

VICINITY MAP



7 BREW COFFEE

LEE'S SUMMIT, MO

22033 7BLS PERMIT SET APRIL 22, 2022

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BUILDING SUPPLIER



DREW RODIGER PROJECT MANAGER C: 417-425-4546 E: <u>DREW@CMCMOD.COM</u> LEE LOVEALL OWNER/DESIGN CONSULTANT C: 417.353.1865 E: LEE@CMCMOD.COM

BUILDING CODE INFORMATION

AUTHORITY HAVING JURISDICTION: CITY OF LEE'S SUMMIT

APPLICABLE BUILDING CODES: 2018 IBC, 2017 NEC, 2010 ADA, 2018 INTERNATIONAL FIRE CODE.

CURRENT ZONING: CP-2, PLANNED COMMUNITY COMMERCIAL

USE GROUPS: B, BUSINESS

CONSTRUCTION TYPE: V-B

BUILDING LIMITATIONS: ALLOWABLE HEIGHT: 2 STORIES, 40' (BASED ON B USE GROUP, IBC 2018, 504.3)

ACTUAL HEIGHT: 2 STORIES, 19'-8"

ALLOWABLE AREA: 9,000 S.F. (BASED ON B USE GROUP, IBC 2018, 506.2)

(SERVING AREA - 468 S.F., MECHANICAL ACCESS - 131 S.F., COOLER - 124 S.F.)

OTHER CODE ITEMS: SEE EGRESS PLAN FOR ADDITIONAL ITEMS

PROJECT DESCRIPTION

PREFABRICATED FREESTANDING BUILDING WITH ACCOMPANYING WALK-IN COOLER DELIVERS COFFEE, TEA, AND ENERGY DRINKS TO CUSTOMERS VIA DRIVE-THROUGH LANES. NO INTERIOR OR EXTERIOR DINING COMPONENT IS PROVIDED; THE INTERIOR IS ONLY OCCUPIED BY STAFF. DRINK ITEMS ARE THE ONLY ITEMS OFFERED ON THE MENU.

GENERAL NOTES

ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5831. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

CONSULTANTS

CIVIL ENGINEER:



8040 NORTH OAK TRAFFICWAY KANSAS CITY, MO 64118 (816) 468-5858



PHONE: 417.708.9315
www.jandmstructural.com

MECHANICAL, ELECTRICAL, PLUMBING ENGINEER:

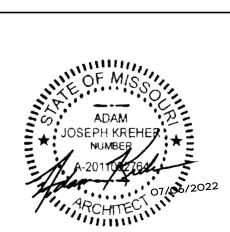


GO.0
COVER SHEET

DATE: APRIL 22, 2022



S SUMIMIT, N
1430 NE DOUGLAS ST.



ARCHITECT OF RECORD:

NAME: ADAM KREHER LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

REVISION: 1 ADD 001 6/17/22

EQUIPMENT AND FIXTURE SCHEDULE							
ITEM NO.	QTY.	MANUFACTURER	PRODUCT	PRODUCT NO.	SIZE	NOTES	
EQ-1	1	NOLAKE	REMOTE WALK-IN COOLER	KODB77104-C	675 CUBIC SF		
EQ-2	1	BUNN WATER HEATER	HOT WATER MACHINE	H5X - ELEMENT			
EQ-3	2	LA MARZOCCO	ESPRESSO MACHINE	LINEA PB (AV) - 3			
EQ-4	1	LA MARZOCCO	ESPRESSO MACHINE	LINEA PB (AV) - 4			
EQ-5	2	MANITOWOC	ICE MAKER HEADS	IYF 1800 C		REMOTE CONDENSOR - IF 1800C	
EQ-6	1	MANITOWOC	ICE MAKER BIN	LB 1760	60"		
EQ-7	27	TORRANI	SYRUP RACK				
EQ-8	3	VITAMIX	BLENDER				
EQ-9	4	EAGLE GROUP	STAINLESS STEEL STORAGE SHELVING	(1) SS 1872 - PZ86S (2) SS 1424 - PZ86S (3) SS 1436 - PZ86S (4) SS 1436 - PZ86S			
EQ-10	2	SPACEMAN	CHILLER MACHINE	6695-C			
EQ-11	3 3	MAZZER	COFFEE BEAN GRINDER	ROBUR S NERO			
EQ-12	1	MAZZER	DECAF COFFEE BEAN GRINDER	SUPER JOLLY PRO V (E) NERO			
EQ-13	1	RUBBERMAID	TRASH CONTAINER				
EQ-14	1	ATOSA	REACH-IN COOLER	MCF8723GR			
EQ-15	3	LA CROSSR	MOBILE ICE BINS	513034 CL-24ICCCAB-31			
EQ-16	1	CONTINENTAL	UNERCOUNTER COOLER	SW36NGD-U			
EQ-17	3	STRONGWAY	AIR CURTAIN	49947			
EQ-18	3		RAPID RINSER				

EQUIPMENT SCHEDULE NOTES:

a. ALL EQUIPMENT TO BE INSTALLED BY A LICENSED INSTALLER AND THE MANUFACTURERS SPECIFICATIONS.

GENERAL SCHEDULE NOTES:

THE ITEMS IDENTIFIED ON THE FINISH MATERIALS SCHEDULE, EQUIPMENT AND FIXTURE SCHEDULES HAVE BEEN SELECTED AND APPROVED FOR THE USE ON 7 BREW COFFEE PROJECTS AS "STANDARDS". ITEMS SPECIFIED MAY OR MAY NOT ACTUALLY APPEAR ON THE DRAWINGS. THE DESCRIPTIONS ARE TO IDENTIFY THE PRODUCTS AND NOT TO DETERMINE THE INCLUSION OR USE OF ANY PARTICULAR ITEM.

1 114151	I MATERIALS SC	TILDOLL	
SYMBOL	ITEM	DESCRIPTION	REMARKS
FRP-1	MEG-WALLS	WHITE	MEG PANELS
MP-1	METAL SIDING	CUSTOM COLOR: ZINC GRAY FINISH: SMOOTH	EXTERIOR SIDING
MP-2	BRAKE METAL	COLOR: SLATE BLUE FINISH: SMOOTH	METAL ROOF, COPING AND CANOPY COLUMNS
MP-3	BRAKE METAL	COLOR: MATTE BLACK FINISH: SMOOTH	METAL SOFFIT AND COPING
MP-4	BRAKE METAL	COLOR: ZINC GRAY FINISH: SMOOTH	METAL COPING AT SIDE WALLS
MP-5	BRAKE METAL	COLOR: COLONIAL RED FINISH: SMOOTH	METAL COPING
PL-1	DECORATIVE PANEL	NICHIHA MODERNBRICK COLOR: MIDNIGHT FIBER CEMENT PANEL	EXTERIOR FINISH
PL-2	DECORATIVE PANEL	NICHIHA CANYONBRICK COLOR: SHALE BROWN FIBER CEMENT PANEL	EXTERIOR FINISH
WC-1	DECORATIVE WALL COVERING	CUSTOM VINYL WALL COVERING	COOLER WALLS
VT-1	RESILIENT VINYL FLOORING	PROTECT-ALL FLOORING COLOR: LIGHT GRAY	SERVICE AREA AND TOILET
VB-1	RESILIENT VINYL BASE	PROTECT-ALL BASE COLOR: LIGHT GRAY	SERVICE AREA AND TOILET

FINISH MATERIALS SCHEDULE NOTES:

- a. PROVIDED BY 7 BREW AND INSTALLED BY GENERAL CONTRACTOR.
- b. ALL MATERIALS AND WORK PROVIDED AND INSTALLED BY GENERAL CONTRACTOR.
- c. PROVIDE A MINIUM OF TWO (2) COATS PAINT OVER ONE (1) COAT PRIMER ON ALL EXPOSED GYP BD IN SERVICE AREA AND TOILET
- d. CEILING AND WALL TO BE SATIN FINISH. DOORS AND DOOR FRAMES TO BE SEMI-GLOSS.

GENERAL CONSTRUCTION PROCEDURES

- ALL CONSTRUCTION SHALL BE EXECUTED IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND ORDINANCES.
 GENERAL CONTRACTOR SHALL COMPLY WITH ALL CONSTRUCTION REGULATIONS AND PROCEDURES ESTABLISHED BY THE LANDLORD.
- 2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING APPLICATION FOR AND PROCURING ALL PERMITS AND CERTIFICATES AS MIGHT BE REQUIRED BY GOVERNING AGENCIES AND SHALL BEAR THE COST FOR SUCH PERMITS AND CERTIFICATES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS OF THE SITE.
- 3. EVERY EFFORT HAS BEEN MADE TO ASSURE ACCURATE CONSTRUCTION DOCUMENTS, BUT IF A CONFLICT EXISTS THE GENERAL CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION. THESE DOCUMENTS INDICATE THE DESIGN INTENT AND IF EXISTING CONDITIONS ARE IN CONFLICT THE GENERAL CONTRACTOR SHALL CONTACT THE ARCHITECT IMMEDIATELY FOR CLARIFICATION.
- 4. THE GENERAL CONTRACTOR SHALL MAINTAIN DIRECT SUPERVISION OVER ALL SUBCONTRACTORS AND SHARE RESPONSIBILITY FOR THEIR PERFORMANCE AND QUALITY OF WORK. A LIST OF ALL SUBCONTRACTORS SHALL BE PROVIDED TO THE OWNER AND THE ARCHITECT. A COPY OF THIS LIST SHALL BE POSTED ON THE JOB SITE.
- 5. ALL SIGNAGE AND MOUNTING DEVICES SHALL BE PROVIDED, AND ALL SIGNAGE APPOVALS OBTAINED, BY OWNERS SIGN CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE ELECTRICAL POWER AS REQUIRED AND INSURE SUFFICIENT SPACE AND CLEARANCE IS PROVIDED FOR PROPER INSTALLATION. SIGNAGE CONTRACTOR SHALL APPLY FOR AND SECURE ALL APPROVALS REQUIRED BY ALL LOCAL GOVERNING AGENCIES AND SUPPLY ANY DRAWINGS OR GRAPHIC REPRESENTATIONS REQUIRED BY LANDLORD.
- ALL CONCEALED WOOD BLOCKING USED IN CONSTRUCTION SHALL BE FIRE-RETARDENT TREATED (IF APPLICABLE).
 GENERAL CONTRACTOR SHALL PERFORM AND/OR CAUSE TO BE PERFORMED ALL WORK IN A FIRST-CLASS WORKMANLIKE MANNER AND IN ACCORDANCE WITH EACH TRADE'S ESTABLISHED PROCEDURES AND
- 8. ALL PRODUCTS USED ON THIS PROJECT SHALL BE FIRST QUALITY, NEW AND FREE OF ASBESTOS OR OTHER ENVIRONMENTALLY UNSAFE SUBSTANCES.
- 9. MILLWORK, BASE, DESIGNATED TRIM, ETC. SHALL BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR WHERE INDICATED ON THE DRAWINGS AND/OR SCHEDULES.
- 10. GENERAL CONTRACTOR SHALL CONTACT ARCHITECT PRIOR TO CONSTRUCTION START DATE TO CONFIRM THAT HE/SHE HAS LATEST APPROVED CONSTRUCTION DOCUMENTS FOR THIS LOCATION.

SUSTAINABILITY GUIDELINES

MANUFACTURER'S RECOMMENDATIONS FOR PRODUCT USE AND INSTALLATION.

THE FOLLOWING GUIDELINES TO BE USED BY GENERAL CONTRACDTOR ARE VOLUNTARY IN NATURE. IT IS HIGHLY RECOMMENDED THAT THE GENERAL CONTRACTOR FOLLOW THESE GUIDELINES TO THE EXTENT IT IS FEASIBLE...

- 1. IMPROVE INDOOR AIR QUALITY:
- A. REDUCE CONSTRUCTION DUST AND AIR PARTICULATES WITH DUST CONTAINMENT SYSTEMS AND/OR SHUT
- B. CHANGE HVAC FILTERS AT THE CONCLUSION OF THE JOB.
- C. USE LOW V.O.C. PAINTS, ADHESIVES, SEALANTS, ETC

PREFABRICATED BUILDING

THIS BUILDING IS BEING FABRICATED IN A CONTROLLED ENVIRONMENT AND TRANSFERRED TO THE JOB SITE.

CJD ENGINEERING GROUP HAS BEEN ENGAGED TO CONDUCT 3rd PARTY INSPECTIONS OF ALL FABRICATION WITHIN THE 7 BREW COFFEE WAREHOUSE. THE INSPECTION WILL INCLUDE STRUCTURAL, FRAMING, BUILDING, PLUMBING AND ELECTRICAL.

TYPICAL SYMBOL LEGEND DETAIL NUMBER **ELEVATION HEIGHT DETAIL DESIGNATION** ROOM ROOM NUMBER SQUARE FOOTAGE \ **NAME** [101]_ **ELEVATION TAG** 150 SF **DOOR TAG CEILING HEIGHT** SECTION CUT TAG WINDOW TAG **ROOF SLOPE REVISION DELTA GRID BUBBLE** WALL TYPE/ PARTITION TYPE WALL PARTITION **ENLARGED DETAIL**

MATERIAL INDICATION

EXISTING WALL

CONCRETE	4, 4,	FINISHED WOOD	
DIMENSIONAL LUMBER		GYPSUM BOARD	
RIGID INSULATION		PLYWOOD	
BATT OR BLOWN INSULATION		GLASS	
EARTH/BACKFILL		СМИ	

FINISH TAG

PT-1

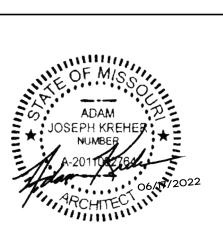
ABBREVIATIONS

ACCOUST.	ACOUSTICAL	FR	FIRE RETARDANT	RCP	REINFORCED
ADD'	ADDITIONAL	FRM	FRAME		CONCRETE PIPE
A.F.F.	ABOVE FINISH FLOOR	FURN	FURNISHED	RE	REFER
AF	AS FURNISHED	F.R.T.	FIRE RETARDANT	R.H.B.	RIGHT HAND BE
Al	AS INSTALLED		TREATED	R.H.R.B.	RIGHT HAND
ALT.	ALTERNATE	FTG	FOOTING	1	REVERSE BEVEL
ALUM.	ALUMINUM	FUR	FURRING	RL	RAIN LEADER
ANCH.	ANCHOR	GA.	GAUGE	RM	ROOM
ARCH.	ARCHITECT	GAL	GALLON	R.O.	ROUGH OPENIN
@	AT	GALV	GALVANIZED	RES.	RESILIENT TILE
B.B	BOTTOM OF BEAM	GC	GENERAL CONTRACTOR	REQ'D	REQUIRED
B.F.	BOTTOM OF FOOTING	G.I.	GALVANIZEDIRON	REQM'T	REQUIREMENT
BD	BOARD	GLAZ.	GLAZING	R.T.V.	ROTARY-TURBI
BKT.	BRACKET	GOV'T	GOVERNMENT	REG	REGULAR
BLDG.	BUILDING	G.S.	GRAVEL STOP	SAF	SAFETY
BLK'G	BLOCKING	GEN	GENERAL	SAN	SANITARY
BM	BENCH MARK	GYP	GYPSUM	SCHED	SCHEDULE
B.O.	BOTTOM OF	HDWR	HARDWARE	S.C.	SOLID CORE
BRG	BEARING	H.C.	HOLLOW CORE	SECT	SECTION
BSMT	BASEMENT	HOL	HOLLOW	SHT	SHEET
C.S.	COUNTERSUNK	HORIZ	HORIZONTAL	SIM	SIMILAR
C.S. CAB.	CABINET	HORIZ	HIGH	SPEC	SPECIFICATION
CAB. C.C	CENTER-TO-CENTER	HT.	HEIGHT	STND	STANDARD
C.C CEM.	CEMENT	HTG.	HEIGHT HEATING	STND	STANDARD
CEM. CF		HTG.			
CF	CONTRACTOR		HEATER	STL	STEEL
CECI	FURNISHED	H.W.	HOT WATER	STOR	STORAGE
CFCI	CONTRACTOR	I.D.	INSIDE DIAMETER	STRUCT	STRUCTURE/ST
	FURNISHED	INSUL	INSULATION	SURF	SURFACE
	CONTRACTOR	INT.	INTERIOR	SUSP	SUSPENDED
CI	INSTALLED	INV	INVERT	SYST	SYSTEM
CI	CONTRACTOR	JNT	JOINT	S.W.	STORM WATER
CI C	INSTALLED	JSTS	JOISTS	TYP.	TYPICAL
CLG	CEILING	K.E.S.	KITCHEN EQUIPMENT	T.O.	TOP OF
C.O.	CLEAN OUT		SUPPLIER	U.N.O	UNLESS NOTED
COL	COLUMN	LAM	LAMINATE	VCP	VITRIFIED-CLAY
CONC	CONCRETE	LAV	LAVATORY	VEST	VESTIBULE
CONF	CONFERENCE	LG	LONG	VERT	VERTICAL
CONN	CONNECTION	L.H.B.	LEFT HAND BEVEL	VOL	VOLUME
CONST'R	CONSTRUCTION	L.H.R.B.	LEFT HAND	V.T.R.	VENT-THRU-RC
CONT	CONTINUOUS		REVERSE BEVEL	VCT	VINYL COMPOS
CONT'R	CONTRACTOR	LIN	LINEAR / LINEAL	W	WIDE
COORD	COORDINATE	LVR	LOUVER	W/	WITH
CORR	CORRUGATED/	MAS	MASONRY	WD	WOOD
	CORRIDOR	MATL	MATERIAL	W.D.	WINDOW DIME
CTR	CENTER	MAX	MAXIMUM	WDW	WINDOW
CYL	CYLINDER	MEZZ	MEZZANINE	WRB	WEATHER RESI
<u>¢</u>	CENTERLINE	MFRD	MANUFACTURED		BARRIER
C.W.	COLD WATER	MFR	MANUFACTURER	WWF	WELDED WIRE
DP	DEEP	MID	MIDDLE	W.P.	WEATHER PRO
DBL	DOUBLE	MIN	MINIMUM	WT	WEIGHT
DEG	DEGREE	MISC	MISCELLANEOUS		
D.F.	DRINKING FOUNTAIN	MK	MARK		
DEMO	DEMOLITION	M.O.	MASONRY OPENING		
DIAØ	DIAMETER	MTD	MOUNTED		
DIAG	DIAGONAL	MTL	METAL		
DIAG		MULL	MULLION		
	DIMENSION	NOM	NOMINAL		
D.O.	DO-OVER	NTS	NOT TO SCALE		
DTL	DETAIL	O.A.	OVERALL		
DR	DOOR	O.C.	ON CENTER		
D.S.	DOWNSPOUT	O.C.	OUTSIDE DIAMETER		
EA.	EACH	OFCI	OWNER FURNISHED		
ELEC	ELECTRICAL	0.01	CONTRACTOR		
ELEV	ELEVATION (VIEW)		INSTALLED		
ELEV	ELEVATOR	OFOI	OWNER FURNISHED		
E.W.C.	ELECTRIC WATER	0.01	OWNER INSTALLED		
	COOLER	O/H	OVERHEAD		
EQUIP.	EQUIPMENT	0/H	OVERHEAD		
EXIST'G	EXISTING	OPN'G			
EXP	EXPOSED		OPPOSITE		
EXT	EXTERIOR / EXTENSION	OPP	OPPOSITE		
F.B.O.	FURNISHED BY OTHERS	PART	PARTITION PRE ENCINEEDED		
F.D.	FLOOR DRAIN	P.E.M.B.	PRE-ENGINEERED		
F.E.	FIRE EXTINGUISHER	DEE	METAL BUILDING		
F.E.C.	FIRE EXTINGUISHER	PERIM	PERIMETER		
	CABINET	P.G.	PRESENT GRADE		
F.E.B.	FIRE EXTINGUISHER	PLAM	PLASTIC LAMINATE		
	BRACKET	PLAS	PLASTIC		
FIN	FINISH	PL	PROPERTY LINE		
F.G.	FINISH GRADE	PLUMB'G	PLUMBING		
F.L.	FLOW LINE	PLY	PLYWOOD		
FLASH'G	FLASHING	P.P.	POWERPOLE		
FLR	FLOOR	PR	PAIR		
F.O.M	FACE OF MASONRY	PVC	POLYVINYL CHLORIDE		
				I	
FND	FOUNDATION	Q.T.	QUARRY TILE		



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BREW



ARCHITECT OF RECORD:
NAME: ADAM KREHER

PROJECT NUMBER:

22033 7BLS

REVISION: 1 ADD 001 6/17/22

GO.1

GENERAL NOTES &

SCHEDULES

DATE: APRIL 22, 2022



LEGEND

MONUMENT FOUND, ORIGIN UNDETERMINED UNLESS OTHERWISE NOTED

• 1/2" x 24" REBAR W/LS 214F CAP SET

(P) PLATTED

(M) MEASURED

E ELECTRIC METER

I ELECTRIC TRANSFORMER FIRE HYDRANT

D STORM MANHOLE

S SAN SEWER MANHOLE

GAS SIGN

⊗ WATER VALVE

---- E ----- UNDERGROUND ELECTRIC LINE

--- G --- GAS LINE UNDERGROUND TELEPHONE

— 725 — 1' CONTOUR INTERVAL

UTILITY CONTACTS

WATER AND SEWER SERVICE CITY OF LEE'S SUMMIT WATER UTILITIES 1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 816-969-1900

<u>gas service</u> SPIRE INC. 7500 E 35TH ST, KANSAS CITY, MO 64129 816-756-5252

ELECTRICAL SERVICE EVERGY 1200 MAIN ST, KANSAS CITY, MO 64105

888-471-5275

TELECOMMUNICATION

AT&T 2121 E. 63RD STREET KANSAS CITY, MO 64130 800-403-3302

<u>SPECTRUM</u> 550 WESTPORT ROAD KANSAS CITY, MO 64111 866-874-2389

FINAL DEVELOPMENT PLAN FOR

7 BREW

1410 NE DOUGLAS STREET

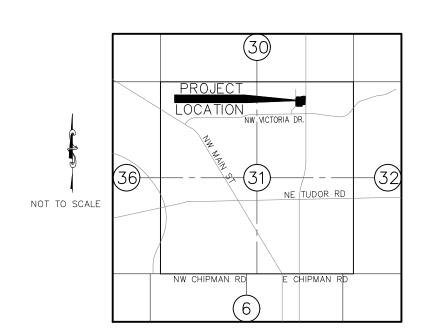
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

DEVELOPER: P2 brew, llc. 91 champions blvd.

ARCHITECT:

ARCHITECTURAL DESIGN CONCEPTS
2821 UNIT D W CHESTNUT ROGERS, AR 72712 SPRINGFIELD, MO 65802

CONTACT: JASON PULLMAN EMAIL: JPCOMPANIES@GMAIL.COM



LOCATION MAP CITY OF LEES SUMMIT, MISSOURI SEC. 31, TWP-48-NORTH, RNG-31-WEST

TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP. THE SURVEYED PROPERTY LIES WITHIN FLOOD HAZARD ZONE "X, NON-SHADED" AS SAID PROPERTY PLOTS BY SCALE ON THE FLOOD INSURANCE RATE MAP CITY OF LEE'S SUMMIT, COMMUNITY PANEL NO. 29095C0409G, EFFECTIVE ON 01/20/2017.

DATUM IS U.S. SURVEY FEET AND REFERS TO NAVD88 DATUM DERIVED FROM CONNECTIONS TO NATIONAL CORS NETWORK VIA GPS STATIC SESSIONS ON PROJECT CONTROL PROCESSED WITH THE NATIONAL GEODETIC SURVEY'S OPUS PROJECTS UTILITY. ORTHOMETRIC HEIGHT WAS CALCULATED USING THE GEOID12B MODEL.

BENCHMARKS:

JA-43: 3" ALUM DISK STAMPED JA-43 ON THE WEST SIDE OF DOUGLAS AND 44'± SOUTH OF THE S.E. BOUNDARY CORNER ELEV= 1034.77 OF THE SURVEY.

BS#60: FOUND "SQUARE" CUT ON THE BACK OF CURB ON THE SOUTH SIDE OF A PRIVATE DRIVE ON THE NORTH SIDE OF LOT 3 AND LOCATED NEAR THE NORTHEAST BOUNDARY CORNER, MARKED ELEV= 1028.03

1. THERE ARE NO ACTIVE, INACTIVE OR CAPPED WELLS ON THE SITE BASED ON THE MO 2017 WELLS-STATE OF MISSOURI WELLHEAD INFORMATION. 2. THERE ARE NO WETLANDS ON THE SITE PER THE NATIONAL WETLANDS

PREPARED BY: KAW VALLEY ENGINEERING 8040 N. OAK TRAFFICWAY KANSAS CITY, MO. 64118 CONTACT: MARTIN ARLING 816-468-5858

LOCATION: 1410 NE DOUGLAS STREET PARCEL ID: 52-900-02-35-00-0-000 AREA: 0.939 AC. ZONING: CP-2 LEGAL DESCRIPTION: LOT 3, OAKVIEW LOTS 1-5

INDEX OF SHEETS

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L1C	0	LANDSCAPE PLAN

PARKING SUMMARY

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	DESCRIPTION	REQUIRED
Ī	REQUIRED STALLS	9
	DESCRIPTION	PROPOSED
ſ	ACCESSIBLE PARKING STALLS	1
	STANDARD PARKING STALLS	11
	TOTAL PARKING STALLS	12

LAND USE SCHEDULE		
DWELLING UNITS	0	
LAND AREA	0.939	UNITS/ACRE
PROPOSED IMPERVIOUS AREA	20,953	SQ.FT.
TOTAL FLOOR AREA	723	SQ.FT.
FLOOR AREA RATIO	0.017	
REQUIRED STALLS	9	
PROPOSED ACCESSIBLE PARKING STALLS	1	
PROPOSED STANDARD PARKING STALLS	11	
TOTAL PROPOSED PARKING STALLS	12	

UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

SAFETY NOTICE TO CONTRACTOR:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

<u>CAUTION - NOTICE TO CONTRACTOR:</u>

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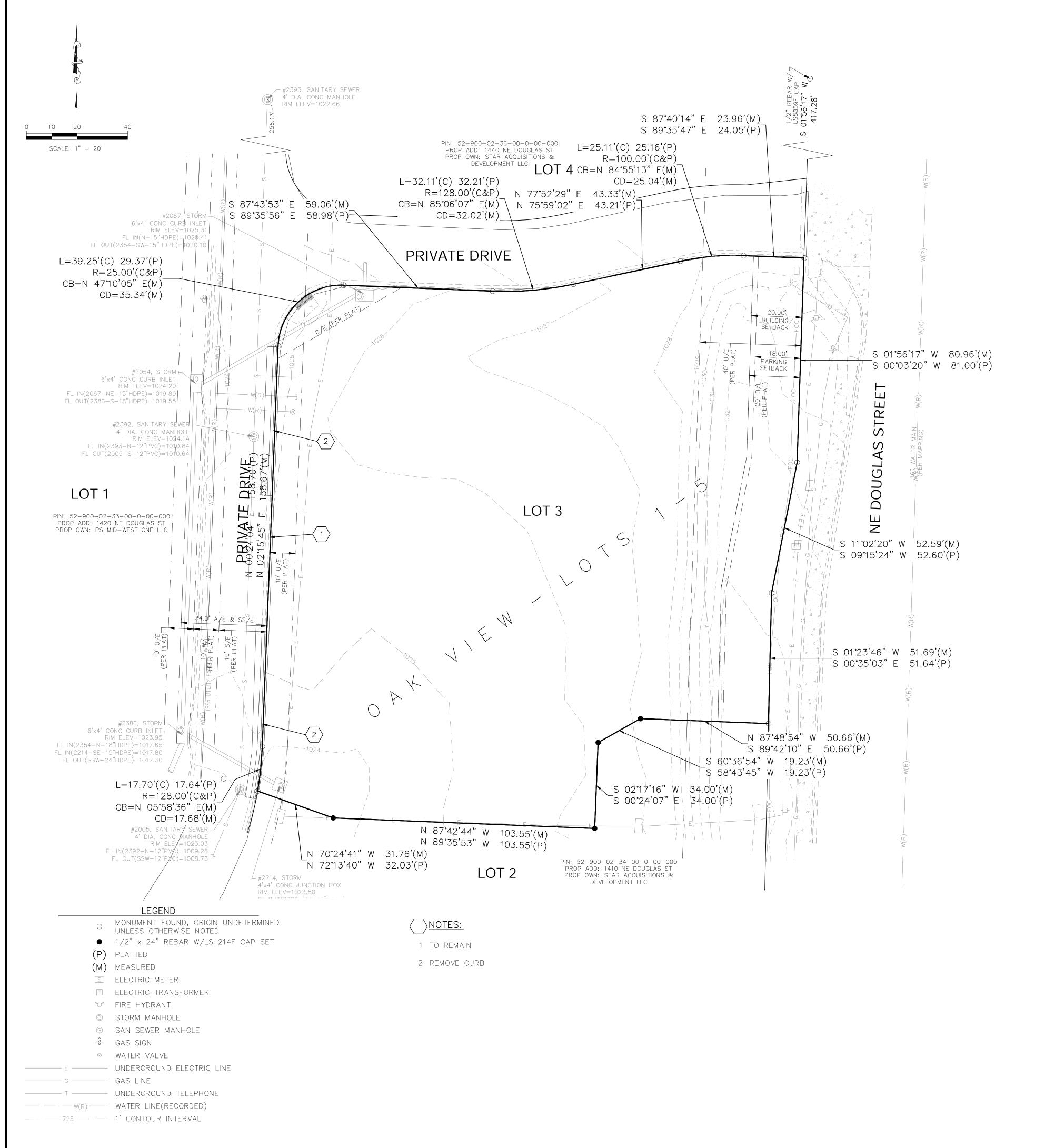




MO # 2009002955

DESIGNER DRAWN E MTA

THIS DRAWING SHALL NOT BE LITHLIFED BY ANY PERSON FIRM OR CORPORATION IN WHOLF OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING INC



DEMOLITION NOT

1. CONTRACTOR SHALL VERIFY SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE AS SHOWN, IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CITY AND STATE REGULATIONS.

- 2. ALL STRUCTURES AND MATERIAL WITHIN DEMOLITION LIMITS TO BE REMOVED AND DISPOSED OF IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 3. ALL HAZARDOUS ASBESTOS AND OTHER HAZARDOUS MATERIALS MUST BE IDENTIFIED AND REMOVED PRIOR TO ANY BUILDING DEMOLITION, IN STRICT CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 4. DRIVES, PAVING AND OTHER STRUCTURES ON STREET OR HIGHWAY RIGHT—OF—WAY SHALL BE REMOVED AS NECESSARY TO CONSTRUCT IMPROVEMENTS SHOWN ON THESE PLANS. REMOVAL AND DISPOSAL SHALL BE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 5. ALL PAVING WITHIN PROPERTY TO BE REMOVED AND DISPOSED OF IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

FLOOD STATEMENT:

THE ACCURACY OF ANY FLOOD HAZARD DATA SHOWN HEREON IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP. THE SURVEYED PROPERTY LIES WITHIN FLOOD HAZARD ZONE "X, NON-SHADED" AS SAID PROPERTY PLOTS BY SCALE ON THE FLOOD INSURANCE RATE MAP CITY OF LEE'S SUMMIT, COMMUNITY PANEL NO. 29095C0409G, EFFECTIVE ON 01/20/2017.

DATUM BENCHMARK:

DATUM IS U.S. SURVEY FEET AND REFERS TO NAVD88
DATUM DERIVED FROM CONNECTIONS TO NATIONAL CORS
NETWORK VIA GPS STATIC SESSIONS ON PROJECT
CONTROL PROCESSED WITH THE NATIONAL GEODETIC
SURVEY'S OPUS PROJECTS UTILITY. ORTHOMETRIC
HEIGHT WAS CALCULATED USING THE GEOID12B MODEL.

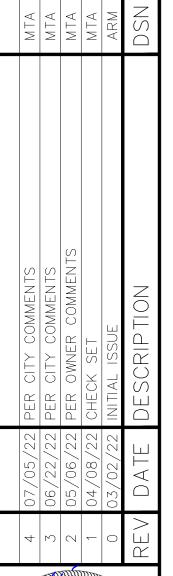
<u>BENCHMARKS:</u>

- JA-43: 3" ALUM DISK STAMPED JA-43 ON THE WEST SIDE OF

 DOUGLAS AND 44'± SOUTH OF THE S.E. BOUNDARY CORNER

 OF THE SURVEY.

 ELEV= 1034.7
- BS#60: FOUND "SQUARE" CUT ON THE BACK OF CURB ON THE SOUTH SIDE OF A PRIVATE DRIVE ON THE NORTH SIDE OF LOT 3 AND LOCATED NEAR THE NORTHEAST BOUNDARY CORNER, MARKED BY OTHERS 1028.00.



MARTIN T.

ARLING

NUMBER

PE-2009002955

MARTIN T. ARLING ENGINEER MO # 2009002955

KANSAS CITY, MISSOURI 64118

KANSAS CITY, MISSOURI 64118

KC@kveng.com | www.kveng.com

ALLEY ENGINEERING

IS AUTHORIZED TO OFFER ENGINEERING

RANSAS PH. (816) 468kc@kveng

/ DEMOLITION PLAN

EVELOPMENT PLAN

7 BREW
1410 N.E. DOUGLAS S
LEE'S SUMMIT, MO. 6

Know what's below.
Call before you dig.

PROJ. NO.

B21D4397

DESIGNER DRAWN BY

MTA JNG

MTA | FN 4397DEMO

C100

UTILITY STATEMENT:

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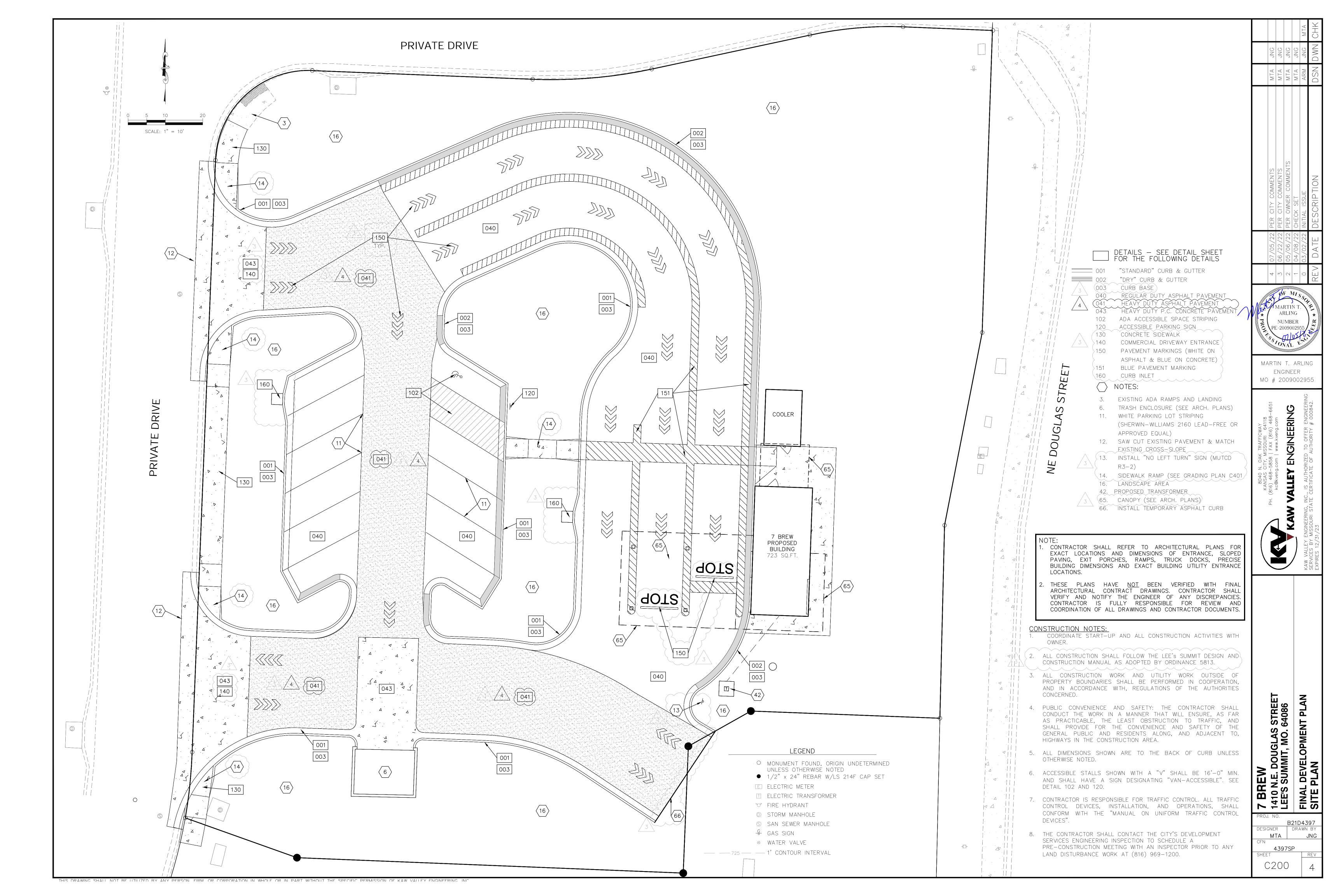
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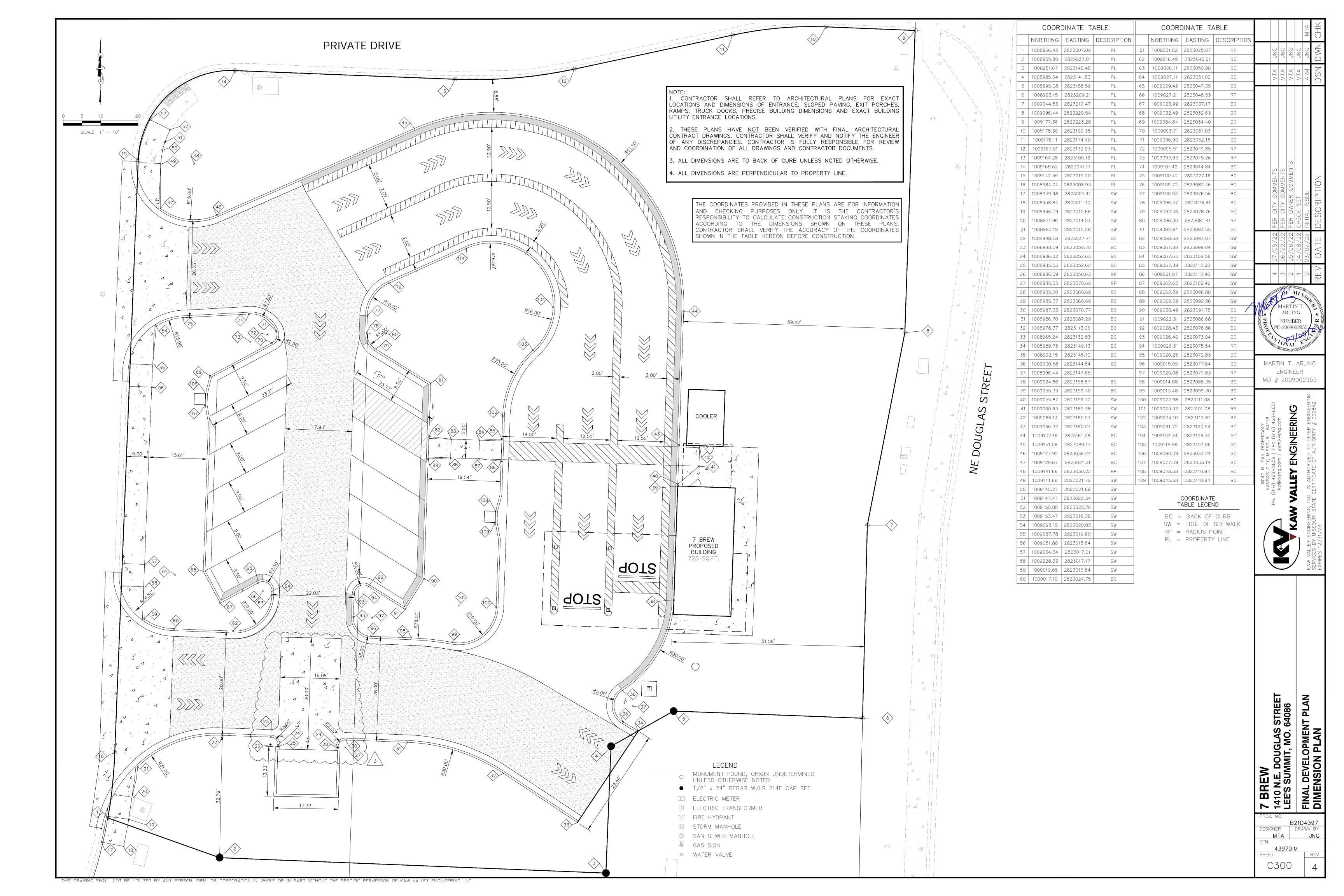
WARRANTY / DISCLAIMER:

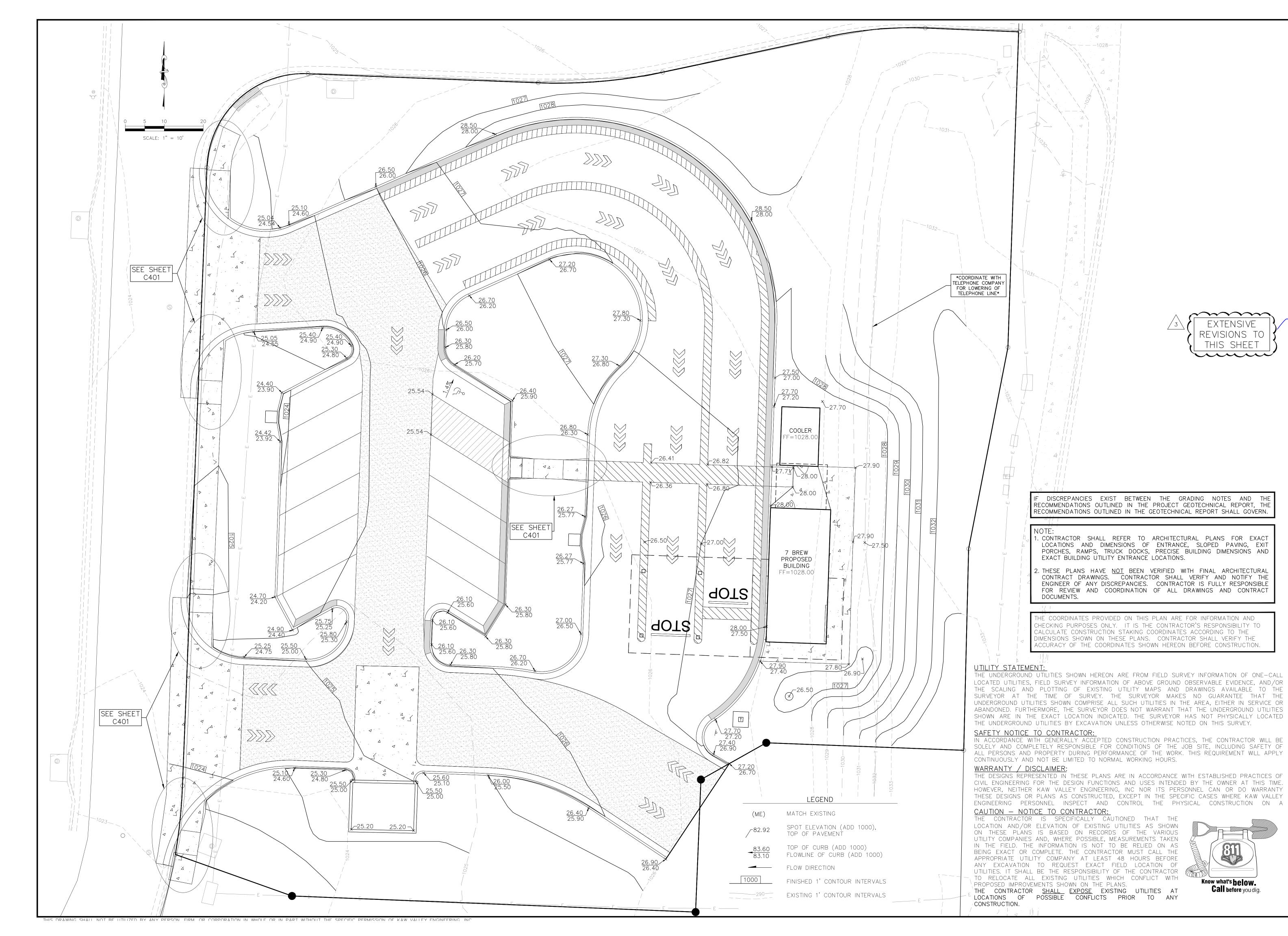
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REVISIONS TO THIS SHEET

> MARTIN T. ARLING ENGINEER

MO # 2009002955

ENGINEERING

STREE 64086

7 BREW 1410 N.E. DOUGLAS S LEE'S SUMMIT, MO. 6

B21D4397 DESIGNER DRAWN B MTA

4397GP

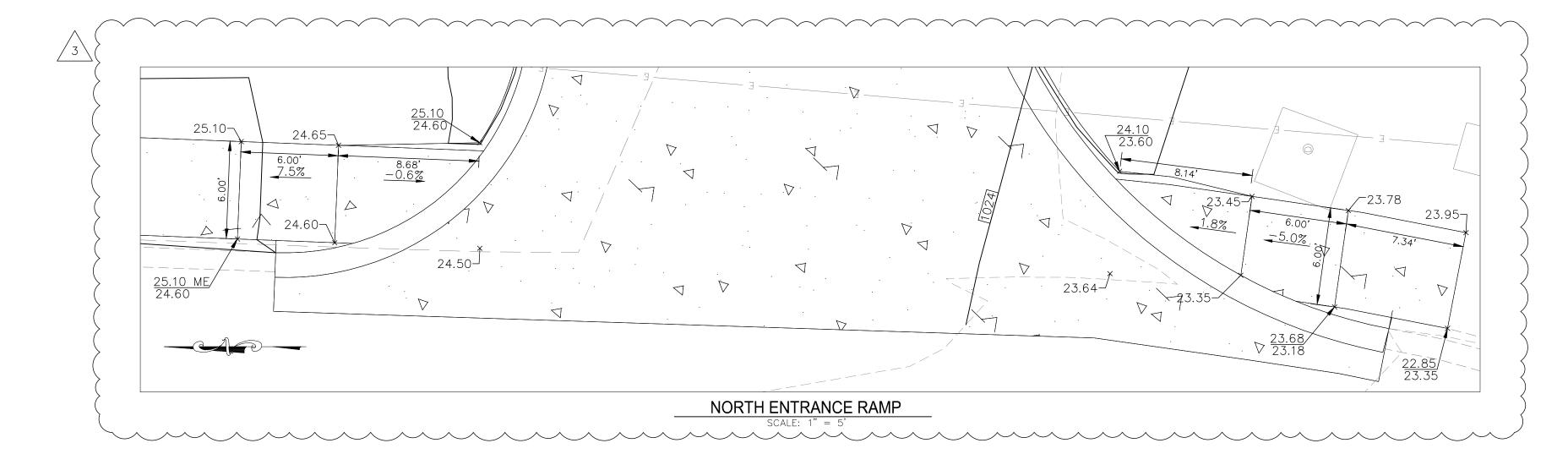
Know what's below.

