PLANNING COMMISSION/
BOARD OF ADJUSTMENT MEETING
CITY COMMISSION ROOM
Tuesday, March 11, 2025
7:00am

CALL TO ORDER

ROLL CALL

APPROVAL OF MINUTES: February 11, 2025, Planning Commission Minutes

APPROVAL OF MINUTES: February 11, 2025, Board of Adjustment Minutes

APPROVAL OF AGENDA:

APPEARANCES, ACKNOWLEDGEMENTS, CORRESPONDENCE:

OLD BUSINESS (Planning Commission and Board of Adjustment):

1. Hearing on Appeal No. 729 Bent Arrow Archery, for a conditional use application that, if granted, will permit the applicant to operate an archery business in Light Manufacturing Zone at 1307 John Deere Circle. The property is legally described as Lot 8 in Block 8 of Lakeview Industrial Park Addition to the City of Madison, Lake County, South Dakota.

2. Decision on Appeal No. 729 – Bent Arrow Archery

NEW BUSINESS (Board of Adjustment):

Hearing on Appeal No. 730-MadLads for a variance application that, if granted, will permit the applicant to use metal sheet siding at the rear of 117 S Egan Avenue. The property is legally described as Lot 9 in Block 16 of the Original Plat of Madison, Lake County, South Dakota

NEW BUSINESS (Planning Commission): None

PUBLIC INPUT:

ADJOURNMENT:

Any person with a disability wishing to attend any board meeting who may require special arrangements may contact the Finance Office at 256-7500 and all attempts shall be made to accommodate those requests

PLANNING COMMISSION PROCEEDINGS
CITY OF MADISON
February 11, 2025
7:00 am

Jim Iverson called the meeting to order at 7:02am. The following members were present for roll call: Roger Olson, Donna Fawbush, Jim Iverson, Bob Maxwell, Jennifer Wolff, Jacob DeBoer and alternate Kerry Barlow. Chad Van Den Hemel, Jennifer Hasleton, Gary Zay, Randy Hanson and Mike Kane were also in attendance.

Motion by Commissioner Maxwell to approve the January 14, 2025, Planning Commission Minutes. Seconded by Commissioner DeBoer. Motion carried unanimously.

Motion by Commissioner Wolff to approve the January 14, 2025, Board of Adjustment Minutes. Seconded by Commissioner Fawbush. Motion carried unanimously.

Motion by Commissioner Fawbush to approve the February 11, 2025, agenda. Seconded by Commissioner DeBoer. Motion carried unanimously.

Old Business: None

Motion by Commissioner Olson, seconded by Commissioner DeBoer to move into Board of Adjustment at 7:03 am. Motion carried unanimously.

Motion by Commissioner DeBoer, seconded by Commissioner Wolff to move out of Board of Adjustment and into Planning Commission at 8:05 am. Motion carried unanimously.

New Business: None

Public Input:

Commissioner Maxwell motioned to adjourn. Second by Commissioner DeBoer. Motion carried unanimously. Meeting adjourned at 8:06 am.

Dan Whitlock
Planning Commission

BOARD OF ADJUSTMENT PROCEEDINGS
CITY OF MADISON
February 11, 2025

The Planning Commission motioned to move into Board of adjustment at 7:03 am.

The following members were present for roll call: Jim Iverson, Jennifer Wolff, Bob Maxwell, Donna Fawbush, Jacob DeBoer and Alternate Kerry Barlow. The following people were in attendance in addition to the Board, Gary Zay, Jennifer Hasleton, Chad Van Den Hemel, Mike Kane and Randy Hanson.

This being the time and place set for the hearing on conditional use Appeal Request No. 729 by Bent Arrow, for a conditional use application that, if granted, will permit the applicant to operate an archery business in Light Manufacturing Zone at 1307 John Deere Circle. Jim Iverson went through the contents of the packet. Concerns with building compliance regarding fire code. Parking for customers and space for contractors, Mr. Zay states there is plenty of space in parking lot. Mr. Kane answered questions regarding his business and sales to the public. Questions from the board regarding proper zoning, having a retail store in a building meant as a contractor's shop and future renters at this location. Mr. Hanson answered questions from the board members of Mills Property intent for the building.

Motion by Mr. Olson to table the decision to learn more, seconded by Mr. Barlow. Unanimous decision to table.

Motion by Mr. DeBoer, seconded by Ms. Wolff to move out of the Board of Adjustment at 8:05am. Motion carried unanimously.

Dan Whitlock
Board of Adjustment

R00074114

10/29/2009

CITY OF MADISON
CONDITIONAL USE APPLICATION

APPEAL NUMBER 729

APPLICANT (PRINT): Bent Arrow Archery **PHONE:** 605 461 85 06

ADDRESS: 1307 John Deere Cir

OWNER (PRINT): Mike Kane **PHONE:** 605 461 8506
IF DIFFERENT THAN APPLICANT

ADDRESS: 1307 John Deere Cir

I/WE, THE UNDERSIGNED, DO HEREBY PETITION THE BOARD OF ADJUSTMENT OF THE CITY OF MADISON SOUTH DAKOTA, TO ISSUE A CONDITIONAL USE PERMIT FOR THE PROPERTY DESCRIBED AS:

LEGAL DESCRIPTION (Please print or type)

Lot 8 Blk 8 Lake view Industrial Park # 2343M-8-80SR=.957

GENERAL AREA OR STREET ADDRESS: 1307 John Deere Cir

EXISTING LAND USE: _____ **EXISTING ZONING:** LIGHT MANUFACTURING

SIZE OF PARCEL: ACRES / SQFT_____ LOT DIMENSIONS: WIDTH _____ LENGTH _____ DEPTH _____

SURROUNDING LAND USE

NORTH: Retail
SOUTH: Open, Commercial
EAST: Retail
WEST: Retail

PLEASE DESCRIBE WHAT YOU PROPOSE TO DO AND WHY YOU ARE SEEKING A CONDITIONAL USE PERMIT (attach a separate letter of explanation if necessary)

To operate Bent arrow archery - I sell and Recondition Archery equipment.

I (we) further state that if this request is granted, I (we) will proceed with the actual construction in accordance with the plans herewith submitted within one year or additional time as extended from the effective date of the appeal.

SIGNATURE OF APPLICANT _____

SIGNATURE OF OWNER (IF DIFFERENT THAN APPLICANT) _____

NOTE: A SKETCH OF PROPOSED PROPERTY SHALL ACCOMPANY THIS APPLICATION, SHOWING THE FOLLOWING:

1. NORTH DIRECTION
2. DIMENSIONS OF PROPOSED STRUCTURE
3. STREET NAMES
4. OTHER INFORMATION AS MAY BE REQUESTED
5. LOCATION OF PROPOSED STRUCTURE ON LOT
6. DIMENSIONS OF FRONT AND SIDE SET BACKS
7. LOCATION OF ADJACENT EXISTING BUILDINGS

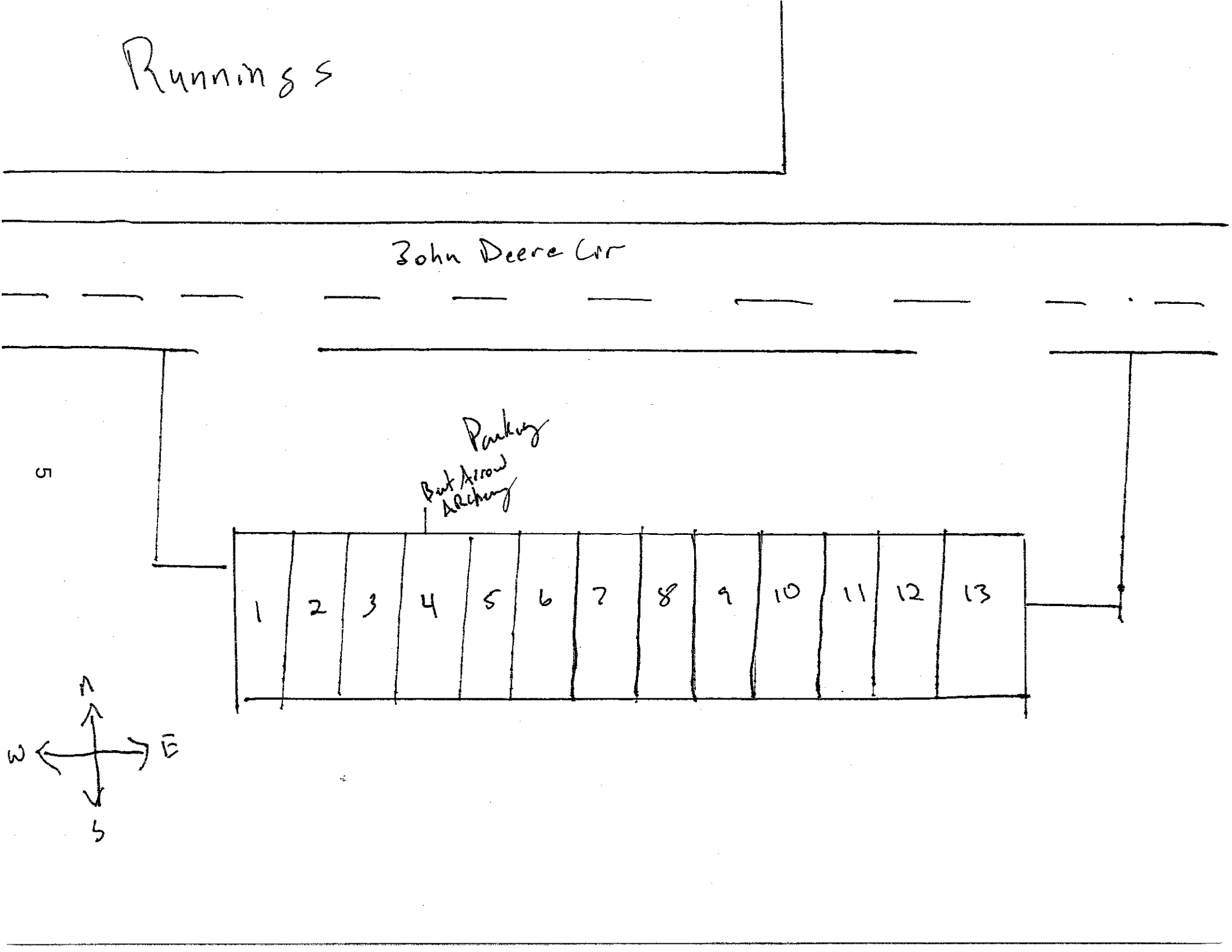
THE BOARD OF ADJUSTMENT MAY REQUIRE THAT SUCH PLANS BE PREPARED BY A REGISTERED ENGINEER OR LAND SURVEYOR.

***PLEASE USE THE ATTACHED SKETCH INSTRUCTION SHEET FOR AN EXAMPLE.*

FOR OFFICIALUSE ONLY

DATE FILED WITH ADMINISTRATIVE OFFICIAL: _____
FEE PAID (NON-REFUNDABLE): _____YES _____NO
DATE OF HEARING: _____
ACTION BY BOARD OF ADJUSTMENT: _____

PUBLISH JAN 24 NOON (28 OR 31)


Runnings
John Deere Cir
Parking
Bent Arrow Archery
1
2
3
4
5
6
7
8
9
10
11
12
13
N
W
E
S

R# 00077483

10/29/2009

CITY OF MADISON
VARIANCE APPLICATION

APPEAL NUMBER 730

APPLICANT (PRINT): Kyle Cronin DBA MadLads Property Mgmt, LLC **PHONE:** 605-350-1691

ADDRESS: 1026 NE 8th St, Madison, SD 57042

OWNER (PRINT): Jarod Keene **PHONE:** 605-350-1691
IF DIFFERENT THAN APPLICANT

ADDRESS: 1171 CYBER CT, Madison, SD 57042

I/WE, THE UNDERSIGNED, DO HEREBY PETITION THE BOARD OF ADJUSTMENT OF THE CITY OF MADISON SOUTH DAKOTA, TO ISSUE A VARIANCE FOR THE PROPERTY DESCRIBED AS:

LEGAL DESCRIPTION (Please print or type)

LOT 9 BLK 16 ORIG PLAT #149M

GENERAL AREA OR STREET ADDRESS: 117 S Egan Ave

EXISTING LAND USE: Mixed Commercial **EXISTING ZONING:** Central Business District

SIZE OF PARCEL: ACRES / SQFT 2081 LOT DIMENSIONS: WIDTH 24' 4" LENGTH 120' DEPTH 14'

SURROUNDING LAND USE

NORTH: Personal Services
SOUTH: Retail
EAST: Parking
WEST: Empty lot/undeveloped

PLEASE PROVIDE A BRIEF STATEMENT OF THE VARIANCE DESIRED AND PLEASE STATE THE HARDSHIP REQUIRING RELIEF. (Proof of hardship is on the applicant - Hardship examples are odd size or shape of the lot, unusual topography, etc. attach a letter of explanation to document requirements necessary to approve if necessary)

We are requesting the use of beige corrugated steel siding for the 662 square foot addition on the back of the facility facing the alleyway for aesthetic and cost effective purposes.

