

PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE **COVER SHEET** 

> SHEET 0.0

DATE 04-21-2023

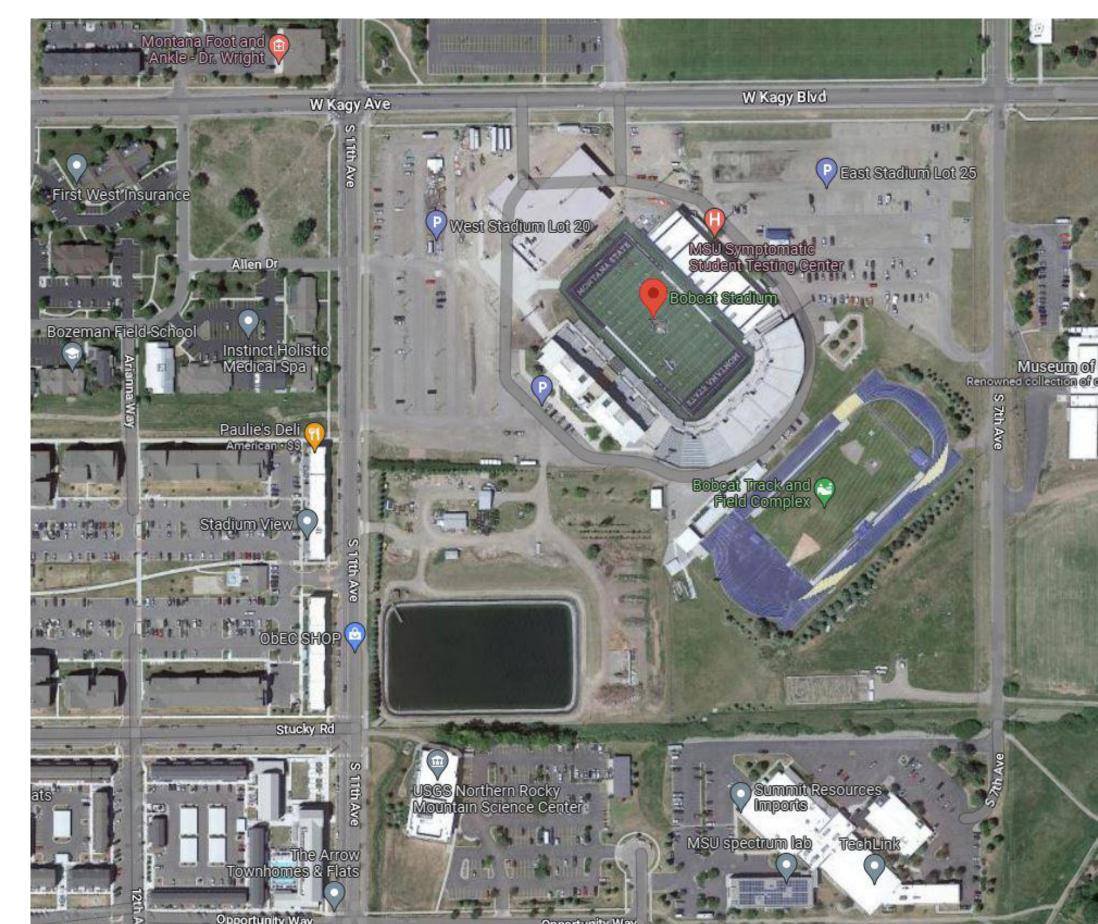
# DRAWINGS FOR MONTANA STATE UNIVERSITY STADIUM VIDEO BOARD UPGRADE

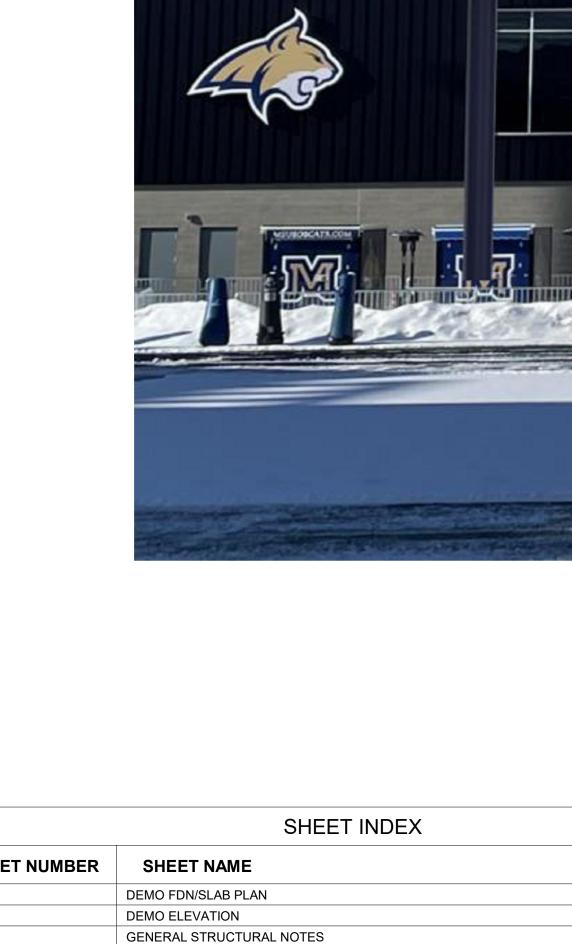
BOZEMAN, MONTANA 59715

04/21/23









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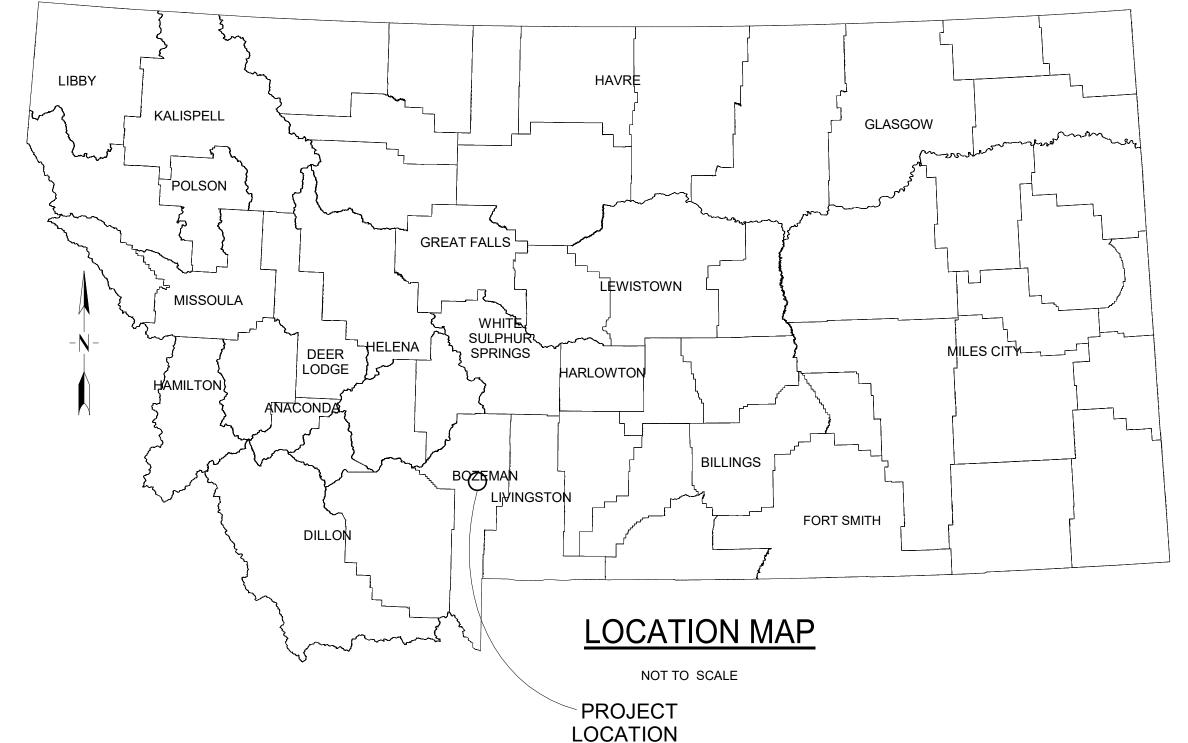
engineers = surv	Morrison  Maierle  eyors = planners = scientists
PRO	OJECT TEAM
OWNER	ARCHITECT
MONTANA STATE UNIVERSITY FOUNDATION 1501 SOUTH 11TH AVENUE BOZEMAN, MONTANA 59717-2750 (406) 994-2053	A&E DESIGN 515 WEST ASPEN ST., SUITE 200A BOZEMAN, MT
STRUCTURAL / ELECTRICAL ENGINEER	2
MORRISON MAIERLE INC. 2880 TECHNOLOGY BLVD. WEST BOZEMAN, MONTANA (406) 587-0721	

The state of the s

PROJECT VIEW

# **KEY PLAN**

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Montana Foot and  Ankle - Dr. Wright			.08
W Kagy	Ave	W Kagy Blvd	
S 11th Ave			
First West insurance		East Stadium Lot 25	
2	West Stadium Lot 20		
Allen Dr	Silo	Symptomatic lent Testing Center	10
	Boboat	Stadulin umame 771111	
Bozeman Field-School Instinct Holistic Medical Spa		Muse	സ്തരിന്
	P	Muse Renowned collect or	tion of di
Paulie's Deli		S 7th Ave	
	Bob	cat Track and P	
Stadium View O		Field Complex	
STREET, STREET	1		No.
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	MSU	spectrum lab TechLink	
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Opportunity Way	Opportunity Way		

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Know what's below. Call before you dig.



Autodesk Docs://0747.080 - New Score Board/MSU NEW SCORE BOARD\_STRUCTURAL\_R22.rvt

NOT GRANT A LICENSE TO CONSTRUCT OR FABRICATE THE WHOLE, OR PARTS OF THIS PROJECT IN OTHER

STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED WITH ARCHITECTURAL. ELECTRICAL. AND SCORE BOARD SUPPLIER DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THESE DRAWINGS INCLUDING BUT NOT LIMITED TO DIMENSIONS, BLOCKOUTS, OPENINGS, SLEEVES, EMBEDDED ITEMS, ETC. INTO THEIR SHOP DRAWINGS AND WORK. NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES OR IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN OR NOTED.

THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

THE CONTRACTOR SHALL FURNISH THE PRODUCTS SPECIFIED ON THE DRAWINGS. SUBSTITUTIONS WILL BE CONSIDERED ONLY IF THE CONTRACTOR PROVIDES DOCUMENTAION TO PROVE THE ALTERNATIVE EQUALS OR EXCEEDS THE STRUCTURAL PERFORMANCE CHARACTERISTICS OF THE SPECIFIED PRODUCT.

### **CODE REQUIREMENTS:** ALL WORK SHALL BE IN STRICT COMPLIANCE WITH:

WORK DESCRIBED ON OUR DRAWINGS FOR THIS PROJECT.

2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE STATE OF MONTANA (INTERNATIONAL BUILDING CODE, 2021 EDITION, EFFECTIVE AUGUST 1, 2022) ALL OTHER STATE AND LOCAL BUILDING REQUIREMENTS THAT APPLY.

CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SUPPORT PRIOR TO COMPLETION OF VERTICAL AND LATERAL LOAD SYSTEMS. MORRISON-MAIERLE HAS NOT BEEN RETAINED TO PROVIDE ANY SERVICES RELATED TO JOB SITE SAFETY PRECAUTIONS, OR TO REVIEW THE MEANS, METHODS, TECHNIQUES, SEQUENCES. OR PROCEDURES FOR THE CONTRACTOR TO PERFORM WORK. UNLESS WE ARE SPECIFICALLY RETAINED AND COMPENSATED TO DO OTHERWISE, OUR WORK IS LIMITED TO THE FINAL DESIGN OF THE

CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD. BASEMENT WALLS WHICH TIE TO UPPER SLABS SHALL NOT BE BACKFILLED UNTIL THE UPPER SLABS REACH FULL STRENGTH UNLESS ADEQUATE BRACING IS PROVIDED AT THE TOP OF THE WALL.

EXISTING BUILDING/SITE DIMENSIONS AND ASSUMED CONDITIONS ARE TO BE VERIFIED IN THE FIELD AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ALL DISCREPANCIES WHICH REQUIRE A SIGNIFICANT CHANGE IN THE DESIGN AND/OR CONSTRUCTION FROM THAT SHOWN ON THE DRAWINGS.

ASSUMED FUTURE CONSTRUCTION: VERTICAL: NONE HORIZONTAL: NONE

DESIGN IS BASED ON THE FOLLOWING LOADING FOR THE BASIS OF STRENGTH, PERFORMANCE, AND SERVICEABILITY OF THE STRUCTURE

1)			
UNIFORM LOAD	CONCENTRATED LOAD		
40 PSF	N/A		
100 PSF	300 LBS		
603.1.2)			
20 PSF (SEE SNOW LOAD)	N/A		
1.3)			
50 PSF	MINIMUM		
SNOW DRIFT PER ASCE 7-16 AS SHOWN ON PLANS			
Pg = 41.91 PSF (MONTANA GROUND SNOW LOAD FINDER)			
Pf =	40 PSF		
Ce = 1.0			
Is = 1.0			
C	t = 1.0		
.4)			
V = '	107 MPH		
	II		
	С		
3.1.5)			
	II		
le	e = 1.0		
Ss = 0.677	S1 = 0.213		
	D		
Sds = 0.568	Sd1 = 0.309		
	D		
603.1.6)			
PRESUMPTIVE VALU	JES OF SOILS (IBC 1806)		
DOWL HKM [	DATED 04/12/2011		
1500 PSF (DL + LL)	2000 PSF (EL / WL INCLUDED)		
35 PCF (ACTIVE)	55 PCF (AT REST)		
	PSF/FT		
	UNIFORM LOAD  40 PSF  100 PSF  603.1.2)  20 PSF (SEE SNOW LOAD)  1.3)  50 PSF  PER ASCE 7-16 A  Pg = 41.91 PSF (MONTANA F)  Pf =  Co  Is  C  .4)  V =  Ss = 0.677  Sds = 0.568   PRESUMPTIVE VALU  DOWL HKM E  1500 PSF (DL + LL)		

# STRUCTURAL OBSERVATIONS

COEFFICIENT OF SLIDING FRICTION

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD A MINIMUM OF 24 HOURS IN ADVANCE OF REQUIRED OBSERVATION(S). CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE OBSERVER, APPROVAL BY THE MUNICIPAL INSPECTOR DOES NOT PRECLUDE OBSERVATIONS BY THE ENGINEER OF RECORD AND APPROVAL BY THE ENGINEER OF RECORD DOES NOT PRECLUDE THE INSPECTION PROCESS BY THE MUNICIPAL INSPECTOR AND ANY OTHER CODE REQUIREMENTS FOR INSPECTION.

0.3

UPON COMPLETION OF WORK THE STRUCTURAL OBSERVER SHALL SUBMIT A REPORT TO THE OWNER AND BUILDING OFFICIAL ATTESTING TO THE VISUAL OBSERVATION MADE. THE REPORT SHALL IDENTIFY ANY

REPORTED DEFICIENCIES WHICH HAVE NOT BEEN RESOLVED. STRUCTURAL OBSERVATIONS SHALL BE PERFORMED TO DOCUMENT GENERAL CONFORMANCE OF THE

STRUCTURAL DRAWINGS AND SPECIFICATIONS AT THE FOLLOWING STAGES:

- FOOTING REINFORCING PRIOR TO FIRST CONCRETE FOUNDATION MAT POUR PRIOR TO FIRST ELEVATED CONCRETE DECK POUR
- SUBSTANTIAL COMPLETION OF STRUCTURAL STEEL ERECTION PRIOR TO CONCRETE SHEARWALL POUR SUBSTANTIAL COMPLETION OF WOOD CONSTRUCTION
- PRIOR TO BEGINNING SHORCRETE OPERATIONS AT COMPLETION OF ROOF DIAPHRAGM FASTENING AS REQUIRED TO ADDRESS STRUCTURAL ISSUES

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL PRODUCTS, INCLUDING THE FOLLOWING:

SUBMITTALS							
ITEM	SUBMITTAL	DEFERRED SUBMITTAL					
HELICAL PIERS	X	X					
CONCRETE MIX DESIGNS	X						
CONCRETE REINFORCEMENT	X						
CONCRETE ANCHORAGES	X						
EMBEDDED STEEL ITEMS	Х						
STRUCTURAL STEEL	X						
STEEL WELDING PROCEDURES	X						
METAL GRATING	X						
STRUCTURAL LIGHT GAUGE METAL FRAMING	X						
STRUCTURAL STEEL FASTENERS	X						
EXTERIOR CLADDING AND FURRING	X	X					
STAIRS, LADDERS AND RAILINGS	X	X					

SHOP DRAWINGS SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION FOR ALL STRUCTURAL PRODUCTS DELIVERED TO THE PROJECT. IF THE SHOP DRAWINGS DEVIATE FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE STRUCTURAL ENGINEER OF RECORD.

DEFERRED SUBMITTAL DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE DEFERRED SUBMITTAL SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE STRUCTURAL ENGINEER FOR LOADS IMPOSED ON THE SUPPORTING STRUCTURE. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE CODES AND DESIGN CRITERIA NOTED IN THESE GENERAL STRUCTURAL NOTES

THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT, MACHINERY AND ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DEVIATE FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

THE USE OF REPRODUCTIONS OR PHOTOCOPIES OF THE CONTRACT DOCUMENTS SHALL NOT BE PERMITTED. WHEN CAD OR REVIT FILES ARE PROVIDED TO THE CONTRACTOR OR SUBCONTRACTORS, IT IS THE RESPONSIBILITY OF THE DETAILERS TO REMOVE ALL INFORMATION NOT DIRECTLY RELEVANT TO THE CREATION OF THE PLACING DRAWINGS AS WELL AS ALL REFERENCES TO THE OUTSIDE SOURCE FILES. SUBMITTAL DOCUMENTS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO BEING SUBMITTED TO THE ARCHITECT FOR REVIEW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE REVIEWED SUBMITTAL TO THE BUILDING DEPARTMENT FOR DEFERRED PERMIT APPLICATION. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING

OFFICIAL.

A GEOTECHNICAL INVESTIGATION AND REPORT HAS BEEN COMPLETED AS NOTED IN THE 'DESIGN CRITERIA'. REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS ON SITE PREPARATIONS, FILL SPECIFICATIONS AND SITE SPECIFIC CONSTRUCTION CONSIDERATIONS.

STABILITY OF CONSTRUCTION EXCAVATION AND WORKER SAFETY ARE THE RESPONSIBILITY OF THE CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS. ABOVE GROUNDWATER. TO BE PLANNED IN ACCORDANCE WITH OSHA PROVISIONS SHOULD ASSUME TYPE B MATERIAL FOR STIFF CLAY, AND TYPE C MATERIAL FOR SAND.

DO NOT EXCAVATE CLOSER THAN 2:1 SLOPE BELOW FOOTING EXCAVATIONS. ALL SLABS-ON-GRADE SHALL BEAR ON COMPACTED STRUCTURAL FILL OR COMPETENT NATIVE SOIL PER THE GEOTECHNICAL REPORT. ALL MOISTURE SENSITIVE SLABS-ON-GRADE OR THOSE SUBJECT TO RECEIVE MOISTURE SENSITIVE COATINGS OR COVERINGS SHALL BE PROVIDED WITH AN APPROPRIATE CAPILLARY BREAK AND VAPOR BARRIER OR RETARDANT OVER THE SUBGRADE PREPARED AND INSTALLED AS NOTED IN THE GEOTECHNICAL REPORT, BARRIER MANUFACTURER'S WRITTEN RECOMMENDATIONS AND COORDINATED WITH THE FINISHES SPECIFIED BY THE ARCHITECT.

### DRILLED CONCRETE PIERS:

GENERAL:
THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REF INVESTIGATION AND REPORT AS NOTED IN THE 'DESIGN CRITERIA'. REFER TO THE GEOTECHNICAL REPORT FOR REQUIREMENTS AND ANTICIPATED CONDITIONS BELOW GRADE.