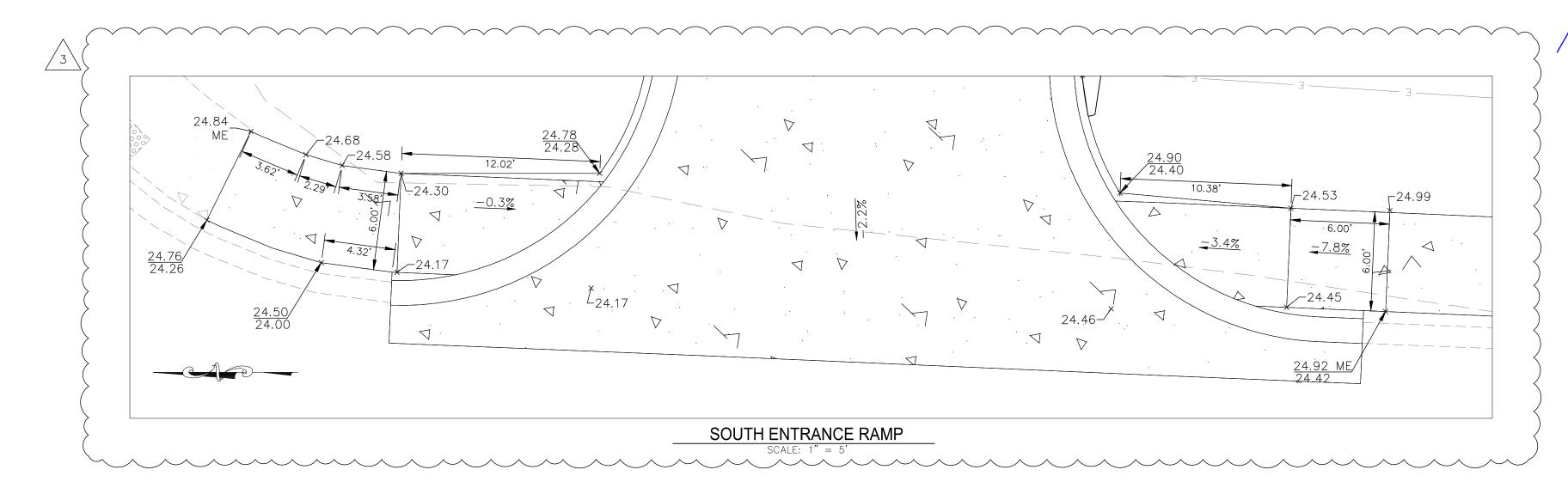
Call before you dig.

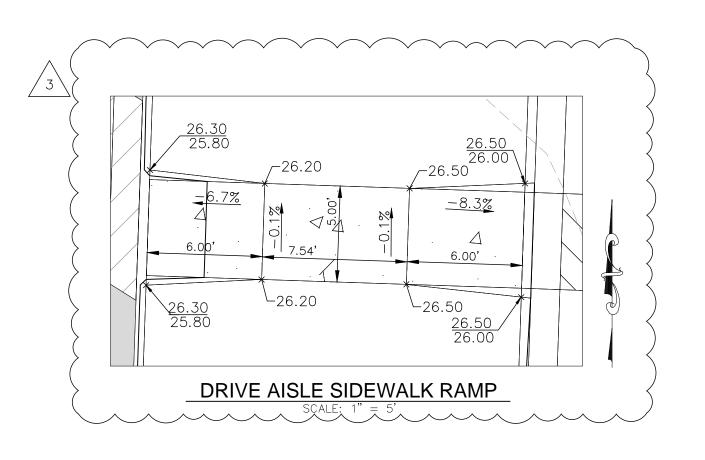
C400

#### GRADING NOTES:

- 1. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES.
- 2. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
- 3. OFF-SITE FILL MATERIAL SHALL HAVE A PLASTICITY INDEX OF 25 OR LESS, A LIQUID LIMIT OF 45 OR LESS AND CONTAIN NO ROCK LARGER THAN FOUR INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO BRINGING ON SITE.
- 4. EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT ARCHITECTURAL PLANS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. FILL MATERIAL MAY INCLUDE ROCK FROM ON-SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE STONES ARE WELL DISTRIBUTED AND VOIDS ARE COMPLETELY FILLED WITH SMALLER STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 12 INCHES OF EMBANKMENT.
- 5. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.
- 6. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOFROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- 8. ALL SLOPES ARE TO BE 3:1 OR FLATTER UNLESS OTHERWISE INDICATED.
- 9. ALL SLOPES EXCEEDING 3:1 SHALL BE PROTECTED BY RIP RAP, CONCRETE PAVING, OR OTHER METHODS INDICATED ON THESE PLANS, THAT WILL PREVENT EROSION AND PLACED SUCH THAT THE SURFACE IS FLUSH WITH SURROUNDING GROUND AND SHAPED TO CHANNEL WATER IN DIRECTIONS INDICATED.
- 10. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON—SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE
- 11. CONTRACTOR SHALL USE SILT FENCE, BALES OF HAY OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.
- 12. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS. RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
- 13. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
- 14. IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.
- 15. HANDICAP STALLS SHALL MEET ADA REQUIREMENTS AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION AT THE BUILDING ENTRY AND ACCESSIBLE PARKING STALLS. SLOPES EXCEEDING 2.0% WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 16. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.







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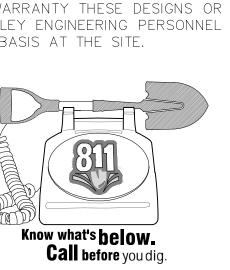
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POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

Know what's below. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF

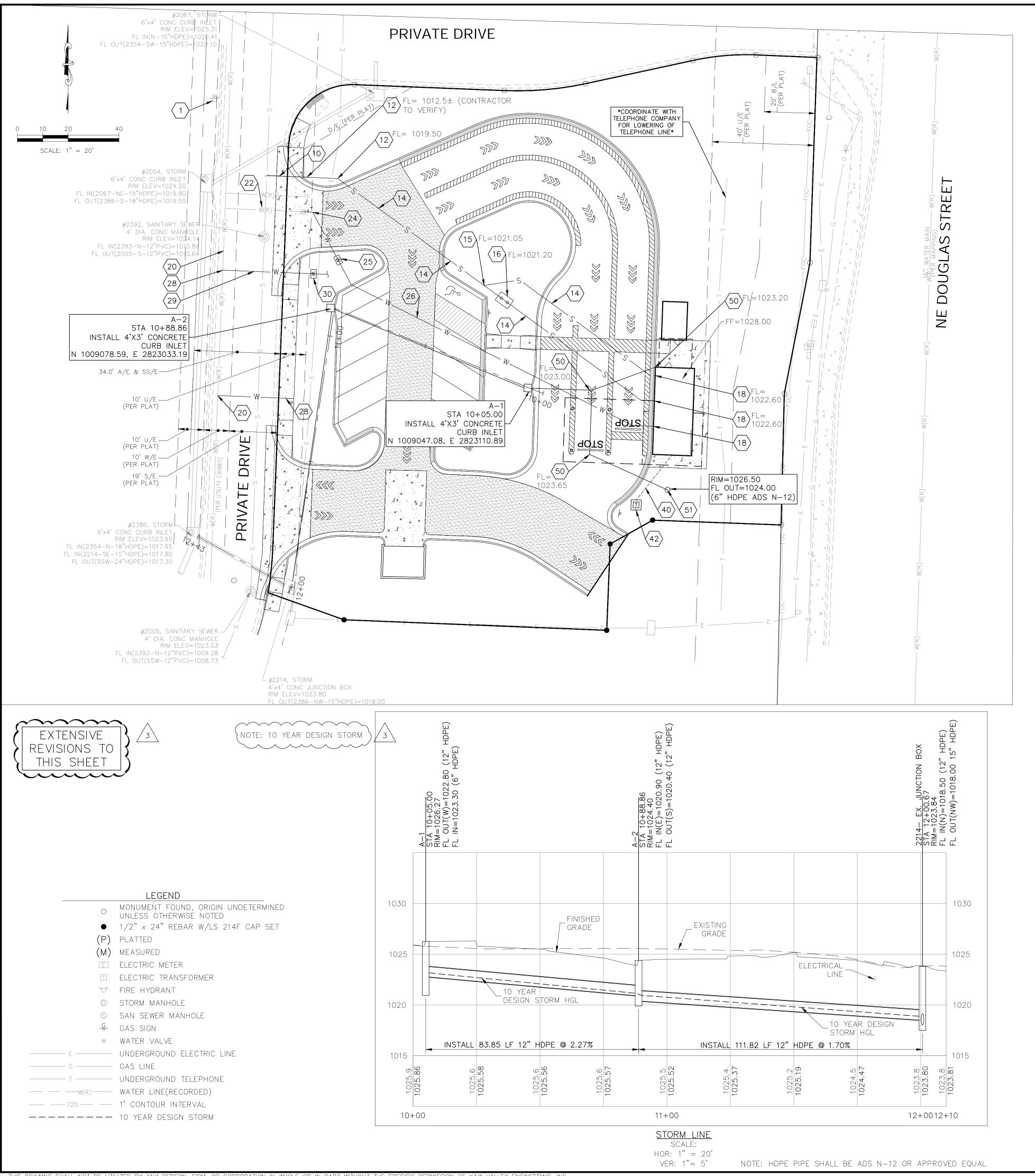


MARTIN T. ARLING ENGINEER MO # 2009002955

N.E. DOUGLAS (SUMMIT, MO. 6)

B21D4397 DESIGNER DRAWN E

MTA 4397GP



#### UTILITY NOTES:

- 1. THE CITY OF LEE'S SUMMIT SHALL BE GIVEN AT LEAST A 48-HOUR NOTICE PRIOR TO PERFORMING ANY INSPECTION, SITE DISTURBANCE OR UTILITY WORK.
- 2. CONSTRUCTION SHALL NOT START ON ANY PUBLIC WATER OR SANITARY SEWER SYSTEM UNTIL WRITTEN APPROVAL FROM THE OWNER, AND PERMITS FROM THE CITY HAVE BEEN RECEIVED.
- 3. ALL UTILITY AND STORM SEWER TRENCHES CONSTRUCTED UNDER AREAS THAT RECEIVE PAVING SHALL BE BACKFILLED TO 18 INCHES ABOVE THE TOP OF THE PIPE WITH CRUSHED STONE BASE MATERIAL PLACED ON EIGHT-INCH LIFTS, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
- 4. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. <u>KAW VALLEY ENGINEERING AND OWNER ARE TO BE HELD</u> HARMLESS.
- 5. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE OF THE CITY WATER DEPARTMENT. CONTRACTOR SHALL NOTIFY THE CITY OF LEE'S SUMMIT 24 HOURS MINIMUM, PRIOR TO ANY TESTING.
- 6. ALL CONSTRUCTION, INCLUDING SANITARY SEWER AND WATER INFRASTRUCTURE, SHALL BE IN ACCORDANCE WITH THE CITY IF LEE'S SUMMIT'S DESIGN AND CONSTRUCTION MANUAL.
- 7. LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.
- 8. CONTRACTOR TO INSTALL TRACING TAPE ALONG ALL NON-METALLIC WATER MAINS AND SERVICE LINES PER SECTION 6900 OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
- 9. CONTRACTOR <u>SHALL EXPOSE</u> EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES.
- 10. WATER SERVICE LINES SHALL HAVE A MINIMUM COVER OF 48 INCHES AND A MAXIMUM COVER OF 60 INCHES UNLESS OBSTRUCTIONS REQUIRE DEEPER EXCAVATIONS. ALL VALVES ON MAINS AND FIRE HYDRANT LEADS SHALL BE WITH VALVE BOX ASSEMBLIES. THE SIZE OF VALVE BOX ASSEMBLY TO BE INSTALLED IS DETERMINED BY THE TYPE AND SIZE OF VALVE. VALVE BOX CAPS SHALL HAVE THE WORD "WATER".
- 11. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN PARALLEL WATER AND SANITARY SEWER LINES. WHEN IT IS NECESSARY FOR ANY WATER LINE TO CROSS A SANITARY SEWER LINE, THE SEWER LINE SHALL BE ENCASED IN CONCRETE OR CONSTRUCTED OF DUCTILE IRON PIPE OR PVC PIPE WITH NO JOINTS WITHIN 10 FEET OF THE CROSSING UNLESS THE WATER LINE IS AT LEAST 2 FEET CLEAR DISTANCE ABOVE THE SANITARY SEWER LINE.
- 12. ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR
- 13. ALL DRAINAGE PIPE SHALL BE ADS N—12 OR APPROVED EQUAL.

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

THESE PLANS HAVE <u>NOT</u> BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF AL DRAWINGS AND CONTRACTOR DOCUMENTS.

- 1 EXISTING FIRE HYDRANT
- 10 EXISTING 6" SANITARY SEWER SERVICE LINE (FROM RECORD INFORMATION)
- 12 CONNECT TO EXISTING 6" SANITARY SEWER SERVICE LINE WITH 4"X6" SDR 26 REDUCER (CONTRACTOR TO VERIFY FLOW LINE PRIOR TO SERVICE LINE INSTALLATION)
- 14 INSTALL 4" SDR 26 SANITARY SEWER SERVICE LINE @ 2% MIN. SLOPE
- 15. INSTALL 4"X4" WYE
- 16 INSTALL GREASE TRAP (SEE MEP PLANS FOR SIZE)
- 18 CONNECT TO BUILDING
- 20 EXISTING 8" WATER MAIN
- 22 EXISTING 1" WATER SERVICE LINE AND VALVE
- 24 CONNECT TO EXISTING WATER SERVICE
- 25 PROPOSED 1" WATER METER
- 26 INSTALL 1" TYPE K COPPER WATER SERVICE LINE PER SECTION 6900 OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL
- 28 PROPOSED 3/4 WATER SERVICE TAP FOR IRRIGATION PER SECTION 6900 OF LEE'S SUMMIT DESIGN AND CONSTRUCTION
- 29 INSTALL 3/4 TYPE K COPPER WATER SERVICE LINE FOR IRRIGATION (SEE LANDSCAPE PLANS FOR MORE INFORMATION)
- 30 PROPOSED 3/4" WATER METER 40 PROPOSED SECONDARY ELECTRICAL CONDUITS. CONTRACTOR SHALL COORDINATE NUMBER AND SIZE OF CONDUITS WITH MEP
- 42 PROPOSED TRANSFORMER 50 INSTALL 6" HDPE ADS N-12 PIPE @ 1% MIN. SLOPE COORDINATE LOCATION WITH ROOF DRAINS. SEE ARCHITECTURAL PLAN
- INSTALL 18" NYLOPLAST DRAIN BASIN WITH BEEHIVE GRATE

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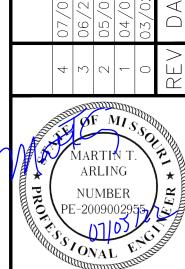
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MARTIN T. ARLING ENGINEER MO # 2009002955

GINEERING

BREW 410 N.E. DOUGLAS ( EE'S SUMMIT, MO. 6

DESIGNER DRAWN E MTA

4397UP

THIS DRAWING SHALL NOT RE LITILIZED RY ANY PERSON FIRM OR CORPORATION IN WHOLF OR IN PART WITHOLIT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING. IN

#### **EROSION CONTROL NOTES:**

- PROPERTY LINE IS LIMITS OF CONSTRUCTION EXCEPT AS SHOWN.
- 2. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING EARTHWORK OPERATIONS AND DURING APPROPRIATE PHASING AS CONSTRUCTION PROGRESSES.
- 3. THE CONTRACTOR SHALL MAINTAIN ALL SILT CONTROL MEASURES DURING CONSTRUCTION. BUILDERS AND OR DEVELOPER TO MAINTAIN EROSION CONTROL AND SILT CONTROL UPON COMPLETION OF THIS PROJECT.
- 4. ALL SILT SHALL REMAIN ON SITE AND SURROUNDING STREETS SHALL BE KEPT CLEAR OF ALL MUD AND DEBRIS.
- 5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED AS SHOWN AND AT ANY ADDITIONAL AREAS OF CONCENTRATED FLOWS NOT SHOWN ON PLANS.
- 6. ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.
- 7. SLOPES ARE TO BE LEFT IN A ROUGH CONDITION DURING GRADING.
- 8. CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS AND WEIRS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE FILTERS, OR SILT FENCE, OR STRAW BALES (PRIOR TO PAVING PLACEMENT). AFTER PAVEMENT IS IN PLACE, PROVIDE FILTER PROTECTION THAT CANNOT BE WASHED INTO INLETS OR WASHED AWAY. STRAW/HAY BALES WILL NOT BE ALLOWED ON CONCRETE OR ASPHALT PAVING.
- 9. SEDIMENT IS TO BE REMOVED FROM STORM WATER DRAINAGE SYSTEMS. ALL SEDIMENT CONTROL MEASURES TO BE INSPECTED AND REPAIRED IMMEDIATELY AND ON A REGULAR BASIS AFTER ALL RAIN STORMS.
- 10. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH AN INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
- 11. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY TO PREVENT SEDIMENT FROM ENTERING STORM DRAINS, STREETS, AND WATERWAYS.
- 12. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION AND SILTATION CONTROLS REQUIRED TO PREVENT SOIL EROSION FROM LEAVING THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
- 13. TEMPORARY SEDIMENT FENCE EROSION CONTROL MEASURES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED. ON PROJECTS THAT ARE NOT EXPECTING IMMEDIATE DEVELOPMENT (I.E.— INTERCEPTOR SEWERS, OFFSITE IMPROVEMENTS, ETC.) EROSION CONTROL MEASURES ARE TO BE REMOVED BY CONTRACTOR AS SOON AS ADEQUATE VEGETATION IS ESTABLISHED.
- 14. MUD, SILT, AND DEBRIS SHALL BE CLEANED UP AT THE CONCLUSION OF EACH WORKING DAY, OR AFTER EACH RAINFALL.
- 15. INSPECTION, MAINTENANCE AND REPAIR OF EROSION CONTROL DEVICES SHALL BE ON GOING THROUGHOUT THE LIFE OF INFRASTRUCTURE AND BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. ADDITIONAL MEASURES SHALL BE INSTALLED AS REQUIRED BY ACTUAL FIELD CONDITIONS AND/OR GOVERNING INSPECTION AGENCIES. NOTE: ALTHOUGH EXTENSIVE EFFORT IS PUT INTO THE DESIGN OF THE EROSION CONTROL PLAN BY THE ENGINEER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO ENSURE THAT ANY ADDITIONAL REQUIRED EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED AT NO ADDITIONAL COST TO THE OWNER.
- 16. INSTALL AND MAINTAIN CONSTRUCTION ENTRANCE(S) AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.
- 17. AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED, SODDED, OR LANDSCAPED, FLAT LOTS WILL NOT REQUIRE SEEDING BUT ALL SLOPES, DISTURBED AREAS AND STREET RIGHT-OF-WAYS WILL BE SEEDED.
- 18. TOPSOIL IS TO BE PLACED IN AREAS UNSUITABLE FOR VEGETATIVE GROWTH.
- 19. STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (4" MIN) A THICKNESS OF 4 INCHES.
- 20. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING, ADJACENT TO OR DOWNSTREAM FROM PROPERTY, BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
- 21. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.
- 22. ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE. ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL AND COUNTER MEASURES.
- 23. MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED (CHUTE, TOOLS, ETC.) AT A CONTRACTOR DEFINED LOCATION. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
- 24. DEVELOPER IS RESPONSIBLE FOR HAVING LOT BUILDERS FOLLOW THE GUIDELINES OF "CONTROLLING EROSION WHEN BUILDING YOUR HOME" PROVIDED BY MISSOURI DEPARTMENT OF HEALTH AND ENVIRONMENT.
- 25. EROSION CONTROL STRAW/FIBER WATTLES TO BE INSTALLED 1'-0" BEHIND CURB & GUTTER UPON COMPLETION OF BACKFILL OF CURB IN ALL AREAS WHERE SLOPES FROM LOT DRAIN TOWARDS CURB. UPON COMPLETION OF FINAL GRADING THE TOES OF ALL EMBANKMENTS IN EXCESS OF TWO FEET IN HEIGHT WILL HAVE EROSION CONTROL SEDIMENT FENCE INSTALLED.
- 26. THE CITY OF LEE'S SUMMIT SHALL BE GIVEN AT LEAST A 48-HOUR NOTICE PRIOR TO PERFORMING ANY INSPECTION, SITE DISTURBANCE OR UTILITY WORK.

#### TFMPORARY SEEDING

TO PROVIDE PROMPT EROSION CONTROL ON PROJECT TEMPORARY SEEDING MAY BE REQUIRED WHICH WILL DEPEND ON THE CONTRACTORS WORK SCHEDULE. TEMPORARY SEEDING WILL BE REQUIRED IN THE FOLLOWING AREAS:

SEEDING — EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. ANNUAL RYE GRASS SHOULD BE

1. IN SLOPES AND AREAS OF CONCENTRATED FLOW WITHIN 28 DAYS OF ROUGH GRADING.

2. IN AREAS THAT REQUIRE SEEDING BUT IS NOT WITHIN THE SEASON FOR PERMANENT SEEDING AS PER THE TECHNICAL SPECIFICATIONS. PLANT SELECTION - ANNUAL RYE GRASS, WHEAT OR OATS FOR TEMPORARY SEEDING

APPLIED AT A RATE OF 120 LBS/ACRE, WHEAT OR OATS SHOULD BE APPLIED AT A RATE OF 100 LBS/ACRE. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH. MULCHING - THE USE OF MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH CONDITIONS SUCH AS SEEDING IN FALL OR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE), SLOPES STEEPER THAN 3:1, EXCESSIVELY HOT OR DRY WEATHER, ADVERSE SOILS (SHALLOW, ROCKY, HIGH IN CLAY OR SAND), AND AREAS RECEIVING CONCENTRATED FLOW. IF AREA

CONCENTRATED WATERFLOW, AS IN CHANNELS, ANCHOR MULCH WITH NETTING. MAINTENANCE — RESEED, REFERTILIZE AND MULCH AREAS OF INSUFFICIENT GROWTH. RESEED, REFERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TO BE MULCHED IS SUBJECT TO

SEE LANDSCAPE PLAN FOR PERMANENT SEEDING REQUIREMENTS.

#### SAFETY NOTICE TO CONTRACTOR:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

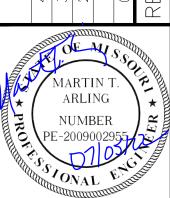
#### WARRANTY / DISCLAIMER:

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

#### CAUTION - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.



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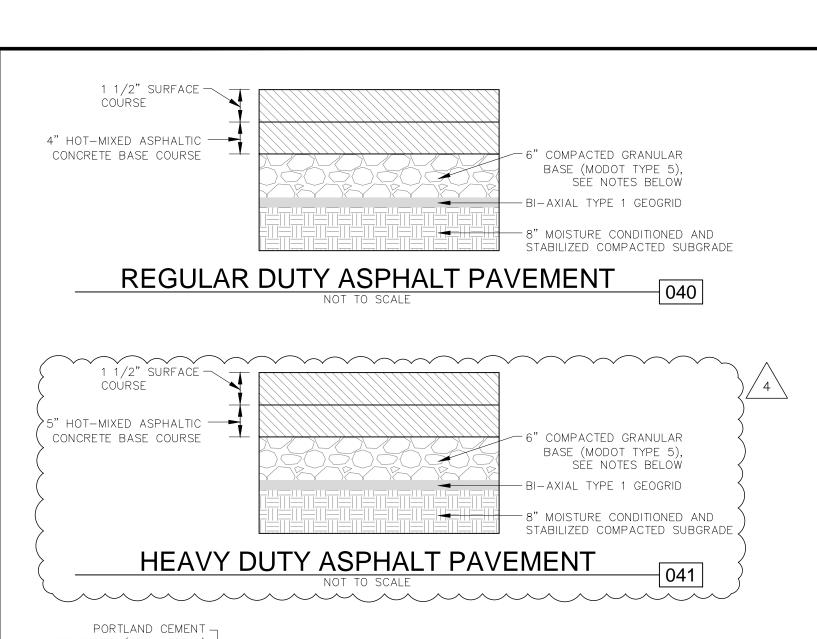
MARTIN T. ARLING ENGINEER MO # 2009002955

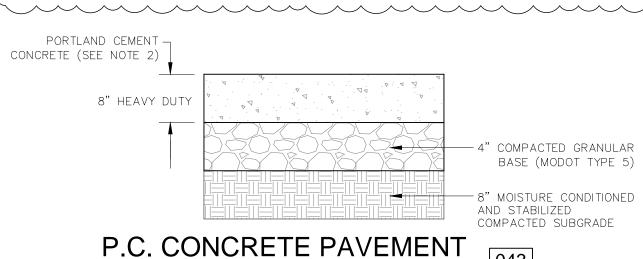
N.E. DOUGLAS SUMMIT, MO. 6 DEVELOR ION COP 7 BR 1410 N LEE'S

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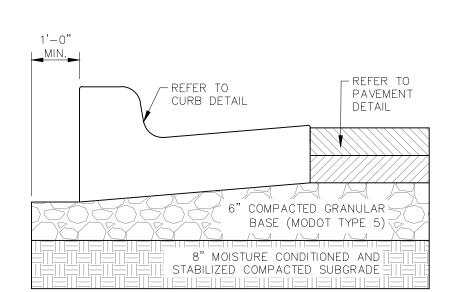
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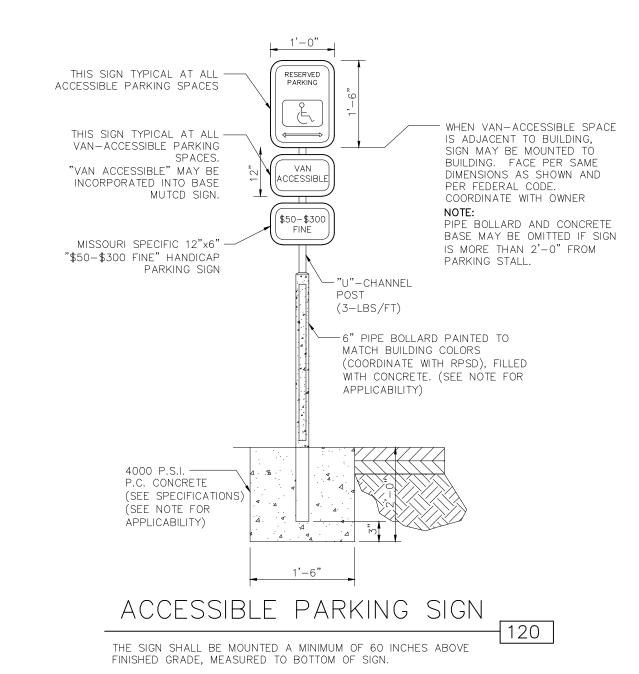


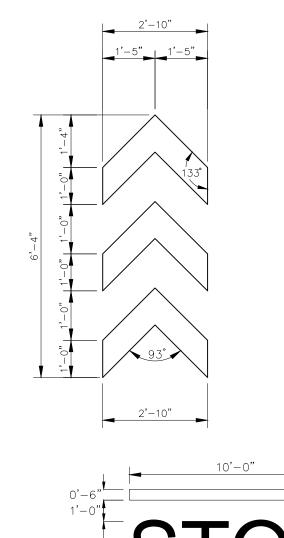
1. FLEXIBLE PAVEMENT SHALL BE IN ACCORDANCE WITH THE LATEST (FEBRUARY 2017) EDITION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SECTION 2200 OR M+E 2021 MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

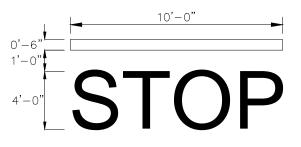
- HOT-MIXED ASPHALT MODOT SP125FEEF OR APWA TYPE 6-01
- 2. PORTLAND CEMENT CONCRETE SHALL BE A KCMMB4K MIX AND SHALL MEET THE LATEST EDITION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SECTION 2200.
- 3. HEAVY DUTY CONCRETE IS AN OPTIONAL PAVEMENT FOR DETAIL 041 HEAVY DUTY ASPHALT. WHEN PLANS SPECIFY DETAIL 042 NO ALTERNATES ARE ALLOWED.
- 4. ASPHALT PAVEMENT MAY BE MODIFIED BY REPLACING GRANULAR BASE WITH AN ADDITIONAL ONE INCH OF HOT-MIXED ASPHALT CONCRETE.
- 5. IF A MARSHALL DESIGNED MIX IS DESIRED, ANY 50-BLOW MARSHALL MIX MAY BE SELECTED MEETING THE AGGREGATE AND GRADATION REQUIREMENTS OF APWA TYPE 2 OR 3, MODOT BP-1 OR 2, OR OTHER LOCALLY PRODUCED MARSHALL MIX THAT IS EQUIVALENT TO KDOT BM-2. ANY SUBMITTED 50-BLOW MARSHALL MIX DESIGN SHOULD ALSO BE CHECKED FOR RESISTANCE TO STRIPPING DURING DESIGN USING AASHTO T 283 TO DETERMINE IF AN ANTISTRIPPING AGENT IS NEEDED FOR THE SAME ASPHALT CONCRETE CHOSEN FOR THE PROJECT. THE INDEX OF RETAINED STRENGTH SHALL EXCEED 75%.











# PAVEMENT MARKINGS 150

- 1. ASPHALT PAVING SURFACES SHALL HAVE BLUE STRIPING WITH THE REMAINING TRAFFIC SYMBOLS/TEXT TO BE WHITE. REFERENCE PAINT
- 2. CONCRETE PAVING SURFACES SHALL HAVE BLUE STRIPING WITH THE REMAINING TRAFFIC SYMBOLS/TEXT TO BE RED. REFERENCE PAINT

ASPHALT PAINT COLORS:

**CONCRETE PAINT COLORS:** 

WHITE- PANTONE 000C BLUE- PANTONE 293

RED- PANTONE 202

BLUE- PANTONE 293

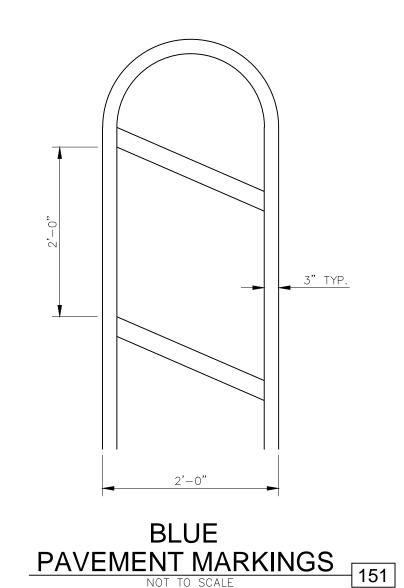
TRAFFIC PAINT TYPE:

SETFAST, HOTLINE OR AN

APPROVED EQUAL.

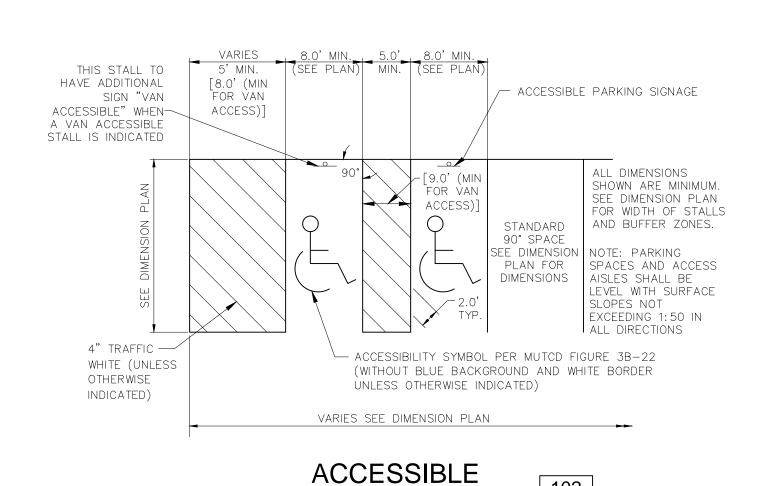
SHERWIN-WILLIAMS PRO PARK,

PMS 000C



NOTES:

1. REFER TO DETAIL 150 FOR BLUE PAINT SPECIFICATIONS.



NOTES:

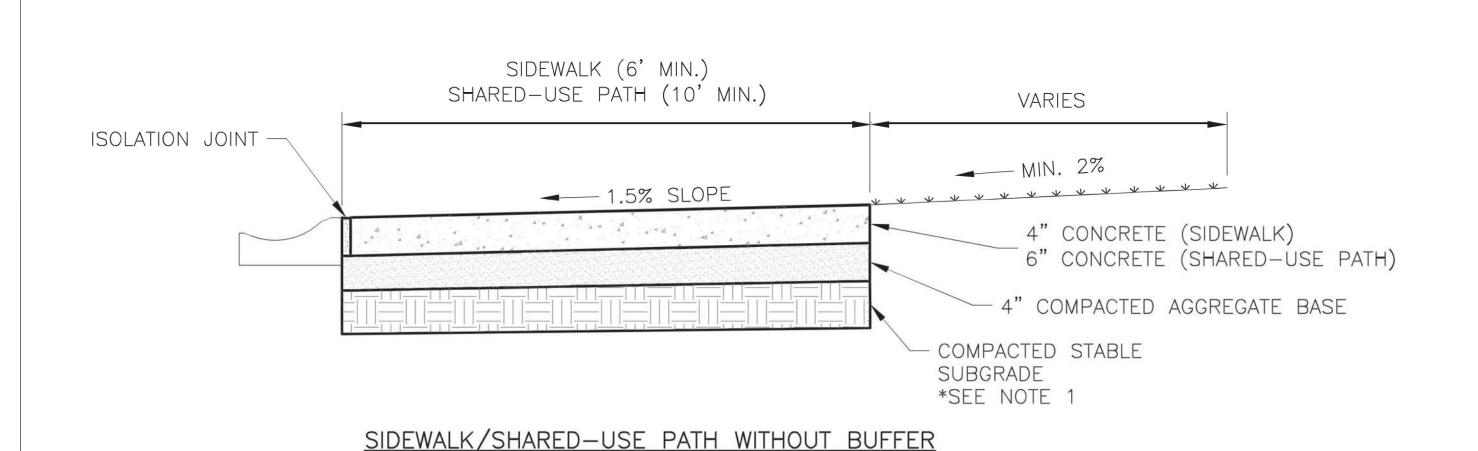
1. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING

2. ALL DIMENSIONS SHOWN ARE MINIMUM. SEE DIMENSION PLAN FOR WIDTH OF STALLS AND BUFFER

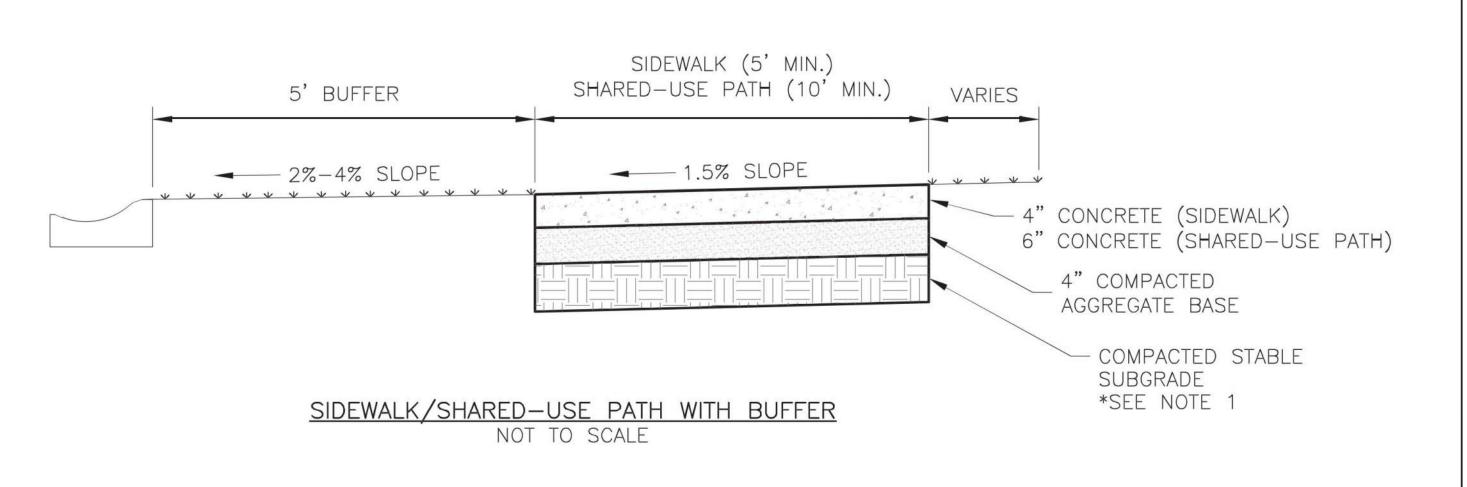
**STRIPING** 

102

3. ADA PARKING SPACES AND ACCESS ISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS.



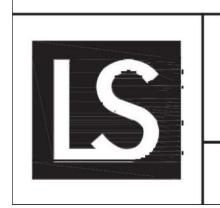
NOT TO SCALE



**CONCRETE SIDEWALK** 130

#### GENERAL NOTES:

- 1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE
- 2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
- 3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS.
- 4. ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES
- 5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 100 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED-USE PATHS, BUT NO GREATER THAN 10 FT.
- 6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
- 7. SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
- 8. SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
- 9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.



# LEE'S SUMMIT MISSOURI

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SIDEWALK/SHARED-USE PATH DETAIL

GEN-2

Date: 05/2021

Drawn By: MJF

Checked By: DL

| MTA JNG                    | MTA JNG                    | MTA JNG                     | MTA JNG            | ARM JNG                | DSN DWI              |  |
|----------------------------|----------------------------|-----------------------------|--------------------|------------------------|----------------------|--|
| 07/05/22 PER CITY COMMENTS | 06/22/22 PER CITY COMMENTS | 05/06/22 PER OWNER COMMENTS | 04/08/22 CHECK SET | 03/02/22 INITIAL ISSUE | REV DATE DESCRIPTION |  |
| 07/05/22                   | 06/22/22                   | 05/06/22                    | 04/08/22           | 03/02/22               | DATE                 |  |
| 4                          | 3                          | 2                           | <u></u>            | 0                      | REV                  |  |
|                            | O                          | min<br>F                    |                    | S.S.O.                 | Manage A             |  |



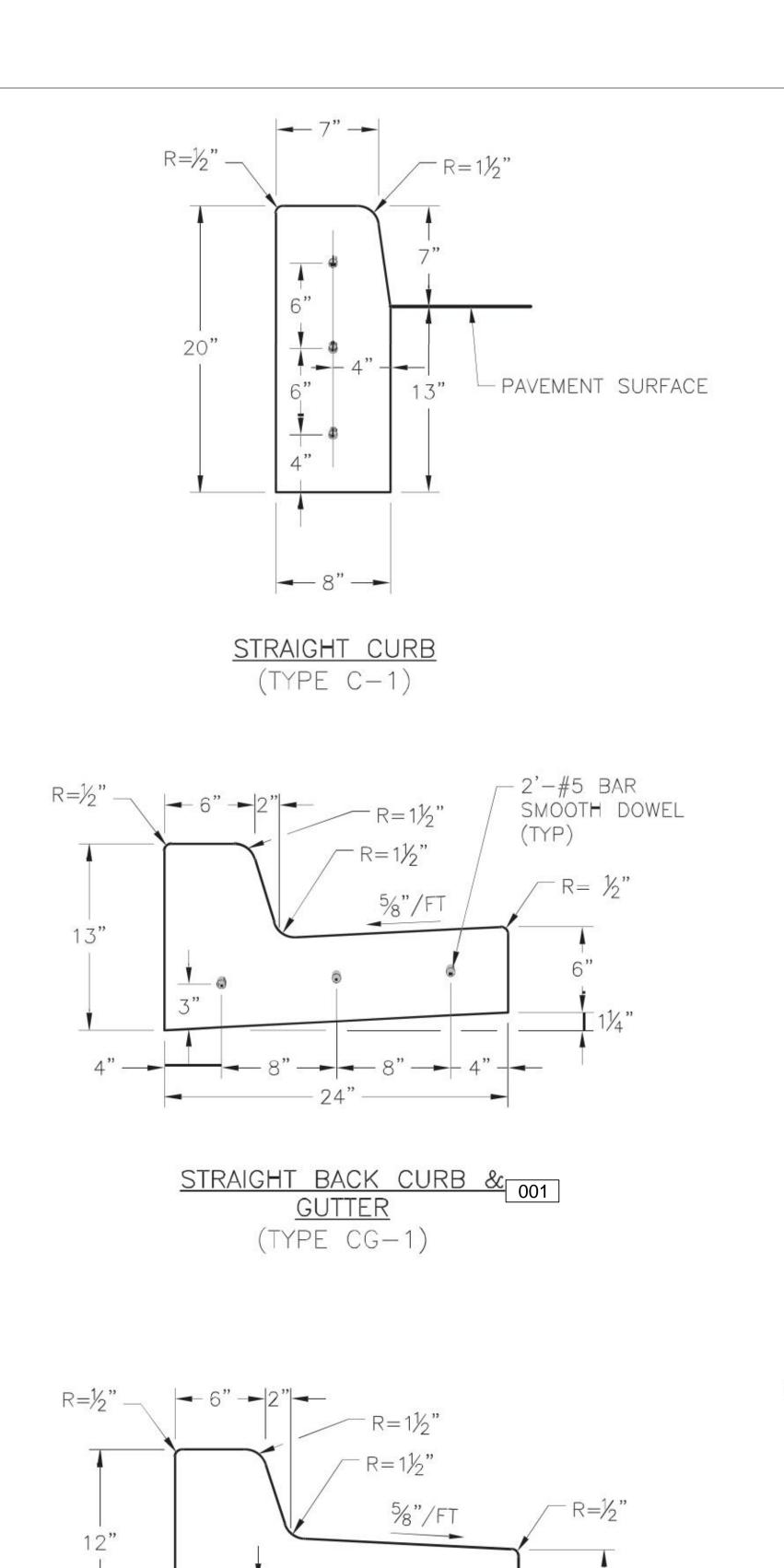
MARTIN T. ARLING ENGINEER MO # 2009002955

GINEERING 台

7 BREW 1410 N.E. DOUGLAS STREET LEE'S SUMMIT, MO. 64086

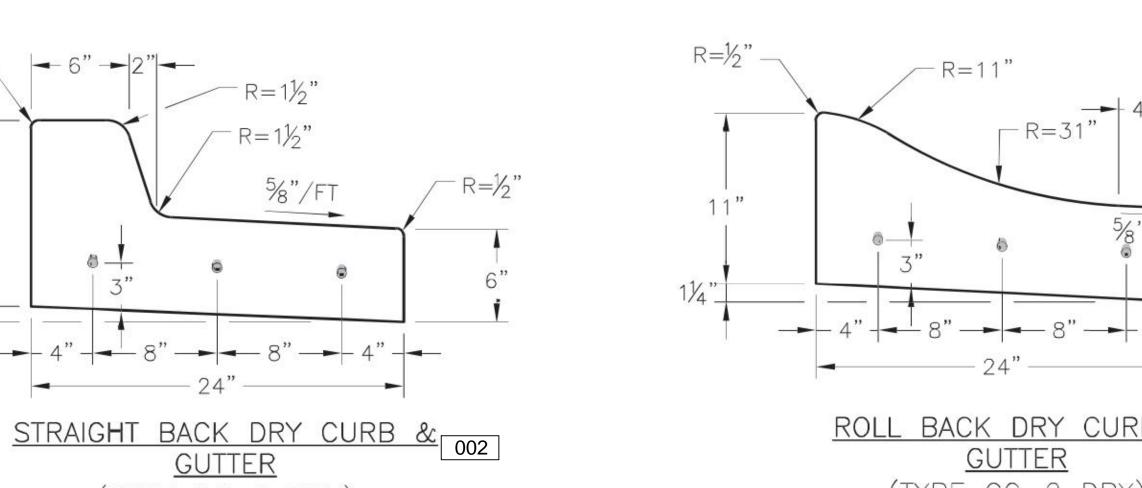
C700

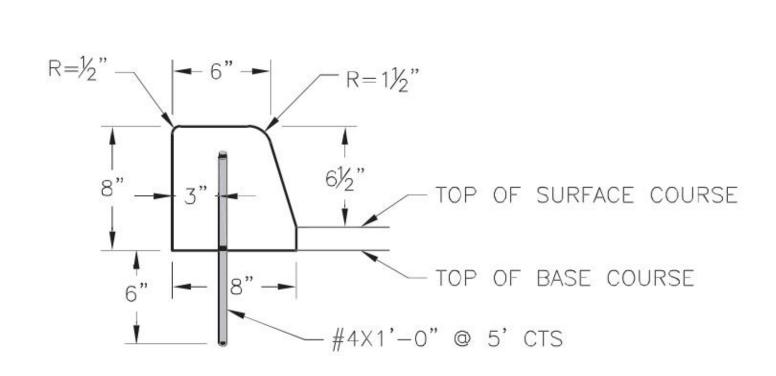
DESIGNER DRAWN E MTA 4397DET



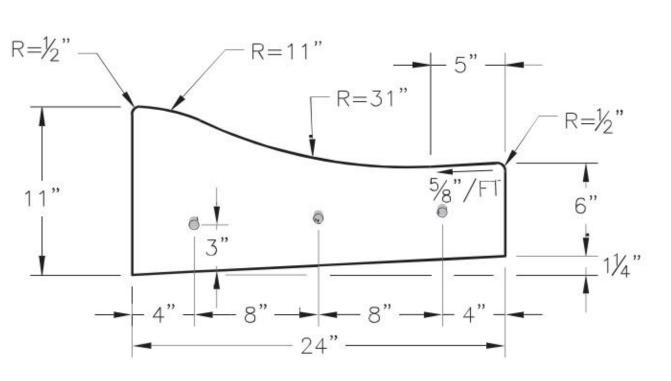
**GUTTER** 

(TYPE CG-1 DRY)

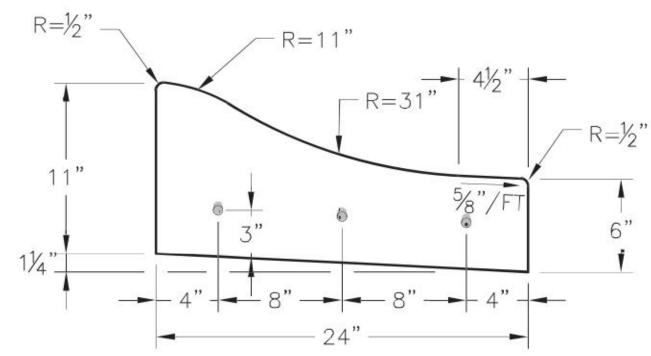




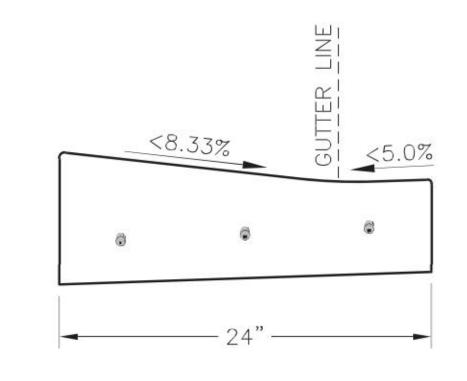
# DOWELLED CURB (TYPE DC)



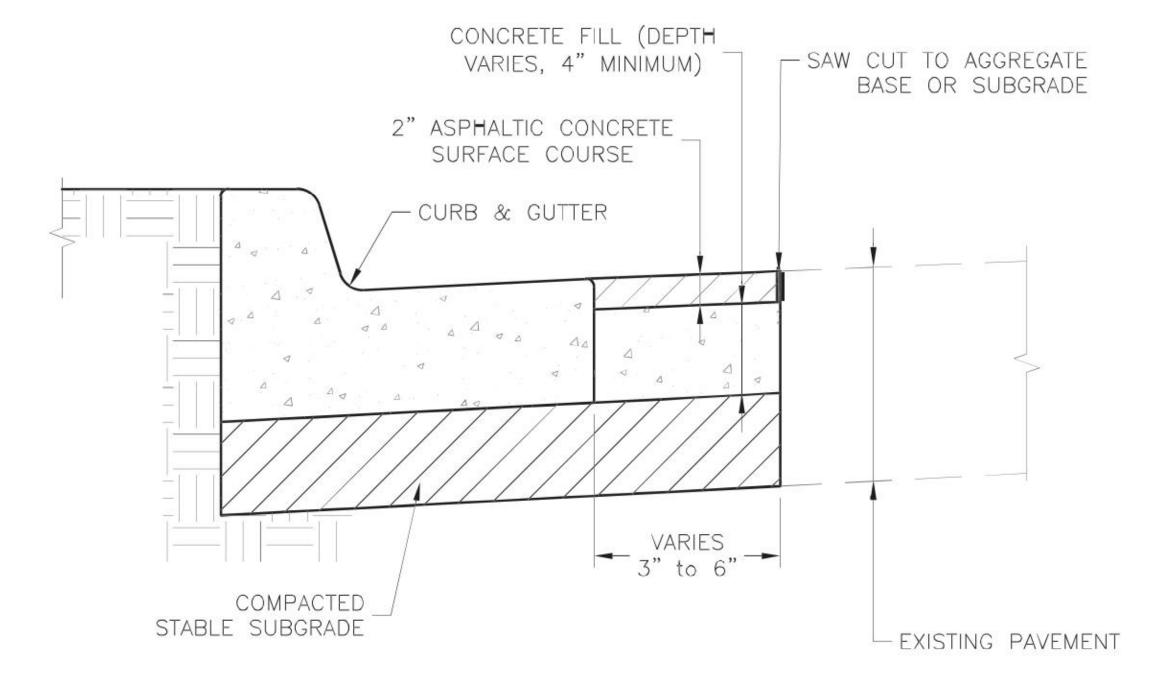
ROLL BACK CURB & **GUTTER** (TYPE CG-2)