I (we) further state that if this request is granted, I (we) will proceed with the actual construction in accordance with the plans herewith submitted within one year or additional time as extended from the effective date of the appeal.

SIGNATURE OF APPLICANT _____

SIGNATURE OF OWNER (IF DIFFERENT THAN APPLICANT) _____

NOTE: A SKETCH OF PROPOSED PROPERTY SHALL ACCOMPANY THIS APPLICATION, SHOWING THE FOLLOWING:

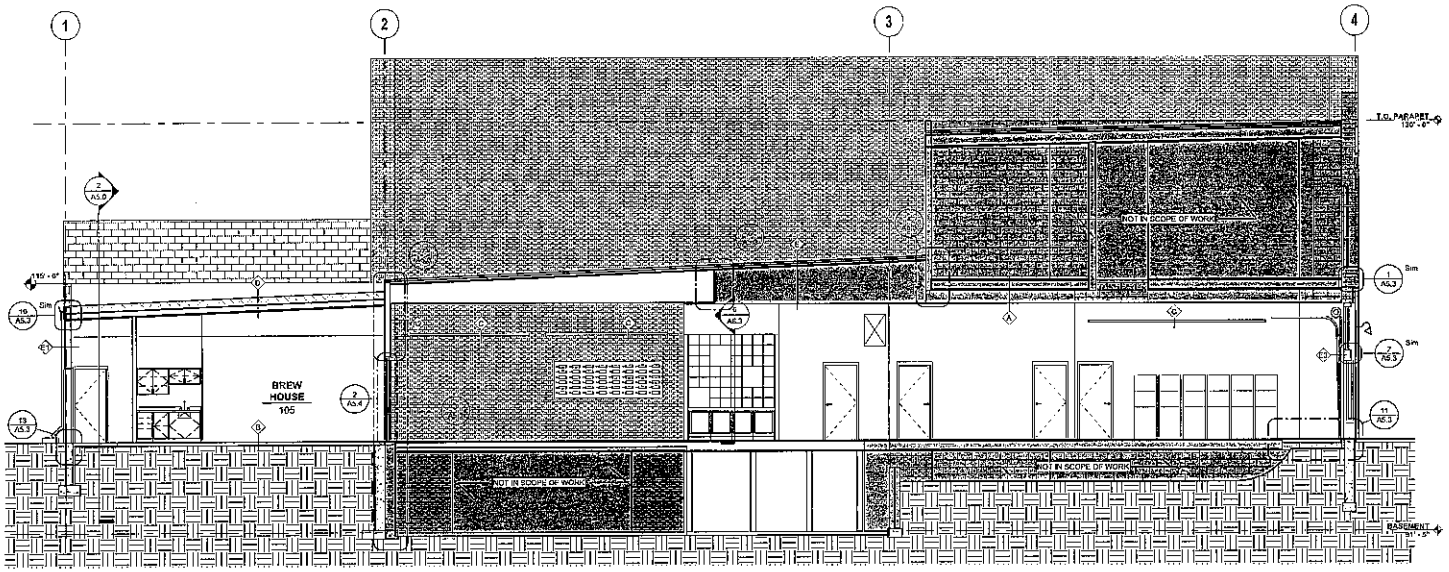
2. NORTH DIRECTION
2. DIMENSIONS OF PROPOSED STRUCTURE
3. STREET NAMES
4. OTHER INFORMATION AS MAY BE REQUESTED
5. LOCATION OF PROPOSED STRUCTURE ON LOT
6. DIMENSIONS OF FRONT AND SIDE SET BACKS
7. LOCATION OF ADJACENT EXISTING BUILDINGS

THE BOARD OF ADJUSTMENT MAY REQUIRE THAT SUCH PLANS BE PREPARED BY A REGISTERED ENGINEER OR LAND SURVEYOR.

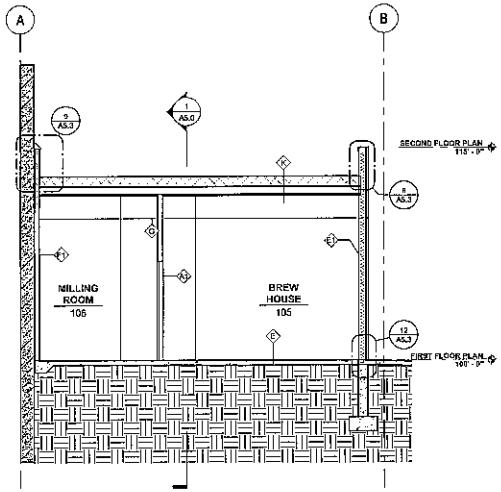
***PLEASE USE THE ATTACHED SKETCH INSTRUCTION SHEET FOR AN EXAMPLE.*

FOR OFFICIALUSE ONLY

DATE FILED WITH ADMINISTRATIVE OFFICIAL: _____
FEE PAID (NON-REFUNDABLE): _____YES _____NO
DATE OF HEARING: _____
ACTION BY BOARD OF ADJUSTMENT: _____



1 WEST TO EAST - BUILDING SECTION
3/16" = 1'-0"



2 NORTH TO SOUTH - BUILDING SECTION
1/4" = 1'-0"

FOR CONSTRUCTION

dA group
Architecture | Planning | Interiors
434 5th Street, Suite 1
Brookings, SD 57006 | P: 605.692.4008
2301 W. Russell St, Suite 1
Sioux Falls, SD 57104 | P: 605.692.4008

STAMP:
REGISTERED PROFESSIONAL ARCHITECT
REG. NO. 7459
LEE M. ROWLAND
SOUTH DAKOTA
11-15-23

REVISIONS:
NO. | DESCRIPTION: | DATE:

SHEET NAME: BUILDING SECTIONS

FULL-SCALE: 24X36
HALF-SCALE: 12X18
DRAWING MAY NOT BE PRINTED TO SCALE

PROJECT NO.
DA23_043

MADLADS BREWING CO.

PROJECT MANAGER:
ALI KUMMER

DATE:
11/13/2023

SHEET:
A5.0

DATE PRINTED: 11/15/2023 11:35:48 AM

MADLADS BREWING CO.

117 EGAN AVENUE SOUTH, MADISON, SOUTH DAKOTA 57042

ABBREVIATIONS:

CONTAINS STANDARD LIST; SOME DESIGNATIONS MAY NOT APPEAR.

A	A.B.	ANCHOR BOLT
	A/C	AIR CONTITIONING
	A.H.U.	AIR HANDLING UNIT
	ADJ.	ADJUSTABLE
	A.F.F.	ABOVE FINISHED FLOOR
	ALT.	ALTERNATE
	ANC.	ANCHOR
	A.C.T.	ACOUSTICAL CEILING TILE
B	APC.	ACOUSTICAL PANEL CEILING
	B.M.	BENCH MARK
	B.N.	BULL NOSE
	BD.	BOARD
	BIT.	BITUMINOUS
	BLDG.	BUILDING
	BLK.	BLOCK
	BLKG.	BLOCKING
	BM.	BEAM
	BOT.	BOTTOM
C	BRG.	BEARING
	C.J.	CONTROL JOINT
	C.T.	CERAMIC TILE
	CAB.	CABINET
	CH. BD.	CHALK BOARD
	CLG.	CEILING
	CLR.	CLEAR
	CMU	CONCRETE MASONRY UNIT
	COL.	COLUMN
	COMP.	COMPARTMENT
	CONC.	CNCRETE
D	CONT.	CONTINUOUS
	CPT.	CARPET
	D.	DEPTH
	D.F.	DRINKING FOUNTAIN
	D.T.	DOUBLE TEE
	DBL.	DOUBLE
	DET.	DETAIL
	DIA.	DIAMETER
	DIM.	DIMENSION
	DISP.	DISPENSER
	DN.	DOWN
	DR.	DOOR
	DS.	DOWNSPOUT
	DW.	DISHWASHER
E	DWL.	DOWEL
	DWG.	DRAWING
	E.J.	EXPANSION JOINT
	E.C.	ELECTRICAL CONTRACTOR
	E.W.C.	ELECTRIC WATER COOLER
	E.W.	EACH WAY
	EA.	EACH
	EL.	ELEVATION
	ELEC.	ELECTRICAL
	ELEV.	ELEVATOR
	EXP.	EXPANSION
	EXST.	EXISTING
	EXT.	EXTERIOR
F	F.D.	FLOOR DRAIN
	F.E.	FIRE EXTINGUISHER
	F.E.C.	FIRE EXTINGUISHER CABINET
	F.O.F.	FACE OF FINISH
	FDN.	FOUNDATION
	FIN.	FINISH
	FL.	FLOOR
	FLASH.	FLASHING
	FR.	FRAME
	FT.	FOOT OR FEET
	FTG.	FOOTING
G	FURR.	FURRING
	G.B.	GRAB BAR
	GA.	GAUGE
	GALV.	GALVANIZED
	GWB.	GYPSUM WALLBOARD
H	GWC.	GLAZED WALL COATING
	H.	HEIGHT
	H.C.	HOLLOW CORE
	H.M.	HOLLOW METAL
	HORIZ.	HORIZONTAL
	HT.	HEIGHT
	HTG.	HEATING
	HVAC.	HEATING/VENTILATION/ AND AIR CONDITIONING
I	I.D.	INSIDE DIAMETER (DIM.)
J	INSUL.	INSULATION
	INT.	INTERIOR
	JB.	JUNCTION BOX
L	JST.	JOIST
	JT.	JOINT
	LAM.	LAMINATE
	LAV.	LAVATORY
	LTG.	LIGHTING
M	LWCMU.	LIGHTWEIGHT CONCRTE MASONRY UNIT
	M.C.	MECHANICAL CONTRACTOR
	M.O.	MASONRY OPENING
	MAX.	MAXIMUM
	MECH.	MECHANICAL
	MED.C.	MEDICINE CABINET
	MTL.	METAL
	MF.	MANUFACTURER
N	MIN.	MINIMUM
	MISC.	MISCELLANEOUS
	MTD.	MOUNTED
	N.E.C.	NATIONAL ELECTRIC CODE
	N.I.C.	NOT IN CONTRACT
O	N.T.S.	NOT TO SCALE
	NO.	NUMBER
	NOM.	NOMINAL
	O.C.	ON CENTER
	O.D.	OUTSIDE DIAMETER (DIM.)
	O.F.	OUTSIDE FACE
	OH.	OVERHEAD
P	P.LAM.	PLASTIC LAMINATE
	P.L.	PROPERTY LINE
	P.S.F.	POUNDS PER SQUARE FOOT
	P.S.I.	POUNDS PER SQUARE INCH
	P.T.D.	PAPER TOWEL DISPENSER
	P.BD.	PARTICLE BOARD
	PLAS.	PLASTER
	PLYWD.	PLYWOOD
Q	PNT.	PAINT
R	Q.T.	QUARRY TILE
	R.D.	ROOF DRAIN
	R.O.	ROUGH OPENING
	R.V.	ROOF VENT
	RAD.	RADIUS
	REC.	RECEPTACLE
	REF.	REFRIGERATOR
	REFL.	REFLECTED
	REINF.	REINFORCED
	REQ.	REQUIRED
	RESIL.	RESILIENT
S	RM.	ROOM
	S.B.	SPLASH BLOCK
	S.C.	SOLID CORE
	S.D.	SOAP DISPENSER
	S/S	STAINLESS STEEL
	SCHED.	SCHEDULE
	SECT.	SECTION
	SHR.	SHOWER
	SHT.	SHEET
	SH.V.	SHEET VINYL
	SHTG.	SHEATHING
	SIM.	SIMILAR
	SPEC.	SPECIFICATION
	STD.	STANDARD
	STL.	STEEL
	STR.	STRUCTURAL
	SUSP.	SUSPENDED
T	SQ.	SWITCH
	SYM.	SYMMETRICAL
	T.B.	TOWEL BAR
	T.O.C.	TOP OF CONCRETE
	T.O.F.	TOP OF FOOTING
	T.O.S.	TOP OF STEEL
	T & G	TONGUE AND GROOVE
	T.P.D.	TOILET PAPER DISPENSER
	T.V.	TELEVISION
U	TEL.	TELEPHONE
V	TYP.	TYPICAL
	UNF.	UNFINISHED
	UR.	URINAL
W	VB.	VAPOR BARRIER
	V.W.C.	VINYL WAL COVERING
	V.C.T.	VINYL COMPOSITE TILE
	W.C.	WATER CLOSET
	WO.	WITHOUT
	WD.	WOOD
	WDTH.	WIDTH
	WP.	WATERPROOF