ALLOWABLE PILE CAPACITY PER GEOTECHNICAL REPORT AND TYPICAL DRILLED SHAFT DETAILS. DRILLED SHAFT BEARING ELEVATIONS ARE ESTIMATED PER THE GEOTECHNICAL ENGINEERING RECCOMENDATIONS. FINAL BEARING ELEVATIONS MAY VARY DEPENDING ON ACTUAL SOIL CONDITIONS AND SHALL BE ESTABLISHED BY THE GEOTECHNICAL ENGINEER OF RECORD AT THE TIME OF INSTALLATION OF EACH DRILLED SHAFT.

THE CONTRACTOR SHALL ESTABLISH SPECIFIC CONSTRUCTION PROCEDURES AND SEQUENCES FOR THE INSTALLATION OF OF THE DRILLED SHAFTS AND SUBMIT THESE FOR REVIEW BY THE GEOTECHNICAL ENGINEER OF RECORD OF RECORD.

EXCAVATE AND COMPLETE CONCRETING OF DRILLED PIER ON THE SAME DAY. FAILURE TO PLACE CONCRETE ON THE DAY OF DRILLING MAY RESULT IN ADDITIONAL BEDROCK PENETRATION AS DETERMINED BY THE GEOTECHNICAL ENGINEER.

THE PIER INSTALLATION CONTRACTOR SHALL UTILIZE THE APPROPRIATE CLEANING BIT TO ACHIEVE A CLEAN SLOUGH FREE BOTTOM. NO CONCRETE SHALL BE PLACED INTO DRILLED SHAFTS CONTAINING FREE WATER. GEOTECHNICAL ENGINEER OF RECORD SHALL INSPECT AND CONFIRM THAT THE BOTTOM OF THE PIERS ARE LOCATED ON PROPER BEARING MATERIAL AND WITHOUT WATER.

CONCRETE NOTES. STEEL REINFORCEMENT MUST BE TIED TOGETHER AND HELD IN PLACE SO THAT IT WILL NOT DEFORM OR DEFLECT DURING PLACEMENT IN THE HOLE, DURING PLACEMENT OF CONCRETE, AND DURING CASING WITHDRAWAL. PROVIDE REINFORCING SPACERS AT EDGES OF THE REBAR CAGE TO MAINTAIN PROPER

CONCRETE AND REINFORCING SHALL MEET THE REQUIREMENTS INDICATED IN THE CAST-IN-PLACE

REINFORCING LOCATION IN THE DRILLED HOLE. TREMIEING OF THE CONCRETE WILL BE REQUIRED IF GROUNDWATER IS PRESENT. A DROP CHUTE OR EQUIVALENT MEANS SHOULD BE UTILIZED TO ALLOW THE CONCRETE TO FALL FREELY WITHOUT HITTING THE SIDES OF THE HOLE OR REBAR CAGE. DURING PLACEMENT IF THE FREE FALLING CONCRETE IS CAUSING DESTABILIZATION OF THE HOLE THEN A TREMIE PIPE WILL BE REQUIRED TO PLACE THE CONCRETE. DRILLED SHAFT CONCRETING SHALL BE PLACED IN ONE CONTINUOUS OPERATION UP TO THE ELEVATIONS SHOWN ON THE DRAWINGS WITHOUT CONSTRUCTION JOINTS. THE CONTRACTOR SHALL PROVIDE AND KEEP AT THE SITE AT LEAST ONE SET OF REBARS AS SHOWN IN THE DRILLED SHAFT COLD JOINT DETAIL. THESE REBARS SHALL BE USED IF AN EMERGENCY CONSTRUCTION JOINT IS REQUIRED. THE UPPER 20 FEET OF

DRILLED SHAFT CONCRETE SHALL BE VIBRATED FOR CONSOLIDATION. A CERTIFIED PROJECT SURVEY BENCHMARK SHOWING THE ACTUAL LOCAION, SIZE, BEARING ELEVATION AND TOP ELEVATION SHALL BE SUBMITTED FOR THE GEOTECHNICAL AND STRUCTURAL ENGINEER OF RECORD'S

### CONCRETE:

CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301. SPECIFICATION FOR STRUCTURAL CONCRETE. AND ACI 117, SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, UNLESS NOTED

AVERAGE CONCRETE STRENGTH DETERMINED BY JOB CAST LAB CURED CYLINDER TO BE AS INDICATED

CONCRETE PROPERTIES							
USE	EXPOSURE	MIN COMPRESSIVE STRENGTH	TEST AGE DAYS	AIR CONTENT	MAX WATER TO CEMENT RATIO	MAX AGGEF SIZE	
EXTERIOR FOOTINGS AND WALLS	F2	4,500 PSI	28	6% +/- 1.5%	0.45	1"	
INTERIOR FOOTINGS AND WALLS	N/A	4,000 PSI	28	N/A	0.45	1"	
EXTERIOR SLABS ON GRADE	F1	3,500 PSI	28	4.5% +/- 1.5%	0.55	1"	
INTERIOR SLABS ON GRADE	N/A	3,500 PSI	28	N/A	0.50	1"	
INTERIOR SLAB ON METAL DECK	N/A	3,500 PSI	28	N/A	0.50	3/4"	
POST TENSIONED SLABS & BEAMS	N/A	5,000 PSI	28	N/A	0.45	3/4"	
COLUMNS AND SHEARWALLS	N/A	5,000 PSI	56	N/A	0.45	3/4"	
DRILLED PIERS	N/A	3,000 PSI	28	N/A	0.45	3/4"	
MAT FOUNDATIONS	NI/A	5,000 PSI	28	NI/A	0.45	1"	
MAT FOUNDATIONS	N/A	6,250 PSI	90	⊢N/A	0.45	1"	

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS ALONG WITH TEST DATA A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.

CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. CURING OF CONCRETE SHALL COMPLY WITH ACI 308, UNLESS NOTED OTHERWISE

WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE.

PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE CORNERS UNLESS NOTED OTHERWISE. SHORING DESIGN IS THE CONTRACTOR'S RESPONSIBILITY. SHORING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE CONCRETE STRENGTH IS AT LEAST 70 PERCENT OF DESIGN

PROVIDE TOOLED OR SAW-CUT CONTROL JOINTS IN SLABS ON GRADE COMPLYING WITH THE FOLLOWING CRITERIA. THE CONTRACTOR SHALL SUBMIT CONTROL JOINT PLAN PRIOR TO POURING THE SLABS. JOINT SPACING SHALL NOT EXCEED 30 TIMES THE SLAB THICKNESS ASPECT RATIO OF SLAB PANELS SHALL BE MAXIMUM OF 1.5 TO 1.0; HOWEVER A RATIO OF 1.0 TO 1.0 IS PREFERRABLE

JOINTS SHALL BE CONTINUOUS ACROSS INTERSECTING JOINTS, NOT STAGGERED OR OFFSET

JOINTS SHALL EXTEND FROM ISOLATION JOINT AROUND COLUMNS AND WALLS

### REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING PROPERTIES

STRENGTH AS DETERMINED BY FIELD CURED CYLINDERS.

USE	REINFORCEMENT SIZE	SPECIFICATION
GENERAL USE	#7 & SMALLER	ASTM A615, GRADE 60
BEAMS AND COLUMNS	#8 & LARGER	ASTM A706
LONGITUDINAL FLEXURAL REINFORCEMENT IN BEAMS, COLUMNS AND SHEARWALLS	ALL	ASTM A706
REINFORCEMENT TO BE WELDED	ALL	ASTM A706
WELDED WIRE REINFORCEMENT	ALL	ASTM A1064

REINFORCING STEEL IN BEAMS AND SLABS SHALL BE SUPPORTED ON CONCRETE DOBBIES, OR APPROVED CHAIRS IN SUFFICIENT NUMBERS TO SUPPORT THE BARS WITHOUT SETTLEMENT. FABRICATE AND INSTALL REINFORCING STEEL ACCORDING TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES - ACI STANDARD 315.

CONTACT LAP ALL REINFORCING BARS PER THE TYPICAL LAP SPLICE LENGTH SCHEDULE, EXCEPT AS NOTED ON DRAWINGS. MECHANICAL SPLICES NOTED ON THE DRAWINGS SHALL BE DAYTON SUPERIOR BAR-LOCK OR APPROVED WITH A CURRENT ICC-ES OR IAPMO-ES EVALUATION REPORT.

	f'c = 3	3,000 PS	I	f'c = 4,000 PSI f'c = 5,000 PSI											
BAR SIZE	MISC	BARS	TOP E	BARS NOTE 3)	HOOK BARS	MISC E	BARS	TOP B (SEE N	ARS NOTE 3)	HOOK BARS	MISC E	BARS	TOP BA		HO0 BAF
	Ld	LAP	Ld	LAP	Ldh	Ld	LAP	Ld	LAP	Ldh	Ld	LAP	Ld	LAP	Ldh
#3	17	22	22	28	9	15	19	29	25	8	13	17	17	22	7
#4	22	29	29	38	11	19	25	25	33	10	17	23	23	29	9
#5	28	36	36	47	14	24	31	31	41	12	22	28	28	36	11
#6	33	43	43	56	17	29	37	37	49	15	26	34	34	44	13
<b>#</b> 7	48	63	63	81	20	42	54	54	71	17	38	49	49	63	15
#8	55	72	72	93	22	48	62	62	81	19	43	56	56	72	17
#9	62	81	81	105	25	54	70	70	91	22	48	63	63	81	20
#10	70	91	91	118	28	61	79	79	102	25	54	71	71	92	22
#11	78	101	101	131	31	67	87	87	114	27	60	78	78	102	24

- CONCRETE STRENGTH. 3. TOP BARS ARE ANY HORIZ BAR PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZ WALL BARS ARE CONSIDERED TOP BARS. 4. LAP SPLICES ARE FOR NON-LATERAL LOAD RESISTING ELEMENTS. FOR REBAR LAPS SPLICES AT LATERAL LOAD RESISTING ELEMENTS, REFERENCE PLANS AND ELEVATIONS.
- 5. Ld = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR Ldh = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR OR DEFORMED WIRE WITH A STANDARD... LAP = LAP SPLICE LENGTH OF DEFORMED BAR OR DEFORMED WIRE

REINFORCING STEEL SHALL BE PROTECTED BY PLACING BARS WITH A MINIMUM COVER, UNLESS NOTED OTHERWISE.

USE	CLEAR COVER
SLABS	3/4"
BEAMS AND COLUMNS	1-1/2" (TO STIRRUPS OR TIES)
WALLS (INTERIOR FACES)	3/4"
CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO WEATHER OR EARTH	1-1/2" (FOR #5 OR SMALLER), 2" (FOR #6 AND LARGER)

PROVIDE DOWELS FROM FOOTINGS TO MATCH ALL VERTICAL WALL, PILASTER AND COLUMN REINFORCING PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING IN WALLS AND FOOTINGS AT ALL CORNERS AND INTERSECTIONS. CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS COLUMNS AND

INTERSECTING WALLS.

ALL ANCHOR BOLTS. HOLDDOWNS AND OTHER REQUIRED ACCESSORIES SHALL BE SECURED IN PLACE PRIOR TO INSPECTION AND CONCRETE PLACEMENT. DO NOT STAB THE ABOVE LISTED ITEMS INTO FRESH CONCRETE AFTER PLACEMENT. PROPERLY VIBRATE AROUND INSTALLED ITEMS TO ENSURE PROPER CONSOLIDATION OF CONCRETE.

**CONCRETE CONNECTORS:** STEEL HEADED STUD ANCHORS SHALL BE NELSON GRANULAR FLUX-FILLED HEADED STUDS OR PRIOR APPROVED EQUAL AND BE MANUFACTURED FROM ASTM A29-12 / A108, GRADES 1010-1020 COLD ROLLED CARBON STEEL WITH A MINIMUM TENSILE STRENGTH OF 60,000 PSI. DEFORMED BAR ANCHORS SHALL BE NELSON. TYPE D2L. STUDS AND DEFORMED BAR SHALL BE AUTOMATICALLY END WELDED WITH A STUD WELDING GUN TO FULLY DEVELOP THE CONNECTOR.

UNLESS A SPECIFIC ANCHOR PRODUCT IS NOTED IN THE DRAWINGS. POST-INSTALLED ANCHORS MAY USE ONE OF THE ANCHORS LISTED BELOW FOR THE REQUIRED TYPE.

ΓΥΡΕ	PRODUCT	REPORT #
DHESIVE	SIMPSON SET-XP	ICC-ES ESR-2508
ANCHORS &	SIMPSON AT-XP	IAPMO-UES ER-263
DOWELS	HILTI HIT-HY 200	ICC-ES ESR-3187
KPANSION	SIMPSON STRONG-BOLT 2	ICC-ES ESR-3037
NCHOR	HILTI KWIK BOLT TZ	ICC-ES ESR-1917
REW	SIMPSON TITEN HD	ICC-ES ESR-2713
NCHOR	HILTI KWIK HUS-EZ	ICC-ES ESR-3027

ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PRODUCT EVALUATION REPORTS.

EMBEDMENTS SPECIFIED ON DRAWINGS ARE "EFFECTIVE" EMBEDMENTS. REFERENCE MANUFACTURER LITERATURE FOR CORRESPONDING ACTUAL EMBEDMENT DEPTHS. ANCHORS RODS EXPOSED TO EARTH OR WEATHER SHALL BE PROTECTED FROM CORROSION BY HOT-DIP GALVANIZING OR USE OF STAINLESS STEEL. POST INSTALLED EXPANSION AND SCREW ANCHORS EXPOSED TO EARTH OR WEATHER SHALL BE STAINLESS STEEL.

FOR POST-INSTALLED ANCHORS, LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES. MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT, PROVIDE A MINIMUM OF (2) ANCHOR DIAMETERS OR 1 INCH. WHICHEVER IS LARGER. OF SOUND CONCRETE BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH

FROM THE STRUCTURAL ENGINEER OF RECORD. SPECIAL INSPECTION OF ANCHOR INSTALLATION IS REQUIRED UNLESS SPECIFICALLY NOTED OTHERWISE IN DRAWINGS. SEE SPECIAL INSPECTION AND MATERIALS TESTING PROGRAM AND NOTES.

NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MANY NOT BE SHIFTED AS NOTED ABOVE, SEEK GUIDANCE

SIGN FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC SPECIFICATIONS AND AISC CODE OF STANDARD PRACTICE. STRUCTURAL STEEL SHALL BE:

STRUCTURAL STEEL					
SHAPE	MATERIAL SPECIFICATION AND GRADE				
VIDE FLANGE (W-SHAPES)	ASTM A992, GRADE 50				
CHANNELS (C-SHAPES)	ASTM A36, GRADE 36				
ANGLES (L-SHAPES)	ASTM A36, GRADE 36				
STRUCTURAL TEES (WT-SHAPES)	ASTM A992, GRADE 50				
HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE C				
STRUCTURAL PIPES	ASTM A53, GRADE B				
PLATES	ASTM A36, GRADE 36				
PLATES NOTED AS "GR. 50"	ASTM A572, GRADE 50				

BOLTS SHALL CONFORM TO THE ASTM AND RCSC SPECIFICATIONS FOR JOINTS USING GROUP A OR GROUP B HIGH STRENGTH BOLTS. BOLTS SHALL BE INSTALLED SNUG-TIGHT UNLESS NOTED OTHERWISE. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR RODS TO BE WELDED SHALL CONFORM TO ASTM F1554, GRADE 55. THREADED RODS SHALL CONFORM TO ASTM A36

WELDING SHALL CONFORM TO AWS D1.1, STRUCTURAL WELDING CODE - STEEL WITH PREQUALIFIED WELDING PROCESSES EXCEPT AS MODIFIED BY AISC 360 SECTION J2. WELDING SHALL BE COMPLETED BY AWS-CERTIFIED WELDERS.

WELDS SHALL BE MADE USING E70XX ELECTRODES FOR SHIELDED METAL ARC WELDING (SMAW) AND E71TX WIRE FOR FLUX-CORED ARC WELDING (FCAW) PROCESSES. FOR COMPLETE JOINT PENETRATION WELDS ASSOCIATED WITH MEMBER SPLICES AND CONNECTIONS NOT PART OF THE SEISMIC FORCE RESISTING SYSTEM, WELDS SHALL BE MADE WITH FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT

FIELD WELDING SYMBOLS HAVE NOT NECESSARLY BEEN INDICATED ON THE DRAWING. WHERE SHOWN, PROPER FIELD WELDING PER AWS SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS. ERECTION AIDS ARE TO BE DETERMINED AND PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S ERECTOR AND FABRICATOR SHALL COORDINATE THE TYPE AND QUANTITY OF ERECTION AIDS. THE CONTRACTOR IS SOLELY REPONSIBLE FOR ERECTION SEQUENCING, TEMPORARY BRACING, SAFTEY OF

WORKERS, AND OVERALL COMPLIANCE WITH APPLICABLE OSHA REQUIREMENTS.

PROVIDE WEEP HOLES AT EXTERIOR CLOSED SECTIONS WHERE MOISTURE MAY ACCUMULATE. STEEL FRAMING SHALL BE PAINTED SHALL HAVE A SHOP APPLIED PRIMER ACCORDING TO THE SPECIFICATION SECTION 099600 AND PAINTED WITH A HIGH PERFORMACE COATING PER SECTION 099600 STRUCTURAL STEEL MEMBERS AND THEIR CONNECTIONS THAT ARE IDENTIFIED ON PLAN AS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) AND THAT ARE EXPOSED TO VIEW SHALL MEET THE STANDARDS OF AISC 303, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

RAMING MEMBERS SHALL BE CERTIFIED ACCORDING TO THE PRODUCT CERTIFICATION PROGRAM OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA), THE STEEL FRAMING INDUSTRY ASSOCIATION, OR THE STEEL STUD MANUFACTURERS ASSOCIATION. FRAMING SHALL COMPLY WITH ANSI S100, S200, S211, AND S212. 18 GAUGE (43 MIL) AND THINNER STEEL SHALL BE FORMED FROM ASTM A1003 ST33H (Fy = 33 KSI). 16 GAUGE (54MIL) AND THICKER STEEL SHALL BE FORMED FROM ASTM A1003 ST50H (Fy = 50 KSI). ALL COLD-FORMED METAL FRAMING COMPONENTS SHALL BE GALVANIZED WITH A G-90 COATING PER ASTM

ALL FIELD CUTTING OF FRAMING SHALL BE DONE BY SAWING, SHEARING, OR PLASMA CUTTING. SPLICES IN FRAMING MEMBERS NOT SPECIFICALLY DETAILED IN THE DRAWINGS ARE NOT ALLOWED. AXIAL LOADED BEARING MEMBERS, INCLUDING WALL STUDS AND BUILT-UP POSTS, SHALL HAVE SQUARE END CUTS AND BE SEATED TIGHT AGAINST TOP AND BOTTOM TRACKS WITH A MAXIMUM GAP TOLERANCE OF 1/16" BETWEEN

UNLESS OTHERWISE NOTED, TRACK FRAMING SHALL MATCH STUD/JOIST SIZE AND GAUGE. ATTACH TO STUD AND JOIST FRAMING WITH (1) SCREW AT EACH FLANGE DO NOT NOTCH, OR COPE FRAMING MEMBERS, STUDS SHALL BE FURNISHED WITH FACTORY PUNCHOUTS THROUGH WEBS FOR ROUTING CONDUIT AND BRIDGING; DO NOT CUT ADDITIONAL HOLES OR ENLARGE THE PUNCHOUTS. PUNCHOUTS SHALL BE AT LEAST THE DEPTH OF THE MEMBER CLEAR FROM THE CLOSEST FASTENER, WELDED CONNECTION OR BEARING POINT.

