALL PRIMARY FEEDER CIRCUIT BREAKERS TO EACH DISPLAY/DISPLAY SECTION ARE UL 489 LISTED.

DAKTRONICS IS NOT RESPONSIBLE FOR THE QUALITY OF THE POWER DELIVERY SYSTEM TO THE DISPLAY SYSTEM. BECAUSE EACH INSTALLATION IS UNIQUE, DAKTRONICS OFFERS THESE INSTRUCTIONS <u>AS GUIDELINES ONLY.</u> DAKTRONICS, INC. ASSUMES NO LIABILITY IF INSTALLATION STEPS HAVE BEEN OMITTED OR OTHER NECESSARY PROCEDURES ARE NOT INCLUDED IN THIS SYSTEM RISER DIAGRAM.

POWER AND SIGNAL REQUIREMENTS ARE SPECIFIED TO THE EQUIPMENT AND SETUP SHOWN. ANY CHANGES MADE TO EQUIPMENT OR THEIR SETUP SHOULD BE DISCUSSED WITH DAKTRONICS DESIGN PERSONNEL AND WILL REQUIRE AN UPDATED RISER DIAGRAM DRAWING.

THE CONTRACTUAL AGREEMENT WILL DETERMINE THE PARTY OR PARTIES RESPONSIBLE FOR ITEMS LISTED AS FIELD INSTALLED. THIS DRAWING IS NOT INTENDED TO DETERMINE RESPONSIBILITIES AND SHOULD BE USED FOR REFERENCES ONLY.

ACTUAL PLACEMENT OF ELECTRICAL COMPONENTS, SUCH AS PANEL BOARDS, A/C'S, AND SPLICE PANELS, MAY VARY. LOCATION OF SUCH EQUIPMENT TO BE FIELD VERIFIED. CONTROL ROOM NOTES:

THE CONTROL ROOM(S) ARE TO BE CLIMATE CONTROLLED BY CUSTOMER. NORMAL OPERATING TEMPERATURE SHOULD BE BETWEEN 65 AND 75 DEGREES FAHRENHEIT. NORMAL OPERATING HUMIDITY SHOULD BE LESS THAN 80 PERCENT NON-CONDENSING. STORAGE TEMPERATURE SHOULD BE BETWEEN 40 AND 95 DEGREES FAHRENHEIT. STORAGE HUMIDITY SHOULD BE LESS THAN 95 PERCENT NON-CONDENSING. IT IS THE RESPONSIBILITY OF THE CUSTOMER THAT ALL CONTROL ROOM POWER IS FROM CLEAN DEDICATED CIRCUITS. EACH RACK REQUIRES TWO 20 AMP CIRCUITS TERMINATED WITH NEMA 5-20R RECEPTACLES. ONE 20 AMP CIRCUIT PREFERABLY FROM THE SAME POWER FEED IS REQUIRED FOR EACH DESK WHERE WORKSTATIONS ARE TO BE PLACED.

IT IS THE RESPONSIBILITY OF THE ELECTRICAL INSTALLATION CONTRACTOR TO ENSURE THAT ALL ELECTRICAL WORK PERFORMED ON-SITE MEETS OR EXCEEDS ALL LOCAL AND NATIONAL ELECTRICAL CODES. DAKTRONICS IS NOT RESPONSIBLE FOR THE QUALITY OF THE POWER DELIVERY SYSTEM TO THE CONTROL SYSTEM.

BECAUSE EACH INSTALLATION IS UNIQUE, DAKTRONICS OFFERS THESE INSTRUCTIONS AS GUIDELINES ONLY. DAKTRONICS, INC. ASSUMES NO LIABILITY IF INSTALLATION STEPS HAVE BEEN OMITTED OR OTHER NECESSARY PROCEDURES ARE NOT INCLUDED IN THIS SYSTEM RISER DIAGRAM.

WHEN VIEWING THE RACK FROM THE REAR, ALL THE POWER SHOULD RUN ON THE LEFT AND THE SIGNAL ON THE RIGHT. DO NOT ALLOW THE SIGNAL AND POWER TO RUN PARALLEL WITH ONE ANOTHER.

SIGNED:

TITLE:

COMPANY:

![](_page_19_Picture_24.jpeg)

	COMPONENT IDENTIFICATION LEGEND								
ID TAG	COMPONENT DESCRIPTION	MANUFACTURER'S PART NUMBER	COMPONENT PROVIDED BY	COMPONENT INSTALLED BY					
ACR1	AUDIO CONTROL RACK	0Z-32591 2110CC	DAKTRONICS	DAK. ELECT. SUB.					
AR1	AMP RACK 1; OUTDOOR ENCLOSURE	0Z-32591-2110RA	DAKTRONICS	DAK. ELECT. SUB.					
AJBT1	24 POSITION JUNCTION BOX	A-3551406	DAKTRONICS	DAK. ELECT. SUB.					
AJBT2	12 POSITION JUNCTION BOX	A-3551392	DAKTRONICS	DAK. ELECT. SUB.					
CRP1_1	AMP RACK REMOTE POWER PANEL	TBD	DAKTRONICS	DAK. ELECT. SUB.					
SPK	SEE SPEAKER TABLE	SEE SPEAKER TABLE	DAKTRONICS	DAK. ELECT. SUB.					