ROLL BACK DRY CURB & (TYPE CG-2 DRY)



CURB & GUTTER DETAIL AT RAMP (ADA SLOPE REQUIREMENTS)



#### CURB REPLACEMENT DETAIL

#### GENERAL NOTES

- 1.  $\frac{3}{4}$ " ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- 3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
- 4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
- 5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
- 6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
- 7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
- 8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

50 500 

STANDARD DETAILS CITY OF LEE'S SUMMIT, MO S SUMMIT, JACKSON COUNT

rawn By: MJF

hecked By: DL Date: 05/2021

GEN-4

DETAIL

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CURB

MARTIN T. ARLING ENGINEER

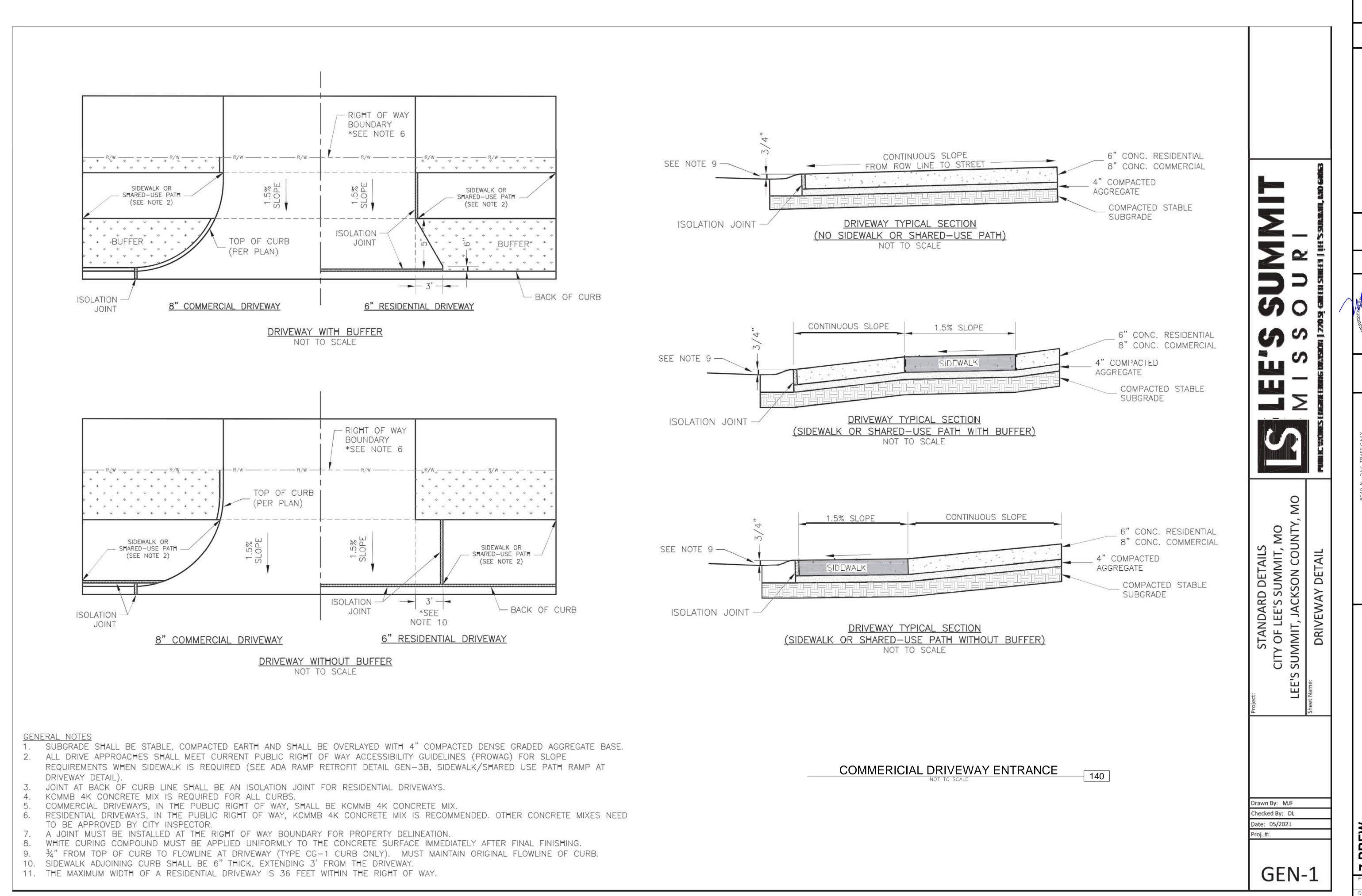
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MO # 2009002955

ENGINEERING

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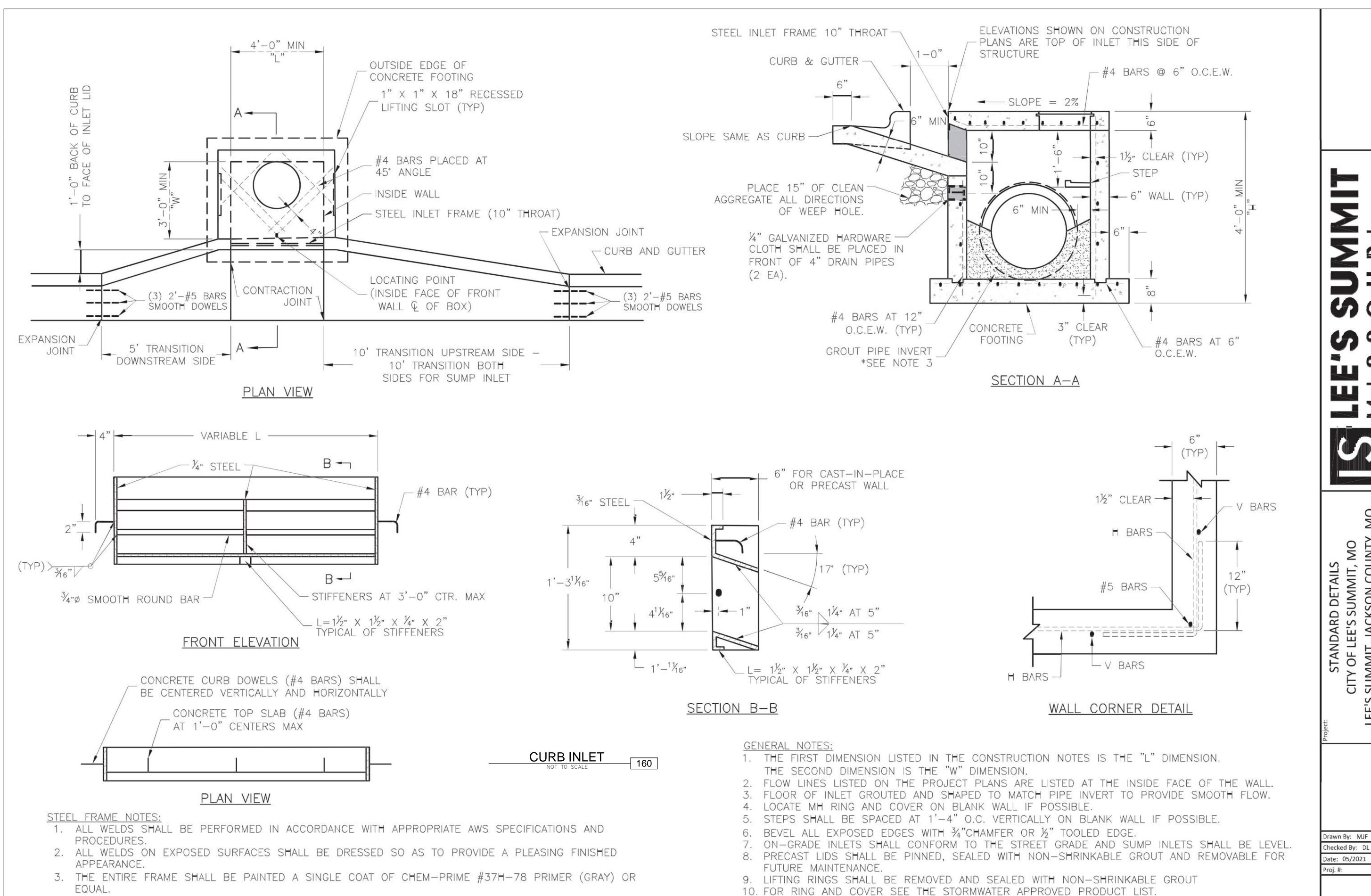
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MARTIN T. ARLING ENGINEER MO # 2009002955 ENGINEERING

7 BREW 1410 N.E. DOUGLAS STREET LEE'S SUMMIT, MO. 64086

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STANDARD DETAILS CITY OF LEE'S SUMMIT, MO S SUMMIT, JACKSON COUNTY, N

MARTIN T. ARLING

ENGINEER

MO # 2009002955

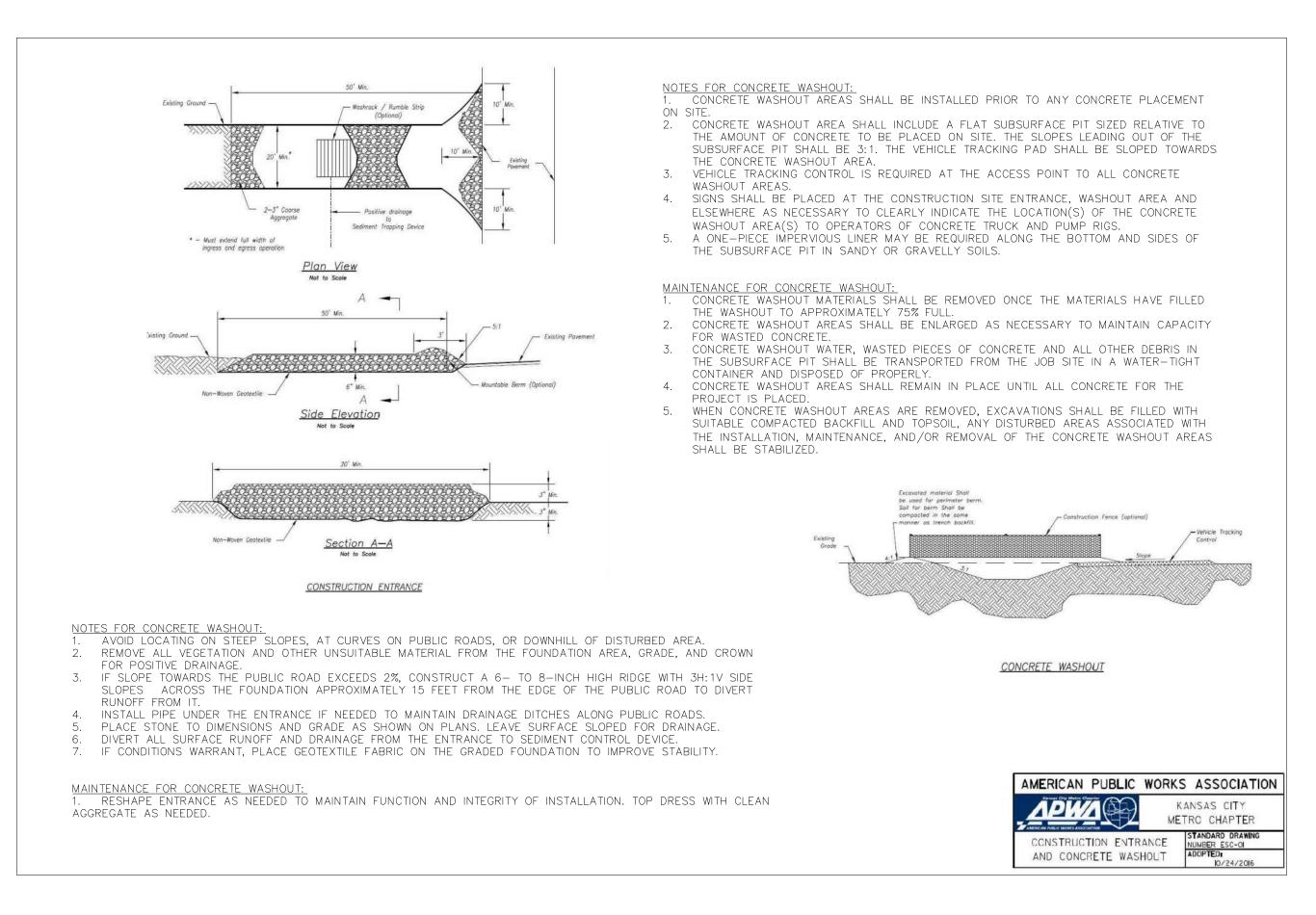
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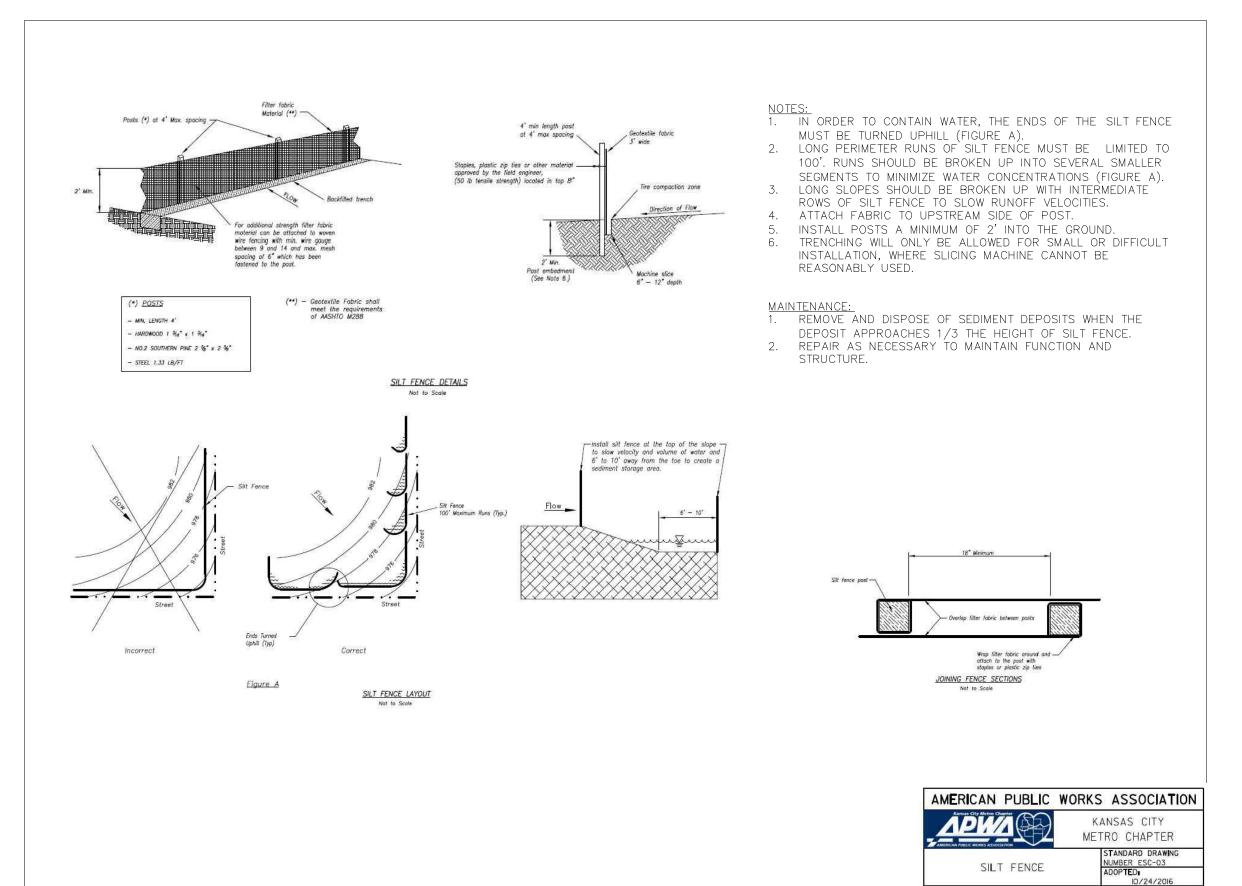
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1410 N.E. DOUGLAS STREET
LEE'S SUMMIT, MO. 64086
FINAL DEVELOPMENT PLAN
DETAIL SHEET

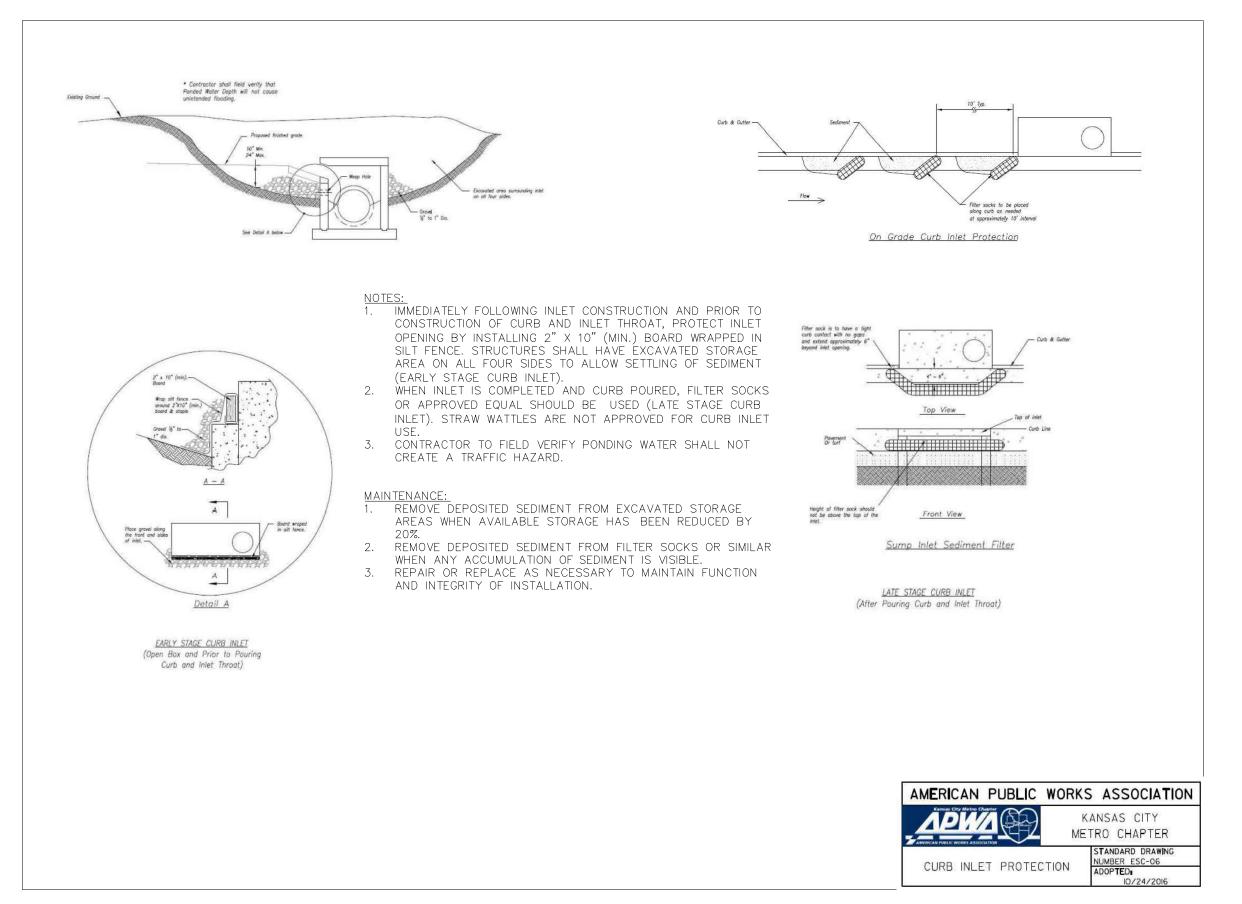
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DESIGNER DRAWN BY МТА 4397DET

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MARTIN T. ARLING ENGINEER MO # 2009002955

ENGINEERING

7 BREW 1410 N.E. DOUGLAS STREET LEE'S SUMMIT, MO. 64086

B21D4397 DESIGNER DRAWN B MTA

THIS DRAWING SHALL NOT BE LITHLIFED BY ANY PERSON FIRM OR CORPORATION IN WHOLF OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING INC

# LANDSCAPING NOTES: LOCATE ALL UTILITIES BEFORE LANDSCAPE CONSTRUCTION BEGINS. 2. NOTIFY OWNER REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES. 8. IF LEANING OCCURS WITHIN ONE YEAR, TREES SHALL BE RE-STAKED (SEE PLANTING DETAILS).

- 3. ALL EXTERIOR GROUND WITHIN THE LIMITS OF THE CONTRACT, EXCEPT FOR SURFACES OCCUPIED BY BUILDINGS, STRUCTURES, PAVING, AND AS DIRECTED ON THE
- DRAWINGS AS UNDISTURBED, SHALL BE FILLED WITH SIX INCHES (6") OF TOPSOIL.
- 4. ALL DISTURBED AREAS NOT DESIGNATED FOR OTHER PLANTING SHALL BE SODDED. SOD SHALL CONSIST OF 90% TURF TYPE TALL FESCUE 10% BLUEGRASS. 5. QUANTITIES INDICATED IN PLANT LIST ARE FOR CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITIES AS ILLUSTRATED ON THE PLAN.
- 6. SHREDDED HARDWOOD MULCH SHALL BE USED AS THREE INCH (3") TOP DRESSING IN ALL PLANT BEDS AND AROUND ALL TREES. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF SAUCER OR LANDSCAPE ISLAND (SEE PLANTING DETAILS).
- 7. FERTILIZE ALL PLANTS AT THE TIME OF PLANTING WITH TIME-RELEASE FERTILIZER (3-4 SLOW-RELEASE TABLETS/PELLETS).
- 9. CONTRACTOR SHALL STAKE ALL PLANT MATERIALS PRIOR TO INSTALLATION FOR THE PURPOSE OF DETERMINING CONFLICTS WITH ROCK, UTILITIES, ETC. NO PLANTS CAN BE PLANTED DIRECTLY ON ROCK OR UTILITIES. NOTIFY ARCHITECT/ENGINEER/OWNER AT ONCE IF ANY CONFLICTS OCCUR. CONTRACTOR WILL BE REQUIRED TO ADJUST PLANT LOCATIONS AT NO ADDITIONAL COST.
- 10. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL SOD UNTIL ROOTS HAVE KNITTED INTO SOIL AND OWNER HAS OCCUPIED THE BUILDING.
- 11. PROVIDE "GATOR" BAGS ON ALL TREES. REFILL AS NECESSARY UNTIL OWNER OCCUPIES THE BUILDING. 12. ALL TREES SHALL BE 3" CALIPER, EVERGREEN TREES SHALL BE 8' TALL AND SHRUBS SHALL BE 18" HEIGHT AT TIME OF PLANTING

#### **IRRIGATION PERFORMANCE SPECIFICATION:**

- THE FOLLOWING CRITERIA SHALL BE CONSIDERED MINIMUM STANDARDS FOR DESIGN AND INSTALLATION OF LANDSCAPE IRRIGATION SYSTEM:

  1. GENERAL IRRIGATION SYSTEM TO INCLUDE DRIP IRRIGATION OF SHRUB BEDS ADJACENT TO BUILDINGS, SPRAY HEADS IN THE PARKING ISLANDS, AND ROTORS AROUND THE PERIMETER OF THE PARKING LOTS. HEADS SHALL THROW AWAY FROM BUILDING AND AVOID SPRAYING OVER SIDEWALKS.
- IRRIGATION SYSTEM SHALL CONFORM TO ALL INDUSTRY STANDARDS AND ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING DESIGN AND INSTALLATION.
- WATER LINE TYPE, SIZE LOCATION, PRESSURE AND FLOW SHALL BE FIELD VERIFIED PRIOR TO SYSTEM DESIGN AND INSTALLATION.
- ALL MATERIALS SHALL BE FROM NEW STOCK FREE OF DEFECTS AND CARRY A MINIMUM ONE YEAR WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION. 5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED IN SUCH A WAY THAT ALL SYSTEM COMPONENTS OPERATE WITHIN THE GUIDELINES ESTABLISHED BY THE MANUFACTURER.
- LAWN AREA AND SHRUB BEDS SHALL BE ON SEPARATE CIRCUITS.
- PROVIDE WATER TAP, METER SET, METER VAULT AND ALL OTHER OPERATIONS NECESSARY TO PROVIDE WATER FOR IRRIGATION SHALL CONFORM TO LOCAL WATER GOVERNING AUTHORITY GUIDELINES AND STANDARDS. BACKFLOW PREVENTION SHALL BE PROVIDED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- IRRIGATION CONTROLLER TO BE LOCATED IN UTILITY ROOM INSIDE BUILDING, AS IDENTIFIED BY OWNER.
- 10. IRRIGATION CONTROLLER STATIONS SHALL BE LABELED TO CORRESPOND WITH THE CIRCUIT IT CONTROLS. CONTRACTOR SHALL PROVIDE TO THE OWNER WRITTEN OPERATION INFORMATION FOR ALL SYSTEM COMPONENTS.
- 12. CONTRACTOR SHALL PROVIDE TO THE OWNER ALL KEYS, ACCESS TOOLS, WRENCHES AND ADJUSTING TOOLS NECESSARY TO GAIN ACCESS, ADJUST AND CONTROL
- 13. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. 14. AN AUTOMATIC RAIN SHUT-OFF OR MOISTURE DEVICE SHALL BE INSTALLED.
- 15. INSTALL SCHEDULE 40 PVC SLEEVES UNDER ALL CURBS, PAVING AND SIDEWALKS. SLEEVES TO BE TWICE THE SIZE OF THE LINE IT HOUSES. 16. INSTALL MANUAL DRAIN VALVES AT LOWEST POSSIBLE ELEVATION ON IRRIGATION MAIN TO ALLOW GRAVITY DRAINING OF MAIN DURING WINTER MONTHS. PROVIDE
- QUICK COUPLERS AT MULTIPLE LOCATIONS TO ALLOW FOR EASY "BLOWING OUT" OF LATERAL AND MAIN LINES. 17. ZONES OR NOZZLES SHALL BE DESIGNED WITH MATCHED PRECIPITATION RATES.
- 18. MINIMUM LATERAL DEPTH IS 15" AND MAIN DEPTH IS 18". 19. SUBMIT DESIGN DRAWING WITH BID TO ALLOW OWNER TO EVALUATE SYSTEM. INCLUDE CUT SHEETS OF ALL COMPONENTS AND ZONE TABLE ILLUSTRATING FLOWS
- AND ANTICIPATED PRESSURE AT FURTHEST HEAD. 20. AN "AS-BUILT" SCALED DRAWING SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR AND SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- AS CONSTRUCTED LOCATION OF ALL COMPONENTS COMPONENT NAME, MANUFACTURER, MODEL INFORMATION, SIZE AND QUANTITY
- PIPE SIZE AND QUANTITY
- INDICATION OF SPRINKLER HEAD SPRAY PATTERN
- CIRCUIT IDENTIFICATION SYSTEM

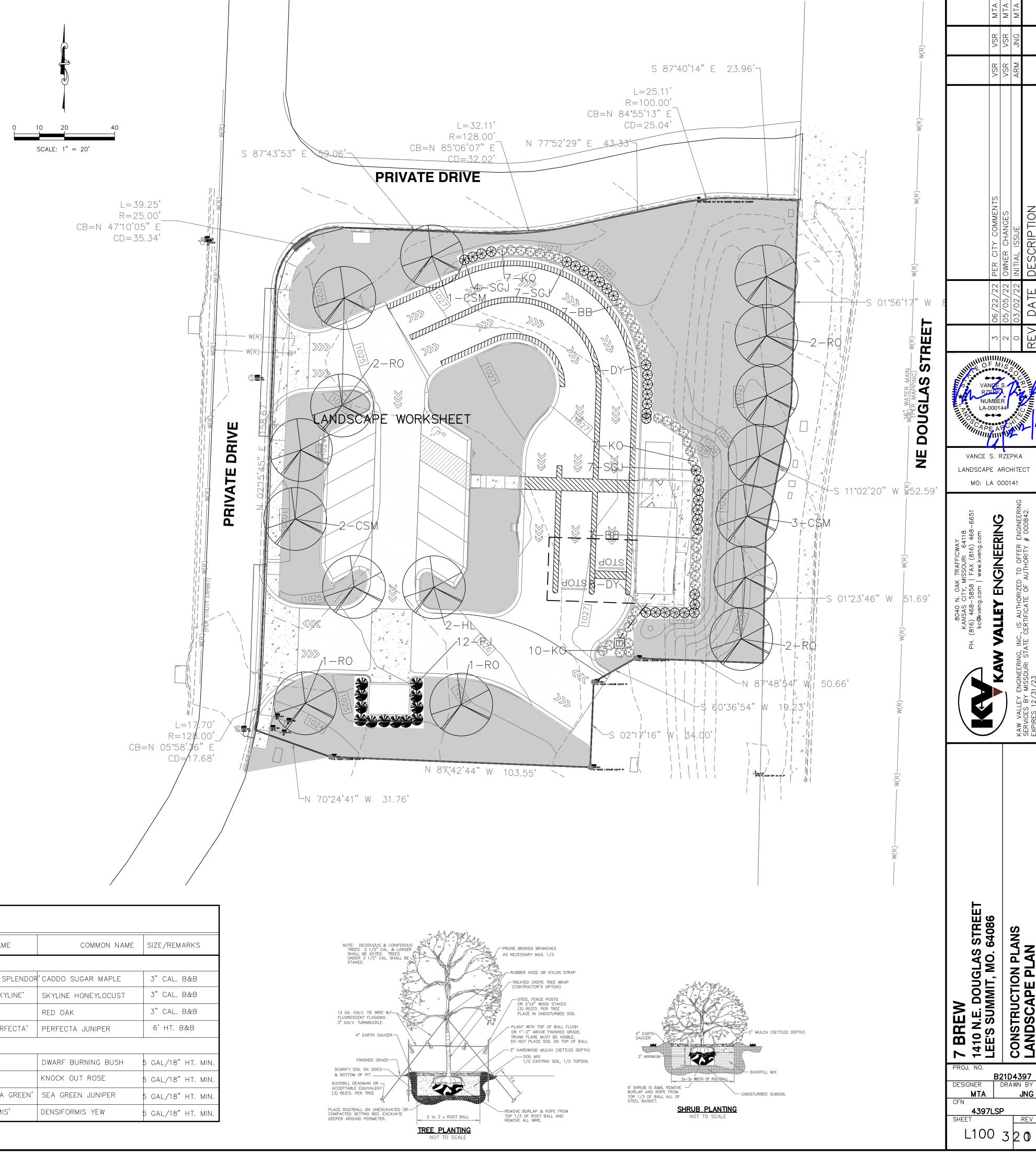
 DETAILED METHOD OF WINTERIZING SYSTEM SUBMIT AS-BUILT DRAWING IN FULL SIZE DRAWING FORM AS WELL AS PDF ELECTRONIC FORMAT. (SCANNING FULL SIZE COPY OF PLAN IS ACCEPTABLE IF IT CAN BE PRINTED TO SCALE)

#### LANDSCAPE WORKSHEET

| LANDSCAPE WOR                                          | KKSHELI                                                                                     |                                                          |          |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------|----------|
|                                                        | ORDINANCE<br>REQUIREMENT                                                                    | REQUIRED FOR<br>THIS SITE                                | PROPOSED |
| 8.790.A.1 Street Frontage<br>Trees (NE Douglas)        | 1 tree per 30 feet of street frontage                                                       | 186 ft. of street frontage /30 = 7 trees required        | 7 trees  |
| 8.790.A.2 Street Frontage<br>Green Strip (NE Douglas.) | 20 feet                                                                                     | 20 feet                                                  | 20 feet  |
| 8.790.A.3 Street Frontage<br>Shrubs (NE Douglas)       | 1 shrub per 20 feet of street frontage                                                      | 186 ft. of street frontage/20 = 10 shrubs required       | *        |
| 8.790.B.1 Open Yard<br>Shrubs                          | 2 shrubs per 5000 sq. ft. of total lot area excluding building footprint.                   | 15,394 sq.ft. of landscape area/5,000 x 2 = 6.16 shrubs. | *        |
| 8.790.B.3 Open Yard<br>Trees (LOTS 1-13)               | 1 tree per 5000 sq. ft. of landscaped open space                                            | 18,908 sq.ft. of landscape area/5,000 = 3.76 trees.      | 4 trees  |
| 8.820 Parking Lot Screening,<br>NE Douglas             | Screening to a height of 2.5 feet along the edge of the parking lot adjacent to the street. | Continuous shrubs along parking stalls.                  | SEE PLAN |

\* SHRUBS ARE SATISFIED WITH PARKING LOT SCREENING REQUIREMENTS.

| PLA   | ΙNΤ    | SCHEDULE                         |                     |                    |
|-------|--------|----------------------------------|---------------------|--------------------|
| KEY   | QTY.   | BOTANICAL NAME                   | COMMON NAME         | SIZE/REMARKS       |
| TREES |        |                                  |                     |                    |
| CSM   | 6      | ACER SACHARUM 'AUTUMN SPLENDOF   | 'CADDO SUGAR MAPLE  | 3" CAL. B&B        |
| HL    | 2      | GLEDITISA TRIACANTHOS 'SKYLINE'  | SKYLINE HONEYLOCUST | 3" CAL. B&B        |
| RO    | 8      | QUERCUS RUBRA                    | RED OAK             | 3" CAL. B&B        |
| PJ    | 12     | JUNIPEROUS CHINENSIS 'PERFECTA'  | PERFECTA JUNIPER    | 6' HT. B&B         |
| SHRUB | s/gras | SES/GROUNDCOVER                  |                     |                    |
| BB    | 14     | EUONYMUS ALATUS                  | DWARF BURNING BUSH  | 5 GAL/18" HT. MIN. |
| KO    | 24     | ROSA KNOCKOUT RADRAZZ            | KNOCK OUT ROSE      | 5 GAL/18" HT. MIN. |
| SGJ   | 18     | JUNIPEROUS CHINENSIS 'SEA GREEN' | SEA GREEN JUNIPER   | 5 GAL/18" HT. MIN. |
| DV    | 14     | TAXUS x MEDIA 'DENSIFORMIS'      | DENSIFORMIS YEW     | 5 GAL/18" HT. MIN. |



#### **COLD-FORMED STEEL NOTES**

PRODUCT IDENTIFICATION

THE AMERICAN IRON AND STEEL INSTITUTE STANDARDS ARE USED IN THIS PACKAGE. ANY MANUFACTURER WHOSE PRODUCT GEOMETRIES MEETS OR EXCEED AISI STANDARDS ARE ACCEPTABLE

THE LAST TWO NUMBERS INDICATE THE STEEL THICKNESS

COLD-FORMED STEEL FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH AISI STANDARD FOR COLD-FORMED STEEL FRAMING -GENERAL PROVISIONS

WELDING OF COLD-FORMED STEEL SHALL BE IN ACCORDANCE WITH THE STANDARD CODE OF ARC AND GAS WELDING IN BUILDING CONSTRUCTION. AXIALLY LOADED STUDS SHALL BE POSITIONED DIRECTLY UNDER JOIST BEARING POINTS WHENEVER

STUDS SHALL NOT BE SPLICED PROVIDE MANUFACTURER'S STANDARD BRIDGING AS NOTED ON STUD TABLES (4' MAX U.N.O.).

POSSIBLE

PROVIDE DOUBLE STUDS, MINIMUM, AT ALL PARTITION ENDS, EACH SIDE OF OPENINGS, AND WHERE INDICATED ON DRAWINGS.

ALL NON LOAD-BEARING WALLS. MINIMUM TRACK SIZE SHALL MATCH STUD SIZE U.N.O. SEE STANDARD LIGHT GAGE DETAILS AND STUD CHARTS FOR ADDITIONAL INFORMATION. ALIGN WEB PUNCHOUTS IN STUD WALLS. WEB

PUNCHOUTS MUST BE LOCATED A MINIMUM OF 10" AWAY FROM THE STUD END. MINIMUM YIELD STRENGTH FOR 18 AND 20 GA COLD-FORMED MEMBERS SHALL BE 33 KSI. MINIMUM YIELD

STRENGTH FOR 16 GA AND HEAVIER COLD-FORMED MEMBERS SHALL BE 50 KSL HEADERS AND BUILT-UP BEAMS SHALL BE FORMED FROM UNPUNCHED MEMBERS.

STUDS SHALL NOT BE NOTCHED, SPLICED, OR COPED WITHOUT WRITTEN APPROVAL OF ENGINEER. CUTTING OF STUDS SHALL BE DONE BY SAWING, SHEARING, OR PLASMA CUTTING. OTHER METHODS

OF CUTTING ARE NOT PERMITTED WITHOUT

APPROVAL OF ENGINEER.

SEE SPECIFICATIONS FOR ADDITIONAL STRUCTURAL COLD-FORMED FRAMING REQUIREMENTS. SEE SPECIFICATION SECTION 09260 FOR ADDITIONAL REQUIREMENTS FOR COLD-FORMED DRYWALL COMPONENTS. ALL MATERIALS AND WORK SHALL CONFORM TO THE CODE LISTED IN THESE DRAWINGS THESE NOTES GIVE MINIMUM REQUIREMENTS WHERE CONFLICTS ARISE BETWEEN THE CODE, THE DRAWINGS, AND THE STRUCTURAL NOTES, THE MORE STRINGENT REQUIREMENT SHALL CONTROL

#### ADDITIONAL COLD-FORMED STEEL NOTES

CONTRACTOR SHALL PROVIDE LIGHT GAGE FRAMING SHOP DRAWING SUBMITTAL SUBMITTAL SHAL INCLUDE LIGHT GAGE FRAMING PLANS, DETAILS, SECTIONS AND ACCESSORIES.

LIMIT STUD/HEADER DEFLECTIONS TO L/600 FOR MEMBERS SUPPORTING BRICK VENEER AND L/360 FOR ALL OTHERS. SUBMITTAL SHALL INCLUDE INTERIOR AND EXTERIOR

STUDS AND CEILING/SOFFIT MEMBERS. COOR'D DEFLECTION TRACK AT NON-LOADING BEARING WALLS AND FIREPROOFING REQUIREMENTS W/ ARCH. TRACK (OR CLIPS) SHALL ALLOW 3/4" VERTICAL MOVEMENT UP OR DOWN. PROVIDE DEFLECTION CLIPS AT TOP OF ALL

EXTERIOR NON-LOAD BEARING JAMB MEMBERS PUNCHOUTS SHALL ALIGN AND SHALL NOT BE LOCATED WITHIN 10" OF BASE.

# STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED FOR THIS STRUCTURE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE FOR THE ITEMS NOTED IN THE TABLE ON THIS SHEET. TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY RETAINED BY THE OWNER AND APPROVED BY THE ENGINEER.

A LETTER OF SUBSTANTIAL COMPLETION SHALL BE SUBMITTED TO THE BUILDING DEPARTMENT BY THE SPECIAL INSPECTION PROVIDER PRIOR TO THE FINAL INSPECTION.

| IBC | CTABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS                                     |            |        |
|-----|-------------------------------------------------------------------------------------------------|------------|--------|
| VE  | RIFICATION AND INSPECTION TASK                                                                  | CONTINUOUS | PERIOD |
| 1.  | VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY. | _          | х      |
| 2.  | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.               | _          | Х      |

| 1. | VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.                   | _ | X |
|----|-------------------------------------------------------------------------------------------------------------------|---|---|
| 2. | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.                                 | _ | х |
| 3. | PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.                                                   | _ | × |
| 4. | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. | Х | _ |
| 5. | PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.           | _ | Х |

#### ARCH= ARCHITECTURE/ARCHITECT ASTM= AMERICAN SOCIETY FOR TESTING AND MATERIALS A W = AFTER WEI DING AWS= AMERICAN WELDING SOCIETY BAR= REBAR B.O.= BOTTOM OF B.O.A.= BACK OF ANGLE B.O.F. = BOTTOM OF FOOTING 3. B.O.S.= BOTTOM OF STEEL BRG= BEARING BTM= BOTTOM . CANT= CANTILEVERED C.I.P.= CAST-IN-PLACE . C.J.P.= COMPLETE JOINT PENETRATION WELD CENTERLINE 9. CL= . CLR= CLEAR 1. CMU= CONCRETE MASONRY UNIT . COL= COLUMN . CONC= CONCRETE CONN= CONNECTION 5 CONT = CONTINUOUS b. D.B.= DECK BEARING D.B.A.= DEFORMED BAR ANCHOR 8. D.E.= DECK EDGE 9. DIA= DIAMETER 0. DL= DEAD LOAD DTL= **DETAIL** 2. DWG= **DRAWING EXISTING** 6. E.F.= **EACH FACE ELEVATION** 6. EL= EXPANDED POLYSTYRENE . EPS= 38. EQ= EQUAL 39. E.W.= EACH WAY 10. EXT= FXTFRIOR CONCRETE COMPRESSIVE STRENGTH 12 FF= FINISHED FLOOR 3. FND= FOUNDATION 44. F.O.W.= FACE OF WALL 45. F.S.= FAR SIDE 46. FTG= FOOTING 47. F.V.= FIELD VERIFY 8. GA= GAGE / GAUGE 19. GALV= GALVANIZED . G.B.= GRADE BEAM . G.C.= GENERAL CONTRACTOR 2. (H)= 3. H&L= HIGH & LOW 4. H.A.S.= HEADED ANCHOR STUD HORIZ= HORIZONTAL 6. IBC= INTERNATIONAL BUILDING CODE 7 ID= INSIDE DIAMETER 8. INFO= INFORMATION 9. INT= INTERIOR 0. J.B.= JOIST BEARING 31. J.B.E.= JOIST BEARING ELEVATION 2. KIP= 1000 POUNDS 33. KSI= KIPS PER SQUARE INCH 64. (L)= LENGTH 7. LGSF= LIGHT-GAGE STEEL FRAMING 68. LL= LIVE LOAD 69. LLH= LONG LEG HORIZONTAL O. LLV= LONG LEG VERTICAL LONG= LONGITUDINAL 2. L.P.= LAYOUT POINT 3. LVL= LAMINATED VENEER LUMBER 4. LW= LIGHTWEIG 5. MAX= MAXIMUM LIGHTWFIGHT MECH= MECHANICAL MEP= MECHANICAL, ELECTRICAL, PLUMBING 8. MFR= MANUFACTURER 9. MIL= THOUSANDS OF AN INCH O. MIN= MINIMUM 1. MISC= MISCELLANEOUS 2. MTL= METAL 33. N.I.C.= NOT IN CONTRACT 4. N.S.= NEAR SIDE 35. N.T.S.= NOT TO SCALE 6. N.W.= NORMAL WEIGHT . O.C.= ON CENTER 8 OD = OUTSIDE DIAMETER 89. OPP= OPPOSITE / OPPOSITE HAND ) PAF= POWDER ACTUATED FASTENER 1 P C F = POUNDS PFR CUBIC FOOT 22. PEMB= PRE-ENGINEERED METAL BUILDING 93. PLF= POUNDS PER LINEAR FOOT PRESERVATIVE PRESSURE TREATED 5. PSF= POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH 6. PSI= 7. PT= POST TENSIONED 8. REINF= REINFORCING 9. REQ= REQUIRE 100. RTU= ROOF TOP UNIT 101. S.C.= SLIP CRITICAL 102. SCH= SCHEDULE STEEL DECK INSTITUTE 103. SDI= 104. SIM= SIMILAR STEEL JOIST INSTITUTE 105. SJI= SNOW LOAD 106 SI = 107. S.O.G.= SLAB ON GRADE 108. SPECS= SPECIFICATIONS 109. STD= STANDARD 110. STL= STEEL **THICKNESS** 112. T&B= TOP AND BOTTOM 113. T.O.= TOP OF 114. T.O.F.= TOP OF FOOTING 115. T.O.P.= TOP OF PEDESTAL 116. T.O.S.= TOP OF STEEL 117. T.O.W.= TOP OF WALL 118. TYP= TYPICAL 119. UL= ULTIMATE LOAD 120. U.N.O.= UNLESS NOTED OTHERWISE 121. VERT= VERTICAL 122. VLD= VERTICAL LEG DOWN 123 W= WIDTH 124 WI = WIND I OAD

ABBREVIATIONS

A.B.= ANCHOR BOLT

AMERICAN CONCRETE INSTITUTE

AISI= AMERICAN IRON AND STEEL INSTITUTE

AISC= AMERICAN INSTITUTE OF STEEL CONSTRUCTION

CONCRETE NOTES

SLUMP:

SI UMP:

A615 GRADE 60

REINFORCING.

WITH ADHESIVES, ETC.

SHALL INCLUDE:

AIR CONTENT

SLUMP

ASTM C260.

SHALL BE AS FOLLOWS:

HORIZONTAL APPLICATIONS

AIR-ENTRAINMENT:

INTERIOR SLABS ON GRADE SHALL BE AS FOLLOWS:

MAXIMUM WATER TO CEMENT RATIO: 0.52

RETAINING WALLS, BASEMENT WALLS, AND EXTERIOR

• 28-DAY COMPRESSIVE STRENGTH: 4000 PSI

AIR-ENTRAINING ADMIXTURE SHALL CONFORM TO

MAXIMUM WATER TO CEMENT RATIO: 0.45

CONCRETE FOR ELEVATED SLABS ON METAL DECK

• 28-DAY COMPRESSIVE STRENGTH: 4000 PSI

MAXIMUM WATER TO CEMENT RATIO: 0.45

NO LIME SAND FINE AGGREGATE MAY BE USED IN

ALL REINFORCING STEEL SHALL CONFORM TO ASTM

CONCRETE EXPOSED TO WEATHER, VIEW, OR IN

APPROVED MEANS TO PROPERLY LOCATE

IF ADDITIONAL FLOWABILITY IS REQUIRED FOR

PLACEMENT OF ANY CONCRETE MIX, A WATER-

WATER MAY BE ADDED TO THE MIX AT THE SITE.

SLUMP FOR CONCRETE CONTAINING WATER-

IS ADDED TO CONCRETE WITH A 2"-4" SLUMP.

REDUCING OR HIGH-RANGE WATER-REDUCING

TYPE A, D, E OR F SHALL BE USED. NO ADDITIONAL

ADMIXTURE SHALL NOT EXCEED 8" AFTER ADMIXTURE

INTERIOR SLABS SHALL HAVE SMOOTH TROWELED

FINISH AND EXTERIOR SLABS SHALL HAVE LIGHT

CURING COMPOUND COMPLYING WITH ASTM C309

APPLIED TO SURFACE. EXCEPTIONS ARE WHERE

FLOOR FINISHES REQUIRE SCRATCH FINISH AND

WHERE CURING COMPOUNDS ARE NOT COMPATIBLE

CONTRACTOR SHALL COORDINATE ALL CONCRETE

SEALERS, CURING COMPOUNDS, ETC TO ENSURE

COMPATIBILITY WITH FLOORING ADHESIVES FOR

FLOORING INDICATED IN THE FLOOR PLANS AND

TESTING OF FRESH CONCRETE SHALL BE DONE BY A

QUALIFIED TESTING LABORATORY RETAINED BY THE

OWNER AND APPROVED BY THE ENGINEER. TESTING

NOTE ANY WATER OR ADMIXTURES ADDED ON-

SLUMP AND ONE AIR CONTENT TEST FOR EACH DAYS

POUR AND ADDITIONAL TESTS WHEN THE CONCRETE

CONSISTENCY SEEMS TO HAVE CHANGED IN THE

C173 AND C231. PERFORM TEMPERATURE TESTS

ONE TEMPERATURE TEST FOR EACH SET OF

ASTM C1064 PERFORM ONE COMPRESSIVE-

THAN THE FIRST 25 CUBIC YARD. TEST ONE

CONCRETE FOR GROUTING MASONRY UNITS IS

PROVIDE CONTINUITY OF HORIZONTAL STEEL

PROVIDE A MINIMUM OF 3" COVER FOR ANCHOR

AND ALL PERMANENT BRACING ELEMENTS ARE

CONSTRUCTION JOINTS IN SLABS ON GRADE AT

APPROXIMATELY 50 FEET IN EACH DIRECTION.