INSTALL DOUBLE-FLAT STRAP BRACING OR CHANNEL BRIDGING PRIOR TO LOADING STUDS. CONTRACTOR TO ENSURE PRE-PUNCHED HOLE ALIGNMENT IF CHANNEL BRIDGING IS TO BE USED. BLOCK ALL EDGES OF SHEAR WALL SHEATHING WITH THE SAME GAGE MATERIAL AS WALL STUDS. 2"x18 GAGE STRAPPING MAY BE USED AS EDGE BLOCKING. FULL-DEPTH STUD SECTIONS CLIP ATTACHED TO STUDS MAY BE USED AS STABILITY BLOCKING IN ADDITION TO EDGE BLOCKING FOR SHEATHING. SEE WOOD AND WOOD

PRODUCTS NOTES FOR ADDITIONAL SHEATHING REQUIREMENTS.

DESIGNATED STRENGTH.

WELDING OF FRAMING SHALL BE IN ACCORDANCE AWS D1.3, STRUCTURAL WELDING CODE - STEEL SHEET. ALL WELDS OF GALVANIZED STEEL SHALL BE TOUCHED UP WITH A ZINC-RICH PAINT PER ASTM A780. UNLESS NOTED OTHERWISE IN DRAWINGS. USE #12 SCREWS (16 GAUGE AND THICKER), #10 SCREWS (18 AND 20 GAUGE) AND #8 SCREWS (22 GAUGE) TO CONNECT COLD-FORMED STEEL FRAMING. SELF TAPPING AND DRILLING SCREWS TO BE HILTI KWIK-PRO (ICC ESR-2196) OR ITW BUILDEX TEKS (ICC ESR-1976), PLACE SCREWS WITH MINIMUM SPACING AND EDGE DISTANCE OF 3/4". UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE MINIMUM LENGTH FOR SCREW TO PENETRATE BEYOND FASTENED MEMBERS BY AT LEAST TWO

FULL DIAMETER THREADS. BOLTS TO BE PLACED IN PRE-DRILLED HOLES IN COMPLIANCE WITH AISI NORTH AMERICAN SPECIFICATION, SECTION E3A. STANDARD HOLE SIZES SHOULD NOT EXCEED THE BOLT DIAMETER + 1/32" FOR BOLTS LESS THAN 1/2" DIAMETER, OR BOLT DIAMETER + 1/16" FOR BOLTS 1/2" DIAMETER AND GREATER. OVERSIZED OR SLOTTED HOLES SHOULD NOT BE USED UNLESS NOTED OTHERWISE ON DRAWINGS. POWER ACTUATED FASTENERS TO BE USED TO CONNECT COLD FORMED STEEL FRAMING TO CONCRETE OR STEEL TO BE 0.157" DIAMETER HILTI X-U (ICC ESR-2269), WHEN CONNECTING TO STEEL, FASTENERS SHALL

HAVE A MINIMUM EDGE DISTANCE OF 1/2" AND A MINIMUM SPACING OF 1" ON CENTER. LENGTH OF FASTENER

SHALL BE SUCH THAT THE POINT PENETRATES THROUGH THE STEEL BASE MATERIAL WHEN CONNECTING TO

WHEN CONNECTING TO STEEL 3/4" THICK OR GREATER. WHEN CONNECTING TO CONCRETE, FASTENRS SHALL

STEEL LESS THAN 3/4" THICK. LENGTH OF FASTENER SHALL PROVIDE 1/2" MINIMUM POINT PENETRATION

HAVE A MINIMUM EDGE DISTANCE OF 3" AND A MINIMUM SPACING OF 4" ON CENTER. USE 1" EMBEDMENT

UNLESS NOTED OTHERISE ON DRAWINGS. DO NOT INSTALL UNTIL THE CONCRETE HAS REACHED ITS

ADDITIONAL ADHESIVE ANCHOR LAM LAMINATED ADHESIVE DOWEL LAMINATED VENEER LUMBER **ALTERNATE** LINEAR FEET AMERICAN CONCRETE INSTITUTE LIVE LOAD AMERICAN INSTITUTE OF STEEL LONG LEG HORIZONTAL CONSTRUCTION LONG LEG VERTICAL AMERICAN NATIONAL STANDARDS MANUFACTURER AMERICAN PLYWOOD ASSOCIATION MASONRY AMERICAN SOCIETY OF CIVIL MASONRY LINTEL **ENGINEERS** MASONRY PIER AMERICAN SOCIETY OF TESTING MATERIAL AND MATERIALS MAXIMUM ANCHOR BOLT **MECHANICAL ANCHOR ROD** MEMBER MTL METAL ARCHITECT METAL DECK MF77ANINE **BASE PLATE** MINIMUM **BASEMENT** MISC MISCELLANEOUS BEAM NLB **BEARING** NONLOAD BEARING BFI OW NORTH BETWEEN NOT APPLICABLE BLKG BLOCKING NOT TO SCALE NUMBER **BOTTOM BOTTOM CHORD** ON CENTER BUILDING **BUILT UP** OPNG OPENING **OPEN WEB JOIST** CANTIL CANTILEVER OPPOSITE CARRIAGE BOLT PARALLEL CAST IN PLACE CENTER **PERPENDICULAR CENTERED PREFAB** PREFABRICATE CENTERLINE PIER CAP/CONCRETE PILE CLEAR COLD FORMED METAL FRAMING PLYWD PLYWOOD POUNDS PER LINEAR FOOT CONCRETE CONCRETE COLUMN POUNDS PER SQUARE FOOT CONCRETE MASONRY UNIT POUNDS PER SQUARE INCH CONN POWER-ACTUATED FASTENERS CONNECTION CONSTRUCTION DOCUMENTS PRESSURE TREATED CONSTRUCTION JOINT CONT CONTINUOUS/ CONTINUED QA QUALITY ASSURANCE CONTINUOUS CONCRETE FOOTING CONTR CONTRACTOR **CONTROL JOINT** REFERENCE COORDINATE REINFORCE, REINFORCING X BRACE CROSS BRACE RFRAR REINFORCING STEEL BARS REQT REQUIREMENT PENNY (NAIL) OR DEPTH REVISION DEAD LOAD RIGID INSULATION DEMOLITION ROUND DETAIL DIMENSION SCHED **SCHEDULE** DISTANCE SCREW ANCHOR **DOUG FIR DOUGLAS FIR** SHEATHING SIMILAR SCJ SLAB CONTRACTION JOINT DWG DRAWING EACH SQUARE FEET **EACH WAY** SQUARE INCH **ELEVATOR SPECIFICATION** ENGR **FNGINFFR** STANDARD **EQUAL/ EQUALLY** EQUIPMENT STEEL DECK EXISTING STEEL JOIST **EXPANSION** STIF STIFFENER EXP BT **EXPANSION BOLT** STRUCT STRUCTURAL EXTERIOR STRUCTURAL INSULATED PANEL SUB FLR SUBFLOOR FACE OF SUBSTITUTE SUB FSTNR **FASTENER** THOUSAND POUNDS FLR FLOOR THROUGH BOLT **FOUNDATION** FDTN TONGUE AND GROOVE FOOTING STEP TOP AND BOTTOM TOP OF BEAM GALVANIZED TOP OF CONCRETE TOP OF DECK/SHEATHING GAUGE GENERAL CONTRACTOR TOP OF FOOTING TOP OF MASONRY GLUE LAMINATED GLUE LAMINATED BEAM TOP OF STEEL TOW TOP OF WALL GR BM GRADE BEAM TRUSS JOIST TYPICAL GYPSUM **UNLESS NOTED OTHERWISE** HANGER HGR VERIFY IN FIELD

STRUCTURAL ABBREVIATIONS

WLD

VERTICAL

WELD/WELDED

WIDE FLANGE

WIND LOAD

WITHOUT

WITH

WOOD

WELDED WIRE FABRIC

WOOD BEAM HANGER

**WORKING POINT** 

HEADED STUD ANCHOR

HOLLOW STRUCTURAL SECTION

INTERNATIONAL BUILDING CODE

HEADER

HOLD-DOWN

HORIZONTAL

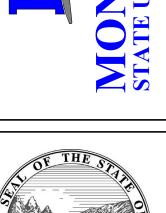
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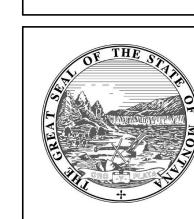
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HIGH

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SHEET TITLE GENERAL **STRUCTURAL** (NOTES

# STATEMENT OF SPECIAL INSPECTION AND TESTING NOTES:

SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC), CONTRACT DOCUMENTS, AND APPROVED SUBMITTALS. THE OWNER SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS AND TESTING DESCRIBED HEREIN.

SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED AND ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (GENERAL), ASTM D3740 (SOILS), ASTM C1077 (CONCRETE), ASTM A880 (STEEL), AND ASTM E543 (NON-DESTRUCTIVE). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE ARCHITECT ÀND ENGINEER A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE APPROVED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER AWS D1.1.

### THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS.

THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS. ISSUES REQUIRING IMMEDIATE CORRECTIVE ACTIONS OR ENGINEERING INPUT ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY UPON DISCOVERY.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, ARCHITECT. ENGINEER, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, IS IN CONFORMANCE WITH THE APPROVED CONTRACT DOCUMENTS, AND THAT ALL DISCREPANCIES NOTED IN THE REPORTS HAVE BEEN CORRECTED.

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OF COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED HEREIN. INSPECTION FREQUENCY:

- A. CONTINUOUS INSPECTION: THE SPECIAL INSPECTOR SHALL BE PRESENT WHEN AND WHERE THE WORK IS BEING PERFORMED AT ALL TIMES.
- PERIODIC INSPECTION: THE SPECIAL INSPECTOR SHALL BE INTERMITTENTLY PRESENT WHEN AND WHERE THE WORK IS BEING PERFORMED. THE INSPECTOR SHALL OBSERVE THE WORK AT ITS COMMENCEMENT, AT PERIODIC INTERVALS THEREAFTER, AND WHEN THE WORK IS COMPLETED.
- BE DELAYED PENDING OBSERVATIONS (REFERENCE AISC 360 AND AISC 341 FOR ADDITIONAL INFORMATION). PERFORM: THESE INSPECTIONS SHALL BE PERFORMED PRIOR TO FINAL ACCEPTANCE OF THE ITEM (REFERENCE AISC 360 AND AISC 341 FOR ADDITIONAL INFORMATION). DOCUMENT: THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED

IN ACCORDANCE WITH THE CONTRACT DOCUMENTS (REFERENCE AISC 360 AND AISC 341 FOR ADDITIONAL

OBSERVE: THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM BASIS. OPERATIONS NEED NOT

SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN

ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. A. STEEL FABRICATORS AND INSTALLERS CERTIFIED THROUGH AISC COMPLY WITH THIS PROVISION. THE FABRICATOR AND OR INSTALLER MUST STILL COMPLETE AND DOCUMENT THE QUALITY CONTROL TASKS AND NON-DESTRUCTIVE TESTING OUTLINED IN AISC 360 AND AISC 341, AS APPLICABLE.

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS						
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS		
VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY			PERIODIC			
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL			PERIODIC			
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	TABLE 1705.6	GEOTECHNICAL REPORT	CONTINUOUS	BY THE GEOTECHNICAL ENGINEER		
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY			PERIODIC			

TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
INSPECTION OF REINFORCING STEEL AND PLACEMENT	TABLE 4705.0	ACI 318: Ch. 20,	PERIODIC	
INSPECTION OF PRESTRESSING TENDONS AND PLACEMENT	TABLE 1705.3	26.2, 25.3, 26.6.1-26.6.3	PERIODIC	
WELDING REINFORCING: VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706			PERIODIC	
WELDING REINFORCING: LONGITUDINAL REINFORCING IN BEAMS AND COLUMNS OF INTERMEDIATE AND SPECIAL MOMENT FRAMES			CONTINUOUS	
WELDING REINFORCING: LONGITUDINAL AND TRANSVERSE REINFORCING IN BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS	TABLE 1705.3	AWS D1.4 ACI 318: 26.6.4	CONTINUOUS	
WELDING REINFORCING: TRANSVERSE REINFORCING IN BEAMS AND COLUMNS			CONTINUOUS	
WELDING REINFORCING: OTHER STEEL NOT PREVIOUSLY LISTED			PERIODIC	
INSPECTION OF ANCHORS CAST-IN CONCRETE		ACI 318: 17.8.2	PERIODIC	
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE: VERIFY ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, PRODUCT EXPIRATION DATE (IF APPLICABLE), COMPLIANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE (IF APPLICABLE) FOR:  a) ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	TABLE 1705.3	ACI 318: 17.8.2.4 PRODUCT EVALUATION REPORT	CONTINUOUS	
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE: VERIFY ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, PRODUCT EXPIRATION DATE (IF APPLICABLE), COMPLIANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE (IF APPLICABLE) FOR:  b) MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN a)		ACI 318: 17.8.2 PRODUCT EVALUATION REPORT	PERIODIC	

TASK IBC REFERENCE		REFERENCE STANDARD	FREQUENCY	REMARKS
VERIFY USE OF REQUIRED MIX DESIGN		ACI 318: CH. 19, 26.4.3, 26.4.4	PERIODIC	
INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES		ACI 318: 26.5,	CONTINUOUS	
INSPECTION OF SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES		26.12	CONTINUOUS	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		ACI 318: 26.5.3-25.5.5	PERIODIC	
PRESTRESSED CONCRETE: APPLICATION OF PRESTRESSING FORCE			CONTINUOUS	
PRESTRESSED CONCRETE: GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE RESISTING SYSTEM		ACI 318: 26.10	CONTINUOUS	
ERECTION OF PRECAST CONCRETE MEMBERS		ACI 318: 26.9	PERIODIC	
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE			PERIODIC	
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		, 10.10.10.20.10	PERIODIC	
	<b>→</b>			1

INSPECT FORMWORK FOR SHAPE, LOCATION AND

DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

	IBC	REFERENCE		
TASK	REFERENCE		FREQUENCY	REMARKS
REVIEW THE MATERIAL TEST REPORTS AND CERTIFICATIONS FOR STEEL COMPONENTS FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, INCLUDING PRIMARY STEEL ELEMENTS, STEEL CASTINGS AND FORGINGS, FASTENERS, DECK FASTENERS, ANCHOR RODS AND THREADED RODS, WELDING CONSUMABLES, HEADED STUD ANCHORS, WELDING FILLER METAL AND FLUXES, WELDING PROCEDURE SPECIFICATIONS (WPS), PROCEDURE QUALIFICATION RECORDS FOR WPS THAT ARE NOT PREQUALIFIED, WELDING PERSONNEL QUALIFICATION RECORDS AND CONTINUITY RECORDS, FABRICATOR'S WRITTEN QUALITY CONTROL MANUAL, AND ERECTOR'S QUALITY CONTROL MANUAL	T	AISC N5.2	PERIODIC	PERFORM A ONE-TIME REVIE OF EACH APPLICABLE ITEI
PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL: VERIFY THE DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE PRIOR TO PLACEMENT OF CONCRETE			PERIODIC	
INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS AS SHOWN ON THE CONSTRUCTIONS DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS, AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION		AISC N5.8	PERIODIC	
REQUIRED SPECIAL INSPECTION TASK	S PRIOR TO	WELDING S	TRUCTURAL	STEEL
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS			OBSERVE	
WELDING PROCEDURE SPECIFICATIONS AVAILABLE			PERFORM	
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE			PERFORM	
AAATERIAL IRENTIEIOATION (TVDE/ORARE)	╡		ODOED) (E	┥

APPLICATION OF JOINT DETAILS AT EACH CONNECTION				
REQUIRED SPECIAL INSPECTION TASK	S PRIOR TO	WELDING S	TRUCTURAL	. STEEL
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS			OBSERVE	
WELDING PROCEDURE SPECIFICATIONS AVAILABLE			PERFORM	
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE			PERFORM	
MATERIAL IDENTIFICATION (TYPE/GRADE)			OBSERVE	-
WELDER IDENTIFICATION SYSTEM			OBSERVE	
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)	1705.2.1	AISC TABLE N5.4-1	OBSERVE	SEE NOTES FOR EXCEPTIONS WHEN WORK IS COMPLETED BY AN APPROVED FABRICATOR/
FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY): JOINT PREPARATIONS, DIMENTIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION)			OBSERVE	INSTALLER
CONFIGURATION AND FINISH OF ACCESS HOLES			OBSERVE	
FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACE), TACKING (TACK WELD QUALITY AND LOCATION)			OBSERVE	
REQUIRED SPECIAL INSPECTION TASK	KS DURING	WELDING ST	RUCTURAL	STEEL
TASK	IBC REFERENCE		FREQUENCY	REMARKS

CONTROL AND HANDLING OF WELDING CONSUMABLES:

DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT

NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE

PACKAGING, EXPOSURE CONTROL

OBSERVE

PERFORM

OBSERVE

, , , , , , , , , , , , , , , , , , ,				
NO WELDING OVER CRACKED TACK WELDS			OBSERVE	
ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE			OBSERVE	SEE NOTES FOR
WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED, PROPER WELDING POSITION	1705.2.1	AISC TABLE N5.4-2	OBSERVE	EXCEPTIONS WHEN WORK IS COMPLETED BY AN APPROVED FABRICATOR/
WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS			OBSERVE	INSTALLER
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS			PERFORM	
REQUIRED SPECIAL INSPECTION TAS	KS AFTER V	WELDING STR	UCTURAL S	STEEL
TACK	IBC	REFERENCE	FREQUENCY	REMARKS
TASK	REFERENCE	STANDARD		
WELDS CLEANED	REFERENCE	STANDARD	OBSERVE	
	REFERENCE	STANDARD	·	-
WELDS CLEANED	REFERENCE	STANDARD	OBSERVE	
WELDS CLEANED SIZE, LENGTH, AND LOCATION OF WELDS WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS	REFERENCE	STANDARD	OBSERVE PERFORM	-
WELDS CLEANED SIZE, LENGTH, AND LOCATION OF WELDS WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY			OBSERVE PERFORM PERFORM	SEE NOTES FOR EXCEPTIONS WHEN WORK IS
WELDS CLEANED  SIZE, LENGTH, AND LOCATION OF WELDS  WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY  ARC STRIKES  K-AREA: WHEN WELDING DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA OF ROLLED SHAPES, VISUALLY INSPECT THE WEB FOR		AISC TABLE N5.4-3	OBSERVE PERFORM PERFORM	SEE NOTES FOR EXCEPTIONS WHEN
WELDS CLEANED  SIZE, LENGTH, AND LOCATION OF WELDS  WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY ARC STRIKES  K-AREA: WHEN WELDING DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA OF ROLLED SHAPES, VISUALLY INSPECT THE WEB FOR k-AREA CRACKS WITHIN 3" OF THE WELD  WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP SHAPES: AFTER ROLLED HEAVY SHAPES (SEE SECTION A3.1c) AND BUILT-UP HEAVY SHAPES (SEE SECTION A3.1d) ARE WELDED, VISUALLY INSPECT THE WELD ACCESS		AISC TABLE	OBSERVE PERFORM  PERFORM  PERFORM	SEE NOTES FOR EXCEPTIONS WHEN WORK IS COMPLETED BY AN APPROVED FABRICATOR/

TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS			PERFORM	
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	1705.2.1		OBSERVE	SEE NOTES FOR
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	-		OBSERVE	EXCEPTIONS WHEN WORK IS COMPLETED BY AN APPROVED FABRICATOR/
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	1705.2.1	AISC TABLE N5.6-1	OBSERVE	
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED			OBSERVE	INSTALLER
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS			OBSERVE	

REQUIRED SPECIAL INSPECTION TASI (NOT REQUIRED FO			RUCTURAL	STEEL
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED			OBSERVE	SEE NOTES FOR
JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	1705 2 1	AISC TABLE	OBSERVE	EXCEPTIONS WHEN WORK IS COMPLETED BY AN
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	1705.2.1	N5.6-2	OBSERVE	APPROVED FABRICATOR/
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES			OBSERVE	INSTALLER
REQUIRED SPECIAL INSPECTION TAS	KS AFTER	BOLTING STR	UCTURAL S	STEEL
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	REMARKS
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	1705.2.1	AISC TABLE N5.6-3	PERFORM	SEE NOTES FOR EXCEPTIONS WHEN WORK IS COMPLETED BY AN APPROVED FABRICATOR/INSTALLER
		•		
TESTING OF SOILS	S AND FOU	NDATIONS		
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY	
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL	TABLE 1705.6	PROJECT GEOTECHNICAL	PERIODIC	