SPEAKER IDE	NTIFICATION LEGEN	D	
DAKTRONIC'S PART NUMBER	MANUFACTURER'S PART NUMBER	SPEAKER COUNT	TAP SETTINGS
A-5177629	SUB218LB-WR	16	N/A
	SPEAKER IDE DAKTRONIC'S PART NUMBER A-5177629	SPEAKER IDENTIFICATION LEGEN         DAKTRONIC'S PART NUMBER       MANUFACTURER'S PART NUMBER         A-5177629       SUB218LB-WR	SPEAKER IDENTIFICATION LEGEND         DAKTRONIC'S PART NUMBER       MANUFACTURER'S PART NUMBER       SPEAKER COUNT         A-5177629       SUB218LB-WR       16

	1111	1111	1111	1111	1111		
		0⊾	L	0⊾	2	30-	-0t
	1111	1111					
э—	l						
	1111	1111	1111	1111	1111		
		_1	0	2	0	<b>-</b> 30	-40

![](_page_20_Picture_3.jpeg)

![](_page_20_Figure_4.jpeg)

## U OF MISSOURI MEMORIAL STADIUM

![](_page_20_Picture_6.jpeg)

SUBMITTAL APPROVAL

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMIT

COMPANY: ____

SIGNED:

DATE:

NOTES:

TITLE:

THIS IS NOT A SCALED DRAWING AND SHOULD BE USED FOR SIGNAL RUNS ONLY

SEE SHEETS 550-559 FOR EXACT SPEAKER LOCATIONS AND MOUNTING DETAILS

CABLE RUNS ARE TO BE LABELED ON EACH END WITH A CLEARLY IDENTIFIABLE DESIGNATOR FOR EASE OF CONNECTION

LEAVE A MINIMUM OF 10' OF CABLE AT EACH CONNECTION POINT FOR FINAL TERMINATIONS

ALL SPEAKER, AUDIO SIGNAL, AND ANTENNAE RUNS ORIGINATE AT CONTROL/AMP RACK LOCATION UNLESS SHOWN OTHERWISE

CABLING BETWEEN THE SPEAKERS AND AJBT'S WILL BE MADE USING WHIPS ATTACHED TO THE SPEAKERS

CABLE TERMINATIONS AT THE AJBT'S WILL BE MADE TO TERMINAL BLOCKS

SPEAKER CABLE TERMINATIONS IN THE RACK WILL BE MADE DIRECTLY TO AMPLIFIER OUTPUT TERMINALS

SPEAKER CABLE TERMINATIONS COLOR CODE:

W-3201036 WHITE +

BLACK -

USE MANUFACTURERS COLOR GUIDE ON SPEAKER WHIPS FOR CONNECTIONS IN AJBT'S

		PTS EXPRESSED AND DE IDENTIAL AND PROPRIE ANS WITHOUT THE EXPF ONICS, INC. OR ITS WHC COPYRIGHT 2024 DAKT	TAILS SHOWN ON THI TARY. DO NOT REPRO RESS WRITTEN CONSE OLLY OWNED SUBSIDIA RONICS, INC. (USA)	s drawing Duce by Int of Ries.	THIRD ANGLE PRO	
PROJECT:	U OF MISSOUR	I MEMORIAL S	STADIUM			
TITLE:	AUDIO; RISER I	PLAN VIEW - 5	01			
DATE:	21 MAR 24	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV
SCALE:	NONE	DO NOT S	CALE DRAW	ING	V501	Α
DESIGN:	DSTURZ	JOB NO.	FUNC - TYPE - SIZE	L	-1020	25
DRAWN:	JROHLIK	C32591	F · 01 · D	,	J4Z30	ZO

![](_page_21_Figure_0.jpeg)

![](_page_21_Figure_1.jpeg)

![](_page_21_Figure_2.jpeg)

![](_page_21_Figure_3.jpeg)

![](_page_21_Figure_4.jpeg)

![](_page_21_Figure_5.jpeg)

#### **U OF MISSOURI** MEMORIAL STADIUM

#### MEMORIAL STADIUM 600 E STADIUM BLVD COLUMBIA, MO 65201

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

DATE:

SUBMITTAL APPROVAL

COMPANY:

SIGNED:

TITLE:

	THE CONCEP ARE CONF ANY ME DAKTR	PTS EXPRESSED AND DE IDENTIAL AND PROPRIE ANS WITHOUT THE EXPF ONICS, INC. OR ITS WHC COPYRIGHT 2024 DAKT	TAILS SHOWN ON THIS TARY. DO NOT REPRO RESS WRITTEN CONSE JLLY OWNED SUBSIDIA RONICS, INC. (USA)	s drawing Duce by NT of Ries.	THIRD ANGLE PRO	
PROJECT:	U OF MISSOUR	I MEMORIAL S	STADIUM			
TITLE:	AUDIO; AMP/SF	PEAKER SCHE	MATIC - 502			
DATE:	21 MAR 24	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV
SCALE:	NONE	DO NOT S	CALE DRAW	ING	V502	Α
DESIGN:	DSTURZ	JOB NO.	FUNC - TYPE - SIZE	L	= 1 7 7 0	2 C
DRAWN:	JROHLIK	C32591	F - 01 - D	,	04230	20