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S1-2	MAIN LEVEL AND LOW ROOF PLAN
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A3.0	ROOF PLAN
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A6.2	FLOOR 1 - FURNITURE PLAN
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CONTACTS INDEX:

OWNER:
MAD LAB BREWERY
CONTACT: JAROD KEENE
EGAN AVENUE SOUTH
MADISON, SD 57042

ARCHITECT OF RECORD:
DESIGNARC GROUP, LLC
ARCHITECT: LES ROWLAND
PROJECT MGR.: ALI KUMMER
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SIOUX FALLS, SD 57104
P: (605) 692-4008
ali@designarcgroup.com

CIVIL CONSULTANT:
NORMAN ENGINEERING + SURVEYING
CONTACT: AARON NORMAN
3800 W 53RD STREET
SIOUX FALLS, SD 57106
P: 9605558-0808
aaron@normanengineeringinc.com

STRUCTURAL CONSULTANT:
MIDWEST ENGINEERING, LLC.
CONTACT: MICHAEL KONRAD
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SIOUX FALLS, SD 57106
P:(605)359-6326
mkonrad@midweng.com

FOR CONSTRUCTION

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Brookings, SD 57006 | P: 605.692.4008
2301 W. Russell St. Suite 1
Sioux Falls, SD 57104 | P: 605.692.4008

STAMP:
REGISTERED PROFESSIONAL ARCHITECT
REG. NO. 7139
LES M. ROWLAND
SOUTH DAKOTA
11·13·23

REVISIONS:
NO. | DESCRIPTION: | DATE:

SHEET NAME: **INDEX & PROJECT INFORMATION**

FULL-SCALE: 24x36
HALF-SCALE: 12x18
DRAWING MAY NOT BE PRINTED TO SCALE

PROJECT NO.
DA23_043

MADLADS BREWING CO.

PROJECT MANAGER:
ALI KUMMER

DATE:
11/13/2023

SHEET:
T1.1

DATE PRINTED: 1/18/2024 11:06:20 AM

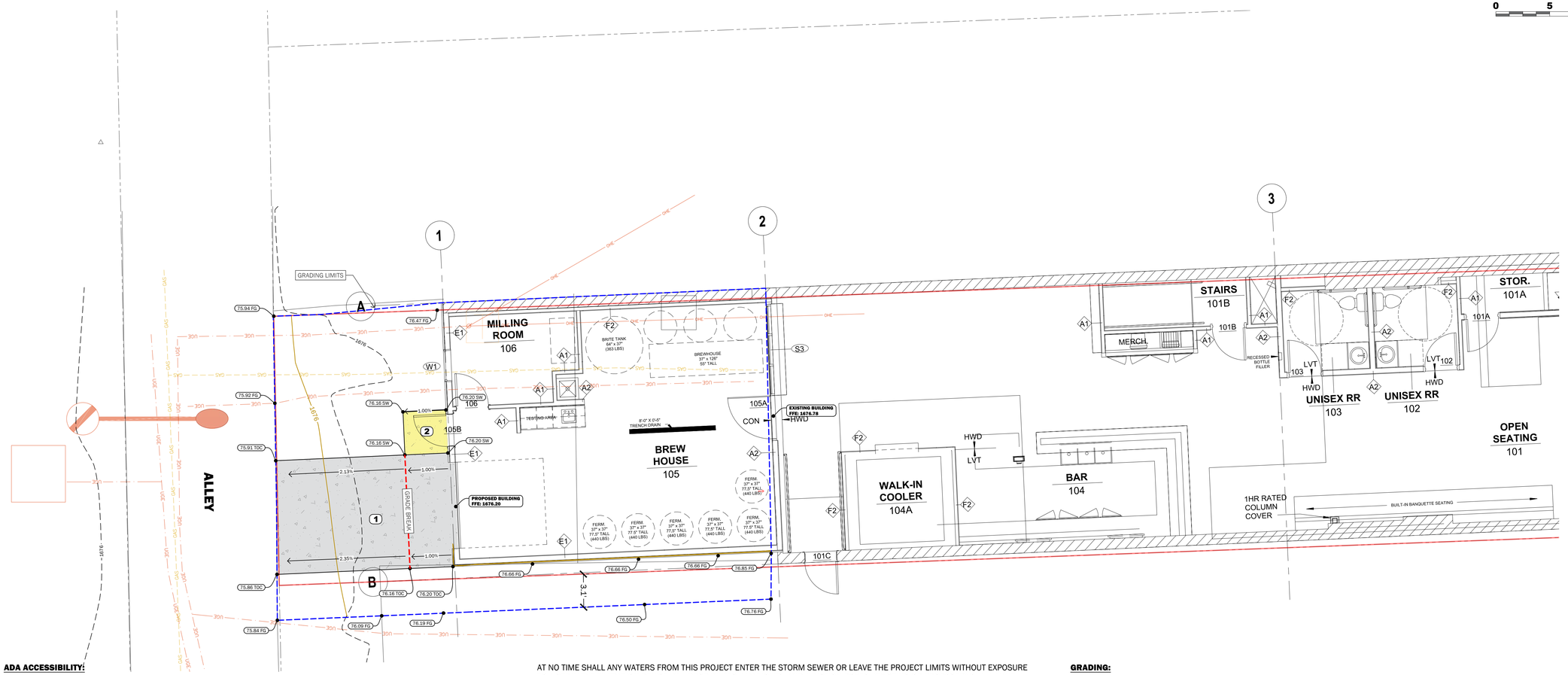
REMOVALS NOTES:

COORDINATE WITH ARCHITECTURAL AND OWNER FOR SITE REMOVALS.

SITE PLAN KEYNOTES:

1. INSTALL 6-INCH NON-REINFORCED PCC CONCRETE APPROACH PAVEMENT OVER 6-INCH AGGREGATE BASE COURSE (XXXX SY).
2. INSTALL STOOP, SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITION DETAILS.

0 5 10



ADA ACCESSIBILITY:

ALL PEDESTRIAN PATHWAYS INCLUDING SIDEWALKS AND CURB RAMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT ADA GUIDELINES. ANY SIDEWALK FOUND TO BE OUT OF COMPLIANCE WILL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE. IT IS RECOMMENDED THAT THE CONTRACTOR SET FORMS AT A MAXIMUM 1.5% CROSS SLOPE TO ENSURE CROSS SLOPES TO NOT EXCEED THE 2.00% MAXIMUM.

PAVEMENT SURFACE SLOPES SHALL NOT EXCEED 2.00% IN ANY DIRECTION IN ADA ACCESSIBLE PARKING STALLS AND ACCESS AISLES.

DETECTABLE WARNING PANELS SHALL BE INSTALLED AT ALL PROPOSED STREET CROSSING LOCATIONS AN AT ANY ADDITIONAL LOCATIONS SPECIFIED IN THE PLANS. DETECTABLE WARNING PANELS SHALL BE INSTALLED ACCORDANCE WITH THE STANDARD PLATES AND CURRENT ADA REGULATIONS.

GENERAL NOTES:

ALL WORK AND MATERIALS SHALL CONFORM TO THE CITY OF MADISON ENGINEERING DESIGN STANDARDS AND SPECIFICATIONS AND THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

THE EXISTING UNDERGROUND UTILITIES SHOWN IN THE PLANS HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND STOOP DETAILS.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL OBTAIN A COPY, REVIEW AND FOLLOW ALL REQUIREMENTS OUTLINED WITHIN THE GEOTECHNICAL REPORT AND SUBSEQUENT ADDENDUMS OF RECORD.

ALL WATER AND SEWER SERVICES, AND STORM SEWER SHALL BE PRIVATELY OWNED AND MAINTAINED.

QUANTITIES PROVIDED IN THE PLAN ARE AN ESTIMATE AND ARE FOR REFERENCE ONLY. PRIOR TO BIDDING, THE CONTRACTOR SHALL VERIFY ALL QUANTITIES.

CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO STARTING CONSTRUCTION.

EROSION CONTROL:

THE TOTAL DISTURBED AREA DOES NOT EXCEED 1 ACRE. AN EROSION CONTROL NARRATIVE AND SDDENR NOI PERMIT WILL NOT BE REQUIRED.

AT NO TIME SHALL ANY WATERS FROM THIS PROJECT ENTER THE STORM SEWER OR LEAVE THE PROJECT LIMITS WITHOUT EXPOSURE TO A SEDIMENT FILTRATION DEVICE. ALL DROP INLETS, MANHOLES, AND JUNCTION BOXES, (EXISTING OR PROPOSED) SHALL HAVE SEDIMENT CONTROL DEVISES PLACED AROUND THEIR PERIMETER DURING ALL PHASES OF CONSTRUCTION EXCEPT DURING THE PLACEMENT OF THE FINAL SURFACING. THIS MAY NECESSITATE MULTIPLE INSTALLATIONS OF THE SEDIMENT CONTROL DEVICES AT THE SAME LOCATION.

AFTER CONSTRUCTION BEGINS, SOIL SURFACE STABILIZATION SHALL BE APPLIED WITHIN 14 DAYS TO ALL DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR PERIODS LONGER THAN AN ADDITIONAL 21 CALENDAR DAYS. WITHIN 14 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, PERMANENT OR TEMPORARY SOIL SURFACE STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS AND SOIL STOCKPILES.

ALL AREAS OUTSIDE BUILDING FOOTPRINT NOT PAVED OR SEEDED SHALL BE LANDSCAPED. COORDINATE WITH LANDSCAPING CONTRACTOR FOR AREAS ADJACENT TO BUILDING TO BE LANDSCAPED.

TO AVOID DUST MITIGATION AND DEPOSITION OFF SITE, APPROPRIATE APPLICATION OF WATER OR OTHER APPROVED DUST SUPPRESSION TECHNIQUES SHALL BE REQUIRED.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, REMOVAL OF THE OFFSITE ACCUMULATIONS TO MINIMIZE IMPACTS SHALL BE INITIATED BY THE END OF THE SAME WORKING DAY.

TRAFFIC CONTROL:

THE CONTRACTOR SHALL NOTIFY THE CITY 7 DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES WITHIN THE PUBLIC RIGHT OF WAY.

REMOVALS:

CONTRACTOR SHALL COORDINATE ALL NECESSARY PRIVATE UTILITY RELOCATIONS/ REMOVALS WITH THE RESPECTIVE UTILITY COMPANIES.

CONTRACTOR SHALL SAWCUT ALL PAVEMENTS TO ESTABLISH A SMOOTH, VERTICAL EDGE TO PAVE AGAINST. SAWCUTS SHALL BE FULL DEPTH.

REMOVALS WITHIN PUBLIC RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF MADISON.

SURFACING:

DRIVEWAY SURFACING: 6" PCC NON-REINFORCED PAVEMENT OVER 6" AGGREGATE BASE COURSE

CONCRETE USED ON THIS PROJECT SHALL CONFORM TO CLASS M-6 OF THE SDDOT STANDARD SPECIFICATIONS SECTION 462, UNLESS OTHERWISE NOTED.

A 1/2" PREFORMED EXPANSION MATERIAL SHALL BE PLACED BETWEEN THE PROPOSED CONCRETE PAVEMENT WHEN INSTALLED ADJACENT TO EXISTING CONCRETE PAVEMENT AND BUILDINGS.

GRADING:

CONTRACTOR SHALL TAKE CARE TO GRADE ONLY ON THE SUBJECT PROPERTY. NO STRIPPING OR STOCKPILING OF MATERIAL OUTSIDE OF THE PROJECT LIMITS WILL BE PERMITTED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY GRADING WILL TAKE PLACE BEYOND THE PERMITTED LIMITS OF DISTURBANCE.

ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A LAWFUL MANNER.

ACCEPTABILITY OF THE EXISTING NATURAL SUB-GRADE MATERIAL SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT O ANY FILL. UNACCEPTABLE SUB-GRADE MATERIAL IS DEFINED AS VEGETATION, ORGANIC MATERIALS, AND UN-STABLE SUB-GRADE. ACCEPTABLE SUB-GRADE MATERIAL AND ENGINEERED FILL MATERIAL SHALL BE EITHER GRANULAR SOILS OR NON-ORGANIC CLAY SOILS WITH L.L. LESS THAN 45.

UNSTABLE OR UNSUITABLE SOILS WHICH ARE REVEALED BY PROOFROLLING AND WHICH CANNOT BE ADEQUATELY DENSIFIED IN-PLACE SHALL BE REMOVED AND REPLACED WITH NEW STRUCTURAL FILL TO A DEPTH OF 12-INCHES BELOW AGGREGATE BASE GRADE.

SUB-GRADE PREPARATION IN PAVEMENT AREAS HAVING ACCEPTABLE SUB-GRADE MATERIAL SHALL BE SCARIFIED AND RECOMPACTED TO A DEPTH OF 8-INCHES MINIMUM IN CUT AREAS, COMPACT ACCEPTABLE FILL MATERIALS IN FILL AREAS. COMPACTION TO BE AT LEAST 95% OF STANDARD PROCTOR DENSITY OR AS DIRECTED BY THE ENGINEER.

TOPSOIL SHALL BE REMOVED FROM THE CONSTRUCTION LIMITS AND STORED ON-SITE PRIOR TO GRADING OPERATIONS. FOLLOWING THE COMPLETION OF GRADING OPERATIONS, THE TOPSOIL SHALL BE SPREAD EVENLY TO A MINIMUM COMPACTED DEPTH OF 6-INCHES IN ALL DISTURBED AREAS TO BE SEEDED, FERTILIZED, AND HYDROMULCHED.

CONTOURS REPRESENT FINISHED GRADE SURFACES. THE CONTRACTOR SHALL VERIFY THE PROPOSED DEPTH OF PAVING, GRAVEL, AND TOPSOIL AREAS TO ACHIEVE THE REQUIRED SUB-GRADE ELEVATIONS.

CONTRACTOR SHALL GRADE ALL LOW SPOTS TO DRAIN.

THE CONTRACTOR SHALL CONTROL GRADING OPERATION SUCH THAT THE SITE SHALL BE WELL DRAINED AT ALL TIMES.

UTILITIES:

ALL UTILITIES SHOWN ON THE PLAN INDICATE GENERAL UTILITY LOCATIONS ONLY. NEITHER THE CORRECTNESS OR COMPLETENESS OF LOCATIONS ARE GUARANTEED. CONTACT SOUTH DAKOTA ONE CALL PRIOR TO EXCAVATIONS (1-800-781-7474) TO VERIFY ALL PUBLIC AND PRIVATE UTILITIES ON SITE.

dA group

Architecture | Planning | Interiors

434 5th Street, Suite 1
Brookings, SD 57006 | P: 605.692.4008

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STAMP:

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 8755
AARON J. NORMAN
SOUTH DAKOTA
LAND SURVEYOR
10.31.2023

REVISIONS:

NO.	DESCRIPTION:	DATE:

SHEET NAME: **SITE PLAN**

FULL-SCALE: 24x36
HALF-SCALE: 12x18
DRAWING MAY NOT BE PRINTED TO SCALE

PROJECT NO.
23.02.079

MADLADS BREWING CO.

PROJECT MANAGER:
NICK KUMMER

DATE:
11/02/2023

SHEET:
C1.0

SECTION 01 - GENERAL REQUIREMENTS

1. **CONTRACTOR INSTRUCTIONS**
   A. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES, SEQUENCE, MEANS, AND METHODS TO ENSURE THE STABILITY OF THE BUILDING AND ITS COMPONENT PARTS AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS DURING ERECTION INCLUDING LOADS IMPARTED FROM CONSTRUCTION AND CONSTRUCTION MATERIALS.
   B. THE STRUCTURAL ENGINEER IS NOT ENGAGED IN CONSTRUCTION ENGINEERING. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING, INSTALLING, AND REMOVING ALL TEMPORARY BRACING AND SUPPORTS NECESSARY TO FACILITATE BUILDING ERECTION. ERECTION AID BRACING AND SUPPORTS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
   C. THE CONTRACTOR'S ERECTION METHODS SHALL CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS THAT MAY OCCUR DURING THE CONSTRUCTION PHASE.
   D. IT IS SOLELY THE RESPONSIBILITY OF EACH CONTRACTOR TO FOLLOW APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER IS NOT ENGAGED IN, AND DOES NOT SUPERVISE, CONSTRUCTION.
2. **USE OF DRAWING AND COORDINATION**
   A. DRAWINGS SHALL NOT BE SCALED. CONTACT THE ARCHITECT/ENGINEER IN THE EVENT THAT DIMENSIONS NECESSARY TO PROCEED WITH THE WORK ARE MISSING FROM THE DRAWINGS.
   B. ANY DIFFERENCES BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
   C. CONFLICTS WITHIN THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS, NOTES, AND/OR SPECIFICATIONS SHALL BE REPORTED TO THE STRUCTURAL ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
   D. EXISTING CONDITIONS: THE STRUCTURAL DRAWINGS HAVE BEEN PREPARED USING AVAILABLE INFORMATION OF EXISTING CONDITIONS. NO ATTEMPT HAS BEEN MADE TO VERIFY EXISTING CONDITIONS AGAINST INFORMATION RECEIVED FROM THE CLIENT OR OTHER SOURCES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPARE THE EXISTING CONDITIONS TO THE INFORMATION SHOWN ON THE DRAWINGS AND NOTIFY THE ARCHITECT OF ANY DIFFERENCES BEFORE PROCEEDING WITH THE WORK.
   E. THE STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH DRAWINGS AND SPECIFICATIONS FROM CIVIL, LANDSCAPE, ARCHITECTURAL, INTERIORS, MECHANICAL, ELECTRICAL, PLUMBING, AND ANY OTHER DISCIPLINE IF AVAILABLE. THE REQUIREMENTS OF ALL DISCIPLINES SHALL BE REFLECTED IN THE SUBMITTED SHOP DRAWINGS AND THE CONSTRUCTED WORK.
   F. MECHANICAL, ELECTRICAL, AND PLUMBING (MEP) COORDINATION:
      a. STRUCTURAL FRAMING COMPONENTS AND CONNECTIONS TAKE PRECEDENCE OVER MEP ITEMS. STRUCTURAL FRAMING SHALL NOT BE MOVED, ADJUSTED, CUT, CORED, DRILLED, OR OTHERWISE MODIFIED FROM THE STRUCTURAL DRAWINGS TO ACCOMMODATE OTHER DISCIPLINES WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER.
      b. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR MEP OPENING COORDINATION. MEP OPENINGS SHOWN ON STRUCTURAL DRAWINGS ARE FOR BID PURPOSES ONLY AND SHALL BE COORDINATED BY THE RESPONSIBLE CONTRACTORS. THE GENERAL CONTRACTOR SHALL SUBMIT COORDINATED AND DIMENSIONED SHOP DRAWINGS SHOWING PROPOSED LOCATIONS FOR MEP PENETRATIONS.
      c. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE MEP EQUIPMENT PURCHASED WITH THE INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS, INCLUDING, BUT NOT LIMITED TO, EQUIPMENT LOCATION, SIZE, WEIGHT, OPENINGS, AND SUPPORT REQUIREMENTS. REPORT DIFFERENCES TO THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK.
      d. SUPPORT OF MEP SYSTEMS TO PRIMARY STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING CONNECTIONS TO PRIMARY STRUCTURE.
3. **SUBSTITUTIONS**
   A. SUBSTITUTIONS ARE NOT ALLOWED WITHOUT THE APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER. REQUESTS FOR SUBSTITUTION MUST BE ACCOMPANIED BY PROPER INFORMATION NECESSARY TO EVALUATE THE SUBSTITUTION AND COMPENSATION FROM THE CONTRACTOR MAY BE REQUIRED TO CONDUCT THE EVALUATION PROCESS.
4. **DEFERRED SUBMITTALS (DELEGATED DESIGN BY CONTRACTOR)**
   A. THE FOLLOWING ITEMS SHALL BE ENGINEERED BY THE CONTRACTOR, BEARING THE SEAL OF AN ENGINEER IN THE PROJECT JURISDICTION, AND SUBMITTED TO THE ARCHITECT/ENGINEER AS DEFERRED SHOP DRAWING SUBMITTALS:
      a. PRE-FABRICATED WOOD TRUSSES.

SECTION 02 - FOUNDATIONS AND SOILS

1. **BASIS OF DESIGN**
   A. GEOTECHNICAL DESIGN CRITERIA WAS REFERENCE FROM THE FOLLOWING REPORT:
      - GEOTEK #23-1237
      - GEOTECHNICAL EXPLORATION
      - 117 EGAN AVENUE SOUTH
      - MADISON, SOUTH DAKOTA
      - AUGUST 23, 2023
2. **FOUNDATION DESIGN CRITERIA**
   A. NET ALLOWABLE BEARING PRESSURE USED FOR DESIGN AT FOOTING PADS AND WALL FOOTINGS = **2,000 PSF**.
   B. ALLOWABLE COEFFICIENT OF FRICTION FOR RESISTING SLIDING = **0.45.**
   C. MINIMUM FROST DEPTH = 42 INCHES AT HEATED AREAS AND 60 INCHES AT UNHEATED AREAS.
   D. LATERAL EARTH PRESSURES
      a. ENGINEERED FILL
         - AT-REST (SUBMERGED) = 90 PCF
         - AT-REST (DRAINED) = 50 PCF
         - ACTIVE (SUBMERGED) = 80
         - ACTIVE (DRAINED) = 35 PCF
         - PASSIVE (SUBMERGED) = 20=30 PCF
         - PASSIVE (DRAINED) = 460 PCF
   E. DRAINAGE FILL
      a. GRANULAR MATERIAL WITH LESS THAN 5% PASSING #200 SIEVE.
3. **GENERAL FOUNDATION REQUIREMENTS**
   A. PROVIDE A GRANULAR BASE BELOW ALL SLAB-ON-GRADE CONSTRUCTION, UNLESS SHOWN OTHERWISE IN PLANS OR DETAILS.
   B. ISOLATION JOINTS SHALL BE PROVIDED WHERE SLAB-ON-GRADE ABUTS VERTICAL CONSTRUCTION, INCLUDING COLUMNS, WALLS, GRADE BEAMS, ETC. PROVIDE 1/2" THICK EXPANSION JOINT MATERIAL AT ISOLATION JOINTS UNLESS DETAILED OTHERWISE.
   C. ALL EARTHWORK AND SITE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS (IF AVAILABLE) AND GEOTECHNICAL REPORT. ALL EXCAVATION AND BACKFILL OPERATIONS SHALL BE OBSERVED BY A GEOTECHNICAL ENGINEER OR AUTHORIZED REPRESENTATIVE.
   D. UNDER NO CIRCUMSTANCES SHALL EXCAVATIONS UNDERMINE EXISTING FOUNDATIONS. PROVIDE SHORING AND/OR ADEQUATE SOIL LAYBACK AS NECESSARY TO ENSURE THE STABILITY OF EXISTING STRUCTURES.