TESTING OF CONC	RETE CON	STRUCTION	
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY
CONCRETE STRENGTH TEST SPECIMENS	TABLE 1705.3	ASTM C31 AND C39	FOR EACH CLASS OF CONCRETE (E.G. FOOTINGS, WALLS, OR SLAB ON GRADE), ONE SET OF SPECIMENS EACH DAY OR LESSER OF: ONE SET FOR EACH 150 YDS OF CONCRETE OR ONE SET FOR EACH 5,000 SQUARE FEET OF SLABS OR WALL
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF CONCRETE		ASTM C172 ACI 318-14: 26.4 AND 26.12	FOR EACH SPECIMEN

PROOF TESTING OF DEEP FOUNDATION ELEMENTS

REPORT

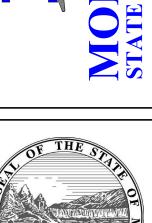
PROJECT

GEOTECHNICAL

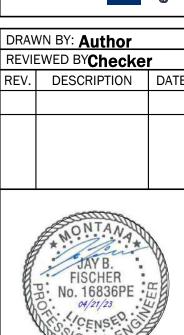
TESTING OF STE	EL CONST	RUCTION	
TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY
CJP GROOVE WELD NON-DESTRUCTIVE TESTING: ULTRASONIC TESTING SHALL BE PERFORMED ON WELDS SUBJECT TO TRANSVERSELY APPLIED TENSION LOADING IN BUTT, T- AND CORNER JOINTS, IN MATERIALS 5/16 INCHES OR THICKER		AISC N5.5.B	ALL JOINTS FOR BUILDINGS IN RISK CATEGORY III OR IV BUILDINGS; 10% OF JOINTS IN RISK CATEGORY II (INCREASE OR DECREASE RATE PER AISC N5.5F AND N5.5E, AS REQUIRED)
THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING OR PENETRANT TESTING, WHEN THE FLANGE THICKNESS EXCEEDS 2 INCHES FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 INCHES FOR BUILT-UP SHAPES.	1705.2	AISC M2.2	PERFORM
DOCUMENT ALL WELD NON-DESTRUCTIVE TESTING PERFORMED. WHEN A WELD IS REJECTED ON THE BASIS OF WELD NON-DESTRUCTIVE TESTING, THE WELD NON-DESTRUCTIVE TESTING RECORD SHALL INDICATE THE LOCATION OF THE DEFECT AND THE BASIS OF REJECTION.		AISC N5.5G	DOCUMENT

TASK	IBC REFERENCE	REFERENCE STANDARD	FREQUENCY
ULTRASONIC TESTING SHALL BE PERFORMED ON CJP GROOVE WELDS IN MATERIALS 5/16 INCH THICK OR GREATER, MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON BEAM-TO-COLUMN CJP GROOVE WELDS. EXCEPTION: FOR ORDINARY MOMENT FRAMES IN RISK CATEGORIES I OR II, UT AND MT OF CJP GROOVE WELDS ARE REQUIRED ONLY FOR DEMAND CRITICAL WELDS	1705.2	AISC SEISMIC J6.2A	ULTRASONIC TESTING ON 100% OWELDS; WELD DISCONTINUITIES SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF CRITERIA OF AWS D1.1 TABLE 6.2 MAGNETIC PARTICLE TESTING ON 25% OF ALL BEAM-TO-COLUMN C. GROOVE WELDS. AISC 341-10 SECTIONS J6.2g AND J6.2h MAY BAPPLIED TO REDUCE THE RATE ONDT. FOR STRUCTURES IN RISK CATEGORY III OR IV, AISC SECTION 5.5B REQUIRES THAT THE ULTRASONIC TESTING BE PERFORMED BY QA ON ALL CJP GROOVE WELDS SUBJECT TO TRANSVERSELY APPLIED TENSIOLOADING IN BUTT, T- AND CORNEJOINTS, IN MATERIAL 5/16 INCH THICK OR GREATER.
ULTRASONIC TESTING SHALL BE PERFORMED ON PARTIAL-JOINT-PENETRATION (PJP) GROOVE WELDS IN COLUMN SPLICES AND COLUMN TO BASE PLATE WELDS.		AISC SEISMIC J6.2B	ULTRASONIC TESTING ON 100% C WELDS; WELD DISCONTINUITIES LOCATED WITHIN THE GROOVE WELD THROAT SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF CRITERIA OF AWS D1.1/D1.1M TABLE 6.2, EXCEPT WHEN ALTERNATIVE TECHNIQUES ARE USED, THE CRITERIA SHALL BE AS PROVIDED IN AWS D1.1/D1.1M ANNEX Q





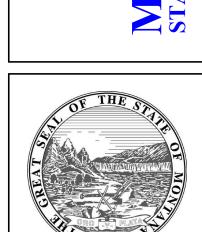


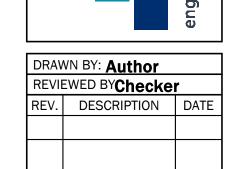


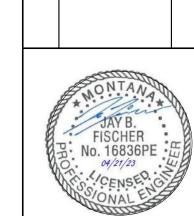
PPA#22-0611 A/E#00-00-00 0747.080

SHEET TITLE STATEMENT OF **SPECIAL** INSPECTIONS

**DATE** 04-21-2023







PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE DEMO FDN/SLAB

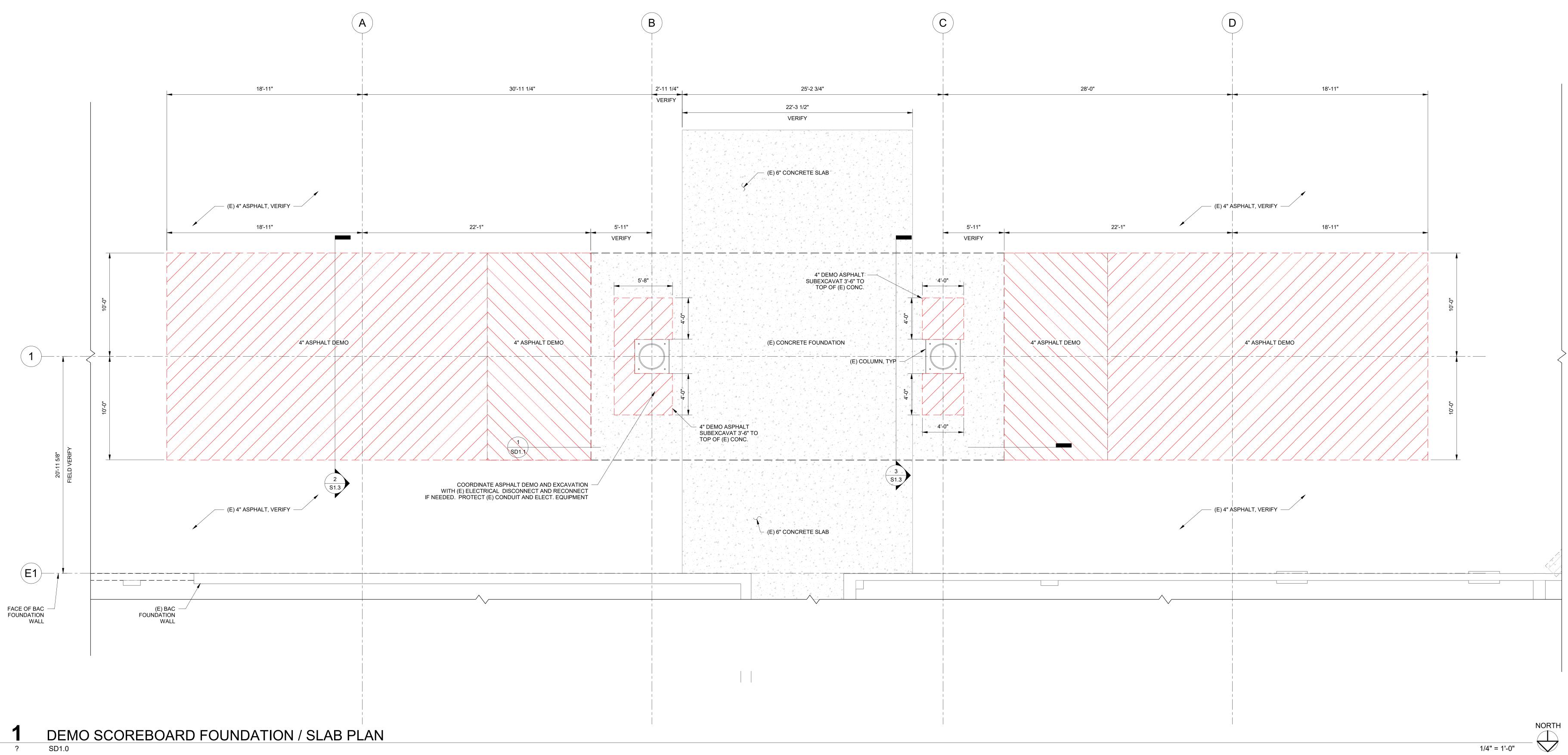
PLAN SHEET

SD1.0 DATE 04-21-2023

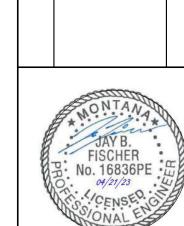


FOUNDATIONS. 2. CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-424-5555 3. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF BOZEMAN. MT CONSTRUCTION STANDARDS, THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS AND ALL OTHER GOVERNING AGENCIES' STANDARDS 4. EXISTING UNDERGROUND INSTALLATIONS AND PRIVATE UTILITIES SHOWN ARE INDICATED ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THIS DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION. SERVICE LINES MAY NOT BE STRAIGHT LINE OR AS INDICATED ON THE PLANS. TRADE CONTRACTOR SHALL CALL ALL UTILITY LOCATES. 5. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND COORDINATE WITH THE CITY OF BOZEMAN AND ENGINEER PRIOR TO DEMOLITION ACTIVITIES. 6. REMOVE DEBRIS FROM SITE IMMEDIATELY AND DISPOSE OF LEGALLY. 7. ALL REMOVED ITEMS EXCEPT THOSE NOTED TO BE REUSED OR TO REMAIN SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE JOB SITE, AND LEGALLY DISPOSED. 8. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF OR REMOVAL AND REPLACEMENT OF ALL CONCRETE, ASPHALT AND WALKWAYS WITHIN THE PROJECT LIMITS AREA. CONDITION TO BE ASSESSED BEFORE AND AFTER BY AN ONSITE MEETING BETWEEN THE CONTRACTOR, MSU FACILITIES, AND

ENGINEER. DOCUMENT EXISTING CONDITIONS WITH VIDEO AND/OR PHOTOGRAPHS. 9. FIELD VERIFY SIZE AND LOCATION OF EXISTING FOUNDATIONS. NOTIFY STRUCTURAL ENGINEER IF, AFTER THE EXISTING FOUNDATION HAVE BEEN EXPOSED, A POTENTIAL FOUNDATION CONFLICT IS ANTICIPATED. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE UNDERMINING OF EXISTING FOUNDATIONS.



DEMO SCOREBOARD FOUNDATION / SLAB PLAN



PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE

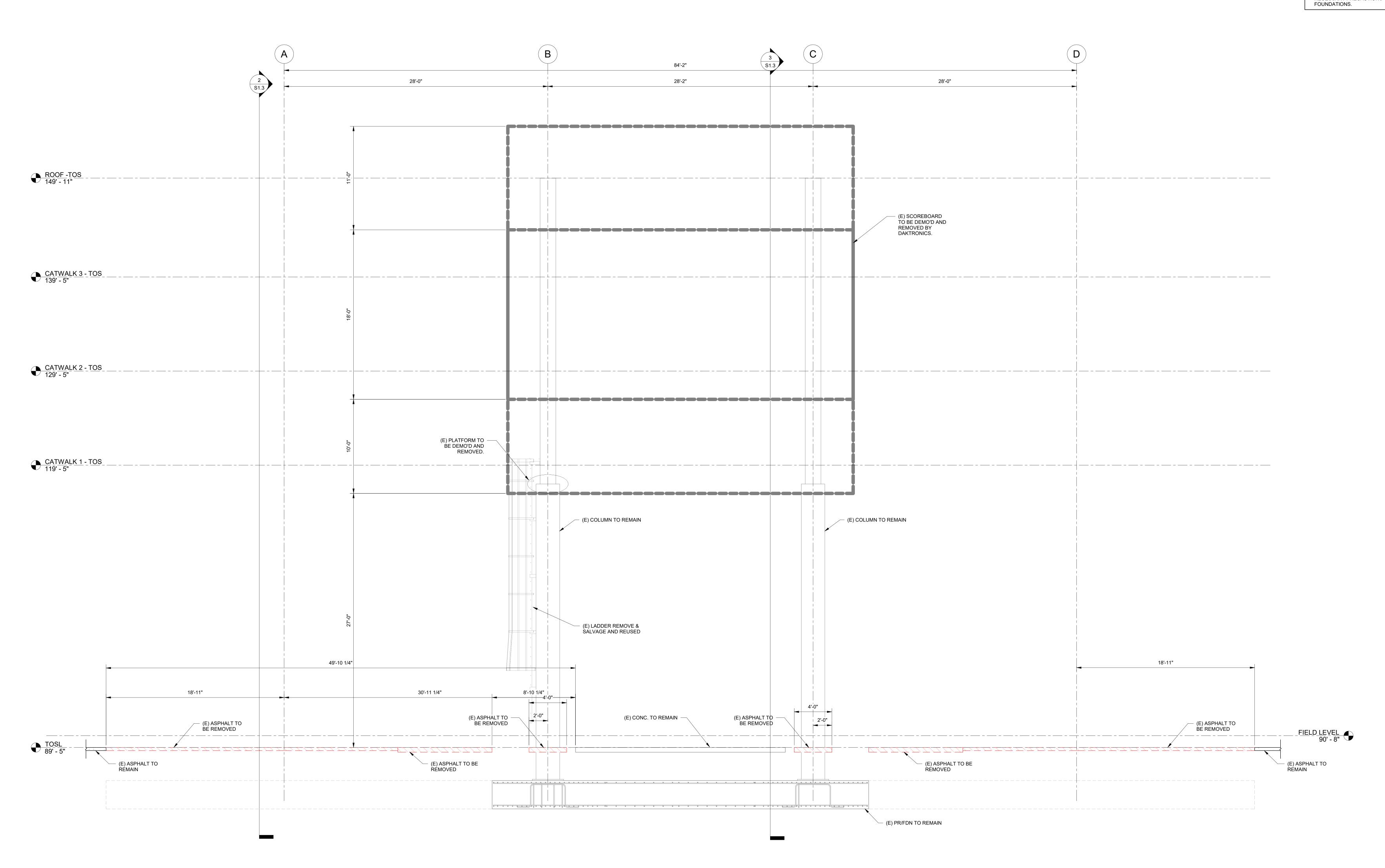
**ELEVATION** SHEET

DATE

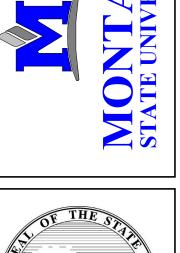
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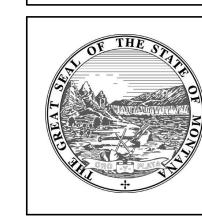


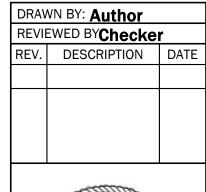
1. FIELD VERIFY SIZE AND LOCATION OF EXISTING FOUNDATIONS. NOTIFY STRUCTURAL ENGINEER IF, AFTER THE EXISTING FOUNDATION HAVE BEEN EXPOSED, A POTENTIAL FOUNDATION CONFLICT IS ANTICIPATED. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE UNDERMINING OF EXISTING FOUNDATIONS. 2. CALL TWO WORKING DAYS BEFORE YOU DIG 1-800-424-5555 3. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CITY OF BOZEMAN. MT CONSTRUCTION STANDARDS, THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS AND ALL OTHER GOVERNING AGENCIES' STANDARDS 4. EXISTING UNDERGROUND INSTALLATIONS AND PRIVATE UTILITIES SHOWN ARE INDICATED ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THIS DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION. SERVICE LINES MAY NOT BE STRAIGHT LINE OR AS INDICATED ON THE PLANS. TRADE CONTRACTOR SHALL CALL ALL UTILITY LOCATES. 5. CONTRACTOR SHALL REVIEW EXISTING CONDITIONS AND COORDINATE WITH THE CITY OF BOZEMAN AND ENGINEER PRIOR TO DEMOLITION ACTIVITIES. 6. REMOVE DEBRIS FROM SITE IMMEDIATELY AND DISPOSE OF LEGALLY. 7. ALL REMOVED ITEMS EXCEPT THOSE NOTED TO BE REUSED OR TO REMAIN SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE JOB SITE, AND LEGALLY DISPOSED. B. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF OR REMOVAL AND REPLACEMENT OF ALL CONCRETE, ASPHALT AND WALKWAYS WITHIN THE PROJECT LIMITS AREA. CONDITION TO BE ASSESSED BEFORE AND AFTER BY AN ONSITE MEETING BETWEEN THE CONTRACTOR, MSU FACILITIES, AND ENGINEER. DOCUMENT EXISTING CONDITIONS WITH VIDEO AND/OR 9. FIELD VERIFY SIZE AND LOCATION OF EXISTING FOUNDATIONS. NOTIFY STRUCTURAL ENGINEER IF, AFTER THE EXISTING FOUNDATION HAVE BEEN EXPOSED, A POTENTIAL FOUNDATION CONFLICT IS ANTICIPATED. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE UNDERMINING OF EXISTING