APPROXIMATELY 10 FEET ON CENTER IN EACH

PROVIDE CONTROL JOINTS IN SLABS ON GRADE AT

DIRECTION. JOINTS SHALL FORM NEARLY SQUARE

SHAPES. CONTRACTOR SHALL COORDINATE JOINT

WHERE DOWELS, BOLTS OR INSERTS ARE CALLED TO

CONCRETE ELEMENTS USING EPOXY ADHESIVES, USE

INJECTION ADHESIVE. FOLLOW ALL MANUFACTURERS

ANCHORAGE SYSTEM EQUAL TO "HILT!" HIT RF 500

LOCATIONS WITH TILE LAYOUT AS SHOWN IN THE

FLOOR PLANS AND FLOOR FINISH PLANS AS

BE ANCHORED TO CAST IN PLACE OR PRECAST

RECOMMENDATIONS. ALTERNATE ANCHORAGE

AS CONCRETE IS ABLE TO BE SAWN WITHOUT

SAWN JOINTS. IF LARGE AREAS OF SLAB ARE

POURED AT ONE TIME, SEVERAL SAWS MAY BE

CRITICAL. REFER TO ACI MANUAL OF CONCRETE

PRACTICE FOR PROPER JOINTING TECHNIQUES.

DETAILING, MATERIALS AND INSTALLATION OF

COMPLETE INFORMATION REQUIRED FOR

SHALL NOT BE LEFT OVERNIGHT, OR ANY

PULLING OUT AGGREGATE FROM FLOOR. SLABS

SYSTEMS MAY BE USED WITH ENGINEER'S PRIOR

SAWN CONTROL JOINTS SHALL BE PLACED AS SOON

REASONABLE AMOUNT OF TIME, WITHOUT SAWING

REQUIRED TO PROVIDE JOINTS IN TIME TO PREVENT

SHRINKAGE CRACKING. PROPER JOINTING OF SLAB IS

CONCRETE REINFORCING STEEL SHALL MEET REQ. AS

SET FORTH BY CRSI AND THE AMERICAN CONCRETE

INSTITUTE AND THE APPLICABLE BUILDING CODE. SHOP DRAWINGS SHALL BE SUBMITTED INDICATING

CONSTRUCTION OF THE REINFORCED CONCRETE

REINFORCEMENT DETAILS, CONNECTION DETAILS,

TO ACI 301, WHEN PLACING CONCRETE IN COLD

WHEN PLACING CONCRETE IN HOT WEATHER, REFER

ELEMENTS. SHOP DRAWINGS SHALL INCLUDE

LAYOUT AND DIMENSIONS OF REINFORCING

INCLUDING ANY OPENINGS, CONVENTIONAL

PROCEDURES AND SEQUENCES ETC.

WEATHER, REFER TO ACI 306.1.

JOINTS. WEATHER IS CRITICAL TO SCHEDULE OF

. UNLESS NOTED OTHERWISE, PROVIDE

**BOLTS AND LOCATE HORIZONTAL REINFORCEMENT** 

TO THE OUTSIDE FOR ANCHOR BOLT CONTAINMENT,

PROVIDE TEMPORARY SHORING AND BRACING OF ALL

STRUCTURAL AND MISCELLANEOUS ELEMENTS UNTIL

CONCRETE HAS OBTAINED 80% OF DESIGN STRENGTH

SPECIFIED IN CONCRETE MASONRY UNIT NOTES

WHERE FOOTINGS, WALLS, OR OTHER STRUCTURA

CORNER BARS WITH REQUIRED LAP LENGTHS TO

ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE

REFER TO ASTM C31 AND C39.

REINFORCING UNO.

APPLICABLE.

APPROVAL.

OPINION OF THE INSPECTOR. REFER TO ASTM C143,

HOURLY WHEN THE AMBIENT AIR TEMPERATURE IS

COMPRESSIVE-STRENGTH SPECIMENS REFER TO

ADDITIONAL TEST FOR EACH 50 CUBIC YARD MORE

SPECIMEN AT 7 DAYS AND 2 SPECIMENS AT 28 DAYS.

STRENGTH TEST FOR EACH DAYS POUR AND AN

BELOW 40 DEGREES F OR ABOVE 80 DEGREES F AND

FLOOR FINISH PLANS AS APPLICABLE.

CONCRETE TEMPERATURE

28 DAY COMPRESSIVE STRENGTH

REFER TO ASTM C172 AND C94. PERFORM ONE

BROOM FINISH, UNO. ALL SLABS SHALL HAVE A

CONCRETE FOR EXTERIOR USES. SIDEWALKS.

SLABS ON GRADE SHALL BE AS FOLLOWS:

28-DAY COMPRESSIVE STRENGTH: 3000 PSI

#### POST-INSTALLED ANCHOR NOTES

126. WWF= WELDED WIRE FABRIC

125. W.P.= WORK POINT

127. (#)= QUANTITY

CONTINUOUS INSPECTIONS ARE REQUIRED FOR POST LENGTH, DRILLING METHOD, HOLE CLEANING PROCEDURES, AND ANCHOR INSTALLATION AND SETTING PROCEDURES.

ADHESIVE ANCHOR INSTALLER WHO HAS BEEN CERTIFIED BY ACI AND TRAINED BY THE

WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

INSTALLED ANCHOR BOLTS INCLUDING TYPE, SIZE, ADHESIVE ANCHORS SHALL BE INSTALLED BY AN

MANUFACTURER. ANCHORS SHALL BE INSTALLED IN ACCORDANCE

#### REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL | CONTINUOUS | PERIODIC | STANDARD VERIFICATION AND INSPECTION MATERIAL VERIFICATION OF COLD-FORMED STEEL DEC

| • | MA  | IERIA | AL VERIFICATION OF COLD-FORMED STEEL DEC                                                                                                                                                | K: |   |                                          |
|---|-----|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|------------------------------------------|
|   | A.  | TO A  | NTIFICATION MARKINGS TO CONFORM<br>ASTM STANDARDS SPECIFIED IN THE<br>ROVED CONSTRUCTION DOCUMENTS.                                                                                     |    | X | APPLICABLE<br>ASTM MATERIAL<br>STANDARDS |
|   | B.  | MAN   | IUFACTURER'S CERTIFIED TEST REPORTS                                                                                                                                                     | _  | Х |                                          |
|   | INS | PECT  | ION OF WELDING:                                                                                                                                                                         |    |   |                                          |
|   | A.  | COL   | D-FORMED STEEL DECK:                                                                                                                                                                    |    |   |                                          |
|   |     | a.    | FLOOR AND ROOF DECK WELDS.                                                                                                                                                              | _  | Х | AWS D1.3                                 |
|   | B.  | REIN  | NFORCING STEEL:                                                                                                                                                                         |    |   |                                          |
|   |     | a.    | VERIFICATION OF WELDABILITY OF<br>REINF STEEL OTHER THAN ASTM A 706.                                                                                                                    |    | Х |                                          |
|   |     | b.    | REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT. | Х  | _ | AWS D1.4<br>ACI 318:<br>SECTION 3.5.2    |
|   |     | C.    | SHEAR REINFORCEMENT.                                                                                                                                                                    | Х  | _ |                                          |
|   |     | d.    | OTHER REINFORCING STEEL.                                                                                                                                                                | _  | Χ |                                          |
|   |     |       |                                                                                                                                                                                         |    |   |                                          |

#### **GENERAL FOUNDATION & SLAB ON GRADE** NOTES (NO SPECS, NO GEOTECH) CONCRETE FOR FOUNDATIONS, FOOTINGS AND

IN AREA OF THE STRUCTURE, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. ANY FILL MATERIAL REQUIRED AT THE SITE SHALL BE OF A SIMILAR TYPE SOIL THAT IS PRESENT AT THIS SITE EXHIBITING LIQUID LIMIT VALUES BELOW 50 AND PLASTIC INDEX VALUES BELOW 10. ROCKS GREATER THAN 6 IN. SHALL BE EXCLUDED FROM STRUCTURAL FILL LIFTS. FILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NO GREATER THAN 8 INCHES IN DEPTH AND SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY BASED ON STANDARD PROCTOR DENSITIES (ASTM D-698). ADEQUATE FIELD DENSITY AND MOISTURE CONTENT TESTS SHALL BE PERFORMED TO ENSURE COMPLIANCE

WITH REQUIREMENTS. TESTING OF CONTROLLED STRUCTURAL FILL SHALL BE DONE BY A QUALIFIED TESTING LABORATORY

RETAINED BY THE OWNER. SEE STRUCTURAL DRAWINGS FOR REQUIRED TESTING. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH INSPECTOR.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM AFTER STRIPPING SITE AND PRIOR TO A185. LAP FABRIC 9" ON SIDES AND ENDS. MAINTAIN PLACEMENT OF ANY FILL, NOTIFY SPECIAL WIRE 1" TO 2" BELOW TOP SURFACE OF SLABS ON INSPECTOR/TESTING AGENCY FOR INSPECTION GRADE. PROVIDE CHAIRS, BOLSTERS OR OTHER OF SOIL CONDITIONS. INSPECTION SHALL INCLUDE PROOF ROLLING SITE WITH HEAVY EQUIPMENT PROVIDED BY THE CONTRACTOR. AFTER EXCAVATION FOR FOUNDATIONS AND PRIOR TO PLACEMENT OF STEEL REDUCING ADDITIVE CONFORMING TO ASTM C494,

REINFORCEMENT OR CONCRETE, NOTIFY SPECIAL INSPECTOR/TESTING AGENCY FOR INSPECTION OF SOIL CONDITIONS. WHEN SOIL OF INADEQUATE STRENGTH IS NOTED. CONTRACTOR SHALL FURTHER DEEPEN **EXCAVATIONS UNTIL SUITABLE BEARING** CONDITIONS ARE VERIFIED BY TESTING OVEREXCAVATIONS MAY BE BACKFILLED WITH SUITABLE COMPACTED ENGINEERED FILL, SUITABLE GRANULAR BASE, OR STRUCTURAL CONCRETE BACKFILL.

EXTERIOR FOOTINGS SHALL BEAR AT MIN. DEPTHS AS NOTED IN FOOTING SECTIONS AND PLANS, 30" BELOW EXTERIOR FINISH GRADE, OR INTO APPROVED BEARING STRATA, WHICHEVER DEPTH IS GREATER. NOTE THAT FOOTING BEARING ELEVATIONS GIVEN ON THE PLANS ARE ESTIMATED DEPTHS ONLY. WHERE UNSUITABLE SOIL IS **ENCOUNTERED, FOOTING DEPTHS MAY VARY EXCAVATION FOR FOOTINGS SHALL BE CUT TO** 

ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE CONTINUOUS FOOTINGS AND INDIVIDUAL FOOTINGS ARE DESIGNED FOR A NET ALLOWABLE SOIL

CONTINUOUS FOOTINGS: 1500 PSF INDIVIDUAL FOOTINGS: 1500 PSF FOR EITHER NATURALLY OCCURRING SOIL OR COMPACTED ENGINEERED FILL.

BEARING OF

TYPICAL SLABS ON GRADE THICKNESS: 4" THICK NORMAL WEIGHT CONCRETE REINFORCING: 6x6-W1.4xW1.4 WELDED WIRE

FABRIC (WWF) VAPOR BARRIER: 15 MIL., (ASTM E1745 CLASS A) SUBGRADE: A MINIMUM OF 4" OF FREE-DRAINING GRANULAR BASE, COMPACTED PER RECOMMENDATIONS OF GEOTECHNICAL FNGINFFR

MAINTAIN REINFORCING 1"-2" BELOW TOP SURFACE OF SLABS ON GRADE. PROVIDE BOLSTERS, CHAIRS OR OTHER MEANS APPROVED IN WRITING BY THE ENGINEER TO PROPERLY LOCATE REINFORCING. GRANULAR BASE SHALL BE #57 STONE OR APPROVED **EQUAL UNLESS OTHERWISE INDICATED IN** GEOTECHNICAL REPORT. REFER TO ASTM D448 FOR GRADATION.

IN SOME CASES 1.5 POUNDS (MIN) OF POLYPROPYLENE FIBRILLATED FIBERS PER CUBIC YARD REINFORCING MAY BE SUBSTITUTED FOR THE WWF REINFORCING ANY VISIBLE FIBERS REMAINING AFTER CONCRETE HAS CURED SHALL BE TORCHED OFF THIS SUBSTITUTION IS NOT ALWAYS APPROPRIATE AND SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE

DRAINAGE FILL SHALL BE A FREE-DRAINING GRANULAR MATERIAL. USE #57 STONE OR EQUAL REFER TO ASTM D448 FOR GRADATION. CONTRACTOR IS RESPONSIBLE TO MAINTAIN **EXCAVATIONS AND BACKFILL MATERIALS AT AN** 

APPROPRIATE MOISTURE CONTENT FOR PROPER SOIL BEARING CAPACITY AND COMPACTION. CONTRACTOR SHALL COORDINATE WITH THE CIVIL SITE DRAWINGS TO DETERMINE WHETHER FOLINDATION DRAINS AROUND PERIMETER OF BUILDING AND/OR UNDER THE SLAB-ON-GRADE SHALL BE REQUIRED AND. IF SO. SHALL RUN TO

DAYLIGHT OR EXTENDED TO THE STORM SEWER AT RETAINING WALLS FILTER FABRIC SHALL BE PLACED AT THE INTERFACE BETWEEN THE DRAINAGE FILL AND EITHER NATURAL OR COMPACTED SUBGRADE. PERFORATED DRAINS SHALL ALSO BE WRAPPED WITH FILTER FABRIC.

#### COMPONENTS AND CLADDING WIND PRESSURE

BUILDING ELEMENTS SHALL BE DESIGNED FOR THE APPROPRIATE COMPONENTS AND CLADDING WIND PRESSURES GIVEN IN THE TABLES BELOW BASED ON THE ELEMENT'S ZONE AND EFFECTIVE WIND AREA. PRESSURES PROVIDED ARE ULTIMATE AND ARE UNFACTORED.

ZONE 2, 3 AND 5 PRESSURES SHALL BE APPLIED WITHIN 11'-6" OF ALL WALL AND ROOF EDGES AND CORNERS PER ASCE 7-10 FIGURES 30.4-1 & 30.4-2A.

ELEMENTS WITH TRIBUTARY AREAS GREATER THAN 700 SQUARE FEET SHALL BE PERMITTED TO BE DESIGNED USING THE PROVISIONS FOR MWFRS.

| ROO           | F C&C PRI | ESSURES |  |  |  |  |  |  |  |  |  |
|---------------|-----------|---------|--|--|--|--|--|--|--|--|--|
|               | GROSS UF  | LIFT    |  |  |  |  |  |  |  |  |  |
| OPEN WEB      | ZONE 1    | 27 PSF  |  |  |  |  |  |  |  |  |  |
| JOISTS        | ZONE 2    | 32 PSF  |  |  |  |  |  |  |  |  |  |
| ZONE 3 32 PSF |           |         |  |  |  |  |  |  |  |  |  |
| METAL DEOK    | ZONE 1    | 29 PSF  |  |  |  |  |  |  |  |  |  |
| METAL DECK    | ZONE 2    | 49 PSF  |  |  |  |  |  |  |  |  |  |
|               | ZONE 3    | 73 PSF  |  |  |  |  |  |  |  |  |  |
|               | NET UPL   | IFT     |  |  |  |  |  |  |  |  |  |
|               | ZONE 1    | 24 PSF  |  |  |  |  |  |  |  |  |  |
| OPEN WEB      | ZONE 2    | 29 PSF  |  |  |  |  |  |  |  |  |  |
| JOISTS        | ZONE 3    | 29 PSF  |  |  |  |  |  |  |  |  |  |
| METAL DEGI    | ZONE 1    | 27 PSF  |  |  |  |  |  |  |  |  |  |
| METAL DECK    | ZONE 2    | 47 PSF  |  |  |  |  |  |  |  |  |  |
|               | ZONE 3    | 71 PSF  |  |  |  |  |  |  |  |  |  |
|               | •         |         |  |  |  |  |  |  |  |  |  |

FFFCTIVF WIND | ZONE 4 NEG. PRESSURE PRESSURE 50 PSF 39 PSF 47 PSF 37 PSF 42 PSF

**WOOD SHEATHING & DECKING NOTES ANCHORED** 

TYPICAL WALL SHEATHING SHALL BE 7/16" (1/2") APA RATED 24/16 STRUCTURAL 1 EXPOSURE 1 PANÉLS. SCREW TO SUPPORTS WITH #8 PAN HEAD TEK SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. PROVIDE LIGHT GAUGE BLOCKING AT ALL PANEL EDGES. SEE SHEAR WALL SCHEDULE FOR REQUIREMENTS AT SHEAR WALLS. ROOF DECKING SHALL BE 19/32" (5/8") STRUCTURAL EXPOSURE I APA RATED 40/20 TONGUE AND GROOVE PANELS. "H" CLIPS MAY BE USED AT THE CONTRACTOR'S OPTION IN LIEU OF T&G. SCREW TO

TO LIGHT GAUGE

SUPPORTS WITH #8 PAN HEAD TEK SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERIOR SUPPORTS. REDUCE SPACING TO 4" O.C. AT EDGES AND INTERIOR SUPPORTS WITHIN 4'-0" OF BUILDING FLOOR DECKING SHALL BE 23/32" (3/4") ADVANTECH

PANELS T&G. GLUE AND SCREW TO SUPPORTS WITH #8 PAN HEAD TEK SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. GLUE SHALL MEET APA SPEC AFG-01 WOOD STRUCTURAL PANELS SHALL BE OSB OR PLYWOOD WITH (4) OR MORE PLIES AND SHALL COMPLY WITH DOC PS 1 OR PS 2. PANELS SHALL BE INSTALLED WITH THE STRENGTH AXIS (LONG DIRECTION) PERPENDICULAR TO SUPPORTS.

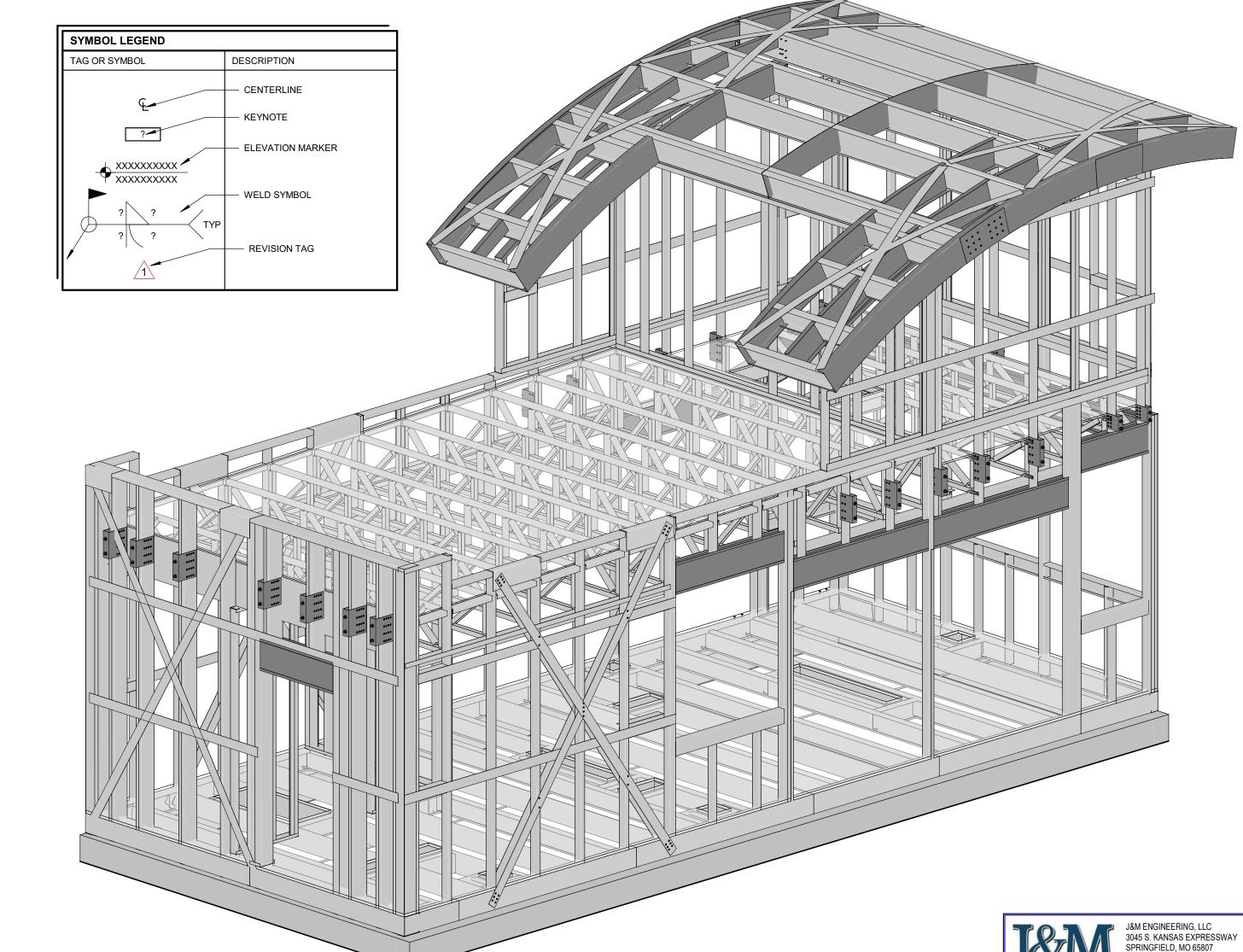
ISOMETRIC VIEWS FOR REFERENCE ONLY

**BUILDING SUPPLIER / ERECTOR** 

CREATIVE MODULAR CONSTRUCTION

ISOMETRIC VIEW FRONT SIDE (MODULAR BUILDING)

ISOMETRIC VIEW BACK SIDE (MODULAR BUILDING)



NUMBER E-29518

**ENGINEER OF RECORD:** JOHN C. MILLER

E-2011011004 PROJECT NUMBER:

E-29518

22033 7BLS

**REVISION:** 

**S0.0** 

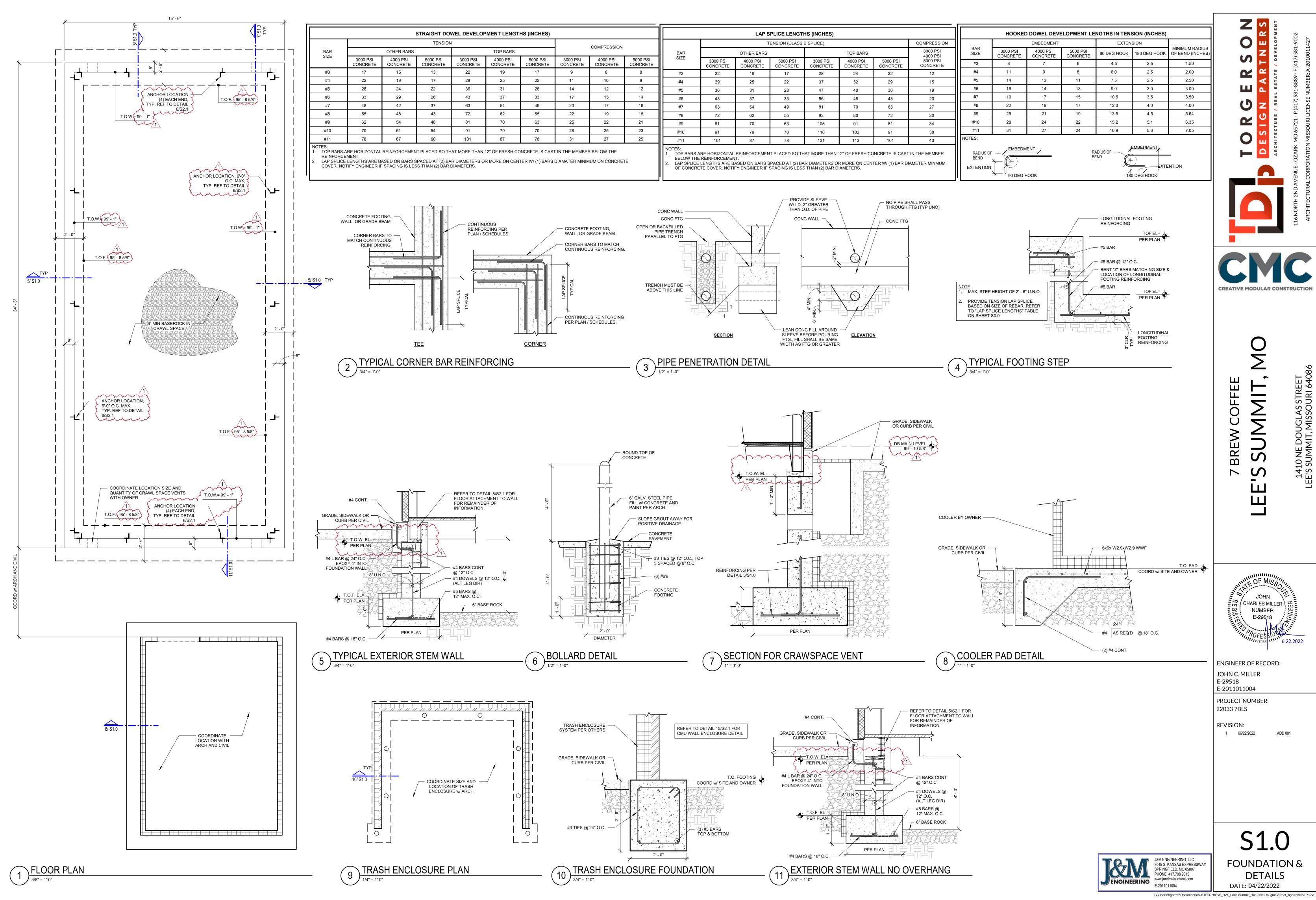
DATE: 04/22/2022

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SCHEDULE - SPECIAL INSPECTIONS

**GENERAL NOTES** 



**CREATIVE MODULAR CONSTRUCTION** 

CHARLES MILLER NUMBER E-29518

ENGINEER OF RECORD:

ADD 001

S1.0

FOUNDATION & **DETAILS** 

MECHANICAL EQUIPMENT WEIGHTS AND LOCATIONS ARE ESTIMATED ONLY. COORDINATE ALL RTU EQUIPMENT LOCATIONS AND CURBS WITH MEP AND ARCH.

COORDINATE ROOF OPENINGS WITH MEP AND ARCH. PROVIDE

SUPPLEMENTAL FRAMING PER NOTES AND DETAILS AT OPENINGS. MECHANICAL HANGERS AND OTHER ITEMS SUPPORTED FROM TRUSS FRAMING ARE TO BE SUPPORTED AT PANEL POINTS ONLY.

PROVIDE (2) 3/4" BOLTS AT EACH LIFTING POINT LOCATION.

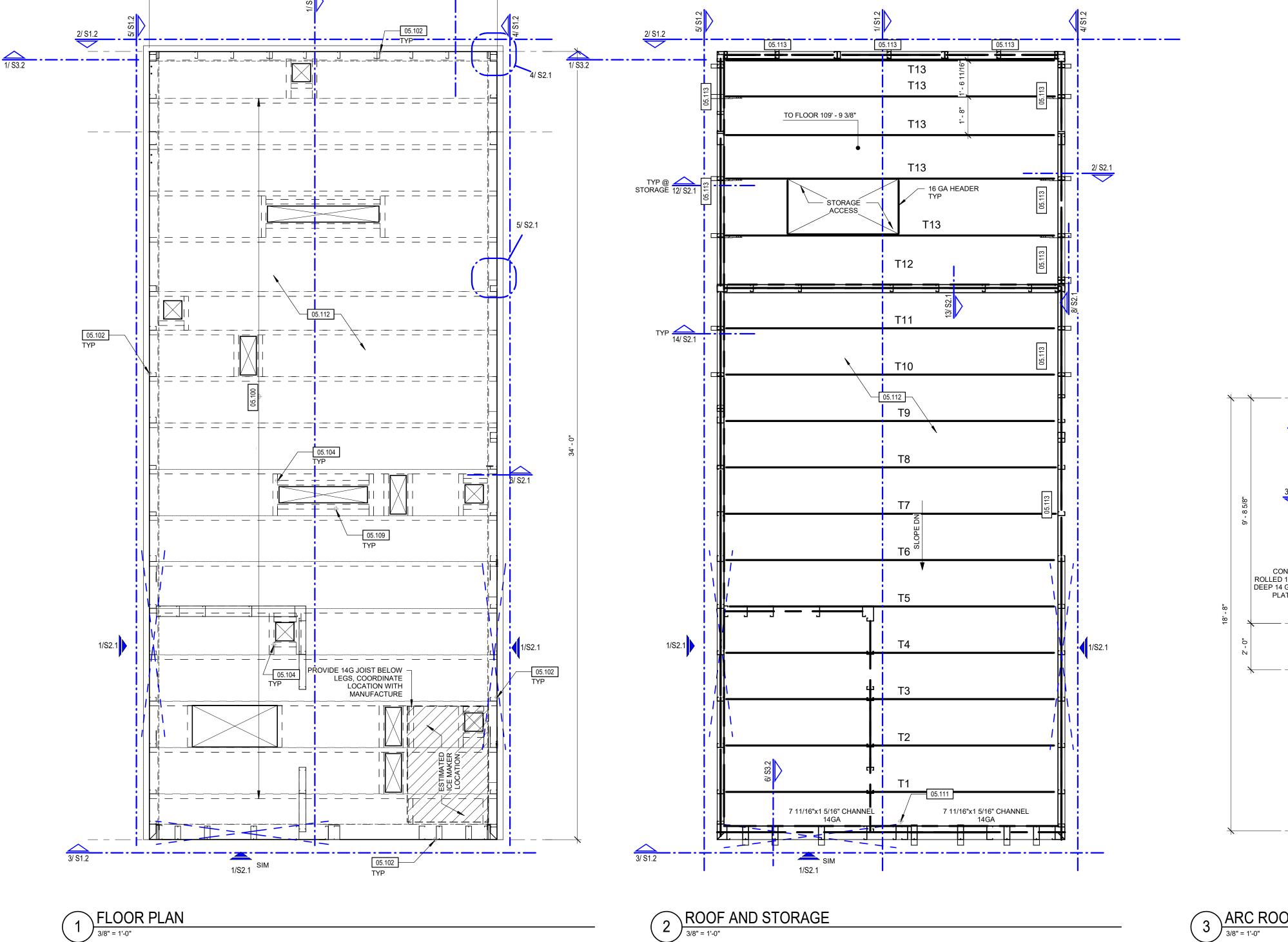
KEYNOTE LEGEND

12" x 2 1/2" 14 GA ROOF JOIST SPACED @ 24" O.C. MAX.

PROVIDE FLOOR JOIST BOX FRAME AT ALL OPENINGS, MATCH GA OF FLOOR JOIST.

18 1/8" x 2 1/2" 14 GA JOIST, @ ROOF DECK BEARING.
ALL EXACT MEMBER SIZES PER MODULAR BUILDING SUPPLIERS ENGINEERING. HEADER PER MODULAR BUILDING SUPPLIERS ENGINEERING.

THESE DRAWINGS INDICATE THE GENERAL REQUIREMENTS FOR A CUSTOM FABRICATED STRUCTURAL SYSTEM, BY CREATIVE MODULAR CONSTRUCTION



18' - 8" 9' - 4" 9' - 4" – 4" x 18" GA STRAPPING 11/ S2.1 CONT. ROLLED 12" DEEP 14 GA PLATE w/ 3" FLANGES CONT. ROLLED 12" DEEP 14
GA BLOCKING AT LEAST (2)
BAYS BACK ROLLED 12" DEEP 14 GA PLATE CONT. ROLLED 12" DEEP 14 GA PLATE w/ 3" FLANGES 4' - 2" 4' - 2"

ARC ROOF CANOPY

3/8" = 1'-0"

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S1.1

CHARLES MILLER NUMBER E-29518

ENGINEER OF RECORD:

JOHN C. MILLER

PROJECT NUMBER:

E-29518 E-2011011004

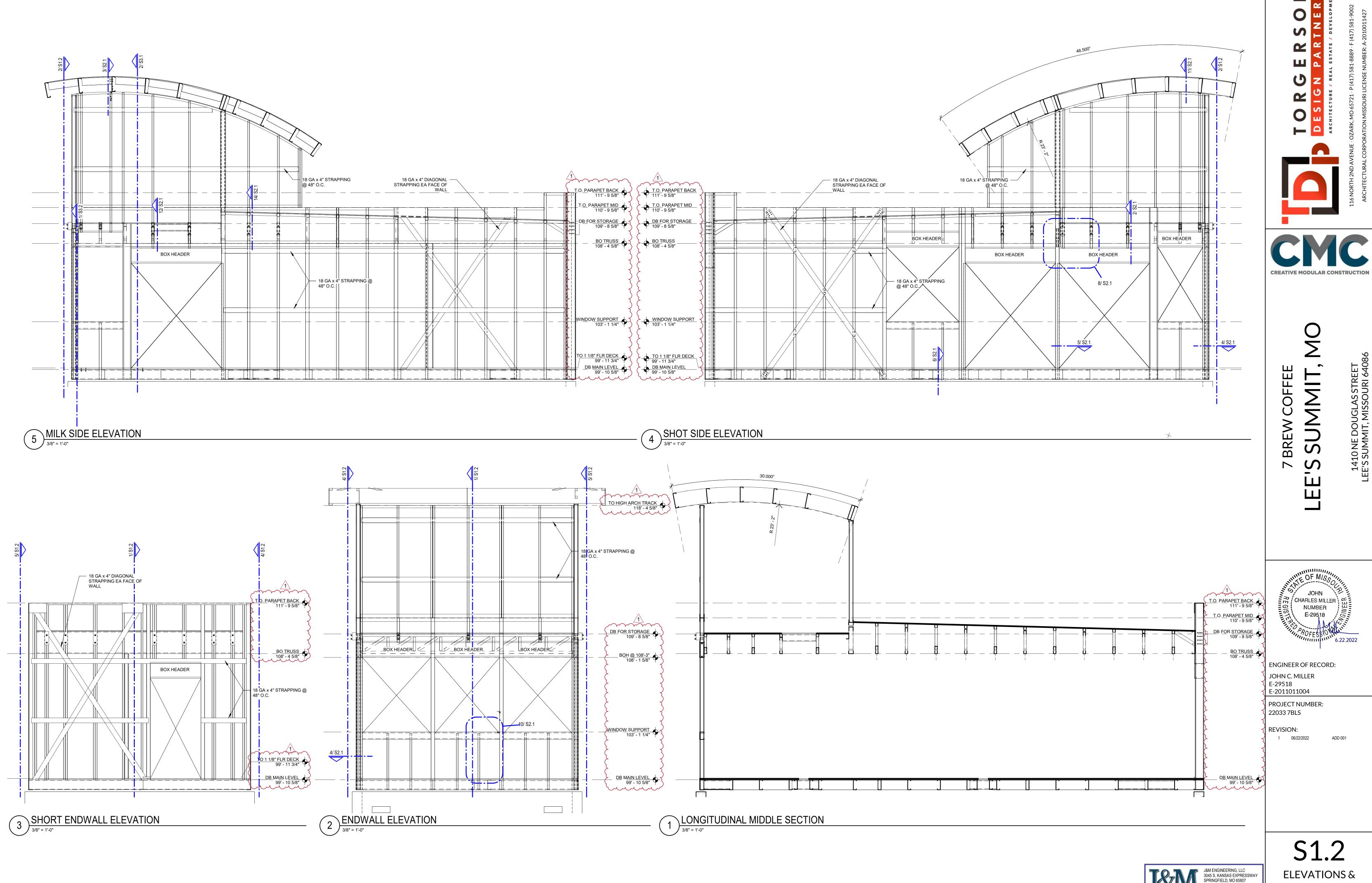
22033 7BLS

REVISION:

DATE: 04/22/2022

FRAMING PLANS

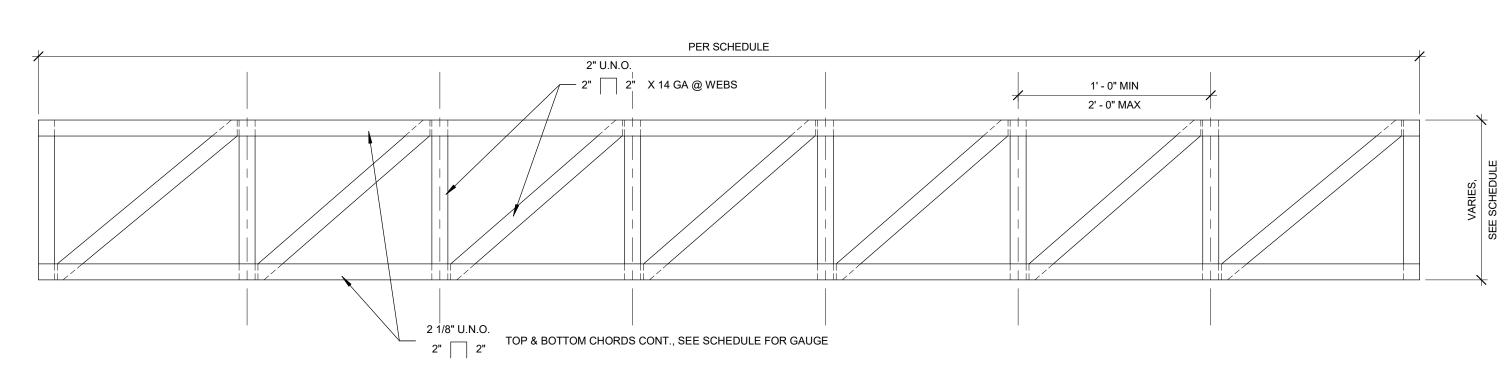
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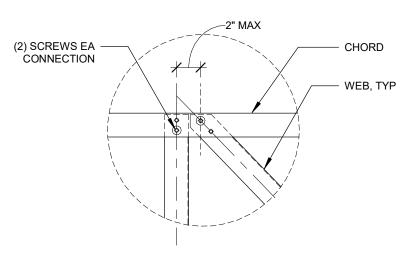
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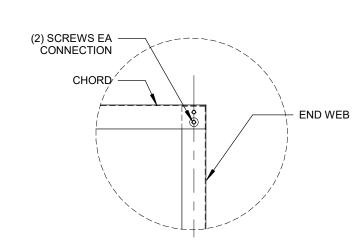
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#### CHORD GAUGE WEB WIDTH TRUSS DEPTH LENGTH 14' - 4 5/8" 14' - 4 5/8" 19 3/16" 19 13/16" 14' - 4 5/8" 14' - 4 5/8" 14' - 4 5/8" 20 7/16" 21 1/16" 14' - 4 5/8" 21 11/16" T7 T8 T9 T10 T11 T12 T13 14' - 4 5/8" 14' - 4 5/8" 14' - 4 5/8" 22 5/16" 22 15/16" 23 1/2" 24 1/8" 24 3/4" 25 3/8" 16" 14' - 4 5/8" 14' - 4 5/8" 14' - 4 5/8" 14' - 11 3/4"

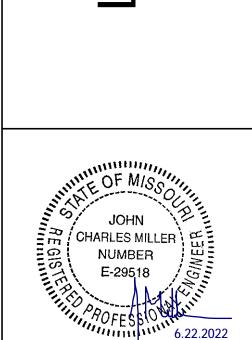
# 1 TYPICAL LONG TRUSS ELEVATION





2 TYPICAL TRUSS MEMBER CONNECTION
1 1/2" = 1'-0"

3 TYPICAL TRUSS END MEMBER CONNECTION
1 1/2" = 1'-0"



ENGINEER OF RECORD: JOHN C. MILLER E-29518 E-2011011004

PROJECT NUMBER:

22033 7BLS

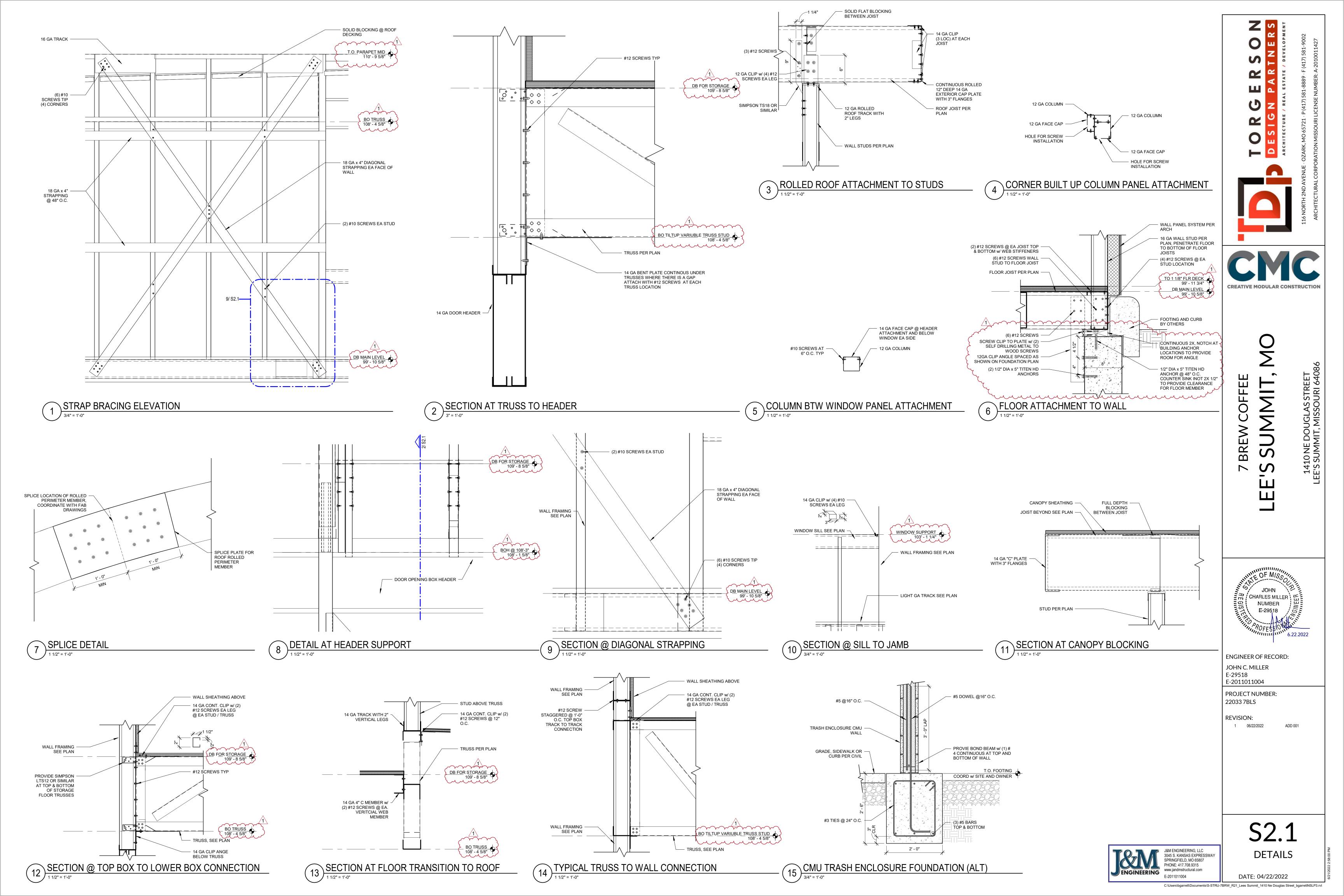
REVISION:

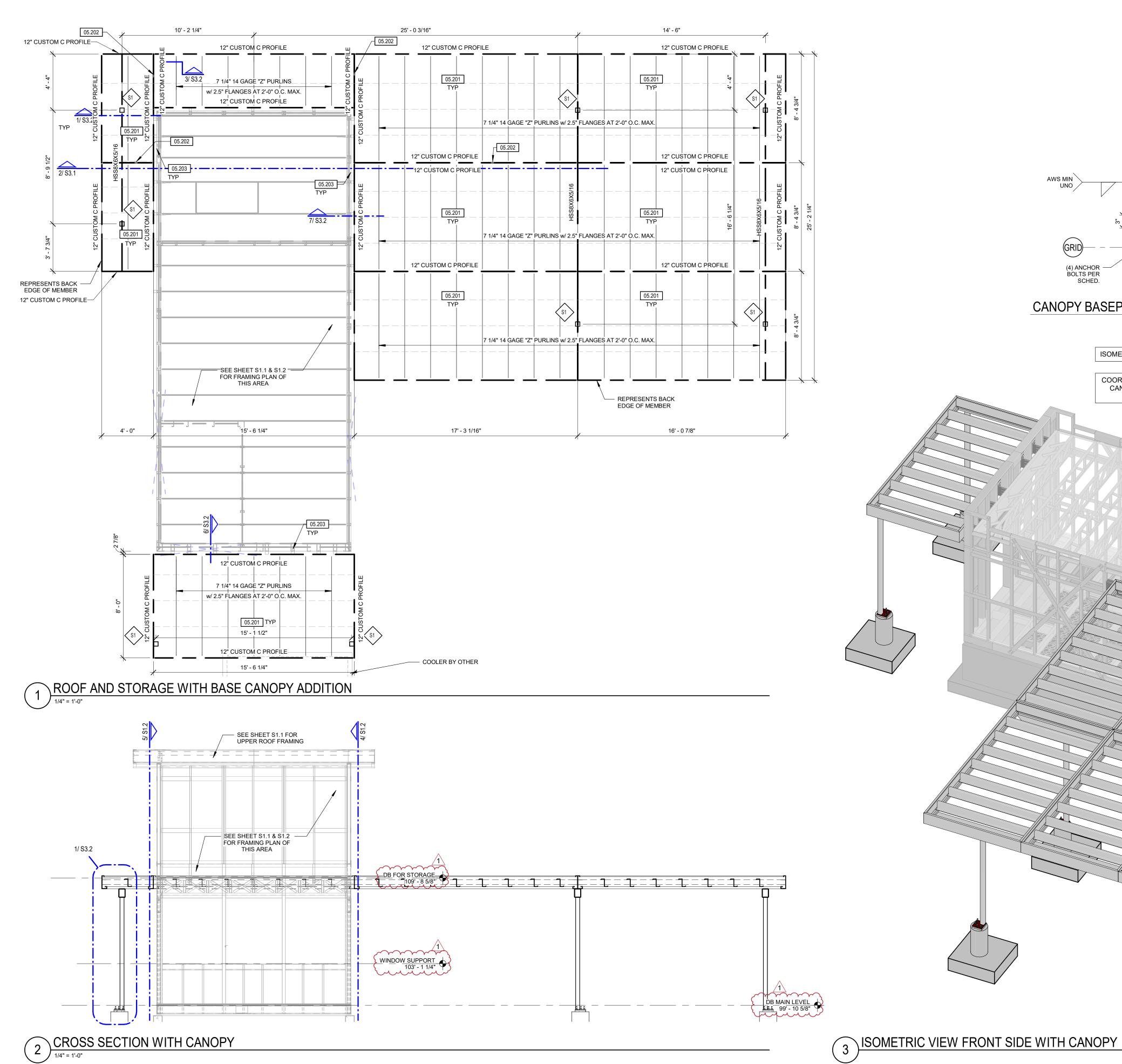
BREW

S1.3 TRUSS SHEET

DATE: 04/22/2022

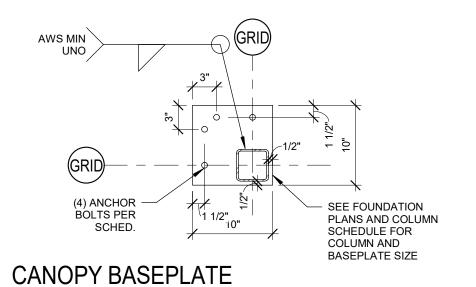
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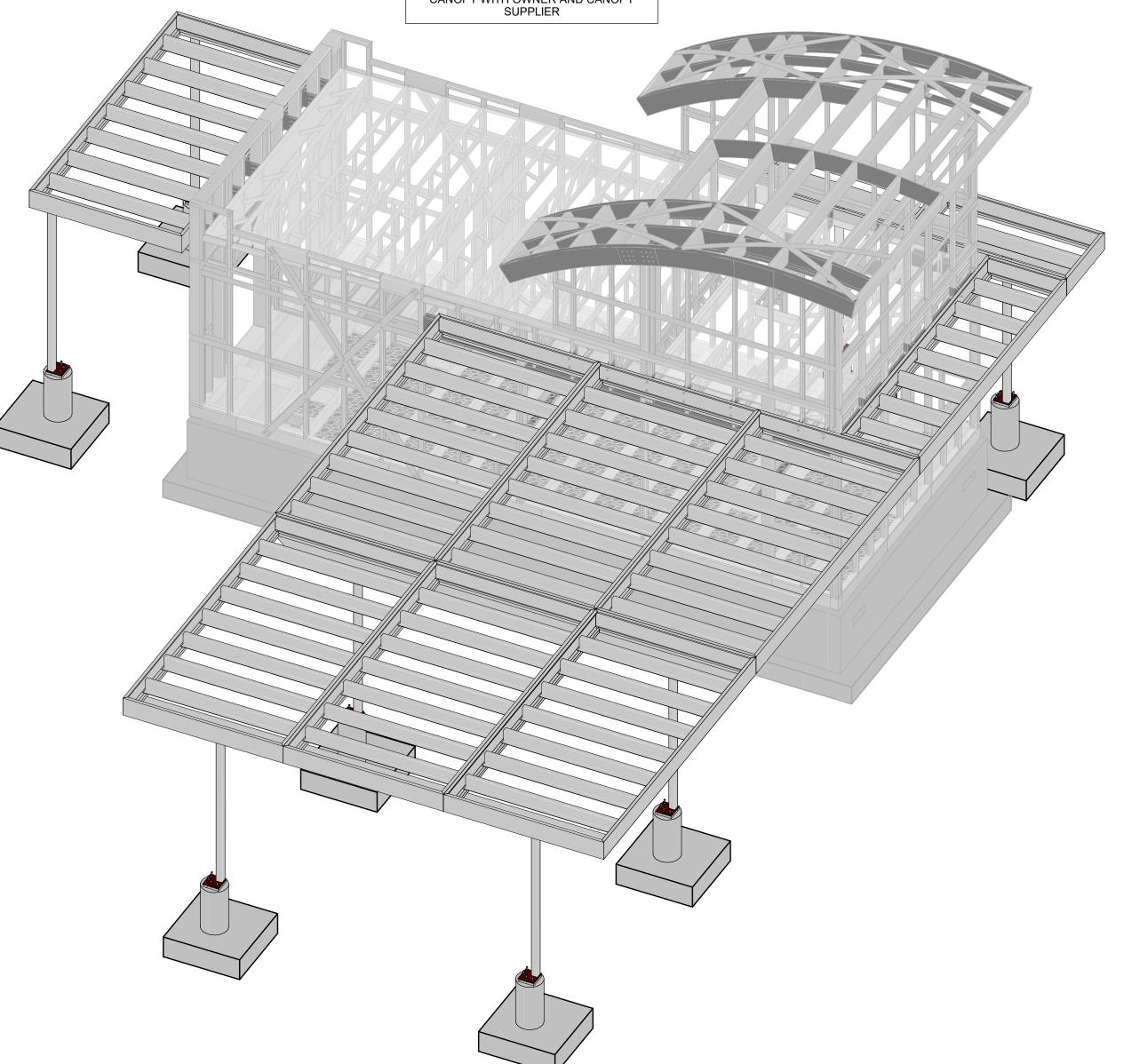
KEYNOTE LEGEND 