#### CONTROL ROOM LOCATION

![](_page_22_Figure_1.jpeg)

![](_page_22_Figure_2.jpeg)

![](_page_22_Figure_3.jpeg)

POWER CONNECTIONS MADE TO EXISTING NETWORK SWITCH OR UPS ONSITE

#### AMP ROOM LOCATION

![](_page_22_Figure_6.jpeg)

![](_page_22_Figure_7.jpeg)

![](_page_22_Figure_8.jpeg)

UPS #3

NET3_2

NET3_1

FRONT VIEW

![](_page_22_Figure_11.jpeg)

DEEPEST COMPONENT IS APPROX. 29" DEEP. FOR SPACE NEEDS ONLY. INSTALLED IN RACK BY OTHERS ON SITE BASED ON SPACE AVAILABLE

#### **U OF MISSOURI** MEMORIAL STADIUM

#### MEMORIAL STADIUM 600 E STADIUM BLVD COLUMBIA, MO 65201

APPROVED APPROVED AS NOTED APPROVED AS NOTED & RESUBMI

DATE:

SUBMITTAL APPROVAL

## COMPANY:

SIGNED:

TITLE:

TEMP/HUMID PROBE - EXISTING AMP RACK A-4292711

> POWER CONNECTIONS MADE TO TMP2 EXISTING NETWORK SWITCH OR NET1 UPS ONSITE

0Z-32591-2110CA

REAR VIEW

DAKTE	THE CONCEP ARE CONF ANY ME DAKTR	PTS EXPRESSED AND DE IDENTIAL AND PROPRIE ANS WITHOUT THE EXPR ONICS, INC. OR ITS WHC COPYRIGHT 2024 DAKT	TAILS SHOWN ON THI: TARY. DO NOT REPRO RESS WRITTEN CONSE DLLY OWNED SUBSIDIA RONICS, INC. (USA)	s drawing Duce by Int of Ries.	THIRD ANGLE PRO	
PROJECT:	U OF MISSOUR	I MEMORIAL S	STADIUM			
TITLE:	AUDIO; CONTR	OL SCHEMAT	IC - 503			
DATE:	21 MAR 24	DIM UNITS: INC	HES [MILLIME	TERS]	SHEET	REV
SCALE:	NONE	DO NOT S	CALE DRAW	ING	V503	Α
DESIGN:	DSTURZ	JOB NO.	FUNC - TYPE - SIZE	L	= 1 7 7 0	70
DRAWN:	JROHLIK	C32591	F - 01 - D	,	<u> 14230</u>	21

![](_page_23_Figure_0.jpeg)

ACR1

1 - 20 AMP 120 VAC CIRCUIT

ITEMS INSTALLED IN EXISTING CONTROL RACK ONSITE EQUIPMENT SHOWN FOR RU REQUIREMENTS ONLY LOCATION OF EQUIPMENT SUBJECT TO ONSITE ADJUSTMENTS

![](_page_23_Figure_4.jpeg)

AR1 0Z-32591-2110RA

FRONT VIEW

HEAT LOAD POWER LOAD WEIGHT WEIGHT (BTU/HR) (WATTS) (LBS) (KGS) RACK TOTAL 13868 1235 561 4064

![](_page_23_Figure_8.jpeg)