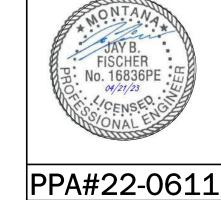


SCOREBOARD ELEVATION SD1.0









A/E#00-00-00 0747.080 SHEET TITLE FOUNDATION/SLAB

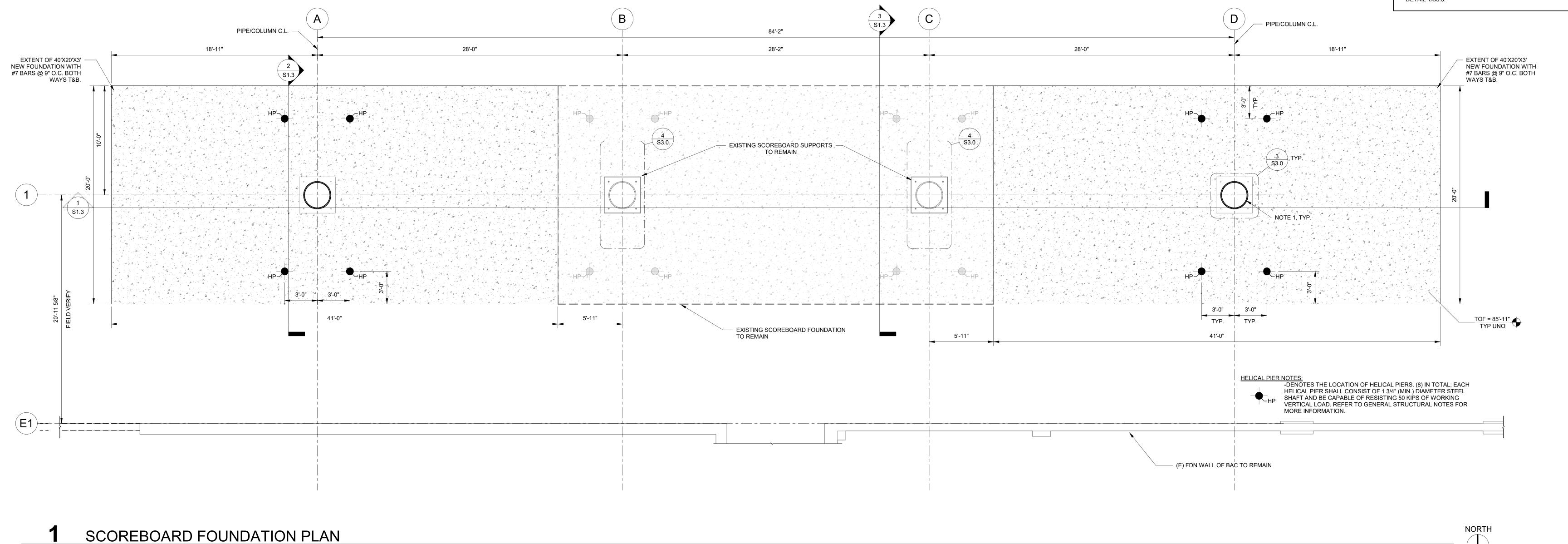
**PLAN** SHEET

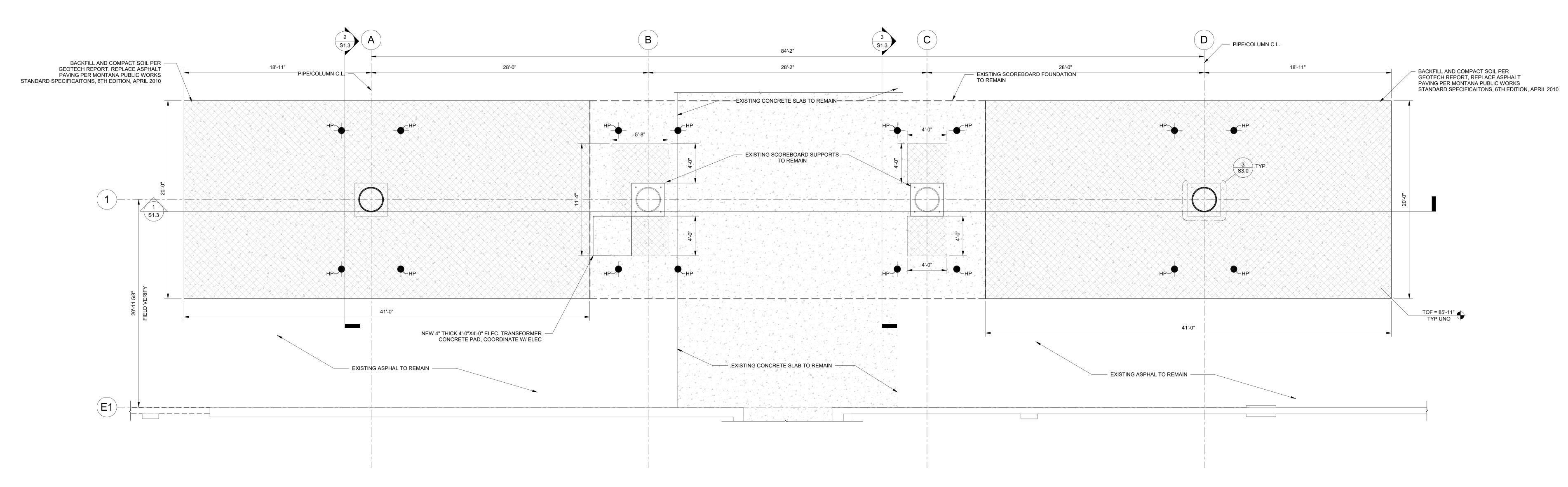
**DATE** 04-21-2023

PLAN NOTES NOTES:

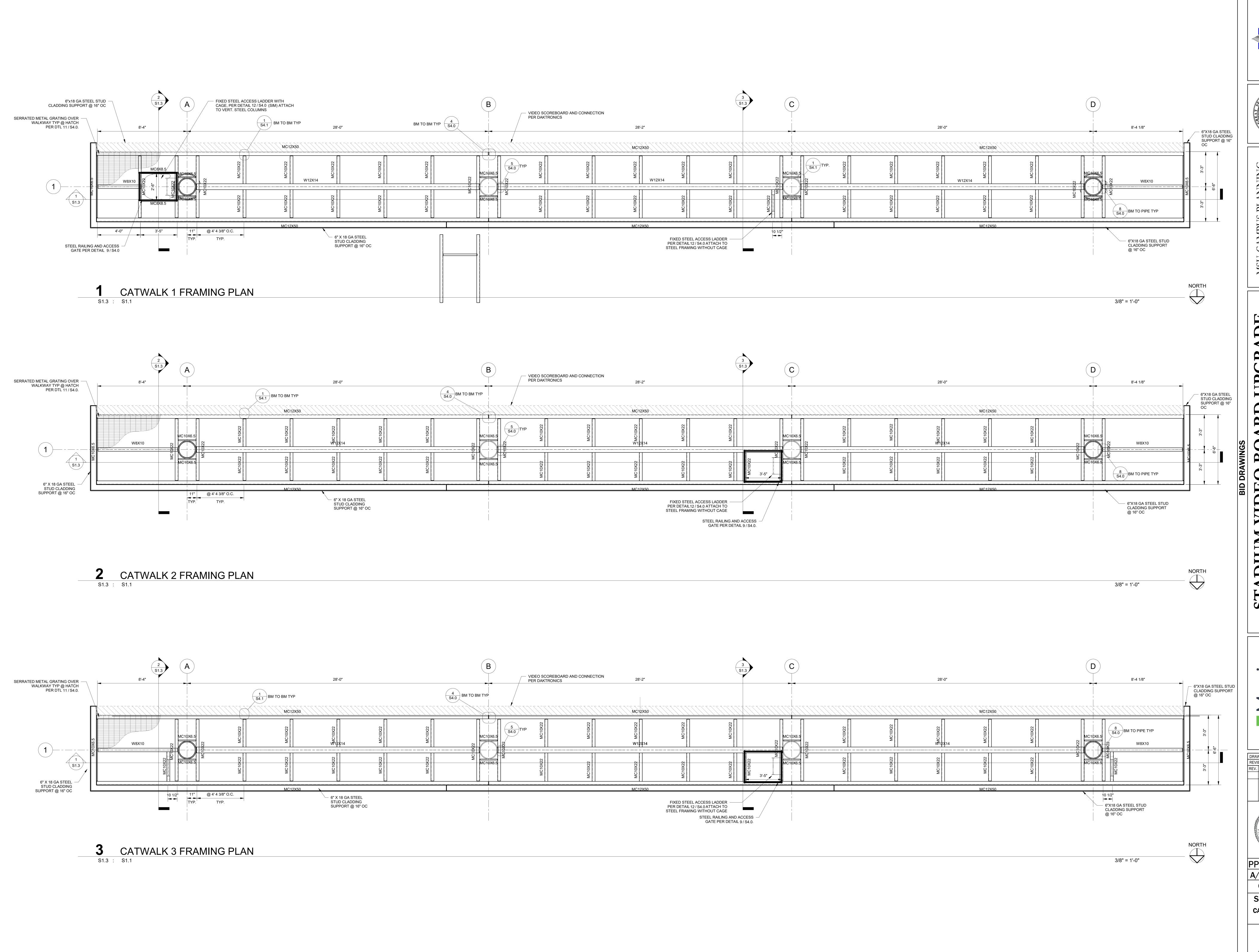
1. COMPLETELY FILL STRUCTURAL PIPE WITH 4000 PSI (MIN) CONCRETE CONFORMING TO TEH REQUIREMENTS OF THE GENERAL STRUCTURAL NOTES. PLACE CONCRETE USING TREMIE TUBE OR APPROVED EQUIVALENT TO PREVENT GREATER THAN 4-FEET FREEFALL OF CONCRETE INTO THE PIPE.
2. THIS STRUCTURAL DRAWING SET SERVES TO DEFINE AND INCLUDE THE STRUCTURAL PIPE COLUMNS AND ASSOCIATED BASE PLATES, FOUNDATIONS, REINFORCEMENT, AND ACCESS PLATFORM FRAMING MEMBERS. THE SCOREBOARD / VIDEOBOARD AND ALL ASSOCIATED COMPONENTS AND THE CONNECTION OF THESE ELEMENTS TO THE STRUCTURE ARE THE RESPONSIBILITY OF THE SCOREBOARD /VIDEOBOARD SUPPLY CONSULTANT. COORDINATE SIZE, LOCATION AND CONNECTION REQUIREMENTS OF SAID SCOREBOARD / VIDEOBOARD COMPONENTS WITH THE SCOREBOARD / VIDEOBOARD SUPPLY CONSULTANT 2. COORDINATE SLEEVING AND PENETRATIONS FOR MECHANICAL, PLUMBING, AND ELECTRICAL WORK TO BE PROVIDED IN A FUTURE SCHEDULE. AT OPENINGS IN FOUNDATION WALLS, PROVIDE OPENING REINFORCING PER

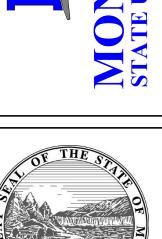
1/4" = 1'-0"

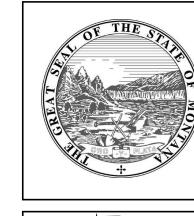




2 SCOREBOARD SLAB PLAN

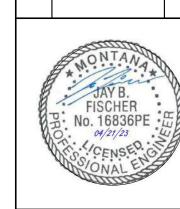






DRAWN BY: **Author**REVIEWED BY: **JBF** 

REV. DESCRIPTION DATE



PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE **CATWALK PLAN** 

SHEET

DATE 04-21-2023

3/8" = 1'-0"

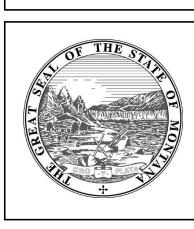
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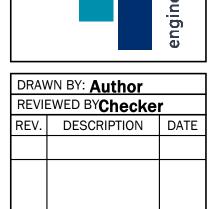
1. MECHANICAL ROOF TOP EQUIPMENT, COORDINATE LOCATIONS AND PENETRATIONS WITH MECHANICAL DRAWINGS AND MECHANICAL CONTRACTOR, PROVIDE OPENING FRAMING PER DETAIL 10/S4.4.

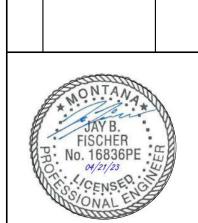
2. PROVIDE ADDITIONAL/CLOSER SPACED ROOF RAFTERS TO SUPPORT MECHANICAL ROOF TOP EQUIPMENT. 4. COORDINATE OTHER ROOF PENETRATIONS NOT SHOWN (LESS THAN OR EQUAL TO 8" IN LARGEST DIMENSION) W/ MECHANICAL/PLUMBING/ ELECTRICAL DRAWINGS AND WITH THE MECHANICAL/PLUMBING/ELECTRICAL CONTRACTORS.

4. RAFTER/JOIST BRACING IS REQUIRED BUT NOT SHOWN. SEE GENERAL STRUCTURAL NOTES ON SHEET S1.0 FOR BRACING AND OTHER JOIST/RAFTER REQUIREMENTS.





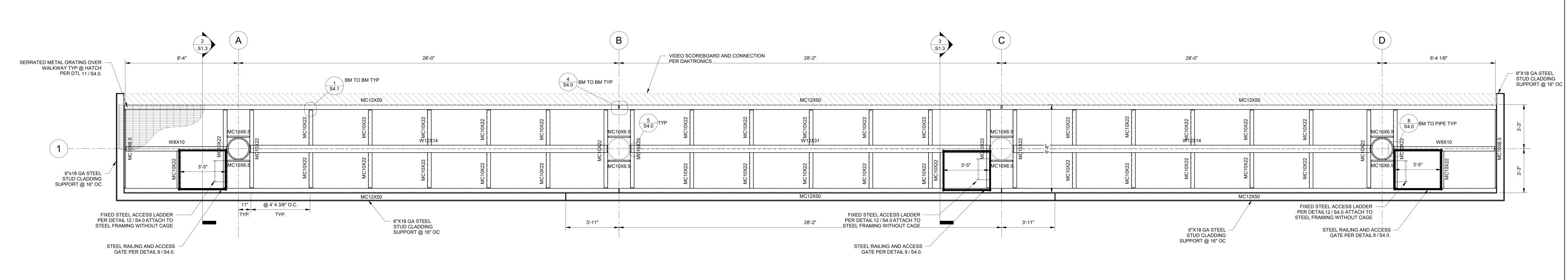




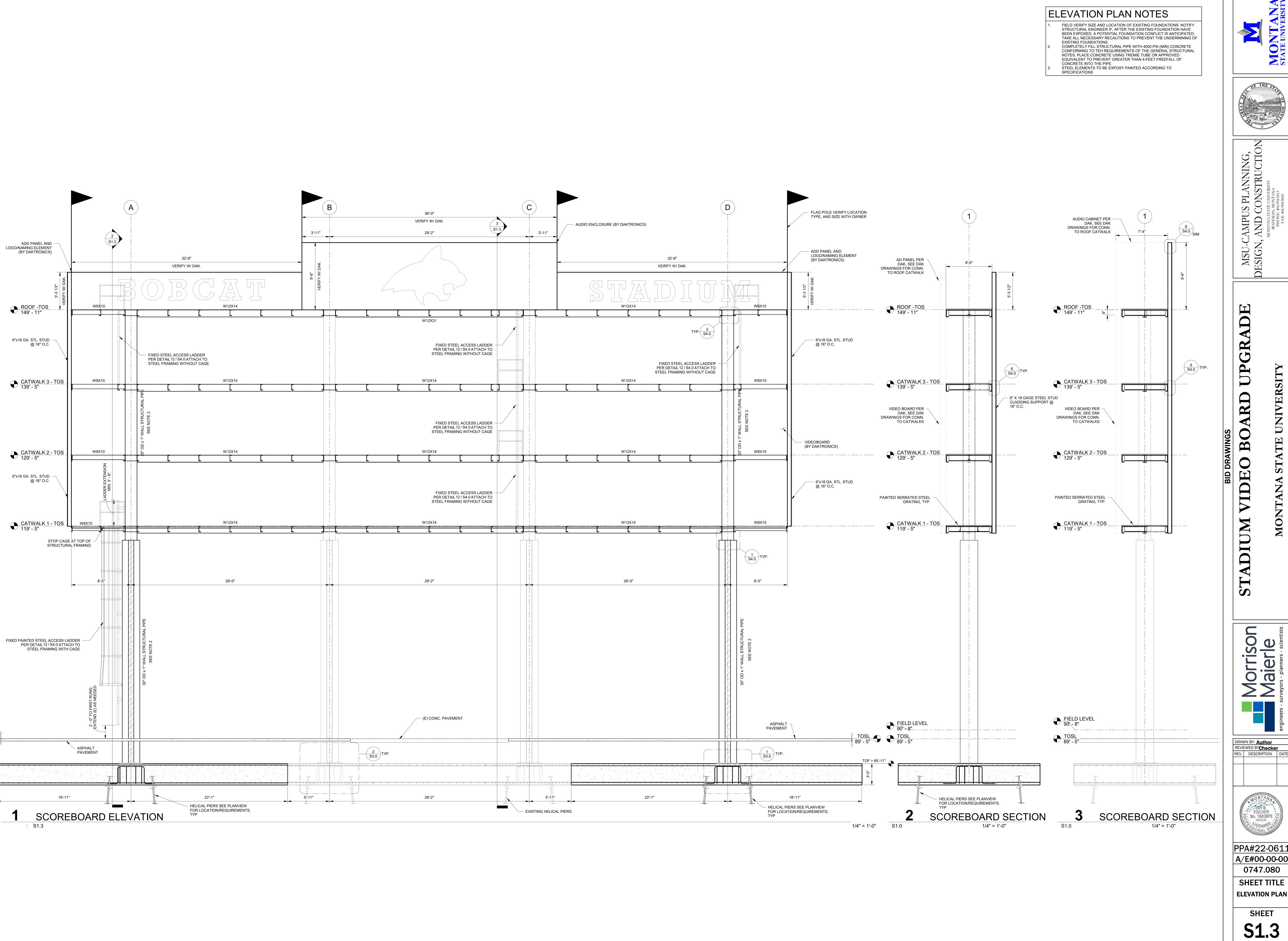
PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE **ROOF PLAN** 

SHEET

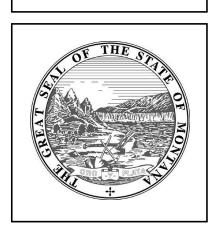
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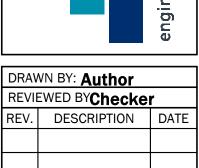