SECTION 03.2 - CONCRETE REINFORCEMENT

1. MATERIALS
   A. REINFORCING STEEL - ASTM A615, GRADE 60
   B. REINFORCING STEEL, WELDABLE - ASTM A706
   C. WELDED WIRE FABRIC - ASTM 1064
2. REINFORCING DETAILING:
   A. ALL REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   B. SPLICES OF REINFORCING BARS ARE PERMITTED ONLY AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. LAP SPLICES, WHERE PERMITTED, SHALL BE CLASS 'B', UNLESS SHOWN OTHERWISE IN DETAILS, NOTES, OR SCHEDULES.
   C. REFER TO DEVELOPMENT LENGTH AND LAP SPLICE TYPICAL DETAILS AND SCHEDULES FOR DEVELOPMENT LENGTHS, SPLICE LENGTHS, AND ADDITIONAL REQUIREMENTS.
   D. SPLICE WELDED WIRE FABRIC REINFORCING BY LAP SPLICING ONE FULL MESH PLUS 2" AT SIDE AND END LAPS, BUT NOT LESS THAN 6". LAP SPLICES SHALL BE WIRE TIED.
   E. MAKE ALL REINFORCING BARS CONTINUOUS AROUND CORNERS OR PROVIDE CORNER BARS OF EQUAL SIZE AND SPACING. SEE TYPICAL DETAILS.
   F. WHERE ALL REINFORCING WITHIN A STRUCTURAL ELEMENT WILL BE SPLICED, THE SPLICES SHALL BE STAGGERED UNLESS SHOWN OTHERWISE IN DETAILS OR SCHEDULES.
   G. SEE TYPICAL DETAILS FOR REINFORCING REQUIREMENTS AROUND OPENINGS IN WALL AND FLOORS. ABSENT SPECIFIC DIRECTION PROVIDE 2-#5 BARS ON EACH SIDE OF OPENING EXTENDING 2'-0" PAST EDGE OF OPENING EACH DIRECTION.
3. REINFORCING SUPPLIER SHALL PROVIDE COMPLETE PLACEMENT AND FABRICATION DRAWINGS FOR ALL REINFORCING.
4. THE FOLLOWING BAR SUPPORT ACCESSORIES SHALL BE PROVIDED:
   A. AT SLAB REINFORCING: BAR BOLSTERS AT 4'-0" OC MAXIMUM WITH SAND PLATES AS REQUIRED
   B. AT FORMED CONCRETE EXPOSED TO VIEW: PLASTIC BAR POSITIONERS
5. NO ROCKS, CLAY TILE, OR BRICKS SHALL BE USED TO SUPPORT REINFORCING.
6. PROVIDE THE FOLLOWING CLEAR COVERS MEASURED FROM SURFACE OF CONCRETE TO OUTER FACE OF REBAR UNLESS SHOWN OTHERWISE ON PLANS OR IN DETAILS:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH — 3"
   B. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER
      a. #6 THROUGH #18 — 2"
      b. #5 AND SMALLER — 1 1/2"
   C. FORMED CONCRETE NOT EXPOSED TO EARTH OR WEATHER
      a. SLABS, WALLS, AND JOISTS — 1 1/2"
      b. BEAMS AND COLUMNS — 1"

SECTION 03.1 - CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK INCLUDING FABRICATION AND PLACEMENT OF REINFORCING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN ACI 318, ACI 301, AND ACI 117, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
2. SLABS-ON-GRADE
   A. CONCRETE SLAB-ON-GRADE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 360 AND ACI 302.
   B. ALL INTERIOR SLABS-ON-GRADE SHALL HAVE A 15 MIL MINIMUM VAPOR RETARDER MEETING THE REQUIREMENT OF ASTM E1745 CLASS A UNLESS NOTED OTHERWISE. LAP AND TAPE JOINTS PER MANUFACTURER'S SPECIFICATIONS.
   C. SEALER FOR CONCRETE SPECIFIED IN THE ARCHITECTURAL OR STRUCTURAL DRAWINGS AS "SEALED CONCRETE" SHALL BE WR MEADOWS LIQUIHARD (OR APPROVED EQUAL) AT THE MANUFACTURER'S SUGGESTED RATE.
      a. PREVIOUSLY APPLIED CURING COMPOUNDS MUST BE REMOVED PRIOR TO APPLICATION.
   D. SEAL ALL EXPOSED CONTROL, CONSTRUCTION, AND EXPANSION JOINTS WITH A POLYURETHANE TYPE SEALANT.
3. CONSTRUCTION JOINTS
   A. MAXIMUM DISTANCE BETWEEN CONCRETE POURS SHALL BE AS FOLLOWS:
      a. FOUNDATION WALLS NOT EXPOSED - UNLIMITED
      b. SLABS-ON-GRADE - 60 FEET
4. CONTROL JOINTS
   A. CONTROL JOINTS SHALL BE LOCATED AS FOLLOWS:
      a. FOUNDATION WALLS NOT EXPOSED - NOT REQUIRED
      b. SLABS-ON-GRADE - 12 FEET MAXIMUM
5. MIX DESIGNS SHALL BE SUBMITTED TO THE DESIGN TEAM FOR APPROVAL PRIOR TO PLACING ANY CONCRETE. SUBMITTALS SHALL INCLUDE TEST DATA THAT CONFIRMS STRENGTH OF EACH MIX PER ACI.
6. EACH CONCRETE MIX DESIGN SHALL INDICATED THE SLUMP. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK, UNLESS THE CONCRETE IS PUMPED IN WHICH CASE THE SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE PUMP.
7. THE USE OF PLASTICIZERS AND WATER REDUCERS IS ALLOWED.
8. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 25 PERCENT. FLY ASH SHALL BE CLASS C OR F, MEETING ASTM C618 REQUIREMENTS. WATER TO CEMENT RATION (W/C) SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH.
9. NON-SHRINK GROUT SHALL CONFORM TO ASTM C1107 AND SHALL HAVE A 28 DAY STRENGTH OF 6000 PSI.
10. COLD WEATHER PROTECTION
    A. DURING COLD WEATHER CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND CURING CONCRETE FOLLOWING THE REQUIREMENTS OF ACI 306.
    B. DURING COLD WEATHER CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR PROTECTING FOUNDATIONS THAT DO NOT EXTEND TO FROST DEPTH FROM HEAVING. ALL MITIGATION WORK SHALL BE PART OF THE CONTRACTOR'S BID
11. CONCRETE MIXES SHALL SATISFY THE REQUIREMENTS GIVEN IN THE PROJECT SPECIFICATIONS AND MEET THE MINIMUM STRENGTHS AS FOLLOWS:

CONCRETE USE	f'_c AT 28 DAY (PSI)	MAX W/C RATIO	MAX AGGREGATE SIZE	SLUMP	AIR CONTENT (%)	NOTES:
FOOTINGS	3,500	0.45	1"	5" ± 1"	5 ± 1	
FOUNDATION WALLS, PIERS	4,000	0.45	1"	4" ± 1"	6 ± 1	
EXTERIOR SLABS-ON-GRADE	4,500	0.45	1"	3" ± 1"	6 ± 1	
INTERIOR SLABS-ON-GRADE	4,000	0.50	1"	3" ± 1"	<3	

SECTION 03.4 - POST-INSTALLED ANCHORS IN CONCRETE

1. PROVIDE POST-INSTALLED CONCRETE ANCHORS AS SHOWN IN THE PLANS, DETAILS, AND SPECIFICATIONS. ALTERNATE PRODUCTS TO BE SUBMITTED FOR REVIEW AND APPROVAL. BASIS OF DESIGN SHALL BE ANCHORS AND FASTENERS AS MANUFACTURED BY HILTI, INC. OR AS OTHERWISE SPECIFIED.

SECTION 06.1 - WOOD FRAMING

1. ALL WOOD CONSTRUCTION SHALL CONFORM TO CHAPTER 23 OF THE IBC. UNO, ALL NAILING SHALL CONFORM TO THE IBC FASTENING SCHEDULE.
2. UNLESS NOTED OTHERWISE, BOTTOM PLATES SHALL BE ATTACHED TO THE FOUNDATION WITH NOT LESS THAN 5/8" DIAMETER x 8" SIMPSON TITEN HD SCREW ANCHORS SPACED NOT MORE THAN 4'-0" ON CENTER. PROVIDE A MINIMUM OF TWO ANCHORS PER WALL SEGMENT LOCATED WITHIN 12" OF EACH END OF THE WALL, UNLESS NOTED OTHERWISE OR WHERE HOLD DOWNS ARE REQUIRED. AT THE CONTRACTOR'S OPTION, TITEN HD ANCHORS MAY BE SUBSTITUTED WITH 5/8" DIAMETER x 8" EMBED F1554 GR 36 CAST-IN "L" BOLTS.
3. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
4. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS RUNNING PARALLEL TO JOISTS AND SOLID BLOCKING BETWEEN JOISTS UNDER ALL PARTITIONS RUNNING PERPENDICULAR TO JOISTS.
5. ALL POSTS, MULTIPLE STUDS, AND COLUMNS AT UPPER LEVELS SHALL HAVE MATCHING AND ALIGNED POSTS, MULTIPLE STUDS, AND COLUMNS AT EACH LEVEL OF FRAMING BELOW, UNLESS NOTED OTHERWISE. TIGHT FITTING, SOLID BLOCKING TO MATCH SHALL BE PROVIDED IN JOIST SPACE BETWEEN WALL TOP AND BOTTOM PLATES UNDER ALL SUCH POSTS, MULTIPLE STUDS, AND COLUMN.
6. FRAMING SHALL NOT BE NOTCHED, CORED, OR OTHERWISE CUT OR REDUCED IN SIZE UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER.
7. ALL FRAMING LUMBER SHALL BE SEASONED TO A MOISTURE CONTENT OF 19% OR LESS AND INDICATED AS "S-DRY" ON THE GRADE STAMP.
8. WOOD DIMENSION LUMBER HAS BEEN DESIGNED USING THE VISUALLY GRADED DESIGN VALUES LISTED IN THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION SUPPLEMENT. ALL SPECIES AND COMMERCIAL GRADES SHALL, AT A MINIMUM, BE AS FOLLOWS UNLESS NOTED OTHERWISE:
   A. EXTERIOR WALL STUDS — SPRUCE-PINE-FIR #1/#2 OR HEM FIR #2
   B. INTERIOR BEARING WALL STUDS — SPRUCE-PINE-FIR #1/#2 OR HEM FIR #2
   C. HEADERS, BEAMS, JOISTS — SPRUCE-PINE-FIR #1/#2 OR HEM FIR #2
   D. POSTS 5x5 AND LARGER — DOUGLAS FIR #2
   E. TREATED PLATES AND STUDS — SOUTHERN YELLOW PINE #2
   F. TREATED JOISTS AND BEAMS — SOUTHERN YELLOW PINE #1
   G. TREATED POSTS 5x5 AND LARGER — SOUTHERN YELLOW PINE #2

SECTION 06.3 - WOOD STRUCTURAL PANELS

1. WOOD STRUCTURAL PANELS INCLUDE PLYWOOD AND ORIENTED STRAND BOARD (OSB).
2. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS OF THEIR TYPE IN DOC PS 1 OR PS 2. EACH PANEL OR MEMBER SHALL BE IDENTIFIED FOR GRADE AND GLUE TYPE BY THE TRADEMARKS OF AN APPROVED TESTING AND GRADING AGENCY.
3. SHEATHING FOR ROOFS, WALLS, AND FLOORS SHALL BE SPAN-RATED EXPOSURE 1 PANELS UNLESS EXTERIOR PANELS ARE REQUIRED FOR LONG-TERM EXPOSURE TO WEATHER OR MOISTURE.
4. STAGGER ALL WOOD PANEL JOINTS. APPLY SHEETS WITH FACE GRAIN / LONG DIMENSION PERPENDICULAR TO JOISTS AND RAFTERS. ALL SHEETS SHALL BE A MINIMUM OF TWO SPANS.
5. FLOOR SHEATHING SHALL BE TONGUE AND GROOVE, GLUED (ALONG EACH TONGUE AND GROOVE JOINT AND ALONG TOP OF JOISTS) AND NAILED TO FLOOR JOISTS AS SPECIFIED ON PLANS.
6. ROOF SHEATHING SHALL BE NAILED TO ROOF JOISTS AND RAFTERS AS SPECIFIED ON PLANS.
7. REFER TO SHEAR WALL SCHEDULE AND PLAN NOTES FOR THICKNESS AND NAILING OF SHEATHING AT SHEAR WALLS. ALL EDGES SHALL BE FULLY BLOCKED WHERE NOT OCCURRING AT A FRAMING MEMBER.
8. PROVIDE H CLIPS AT ROOF SHEATHING UNLESS NOTED OTHERWISE.