	NOT APPLICABLE	I	I ENGTH I EET	TYPE 1
Ø				
<u>w</u>		LAN	POUNDS	
3DC	3D CONTROLLER	LF LTG	LINEAR FEET LIGHTING	
A/C AB\/	AIR CONDITIONING	ΜΑΧ	ΜΑΧΙΜΙΙΜ	
AC	ALTERNATING CURRENT	MDF	MAIN DISTRIBUTION FRAME	
ada Adj	AMERICANS WITH DISABILITIES ACT ADJUSTABLE	MECH	MECHANICAL	
AFC AFF	ABOVE FINISHED CEILING ABOVE FINISHED FLOOR		MULTIMODE FIBER OPTIC CABLE	
AFG	ABOVE FINISHED GRADE			
AHJ ALT	AUTHORITY HAVING JURISDICTION ALTERNATE	NA NC	NOT APPLICABLE NORMALLY CLOSED	
ANSI ARCH	AMERICAN NATIONAL STANDARDS INSTITUTE	NEC NEMA	NATIONAL ELECTRICAL CODE	
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS		NETWORK	
AUX AWG	AUXILIARY AMERICAN WIRE GAUGE	NIC NO	NOT IN CONTRACT NORMALLY OPEN	
BEC	BELOW FINISHED CEILING	NTS	NOT TO SCALE	
BFF	BELOW FINISHED FLOOR	OC	ON CENTER	
BCDG BOH	BUILDING BACK OF HOUSE	OD OFCI	OUTSIDE DIAMETER OWNER FURNISHED CONTRACTOR INSTALLED	IYPE 3
BOP BOS	BOTTOM OF PIPE BOTTOM OF STRUCTURE	OFE	OWNER FURNISHED EQUIPMENT	
0		D		
CAT	CATEGORY CABLE	F P/O	PART OF	
CKT CL	CIRCUIT CENTER LINE	PC PDU	PERSONAL COMPUTER POWER DISTRIBUTION UNIT	
CLG	CEILING CONCRETE MASONRY LINIT	PGM	PROGRAM	
COL	COLUMN	PNL	PHASE PANEL	
CTRL	CONTROL	PROC PRH	PROCESSOR PROJECT RECEPTACLE HEIGHT	TYPE 4
D	DEPTH, DEEP	PRX	PROXIMITY SENSOR	
DC	DOWNSTAGE CENTER	PSF	POUNDS PER SQUARE FOOT	
DEG DEMO	DEGREES DEMOLITION	PSH PSI	PROJECT SWITCH HEIGHT POUNDS PER SQUARE INCH	
	DIRECTOR'S FLOOR POCKET	PT PVC		
DIM	DIMENSION	PWR	POWER	
DIV DS	DIVISION DOWNSTAGE	QTY	QUANTITY	
DSL DSR	DOWNSTAGE LEFT DOWNSTAGE RIGHT	R	RIGHT	TYPE 5
DWG	DRAWING	RCP	REFLECTED CEILING PLAN	
EA	EACH	REINF	REINFORCING	
EC EL	ELECTRICAL CONTRACTOR ELEVATION	REQD REV	REQUIRED REVISION, REVISE	TYPE 12
ELEC	ELECTRICAL ENCLOSURE	RM RO	ROOM	
EQ	EQUIDIT	RPM	REVOLUTIONS PER MINUTE	
EQUIP ER	EQUIPMENT EQUIPMENT RACK	S	SURFACE, SECONDARY	
ESW FXIST	ETHERNET SWITCH EXISTING	SQFT SIM	SQUARE FEET SIMILAR	
		SL	STAGE LEFT	
FA FB	FLOOR BOX	SMP	STAGE MANAGER POSITION	
FLEX FLR	FLEXIBLE FLOOR	SPEC SQ	SPECIFICATION SQUARE	TYPE A
FO	FINISHED OPENING	SR	STAGE RIGHT	
FPB	FIBER OPTIC PATCHBAY	STP	SHIELDED TWISTED PAIR	
FPM FT	FEET PER MINUTE FOOT, FEET	SURF SUSP	SURFACE	TYPE B
FV	FIELD VERIFY	TBD		
GND GA	GROUND GAUGE	THRU	THROUGH	TYPE C
н	HEIGHT	UC	UPSTAGE CENTER	
	HOUSE LEFT		UNDERWRITERS LABORATORIES, INC.	
HOR	HORIZONTAL	UPS	UNINTERRUPTIBLE POWER SUPPLY	L
HP HR	HURSEPOWER HOUSE RIGHT	US USL	UPSTAGE UPSTAGE LEFT	
HZ	HERTZ	USR	UPSTAGE RIGHT UNIVERSAL SERIAL BUS	
1/0		UTP	UNSHIELDED TWISTED PAIR	
IDF	INTERMEDIATE DISTRIBUTION FRAME	V	VOLT	
IG	ISOLATED GROUND	VA	VOLT-AMPERE	

VIF

W/

W/O

WP

WΤ

VERIFY IN FIELD

WEATHERPROOF

WITH

WITHOUT

WEIGHT

![](_page_24_Figure_1.jpeg)

JUNCTION BOX

KEYPAD

KILOWATT

JUNCTION BOX - DATA

JUNCTION BOX - SYSTEM POWER

JB

JP

JBD

KPD

KW

## ROUGH-IN BOX SCHEDULE

# AUDIO VISUAL ABBREVIATIONS

<u>RECESSED</u>: 1-GANG BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 1-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 1-GANG DIE CAST BOX. 25/8" DEEP WITH THREADED OUTLETS.

<u>RECESSED</u>: 4 11/16" SQUARE BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/ RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 2-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 2-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

<u>RECESSED</u>: 3-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 3-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 3-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

<u>RECESSED</u>: 4-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 4-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 4-GANG DIE CAST BOX. 2 5/8" DEEP WITH THREADED OUTLETS.

- 5 <u>RECESSED</u>: 5" SQUARE BOX. 2 1/2" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/RING EDGE TO BE FLUSH WITH FINISHED WALL.
- 2 <u>RECESSED</u>: 4 11/16" SQUARE BOX. 2 1/8" DEEP WITH KNOCKOUTS. PROVIDE DEVICE EXTENSION AS REQUIRED TO ACCOMMODATE DEVICE COVER SIZE. DEVICE COVER/ RING EDGE TO BE FLUSH WITH FINISHED WALL.

MASONRY: 1-GANG BOX. 2 1/2" DEEP WITH KNOCKOUTS IN 4" CMU/BRICK/CONCRETE; 3 1/2" DEEP WITH KNOCKOUTS IN 6" OR 8" CMU/CONCRETE. COVER EDGE TO BE FLUSH WITH FINISHED WALL.

SURFACE MOUNTED: 1-GANG DIE CAST BOX. 25/8" DEEP WITH THREADED OUTLETS.