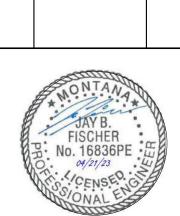
**ROOF FRAMING PLAN** S1.3 : S1.2











PPA#22-0611 A/E#00-00-00 0747.080 SHEET TITLE

SHEET

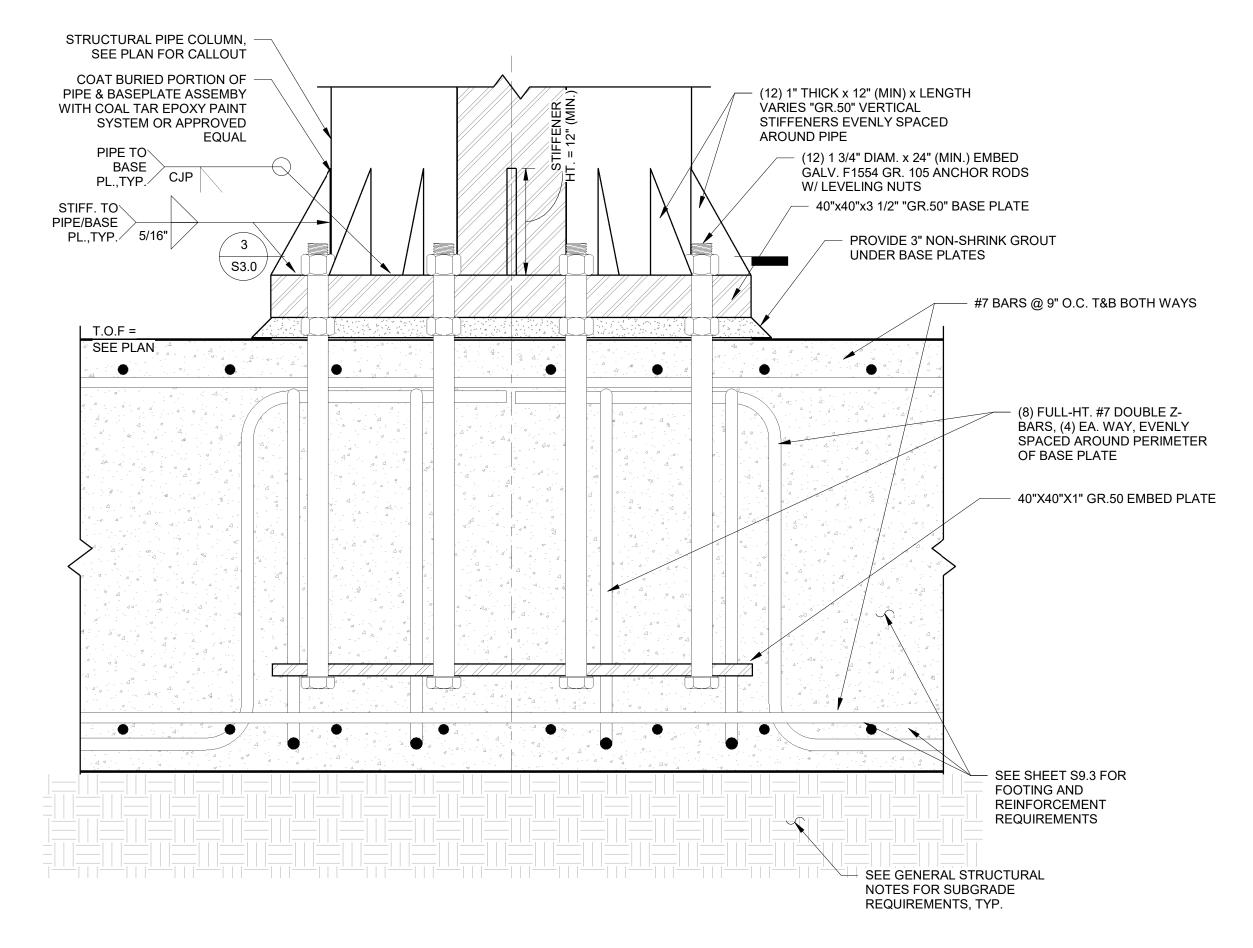
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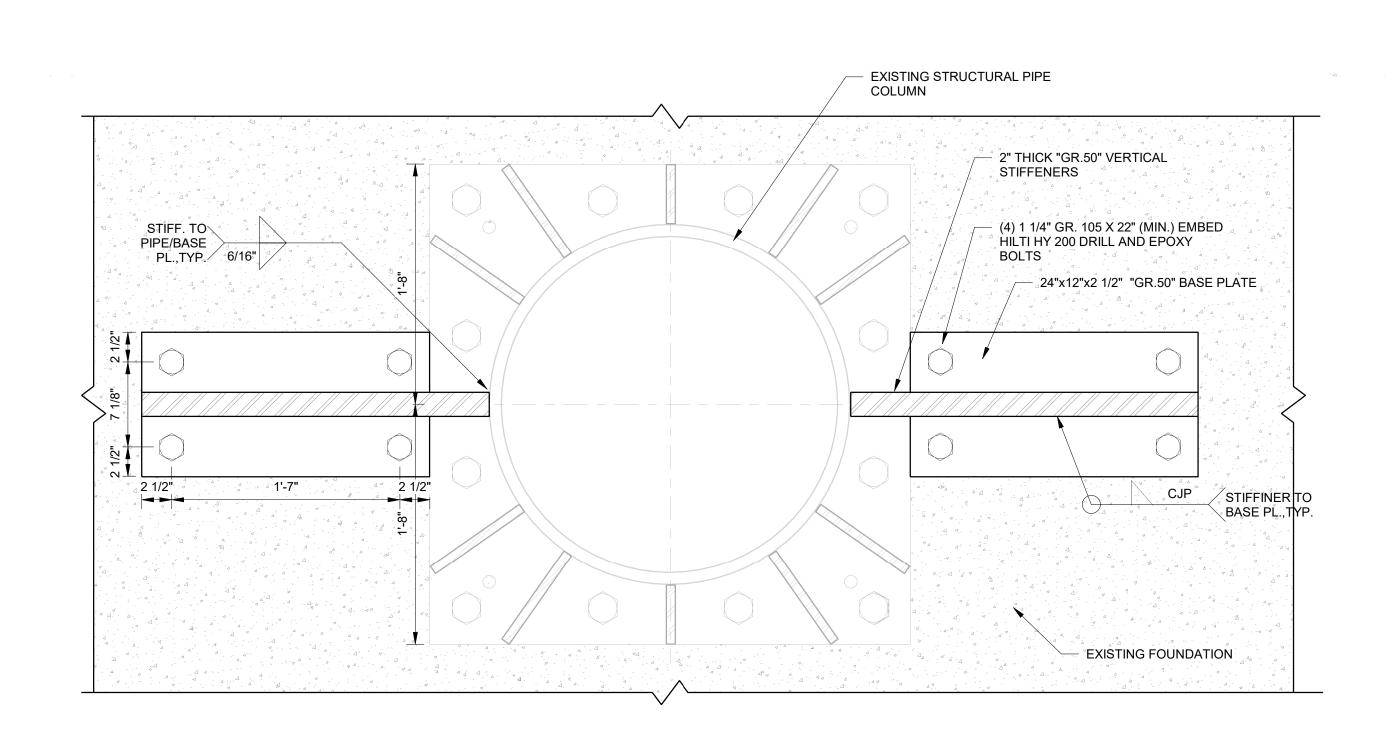
PPA#22-0611
A/E#00-00-00
0747.080
SHEET TITLE
FOUNDATION
DETAILS

SHEET
S3.0

DATE 04-21-2023

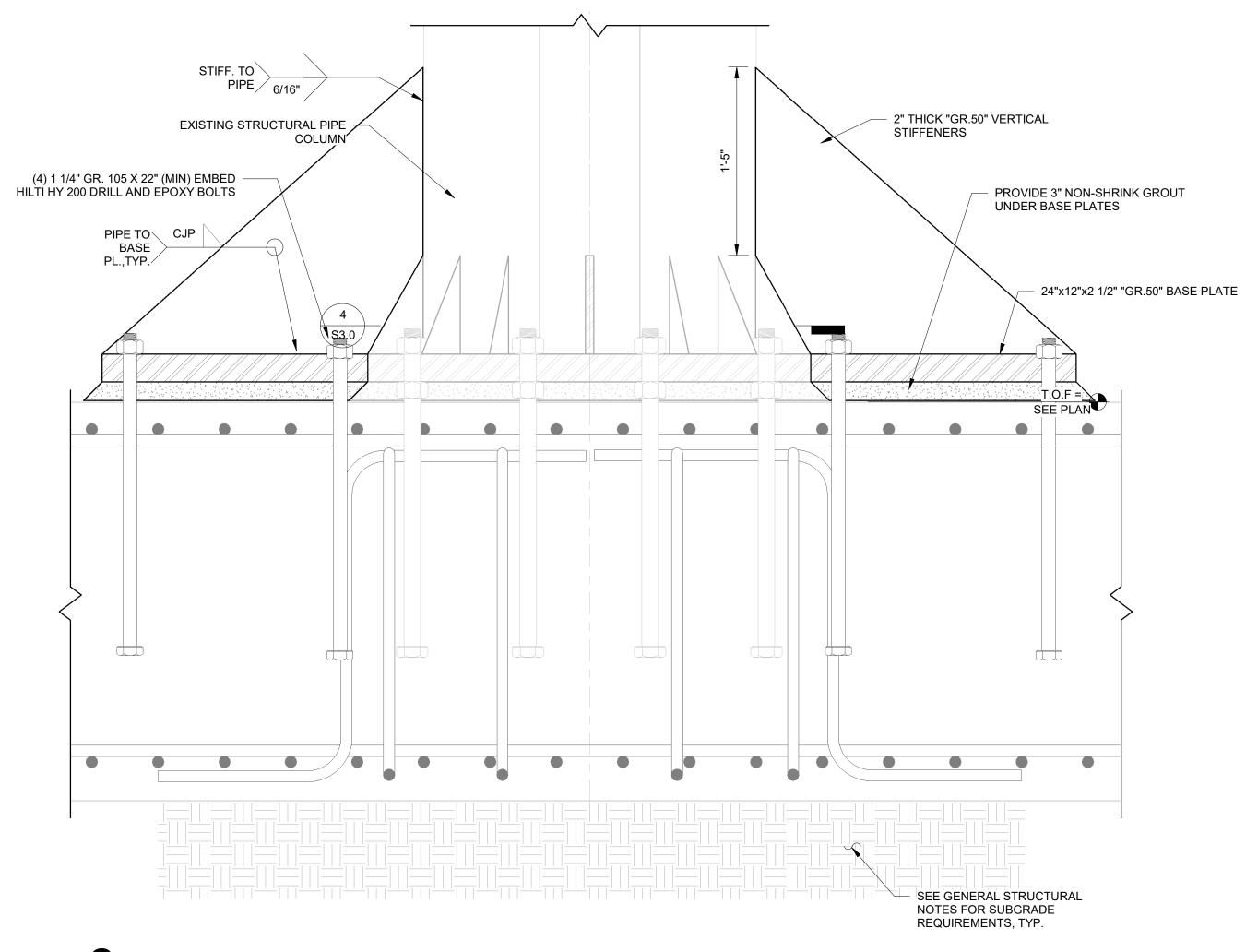


# 1 SCOREBOARD FRMG. DETAIL S1.3 1 1/2" = 1'-0"

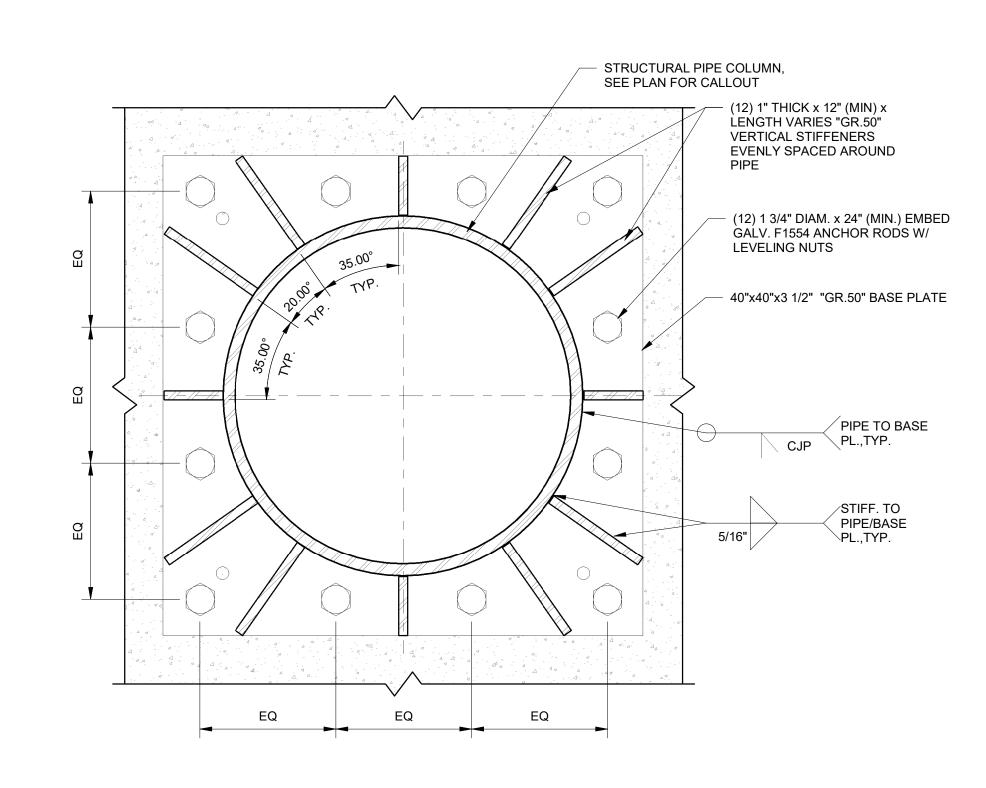


4 SCOREBOARD FRMG. DETAIL

1 1/2" = 1'-0"

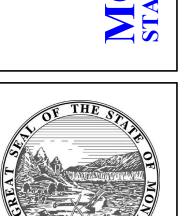


SCOREBOARD FRMG. DETAIL
1 1/2" = 1'-0"

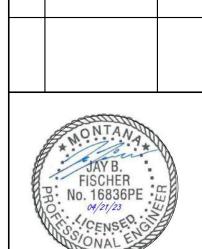


SCOREBOARD FRMG. DETAIL

1 1/2" = 1'-0"







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REVIEWED BYChecker

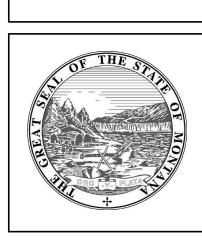
REV. DESCRIPTION DATE

PPA#22-0611 A/E#00-00-00 0747.080

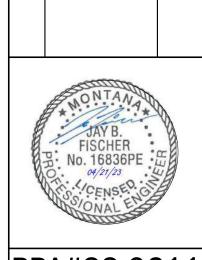
SHEET TITLE **FRAMING DETAILS** SHEET

DATE

04-21-2023





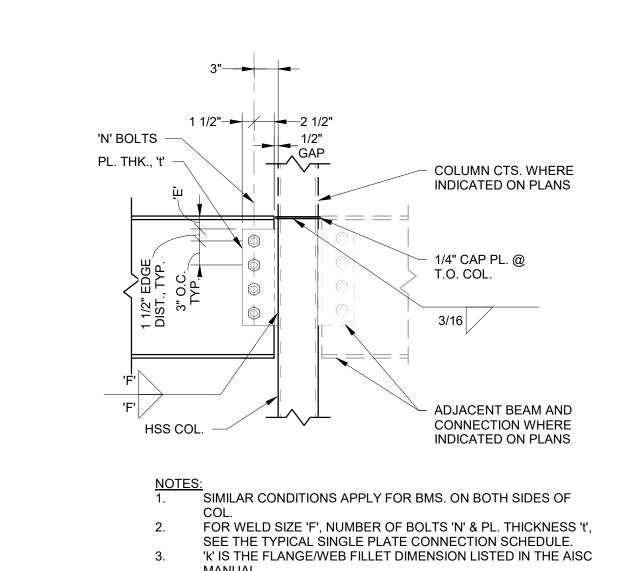


PPA#22-0611 A/E#00-00-00 0747.080

SHEET TITLE **FRAMING DETAILS** 

SHEET **S4.1** 

DATE 04-21-2023



NOMINAL MEMBER DEPTH	SHEAR PL. THICKNESS ('t')	FASTENERS A325- SC U.O.N. ('N')	WELD SIZE ('F')	VERT. P OFFSET (
8" THRU 10"	3/8"	(2) 7/8"Ø	1/4"	1 1/4"
12" THRU 14"	3/8"	(3) 7/8"Ø	1/4"	1 1/2"
16" THRU 18"	3/8"	(4) 7/8"Ø	1/4"	1 1/2"
21"	3/8"	(5) 7/8"Ø	1/4"	1 1/2"
24"	3/8"	(6) 7/8"Ø	1/4"	1 1/2"
27"	3/8"	(7) 7/8"Ø	1/4"	1 1/2"
30"	3/8"	(8) 7/8"Ø	1/4"	1 1/2"
33"	3/8"	(9) 7/8"Ø	1/4"	1 1/2"

BEAM CONNECTION SCHEDULE

NOTES:

1. HORIZONTALLY SHORT-SLOTTED HOLES ARE PERMITTED IN THE SHEAR PLATE, AT THE CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED.

2. BOLTS ARE TO BE INSTALLED PRE-TENSIONED, UNLESS OTHERWISE NOTED.

3. SCHEDULE BASED ON NOMINAL DEPTH OF WIDE FLANGE BEAMS, CHANNELS, HOLLOW STRUCTURAL SECTIONS, & OTHER MISCELLANEOUS SHAPES.

SCOREBOARD FRMG. DETAIL 1" = 1'-0"

NOTES:

1. FOR WELD 'F', NUMBER OF BOLTS 'N', VERT. PLATE OFFSET DIMENSION 'E', AND PLATE THICKNESS 't', SEE THE TYPICAL SINGLE PLATE CONNECTION SCHEDULE.

- PL. THICKNESS 't'

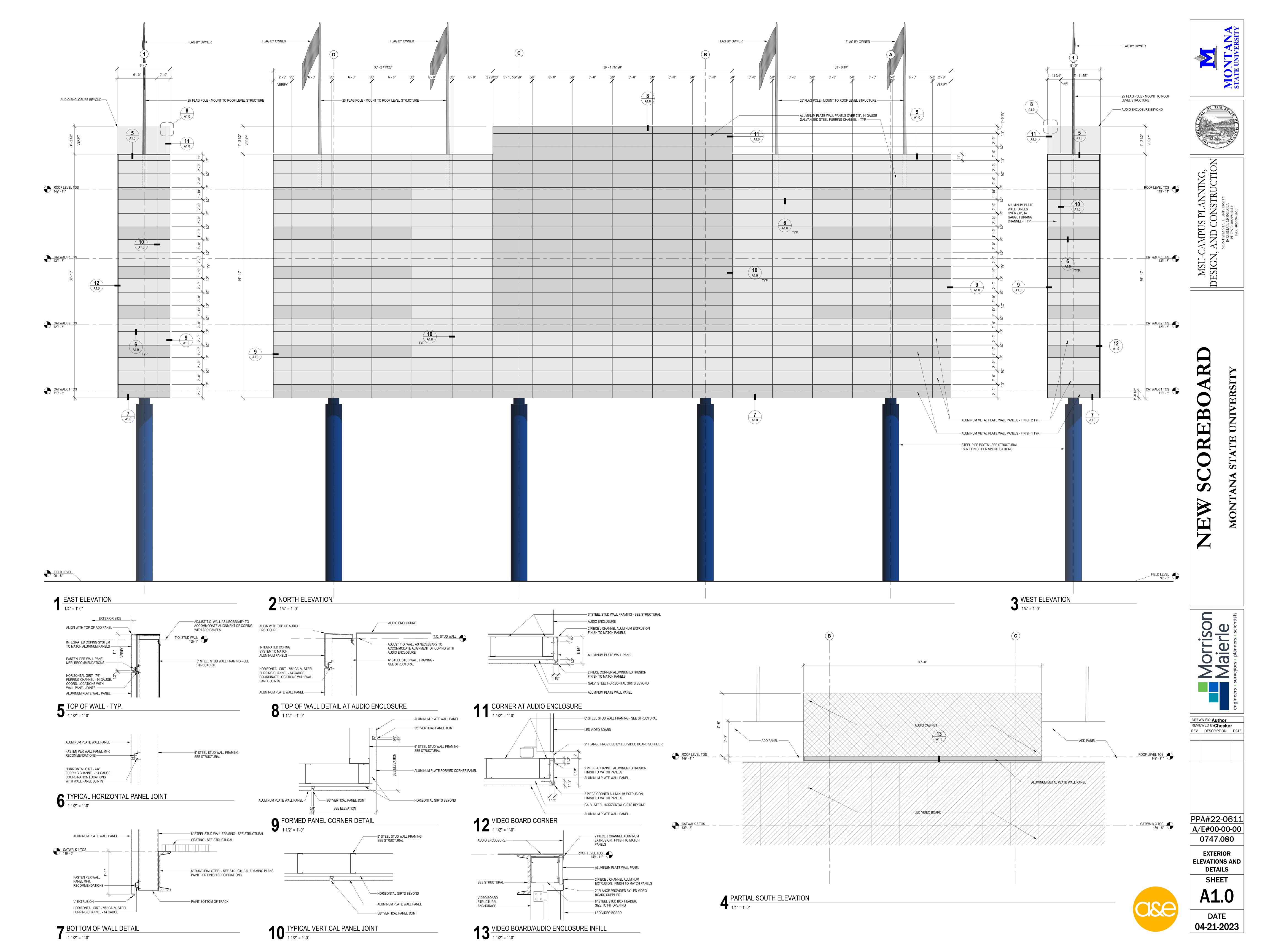
— 'N' BOLTS

1/2" MIN.———

COPE FLANGE, -TYP.