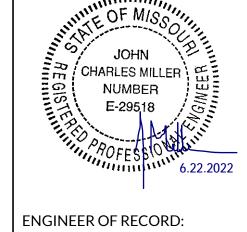
> COLUMN SCHEDULE TYPE MARK COLUMN SIZE S1 HSS4X4X1/4 BASE PLATE TYPE & SIZE ANCHOR BOLT SIZE NOTES (4) 3/4" DIA w/ 18" EMBEDMENT 5/8"x10" SQ



ISOMETRIC VIEWS FOR REFERENCE ONLY

COORDINATE EXACT SIZE AND SHAPE OF CANOPY WITH OWNER AND CANOPY SUPPLIER





JOHN C. MILLER

E-29518 E-2011011004 PROJECT NUMBER:

22033 7BLS

**REVISION:** 1 06/22/2022

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S3.1 **DRIVE THRU** CANOPY

10 NE DOUGLAS STREET SUMMIT, MISSOURI 640

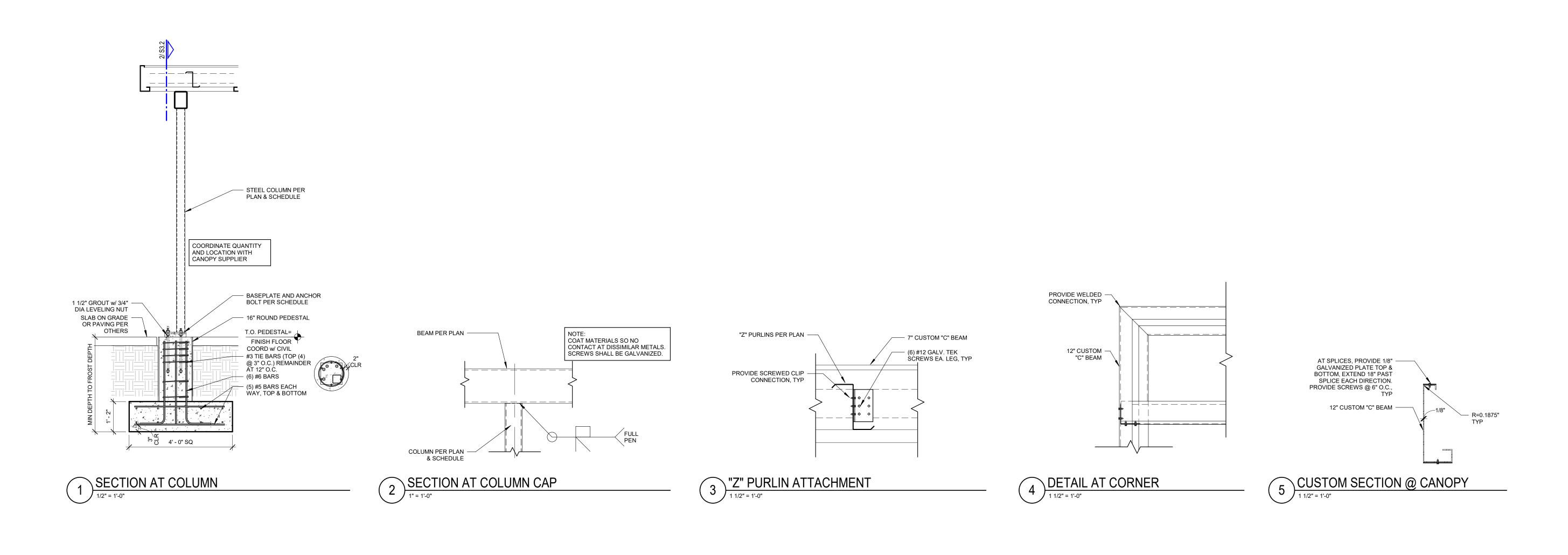
1 06/22/2022

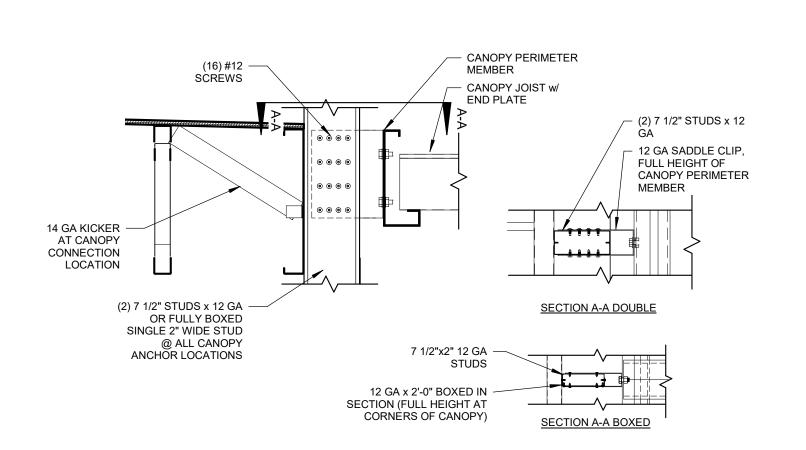
ADD 001

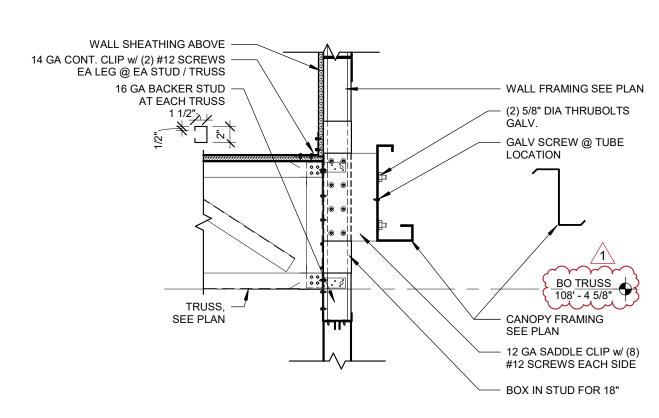
S3.2

DATE: 04/22/2022

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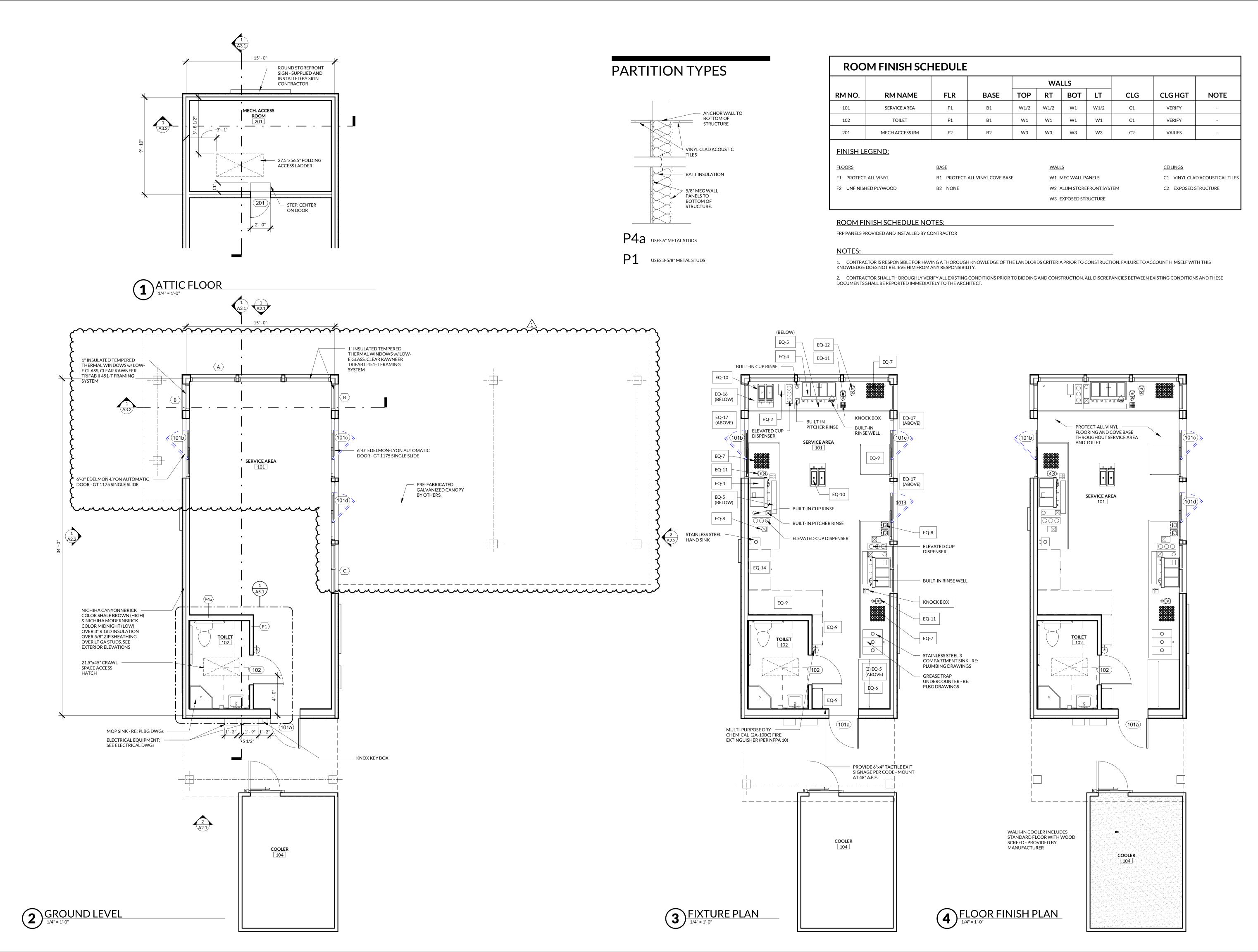




6 BACK CANOPY CONNECTION

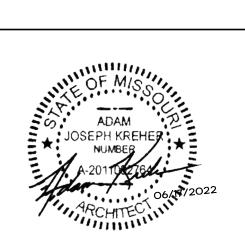
7 SECTION @ LOW CANOPY

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# 7 BREW COFFEE 'S SUMMIT, M



ARCHITECT OF RECORD:

NAME: ADAM KREHER

LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

REVISION: 1 ADD 001 6/17/22

A1.1
FLOOR PLANS

DATE: APRIL 22, 2022

#### EGRESS LOADING INFORMATION

OCCUPANCY LOADING CALCULATIONS PER IBC 2018: TABLE 1004.1.2

KITCHENS: 200 S.F. PER OCCUPANT STORAGE: 300 S.F. PER OCCUPANT KITCHENS: OCCUPANCY CALCULATION OCUPPANTS 101 SERVICE AREA KITCHEN 468 SF/200 SF 104 COOLER STORAGE 124 SF/300 SF 201 MECH. ACCESS STORAGE 131 SF/300 SF EXIT CAPACITY: EGRESS WIDTH REQUIRED: 5 OCCUPANTS X 0.2" PER OCCUPANT REQUIRED = 1.0" EGRESS WIDTH PROVIDED: 36" EGRESS WIDTH OF O.2" PER OCCUPANT USED FOR DOORS PER IBC TABLE 1005. (1) EXIT REQUIRED FOR PER STORY FOR LESS THAN 49 OCCUPANTS PER IBC TABLE 1006.2.1.

MAXIMUM TRAVEL DISTANCE: 200'-0" PER IBC TABLE 1017.2 ACTUAL MAX TRAVEL DISTANCE TO EXIT: 32'-0"

20'-0" MAX LENGTH OF DEAD END CORRIDOR PER IBC SECTION 1018

# RESTROOM LOADING

OCCUPANCY: 5 OCCUPANTS

#### RESTROOM FIXTURES REQUIRED/PROVIDED • USE GROUP: BUSINESS

TOILET COUNT: = 1 PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR THE REMAINDER EXCEEDING 50 LAVATORY COUNT: = 1 PER 40 FOR THE FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80

= 1 WATER CLOSET REQUIRED

1 REQUIRED

1 REQUIRED

REQUEST.

= 1 PROVIDED

1 UNISEX WATER CLOSET PROVIDED

WATER WILL BE PROVIDED FOR FREE UPON

TUB/ SHOWERS: NOT REQUIRED DRINKING FOUNTAINS: = 1 PER 100 OTHER: = 1 SERVICE SINK

PLUMBING FIXTURE COUNT PER IBC TABLE 2902.1

TOILET COUNT: WATER CLOSETS REQUIRED: 5 OCCUPANTS / 25 WATER CLOSETS PROVIDED: LAVATORY COUNT:

SINKS REQUIRED: 5 OCCUPANTS / 40 SINKS PROVIDED: 1 PROVIDED

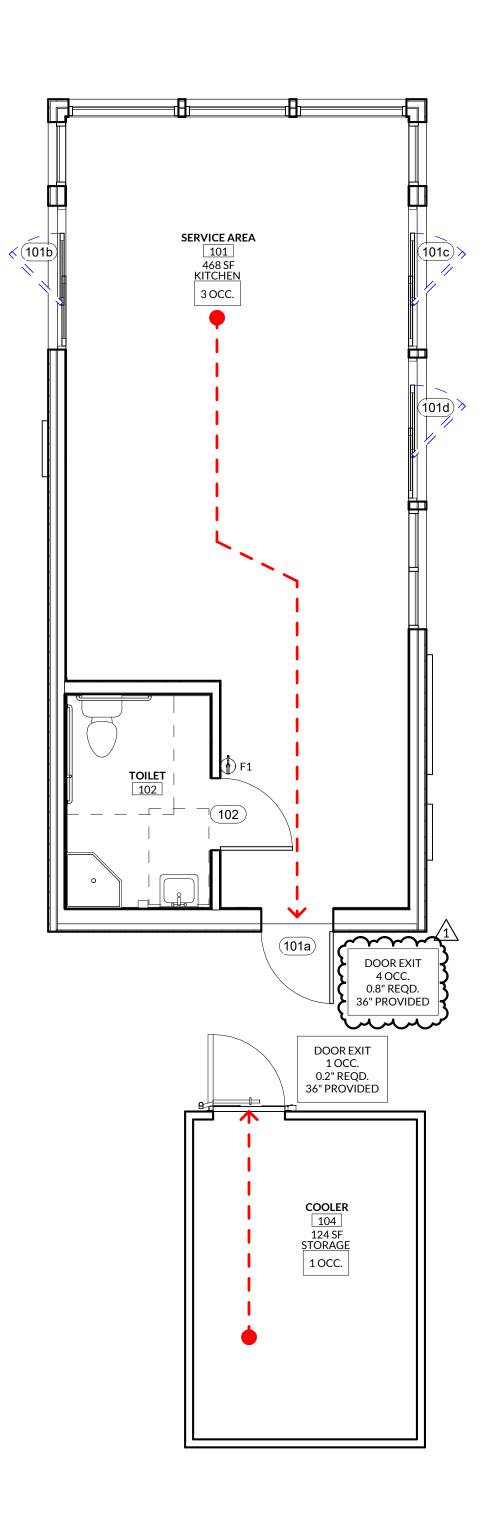
DRINKING FOUNTAIN COUNT: DRINKING FOUNTAINS REQUIRED: 5 OCCUPANTS / 100 DRINKING FOUNTAIN PROVIDED: mmmm SERVICE SINK COUNT: SERVICE SINKS REQUIRED: = 1 REQUIRED

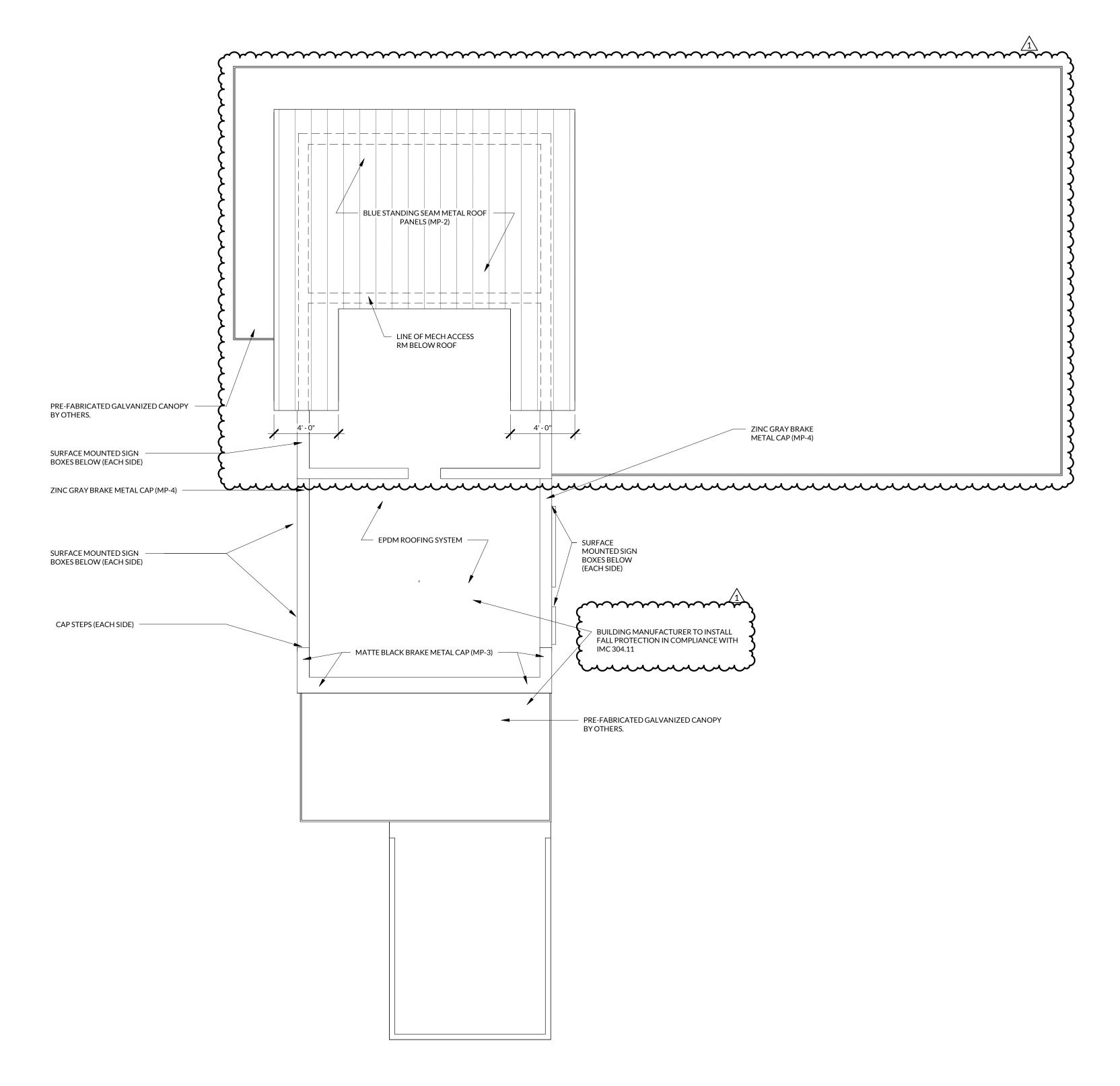
SERVICE SINK PROVIDED:

# FIRE EXTINGUISHER NOTES

10 LBS, ABC FIRE EXTINGUISHER ON WALL MOUNTED BRACKET. MOUNT HANDLE @ 4'-0".

75'-0" RADIUS FROM FIRE EXTINGUISHER @ F1 (NOT SHOWN, ENCOMPASSES ENTIRE BUILDING)







 $\mathbf{\Omega}$ 



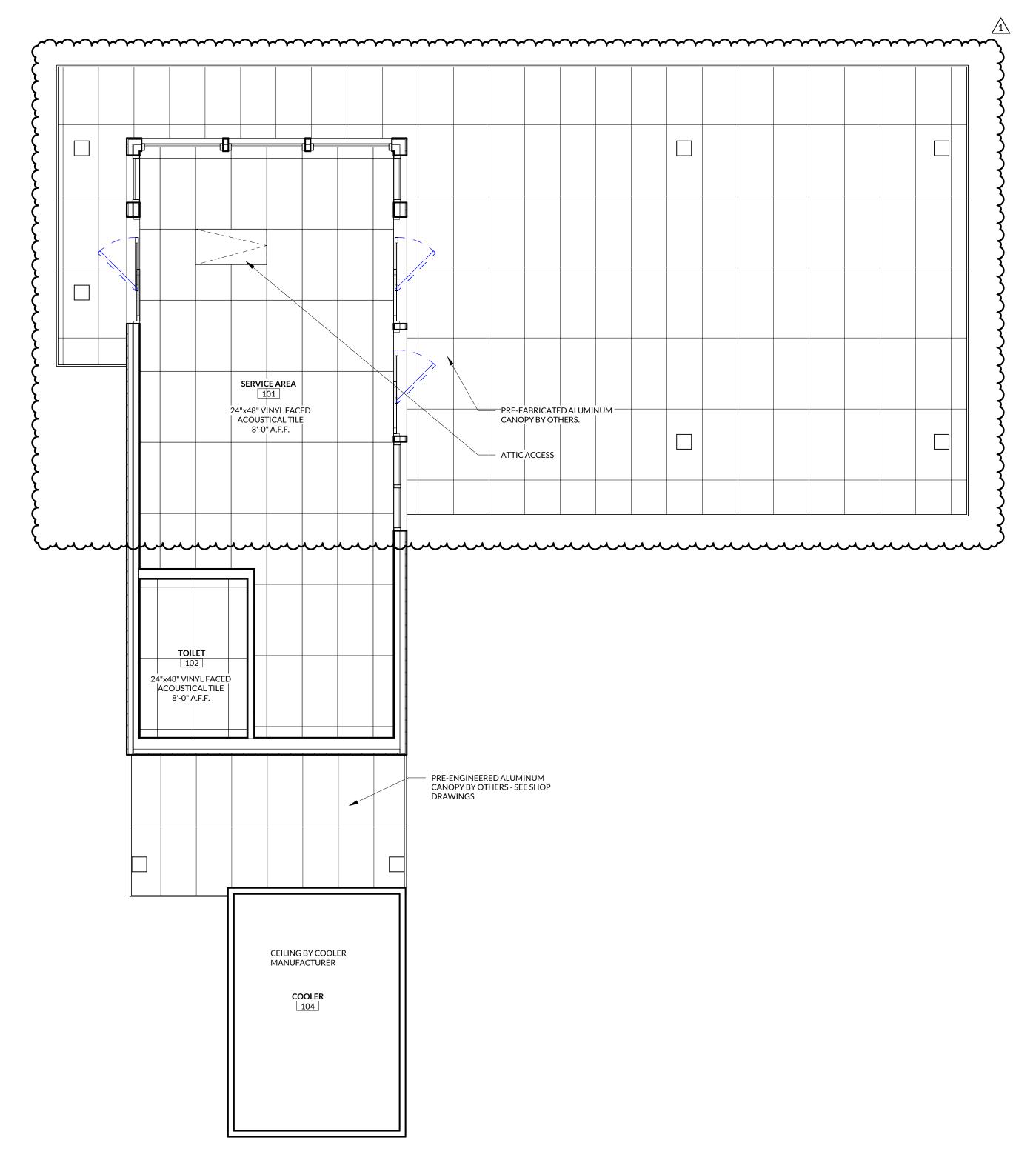
ARCHITECT OF RECORD: NAME: ADAM KREHER LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

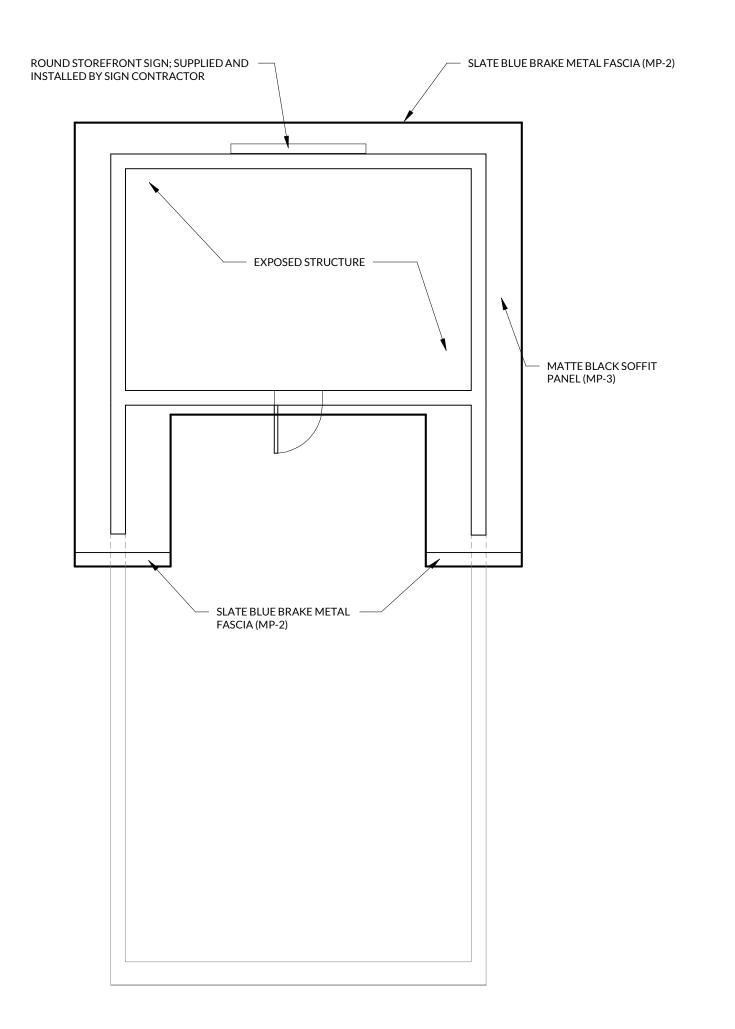
REVISION: 1 ADD 001 6/17/22

A1.2 ROOF PLAN / **EGRESS PLAN** 

DATE: APRIL 22, 2022



RCP - GROUND LEVEL

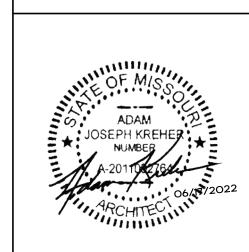


RCP - ATTIC FLOOR

1/4" = 1'-0"



1



ARCHITECT OF RECORD:

NAME: ADAM KREHER

LICENSE NO. 2011002764

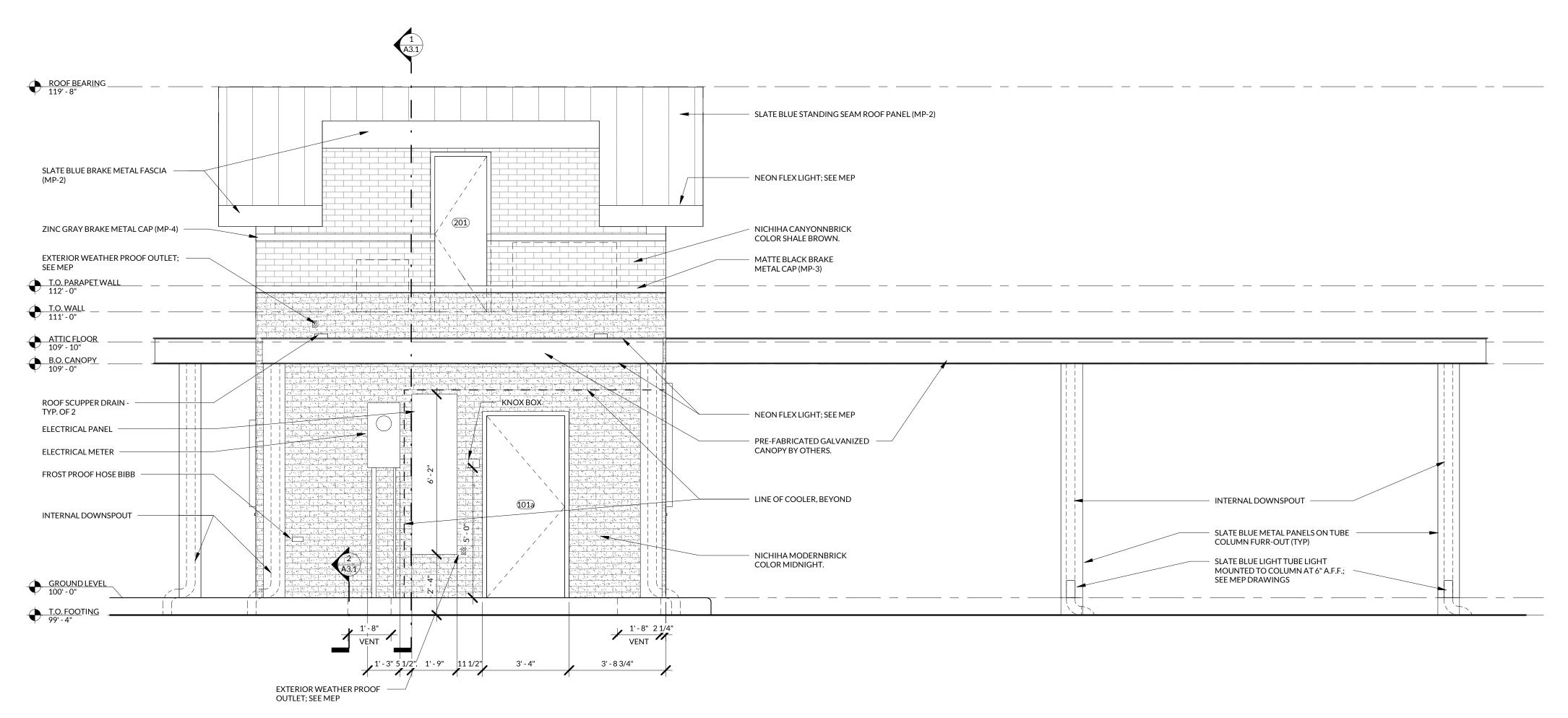
PROJECT NUMBER: 22033 7BLS

REVISION: 1 ADD 001 6/17/22

A1.3

REFLECTED CEILING
PLANS
DATE: APRIL 22, 2022

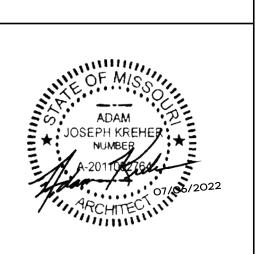




EXTERIOR ELEVATION - BACK
3/8" = 1'-0"



# 7 BREW COFFEE LEE'S SUMMIT, M



ARCHITECT OF RECORD:

NAME: ADAM KREHER

LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

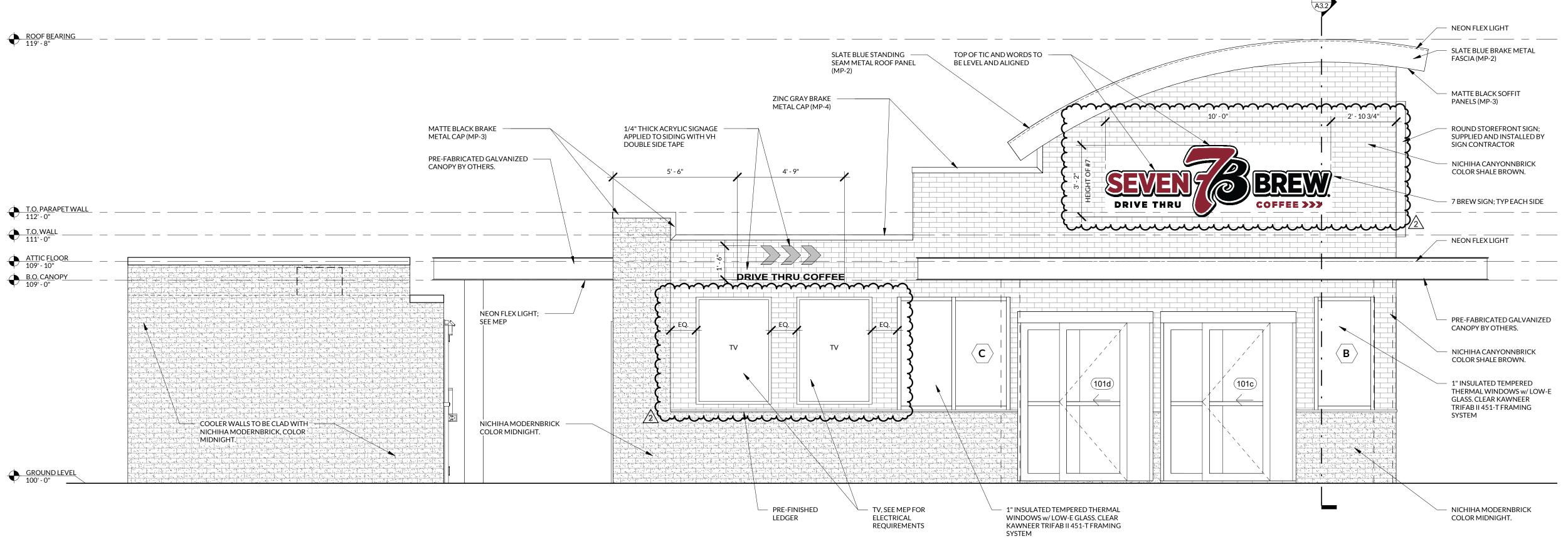
REVISION: 1 ADD 001 6/17/22

ADD 002 7/5/22

A2.1

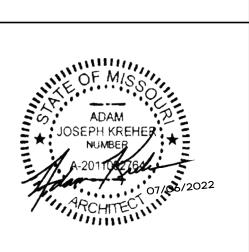
EXTERIOR
ELEVATIONS
DATE: APRIL 22, 2022

EXTERIOR ELEVATION - RIGHT SIDE





# OFFEE BREW



ARCHITECT OF RECORD: NAME: ADAM KREHER LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

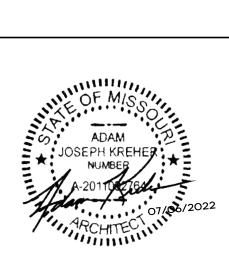
REVISION: 1 ADD 001 6/17/22

ADD 002 7/5/22

A2.2 **EXTERIOR ELEVATIONS** DATE: APRIL 22, 2022



# OFFEE BREW



ARCHITECT OF RECORD: NAME: ADAM KREHER

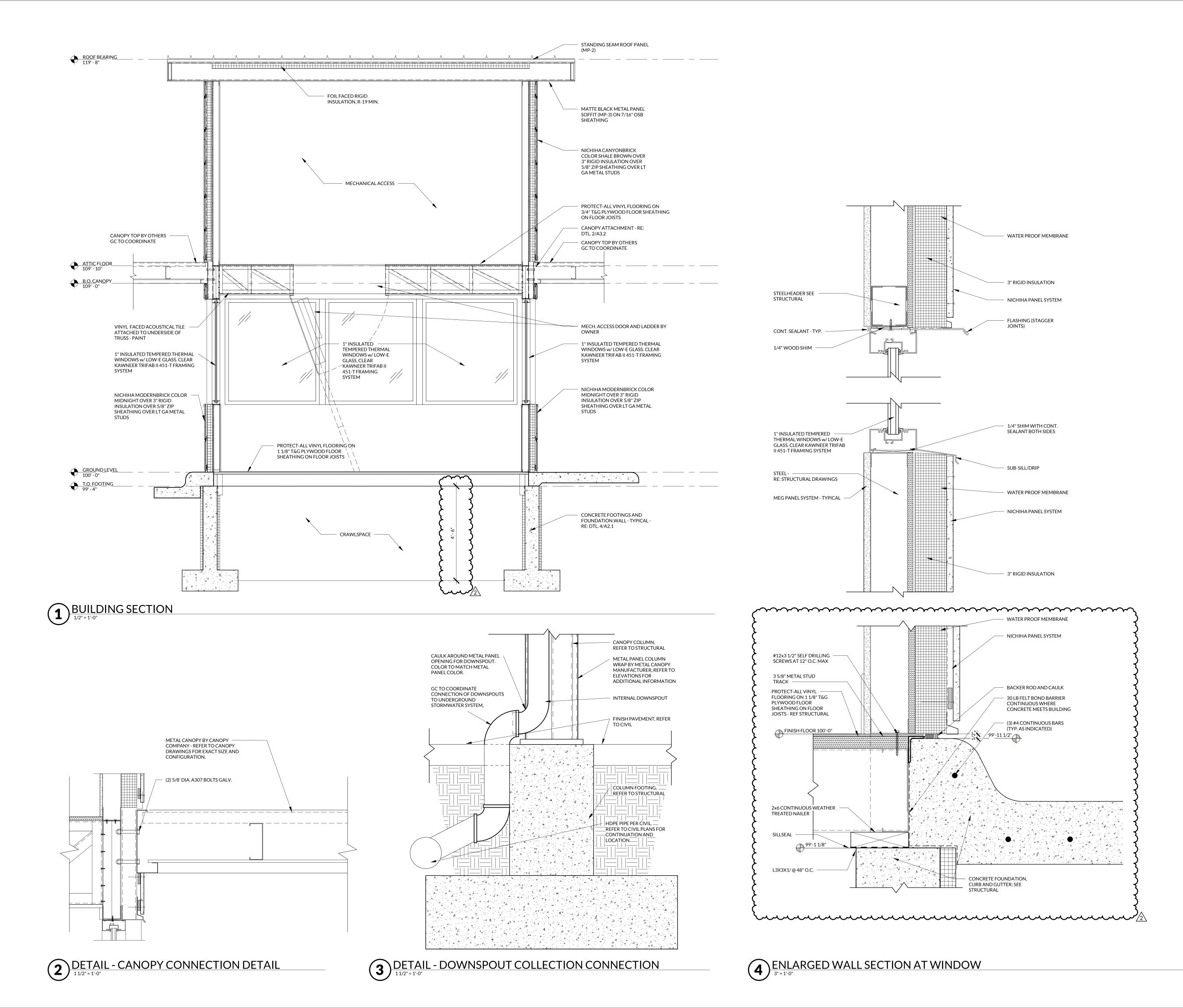
PROJECT NUMBER: 22033 7BLS

REVISION: 1 ADD 001 6/17/22

ADD 002 7/5/22

A3.1 SECTIONS AND **DETAILS** 

DATE: APRIL 22, 2022





1430 NE EE'S SUMI



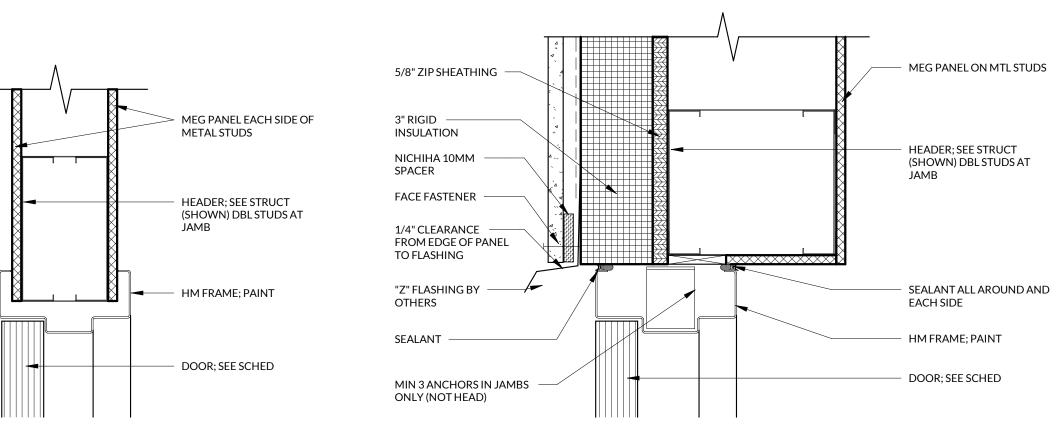
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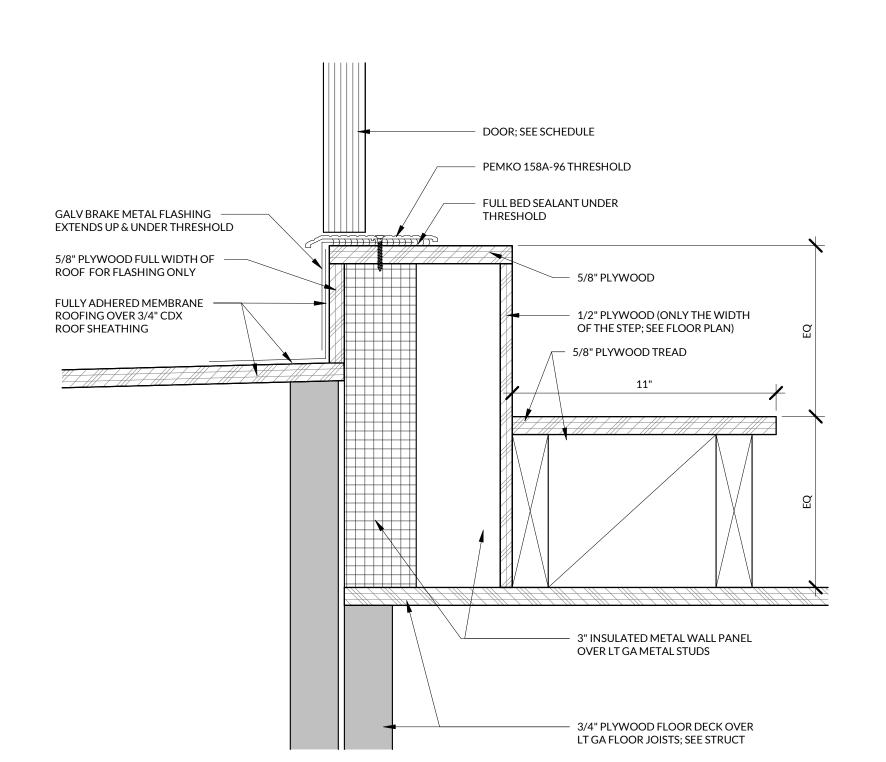
PROJECT NUMBER: 22033 7BLS

REVISION: 2 ADD 002 7/5/22

A3.2

**SECTIONS AND DETAILS** DATE: APRIL 22, 2022





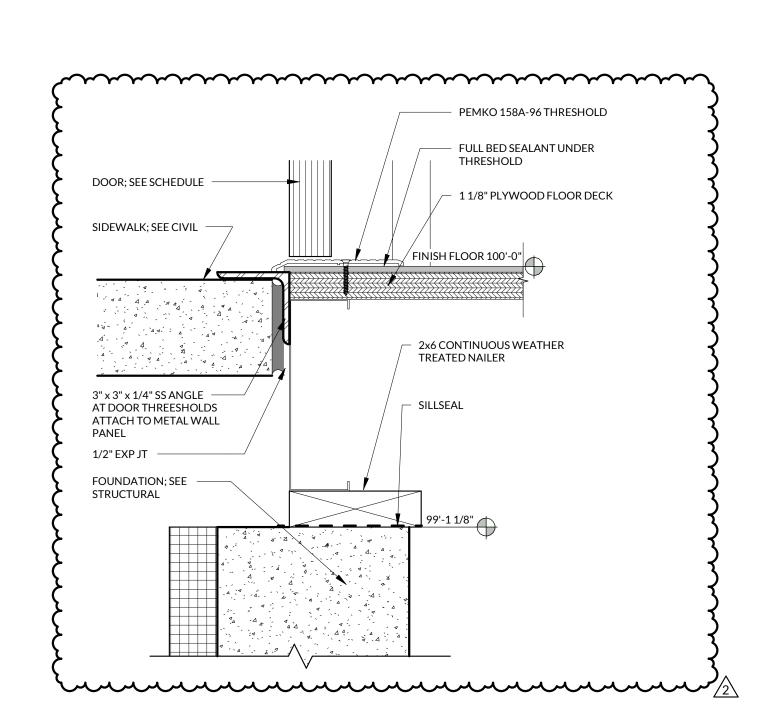
DOOR HEAD @ HM FRAME

3" = 1'-0"

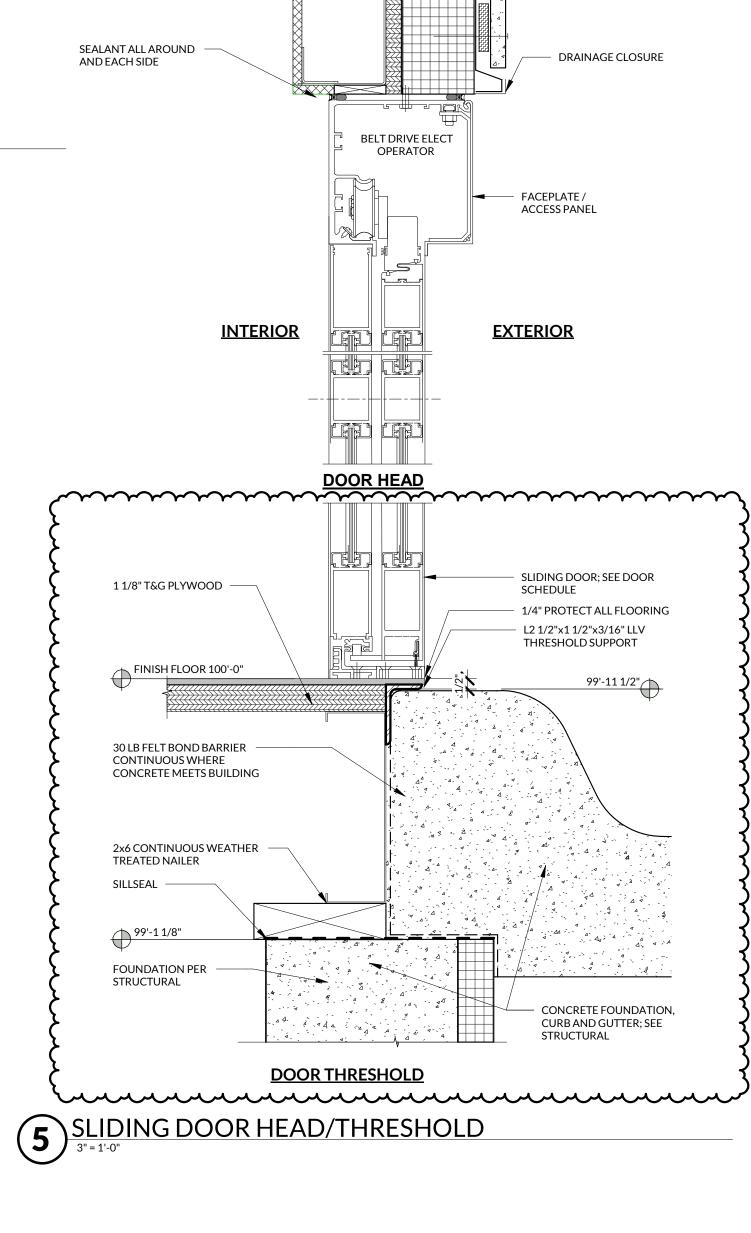
DOOR HEAD @ 3" INSUL PANEL

3" = 1'-0"

3 DOOR THRESHOLD @ MECH ACCESS RM DOOR



DOOR THRESHOLD @ MAIN FLOOR EXTERIOR DOOR

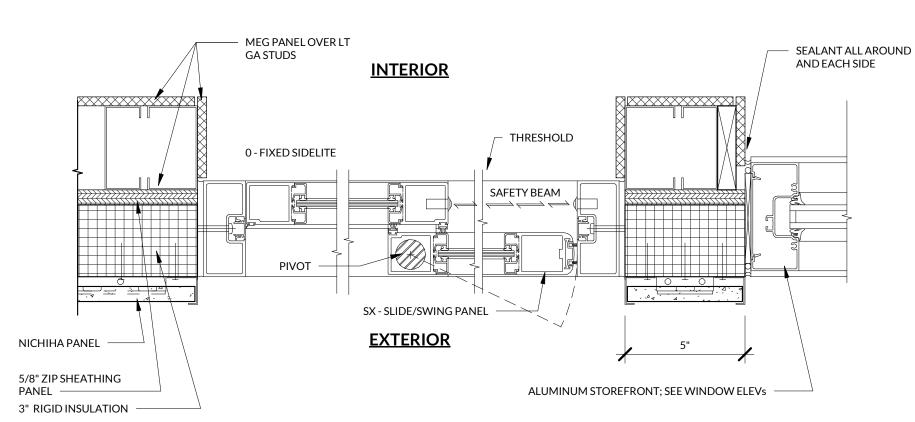


VINYL FACED ACOUSTICAL TILE

LT GA HEADER; SEE STRUCT —

MEG PANEL WALLS

THROUGHOUT



SLIDING DOOR JAMB

3" = 1'-0"

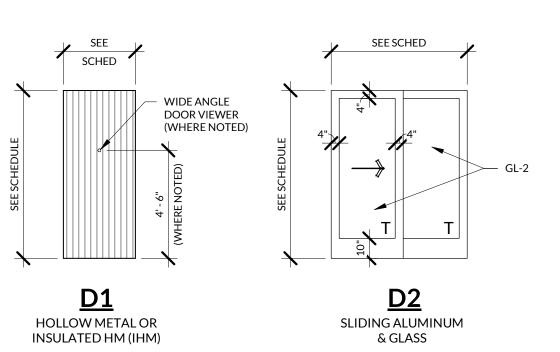
|             |              |             |      |          | DOOR S | CHEDULE  |        |             |           |             |              |          |
|-------------|--------------|-------------|------|----------|--------|----------|--------|-------------|-----------|-------------|--------------|----------|
|             |              |             |      | DOOR     | F      | RAME     |        | DETAILS     |           |             |              |          |
| DOOR NUMBER | ROOM         | SIZE        | TYPE | MATERIAL | TYPE   | MATERIAL | HEAD   | JAMB        | THRESHOLD | FIRE RATING | HARDWARE SET | COMMENTS |
|             |              |             |      |          |        |          |        |             |           |             |              |          |
| 101a        | SERVICE AREA | 3'-0"x7'-0" | D1   | HM       | F1     | HM       | 2/A4.1 | 2/A4.1 SIM. |           |             | 1            |          |
| 101b        | SERVICE AREA | 6'-0"x7'-6" | D2   | ALUM     | F2     | ALUM     | 3/A2.2 | 3/A2.2      |           |             | 4            |          |
| 101c        | SERVICE AREA | 6'-0"x7'-6" | D2   | ALUM     | F2     | ALUM     | 3/A2.2 | 3/A2.2      |           |             | 4            |          |
| 101d        | SERVICE AREA | 6'-0"x7'-6" | D2   | ALUM     | F2     | ALUM     | 3/A2.2 | 3/A2.2      |           |             | 4            |          |
| 102         | TOILET .     | 3'-0"x7'-0" | D1   | НМ       | F1     | НМ       | 1/A4.1 | 1/A4.1 SIM. |           |             | 2            |          |

#### **DOOR ELEVATIONS**

NICHIHA PANEL SYSTEM.