- A JUNCTION BOX (HxWxD) WITH SCREW COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS.
- JUNCTION BOX (HxWxD) WITH HINGED COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS.
- JUNCTION BOX (HxWxD) WITH LOCKING HINGED COVER. PROVIDE NEMA TYPE 1 AT INDOOR LOCATIONS; PROVIDE NEMA TYPE 3R AT OUTDOOR LOCATIONS. PAINTED AT EXPOSED LOCATIONS

## CONDUIT AND PATHWAY NOTES

- COORDINATE LOCATION OF EQUIPMENT, JUNCTION BOXES, OUTLETS, CONDUIT, ETC. ACCORDING TO THE PROJECT GENERAL CONDITIONS.
   PROVIDE A COMPLETE RACEWAY SYSTEM TO CONSIST OF METALLIC CONDUIT (EXCLUDING IN-GROUND PATHWAY), JUNCTION BOXES, DEVICE BACK BOXES, AND FITTINGS UNLESS NOTED
- OTHERWISE.
  THE DRAWINGS INDICATE ONE ROUTING METHOD OF THE CABLING PATHWAY. CHANGES MAY BE MADE TO THE PATHWAY SYSTEM ROUTING TO ACCOMMODATE SITE CONDITIONS OR TO SIMPLIFY INSTALLATION PROVIDING THAT NOTED CONDUIT SIZE OR LARGER IS MAINTAINED AND DISTANCE LIMITATIONS LISTED BELOW ARE NOT EXCEEDED.
  CONDUIT STUBS FROM DEVICES TO THE NEAREST CABLE TRAY, ACCESSIBLE CEILING, OR
- OTHER DESTINATIONS SHALL BE CONTINUOUS.
- UNLESS NOTED OTHERWISE, CONDUIT IS 3/4 INCH TRADE SIZE.
   SHOULD ROUGH-IN BOX DEVICE EXIST WITH NO CONDUIT INDICATED TO OR FROM, PROVIDE ³/₄ INCH TRADE SIZE CONDUIT FROM DEVICE TO ACCESSIBLE CEILING.
   CONDUIT BODIES (LB'S) ARE NOT PERMITTED.
- CONDUITS SHALL BE REAMED TO ELIMINATE SHARP EDGES. METALLIC CONDUITS SHALL BE TERMINATED WITH AN INSULATED BUSHING. PULL STRINGS WITH A MINIMUM PULL RATING OF
- 400 POUNDS SHALL BE PROVIDED.
  9. FOR CONDUIT WITH AN INTERNAL DIAMETER GREATER THAN 2 INCHES, MAINTAIN A BEND RADIUS OF AT LEAST 10 TIMES THE INTERNAL CONDUIT DIAMETER.
- BENDS IN THE CONDUIT SHALL NOT CONTAIN ANY KINKS OR OTHER DISCONTINUITIES. FLEX IS NOT PERMITTED UNLESS NOTED OTHERWISE.
   NO SECTION OF CONDUIT SHALL EXCEED 100 FEET. RUNS IN EXCESS OF 100 FEET REQUIRE A
- PULL BOX / HANDHOLE / VAULT. 12. NO SECTION OF CONDUIT SHALL CONTAIN MORE THAN TWO 90 DEGREE BENDS, OR EQUIVALENT 180 DEGREES, BETWEEN PULL BOXES.
- PULL BOX SHALL NOT BE USED IN LIEU OF A BEND. CONDUITS MUST RUN STRAIGHT THROUGH A PULL BOX WITH THE BEND LOCATED EITHER BEFORE OR AFTER THE PULL BOX.
   PULL BOX LENGTH TO BE NO LESS THAN 8 TIMES THE DIAMETER OF THE LARGEST
- TERMINATING CONDUIT. PULL BOX WIDTH TO BE NO LESS ¹/₄ THE LENGTH.
  15. PROVIDE COVERS WITH LABELING FOR JUNCTION BOXES, BACK BOXES AND PULL BOXES WITHOUT FACEPLATES. LABELING MATCHES DEVICE NAME AS INDICATED ON DRAWINGS, FOR
- EXAMPLE "AV1", "ML". 16. ALL CONDUITS ENTERING OR EXITING EQUIPMENT RACKS TO BE ISOLATED WITH A NON-METALLIC SPACER OR FITTING.
- PROVIDE CONDUIT TO CROSS INACCESSIBLE CEILINGS OR IN AREAS WITHOUT CEILINGS UNLESS NOTED OTHERWISE.
- 18. PROVIDE CONDUIT IN EXPOSED AREAS, MECHANICAL SPACES, FOOD SERVICES AREAS, AND ELEVATOR CONTROL ROOMS.
- REGARDLESS OF PATHWAY TYPE, ALL CABLING SHALL BE SUPPORTED AT 4 FEET MAXIMUM INTERVALS. CABLES SHALL NOT BE LAID DIRECTLY ON THE CEILING TILE OR RAILS OR STRAPPED TO CONDUIT.
   ROUTE CONDUIT WITH OTHER BUILDING SERVICES AND CONCEAL WHENEVER POSSIBLE.
- GROUP AND RUN PARALLEL ALONG A SINGLE BUILDING COLUMN LINE, HOLD TIGHT TO STRUCTURE AND PAINT AS DIRECTED BY THE ARCHITECT.
  21. IF AV AND POWER CONDUITS MUST CROSS, CROSS AT RIGHT ANGLES.
- FOR IN-SLAB OR UNDERGROUND CONDUIT ENTERING A BUILDING, TRANSITION BACK TO METALLIC CONDUIT WITHIN 3 FEET OF THE ENTRY POINT.
   REFER TO PROJECT MANUAL FOR FIRE STOPPING REQUIREMENTS.
- 24. REFER TO ELECTRICAL DRAWINGS AND PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.