SCOREBOARD FRMG. DETAIL

SCOREBOARD FRMG. DETAIL NO SCALE



### ELECTRICAL PLAN LEGEND CT AND CUSTOMER POWER METER AUTOMATIC TRANSFER SWITCH MOTOR VFD VARIABLE FREQUENCY DRIVE UTILITY ELECTRIC METER AND BASE (BASE BY FIXED MOUNT LV BREAKER CUSTOMER) FUSED SWITCH ("XXAS/XXAF" - SW AND FUSE AMP SURGE PROTECTION DEVICE GENERATOR LIGHTNING ARRESTER, TYPE 1 SPD, MOUNTED ON EXTERIOR OF MAIN SWITCHGEAR (SQUARE D NO. CB WALL MOUNTED BREAKER SDSA3650, OAE) EQUIPMENT TOGGLE DISCONNECT SWITCH THERMAL OVERLOAD ELEMENT DISCONNECT SWITCH ("XXAS" = SWITCH AMP RATING) M - MOTOR STARTER SWITCH W/ THERMAL OVERLOADS FUSED DISCONNECT SWITCH ("XXAS/XXAF" = SW AND FUSE AMP RATING) → ├─ CONTACTOR NORMALLY OPEN, NORMALLY CLOSED COMBINATION MOTOR STARTER (STR SIZE, TYP, AS, TRANSFORMER, 3-PH, 3-WIRE DELTA CONNECTION AF, SEE MEP COORDINATION SCHEDULE) TRANSFORMER, 3-PH, 4-WIRE GROUNDED WYE CONNECTION SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED PANEL AND CIRCUIT DESIGNATION ARE SHOWN NEXT PANELBOARD TO EACH DEVICE (PANEL NAME - CIRCUIT NUMBER). BRANCH CIRCUIT WIRE SIZE IS #12, UNO. A SINGLE INSULATED GREEN GROUND CONDUCTOR SHALL BE SPECIAL PURPOSE RECEPTACLE (MOUNT AT PROVIDED WITH EACH HOME RUN. PROVIDE A ● +18". UNO) SEPARATE NEUTRAL FOR EACH CIRCUIT. HOME RUNS "X" INDICATES TYPE: A - NEMA 5-20R, #12 CU; B - NEMA 5-30R, #10 CU; SHALL HAVE NO MORE THAN THREE CIRCUITS. LINE VOLTAGE AND LOW VOLTAGE WIRING IS NOT SHOWN C - NEMA 5-50R, #8 CU; D - NEMA 6-20R, #12 CU; ON PLANS. FOR EQUIPMENT CIRCUITING, SEE MEP E - NEMA 6-30R, #10 CU; F - NEMA 6-50R, #8 CU; COORDINATION SCHEDULE. G - NEMA 14-20R, #12 CU; H - NEMA 14-30R, #10 CU; X" INDICATES TYPE: I - NEMA 14-50R, #8 CU GFI - GROUND FAULT INTERRUPTER WP - WEATHERPROOF WHILE-IN-USE COVER PUSHBUTTON (MOUNT AT +46", UNO) U - PROVIDE WITH (2) USB PORTS "X" INDICATES TYPE: EPO - EMERGENCY POWER OFF ADA - HANDICAPPED ACCESSIBLE DOOR (DEVICE BY OTHERS) SIMPLEX RECEPTACLE - CEILING MOUNT, WALL ODO - OVERHEAD DOOR OPERATOR MOUNT (+18", UNO) (DEVICE BY OTHERS) DUPLEX RECEPTACLE - CEILING MOUNT, WALL MOUNT (+18", UNO) FLATSCREEN TV BOX: 2-GANG, FLUSH IN WALL, HUBBELL NSAV62M, WITH NSAV6C COVER. QUADRUPLEX RECEPTACLE - CEILING MOUNT, WALL 120V DUPLEX RECEPTACLE & RG-6 DATA MOUNT (+18", UNO) PORT. MOUNT AT +72", UNO. ABOVE COUNTER RECEPTACLE - MOUNT AT JUNCTION BOX +4" ABOVE BACKSPLASH FLOOR BOX WITH QUADRUPLEX RECEPTACLE - WITH TELE/DATA PORTS, WITHOUT TELE/DATA. DROP-DOWN RECEPTACLE SURFACE MOUNTED RACEWAY RACEWAY CONCEALED IN WALL, FLOOR, OR CEILING IN FINISHED SPACES, EXPOSED IN UNFINISHED RACEWAY BELOW FLOOR OR BELOW GRADE RACEWAY STUB-OUT WITH CAPPED END RACEWAY STUB-OUT WITH BRUSHED END GROUNDING BUS

# ELECTRICAL PROJECT GENERAL NOTES

- A. PRIOR TO BID CONTRACTOR SHALL VISIT THE SITE. NOT ALL WORK REQUIRED TO COMPLETE THE PROJECT IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH ALL THE WORK REQUIRED TO COMPLETE THE PROJECT IN ADDITION TO THE LOCAL CONDITIONS AND INCLUDE SAID WORK IN THE BID.

  3. GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1, "STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING." THIS PUBLICATION IS AVAILABLE FROM NECA BY TELEPHONE AT 301-657-3110 OR ON-
- LINE AT WWW.NECANET.ORG.
  C. FIRE-RESISTANCE: PROVIDE A MINIMUM HORIZONTAL DISTANCE OF 24" BETWEEN OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE-RESISTANCE RATED WALLS. WHERE THIS IS NOT POSSIBLE INSTALL UL LISTED PUTTY PADS ON ALL OUTLET BOXES NOT MEETING THE 24" SEPARATION. PROVIDE A UL LISTED THROUGH -PENETRATION FIRESTOP FOR PENETRATIONS OF FIRE-RESISTANCE RATED ASSEMBLIES.
  D. CONDUCTORS ARE SIZED PER THE 75 DEGREE C RATING COLUMN OF NEC TABLE 310.16. IF THE TERMINAL USED FOR A TERMINATION OF A PARTICULAR CONDUCTOR IS NOT MARKED, OR THE TERMINAL IS MARKED FOR 60 DEGREE C CONDUCTORS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EITHER ADJUST THE AMPACITY OF THE CONDUCTOR TO MATCH THE 60 DEGREE COLUMN OF TABLE 310.16, OR
- E. BASED ON ACTUAL HOMERUN LENGTHS REQUIRED IN THE FIELD, THE CONTRACTOR SHALL CALCULATE AND INCREASE THE WIRE SIZES AS REQUIRED TO LIMIT BRANCH CIRCUIT VOLTAGE DROP TO 3%. FOR 20A BRANCH CIRCUITS THE MINIMUM CONDUCTOR SIZES SHALL BE AS FOLLOWS: #10 AMG CU FOR RUNS BETWEEN 100 AND 200 LINEAR FEET, #8 AWG CU FOR RUNS BETWEEN 200 AND 325 LINEAR FEET, AND AS CALCULATED BY THE CONTRACTOR FOR CIRCUITS EXTENDING BEYOND 325 LINEAR FEET. IN ALL CASES WHERE WIRE SIZES INCREASE, THE CONTRACTOR SHALL PROVIDE LARGER CONDUITS AS REQUIRED.
  F. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH 120V BRANCH CIRCUIT.

## ELECTRICAL PROJECT DEMO NOTES

REPLACE THE TERMINAL WITH ONE RATED FOR AT LEAST 75 DEGREES C.

- DURING DEMOLITION, THE CONTRACTOR SHALL NOTE ALL EXISTING RACEWAY (BOTH SURFACE AND CONCEALED) TO THE EXTENT POSSIBLE. THESE RACEWAYS SHALL BE REUSED TO THE GREATEST EXTENT POSSIBLE TO INSURE A CLEAN FINISHED PRODUCT. WHERE PRACTICAL, AND ALLOWED PER CODE, FISHING THROUGH WALLS WITH MC CABLE IS PREFERRED TO SURFACE-MOUNTED CONDUIT.
   CONTRACTOR SHALL REMOVE, TRANSPORT, AND LEGALLY DISPOSE OF LAMPS AND BALLASTS OFF-SITE. IT IS ASSUMED THAT THE BALLASTS DO NOT CONTAIN PCBs. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF IT IS SUSPECTED THAT BALLASTS CONTAIN PCBs.
   ALL POWER INTERRUPTIONS SHALL BE COORDINATED WITH OWNER. ANY DISRUPTION OF WORKERS IN THE SPACE SHALL BE KEPT TO A
- MINIMUM AND BE COORDINATED WITH THE OWNER PRIOR TO WORK COMMENCING IN THAT SPACE.

  D. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY EXISTING CONDUIT OR FEEDER CIRCUITS THAT ARE INTENDED TO REMAIN THAT ARE SAW-CUT, OR OTHERWISE DAMAGED, AS PART OF THE DEMOLITION PROCESS. PROVISION FOR THIS WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: ALL NECESSARY CONDUIT AND CONDUCTORS, MOUNTING ACCESSORIES AND LABOR, TO RESTORE THE SYSTEM TO
- BASED ON RECORD DRAWINGS AND SITE VISITS. IF ACTUAL EXISTING CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, PLEASE NOTIFY ENGINEER.

  F. OWNER SHALL HAVE FIRST RIGHTS AT ANY DEMOLISHED ITEMS THEY CHOOSE TO RETAIN FOR THEIR USE OR SPARE STOCK. CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL REMAINING DEMO ITEMS NOT DESIRED BY OWNER.

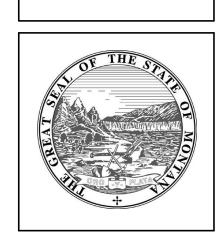
ELECTRICAL DRAWINGS SHOWING EXISTING BUILDING CONDITIONS, SUCH AS DEMOLITION DRAWINGS, EXISTING PANEL SCHEDULES, ETC ARE

## ABBREVIATIONS AND SYMBOLS GENERAL NOTES

THE ABBREVIATIONS ON THIS SHEET COMPRISE A STANDARD LIST; NOT ALL ABBREVIATIONS APPEAR ON THIS PROJECT.

B. THE SYMBOLS ON THIS SHEET COMPRISE A STANDARD LIST; NOT ALL SYMBOLS APPEAR ON THIS PROJECT.
 C. ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE. MOUNTING HEIGHTS INDICATED ON ARCHITECTURAL WALL ELEVATIONS OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED.

TONTANA
rate university

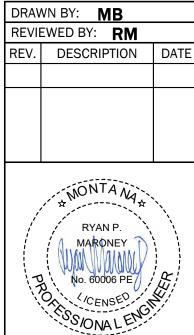


MSU-CAMPUS PLANNING,
SSIGN, AND CONSTRUCTIC
BOZEMAN, MONTANA

RD UPGRADE

1 VIDEOBOARI



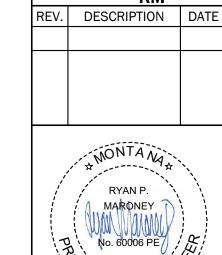


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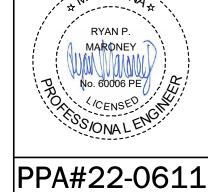
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SHEET TITLE
ELECTRICAL NOTES
AND LEGENDS

SHEET **E001** 

DATE **04.21.2023** 



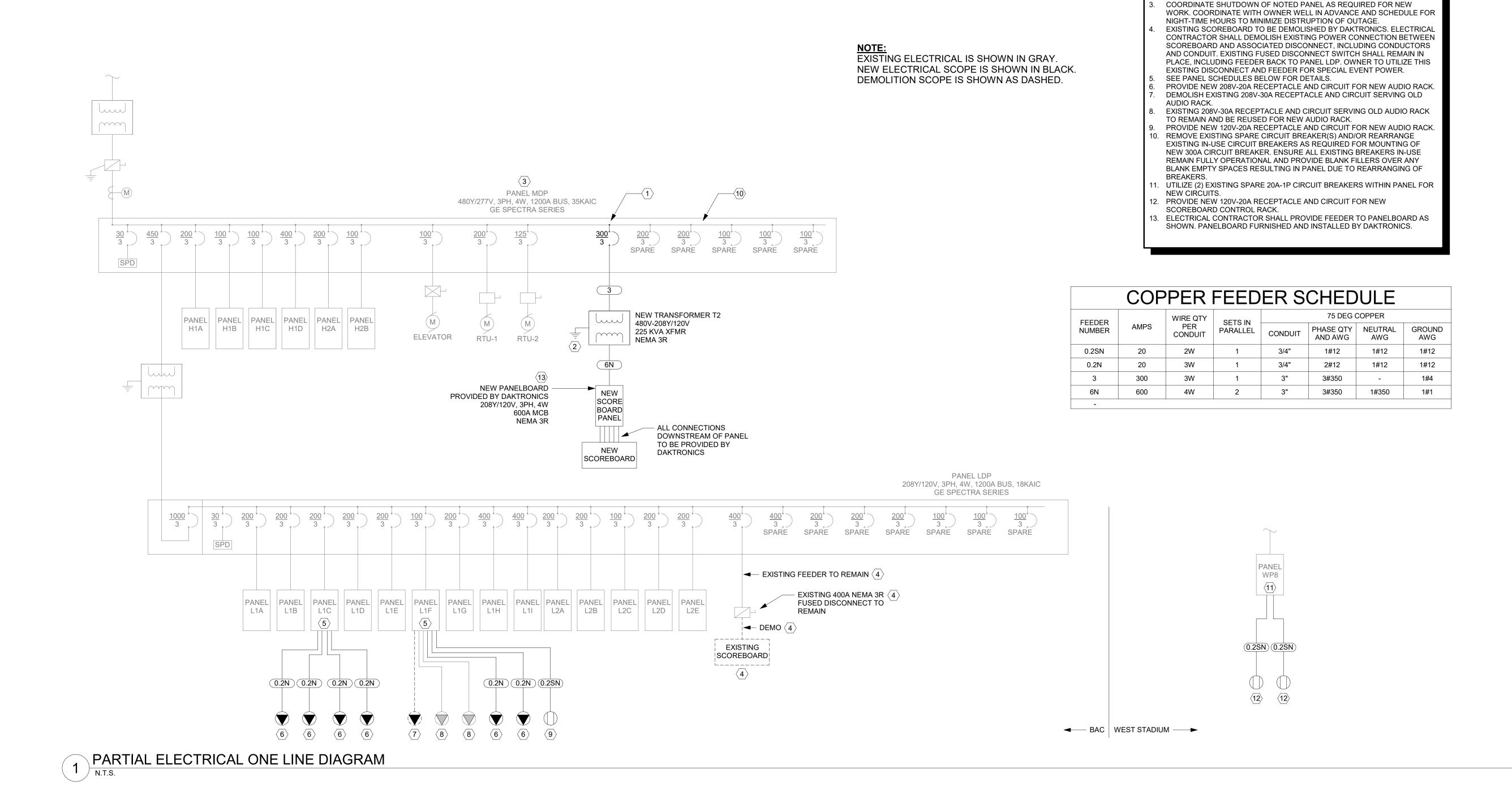
REVIEWED BY: RM



MMI#0747.080
SHEET TITLE
ELECTRICAL
DETAILS &

E002

DATE 04.21.2023



Signature   Sign	1500 VA 540 VA 100	Poles 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Trip				
Circuit Description   Classification   Trip   Poles   A   1664 VA   44 VA   1664 VA	A 888 VA 1664 VA 12 A 1500 VA 540 VA 100 A 360 VA	1 1	Trip				
SAISTING LOAD   Receptacle   20 A   2	1664 VA 12 1500 VA 540 VA 100 1 360 VA		٠٠٠.١٧	Load Classification		Circuit Description	CK
Receptacle	1500 VA 540 VA 100	001/4	15 A 20 A	HVAC HVAC	EXISTING EXISTING		4
Total Amps:	540 VA 100 A 360 VA	20 VA 1	15 A	HVAC	EXISTING		6
Texast   T	540 VA 100 A 360 VA	1	20 A	Power	EXISTING		8
13	360 VA	1	20 A	Power	EXISTING		10
15		000 VA 1	20 A	Power	EXISTING		12
17		1	20 A	Power	EXISTING		14
19	1/1/0//// 1/0/	60.1/4	20 A	Receptacle	EXISTING		16
21   EXISTING LOAD   Receptacle   20 A   1     1260 VA	1080 VA 36	60 VA 1	20 A	Receptacle	EXISTING		18
23   EXISTING LOAD   Receptacle   20 A   1   900 VA   500 VA     25   EXISTING LOAD   Receptacle   20 A   1   900 VA   500 VA     27   EXISTING LOAD   Receptacle   20 A   1   900 VA     29   EXISTING LOAD   Receptacle   20 A   1   900 VA     29   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA     31   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA     33   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     35   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     37   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     38   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     41   EXISTING SPARE     20 A   1   0 VA   1440 VA     42   EXISTING SPARE     20 A   1   0 VA   1440 VA     43   EXISTING SPARE     20 A   1   0 VA   1440 VA     44   EXISTING SPARE     20 A   1   0 VA   1440 VA     45   EXISTING SPARE     20 A   1   0 VA   1440 VA     46   EXISTING SPARE     20 A   1   0 VA   1440 VA     47   EXISTING SPARE     20 A   1   0 VA   1440 VA     48   EXISTING SPARE     20 A   1   0 VA   1440 VA     51   EXISTING SPARE     20 A   1   0 VA   1440 VA     52   EXISTING SPARE     20 A   1   0 VA   1440 VA     53   EXISTING SPARE     20 A   1   0 VA   1440 VA     54   EXISTING SPARE     20 A   1   0 VA   1440 VA     55   EXISTING SPARE     20 A   1   0 VA   1440 VA     51   EXISTING SPARE     20 A   1   0 VA   1440 VA     52   EXISTING SPARE     20 A   1   0 VA   1440 VA     54   EXISTING SPARE     20 A   1   0 VA   1440 VA     55   EXISTING SPARE     20 A   1   0 VA   1440 VA     56   EXISTING SPARE     20 A   1   0 VA   1440 VA     51   EXISTING SPARE     20 A   1   0 VA   1440 VA     52   EXISTING SPARE     20 A   1   0 VA   1440 VA     55   EXISTING SPARE     20 A   1   0 VA   1440 VA     56   EXISTING SPARE     20 A   1   0 VA   1440 VA     57   EXISTING SPARE     20 A   1   0 VA   1440 VA     58   EXISTING SPARE     20 A   1   0 VA   1440 VA     59   EXISTING SPARE     20 A   1   0 VA   1440 VA	A 2640 V/A	1	20 A	Receptacle	EXISTING	LUAD	20
25   EXISTING LOAD   Receptacle   20 A   1   900 VA   500 VA     27   EXISTING LOAD   Receptacle   20 A   1   900 VA     29   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA     31   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA     33   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA     35   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     37   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     39   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     39   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA     41   EXISTING SPARE     20 A   1   0 VA   1440 VA     42   EXISTING SPARE     20 A   1   0 VA   1440 VA     43   EXISTING SPARE     20 A   1   0 VA   1440 VA     44   EXISTING SPARE     20 A   1   0 VA   1440 VA     45   EXISTING SPARE     20 A   1   0 VA   1440 VA     46   EXISTING SPARE     20 A   1   0 VA   1440 VA     47   EXISTING SPARE     20 A   1   0 VA   1440 VA     49   EXISTING SPARE     20 A   1   0 VA   1440 VA     51   EXISTING SPARE     20 A   1   0 VA   1440 VA     52   EXISTING SPARE     20 A   1   0 VA   1440 VA     53   EXISTING SPARE     20 A   1   0 VA   1440 VA     54   EXISTING SPARE     20 A   1   0 VA   1440 VA     55   EXISTING SPARE     20 A   1   0 VA   1680     50   EXISTING SPARE     20 A   1   0 VA   1680     50   EXISTING SPARE     20 A   1   0 VA   1680     50   EXISTING SPARE     20 A   1   0 VA   1680     50   EXISTING SPARE     20 A   1   0 VA   1680     51   EXISTING SPARE     20 A   1   0 VA   1680     52   EXISTING SPARE     20 A   1   0 VA   1680     53   EXISTING SPARE     20 A   1   0 VA   1680     54   EXISTING SPARE     20 A   1   0 VA   1680     55   EXISTING SPARE     20 A   1   0 VA   1680     56   EXISTING SPARE     20 A   1   0 VA   1680     57   EXISTING SPARE     20 A   1   0 VA   1680     58   EXISTING SPARE     20 A   1   0 VA   1680     59   EXISTING SPARE     20 A   1   0 VA   1680     50   EXISTING SPARE     20 A   1		2	50 A	Receptacle	EXISTING	LOAD	22
27   EXISTING LOAD   Receptacle   20 A   1   900 VA	540 VA 364	340 VA 2	20.4	Davisan	EVICTING	LOAD	24
EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA   33   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA   33   EXISTING LOAD   Receptacle   20 A   1   540 VA   0 VA   35   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA   360 VA   37   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA   39   EXISTING LOAD   Receptacle   20 A   1   1080 VA   0 VA   41   EXISTING SPARE     20 A   1   0 VA   1440 VA   43   EXISTING SPARE     20 A   1   0 VA   1440 VA   44   EXISTING SPARE     20 A   1   0 VA   1440 VA   45   EXISTING SPARE     20 A   1   0 VA   1440 VA   46   EXISTING SPARE     20 A   1   0 VA   1440 VA   47   EXISTING SPARE     20 A   1   0 VA   1440 VA   49   EXISTING SPARE     20 A   1   0 VA   1440 VA   51   EXISTING SPARE     20 A   1   0 VA   1440 VA   53   EXISTING SPARE     20 A   1   0 VA   1440 VA   53   EXISTING SPARE     20 A   1   0 VA   1440 VA   54   EXISTING SPARE     20 A   1   0 VA   1440 VA   55   EXISTING SPARE     20 A   1   0 VA   1440 VA   55   EXISTING SPARE     20 A   1   0 VA   1440 VA   55   EXISTING SPARE     20 A   1   0 VA   1440 VA   1	100 ) (4	1	20 A	Power	EXISTING		26
SXISTING LOAD   Receptacle   20 A		1	20 A	Receptacle	EXISTING		28
SAME	1260 VA 10	0 VA 1	20 A	Power	EXISTING		30
SEXISTING LOAD	0.)(4	1	20 A		EXISTING		32
STING LOAD   Receptacle   20 A   1   1080 VA   0 VA   1080 VA		1	20 A		EXISTING		34
39   EXISTING LOAD   Receptacle   20 A   1	0 VA 0	0 VA 1	20 A		EXISTING		36
41   EXISTING SPARE	4440.745	1	20 A		EXISTING	SPARE	38
43	1440 VA	2	20 A	Power	<1> AUDIO	RACK (NEW)	40
45	0 VA 144	40 VA					42
47   EXISTING SPARE	4440.1/4	2	20 A	Power	<1> AUDIO	RACK (NEW)	44
49   EXISTING SPARE	1440 VA						46
S1   EXISTING SPARE     20 A   1   0 VA	0 VA 144	40 VA 2	20 A	Power	<1> AUDIO	RACK (NEW)	48
STATE   STAT	4440.)(6						50
Total Load: 12292 VA 168 Total Amps: 102 A 14  Legend:  1 > PROVIDE NEW 20A-2P BREAKER FOR NEW 208V-20A AUDIO RACK CIRCUIT. MATCH EXISTING BREAKER  Load Classification Connected Load Demand Fa  HVAC 1052 VA 100.00%  Power 15930 VA 100.00%		2	20 A	Power	<1> AUDIO	RACK (NEW)	52
Legend:  102 A 14  Legend:  1 > PROVIDE NEW 20A-2P BREAKER FOR NEW 208V-20A AUDIO RACK CIRCUIT. MATCH EXISTING BREAKER  Load Classification Connected Load Demand Fa  HVAC 1052 VA 100.00%  Power 15930 VA 100.00%		140 VA					54
Legend:  1> PROVIDE NEW 20A-2P BREAKER FOR NEW 208V-20A AUDIO RACK CIRCUIT. MATCH EXISTING BREAKER  Load Classification  1052 VA 100.00%  Power 15930 VA 100.00%	372 VA 14534 V						
C1> PROVIDE NEW 20A-2P BREAKER FOR NEW 208V-20A AUDIO RACK CIRCUIT. MATCH EXISTING BREAKER  Load Classification  Connected Load  Demand Fa  HVAC  1052 VA  100.00%  Power  15930 VA  100.00%	43 A 124 A						
HVAC 1052 VA 100.00% Power 15930 VA 100.00%			EL AS RE	QUIRED FOR COM			
Power 15930 VA 100.00%		d Demand			Panel T	OlaiS	
						400001/4	
Receptacle 26716 VA 68.72%					nn. Load: 4		
	18358	58 VA			Demand: 3		
				Tot	tal Conn.: 1	21 A	
				Total Est.	Demand: 9	)8 A	
Notes:							