5/8" ZIP SHEATHING

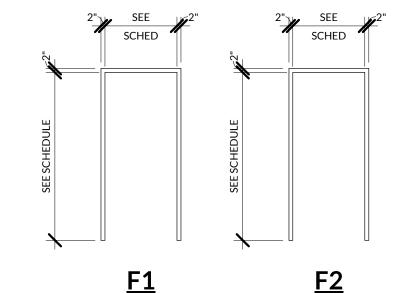
- 3" RIGID INSULATION



MECH. ACCESS ROOM 2'-0"x6'-0" D1 IHM

#### **FRAME ELEVATIONS**

2/A4.1 SIM.



**ALUMINUM FRAME** 

#### DOOR SCHEDULE NOTES:

- a. REFER TO DOOR SCHEDULE FOR HARDWARE SETS
- b. PAINT TO MATCH ADJACENT FINISHES
- c. REFER TO CODE COMPLIANCE DOOR NOTES (BELOW) FOR ADDITIONAL REQUIREMENTS.

#### CODE COMPLIANCE DOOR NOTES:

ALL EXIT DOORS SHALL CONFORM TO THE FOLLOWING PROVISIONS OF THE INTERNATIONAL BUILDING CODE (IBC) AND THE STATE OF MISSOURI ACCESSIBILITY CODE:

- 1. THE EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF ANY SPECIAL
- KNOWLEDGE OR EFFORT WHEN THE BUILDING IS OCCUPIED. ALL HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" TO 48"
- A.F.F. AND SHALL BE OPERATED WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE. 3. DOOR LEADING TO UNISEX TOILET ROOM SHALL BE IDENTIFIED WITH A 12" DIAMETER CIRCLE WITH A TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12" DIAMETER. SIGN/SYMBOL SHALL BE MOUNTED ON THE WAL, ON THE LATCH SIDE OF THE DOOR AND 60"

A.F.F. AND NO MORE THAN 8" FROM THE EDGE OF THE DOOR TO THE EDGE OF THE SIGN.

#### **GENERAL NOTES**

ALL GLAZING FOR EXTERIOR DOOR OR WINDOW FRAMES SHALL BE INSULATED

ALL GLAZING FOR INTERIOR DOOR OR WINDOW FRAMES SHALL BE UNINSULATED, SINGLE PANE

#### DOOR & FRAME FINISH LEGEND

AL = ALUM DOOR OR FRAME

HM = HOLLOW METAL DOOR OR FRAME

F1 = PAINTED

F2 = PRE-FINISHED; CLEAN & PROTECT

#### HARDWARE SETS:

**HOLLOW METAL** 

#### SET #1:

- CLOSER
- PANIC HARDWARE; "DETEX" ECL-600 (OR EQUAL)
  1 1/2 PAIR STANLEY #CB0700 TWO KNUCKLE HINGES
  STANLEY #803969 (OR EQUAL) STEEL-BRIGHT BRASS
- 170 DEGREE, WIDE ANGLE DOOR VIEWER; SEE ELEV FOR LOCATION
- KEYED LOCK ON EXTERIOR THUMB TURN DEADBOLT KNOB ON INTERIOR

- SCHLAGE PRIVACY LOCK"SATURN" LEVER HANDLE (BRUSHED ALUMINUM)
- 1 1/2 PAIR BUTT HINGES

- 1 1/2 PAIR STANLY #CB0700 TWO KNUCKLE HINGES
   THUMB TURN DEADBOLT KNOB ON INTERIOR
- KEYED LOCK ON EXTERIOR

EDELMON-LYON AUTOMATIC DOOR - GT 1175 SINGLE SLIDE DOOR

KEYED LOCK ON SLIDING DOORS

#### **GLAZING SCHEDULE**

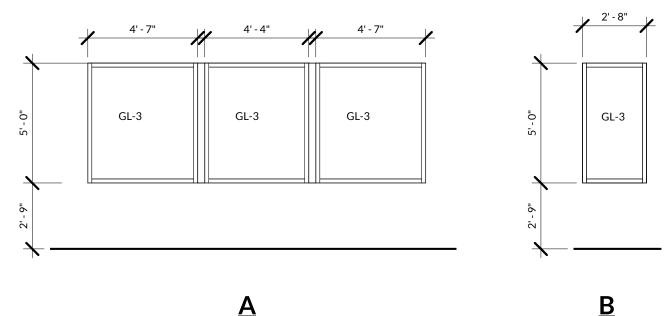
ALUMINUM STOREFRONT

GL-1 1/4" FULLY TEMPERED GLASS

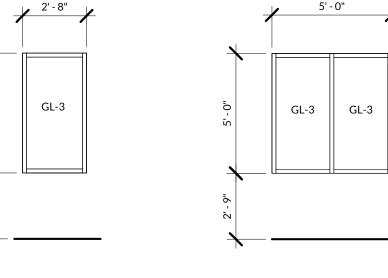
GL-2 1" INSULATED SAFETY GLASS

GL-3 1" INSULATED TEMPERED GLASS GL-4 5/8" INSUL SAFETY DOOR GLASS

#### **WINDOW ELEVATIONS**



**ALUMINUM STOREFRONT** 



ALUMINUM STOREFRONT

ARCHITECT OF RECORD: NAME: ADAM KREHER

OFFEI

BREW

PROJECT NUMBER: 22033 7BLS

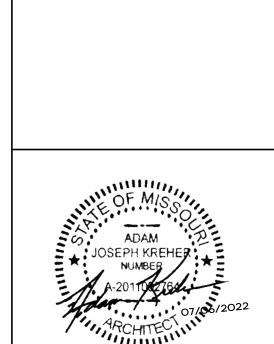
REVISION: 2 ADD 002 7/5/22

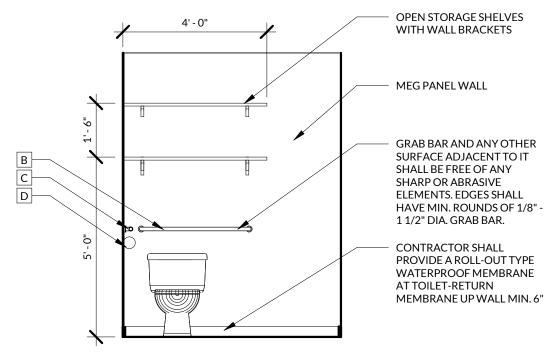
LICENSE NO. 2011002764

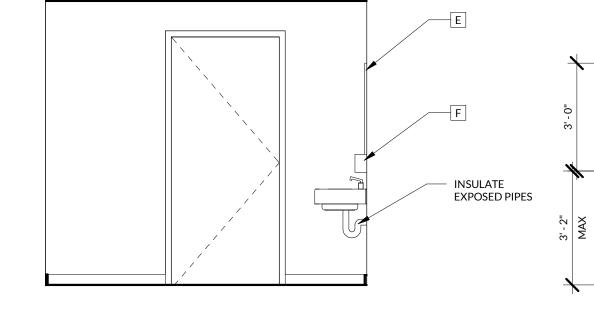
A4.1

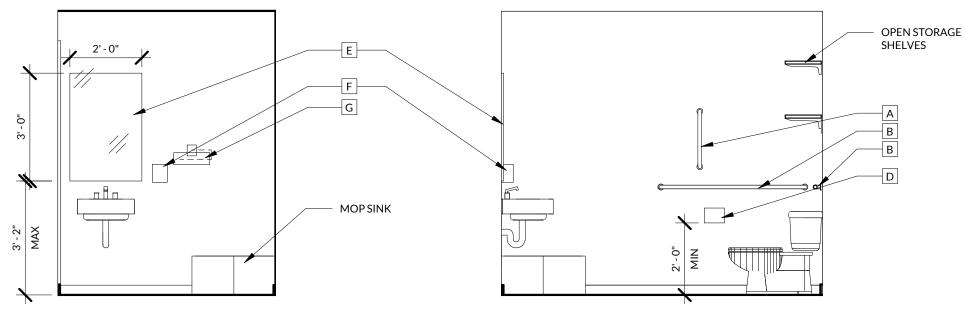
**DOORS AND WINDOWS** 

DATE: APRIL 22, 2022









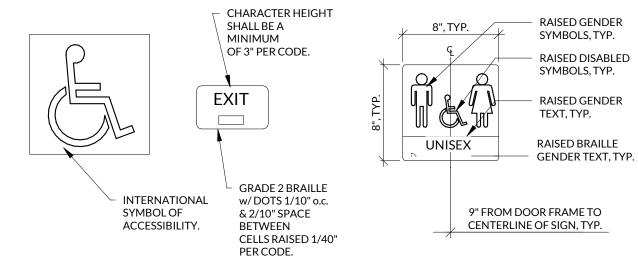
RR 102 - NORTH ELEVATION
3/8" = 1'-0"

RR 102 - EAST ELEVATION

3/8" = 1'-0"

**S** RR 102 - WEST ELEVATION
3/8" = 1'-0"





SIGNS SHALL CONFORM TO ANSI OR LOCAL ACCESSIBILITY GUIDELINES WHICHEVER IS MORE

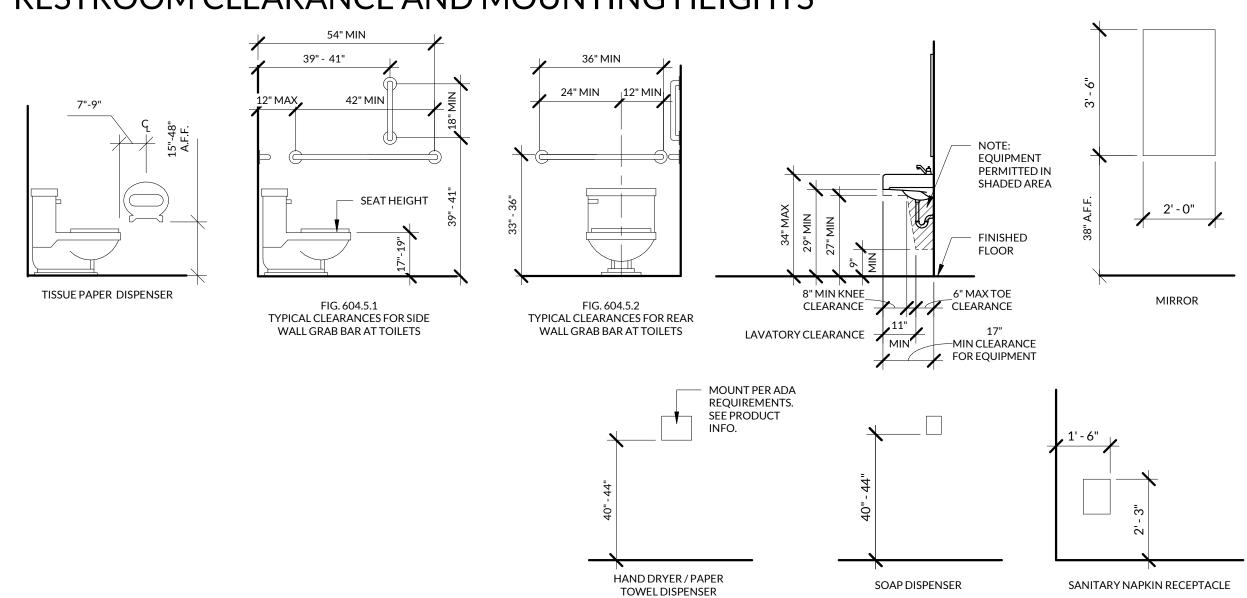
- ALL BUILDINGS AND ENTRANCES THAT ARE ACCESSIBLE AND USABLE BY PERSONS WITH DISABILITIES SHALL BE IDENTIFIED WITH A MINIMUM OF ONE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
- G.C. TO PROVIDE TACTILE "EXIT" SIGNS AT ALL GRADE LEVEL EXIT DOORS PER CODE.
- SIGNS TO BE INSTALLED ON THE LATCH SIDE OF THE DOOR, OR IF NO SPACE ON THE NEAREST WALL PREFERABLY ON THE RIGHT. SIGNAGE SHALL HAVE NON GLARE FINISH W/A CONTRASTING BACKGROUND.

# RESTROOM SCHEDULE

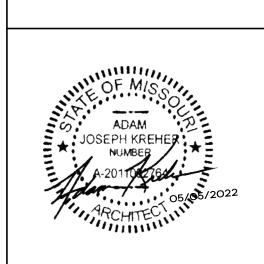
| MARK | ITEM                   | DESCRIPTION                           | NOTES                        |
|------|------------------------|---------------------------------------|------------------------------|
| А    | 18" STRAIGHT GRAB BAR  | EQ. TO BOBBRICK B-5806x18, VERTICAL   | FINISH TO BE STAINLESS STEEL |
| В    | 36" STRAIGHT GRAB BAR  | EQ. TO BOBBRICK B-5806x36, HORIZONTAL | FINISH TO BE STAINLESS STEEL |
| С    | 48" STRAIGHT GRAB BAR  | EQ. TO BOBBRICK B-5806x48, HORIZONTAL | FINISH TO BE STAINLESS STEEL |
| D    | TOILET PAPER DISPENSER |                                       | FINISH TO BE STAINLESS STEEL |
| Е    | MIRROR                 | EQ. TO BOBBRICK B-165 2436            | FINISH TO BE STAINLESS STEEL |
| F    | SOAP DISPENSER         |                                       | FINISH TO BE STAINLESS STEEL |
| G    | PAPER TOWEL DISPENSER  |                                       | FINISH TO BE STAINLESS STEEL |

- A. MOUNTING HEIGHT TO COMPLY WITH ADA REQUIREMENTS. CONTRACTOR IS TO PROVIDE ALL BLOCKING NECESSARY FOR PROPER INSTALLATION. INSTALL PER MANF. RECOMMENDATIONS.
- B. EQUIPMENT SHOWN MAY NOT REFLECT APPEARANCE OF FINAL EQUIPMENT SELECTION.
- C. ALL EQUIPMENT SHALL BE EQUAL TO THAT SPECIFIED. CONTRACTOR TO SUBMIT SHOP DRAWINGS/ CUT SHEETS FOR APPROVAL ON FINAL SELECTION. D. ALL DIMENSIONS TO BE VERIFIED WITH PRODUCT REQUIREMENTS. INSTALL PER MANF. RECOMMENDATIONS.

# RESTROOM CLEARANCE AND MOUNTING HEIGHTS







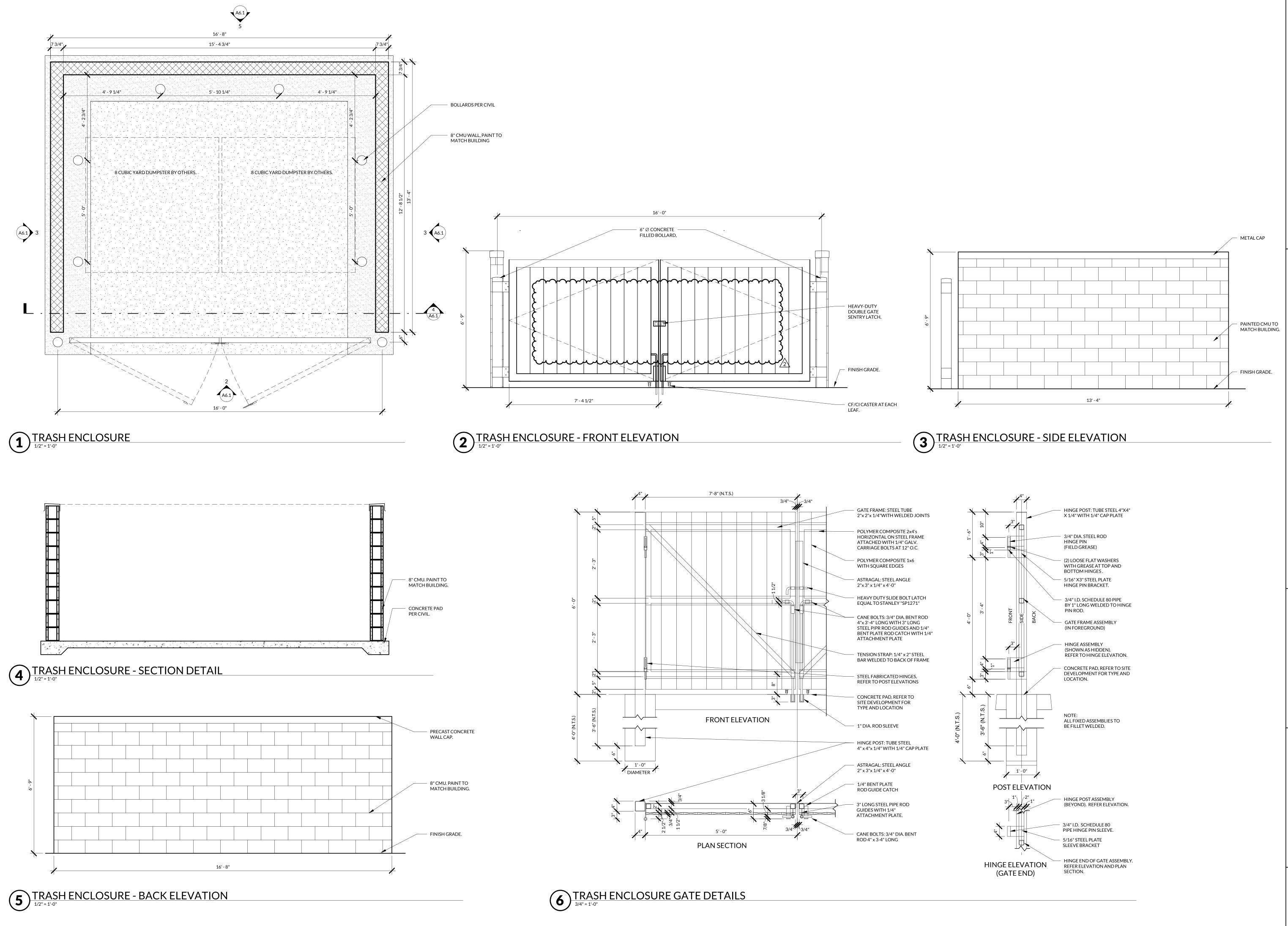
ARCHITECT OF RECORD: NAME: ADAM KREHER LICENSE NO. 2011002764

PROJECT NUMBER: 22033 7BLS

**REVISION:** 

A5.1 RESTROOMS

DATE: APRIL 22, 2022



**BREW** 

ARCHITECT OF RECORD: NAME: ADAM KREHER

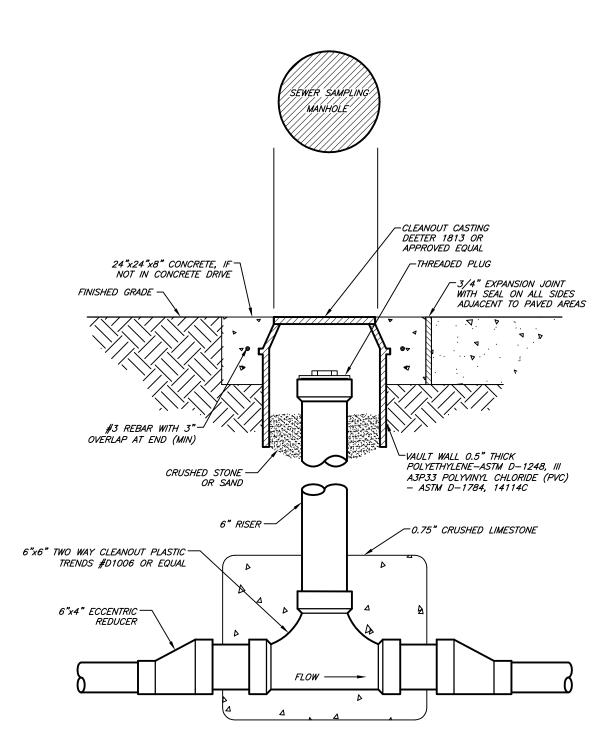
LICENSE NO. 2011002764 PROJECT NUMBER:

22033 7BLS

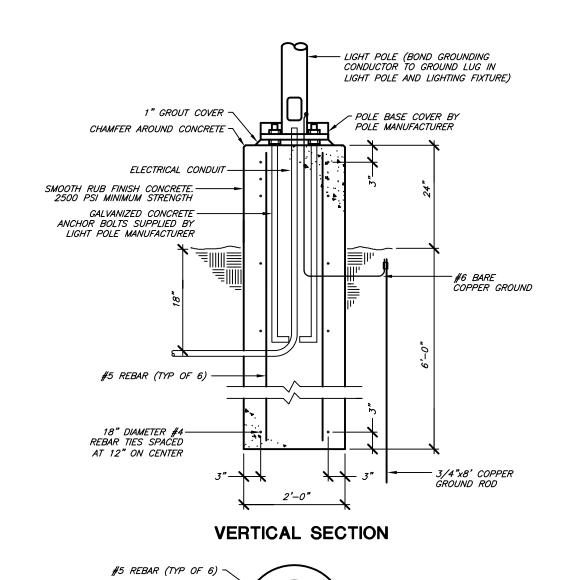
REVISION: 2 ADD 002 7/5/22

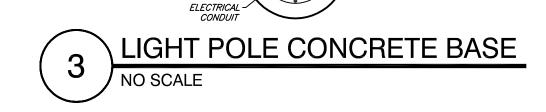
A6.1 TRASH ENCLOSURE

**DETAILS** DATE: APRIL 22, 2022

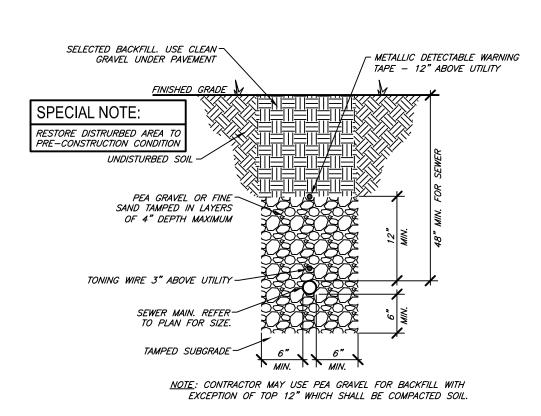


# FINISH GRADE SAMPLING MANHOLE DETAIL NO SCALE



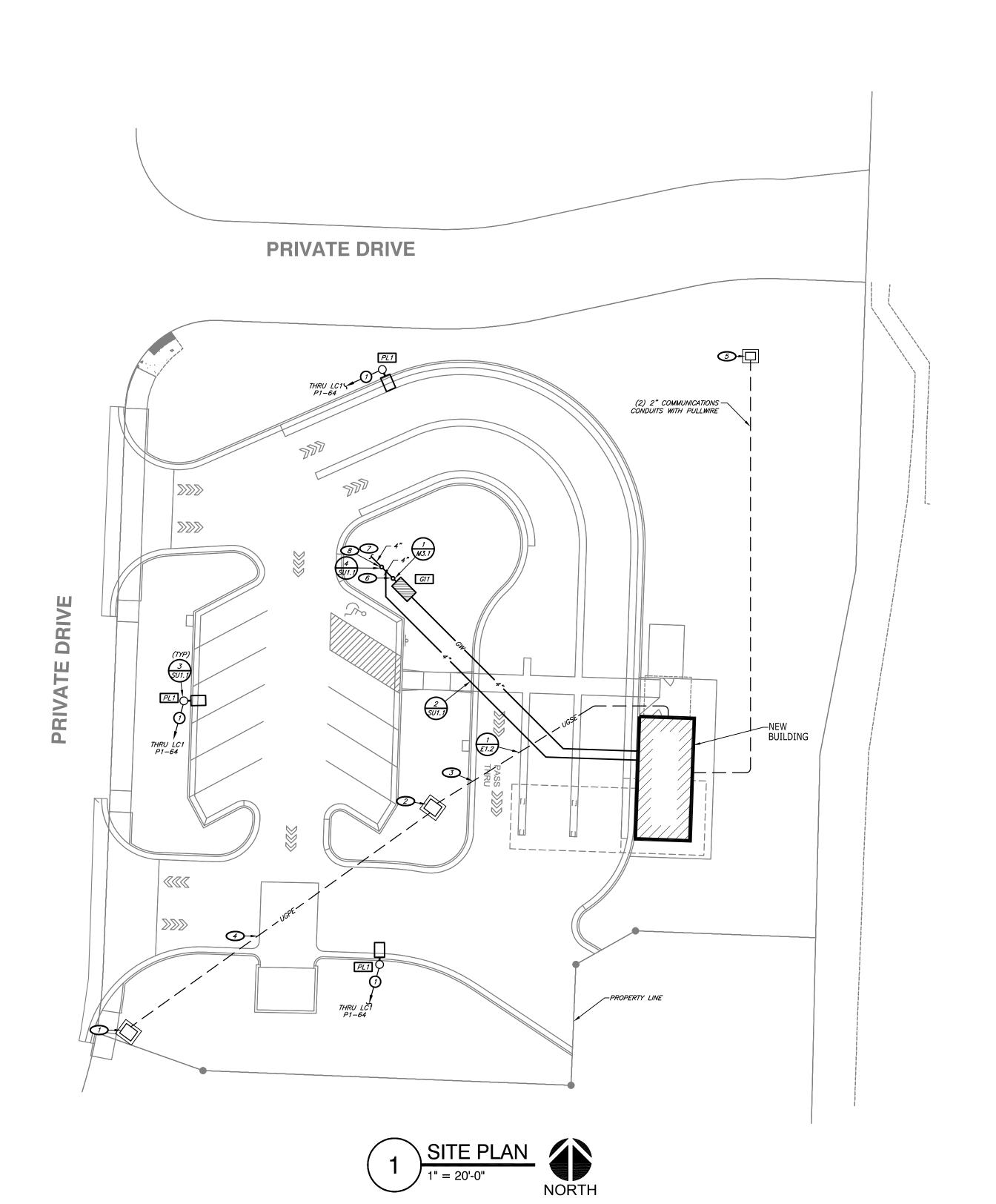


#4 REBAR TIES AT 12" ON CENTER,— TOP (3) AT 3" ON CENTER — ANCHOR BOLTS BY LIGHT FIXTURE MANUFACTURER



SEWER TRENCH DETAIL

NO SCALE



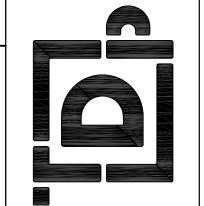
#### **KEYNOTES:**

- EXISTING PRIMARY JUNCTION BOX IN THIS AREA. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH UTILITY COMPANY.
- PADMOUNT 120/240-VOLT SINGLE-PHASE TRANSFORMER BY UTILITY COMPANY. CONCRETE PAD BY CONTRACTOR. EXACT LOCATION SHALL BE FIELD DETERMINED/COORDINATED.
- 3 SECONDARY CONDUIT AND CONDUCTORS BY CONTRACTOR. FIELD COORDINATE EXACT ROUTINGS.
- PRIMARY CONDUITS AND CONDUCTORS BY UTILITY COMPANY. VERIFY EXACT ROUTING, TERMINATION LOCATION, AND REQUIREMENTS WITH THE UTILITY COMPANY. COORDINATE WITH UTILITY COMPANY FOR CONDUCTOR/CONDUIT SIZES.
- 5 PROVIDE 18x18 2-BOLT, OPEN BOTTOM, HEAVY DUTY PULL BOX EQUIVALENT TO HUBBELL-QUAZITE MODEL DT121212GSN. "COMMUNICATIONS" SHALL BE INSCRIBED ON THE LID. INSTALL TOP OF BOX FLUSH WITH FINISH GRADE. PROVIDE EXTENSION AS REQUIRED TO MATCH CONDUIT BURIAL DEPTH. VERIFY/COORDINATE EXACT SERVICE LOCATION AND ALL REQUIREMENTS WITH SERVICE PROVIDER(S) PRIOR TO CONDUIT AND COMMUNICATION BOX INSTALLATION.
- 6 4" WASTE UP TO FINISH GRADE CLEANOUT.

  7 REFER TO CIVIL PLAN FOR CONTINUATION.
- 8 4" WASTE UP TO SAMPLING MANHOLE.

# CONDUIT & CONDUCTOR SCHEDULE:

(2) #10 AND (1) #10 GROUND IN 0.75" CONDUIT.



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#### GENERAL NOTES:

- UTILITY ROUTINGS ARE DIAGRAMMATIC. ADJUST EXACT ROUTING TO ACCOMMODATE FIELD CONDITIONS. REFER TO CIVIL AND PUBLIC IMPROVEMENT PLANS FOR NEW SEWER, WATER AND STORMWATER PIPING.
- P. REFER TO CIVIL AND PUBLIC IMPROVEMENT PLANS FOR LOCATION AND COORDINATION OF ALL EASEMENTS.
- T. REVIEW ALL CIVIL AND PUBLIC IMPROVEMENT PLANS AND COORDINATE ALL WORK WITH DIFFERENT DISCIPLINES. REVIEW AND OBTAIN APPROVAL FROM CITY UTILITIES AND CITY OF SPRINGFIELD PRIOR TO PERFORMING ANY UTILITY WORK.
- 1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID.

  NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS. PLANS ARE

  DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL AND CIVIL DRAWINGS

  FOR DIMENSIONS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING TEMPORARY TELEPHONE, ELECTRICAL AND WATER SERVICES REQUIRED DURING CONSTRUCTION, AND SHALL PAY ALL
- 6. THE CONTRACTOR SHALL CONTACT EVERGY AT (888) 471—5275 AND ARRANGE FOR ELECTRICAL SERVICES AS INDICATED ON DRAWINGS. THE CONTRACTOR SHALL INCLUDE ALL FEES, CHARGES, ETC. INCURRED BY THE UTILITY COMPANY INTO BID. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AS REQUIRED BY THE LOCAL AUTHORITIES FOR SERVICE INSTALLATION. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AUTHORITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH TELECOMMUNICATIONS AND CABLE TELEVISION SERVICE PROVIDERS TO FACILITATE AND SCHEDULE INSTALLATION OF SERVICES. CONTRACTOR SHALL COORDINATE WITH OWNER FOR SERVICE PROVIDER CONTACT. THE OWNER SHALL BE RESPONSIBLE FOR ALL COSTS, CHARGES, FEES, ETC. INCURRED BY SERVICE PROVIDERS. PROVIDE ALL MATERIALS AS REQUIRED BY LOCAL AUTHORITIES FOR SERVICE INSTALLATION. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AUTHORITIES.
- . ALL SITE ELECTRICAL INSTALLATIONS AND CONSTRUCTION SHALL BE PER THE MOST RECENT REVISIONS OF THE NATIONAL ELECTRIC SAFETY CODE (NESC) AND THE NATIONAL ELECTRIC CODE (NEC) STANDARDS AND SPECIFICATIONS.
- 9. COORDINATE ALL TRANSFORMER LOCATIONS WITH OTHER UTILITIES INDICATED ON CIVIL PLANS.

# SITE UTILITIES SYMBOLS:

10. REFER TO CIVIL PLANS FOR ALL SITE SANITARY SEWER WORK.

OHE OVERHEAD ELECTRIC

UNDERGROUND PRIMARY ELECTRIC

UNDERGROUND SECONDARY ELECTRIC

UNDERGROUND TELECOMMUNICATIONS

UNDERGROUND CABLE TV

7 BREW COFFE EE'S SUMMI 'REE 408(

<u>5</u> –



ENGINEER OF RECORD:

NAME: RYAN JONES

LICENSE NO.PE-2004017193

PROJECT NUMBER: 21334 7BSM

REVISION:



CJD 1

Engineering | Energy | Innovation

2225 West Chesterfield Boulevard, Suite 200, Springfield, MO 65807

P: 417.877.1700 F: 417.324.7735 www.cjd-eng.com

Missouri State Certificate of Authority #2005026903

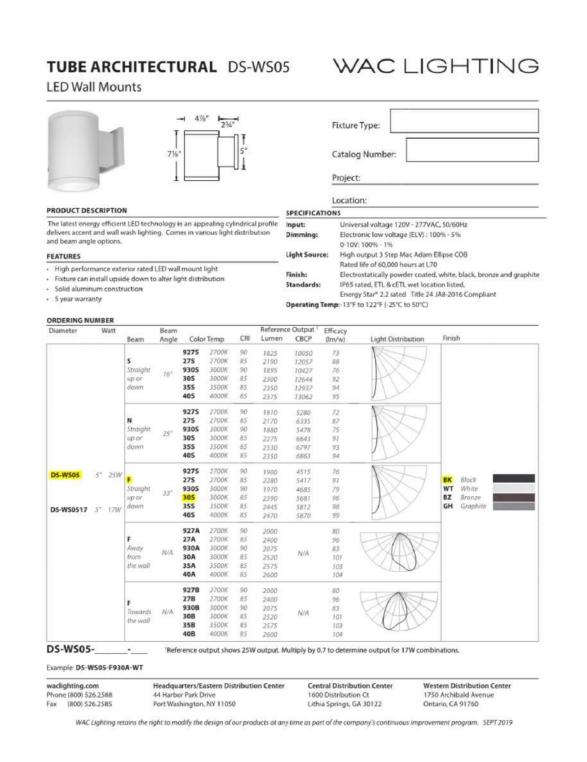
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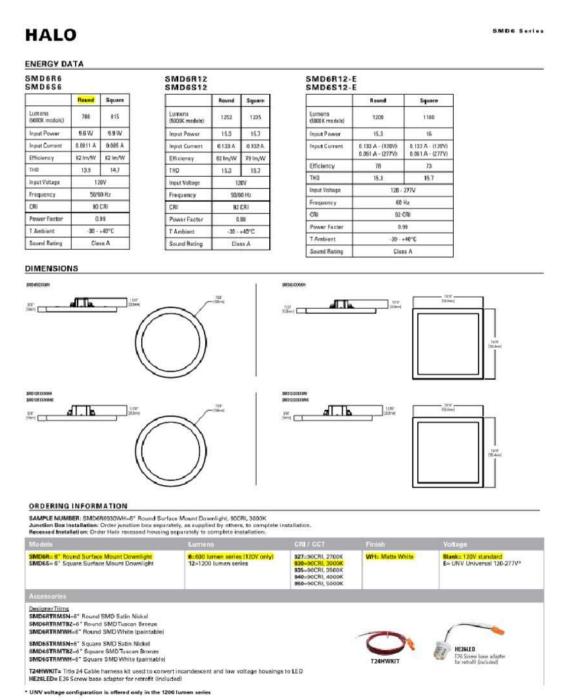
SITE UTILITIES
PLAN
DATE: APRIL 26, 2022

compartment.

WARRANTY – 5-year limited warranty, see hew.com/warranty.

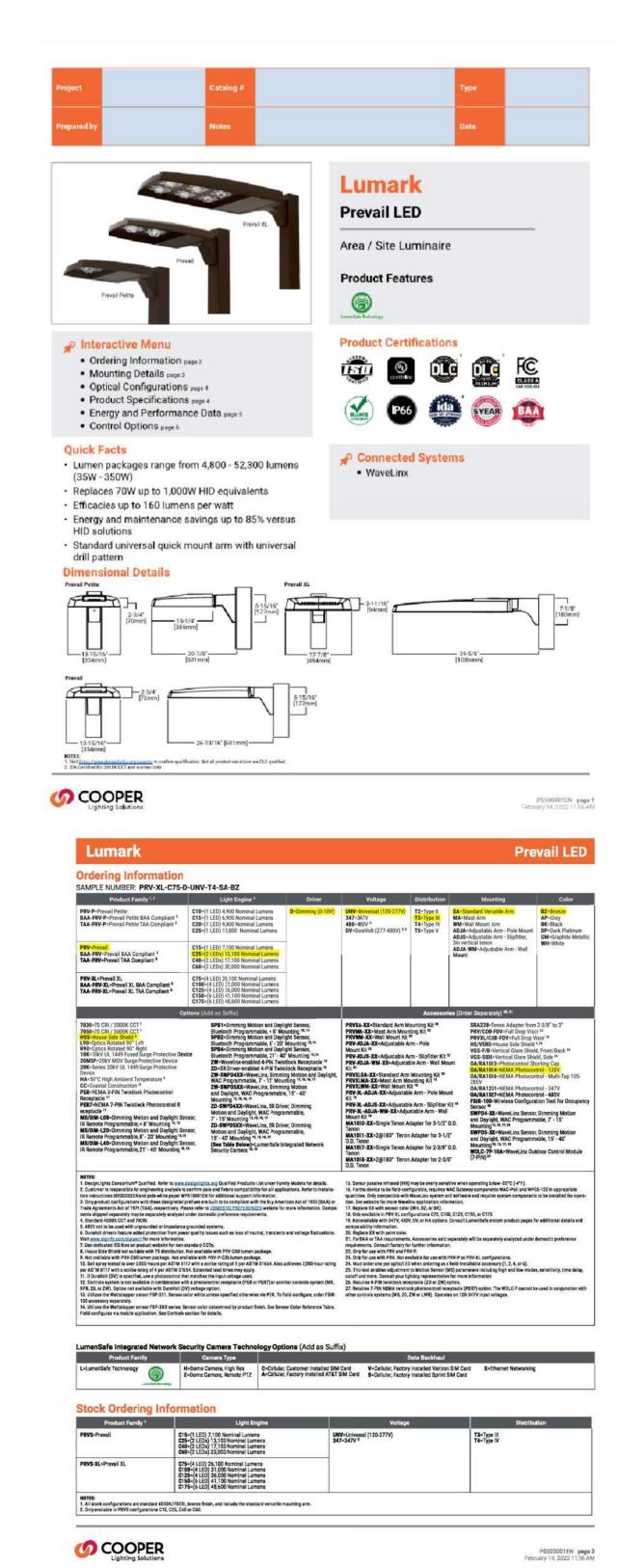




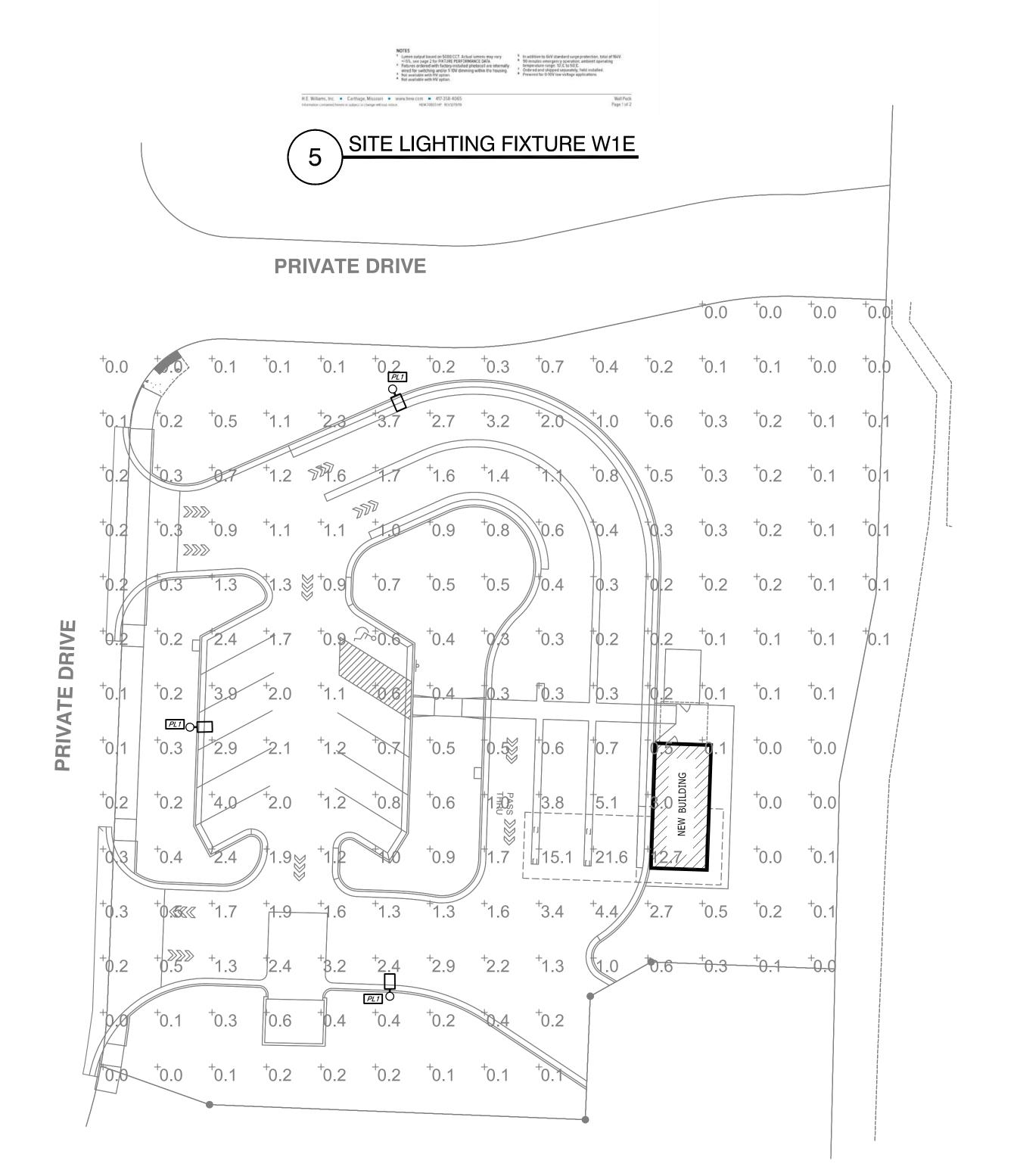




COOPER











SITE PHOTOMETRIC PLAN **DATE:** APRIL 26, 2022

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ASMO

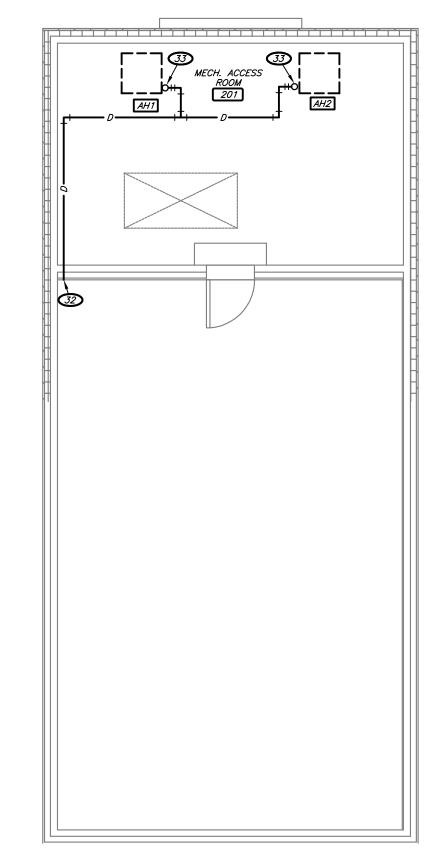
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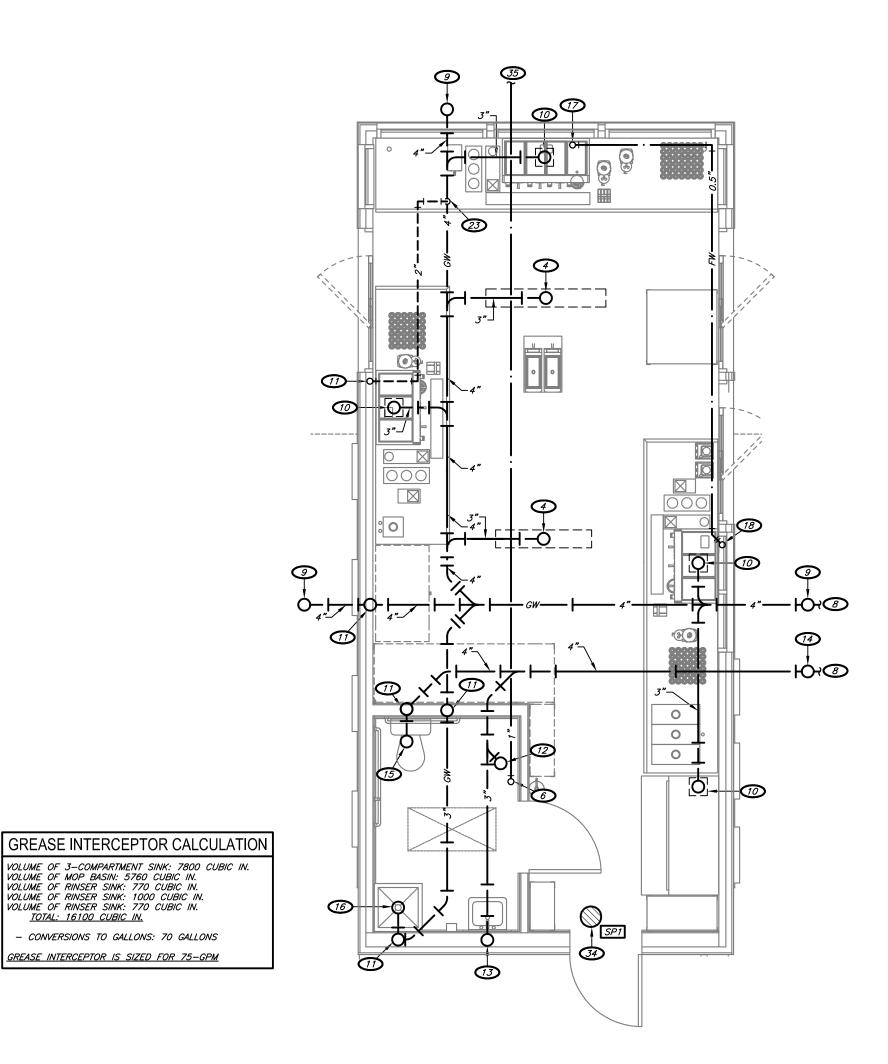
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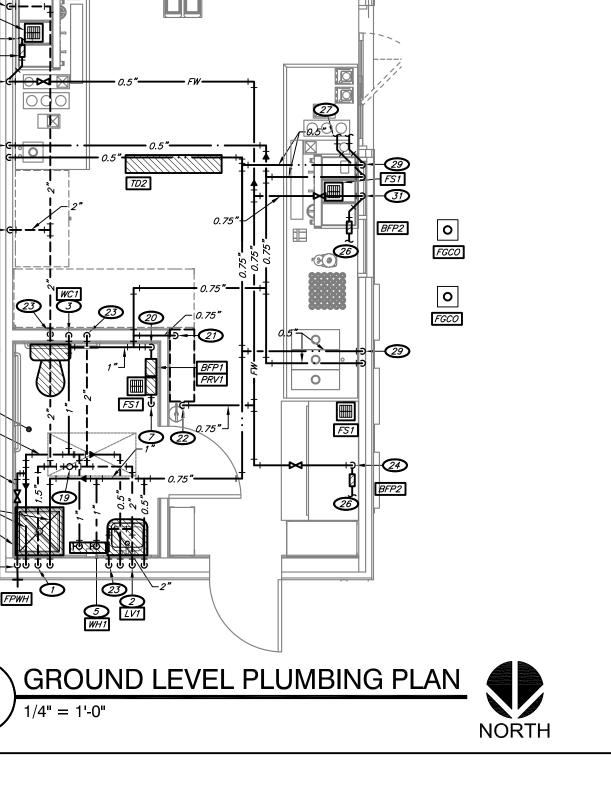
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REVISION:



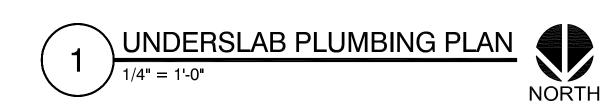


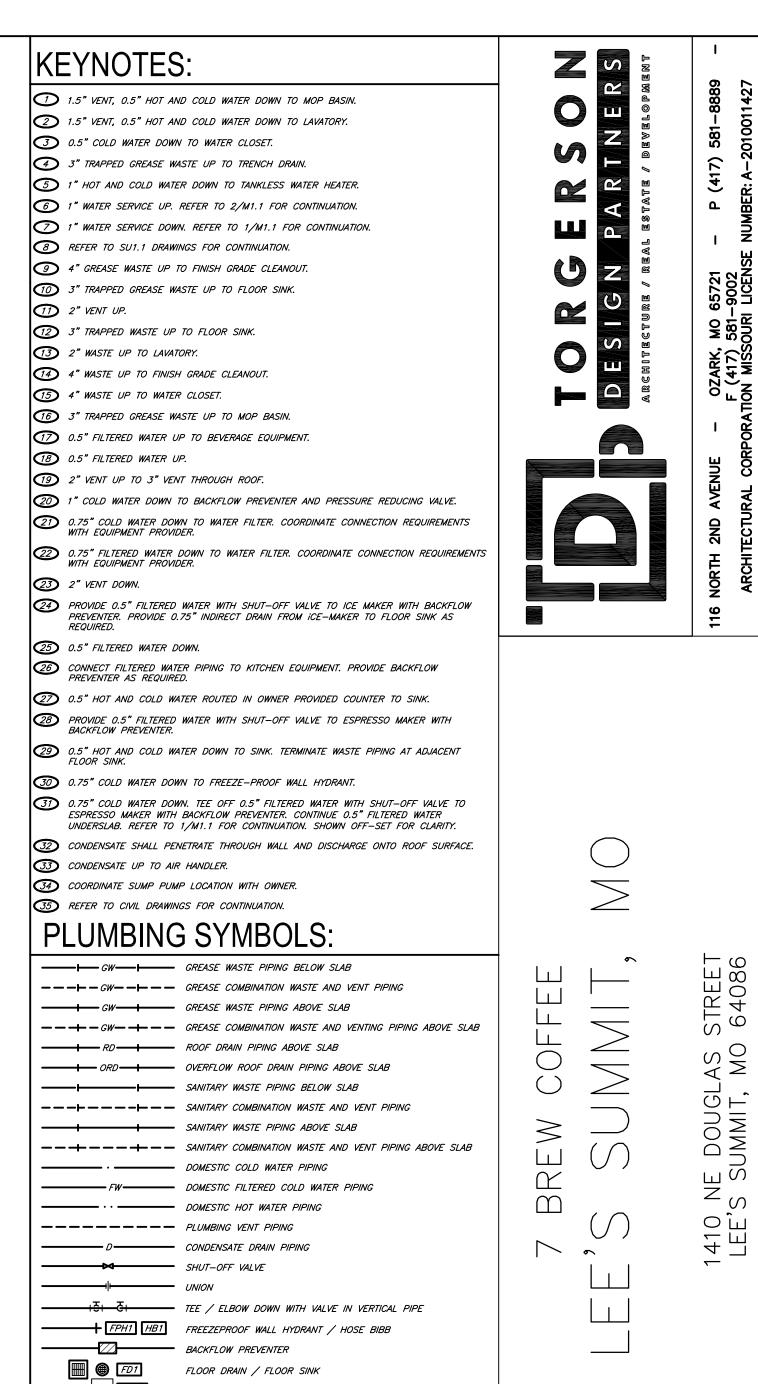


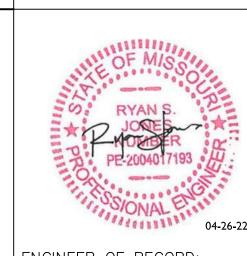


**2** 

0.75**"**—







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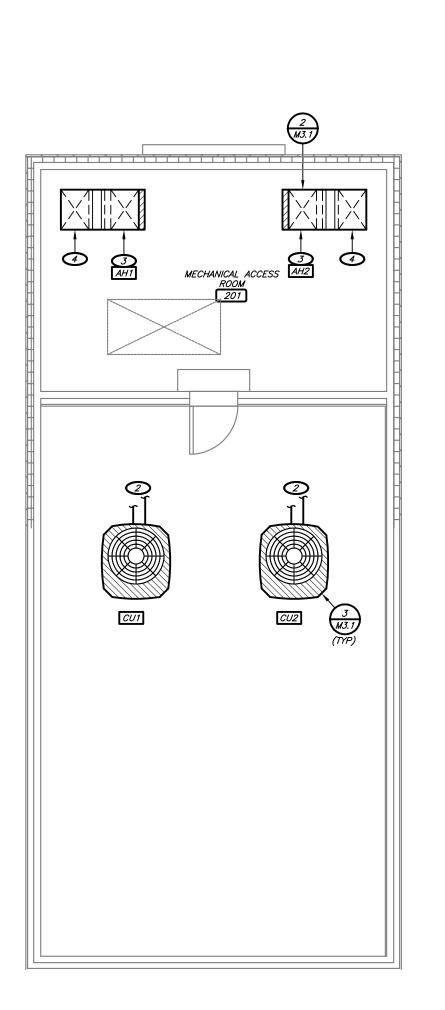
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REVISION:

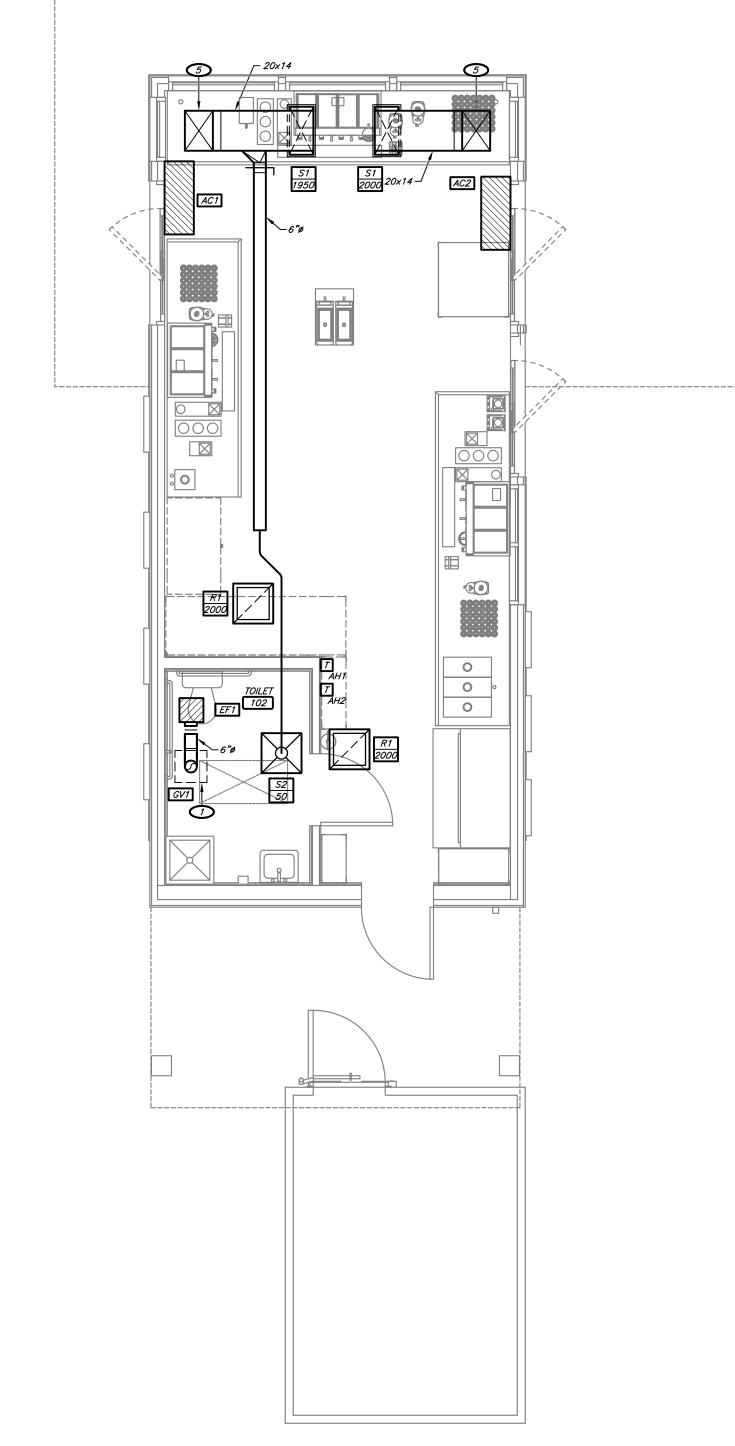
FINISH FLOOR CLEANOUT

Engineering | Energy | Innovation  $2225~\mathrm{West}$  Chesterfield Boulevard, Suite 200, Springfield, MO 65807P: 417.877.1700 F: 417.324.7735 www.cjd-eng.com Missouri State Certificate of Authority #2005026903 Special notice: Drawings prepared by CJD LLC are instruments of service for use solely with respect to this project. CJD LLC retains ownership and all common law, statutory law and other reserved rights including copyrights. This drawing shall not be reused in part or in full for any other work without prior written consent by and appropriate compensation to CJD LLC. Whoseever changes the design without prior written approved from CJD LLC, does so at their own risk and assumes full responsibility for any damages, liabilities or costs resulting directly or indirectly from such changes to the fullest extent of the law. PLUMBING PLAN

**DATE:** APRIL 26, 2022







GROUND LEVEL HVAC PLAN

1/4" = 1'-0"

NORTH



6"ø EXHAUST DUCT UP TO GRAVITY VENTILATOR (WITH 8" CURB).

PROVIDE REFRIGERANT LINE ASSOCIATED AIR HANDLER. SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

3 20x14 SUPPLY DOWN TO AIR HANDLER TRANSITION AS REQUIRED AND PROVIDE FLEXIBLE CONNECTION. 20x16 RETURN DUCT UP TO BOTTOM OF AIR HANDLER FROM BELOW TRANSITION TO UNIT AS REQUIRED.

4 20x14 SUPPLY DOWN. REFER TO 1/M2.1 FOR CONTINUATION. 5 20x14 SUPPLY UP. REFER TO 2/M2.1 FOR CONTINUATION. 6 ELECTRIC HEATER. COORDINATE MOUNTING HEIGHT WITH OWNER.

HVAC SYMBOLS:

FLEXIBLE DUCTWORK CEILING RETURN/EXHAUST GRILLE CEILING SUPPLY DIFFUSER

TEMPERATURE SENSOR DUCTWORK (WIDTH/HEIGHT) WITH DAMPER

14x18 FLEXIBLE CONNECTION

DIFFUSER TYPE AND CFM RECTANGULAR TO ROUND TAKE-OFF

 $\bigcirc$ 



ENGINEER OF RECORD: NAME: RYAN JONES LICENSE NO.PE-2004017193

PROJECT NUMBER: 21334 7BSM

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M2.1HVAC PLAN

**DATE:** APRIL 26, 2022

|                                      | PIPING MATERIAL SCHEDULE |      |          |       |      |          |          |          |                   |                  |                   |              |       |
|--------------------------------------|--------------------------|------|----------|-------|------|----------|----------|----------|-------------------|------------------|-------------------|--------------|-------|
|                                      |                          |      | PIPI     | NG    |      |          | F        | FITTINGS | MAXIMUM           | WORKING          | FIELD             | ) TEST       |       |
| SYSTEM                               | SIZE                     | TYPE | SCHEDULE | GRADE | ASTM | MATERIAL | MATERIAL | TYPE     | PRESSURE<br>(PSI) | TEMP (DEG.<br>F) | PRESSURE<br>(PSI) | TIME (HOURS) | NOTES |
| DOMESTIC WATER ABOVE AND BELOW GRADE | 0.5"-2"                  | PEX  | -        | -     | A877 | PEX      | BRONZE   | MJ       | 120               | 40-180           | 150               | 1            | -     |
| GREASE WASTE AND VENT ABOVE GRADE    | ALL                      | DWV  | 40       | -     | 2665 | PVC      | PVC      | DR/SW    | 10 FT             | 50-180           | 10 FT             | 1            | 1     |
| GREASE WASTE BELOW GRADE             | ALL                      | DWV  | 40       | -     | 2665 | PVC      | PVC      | DR/SW    | 10 FT             | 50-180           | 10 FT             | 1            | 1     |
| SANITARY WASTE BELOW GRADE           | ALL                      | DWV  | 40       | -     | 2665 | PVC      | PVC      | DR/SW    | 10 FT             | 50-180           | 10 FT             | 1            | 1     |
| SANITARY WASTE & VENT ABOVE GRADE    | ALL                      | DWV  | 40       | -     | 2665 | PVC      | PVC      | DR/SW    | 10 FT             | 50-180           | 10 FT             | 1            | 1     |
| TEMPERATURE & PRESSURE RELIEF DRAIN  | ALL                      | М    | -        | -     | B88  | COPPER   | COPPER   | DR/SJ    | 10 FT             | 40-70            | 10 FT             | 1            | -     |

. USE OF CELLULAR CORE DWV PIPING IS STRICTLY PROHIBITED.

ABBREVIATIONS: CI - CAST IRON

CS - CARBON STEEL CW - CONTINUOUS WELD DI - DUCTILE IRON

DR - DRAINAGE FITTING DWV - DRAINAGE WASTE AND VENT MI - MALLEABLE IRON MJ - MECHANICAL JOINT

NH - NO-HUB - 95-5 TIN-ANTIMONY SOLDER JOINT - STANDARD STRENGTH / SERVICE WEIGHT SW - SOLVENT WELD

|      |                                |                   | PLUM         | BING FIXTURE & EQUIPMENT SCHED                                                                                                                                                                                                | ULE           |              |             |          |       |                              |
|------|--------------------------------|-------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|-------------|----------|-------|------------------------------|
|      |                                |                   |              |                                                                                                                                                                                                                               | PIF           | PING CONN    | ECTION SIZE | ES       |       |                              |
| MARK | DESCRIPTION                    | MANUFACTURER      | MODEL NUMBER | ACCESSORIES                                                                                                                                                                                                                   | COLD<br>WATER | HOT<br>WATER | WASTE       | VENT     | NOTES | EQUIVALENT<br>MANUFACTURERS  |
| BFP1 | BACK FLOW PREVENTER            | WATTS             | LF009        | LEAD FREE BNRONZE CONSTRUCTION, TWO IN LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS.                                                                   | 1"            | -            | -           | -        | -     | FEBCO                        |
| BFP2 | BACKFLOW PREVENTER             | WATTS             | SD-3         | DUAL CHECK VALVE WITH ATMOSPHERIC PORT AND STRAINER FOR CARBONATED BEVERAGE MACHINES                                                                                                                                          | 0.5"          | -            | -           | -        | -     | FEBCO                        |
| TD1  | FLOOR DRAIN                    | -                 | -            | CUSTOM STAINLESS STEEL TRENCH DRAIN BY OWNER                                                                                                                                                                                  | -             | -            | SEE PLAN    | SEE PLAN | 2     | ZURN                         |
| TD2  | FLOOR DRAIN                    | -                 | -            | CUSTOM STAINLESS STEEL TRENCH DRAIN BY OWNER                                                                                                                                                                                  | -             | -            | SEE PLAN    | SEE PLAN | 2     | ZURN                         |
| FGCO | FINISH GRADE CLEANOUT          | ZURN              | ZN1400-HD    | -                                                                                                                                                                                                                             | -             | -            | SEE PLAN    | -        | -     | SIOUX CHIEF, SMITH,<br>WADE  |
| FPWH | FREEZE-PROOF WALL<br>HYDRANT   | JAY R. SMITH      | #5609        | NICKEL BRONZE-FACE, KEY OPERATED, INTEGRAL VACUUM BREAKER                                                                                                                                                                     | 0.75"         | -            | -           | -        | 3     | SMITH, WOODFORD              |
| FS1  | FLOOR SINK                     | JAY R. SMITH      | #3161        | CAST IRON RECEPTOR, A.R.E. INTERIOR 12"x12" NICKEL BRONZE STRAINER, SEDIMENT<br>BUCKET.                                                                                                                                       | -             | -            | 3"          | SEE PLAN | 1     | -                            |
| GI1  | GREASE INTERCEPTOR             | SCHIER            | GB-75        | 75 GPM, 125 GALLON CAPACITY, 616 lbs. GREASE CAPACITY, PEDESTRIAN RATED COVER, PROVIDE 24" COVER RISER.                                                                                                                       | -             | -            | 4"          | -        | -     | SUBMIT FOR APPROVAL          |
| LV1  | WALL HUNG ADA LAVATORY         | AMERICAN STANDARD | #355.012     | #2385.130 FAUCET, WITH SINGLE METAL LEVER HANDLE #7723.018, 1.25" TAILPIECE AND<br>TRAP, SUPPLIES AND STOP VALVES, INSULATE WITH PROWRAP SEAMLESS MOLDED<br>CLOSED CELL VINYL INSULATION. PROVIDE WATTS LFUSG-B MIXING VALVE. | 0.5"          | 0.5"         | 2"          | 1.5"     | 1,3,  | CRANE, KOHLER, TOTO,<br>ZURN |
| MB1  | MOP BASIN                      | FIAT              | MSB-2424     | 830-AA FAUCET, 838-AA HOSE AND BRACKET, 889-CC MOP HANGER, MSG2424 WALL<br>GUARD                                                                                                                                              | 0.5"          | 0.5"         | 3"          | 1.5"     | 1     | STERN WILLIAMS               |
| PRV1 | PRESSURE REDUCING VALVE        | CASH ACME         | EB25         | SET TO MAX DELIVERY PRESSURE OF 80-PSI.                                                                                                                                                                                       | SEE PLAN      | -            | -           | -        | -     | FEBCO, WILKINS               |
| WC1  | ADA FLUSH TANK WATER<br>CLOSET | AMERICAN STANDARD | 2467.016     | 1.6 GALLON FLUSH, 16.5" HIGH ELONGATED BOWL, FLOOR MOUNTED, TANK TYPE, VITREOUS CHINA, OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER. CHROME PLATED ANGLE STOP AND RISER. HANDLE ON WIDE SIDE OF FIXTURE.                   | 0.5"          | -            | 4"          | 2"       | 1,4   | ELJER, KOHLER, TOTO          |

- ACCESSORIES SHALL BE SAME MANUFACTURER AS FIXTURE / EQUIPMENT UNLESS NOTED OTHERWISE.
- REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. INSTALL ACCESSORIES AS RECOMMENDED BY MANUFACTURER FOR ADA COMPLIANCE.
- FIELD COORDINATE/VERIFY FRAMING ROUGH-IN DIMENSIONS WITH ASSOCIATED CONTRACTOR BEFORE ORDERING. PROVIDE WALL CARRIER OR BRACKET AS RECOMMENDED BY MANUFACTURER FOR WALL MOUNTED INSTALLATION.

|        | PUMP SCHEDULE |           |       |        |     |               |      |      |                  |      |     |                   |        |               |                |                   |                             |
|--------|---------------|-----------|-------|--------|-----|---------------|------|------|------------------|------|-----|-------------------|--------|---------------|----------------|-------------------|-----------------------------|
| MARK   | MANUFACTURER  | SERIES    | INLET | DISCH. | GPM | HEAD<br>(FT.) | NPSH | TYPE | WORKING<br>CLASS | H.P. | RPM | VOLTAGE/<br>PHASE | CONST. | FLUID<br>TYPE | FLUID<br>TEMP. | NOTES/<br>ACCESS. | EQUIVALENT<br>MANUFACTURERS |
| SP1    | ZOELLER       | 1043-0006 | -     | 1"     | 35  | 20            | -    | SUMP | -                | 1/3  | -   | 115/1             | CI     | WATER         | 40-140         | 1                 | LITTLE GIANT, WEIL          |
| NOTES/ | ACESSORIES:   |           |       |        |     |               |      |      |                  |      |     |                   |        |               |                |                   |                             |

PROVIDE ZOELLER 30-0152 CHECK VALVE INSTALLED ON PUMP DISCHARGE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

ABBREVIATIONS: NPSH - NET POSITIVE SUCTION HEAD

CW - CHILLED WATER CHW - CHILLED/HOT WATER

. THERMAL EXPANSION TANK EQUIVALENT TO AMTROL MODEL ST-5

DRAIN VALVE WITH THREADED HOSE CONNECTION

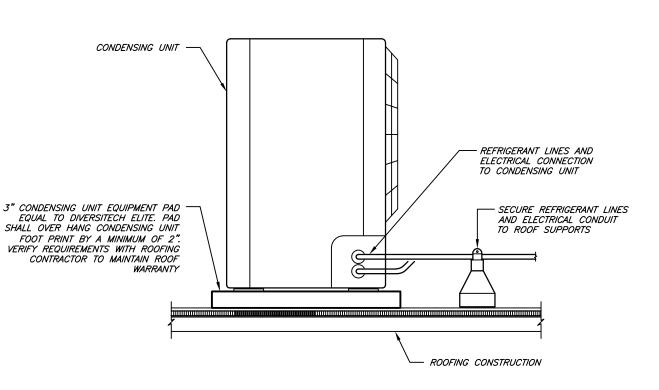
R. PRESSURE & TEMPERATURE RELIEF VALVE

CDW - CONDENSER WATER HW - HEATING HOT WATER DHW - DOMESTIC HOT WATER

AB - ALL BRONZE

BFCI - BRONZE FITTED CAST IRON AS - AQUASTAT KIT BMES - BASE MOUNTED END SUCTION

|        |              | V       | VAT  | ER HE              | EATER                 | SCHEE | ULE               |             |
|--------|--------------|---------|------|--------------------|-----------------------|-------|-------------------|-------------|
| MARK   | MANUFACTURER | MODEL#  | TYPE | GALLON<br>CAPACITY | RECOVERY<br>GPH @ 85F | KW    | VOLTAGE/<br>PHASE | ACCESSORIES |
| WH1    | RHEEM        | RTEX-18 | ELEC | -                  | -                     | 18.0  | 240/1             | 1,2,3       |
| ACCECC | ODIES.       |         |      |                    |                       |       |                   |             |



**ROOF MOUNTED CONDENSING UNIT DETAIL** NO SCALE

#### **GRAVITY VENTILATOR SCHEDULE** DELTA P THROAT AREA FACE AREA FACE VELOCITY NOTES AND MANUFACTURER (STATIC) MIN (SQ.FT.) MIN (SQ.FT.) (FPM) ACCESSORIES COOK PR8 EXHAUST 75 0.1" 0.394 1.38 54.3 1,2,3,4 NOTES AND ACCESSORIES: 1. FACTORY FABRICATED INSULATED ROOF CURB WITH CUSTOM HEIGHT OF 14" MINIMUM ABOVE FINISH ROOF SURFACE. PROVIDE COUNTER BALANCE BACKDRAFT DAMPER.

|                           | AIR I                     | HANDLE         | ER/C        | OIL/C       | CONDE              | NSING                    | UNIT S            | SCHE | DULE |           |
|---------------------------|---------------------------|----------------|-------------|-------------|--------------------|--------------------------|-------------------|------|------|-----------|
| AIR HANDLE                | ER .                      |                |             |             |                    |                          |                   |      |      |           |
| MARK                      | MANUFACTURER              | MODEL#         | SA<br>(CFM) | OA<br>(CFM) | EXTERNAL<br>STATIC | ELEC HEAT<br>(KW/STAGES) | VOLTAGE/<br>PHASE | MCA  | МОСР | NOTES     |
| AH1                       | OMNIGUARD                 | BCE5E60        | 1810        | -           | 0.5"               | 14.4/1                   | 240/1             | 96   | 100  | 1,2,3,4,5 |
| AH2                       | OMNIGUARD                 | BCE5E60        | 1810        | -           | 0.5"               | 14.4/1                   | 240/1             | 96   | 100  | 1,2,3,4,5 |
| AIR HANDLER<br>. EXTERNAL | NOTES:<br>STATIC PRESSURE | INCLUDES WET C | OIL. EXCLU  | JDES FILTE  | R LOSS.            |                          |                   |      |      |           |

PROVIDE FRONT ACCESSIBLE FILTER RACK AND 2" FILTER EQUAL TO FARR 30/30 WITH MERV 7 MINIMUM RATING. PROVIDE SINGLE POINT POWER CONNECTION WITH CIRCUIT BREAKER DISCONNECTING MEANS. PROVIDE ENERGY STAR RATED 7-DAY PROGRAMMABLE THERMOSTAT. PROVIDE WATER LEVEL MONITORING DEVICE IN DRAIN CONNECTED TO FAN SHUT DOWN RELAY IN AIR HANDLER.

| MARK | MANUF     | EVAP. COIL<br>MODEL# | COND. UNIT<br>MODEL# | ENTERING<br>AIR DB/WB | SENSIBLE<br>MBH | TOTAL<br>MBH | VOLTAGE/<br>PHASE | MCA  | МОСР | NOTES |
|------|-----------|----------------------|----------------------|-----------------------|-----------------|--------------|-------------------|------|------|-------|
| CU1  | OMNIGUARD | W/ AHU               | 4AC16L60P-50         | 80 / 67               | 45.4            | 60.5         | 240/1             | 29.6 | 50   | 1,2,3 |
| CU2  | OMNIGUARD | W/ AHU               | 4AC16L60P-50         | 80/67                 | 45.4            | 60.5         | 240/1             | 29.6 | 50   | 1,2,3 |

PROVIDE REFRIGERANT LINE SET(S) SIZED PER MANUFACTURER'S RECOMMENDATIONS.

PROVIDE ANTI-CONDENSATE COATING.

PROVIDE BIRD SCREEN.

PROVIDE ALL REFRIGERATION SYSTEM ACCESSORIES REQUIRED BY MANUFACTURER FOR GIVEN LINE SET ROUTING PROVIDE LOW AMBIENT CRANK CASE HEATER (10 DEG. F)

|      | AIR CURTAIN SCHEDULE |        |          |                 |                               |                 |                                 |                   |     |      |        |  |  |
|------|----------------------|--------|----------|-----------------|-------------------------------|-----------------|---------------------------------|-------------------|-----|------|--------|--|--|
| MARK | MANUFACTURER         | MODEL# | MOUNTING | HEATING<br>(KW) | AMCA LAB<br>AIRFLOW<br>(SCFM) | NOZZLE<br>WIDTH | MAX. VELOCITY @<br>NOZZLE (FPM) | VOLTAGE/<br>PHASE | MCA | МОСР | NOTES  |  |  |
| AC1  | STRONGWAY            | 49947  | WALL     | -               | 816                           | 36"             | 3,937                           | 120/1             | 2.9 | 15   | 1 THRU |  |  |
| AC2  | STRONGWAY            | 49947  | WALL     | -               | 816                           | 36"             | 3,937                           | 120/1             | 2.9 | 15   | 1 THRU |  |  |
|      |                      |        |          | •               |                               | •               |                                 |                   |     | ·    |        |  |  |

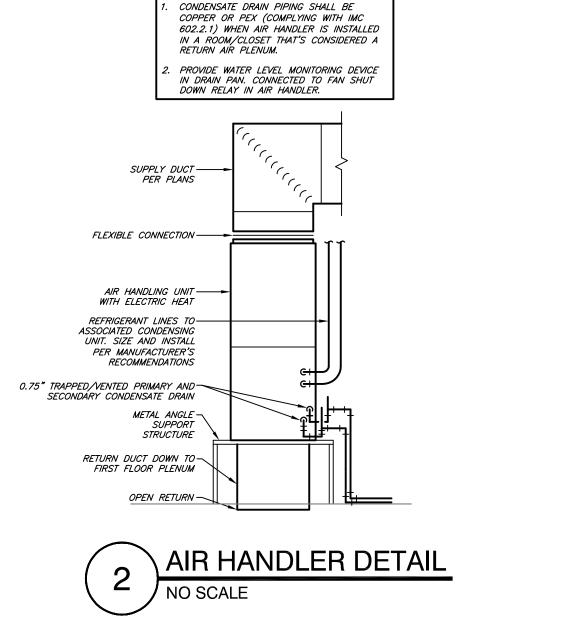
- PROVIDE FACTORY INSTALLED DISCONNECT.
- FACTORY INSTALLED UNIT MOUNTED CONTROLS WITH TWO SPEED CONTROL. MAGNETIC DOOR LIMIT SWITCH.
- FACTORY MOUNTED MOTOR CONTROL PANEL CLEANABLE FILTER.
- FIELD COORDINATE EXACT MOUNTING REQUIREMENTS AND PROVIDE ALL REQUIRED ACCESSORIES
- UNIT SHALL BE RATED FOR OUTDOOR CONDITIONS COORDINATE FINISH WITH OWNER.

| FAN SCHEDULE |                   |                   |        |        |          |                   |     |        |              |               |  |
|--------------|-------------------|-------------------|--------|--------|----------|-------------------|-----|--------|--------------|---------------|--|
| NOTES        | MOTOR<br>HP/WATTS | VOLTAGE/<br>PHASE | DAMPER | FINISH | MOUNTING | ESP<br>(IN. W.C.) | CFM | MODEL# | MANUFACTURER | MARK          |  |
| 1,2,3        | 31W               | 120/1             | -      | STD    | CEILING  | 0.25"             | 75  | GC-146 | соок         | EF1           |  |
| _            | 31W               | 120/1             | -      | STD    | CEILING  | 0.25"             | 75  | GC-146 |              | EF1<br>NOTES: |  |

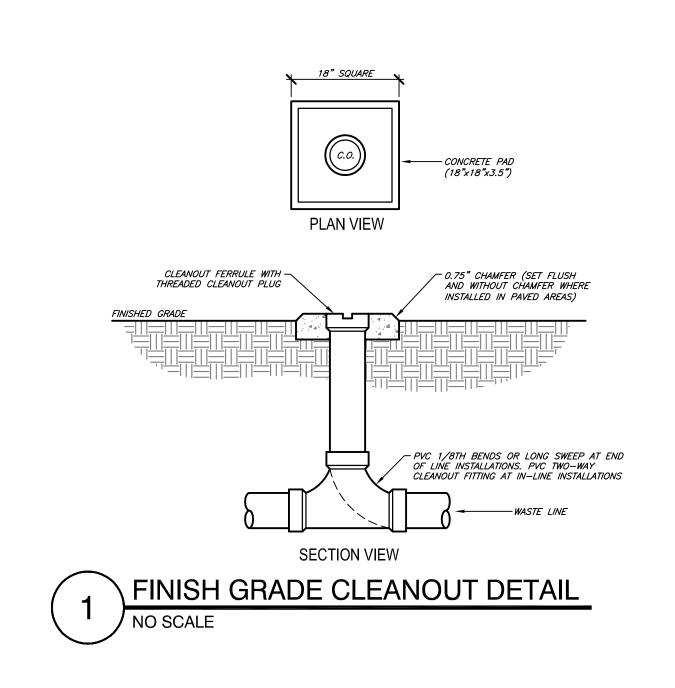
1. FACTORY MOUNTED DISCONNECTING MEANS. GRAVITY BACKDRAFT DAMPER. PROVIDE BIRD SCREEN.

| MARK | MANUFACTURER | MODEL#   | MOUNTING  | FINISH | CFM | HEATING<br>(WATTS) | VOLTAGE/<br>PHASE | MCA  | МОСР | NOTES |
|------|--------------|----------|-----------|--------|-----|--------------------|-------------------|------|------|-------|
| EH1  | INFRATECH    | CL3024SS | SUSPENDED | ARCH   | -   | 3000               | 240/1             | 12.5 | 20   | 1     |
| EH2  | INFRATECH    | CL3024SS | SUSPENDED | ARCH   | -   | 3000               | 240/1             | 12.5 | 20   | 1     |
| ЕН3  | INFRATECH    | CL3024SS | SUSPENDED | ARCH   | -   | 3000               | 240/1             | 12.5 | 20   | 1     |

|       |              |             | AIR DE\                                          | /ICE S  | SCHE           | DULE    |        |        |            |               |                     |       |
|-------|--------------|-------------|--------------------------------------------------|---------|----------------|---------|--------|--------|------------|---------------|---------------------|-------|
| MARK  | MANUFACTURER | MODEL#      | DUCT CONNECTION SIZE                             | SERVICE | MODULE<br>SIZE | FRAME   | FINISH | DAMPER | MAX.<br>NC | THROW<br>(FT) | DELTA P<br>(STATIC) | NOTES |
| S1    | OWNE         | ER PROVIDED | ROVIDED 12x24: 0-2000 CFM SUPPLY - SURFACE WHITE |         | -              | 30      | 20     | 0.1"   | -          |               |                     |       |
| S2    | OWNE         | ER PROVIDED | 6": 0-75 CFM                                     | SUPPLY  | -              | SURFACE | WHITE  | -      | 30         | 20            | 0.1"                | -     |
| R1    | OWNE         | ER PROVIDED | 22x22: 0-2000 CFM                                | RETURN  | -              | SURFACE | WHITE  | -      | 30         | -             | 0.1"                | -     |
| NOTES |              |             |                                                  |         |                |         |        |        |            |               |                     | _     |



SPECIAL NOTE:



# GENERAL MECHANICAL NOTES:

- GENERAL MECHANICAL NOTES APPLY TO ALL MECHANICAL SHEETS.
- CJD ENGINEERING LLC, BEING THE AUTHOR OF THESE CONSTRUCTION DOCUMENTS
  RESERVES THE RIGHT OF FINAL INTERPRETATION AS TO THEIR INTENT AND MEANING. ANY
  ADDITIONAL WORK OR COSTS RESULTING FROM THE CONTRACTOR'S OWN INTERPRETATION AS TO THE INTENT OR MEANING WITHOUT CONSULTATION WITH CJD ENGINEERING LLC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO COST TO OWNER OR A/E.
- THE INTENT OF THE WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS IS TO PROVIDE A FULLY FUNCTIONING SYSTEM IN COMPLETE WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S SUPPLIERS TO INCLUDE ALL ACCESSORIES, COMPONENTS, PARTS, ETC. THAT MAY NOT BE INDICATED ON THESE CONSTRUCTION DOCUMENTS TO PROVIDE BUILDING CODE COMPLIANT SYSTEMS AND EQUIPMENT THAT OPERATE SATISFACTORILY AS DESIGNED AND INTENDED.
- DRAWINGS ARE NOT SET UP SPECIFICALLY ACCORDING TO TRADE AND EACH CONTRACTOR AND SUB-CONTRACTOR OR TRADE IS REQUIRED TO REVIEW THE CONSTRUCTION

  DOCUMENTS AS A WHOLE AND PROVIDE ANY MISC. ITEMS, MATERIALS, WORK, ETC. REQUIRED TO COMPLETE THE WORK AS SHOWN ON ALL DOCUMENTS. THIS REQUIREMENT APPLIES TO ALL TRADES. STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING
- REQUIREMENTS AND RELATED WORK ARE INDICATED THROUGHOUT THE DOCUMENTS AND SHOULD BE REVIEWED WITH EACH FOR OVERALL SCOPE OF WORK. ALL MECHANICAL WORK SHALL BE PERFORMED BY LICENSED PLUMBING AND MECHANICAL
- CONTRACTORS AND SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING, PLUMBING, FUEL GAS AND MECHANICAL CODES, AND ALL APPLICABLE LOCAL CODES AS ADOPTED BY LOCAL AUTHORITIES.
- THE CONTRACTOR SHALL INCLUDE ALL PERMIT AND INSPECTION FEES IN BID. THE PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO CIVIL, STRUCTURAL, AND ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR DIMENSIONS. FIELD VERIFY
- PIPING AND DUCTWORK LAYOUTS ARE DIAGRAMMATIC. FIELD COORDINATE EXACT LOCATIONS AND ROUTINGS WITH STRUCTURE, LIGHT FIXTURES, CONDUITS, ETC. FINAL RESULT SHALL
- BE EQUIVALENT TO THAT INDICATED ON DRAWING COOPERATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCES AND CONFLICTS. BEFORE ANY PIPING, DUCTWORK, CONDUIT, ETC. IS
- INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES. MAINTAIN ALL CLEARANCES REQUIRED BY PLUMBING AND HVAC EQUIPMENT. COORDINATE WITH ELECTRICAL CONTRACTOR TO MAINTAIN ALL CLEARANCES REQUIRED FOR EQUIPMENT. DO NOT ROUTE PIPING, DUCTWORK, ETC. ABOVE ELECTRICAL PANELS.
- DRAWINGS REPRESENT FINAL RESULT. REMOVE, RELOCATE, MODIFY EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS AND EXACT REQUIREMENTS. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS. 12. IF CONTRACTOR WISHES TO INCORPORATE PRODUCTS OTHER THAN THOSE NAMED IN SPECIFICATIONS IN HIS BID OR PRODUCTS BY MANUFACTURERS OTHER THAN THOSE LISTED AS APPROVED MANUFACTURERS, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR
- REVIEW AND APPROVAL OF PROPOSED SUBSTITUTIONS TO CJD ENGINEERING LLC NOT LES THAN FIVE WORKING DAYS PRIOR TO BID DATE. APPROVAL OR ACCEPTANCE OF PROPOSED SUBSTITUTION OF MANUFACTURERS OR ITEMS IS FOR THE PURPOSES OF BIDDING ONLY AND DOES NOT RELIEVE THE PROPOSED SUBSTITUTION FROM THE SUBMITTAL/SHOP DRAWING REVIEW AND DOES NOT CONSTITUTE PRIOR APPROVAL OF PROPOSÉD
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF LARGER WIRING, CONDUIT, ENCLOSURES, CONTROL AND OVERCURRENT PROTECTIVE DEVICES, ETC. RESULTING FROM SUBSTITUTION OF EQUIPMENT OTHER THAN THAT WHICH WAS THE BASIS OF DESIGN AT NO COST TO OWNER OR A/E.
- THE CONTRACTOR SHALL PROVIDE ELECTRONIC SHOP DRAWINGS/SUBMITTALS OF ALL FIXTURES AND EQUIPMENT FURNISHED UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL PERFORM A PRELIMINARY FUNCTIONAL TEST AND BALANCE FOR ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT. THE CONTRACTOR SHALL THEN OBTAIN THE SERVICES OF AN INDEPENDENT FIRM CERTIFIED WITH ASSOCIATED AIR BALANCING COUNCIL OR NATIONAL ENVIRONMENTAL BALANCING BUREAU TO PERFORM THE HVAC SYSTEM TESTING AND BALANCING IN ACCORDANCE WITH AABC OR NEBB NATIONAL
- THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COSTS TO CUT, PATCH AND REPAIR EXISTING WALL, FLOOR AND CEILING CONSTRUCTION AS REQUIRED TO INSTALL NEW PLUMBING FIXTURES, DUCTWORK, EQUIPMENT, PIPING, ETC. ARE INCLUDED IN THE BID

# GENERAL MECHANICAL NOTES:

#### <u>PRODUCTS</u>

- ALL SHUTOFF VALVES ON DOMESTIC WATER SHALL BE BRONZE FULL-PORT BALL VALVE
- P-TRAPS SHALL INCLUDE INTEGRAL CLEANOUT.
- DUCT CONSTRUCTION: ALL DUCTWORK SHALL BE FABRICATED OF G90 GALVANIZED STEEL AND INSTALLED IN

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ACCORDANCE WITH THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS — METAL AND FLEXIBLE MANUAL. ALL SUPPLY AND RETURN AIR DUCT PRESSURE CLASSES SHALL BE THE SAME AS THE EXTERNAL STATIC PRESSURE OF THE EQUIPMENT SUPPLYING THE DUCT. THE EQUIPMENT ESP SHALL BE THE PRESSURE CLASS FOR THE ENTIRE SUPPLY DUCT SYSTEM. CONCEALED ROUND SUPPLY AIR DUCT — 3" PRESSURE CLASS OR LESS: GALVANIZED SNAP—LOCK PIPE WITH TRANSVERSE JOINTS AND CONNECTIONS SEALED. WRAP SUPPLY AND OUTSIDE AIR DUCTS WITH SPECIFIED INSULATION.

CONCEALED ROUND RETURN AND EXHAUST DUCT — 3" PRESSURE CLASS OR LESS:
GALVANIZED SNAP—LOCK PIPE WITH TRANSVERSE JOINTS AND CONNECTIONS SEALED WITH SPECIFIED INSULATION.

RECTANGULAR SUPPLY AND RETURN AIR DUCT: — 3" PRESSURE CLASS OR LESS: GALVANIZED SHEET METAL. LINE SUPPLY, RETURN, OUTDOOR AIR AND MAKE—UP AIR DUCTWORK WITH SPECIFIED INSULATION.

FLEXIBLE DUCTWORK: FLEXMASTER USA TYPE 8B, UL 181 CLASS 1 RATED PRE-INSULATED ACOUSTICAL FLEX DUCT WITH MECHANICAL LOCK HELIX CONSTRUCTION, 25/50 FLAME SMOKE RATING, AND R-6.0 THERMAL BARRIER. RUNS OF FLEXIBLE DUCT SHALL NOT EXCEED 5 LINEAR FEET. FLEXIBLE DUCT SHALL NOT BE USED ON SYSTEMS WITH PRESSURE CLASS GREATER THAN 1". EXTERIOR DUCTWORK SHALL HAVE FLANGED AND GASKETED JOINTS BY DUCTMATE OR

ALL METAL DUCTWORK SPECIFIED TO RECEIVE INTERIOR THERMAL AND ACOUSTICAL LINER IS NOT SIZED ON PLANS TO INCLUDE THE PROPER THICKNESS OF INSULATION. PROVIDE ADDITIONAL HEIGHT AND WIDTH OF DUCTWORK TO ACCOMMODATE THICKNESS OF INSULATION

DUCT INSULATION: RECTANGULAR DUCT (LOCATED WITHIN CONDITIONED SPACE): 1.0" THICK, 2.0 LB. DENSITY DUCT LINER. MINIMUM R-Value OF 6.0.

ROUND DUCT: WRAP WITH 2", 1.0 LB DENSITY FIBERGLASS DUCT WRAP WITH FOIL—SCRIM—KRAFT FACING. MINIMUM R—VALUE OF 6.0. ALL DUCTWORK LOCATED WITHIN AN ATTIC OR UNCONDITIONED SPACE SHALL BE WRAPPED

TO PROVIDE A MINIMUM INSULATION VALUE OF R-8. ROUND TAKE—OFF FITTINGS FROM RECTANGULAR DUCTWORK SHALL BE MADE WITH BUCKLEY AIR PRODUCTS MODEL 3300 AND 3300D RECTANGULAR TO ROUND BOOT FITTINGS FITTINGS WITH INTEGRAL VOLUME DAMPERS AND INSULATION STAND-OFFS WHERE INDICATED.

EQUIVALENT BY AIR-TITE AND CROWN.

PROVIDE AERO-DYNE OR EQUIVALENT DOUBLE WALL TURNING VANES IN ALL RECTANGULAR

BRANCH DUCTS SHALL BE THE SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE. EQUIVALENT WATER HEATERS BY A.O. SMITH, BRADFORD WHITE, LOCHINVAR, RHEEM, STATE, OR OTHERS WITH PRIOR APPROVAL.