	NOT APPLICABLE	KVM
ADA AES ALS AMP	AUDIO DISTRIBUTION AMPLIFIER AUDIO ENGINEERING SOCIETY ASSISTED LISTENING SYSTEM AMPLIFIER AMPERES	LA LIM LL
ANT ANT DA APB AV AVS	ANTENNAE ANTENNA DISTRIBUTION AMPLIFIER AUDIO PATCH BAY AUDIO VIDEO AUDIO VIDEO SWITCHER	MATV MIC MICPRE MIX ML MOD
BR BDR BGM	BLU-RAY DISC PLAYER BLU-RAY DISC RECORDER BACKGROUND MUSIC PLAYER	MON MTR MTX
	CAMERA CABLE TELEVISION	NG
CCTV CCU CDP CG CONV	CLOSED CIRCUIT TELEVISION CAMERA CONTROL UNIT COMPACT DISC PLAYER CHARACTER GENERATOR CONVERTER CONVERTER	PA PAD PEQ PSP PTZ
		REC
DA DAN DM DM-MTX DMP DMPS DMR DMRX DMTX DMU DOC CAM DP DPDT DPDT DPST DSP DVE DVE DVE DVE DVE DVR EBU EQ FC FPM FORX FOTX	DISTRIBUTION AMPLIFIER DIGITAL AUDIO NETWORK DIGITAL MEDIA DIGITAL MEDIA MATRIX DIGITAL MEDIA PLAYER DIGITAL MEDIA PRESENTATION SWITCHER DIGITAL MEDIA RECORDER DIGITAL MEDIA RECORDER DIGITAL MEDIA RECEIVER / DECODER DIGITAL MEDIA RANSMITTER / ENCODER DIGITAL MEDIA TRANSMITTER / ENCODER DIGITAL MESSAGE UNIT DOCUMENT CAMERA DISPLAY PORT DOUBLE-POLE, DOUBLE-THROW DOUBLE-POLE, SINGLE-THROW DOUBLE-POLE, SINGLE-THROW DIGITAL SIGNAL PROCESSOR DIGITAL VIDEO EFFECTS DIGITAL VIDEO RECORDER EUROPEAN BROADCASTING UNION EQUALIZER FORMAT CONVERTER FLAT PANEL MONITOR FIBER OPTIC RECEIVER FIBER OPTIC TRANSMITTER HIGH DEFINITION MULTIMEDIA INTERFACE	SATRX SB SC SDI SPDT SPG SPL SPK SPLIT SPST STREAM SUM SW TD TP TV VBS VC VCA VDA VCA VDA VCA VDA VCA VP VPB VS VSC
HDRX HDSDI HDTX ICOM	HDMI RECEIVER HD SERIAL DIGITAL INTERFACE HDMI TRANSMITTER INTERCOM	VSG VSR VSW VTC VWP
IFB IPTV	INTERRUPTED FOLDBACK INTERNET PROTOCOL TELEVISION	WFM WMS
JBA JBC JBE JBL JBM JBR JBS JBS JBT JBV	JUNCTION BOX - AUDIO JUNCTION BOX - CONTROL JUNCTION BOX - ENG TRUCKS JUNCTION BOX - AUDIO LINE LEVEL JUNCTION BOX - AUDIO MIC LEVEL JUNCTION BOX - RADIO JUNCTION BOX - SPEAKER JUNCTION BOX - BROADCAST JUNCTION BOX - VIDEO	W IX XFMR XOVR

KEYBOARD VIDEO MOUSE

LINE AMPLIFIER LIMITER LINE LEVEL

MASTER ANTENNA TELEVISION MICROPHONE

MICROPHONE PREAMP MIXER MICROPHONE LEVEL MODULATOR MONITOR / VIDEO DISPLAY MULTITRACK PLAYER/RECORDER

MATRIX NOISE GENERATOR PUBLIC ADDRESS AUDIO ATTENUATOR PARAMETRIC EQUALIZER POWERED SPEAKER PAN/TILT/ZOOM

RECORDER

SATELLITE RECEIVER SCOREBOARD SCAN CONVERTER SERIAL DIGITAL INTERFACE SINGLE POLE DOUBLE THROW SYNC PULSE GENERATOR SPLITTER SPEAKER MICROPHONE SPLITTER SINGLE POLE SINGLE THROW

DIGITAL VIDEO STREAMING AUDIO SUMMING DEVICE SWITCHER THROW DISTANCE

TOUCH PANEL TELEVISION

VIDEO BURST SYNC VOLUME CONTROL VOLTAGE CONTROLLED AMPLIFIER VIDEO DISTRIBUTION AMPLIFIER VIDEO GRAPHICS ARRAY VIDEO PROJECTOR VIDEO PATCH BAY VECTOR SCOPE VIDEO SYNC GENERATOR VIDEO SYNC GENERATOR VIDEO SERVER VIDEO SWITCH VIDEO TELECONFERENCING SYSTEM VIDEO WALL PROCESSOR