NOTES:
1. CONTRACTOR SHALL INSTALL PULLBOX EXTENSIONS AS REQUIRED.
2. LABEL LID AS "ELECTRIC".

─ MATCH EXISTING

TRANSFORMER

PANELBOARD -

SCHEDULE

2 TRANSFORMER GROUNDING RISER DIAGRAM N.T.S.

SUPPLY-SIDE BONDING

JUMPERS PER FEEDER

ASPHALT SURFACE

3 ELECTRICAL HANDHOLE DETAIL
N.T.S.

- PROVIDE VOLTAGE DIVIDER IN MIDDLE

OF BOX BETWEEN THE (2) CONDUITS

FOR SEPARATION. ONE CONDUIT WILL

BE UTILIZED BY OWNER FOR POWER,

FINISHED GRADE TO

NO. 30 FELTPAPERSEPARATION

CONDUITS IN PLACE
AS REQUIRED.

— 1" CLEAN STONE DRAINAGE

EQUIP. GROUNDING CONDUCTOR PER FEEDER SCHEDULE

BONDING

JUMPER (#1/0 CU)

- ISOLATED NEUTRAL

MATCH EXISTING

AND OTHER FOR LOW VOLTAGE.

√ 3/8" HOLD

TIER 22 RATED CONCRETE POLYMER

PULL BOX MINIMUM

INSIDE DIMENSIONS

L = 36"

D = 24"

GROUNDING ELECTRODE-CONDUCTOR (#1/0 CU)

#6 CU

SCOREBOARD COLUMN

\ DOWN BOLTS

CONCRETE SLAB

FOUNDATION WALL

GROUNDING CONDUCTOR:

PROCESS. WIRE TIE TO

TIE TO A MIN. 20FT, #5A36 ROD OR

20-FT #4 BARE CU CONDUCTOR.

JOIN BY EXOTHERMIC WELDING

STRUCTURAL REBAR IN FOOTING.

Branch Panel: L1F  Location: I.T. 114TR  Supply From: LDP  Mounting: Recessed  Enclosure: Type 1					Volts: 120/208 Wye Phases: 3 Wires: 4							A.I.C. Rating: 10 KAIC  Mains Type: M.L.O.  Mains Rating: 100 A				
Notes: EXISTING	PANEL (GE AQ SERIES PANELBO	ARD).											Load			
СКТ	Circuit Description	Classification	Trip	Poles			В		С		Poles	Trip	Classification		Circuit Description	СК
3> /	AUDIO RACK (NEW)	Power	20 A	2	1440 VA	1440 VA		1440.14			2	20 A	Power	<3> AUDIO F	RACK (NEW)	2
3	STING LOAD	Receptacle	20 A	1			1440 VA	1440 VA	360 VA	180 VA	1	20 A	Receptacle	EXISTING LO	, ,	
	STING LOAD  STING LOAD	Receptacle	20 A	1	360 \/^	2400 VA			300 VA	100 VA	1	20 A 30 A	Receptacle Receptacle	EXISTING LO		
	STING LOAD	· · · · · · · · · · · · · · · · · · ·	20 A	1	300 VA	2400 VA	360 VA	0 VA			1	30 A 20 A	Receptacie 	EXISTING LO		1
	AUDIO RACK (NEW)	Receptacle Power	20 A	1			300 VA	UVA	1440 \/^	2400 VA	1	20 A 30 A	 Receptacle	EXISTING SI		
	STING SPARE			1	0 VA	2400 VA			1440 VA	2400 VA	1	30 A		EXISTING LO		1
	STING SPARE STING SPARE		20 A 20 A	1	UVA	2400 VA		2400 VA			1	30 A	Receptacle Receptacle	EXISTING LO		
	STING SPARE		20 A	1			UVA	2400 VA	0 VA	2080 VA	'	30 A	песеріасіе	EVISTING FO	טאט	1
	STING SPARE	<b></b>	20 A	1	0 VA	2080 VA			UVA	2000 VA	2	30 A	Power	<1> AUDIO F	RACK (EXISTING)	2
	STING SPARE		20 A	1	UVA	2000 VA		2080 VA								2
21 EXIS			20 A	1			UVA	2000 VA		2080 VA	2	30 A	Power	<1> AUDIO F	RACK (EXISTING)	2
25 SPA				1		0 VA				2000 VA				+		2
27 SPA				1		JVA		0 VA			2	30 A		<4> NEW SPARE		2
29 SPA				1				UVA			1			SPACE		3
20 01 70	<u></u>			Load:	1011	20 VA	7720	) VA		 O VA	'			JOI AOL		
											]					
egend:			i Oldi	Amps:	03		04		12	. ^						
<2> USE E <3> USE E	TING 208V-30A CIRCUIT TO BE REU EXISTING SPARE 20A-1P BREAKER EXISTING SPARE 20A-2P BREAKER DLISH EXISTING 208V-30A CIRCUIT	R FOR NEW 120V-20A AU R FOR NEW 208V-20A AU	Total ACK. NO JDIO RAI JDIO RAI	Amps: WORK CK CIRC	REQUIF CUIT. CUIT	5 A RED, SHO\	64 WN FOR F	A REFERENC	72 CE ONLY.	? A						
l oad Class	sification		Conne	ected L	oad	Dα	mand Fac	tor	Fetir	nated Der	mand			Panel	Totals	
Power			15520 VA					100.00%		15520 VA				i aliei i otais		
													Tatal Oansa Laad		00000 \ / A	
Receptacle			10	860 VA	UVA		96.04%		10430 VA	VA		Total Conn. Load:				
													Total I	Est. Demand:	25950 VA	
						1								Total Conn.:	73 Δ	
						1						1		Lotal Conn	1 / '	
														Est. Demand:		

**#** KEY NOTES:

PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL MDP FOR NEW SCOREBOARD FEEDER. PROVIDE GE SGHA SERIES BREAKER, TO MATCH

GROUND PER TRANSFORMER GROUNDING DETAIL ON THIS SHEET.

EXISTING. SIZE BREAKER AS 400A FRAME, 300A TRIP.

UTILIZE THIS EXISTING DISCONNECT AND FEEDER FOR SPECIAL EVENT

SCOREBOARD. SEE ONE-LINE FOR NEW FEEDER REQUIREMENTS.

IN 1" CONDUIT. DISCONNECT FROM EXISTING SCOREBOARD AND

PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANEL MDP FOR NEW

PROVIDE NEW DRY-TYPE TRANSFORMER. SEE ONE-LINE FOR DETAILS. PAD-MOUNT NEXT TO SCOREBOARD COLUMN AS SHOWN. PROVIDE 4" RAISED CONCRETE HOUSEKEEPING PAD FOR EQUIPMENT. COORDINATE FINAL PAD DIMENSIONS WITH TRANSFORMER SHOP DRAWING SUBMITTAL. PROVIDE FEEDER TO NEW SCOREBOARD PANELBOARD AS SHOWN. PANELBOARD FURNISHED AND INSTALLED BY DAKTRONICS. COORDINATE

ROUTE NEW CIRCUITS FROM PANEL L1C TO AUDIO RACK ABOVE CEILING WITHIN EXISTING ACCESSIBLE CEILING SPACE ALONG PATH SHOWN. SEE

NEW AUDIO RACK TO REPLACE EXISTING AUDIO RACK IN ROOM 114TR. MOUNT NEW RECEPTACLES ON NORTH WALL OF ROOM 114TR TO SERVE NEW AUDIO RACK. COORDINATE INSTALLATION WITH DAKTRONICS AND

SEE ONE-LINE AND PANEL SCHEDULES FOR REQUIRED SCOPE OF WORK. 10. EXISTING SPARE 3" CONDUITS STUB UP HERE ALONG EAST WALL OF MAIN ELECTRICAL ROOM. EXTEND (1) 3" CONDUIT TO PANEL MDP WITHIN MAIN ELECTRICAL ROOM AS REQUIRED TO COMPLETE PATHWAY FOR NEW FEEDER. PROVIDE PULL BOX, GUTTER, OR LB AS REQUIRED TO

EXISTING SPARE 3" CONDUITS STUB UP ALONG EXISTING EAST LEG OF OLD SCOREBOARD. INTERCEPT UNDERGROUND AND EXTEND (1) 3" CONDUIT TO NEW TRANSFORMER T2 AS REQUIRED TO COMPLETE

RECONNECT TO NEW SCOREBOARD AS REQUIRED.

SCOREBOARD FEEDER. SEE ONE-LINE FOR DETAILS.

EXACT LOCATION WITH DAKTRONICS PRIOR TO ROUGH-IN.

ONE-LINE FOR DETAILS.

FACILITATE WIRE PULL.

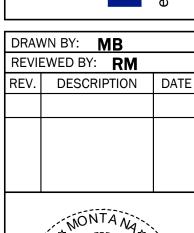
OWNER. SEE ONE-LINE FOR DETAILS.

THERE ARE (2) EXISTING SPARE 3" CONDUITS BETWEEN MAIN ELECTRICAL

ROOM AND SCOREBOARD. UTILIZE ONE SPARE FOR NEW FEEDER TO NEW

EXISTING 'DELAY OF GAME' CLOCK 120V CIRCUIT: (2) #10 CU, #10 CU GND





MMI#0747.080

SHEET TITLE **ELECTRICAL PLAN** SHEET

E100 **DATE** 04.21.2023

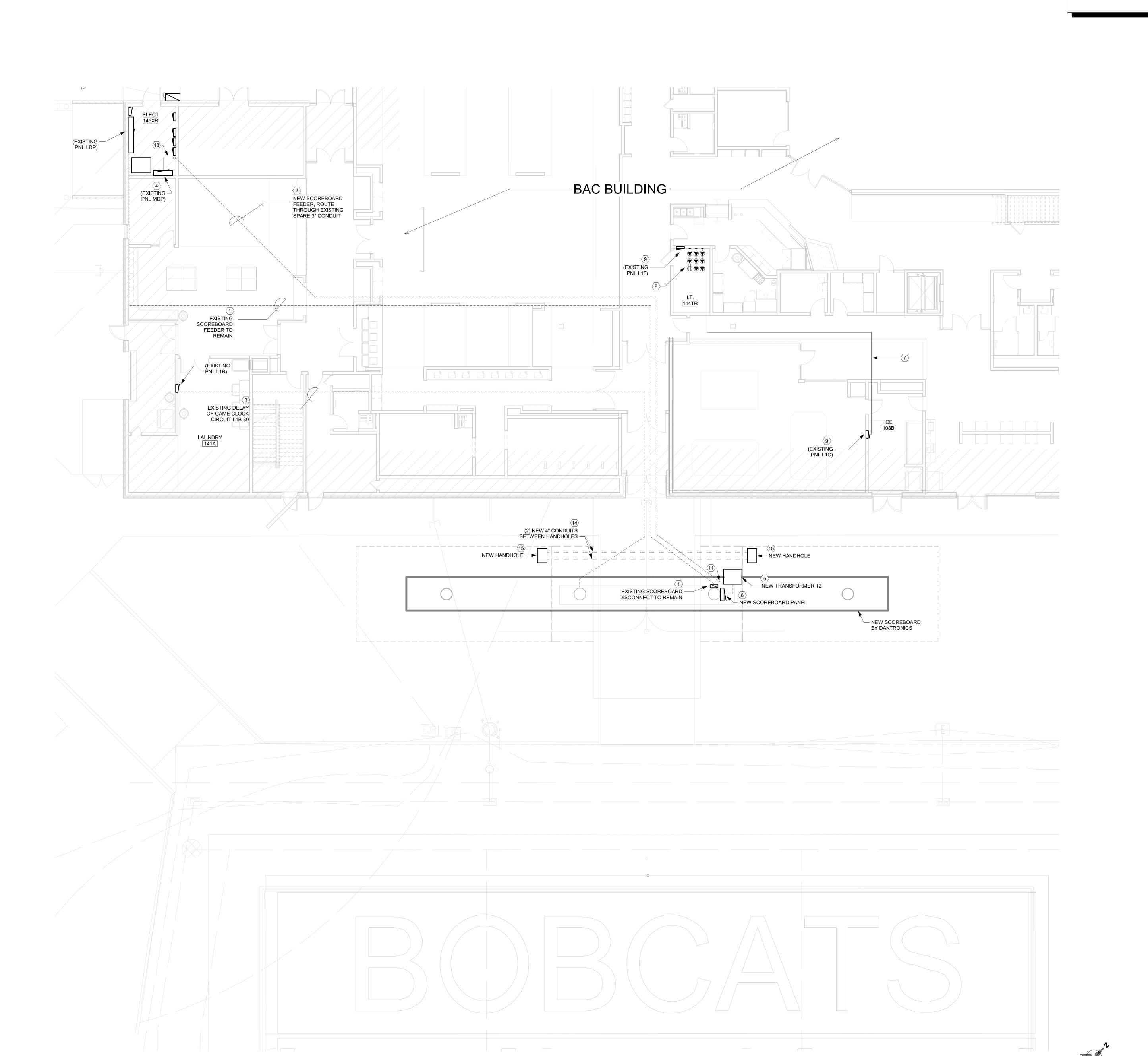
GENERAL ELECTRICAL NOTES

IT IS ABSOLUTELY NECESSARY FOR ALL TRADES INVOLVED TO COORDINATE WITH EACH OTHER AND VERIFY THAT THERE ARE NO CONFLICTS IN LOCATION OF CONDUITS, BOXES, STRUCTURE, AND OTHER

AFFECTED SURFACES TO MATCH THEIR ORIGINAL STATE.

ITEMS THROUGHOUT THIS PROJECT BEFORE FINAL PLACEMENT OF MATERIALS. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING OF FLOORS, WALLS, CEILINGS, ROOFS, ASPHALT, AND CONCRETE TO PERFORM THE REQUIRED WORK DEPICTED IN THESE DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING/REPAIR TO THE SATISFACTION OF THE OWNER/ENGINEER AND PROJECT MANAGER. PATCH/REPAIR ALL CUTS AS REQUIRED IN ORDER TO RETURN ANY

COORDINATE ALL EQUIPMENT, DEVICE, AND CONDUIT LOCATIONS WITH OWNER AND DAKTRONICS PRIOR TO ROUGH-IN.



1 ELECTRICAL PLAN - NORTH SCOREBOARD

PATHWAY FOR NEW FEEDER. 2. ROUTE NEW CIRCUITS FROM PANEL WP8 TO SCOREBOARD CONTROL RACK ABOVE EXISTING CEILING WITHIN CEILING SPACE ALONG PATH SHOWN. UTILIZE EXISTING EMT CONDUIT PATHWAY RUNNING ABOVE CEILING SPACE IF POSSIBLE TO RUN NEW CIRCUITS. SEE ONE-LINE FOR 13. NEW SCOREBOARD CONTROL RACK TO REPLACE EXISTING RACK IN ROOM 511 CLOSET. MOUNT NEW RECEPTACLES ON WEST WALL OF ROOM 512 TO SERVE NEW RACK. COORDINATE INSTALLATION WITH DAKTRONICS AND OWNER. SEE ONE-LINE FOR DETAILS. 14. PROVIDE (2) NEW 4" EMPTY CONDUITS UNDERGROUND AS SHOWN. TERMINATE CONDUITS IN A HANDHOLE ON BOTH SIDES OF CONCRETE WALKWAY AS SHOWN. BORE UNDERNEATH EXISTING CONCRETE WALKWAY AS REQUIRED TO INSTALL CONDUITS WITHOUT CUTTING EXISTING CONCRETE, TAKING CARE TO NOT DAMAGE OTHER EXISTING BURIED CONDUITS/UTILITIES. THESE NEW EMPTY CONDUITS WILL BE USED BY OWNER AS PATHWAY FOR CABLING DURING EVENTS TO AVOID RUNNING CABLES ON SURFACE ACROSS CONCRETE WALKWAY. SEE HANDHOLE DETAIL ON SHEET E002. HANDHOLE TO BE LOCATED WITHIN NEW ASPHALT SURFACE. SEE STRUCTURAL DRAWINGS FOR ASPHALT DEMO EXTENTS.

(EXISTING PNL WP8) —►

2 ELECTRICAL PLAN - WEST STADIUM LEVEL 5