SECTION 06.4 - STRUCTURAL COMPOSITE LUMBER (SCL)

1. STRUCTURAL CAPACITIES AND DESIGN PROVISIONS FOR STRUCTURAL COMPOSITE LUMBER SHALL BE ESTABLISHED IN ACCORDANCE WITH ASTM D 5456.
2. STRUCTURAL COMPOSITE LUMBER INCLUDES LVL, PSL, AND LSL PRODUCTS.
3. STRUCTURAL COMPOSITE LUMBER SHALL MEET THE FOLLOWING MINIMUM DESIGN VALUES IN POUNDS PER SQUARE INCH (PSI):

TYPE	F_b	F_t	F_v	F_{c_perp}	F_{c_par}	E	E_{min}	BASIS OF DESIGN
LVL	2,600	1,895	285	750	2,510	2,000,000	1,000,000	TRUS JOIST 2.0E LVL
LSL 1 1/2" WIDTH	2,250	1,815	505	860	2,105	1,500,000	762,000	TRUS JOIST 1.50E LSL
LSL 1 3/4" WIDTH	2,325	1,815	505	900	2,170	1,550,000	788,000	TRUS JOIST 1.55E LSL
LSL 3 1/2" WIDTH	2,325	1,815	505	900	2,170	1,550,000	788,000	TRUS JOIST 1.55E LSL
PSL	2,900	2,300	290	625	2,900	2,000,000	1,017,000	TRUS JOIST 2.0E PSL
RIM BOARD 1 1/8"	700	-	425	710	-	600,000	305,000	TRUS JOIST RIM BOARD

SECTION 06.2 - WOOD CONNECTORS AND FASTENERS

1. CONNECTORS
   A. JOIST HANGER CAPACITIES SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D 1761.
   B. UNLESS SPECIFIED OTHERWISE ON PLAN, HANGERS AND CONNECTORS FOR PRE-FABRICATED TRUSSES SHALL BE SELECTED BY THE SUPPLIER BASED ON CONNECTIONS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. CONNECTORS BY OTHER MANUFACTURERS MAY BE USED IF EQUIVALENCY TO SIMPSON PRODUCTS CAN BE ESTABLISHED. USE MANUFACTURERS FURNISHED OR SPECIFIED NAILS, SCREWS, AND BOLTS.
   C. HANGERS AND CONNECTORS SHALL BE SELECTED TO MEET THE LOAD REQUIREMENTS BASED ON THE STRUCTURAL DESIGN CRITERIA. IF A HANGER OR CONNECTOR CANNOT BE FOUND TO MEET THE LOAD REQUIREMENTS, CONTACT THE STRUCTURAL ENGINEER.
   D. JOIST HANGERS AND CONNECTORS SHALL BE FURNISHED WITH A COATING OR MATERIAL AS RECOMMENDED BY SIMPSON STRONG-TIE FOR THE SPECIFIC APPLICATION AND ENVIRONMENT IN WHICH THE HANGER OR CONNECTOR WILL BE USED. THIS INFORMATION IS AVAILABLE IN THE CURRENT SIMPSON CATALOG(S).
   E. ALL GENERAL INSTRUCTIONS FOR THE INSTALLER, AS FOUND IN THE CURRENT SIMPSON CATALOG(S) SHALL BE FOLLOWED. CONTACT STRUCTURAL ENGINEER IF PROJECT SPECIFIC CONNECTION CONFIGURATIONS DEVIATE OR OTHERWISE CONFLICT WITH RECOMMENDED INSTALLATIONS.
2. FASTENERS
   A. NAILING OF ALL FRAMING AND SHEATHING SHALL BE PER THE INTERNATIONAL BUILDING CODE UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   B. NAILS SHALL CONFORM TO REQUIREMENTS OF ASTM F 1667. ALL NAILS SHALL BE STEEL COMMON WIRE UNLESS NOTED OTHERWISE.
   C. BOLTS, LAG SCREWS, AND WOOD SCREWS SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASME STANDARD B18.6.1.
   D. BOLTS SHALL BE ASTM A307 GR36
   E. LAG SCREWS AND BOLTS SHALL BE FULL BODY DIAMETER. REDUCED BODY DIAMETER LAG SCREWS AND BOLTS ARE NOT ALLOWED.
   F. WOOD SCREWS SHALL HAVE AN UNTHREADED SHANK. TAPPING SCREWS WITH THREADS THE FULL LENGTH OF THE SHANK ARE NOT ALLOWED.
   G. PROVIDE DRILLED PILOT HOLES FOR LAG SCREWS, WOOD SCREWS (AS APPLICABLE), AND DRIFT PINS AS RECOMMENDED IN THE CURRENT EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).
   H. BOLT HOLES IN WOOD SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER.
   I. A METAL PLATE, METAL STRAP, OR WASHER SHALL BE PLACED BETWEEN ALL NUTS AND HEADS OF ALL BOLTS AND LAG SCREWS.
   J. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. FASTENERS OTHER THAN NAILS, TIMBER RIVETS, WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695 CLASS 55 MINIMUM. CONNECTORS THAT ARE USED IN EXTERIOR APPLICATIONS AND IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL HAVE COATING TYPES AND WEIGHTS IN ACCORDANCE WITH THE TREATED WOOD OR CONNECTOR MANUFACTURER'S RECOMMENDATIONS. IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, A MINIMUM OF ASTM A 653, TYPE G185 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED. PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT ARE PERMITTED.
   K. NAILS DESIGNATED ON THE DRAWINGS SHALL BE STANDARD COMMON NAIL DIMENSIONS AS FOLLOWS:

NAIL SIZE	MINIMUM DIAMETER (INCH)	MINIMUM LENGTH (INCH)
6d	0.113	2
8d	0.131	2 1/2
10d	0.148	3
12d	0.148	3 1/4
16d	0.162	3 1/2
20d	0.192	4

SECTION 06.5 - PRE-FABRICATED WOOD TRUSSES

1. PRE-FABRICATED TRUSSES SHALL BE DESIGNED FOR THE TOP CHORD AND BOTTOM CHORD LOADS LISTED IN THE DESIGN CRITERIA SECTION.
2. IT IS THE RESPONSIBILITY OF THE TRUSS SUPPLIER TO DEVELOP AND IMPLEMENT THE SNOW LOAD CASES IN ACCORDANCE WITH ASCE 7 (REFERENCED EDITION) INCLUDING BUT NOT LIMITED TO EAVE LOADS AND UNBALANCED SNOW LOADS ON HIP AND GABLE ROOFS. LIVE LOADS IN CONTINUOUS BEAMS SHALL ALSO BE PATTERN LOADED TO PRODUCE THE WORST-CASE FORCE EFFECT.
3. METAL PLATE CONNECTED TRUSSES SHALL BE MANUFACTURED AS REQUIRED BY TPI 1.
4. TRUSS SHOP DRAWINGS SUBMITTED FOR APPROVAL SHALL INCLUDE, AT A MINIMUM, THE INFORMATION SPECIFIED IN IBC SECTION 2303.4.
5. SUBMIT CERTIFIED CALCULATIONS WITH SHOP DRAWINGS, STAMPED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE THE PROJECT IS LOCATED.
6. PROVIDE GIRDER TRUSSES, HIP JACKS, AND STEP-DOWN TRUSSES AS REQUIRED AND DESIGN TO SUPPORT ALL SUPERIMPOSED LOADS.
7. PROVIDE METAL FRAMING ANCHORS AT TRUSS BEARING TO MECHANICALLY FASTEN TO BEARING WALL OR SUPPORTING MEMBER. DESIGN ROOF TRUSSES AND ANCHORS FOR THE UPLIFT WIND PRESSURES SHOWN IN THE DESIGN CRITERIA AS APPROPRIATE FOR THE TRUSS LOCATION.
8. PROVIDE GIRDER TRUSSES, HEADER BEAMS, ETC. AS REQUIRED TO FRAME OPENINGS.
9. BRIDGING AND BRACING OF TRUSS COMPRESSION MEMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE TRUSS MANUFACTURER'S DESIGN AND DIRECTION.
10. THE TRUSS MANUFACTURER SHALL PROVIDE TRUSS TO TRUSS CONNECTIONS AS REQUIRED.
11. PRE-FABRICATED TRUSSES SHALL BE DESIGNED FOR DEFLECTION LIMITS LISTED IN THE DESIGN CRITERIA.

SECTION 06.6 - PRE-FABRICATED WOOD I-JOISTS

1. STRUCTURAL CAPACITIES AND DESIGN PROVISIONS FOR PRE-FABRICATED WOOD I-JOISTS SHALL BE ESTABLISHED IN ACCORDANCE WITH ASTM 5055.
2. PROVIDE WEB STIFFENERS AT JOIST BEARING LOCATIONS, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
3. WOOD I-JOISTS SHALL BE SUPPLIED BY TRUS JOIST, A WEYERHAEUSER COMPANY, AND ERECTED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. WOOD I-JOISTS FROM OTHER MANUFACTURERS MAY BE SUBMITTED FOR APPROVAL. APPROVAL WILL ONLY BE GIVEN IF IT CAN BE DEMONSTRATED THAT THE STRENGTH AND STIFFNESS OF THE ALTERNATE MEMBERS ARE EQUAL TO, OR GREATER THAN, THE SPECIFIED TRUS JOIST PRODUCT, OR MEETS THE PERFORMANCE CRITERIA INDICATED ON THE DRAWINGS.
4. WOOD I-JOIST SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL AND SHALL INCLUDE DIMENSIONED LAYOUT PLANS OF THE JOISTS, CONTRACTOR ERECTION AND HANDLING REQUIREMENTS, AND TYPICAL DETAILS AND NOTES.

ABBREVIATIONS

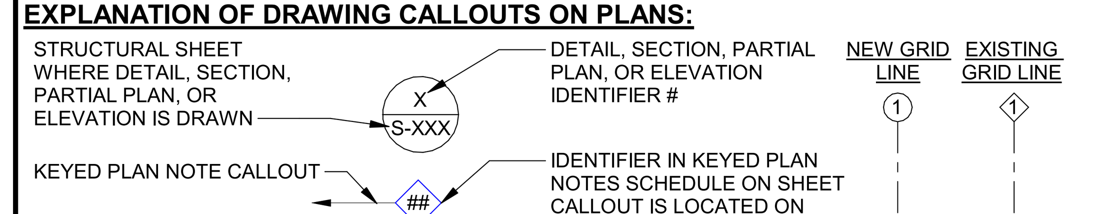
@	AT
&	AND
#	NUMBER, POUND
Ø	ROUND, DIAMETER
ADD'L	ADDITIONAL
AESS	ARCHITECTURALLY EXPOSED STR. STEEL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
BC	BOTTOM CHORD
BO	BOTTOM OF
B/	BOTTOM OF
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
C	CAMBER
CANT	CANTILEVER
CFS	COLD FORMED STEEL
CIP	CAST-IN-PLACE
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR COVER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
Db	BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DIA	DIAMETER
DWG	DRAWING
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATOR
EMBED	EMBEDMENT, EMBEDDED
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATE
f'c	CONCRETE STRENGTH
f'm	MASONRY STRENGTH
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH, FINISHED
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
FV	FIELD VERIFY
Fy	YIELD STRENGTH
GALV	GALVANIZE, GALVANIZED
HORIZ, H	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
INFO	INFORMATION
INT	INTERIOR
JT	JOINT
JST	JOIST
K	KIP, KIPS (1 KIP = 1000 POUNDS)
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
Ld	DEVELOPMENT LENGTH
Lds	LAP SPLICE LENGTH
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDE, LONGITUDINAL
LSH	LONG SIDE HORIZONTAL
LSL	LAMINATED STRAND LUMBER
LSLH	LONG SLOTTED HOLE HORIZONTAL
LSLV	LONG SLOTTED HOLE VERTICAL
LSV	LONG SIDE VERTICAL
LWC	LIGHTWEIGHT CONCRETE
LVL	LAMINATED VENEER LUMBER