WAVEFORM MONITOR WIRELESS MICROPHONE SYSTEM WIRELESS TRANSMITTER

TRANSFORMER CROSSOVER

3424 Midcourt Roo Suite 12 Carrollton, Texas 75006 972-934-3700 www.wjhw.com  $\overline{}$  $\overline{}$ 652 URI MUIQ 0 Ñ MIS Ā Ś NNO MEMORIAI  $\square$  $O \ge$ ONE Ŏ Ш UMB **STH** PROJECT NUMBER CP241291 SHEET AV000

			DE	/ICE SYMBOL KE	EY - AUDIO/VISU	AL S
-[XX	WALL / COLUMN MOUNTED DEVICE	$\overline{\mathbf{x}}$	CEILING / OVERHEAD MOUNTED DEVIC	Æ	HINGE SIDE (IF SHOWN) FLOOR MOUNTED DEVICE	<
				SYMBOL L	EGEND - AUDIC	)/VIS
		SIZES, DIMI	ENSIONS AND NOTE	S DESCRIBE TYPICAL REQUIREN UNLESS NOTED OTI	MENTS. IF APPLICABLE, VARIAT HERWISE, MOUNTING HEIGHTS	FIONS AN
TYPE	DEVICE	ROUGH-IN BOX	DEVICE COVER		MOUNTING HEIGHT	
		(H"xW"xD")	SIZE	WALL/COLUMN	CEILING/OVERHEAD	
JBS	LOUDSPEAKER JUNCTION BOX	32"x32"x8"	32"x32"	-		

DEVICE SYMBOL KEY	- SPEAKER SYS
 WALL / COLUMN MOUNTED SPEAKER	

			SYSTEMS			DEVICE S		
DEVICE TYPE	SK / COUNTER DEVICE	(XX) UNDER DE MOUNTED	DESK / COUNTER MOUNTED DEVICE	GE SIDE (IF SHOWN) OR MOUNTED DEVICE		ILING / ERHEAD DUNTED DEVICE		-XX WALL / COLUMN MOUNTED DEVICE
		BE NOTED ON THE DRAWINGS.	SUAL SYSTEMS	GEND - AUDIO/	SYMBOL L	NS AND NOTES DESCRIBE	SIZES. DIMEI	
	(		CENTER OF ROUGH-IN BOX.		JNLESS NOTED OTH		ROUGH-IN BOX	TYPE DEVICE
	4" CONDUIT TO		FLOOR	CEILING/OVERHEAD	-/COLUMN	SIZE WAL	(H"xW"xD")	
03/22/2024 ISSUED FOR CONTRUCTION CANN BY: WJHW CHECKED BY: SS								
SPEAKER ID			STEMS	EY - SPEAKER S	SYMBOL F	DEVICE		
SPEAKER TYPE		KER	EILING / OVERHEAD SPEA			ED SPEAKER	VALL / COLUMN MOU	
COLUMBIA, BOONE COUNTY, MISSOUR NORTH CONCOURSE VIDEO BOARD REPLACEM	REF PLANS	BE NOTED ON THE DRAWINGS. DEVICE NOTES	SYSTEMS         ND/OR ADDITIONAL REQUIREMENTS WILL         CENTER OF ROUGH-IN BOX.         FLOOR         D. REF DRAWINGS	S. IF APPLICABLE, VARIATION WISE, MOUNTING HEIGHT MOUNTING HEIGHT CEILING/OVERHEAD ST/	SYMBOL PPICAL REQUIREME JNLESS NOTED OTH COLUMN	INS AND NOTES DESCRIBE	SIZES, DIME ROUGH-IN BOX (H"xW"xD")	TYPE DEVICE SUBWOOFER

PROJECT NUMBER

SHEET

CP241291

AV001

				AV RACK SCHEDULE				
RACK				DETAIL	NOMINAL	NOMINAL		
DESIGNATOR	ROOM	RACK STYLE	TYPE #	(SEE BELOW)	SIZE (RU)	DEPTH	OPTIONS	NOTES
ER-SB	BASE OF SCOREBOARD STRUCTURE	FREE STANDING		1/AV090	44	42"		FIELD VERIFY LOCATION WITH OWNER

CONDUITS REF AV DRAWINGS FOR SIZE AND QUANTITY

JBx WITH CONDUIT STUBBED UP TO CABLE TRAY. REF AV PLANS FOR ADDITIONAL DETAILS.

1 FREE STANDING/GANGED RACK DETAIL 1/2" = 1'-0"

![](_page_26_Figure_6.jpeg)

CABLE TRAY 12" ABOVE RACKS. REF AV RACK SCHEDULE FOR RACK HEIGHTS

CULUMBIA, BUUNE CUUN

SHEET

AV090

WJHW 3424 Midcourt Road

Suite 124 Carrollton, Texas 75006 972-934-3700

www.wjhw.com

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ED FOR CONI

![](_page_27_Figure_0.jpeg)

![](_page_27_Figure_1.jpeg)

AUDIO SHIELD CONNECTIONS

![](_page_27_Figure_2.jpeg)

AV CABLE PREPARATION DETAILS

CONNECTOR

CABLE LABEL

V-338

SMPTE / SMFO / TRIAX / COAXIAL CABLE

![](_page_27_Figure_3.jpeg)

![](_page_28_Figure_0.jpeg)

SPEAKER JUNCTION BOX TERMINATION DETAILS

![](_page_28_Picture_3.jpeg)

XLR-4F

XLR-7F

DISPLAY PORT

RJ45

PARALLELED SPEAKERS DETAIL

CONSTANT VOLTAGE
 TRANSFORMER/
 TAP VALUE (W)

XLR-3M

XLR-6M

BNC

RCA

XLR-3F

XLR-6F

3MM PHONE

f b

HDMI

PANEL SYMBOL LEGEND

XLR-4M

XLR-7M

FIBER OPTICALCON

USB/A

XLR-5F

1/4" PHONE

FIBER ST

USB/B

AREA / ROOM

CIRCUIT NUMBER

XLR-5M

ti bot 1/4" PHONE COMBO

HD15 (VGA)

NL4

	FUNCTIONAL SYME		
EV - ID		318	TRANSFORMER
TYPE *	DEVICE	K	AUTOFORMER
		Į.	POTENTIOMETER
PA-ID	POWER AMPLIFIER	Ψ	ANTENNA
TYPE *		$\bigcirc$	MICROPHONE
SPEAKER - ID			LED / IR EMITTER
	LOUDSPEAKER	$\oslash$	SCREW TERMINAL
			SWITCH
		• •	SWITCH (MOMENTARY)
TYPE *		$\square$	POLARITY
DEVICE	VIRTUAL DSP DEVICE	NPC	NETWORK PATCH CABLE
		———————————————————————————————————————	PATCH / CONNECTOR POINT
		$\rightarrow \rightarrow$	CONNECTION POINT
	NO CONNECTION	$\leftrightarrow$	NORMALLED PATCH
		{	SIGNAL CONTINUATION
<b>•</b>	Y CONNECTION	[	NETWORK / FIBER PATCH POINT
	MULTIPLE LINES	- <b>[+</b> -]	NETWORK / FIBER THRU PATCH
			TO / FROM EXTERNAL SYSTEM

	N	Carr	424 I ollton w	Midco n, Tex 972- www.v	Suite Suite cas 75 934-3	Road = 124 5006 3700 com
						SS
ED FOR CONTRUCTION						/ CHECKED BY:
13/22/2024 ISSU						WHLW :Ya NWI
			CULUMBIA, BUONE COUNTY,	NOPTH CONCOLLECE VIDEO BOAD		
PF		ст 2	NUM	1BER 12	29	1
Sł	HEET					

AV1101

![](_page_29_Figure_1.jpeg)

TYPE 2

TYPE 20

TYPE 20

TYPE 20

TYPE 20

TYPE :

TYPE 20

TYPE 2

![](_page_29_Figure_3.jpeg)

![](_page_29_Figure_4.jpeg)

![](_page_29_Figure_6.jpeg)

![](_page_30_Figure_0.jpeg)

1 <u>AV_DEMOLITION PLAN</u> 1/2" = 1'-0"

![](_page_30_Figure_2.jpeg)

<b>W</b> .	SHAWA Suite 124 carrollton, Texas 75006 972-934-3700 www.wjhw.com
R CONTRUCTION	CHECKED BY: SS
03/22/2024 ISSUED FC	DRAWN BY: WJHW
MEMORIAL STADIUM	COLUMBIA, BOONE COUNTY, MISSOURI 65211 NORTH CONCOURSE VIDEO BOARD REPLACEMENT 15213
	/1190

KEYNOTES

![](_page_31_Figure_0.jpeg)

![](_page_31_Figure_1.jpeg)

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RIAL STADIUM	E COUNTY, MISSOURI 65211 E VIDEO BOARD REPLACEMENT
MEMOR	, BOONE ONCOURSE

KEYNOTES

![](_page_32_Figure_0.jpeg)

LEVEL 8	
LEVEL 7	
LEVEL 6	
	EXISTING ANTENNA / MOUNT / STEALTH PANEL TO BE REMOVED BY AT&T PRIOR TO CONSTRUCTION AND REINSTALLED AFTER COMPLETION. EXISTING COAX WILL BE PULLED BACK AND COILED UP
LEVEL 5	SAFE LOCATION DURING CONSTRUCTION.
LEVEL 4	
LEVEL 3	
LEVEL 2	
LEVEL 1	
GROUND LEVEL	

# NORTH END SCORE BOARD EQUIPMENT ELEVATION

![](_page_33_Figure_2.jpeg)

- EXISTING NORTH END SCORE BOARD

![](_page_33_Figure_5.jpeg)

SCALE: 1/4" = 1'-0" **1** 

PROJECT# 2017.0005.0001

ELEVATION

SHEET NUMBER:

A.5.01

![](_page_34_Figure_0.jpeg)

![](_page_34_Picture_2.jpeg)

PROJECT# 2017.0005.0001