M	MOMENT
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MWFRS	MAIN WIND FORCE RESISTING SYSTEM
NF	NEAR FACE
NR	NON-REDUCIBLE
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZE, OVERSIZED
P	AXIAL LOAD
PAF	POWDER ACTUATED FASTENER
PAR	PARALLEL
PC	PRECAST, PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCY	POUNDS PER CUBIC YARD
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PJP	PARTIAL JOINT PENETRATION
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POST-TENSIONED, POST-TENSIONING
QTY	QUANTITY
R	REACTION
RE	REFER, REFERENCE
REINF	REINFORCEMENT, REINFORCING
REQ'D	REQUIRED
REV	REVISION
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
SC	SLIP CRITICAL
SCHED	SCHEDULE, SCHEDULED
SDS	SELF-DRILLING SCREW
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SHT	SHEET
SIM	SIMILAR
SLBB	SHORT LEG BACK TO BACK
SFRS	SEISMIC FORCE RESISTING SYSTEM
SOG	SLAB-ON-GRADE
SP	SPACING
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSLH	SHORT SLOTTED HOLE HORIZONTAL
SSLV	SHORT SLOTTED HOLE VERTICAL
STD	STANDARD
STL	STEEL
STR	STRUCTURE, STRUCTURAL
SW	SHEAR WALL
T	TORSION
TBD	TO BE DETERMINED
TC	TOP CHORD
TO	TOP OF
T/	TOP OF
TOC	TOP OF CONCRETE
TOS	TOP OF SLAB, TOP OF STEEL
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT, V	VERTICAL
WF	WIDE FLANGE
WP	WORK POINT
WS	WATERSTOP
W	WEIGHT
WWR	WELDED WIRE REINFORCEMENT
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

PATTERNS & CALLOUTS

- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE
- GROUT
- UNIT MASONRY - BRICK
- CMU / MASONRY
- STRUCTURAL STEEL
- ALUMINUM
- PLYWOOD
- LVL FRAMING
- GYPSUM
- DRAINAGE FILL
- ROCK
- EARTH COMPACTED
- EARTH NATIVE
- GRANULAR/ ENGINEERED FILL
- SAND
- RIGID INSULATION
- POLYSTYRENE
- WOOD BEARING - PLAN
- SHEAR WALL - PLAN
- COLD FORMED WALL - PLAN

EXPLANATION OF DRAWING CALLOUTS ON PLANS:



SHEET LIST

SHEET NUMBER	SHEET NAME
S0-1	STRUCTURAL GENERAL NOTES
S0-2	DESIGN CRITERIA
S1-1	LOWER LEVEL PLAN
S1-2	MAIN LEVEL AND LOW ROOF PLAN
S1-3	REMODEL - SECOND AND LOW ROOF FRAMING PLAN
S4-1	FOUNDATION DETAILS
S4-2	FOUNDATION DETAILS
S5-1	FRAMING DETAILS
S5-2	FRAMING DETAILS
S5-3	PICTURES

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MICHAEL D. KONRAD
SOUTH DAKOTA
11.13.2023

REVISIONS:
NO. | DESCRIPTION: | DATE:

SHEET NAME:
STRUCTURAL GENERAL NOTES

PROJECT NO.
ME 2075

MAD LABS BREWING

PROJECT MANAGER:
Michael Konrad

DATE:
11.13.2023

SHEET:
S0-1

DATE PRINTED: 11/13/2023 1:36:56 PM

STRUCTURAL DESIGN CRITERIA

SECTION 1.0: CODES AND STANDARDS:

A. **(IBC-2018)** - 2018 INTERNATIONAL BUILDING CODE.
B. **(ASCE 7-16)** - MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES.
C. **(ACI 318-14)** - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
D. **(AWC/NDS-2018)** - NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION WITH SUPPLEMENT.

SECTION 2.0: BUILDING SPECIFIC CODE INFORMATION:

A. BUILDING RISK CATEGORY (II)
B. DESCRIPTION OF LATERAL FORCE RESISTING SYSTEM FOR ADDITION ONLY
   - N/S LATERAL RESISTANCE - WOOD SHEAR WALL
   - E/W LATERAL RESISTANCE - WALL SHEAR WALL
C. FUTURE PROVISIONS
   - NO PROVISION WERE MADE FOR FUTURE FLOORS, ROOFS, OR ADDITIONS.

SECTION 3.0: DESIGN LOADS

A. DEAD LOADS
   1. TYPICAL WOOD FRAMED ROOF
      - SELF-WEIGHT OF FRAMING MEMBERS — SELF-WEIGHT
      - SUPERIMPOSED DEAD LOADS (DESIGN TOTAL) — 20 PSF
   2. TYPICAL WOOD FRAMED FLOOR
      - SELF-WEIGHT OF STRUCTURAL MATERIALS — SELF-WEIGHT
      - SUPERIMPOSED DEAD LOADS (DESIGN TOTAL) — 20 PSF
B. LIVE LOADS
   1. FLOOR
      - RESTROOM — 60 PSF (REDUCIBLE)
      - ASSEMBLY/LOBBY — 100 PSF (NON-REDUCIBLE)
      - STAIRS/VESTIBULES — 100 PSF (NON-REDUCIBLE)
      - LIGHT STORAGE — 125 PSF (NON-REDUCIBLE)
      - PARTITIONS (LATERAL) — 5 PSF
   2. ROOF
      - TYPICAL ROOF LIVE LOAD — 20 PSF (REDUCIBLE)
      - MECHANICAL EQUIPMENT — SEE PLANS
C. SNOW LOADS
   - GROUND SNOW LOAD, P_g — 40 PSF
   - FLAT ROOF SNOW LOAD, P_f — 28 PSF
   - ROOF SLOPE FACTOR, C_s — 1.0
   - SNOW EXPOSURE CATEGORY, C_e — 1.0
   - THERMAL FACTOR, C_t — 1.0
   - SNOW IMPORTANCE FACTOR, I_s — 1.0
   - SNOW DRIFT SURCHARGE, P_d — SEE SNOW DRIFT PLAN
D. RAIN LOADS
   - 100-YEAR, 1-HOUR RAINFALL — 3.15 IN/HR
E. WIND LOADS
   - WIND SPEED ULTIMATE, V_{ULT} — 112 MPH
   - WIND SPEED ASD, VASD — 88 MPH
   - EXPOSURE CATEGORY — B
   - TOPOGRAPHIC FACTOR, K_{zt} — 1.0
   - GROUND ELEVATION FACTOR, Ke — 0.95
   - INTERNAL PRESSURE COEFFICIENT, G_{CPi} — ±0.18 (ENCLOSED)
   - COMPONENT AND CLADDING PRESSURES — SEE C&C PRESSURE TABLES
F. SEISMIC LOADS
   - SEISMIC IMPORTANCE FACTOR, I_e — 1.00
   - SITE CLASS — D
   - SEISMIC DESIGN CATEGORY — A
   - MAPPED SPECTRAL RESPONSE ACCELERATIONS — S_S=0.101g, S_1=0.028g
   - DESIGN SPECTRAL RESPONSE ACCELERATIONS — S_{DS}=0.108g, S_{D1}=0.045g
   - SEISMIC FORCE RESISTING SYSTEM, SFRS
     - LIGHT-FRAME WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
   - RESPONSE MODIFICATION FACTOR, R — 6.5
   - SEISMIC RESPONSE COEFFICIENT, C_s — 0.01
   - DESIGN BASE SHEAR, V — 0.01W
   - ANALYSIS PROCEDURE USED
     - GENERAL STRUCTURAL INTEGRITY REQUIREMENTS USED IN LIEU OF SEISMIC ANALYSIS PER CHAPTER 11 OF ASCE 7.

SECTION 3.1: DESIGN LOADS FOR DELEGATED ITEMS

A. DESIGN DELEGATED/DEFERRED ITEMS TO SUPPORT THEIR SELF-WEIGHT, THE POINT LOADS SHOWN ON FRAMING PLANS, AND THE FOLLOWING SUPERIMPOSED UNIFORM LOADS:
B. ROOF TRUSSES
   a. SUPERIMPOSED DL TOP/BOTTOM CHORD — 10 PSF / 10 PSF
   b. UNIFORM SNOW LOAD (TOP CHORD) — SEE SECTION 3.0, DESIGN LOADS
   c. SNOW LOAD AT OVERHANGS — 62 PSF
   d. SNOW DRIFT LOADS (TOP CHORD) — SEE SNOW DRIFT SURCHARGE PLAN
   e. UNIFORM LIVE LOAD (TOP CHORD) — SEE SECTION 3.0, DESIGN LOADS
   f. CEILING LIVE LOAD (BOTTOM CHORD) — 10 PSF (NOT CONCURRENT WITH LIVE LOAD)
   g. WIND LOADS (TOP CHORD) — RE: SECTION 5.0

SECTION 4.0: DEFLECTION CRITERIA

A. DEFLECTION LIMITS PER IBC SHALL BE CONSIDERED MINIMUM ACCEPTABLE VALUES UNLESS OTHERWISE SPECIFIED IN THIS SECTION, IN THE PROJECT SPECIFICATIONS, OR ON THE CONSTRUCTION DOCUMENTS.
B. ROOF TRUSSES
   a. DL+SL+CREEP — L/240
   b. SL — L/360, BUT NOT TO EXCEED 3/4" FROM SNOW LOADING.

SECTION 5.0: COMPONENT/CLADDING PRESSURES

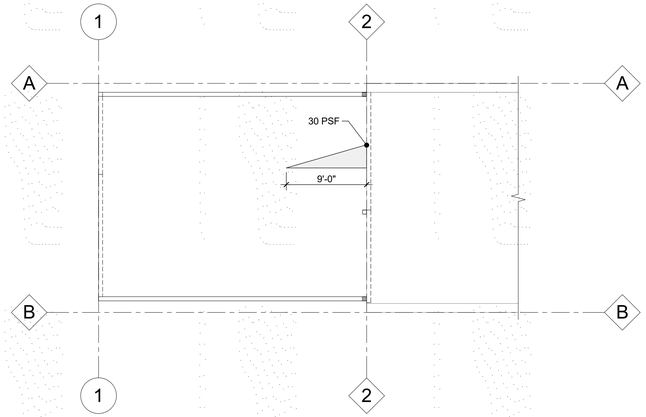
COMPONENT AND CLADDING WIND PRESSURES - ASCE 7-16

WALL PRESSURES (PSF)

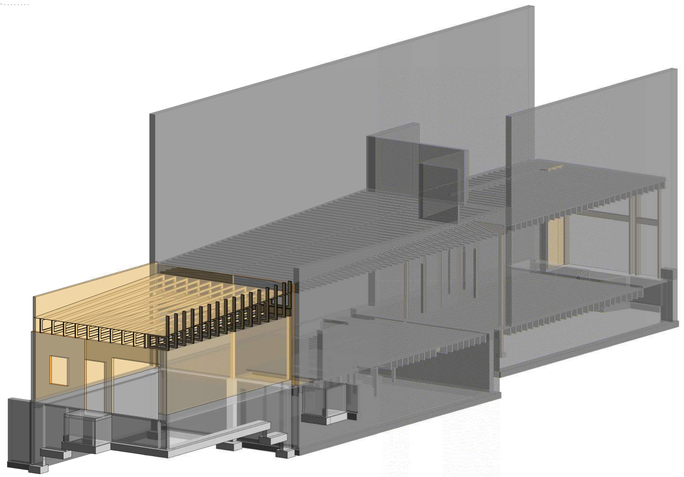
AREA	10 SF		20 SF		50 SF		100 SF		200 SF		500 SF		1000 SF	
ZONE	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS
ZONE 4	-28.1	25.9	-27.0	24.8	-25.5	23.3	-24.2	22.0	-23.1	20.9	-21.5	19.3	-21.5	19.3
ZONE 5	-34.7		-32.3		-29.2		-27.0		-24.6		-21.5		-21.5	

ROOF PRESSURES (PSF)

AREA	10 SF		20 SF		50 SF		100 SF		200 SF		500 SF		1000 SF	
ZONE	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS	NEG	POS
ZONE 1'	-26.4	11.7	-26.4	11.0	-26.4	10.0	-26.4	9.3	-22.7	9.3	-17.8	9.3	-14.2	9.3
ZONE 1	-45.9		-42.9		-38.8		-35.9		-32.7		-28.8		-28.8	
ZONE 2	-60.5		-56.6		-51.5		-47.6		-43.7		-38.6		-38.6	
ZONE 3	-82.5		-74.7		-64.4		-56.6		-48.8		-38.6		-38.6	



1 SNOW SURCHARGE PLAN
PLAN VIEW | 1/8" = 1'-0"



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STAMP:
Registered Professional Engineer
REG. No.
13869
MICHAEL D.
KONRAD
11.13.2023

REVISIONS:

NO.	DESCRIPTION:	DATE:

SHEET NAME: DESIGN CRITERIA

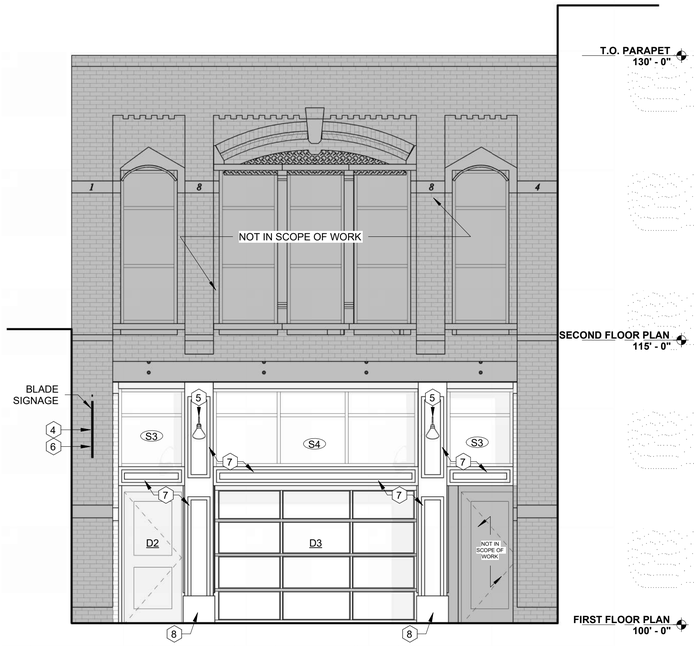
PROJECT NO.
ME 2075

MAD LABS BREWING

PROJECT MANAGER:
Michael Konrad

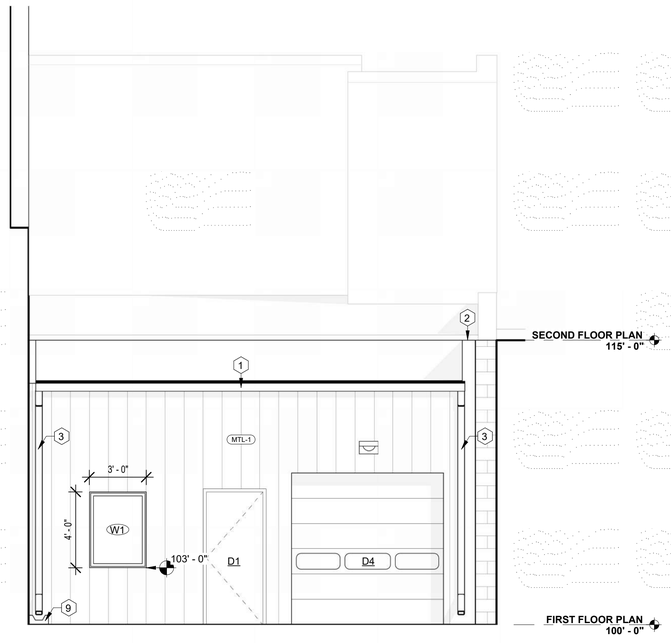
DATE:
11.13.2023

SHEET:
S0-2



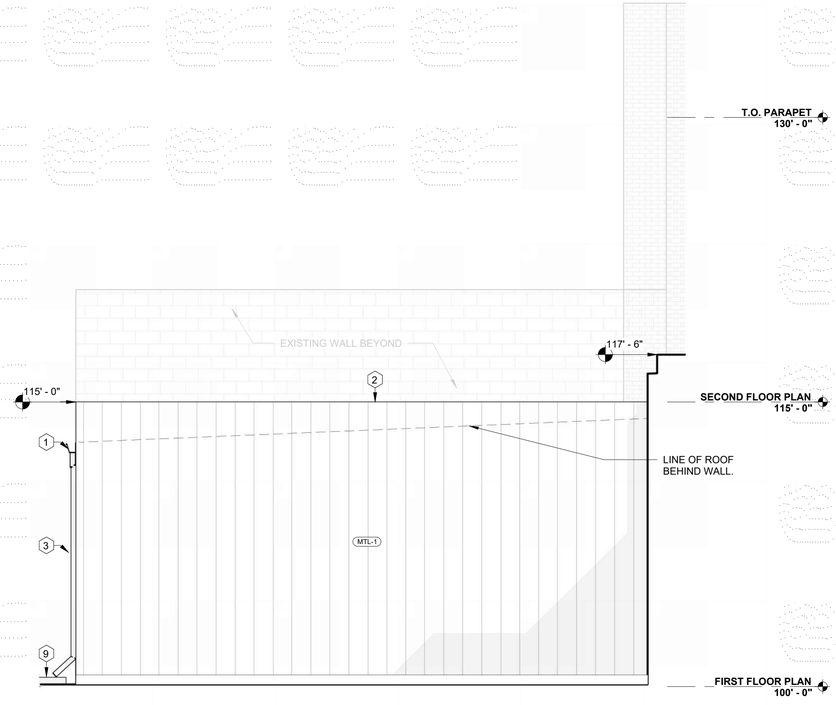
1 EAST ELEVATION

1/4" = 1'-0"



2 WEST ELEVATION

1/4" = 1'-0"



3 SOUTH ELEVATION

1/4" = 1'-0"

GENERAL NOTES - BUILDING ELEVATIONS

A. EXTERIOR LIGHTING INDICATED FOR PLACEMENT ONLY. COORDINATE WITH ELEC. CONTRACTOR FOR LIGHTING SPECIFICATIONS.
B. INSTALL ALL EXTERIOR BUILDING PRODUCTS PER MANUFACTURER'S RECOMMENDATIONS. REPORT ANY DISCREPANCIES TO ARCHITECT IMMEDIATELY.

KEYNOTES - BUILDING ELEVATIONS

1. PREFIN. FLAT RECTANGULAR MTL. GUTTER.
2. PREFINISHED METAL PARAPET CAP FLASHING, SEE TYPICAL DETAILS.
3. DOWNSPOUT LOCATIONS. (SEE CIVIL).
4. BUILDING PREMISES IDENTIFICATION, OWNER TO CONFIRM EXACT LOCATIONS.
5. EXTERIOR BUILDING LIGHTING, SHOWN ON DRAWINGS FOR LOCATION REFERENCE ONLY, DESIGN BY OTHERS, TO BE IN SEPARATE PERMITTING PACKAGE.
6. BUILDING SIGNAGE, SHOWN ON DRAWINGS FOR LOCATION REFERENCE ONLY, SIGNAGE PROVIDED BY OWNER.
7. PAINTED DECORATIVE WOOD TRIM INSET. RECTANGULAR 1"X2" PROFILE DIMENSIONS.
8. PAINTED DECORATIVE WOOD BASE.RECTANGULAR 1"X18" PROFILE DIMENSIONS.
9. SPLASH BLOCKS

EXTERIOR MATERIALS LEGEND

MATERIAL ABBREVIATION	MATERIAL DESCRIPTION	COMMENTS
MTL-1	Concealed fastener metal panel siding, vertical	Color TBD

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STAMP:

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

REVISIONS:
NO. | DESCRIPTION: | DATE:

SHEET NAME: **BUILDING ELEVATIONS**

FULL-SCALE: 22x34
HALF-SCALE: 11x17
DRAWING MAY NOT BE PRINTED TO SCALE

PROJECT NO.
DA23_043

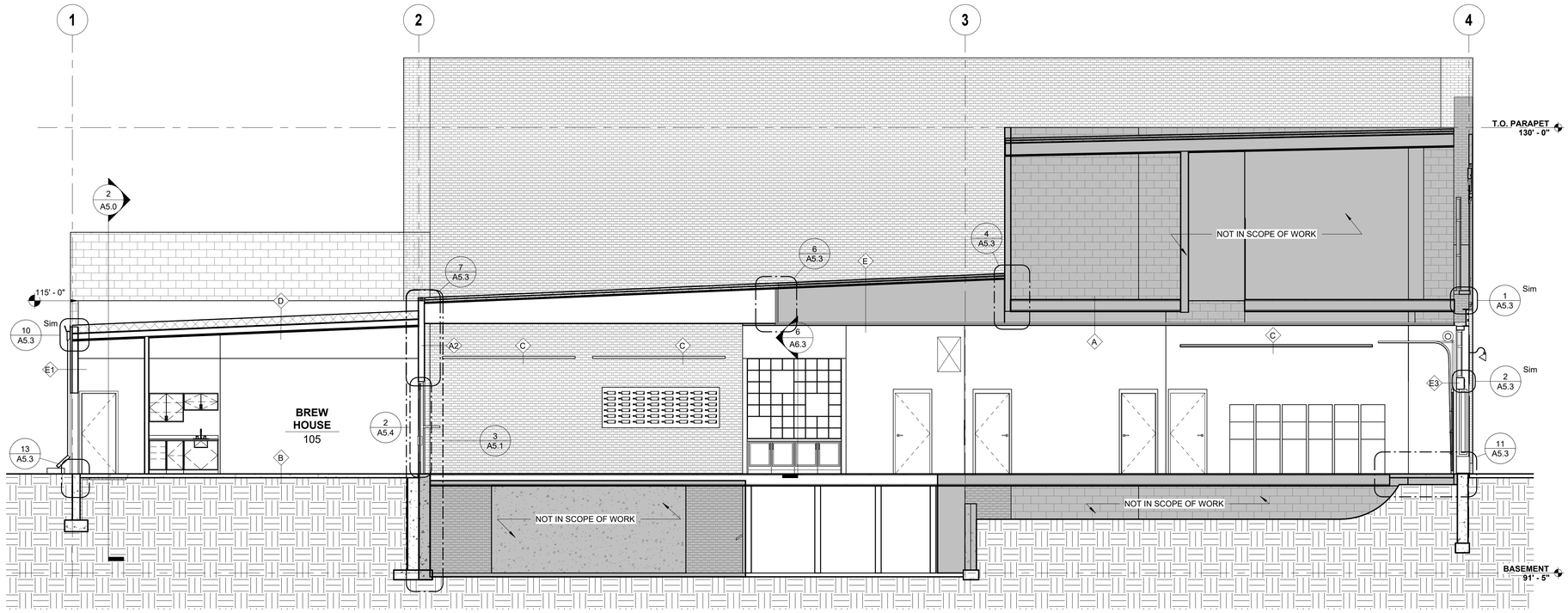
MADLADS BREWING CO.

PROJECT MANAGER:
ALI KUMMER

DATE:
11/13/2023

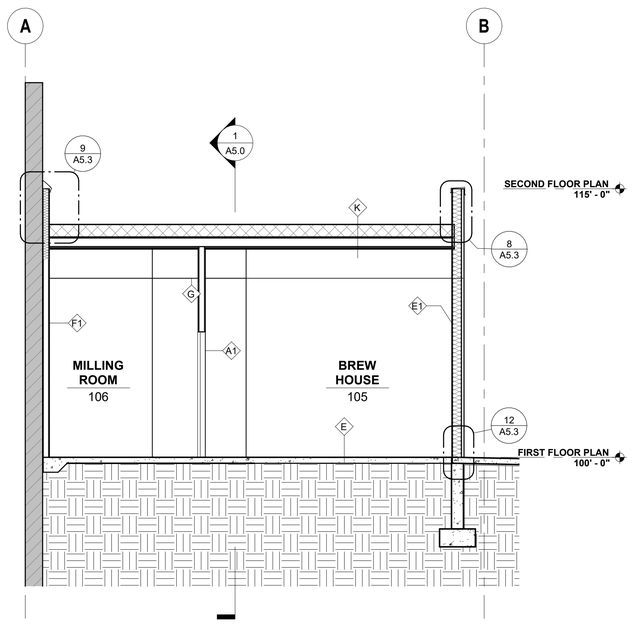
SHEET:
A4.0

DATE PRINTED: 1/18/2024 11:06:47 AM



1 WEST TO EAST - BUILDING SECTION

3/16" = 1'-0"



2 NORTH TO SOUTH - BUILDING SECTION

1/4" = 1'-0"

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REGISTERED PROFESSIONAL ARCHITECT
REG. NO. 7139
LEE M. ROWLAND
SOUTH DAKOTA
11-13-23

DATE:

REVISIONS:

NO.	DESCRIPTION:

SHEET NAME: **BUILDING SECTIONS**

FULL-SCALE: 24x36
HALF-SCALE: 12x18
DRAWING MAY NOT BE PRINTED TO SCALE

PROJECT NO.
DA23_043

MADLADS BREWING CO.

PROJECT MANAGER:
ALI KUMMER

DATE:
11/13/2023

SHEET:
A5.0

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