EQUIVALENT GRILLES, DIFFUSERS AND REGISTERS BY CARNES, KRUEGER, NAILOR, PRICE, TITUS, HART & COOLEY, TUTTLE & BAILEY, OR OTHERS WITH PRIOR APPROVAL. EQUIVALENT EXHAUST FANS BY ACME, COOK, GREENHECK, PENN, OR OTHERS WITH PRIOR

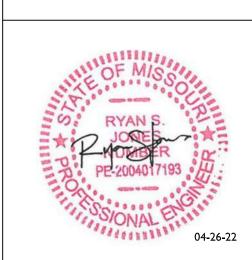
EQUIVALENT FURNACES, EVAPORATOR COILS AND CONDENSING UNITS BY CARRIER, TRANE AND YORK, AND SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. **EXECUTION** PROVIDE ALL ACCESSORIES, COMPONENTS, ETC. REQUIRED FOR COMPLETE INSTALLATION OF

PROVIDE UNISTRUTS AND ACCESSORIES AS REQUIRED FOR SUPPORT OF PIPING, EQUIPMENT

CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. PROVIDE ADAPTERS, FITTINGS, ETC. FOR ALL EQUIPMENT AS REQUIRED. COORDINATE SPECIFIC REQUIREMENTS WITH EQUIPMENT SUPPLIERS. REFER TO SPECIAL EQUIPMENT DRAWINGS FOR ADDITIONAL INSULATE ALL DOMESTIC WATER AND REFRIGERANT PIPING WITH 1/2" THICK ARMACELL

AP/ARMAFLEX FLEXIBLE ELASTOMERIC THERMAL PIPE INSULATION. EQUIVALENT BY RUBATEX. THE USE OF TUBOLIT OR EQUIVALENT CLOSED CELL POLYETHYLENE FOAM INSULATION IS INSTALL TRAPS AT WASTE CONNECTIONS TO ALL FLOOR DRAINS AND OTHER PLUMBING

- FIXTURES WITHOUT A TRAP INTEGRAL TO THE FIXTURE.
- INSTALL WATER AND WASTE PIPING BELOW SLAB AND BELOW GRADE ON TOP OF A 6" BED OF PEA GRAVEL, WITH 6" PEA GRAVEL ON SIDES AND TOP OF PIPING. PROVIDE TRAPPED AND VENTED CONDENSATE DRAIN CONNECTION TO ALL HVAC EQUIPMENT WHERE REQUIRED. EXTEND FULL SIZE TO NEAREST ROOF DRAIN, FLOOR DRAIN, OR MOP
- SEAL ALL DUCTWORK IN ACCORDANCE WITH THE LATEST SMACNA METAL AND FLEXIBLE DUCT CONSTRUCTION STANDARDS MANUAL. AT A MINIMUM, LOW STATIC PRESSURE DUCTS SHALL BE SEALED WITH WATER, SOLVENT OR SILICONE BASED SEALANT IN ACCORDANCE WITH SMACNA DUCT SEAL CLASS C. THE USE OF DUCT TAPE IS STRICTLY PROHIBITED.
- D. ALL THERMOSTATS, SENSORS, DAMPER CONTROLS, ASSOCIATED ACCESSORIES, AND FINAL WIRING CONNECTIONS SHALL BE PROVIDED BY HVAC CONTRACTOR. ROUGH—IN AND WIRE INSTALLATION SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
- PROVIDE HVAC EQUIPMENT WITH NEW FILTERS DURING CONSTRUCTION AND UPON SUBSTANTIAL COMPLETION.
- COORDINATE CEILING DIFFUSER/GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PROVIDE FLEXIBLE CONNECTION AND TRANSITION TO UNIT OPENING SIZES FOR ALL HVAC
- INSTALL ALL ROOF EQUIPMENT, PIPE, CONDUIT AND DUCTWORK SUPPORTS, CURBS AND PENETRATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ROOFING SYSTEM
- MANUFACTURER. . PROVIDE FACTORY FABRICATED PIPE CURB ASSEMBLIES FOR MULTIPLE CONDUIT AND PIPING PENETRATIONS THROUGH THE ROOF. PIPE CURB ASSEMBLIES SHALL BE FACTORY FABRICATED, 8" TALL (MINIMUM) GALVANIZED STEEL ROOF CURBS WITH INTEGRAL BASE PLATE, 3 LB. DENSITY INSULATION, WOOD NAILER, ACRYLIC CLAD THERMOPLASTIC COVER,
- FASTENING SCREWS, AND GRADUATED STEP BOOTS WITH STAINLESS STEEL CLAMPS AS MANUFACTURED BY PATE, THYBAR OR APPROVED EQUIVALENT. PROVIDE PIPE SEAL ASSEMBLIES FOR INDIVIDUAL CONDUIT OR PIPE PENETRATIONS. ALL WORK SHALL BE IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS. SUPPORT PIPING ON ROOF WITH PREMANUFACTURERED PIPING SUPPORTS EQUIVALENT TO B-LINE C-SERIES. FIELD FABRICATED SUPPORTS CONSISTING OF LUMBER, ETC. ARE NOT
- PROVIDE SLEEVES AT PIPE PENETRATIONS OF EXTERIOR OR FOUNDATION WALLS. SEAL PENETRATIONS WEATHERTIGHT.
- SEAL ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES AS NECESSARY TO RESTORE FIRE—RESISTANCE RATING OF ASSEMBLY. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR RATED ASSEMBLIES, FIRESTOPPING MATERIALS AND REQUIREMENTS. ALL EXPOSED PIPING, DUCTWORK AND EQUIPMENT SHALL BE PRIMED AND PAINTED. REFER
- O ARCHITECTURAL DRAWINGS FOR REQUIREMENTS AND COORDINATE WITH GENERAL O. THE MECHANICAL/PLUMBING CONTRACTOR SHALL SEAL ALL NECESSARY PENETRATIONS OF RATED WALL AND CEILING CONSTRUCTION WITH FIRE CAULK. PROVIDE FIRE PUTTY PAD AROUND LAUNDRY AND ICE—MAKER ROUGH—IN BOXES INSTALLED IN RATED WALL AND CEILING CONSTRUCTION. FIRE CAULK AND PUTTY PADS SHALL BE MANUFACTURED BY 3M
- OR HILTI, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE SIOUX CHIEF WATER HAMMER ARRESTERS ON ALL PLUMBING FIXTURES SIZED IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH201. EQUIVALENT BY JONESPEC, J.R. SMITH, OR WADE.



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 $\Box$ 

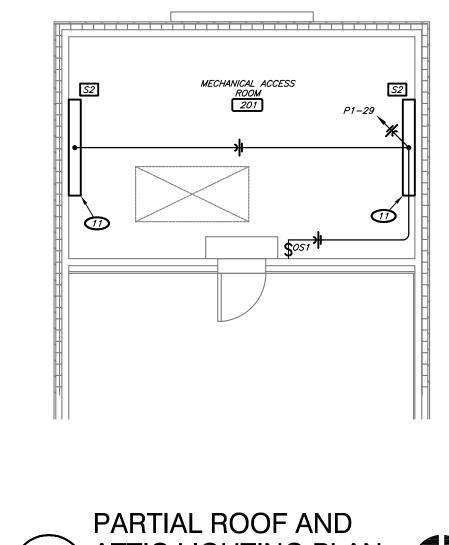
ENGINEER OF RECORD: NAME: RYAN JONES LICENSE NO.PE-2004017193

PROJECT NUMBER: 21334 7BSM

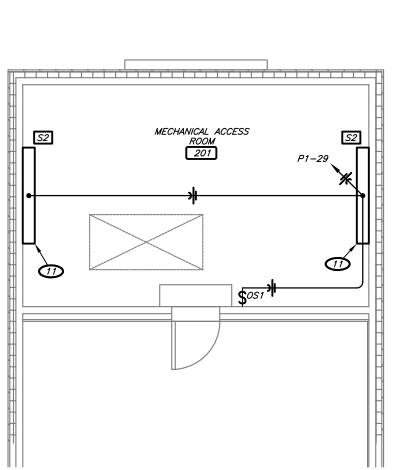
REVISION:

Engineering | Energy | Innovation 2225 West Chesterfield Boulevard, Suite 200, Springfield, MO 65807 P: 417.877.1700 F: 417.324.7735 www.cjd-eng.com Missouri State Certificate of Authority #2005026903 Special notice: Drawings prepared by CJD LLC are instruments of service ror use solely with respect to this project. CJD LLC retains ownership and all common law, statutory law and other reserved rights including copyrights. This drawing shall not be reused in part or in full for any other work without prior written consent by and appropriate compensation to CJD LLC. Whosoever changes the design without prior written approval from CJD LLC, does so at their own risk and assumes full responsibility for any damages, liabilities or costs resulting directly or indirectly from such changes to the fullest extent of the law.

SCHEDULES AND **DETAILS DATE:** APRIL 26, 2022









**ELECTRICAL SYMBOLS:** 

₩P

P1-43 THRU LC1

71

SERVICE AREA

1

NORTH

SIMPLEX RECEPTACLE; 2P, 3W, 20A, 125V

DUPLEX RECEPTACLE; 2P, 3W, 20A, 125V

DUPLEX RECPTACLE; WEATHERPROOF

EXIT/EMERGENCY LIGHT

LED LIGHT FIXTURE

LIGHT SWITCH 3-WAY LIGHT SWITCH

JUNCTION BOX

\_ \_ \_ \_ \_ CONDUIT BELOW GRADE

DISCONNECT SWITCH

GROUND WIRE

NIGHT LIGHT FIXTURE

OCCUPANCY SENSOR LIGHT SWITCH

LIGHTING & POWER PANELBOARD

INDICATE NUMBER OF CIRCUITS

CEILING MOUNTED OCCUPANCY SENSOR

\_\_\_\_ CONDUIT CONCEALED IN CEILING OR WALL

HOME RUN: TICK MARKS INDICATE NUMBER OF WIRES, ARROWS

-O 14-30 SIMPLEX RECEPTACLE; NEMA CONFIGURATION AS INDICATED

### DUPLEX RECEPTACLE; MOUNTED @ 42" ABOVE FINISHED FLOOR

DUPLEX RECEPTACLE; MOUNTED 6" ABOVE COUNTERTOP BACKSPLASH

DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTER

DOUBLE DUPLEX RECEPTACLE WITH COMMON FACEPLATE

EXIT LIGHT; WALL MOUNTED / CEILING MOUNTED

TELECOMMUNICATIONS OUTLET: ROUGH—IN JUNCTION BOX OR PLASTER RING ONLY. MAY BE USED FOR VOICE, DATA, FAX, MODEM, OR ANY COMBINATION THEREOF. CABLE, COVER PLATE & JACKS PROVIDED BY OTHERS.

CABLE TV OUTLET: ROUGH—IN JUNCTION BOX OR PLASTER RING ONLY. CABLE, COVER PLATE & JACKS PROVIDED BY OTHERS.

- INSTALL RECEPTACLE IN CRAWL SPACE FOR SUMP PUMP. VERIFY LOCATION AND MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.
  - RECEPTACLE TO BE MOUNTED ABOVE CANOPY. VERIFY LOCATION AND MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH—IN.
  - 3 PROVIDE JUNCTION BOX AND POWER FOR HORTON SLIDING DOOR. 4 RECEPTACLES FOR SECURITY AND AUDIO.
  - 5 PROVIDE JUNCTION BOX AND POWER FOR COOLER CONTROLS/LIGHTS. FIELD VERIFY EXACT
  - 6 PROVIDE JUNCTION BOX AND POWER FOR COOLER EVAPORATOR. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
- PROVIDE JUNCTION BOX FOR OUTDOOR HEATER CONTROLS 6" ABOVE SLIDING GLASS DOOR. COORDINATE ROUGH-IN AND WIRING REQUIREMENTS WITH OWNER. 8 PROVIDE JUNCTION BOX FOR POWER CONNECTION TO BUILDING LED TAPE LIGHT. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION AND LINEAR FOOTAGE OF FIXTURE.
- CONNECT POWER TO LED STRIPS PER MANUFACTURE'S INSTRUCTION. 9 PROVIDE WEATHER PROOF JUNCTION BOX AND TOGGLE SWITCH LOCATED ON SIGN IN CONCEALED LOCATION FOR EXTERIOR SIGNAGE PER NEC. COORDINATE EXACT LOCATION OF JUNCTION BOX WITH THE SIGNAGE PROVIDER PRIOR TO INSTALLATION. CONTRACTOR SHALL PULL ALL WIRING TO THE JUNCTION BOXES AND MAKE FINAL CONNECTIONS. COORDINATE ALL REQUIREMENTS WITH THE SIGNAGE PROVIDER.
- 10 INSTALL FIXTURE 12" ABOVE TOP OF DOOR. FIELD VERIFY EXACT LOCATION WITH OWNER. 11) INSTALL FIXTURE 7' ABOVE FINISH FLOOR. FIELD VERIFY MOUNTING HEIGHT WITH OWNER.
- 2 RECEPTACLE FOR ESPRESSO MACHINE. PROVIDE CORD AND PLUG CONNECTION. POWER CONNECTION FOR AIR CURTAIN. COORDINATE ROUGH-IN, WIRING REQUIREMENTS, AND MOUNTING HEIGHT WITH OWNER.
- 14) CT CABINET AND METER. 15 COORDINATE INSTALLATION HEIGHT WITH ARCHITECT
- 16 POWER CONNECTION FOR ELECTRIC HEATER. COORDINATE INSTALLATION HEIGHT WITH OWNER.
- 7 RECEPTACLE FOR IPAD. COORDINATE INSTALLATION HEIGHT WITH OWNER. 18 REFER TO 1/SU1.1 FOR CONTINUATION.
- (2) 2" COMMUNICATION CONDUITS WITH PULL-WIRE. COORDINATE TERMINATION WITH OWNER PRIOR TO INSTALLATION.
- 20 COORDINATE LOCATION AND RECEPTACLE TYPE WITH EQUIPMENT PROVIDER.

# CONDUIT & CONDUCTOR SCHEDULE:

(2) #8 AND (1) #10 GROUND, IN 0.75" CONDUIT. (2) (2) #3 AND (1) #8 GROUND IN 1.25" CONDUIT.

<u>C1</u>

<u>C1</u>

 $\geq$ 

ENGINEER OF RECORD: NAME: RYAN JONES LICENSE NO.PE-2004017193

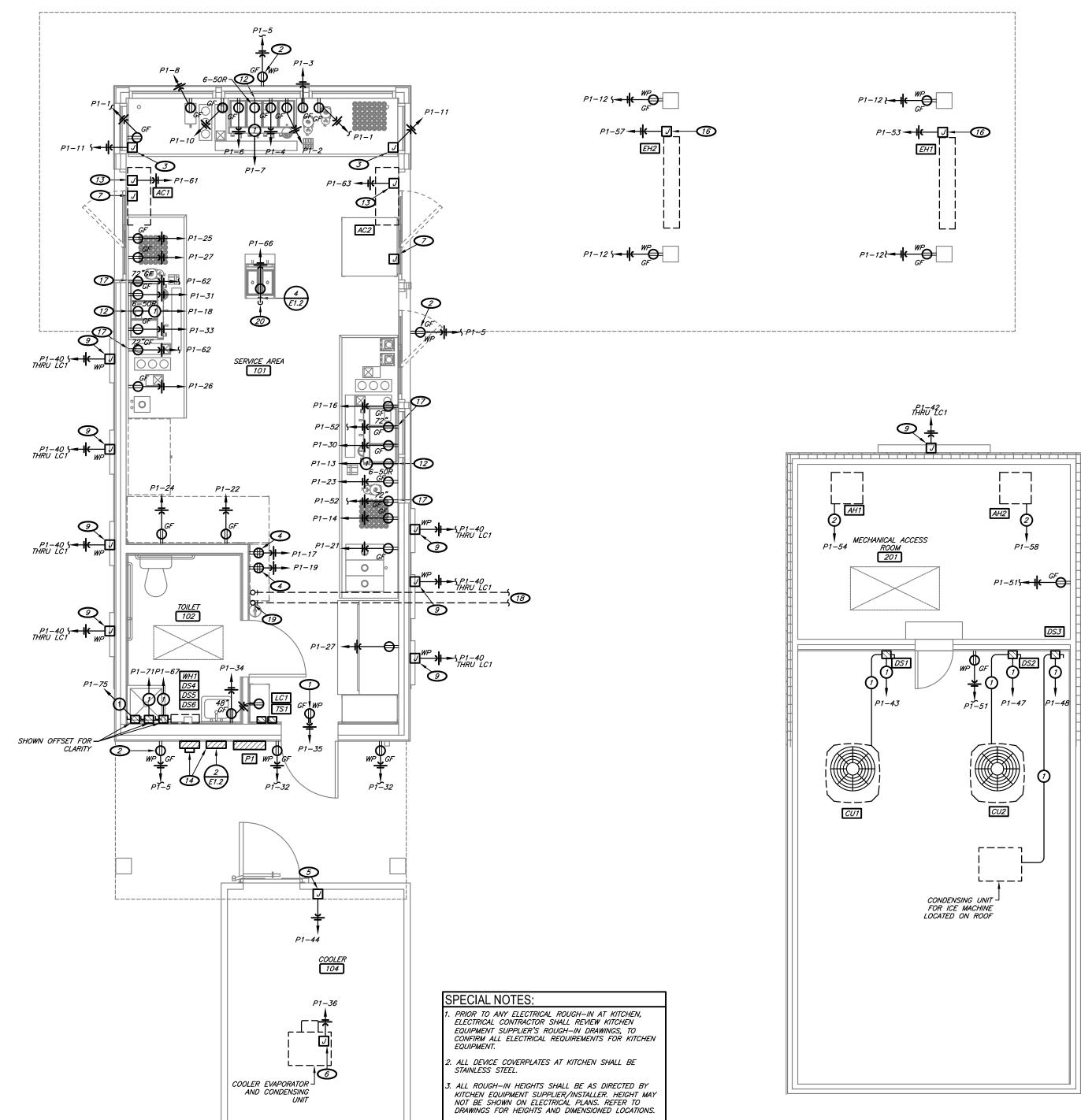
PROJECT NUMBER: 21334 7BSM

REVISION:

Engineering | Energy | Innovation  $2225~\mathrm{West}$  Chesterfield Boulevard, Suite 200, Springfield, MO 65807P: 417.877.1700 F: 417.324.7735 www.cjd-eng.com Missouri State Certificate of Authority #2005026903

ELECTRICAL PLAN

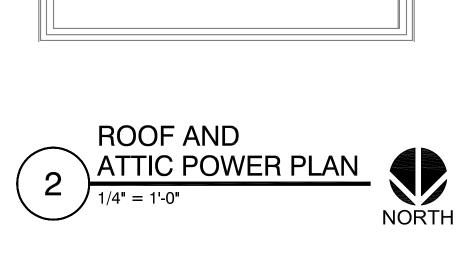
**DATE:** APRIL 26, 2022

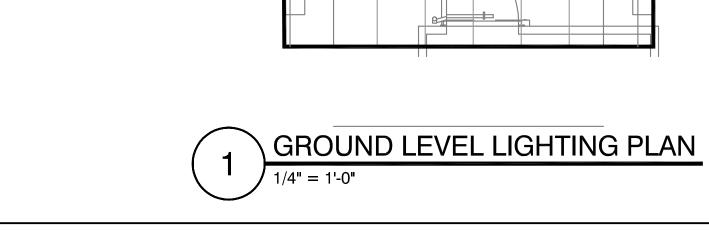


GROUND LEVEL POWER PLAN

1/4" = 1'-0"

NORTH







|            |               | LIGH                           | TING FIXT | URE SCI   | HEDL | JLE          |      |         |         |               |             |
|------------|---------------|--------------------------------|-----------|-----------|------|--------------|------|---------|---------|---------------|-------------|
| MADK       | NAANUEACTURER | MODEL#                         | FINISH    | MOUNTING  |      | LAMPS        |      | FIXTURE | VOLTAGE | APPROVED      | NOTES       |
| MARK       | MANUFACTURER  | WODEL#                         | FINISH    | WIOONTING | TYPE | CODE         | QTY. | WATTS   | VOLTAGE | MANUFACTURERS |             |
| T1         | WILLIAMS      | LP-24-L50/835-DIM-UNV          | WHITE     | RECESSED  | LED  | WITH FIXTURE | -    | 50      | UNV     | SUBMIT        | -           |
| T1E        | WILLIAMS      | LP-24-L50/835-EM/10WRM-DIM-UNV | WHITE     | RECESSED  | LED  | WITH FIXTURE | -    | 50      | UNV     | SUBMIT        | -           |
| C1         | HALO          | SMD6R69SWH                     | WHITE     | SURFACE   | LED  | WITH FIXTURE | -    | 10      | UNV     | SUBMIT        | 1,2,3,4,6   |
| C2         | WAC LIGHTING  | DS-WS05-F-B-CC-BK              | BLACK     | SURFACE   | LED  | WITH FIXTURE | -    | 35      | UNV     | SUBMIT        | 1,2,4,6     |
| <i>S</i> 1 | LED NEONFLEX  | LN-11X29-24-RGB                | WHITE     | SURFACE   | LED  | WITH FIXTURE | -    | 1.88/FT | UNV     | SUBMIT        | 1,2,6       |
| <i>S2</i>  | WILLIAMS      | 78-4-L53/830-DIM-UNV           | WHITE     | SURFACE   | LED  | WITH FIXTURE | -    | 35      | UNV     | SUBMIT        | -           |
| PL1        | LUMARK        | PRV-C25-D-UNV-T3-SA-BZ-HSS     | BRONZE    | POLE      | LED  | WITH FIXTURE |      | 96      | UNV     | SUBMIT        | 1,4,6,7,8,9 |
| W1E        | WILLIAMS      | WPAS-L34/850-BZ-PC-EM/6W-UNV   | BRONZE    | SURFACE   | LED  | WITH FIXTURE | -    | 45      | UNV     | SUBMIT        | 1,3,6       |
| X1         | WILLIAMS      | EXIT/EM/LED-R-WHT              | WHITE     | SURFACE   | LED  | WITH FIXTURE | -    | 10      | 120     | SUBMIT        | 3           |

FIXTURE SHALL BE LISTED FOR OUTDOOR USE AND SHALL BE LISTED FOR DAMP OR WET LOCATION AS REQUIRED. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT AND LOCATION.

COORDINATE WITH ARCHITECT/OWNER FOR EXACT FINISH.

- SHUNT TRIP

ABBREVIATIONS: OSFCI - OWNER FURNISHED, CONTRACTOR INSTALLED TBD - TO BE DETERMINED

GENERAL NOTES (APPLY TO ALL LIGHT FIXTURES): 1. PROVIDE INSULATION BARRIER, WHERE NON IC-RATED LIGHT FIXTURES ARE INSTALLED WHERE THEY MAY BE IN DIRECT

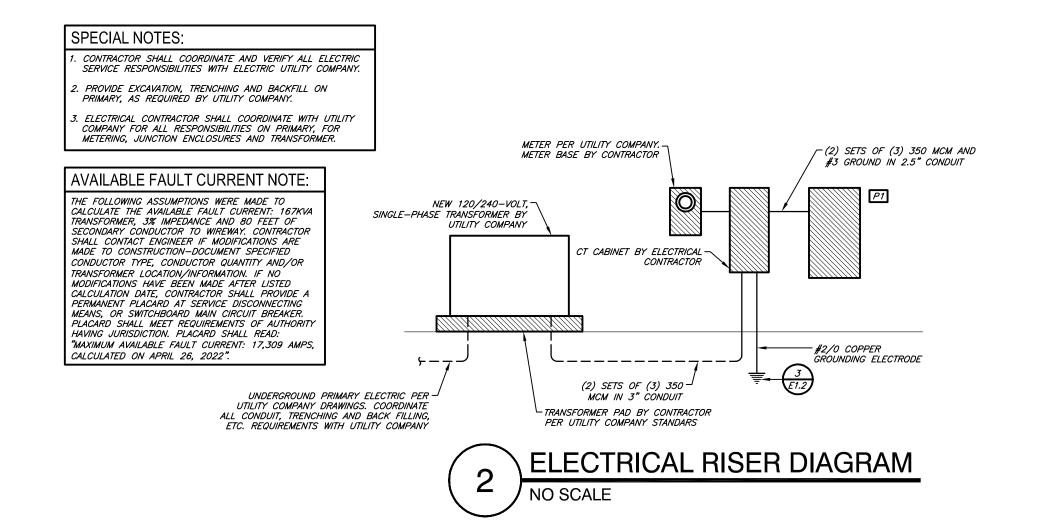
| REFER TO PLANS AND COORDINATE WITH OWNER/ARCHITECT FOR MOUNTING TYPE, FACE ORIENTATION, AND CHEVRON DIRECTION AS APPLICABLE. FIXTURE LAMP AND BALLAST SHALL BE CAPABLE OF OPERATING DOWN TO 0 DEGREES F AND UP TO 110 DEGREES F AS REQUIRED. PROVIDE 20' STRAIGHT STEEL POLE AND ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. PROVIDE ALL ACCESSORIES AS REQUIRED FOR COMPLETE INSTALLATION. POLE AND ACCESSORIES SHALL BE SAME COLOR AS FICTURE HEAD. PROVIDE FIXTURE WITH LUMARK NEMA PHOTOCONTROL OA/RA1014 | CONTACT WITH INSULATION. INSULATION BARRIER SHALL BE EQUAL TO PRODUCTS BY E.Z. BARRIER' |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                         |

| PANEL            | BOARD SCHEDU                                                                                              | ᄔ               |                               |                                  |                      |                               |         |                                    |                                                    |                                     |               |             |                                                                                                                            | Р      |
|------------------|-----------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|----------------------------------|----------------------|-------------------------------|---------|------------------------------------|----------------------------------------------------|-------------------------------------|---------------|-------------|----------------------------------------------------------------------------------------------------------------------------|--------|
| OLTAGE:          | 120/240                                                                                                   | POLES:          |                               |                                  |                      | 84                            |         | MOUNTI                             | NG:                                                |                                     | SUF           | RFACE       | ENCLOSURE:                                                                                                                 | NEMA : |
| PHASE / WIRE:    | 1 /3                                                                                                      | KAIC AMPS (R    | RMS):                         |                                  |                      | 22K                           |         | LOCATION                           | DN:                                                |                                     | EXT           | ERIOR       | MANUFACTURER:                                                                                                              | SQUARE |
| NMPS:            | 600                                                                                                       | MAIN BREAKE     | R/M                           | LO:                              |                      | MLO                           |         | FED FR                             | ОМ:                                                | U                                   | TILITY        | XFMR        | MODEL:                                                                                                                     | 1      |
| CIRC.<br>NO.     | EQUIPMENT SERVED                                                                                          |                 | C/B<br>AMPS                   | C/B<br>POLES                     | C/B ACC.             | LOAD (VA)                     | PHASE L | LOADS (VA)                         | LOAD (VA)                                          | C/B ACC. C                          | /B POLES      | C/B<br>AMPS | EQUIPMENT SERVED                                                                                                           | CIRC.  |
| 1                | POINT OF SALE RECEPTACLES                                                                                 |                 | 20                            | 1                                | -                    | 400                           | 1050    |                                    | 650                                                | -                                   | 1             | 20          | GRINDER                                                                                                                    | 2      |
| 3                | FRONT BAR RECEPTACLE                                                                                      |                 | 20                            | 1                                | -                    | 180                           |         | 830                                | 650                                                | -                                   | 1             | 20          | GRINDER                                                                                                                    | 4      |
| 5                | EXTERIOR RECEPTACLES                                                                                      |                 | 20                            | 1                                | -                    | 540                           | 720     |                                    | 180                                                | -                                   | 1             | 20          | FRONT BAR RECEPTACLE                                                                                                       | 6      |
| 7                | ESPRESSO MACHINE 4 GROUP                                                                                  |                 | 50                            | 2                                | -                    | 4000                          |         | 5800                               | 1800                                               | -                                   | 1             | 20          | HOT WATER RECEPTACLE                                                                                                       | 8      |
| 9                | н                                                                                                         |                 |                               |                                  | -                    | 4000                          | 5284    |                                    | 1284                                               | -                                   | 1             | 20          | ICE MAKER                                                                                                                  | 10     |
| 11               | HORTON SLIDING DOOR                                                                                       |                 | 20                            | 1                                | -                    | 500                           |         | 1220                               | 720                                                | -                                   | 1             | 20          | EXTERIOR RECEPTACLES                                                                                                       | 12     |
| 13               | ESPRESSO MACHINE 3 GROUP                                                                                  |                 | 50                            | 2                                | -                    | 3050                          | 4334    |                                    | 1284                                               | -                                   | 1             | 20          | BLENDER                                                                                                                    | 14     |
| 15               | н                                                                                                         |                 |                               |                                  | -                    | 3050                          |         | 4334                               | 1284                                               | -                                   | 1             | 20          | ICE MAKER                                                                                                                  | 16     |
| 17               | SECURITY RECEPTACLES                                                                                      |                 | 20                            | 1                                | -                    | 360                           | 3410    |                                    | 3050                                               | -                                   | 2             | 50          | ESPRESSO MACHINE 3 GROUP                                                                                                   | 18     |
| 19               | SECURITY RECEPTACLES                                                                                      |                 | 20                            | 1                                | -                    | 360                           |         | 3410                               | 3050                                               | -                                   |               |             | п                                                                                                                          | 20     |
| 21               | SIDE BAR RECEPTACLE                                                                                       |                 | 20                            | 1                                | -                    | 180                           | 360     |                                    | 180                                                | -                                   | 1             | 20          | SERVICE AREA RECEPTACLE                                                                                                    | 22     |
| 23               | SIDE BAR RECEPTACLE                                                                                       |                 | 20                            | 1                                | -                    | 180                           |         | 360                                | 180                                                | -                                   | 1             | 20          | SERVICE AREA RECEPTACLE                                                                                                    | 24     |
| 25               | SIDE BAR RECEPTACLE                                                                                       |                 | 20                            | 1                                | -                    | 180                           | 1464    |                                    | 1284                                               | -                                   | 1             | 20          | BLENDER                                                                                                                    | 26     |
| 27               | ICE MAKER                                                                                                 |                 | 20                            | 1                                | -                    | 1284                          |         | 1554                               | 270                                                | -                                   | 1             | 20          | EXTERIOR LIGHTS                                                                                                            | 28     |
| 29               | INTERIOR LIGHTS                                                                                           |                 | 20                            | 1                                | -                    | 700                           | 1984    |                                    | 1284                                               | -                                   | 1             | 20          | BLENDER                                                                                                                    | 30     |
| 31               | SIDE BAR RECEPTACLE                                                                                       |                 | 20                            | 1                                | -                    | 180                           |         | 540                                | 360                                                | -                                   | 1             | 20          | EXTERIOR RECEPTACLES                                                                                                       | 32     |
| 33               | BLENDER                                                                                                   |                 | 20                            | 1                                | -                    | 1284                          | 1644    |                                    | 360                                                | -                                   | 1             | 20          | BATHROOM RECEPTACLE                                                                                                        | 34     |
| 35               | CRAWL SPACE RECEPTACLE                                                                                    |                 | 20                            | 1                                | -                    | 180                           |         | 970                                | 790                                                | HACR                                | 2             | 20          | WALK IN COOLER                                                                                                             | 36     |
| 37               | EXTERIOR LED LIGHTS                                                                                       |                 | 20                            | 1                                | -                    | 500                           | 1290    |                                    | 790                                                |                                     |               |             | n                                                                                                                          | 38     |
| 39               | SPARE                                                                                                     |                 | 20                            | 1                                | -                    |                               |         | 1200                               | 1200                                               | -                                   | 1             | 20          | BUILDING SIGNAGE                                                                                                           | 40     |
| 41               | SPARE                                                                                                     |                 | 20                            | 1                                | -                    |                               | 1200    |                                    | 1200                                               | -                                   | 1             | 20          | BUILDING SIGNAGE                                                                                                           | 42     |
| 43               | CONDENSING UNIT CU1                                                                                       |                 | 50                            | 2                                | HACR                 | 3078                          |         | 3278                               | 200                                                | -                                   | 1             | 20          | COOLER LIGHT                                                                                                               | 44     |
| 45               | н                                                                                                         |                 |                               |                                  |                      | 3078                          | 3218    |                                    | 140                                                | HACR                                | 1             | 15          | ICE MACHINE                                                                                                                | 46     |
| 47               | CONDENSING UNIT CU2                                                                                       |                 | 50                            | 2                                | HACR                 | 3078                          |         | 6918                               | 3840                                               | HACR                                | 2             | 40          | REMOTE CONDENSING UNIT                                                                                                     | 48     |
| 49               | н                                                                                                         |                 |                               |                                  |                      | 3078                          | 6918    |                                    | 3840                                               |                                     |               |             | п                                                                                                                          | 50     |
| 51               | MECHANICAL ACCESS RECEPTACLE                                                                              |                 | 20                            | 1                                | -                    | 360                           |         | 720                                | 360                                                | -                                   | 1             | 20          | IPAD RECEPTACLES                                                                                                           | 52     |
| 53               | ELECTRIC HEATER EH1                                                                                       |                 | 20                            | 2                                | -                    | 1500                          | 11484   |                                    | 9984                                               | HACR                                | 2             | 100         | AIR HANDLER AH1                                                                                                            | 54     |
| 55               | н                                                                                                         |                 |                               |                                  |                      | 1500                          |         | 11484                              | 9984                                               |                                     |               |             | п                                                                                                                          | 56     |
| 57               | ELECTRIC HEATER EH2                                                                                       |                 | 20                            | 2                                | -                    | 1500                          | 11484   |                                    | 9984                                               | HACR                                | 2             | 100         | AIR HANDLER AH2                                                                                                            | 58     |
| 59               | н                                                                                                         |                 | 20                            | 1                                | -                    | 1500                          |         | 11484                              | 9984                                               |                                     |               |             | n                                                                                                                          | 60     |
| 61               | AIR CURTAIN AC1                                                                                           |                 | 15                            | 1                                | HACR                 | 768                           | 1128    |                                    | 360                                                | -                                   | 1             | 20          | IPAD RECEPTACLES                                                                                                           | 62     |
| 63               | AIR CURTAIN AC2                                                                                           |                 | 15                            | 1                                | HACR                 | 768                           |         | 1068                               | 300                                                | -                                   | 1             | 20          | SITE LIGHTING                                                                                                              | 64     |
| 65               | SPARE                                                                                                     |                 | 20                            | 1                                | -                    |                               | 0       |                                    |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 66     |
| 67               | WATER HEATER WH1                                                                                          |                 | 40                            | 2                                | -                    | 4000                          |         | 4000                               |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 68     |
| 69               | "                                                                                                         |                 |                               |                                  |                      | 4000                          | 4000    |                                    |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 70     |
| 71               | WATER HEATER WH1                                                                                          |                 | 40                            | 2                                | -                    | 4000                          |         | 4000                               |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 72     |
| 73               | п                                                                                                         |                 |                               |                                  |                      | 4000                          | 4000    |                                    |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 74     |
| 75               | WATER HEATER WH1                                                                                          |                 | 40                            | 2                                | _                    | 4000                          |         | 4000                               |                                                    | _                                   | 1             | 20          | SPARE                                                                                                                      | 76     |
| 77               | н                                                                                                         |                 |                               |                                  |                      | 4000                          | 4000    |                                    |                                                    | _                                   | 1             | 20          | SPARE                                                                                                                      | 78     |
| 79               | SPARE                                                                                                     |                 | 20                            | 1                                | _                    | 1                             |         | 0                                  |                                                    | -                                   | 1             | 20          | SPARE                                                                                                                      | 80     |
| 81               | SPARE                                                                                                     |                 | 20                            | 1                                | _                    |                               | 0       |                                    |                                                    | _                                   | 1             | 20          | SPARE                                                                                                                      | 82     |
| 83               | SPARE                                                                                                     |                 | 20                            | 1                                | _                    |                               |         | 0                                  |                                                    | 1 -                                 | 1             | 20          | SPARE                                                                                                                      | 84     |
|                  | ACCESSORIES: CH, FL                                                                                       |                 | 20                            | ,                                | _                    |                               |         |                                    | DANELL                                             | BOARD AC                            | ,<br>CESS/    |             | GB, CBB                                                                                                                    |        |
|                  | REAKER ACCESSORIES: - AUXILLIARY CONTACTS - ELECTRICAL OPERATOR - GROUND-FAULT INTERRUPTING - HACR RATING | CW -<br>DWD -   | - CONCL<br>- COLUI<br>- HINDG | EALED HII<br>MN WIDTH<br>ED DOOF | I PANEL              | INGED DOC                     | DR.     | PANELBOA<br>CL<br>FTL<br>GB<br>IGB | RD ACCESSO<br>- COMPRES<br>- FEED-THI<br>- EQUIPME | <u>ORIES</u><br>SSION LUGS          | BAR KIT       |             | SFB - SUB-FEED CIRCUIT BREAKER SFL - SUB-FEED LUGS CBB - SILVER PLATED COPPER BUS BARS ABB - TIIN PLATED ALUMINUM BUS BARS |        |
| HLF<br>HLN<br>SR | - HANDLE LOCK-OFF - HANDLE LOCK-ON - SWITCH RATING                                                        | EGB -<br>EGSL - | - EXTEN<br>- EXTEN            | IDED GUT<br>IDED GUT             | TER BOTT<br>TER LEFT | OM<br>HAND SIDE<br>T HAND SID |         | NBK<br>PS<br>SB                    | - NEUTRAL                                          | . BONDING KIT<br>ED CIRCUIT BE<br>S | T<br>REAKER S | SPACE       | TRN - 200% RATED NEUTRAL BUS BAR TVSS - TRANSIENT VOLTAGE SURGE SUPPRESSION                                                |        |

| OS1 WALL MOUNTED OCCUPANCY RESTROOMS 120 WATTSTOPPER DW-100 120 IR/US AUTO WALL BOX -  OTES/ACCESSORIES:  I. WALL SWITCH SHALL BE CAPABLE OF MANUAL ON-OFF CONTROL  ENERAL NOTES (APPLIES TO ALL SENSORS):  I. EACH SENSOR TYPE MAY BE SHOWN IN MULTIPLE LOCATIONS ON ELECTRICAL PLANS  120 WATTSTOPPER DW-100 120 IR/US AUTO WALL BOX -  ABBREVIATIONS: PIR - PASSIVE INFRARED US - ULTRASONIC IR/US -DUAL TECHNOLOGY  APPROVED MANUFACTURERS: GREENGATE/NOVITAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                              | OCCUPA                      | NCY S   | ENSOR S     | SCHEL  | DULE    |       |                |                          |           |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|-----------------------------|---------|-------------|--------|---------|-------|----------------|--------------------------|-----------|-------|
| EQUIPMENT SERVED VOLTAGE MANUF MODEL# VOLTAGE TYPE TIME DELAY MOUNTING INTERLOCK A OS1 WALL MOUNTED OCCUPANCY RESTROOMS 120 WATTSTOPPER DW-100 120 IR/US AUTO WALL BOX -  NOTES/ACCESSORIES: 1. WALL SWITCH SHALL BE CAPABLE OF MANUAL ON-OFF CONTROL  ENERAL NOTES (APPLIES TO ALL SENSORS): 1. EACH SENSOR TYPE MAY BE SHOWN IN MULTIPLE LOCATIONS ON ELECTRICAL PLANS 2. EQUIPMENT SUBMITTAL: PRIOR TO APPROVAL, WITH OCCUPANCY SENSOR SPECIFICATION INFORMATION, CONTRACTOR SHALL SUBMIT PLAN  WATTSTOPPER  WATTSTOPPER  WAUL BOX - ITME DELAY MOUNTING INTERLOCK A WALL SWITCH SHOULD BE TIME DELAY MOUNTING INTERLOCK A ABBREVIATIONS: PIR - PASSIVE INFRARED US - ULTRASONIC IR/US - DUAL TECHNOLOGY  APPROVED MANUFACTURERS: GREENGATE/NOVITAS WATTSTOPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MADIC      | CONTROL TYPE                 | LOAD                        |         |             |        |         | SEI   | VSOR           |                          |           |       |
| IOTES/ACCESSORIES:  I. WALL SWITCH SHALL BE CAPABLE OF MANUAL ON-OFF CONTROL  ENERAL NOTES (APPLIES TO ALL SENSORS):  I. EACH SENSOR TYPE MAY BE SHOWN IN MULTIPLE LOCATIONS ON ELECTRICAL PLANS  E. EQUIPMENT SUBMITTAL: PRIOR TO APPROVAL, WITH OCCUPANCY SENSOR SPECIFICATION INFORMATION, CONTRACTOR SHALL SUBMIT PLAN  MATTSTOPPER  ABBREVIATIONS:  PIR - PASSIVE INFRARED  US - ULTRASONIC  IR/US -DUAL TECHNOLOGY  APPROVED MANUFACTURERS:  GREENGATE/NOVITAS  WATTSTOPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WARK       | CONTROL TYPE                 | EQUIPMENT SERVED            | VOLTAGE | MANUF       | MODEL# | VOLTAGE | TYPE  | TIME DELAY     | MOUNTING                 | INTERLOCK | ACCES |
| ENERAL NOTES (APPLIES TO ALL SENSORS):  E EACH SENSOR TYPE MAY BE SHOWN IN MULTIPLE LOCATIONS ON ELECTRICAL PLANS  E OUIPMENT SUBMITTAL: PRIOR TO APPROVAL, WITH OCCUPANCY SENSOR SPECIFICATION INFORMATION, CONTRACTOR SHALL SUBMIT PLAN  PIR - PASSIVE INFRARED US - ULTRASONIC IR/US -DUAL TECHNOLOGY  APPROVED MANUFACTURERS: GREENGATE/NOVITAS WATTSTOPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | OS1        | WALL MOUNTED OCCUPANCY       | RESTROOMS                   | 120     | WATTSTOPPER | DW-100 | 120     | IR/US | AUTO           | WALL BOX                 | -         | 1     |
| EQUIPMENT SUBMITTAL: PRIOR TO APPROVAL, WITH OCCUPANCY SENSOR SPECIFICATION INFORMATION, CONTRACTOR SHALL SUBMIT PLAN WATTSTOPPER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                              |                             |         |             |        |         |       |                |                          |           |       |
| Eggli MENT Gobilin The Thirty Good Thron Central Control of the Co | ENERAL NOT | ES (APPLIES TO ALL SENSORS): |                             |         |             |        |         |       | IR/US -DUAL TE | ECHNOLOGY                | ę.        |       |
| HEIGHT AND SENSOR COVERAGE FOR EACH SPACE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |                              | E LOCATIONS ON ELECTRICAL F | PLANS   |             |        |         |       | IR/US -DUAL TE | ECHNOLOGY<br>ANUFACTURER | <u>S:</u> |       |

SER - SERVICE ENTRANCE RATING

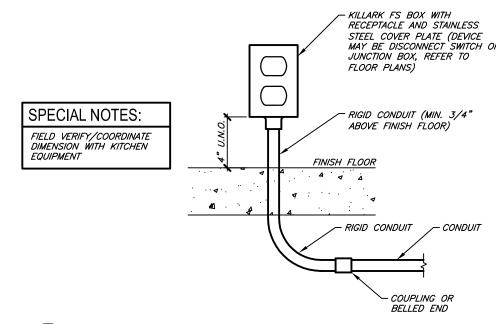
- FLUSH LOCK(S)



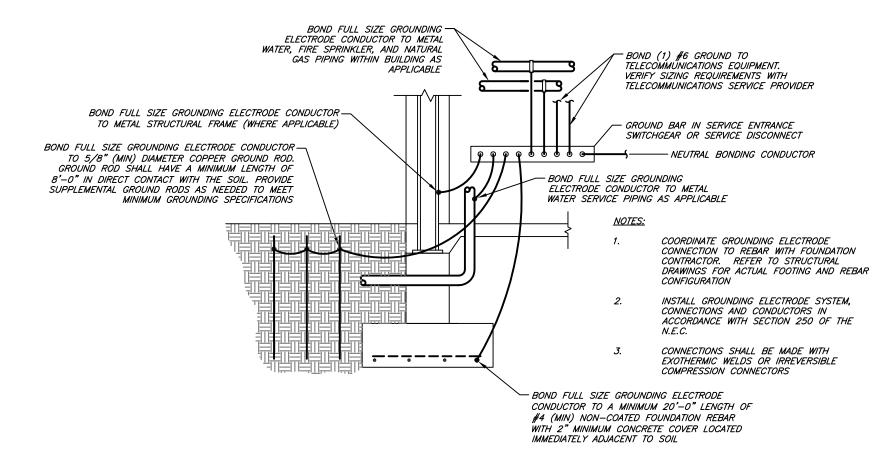
|                                              | DIS                         | CONNE   | ECT   | SW  | /ITC                   | H SCH       | EDULE         |           |             |
|----------------------------------------------|-----------------------------|---------|-------|-----|------------------------|-------------|---------------|-----------|-------------|
| MARK                                         | FOURMENT SERVED             |         | SWITC | Н   |                        | OVERCURRE   | NT PROTECTION | NEMA      | NOTES &     |
| MARK                                         | EQUIPMENT SERVED            | VOLTAGE | DUTY  | AMP | POLE                   | AMP         | TYPE          | ENCLOSURE | ACCESSORIES |
| DS1                                          | CONDENSING UNIT CU1         | 240     | GD    | 60  | 2                      | -           | -             | 3R        | 1           |
| DS2                                          | CONDENSING UNIT CU2         | 240     | GD    | 60  | 2                      | -           | -             | 3R        | 1           |
| DS3                                          | REMOTE CONDENSING UNIT      | 240     | GD    | 30  | 3                      | -           | -             | 3R        | 1           |
| DS4                                          | WATER HEATER WH1            | 240     | GD    | 100 | 2                      | -           | -             | 1         | 1           |
| ACCESSO                                      | D LUG KIT                   |         |       |     |                        | UIT BREAKER |               |           |             |
| <ol> <li>SOLID N</li> <li>SERVICE</li> </ol> | NEUTRAL<br>E ENTRANCE RATED |         |       |     | GD - GENE<br>HD - HEAV |             |               |           |             |

|        | LOAD              |         |      |     | CC   | NTACTOR   |                 |       |
|--------|-------------------|---------|------|-----|------|-----------|-----------------|-------|
| MARK — | EQUIPMENT SERVED  | VOLTAGE | TYPE | AMP | POLE | ENCLOSURE | CONTROLLED BY   | NOTES |
| LC1    | EXTERIOR LIGHTING | 120/240 | NOEH | 20A | 8    | NEMA 1    | TIME SWITCH TS1 | 1     |

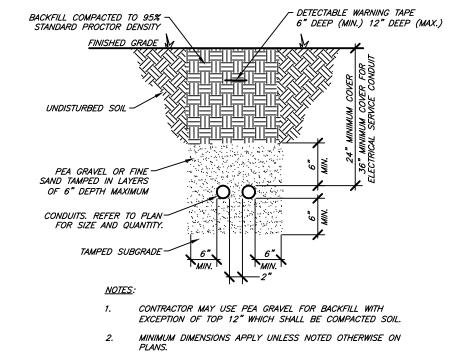
|      |              |         | TIME SWITCH S     |         | OLL | _    |           |       |
|------|--------------|---------|-------------------|---------|-----|------|-----------|-------|
| MARK | MANUFACTURER | MODEL#  | EQUIPMENT SERVED  | VOLTAGE | AMP | POLE | ENCLOSURE | NOTES |
| TS1  | TORK         | DTS200B | EXTERIOR LIGHTING | 120     | 30  | 1    | NEMA 1    | 1     |







#### GROUNDING ELECTRODE DETAIL NO SCALE



**ELECTRICAL CONDUIT TRENCH DETAIL** 

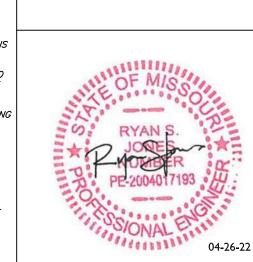
#### **GENERAL ELECTRICAL NOTES:**

REQUIREMENTS.

- GENERAL ELECTRICAL NOTES APPLY TO ALL ELECTRICAL SHEETS. CJD ENGINEERING LLC, BEING THE AUTHOR OF THESE CONSTRUCTION DOCUMENTS RESERVES THE RIGHT OF FINAL INTERPRETATION AS TO THEIR INTENT AND MEANING. ANY ADDITIONAL WORK OR COSTS RESULTING FROM THE CONTRACTOR'S OWN INTERPRETATION AS TO THE INTENT OR MEANING WITHOUT CONSULTATION WITH CJD ENGINEERING LLC SHAL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO COST TO OWNER OR A/E.
- THE INTENT OF THE WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS IS TO PROVIDE A FULLY FUNCTIONING SYSTEM IN COMPLETE WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTORS SUPPLIERS TO INCLUDE ALL ACCESSORIES, COMPONENTS, PARTS, ETC. THAT MAY NOT BE INDICATED ON THESE CONSTRUCTION DOCUMENTS TO PROVIDE BUILDING CODE COMPLIANT SYSTEMS AND EQUIPMENT THAT OPERATE SATISFACTORILY AS DESIGNED AND INTENDED.
- ALL ELECTRICAL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODES, THE 2017 NATIONAL ELECTRICAL CODE, AND ALL LOCAL CODES AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL INCLUDE ALL PERMIT AND INSPECTION FEES IN BID. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS.
- PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO CIVIL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR DIMENSIONS. FIELD VERIFY ALL
- EQUIPMENT AND CONDUIT/CONDUCTOR LAYOUTS ARE DIAGRAMMATIC. FIELD COORDINATE EXACT LOCATIONS AND ROUTINGS WITH STRUCTURE, PIPING, DUCTWORK, LIGHT FIXTURES, ETC. FINAL RESULT SHALL BE EQUIVALENT TO THAT INDICATED ON DRAWINGS.
- COOPERATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCES AND CONFLICTS. BEFORE ANY PIPING, DUCTWORK, CONDUIT, ETC. IS
  INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES.
- MAINTAIN ALL CLEARANCES REQUIRED BY ELECTRICAL EQUIPMENT. COORDINATE WITH PLUMBING, HVAC, AND SPRINKLER CONTRACTORS TO MAINTAIN ALL CLEARANCES REQUIRED FOR EQUIPMENT. DO NOT ROUTE PIPING, DUCTWORK, ETC. ABOVE ELECTRICAL PANELS. DRAWINGS REPRESENT FINAL RESULT. REMOVE, RELOCATE, MODIFY EXISTING EQUIPMENT,
- COORDINATE INFORMATION OUTLET, RECEPTACLE, AND OTHER DEVICE LOCATIONS WITH OWNER AND WITH MILLWORK AND WITH OTHER TRADES PRIOR TO ROUGH-IN.

DUCTWORK, PIPING, ETC. AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS AND EXACT

- INFORMATION OUTLET (DATA AND TELEPHONE) DEVICES, WALL PLATES, AND ASSOCIATED WIRING SHALL BE SUPPLIED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT
- 4. THE CONTRACTOR SHALL PROVIDE ELECTRONIC SHOP DRAWINGS/SUBMITTALS OF ALL FIXTURES AND EQUIPMENT FURNISHED UNDER THIS CONTRACT
- IF CONTRACTOR WISHES TO INCORPORATE PRODUCTS OTHER THAN THOSE NAMED IN SPECIFICATIONS IN HIS BID OR PRODUCTS BY MANUFACTURERS OTHER THAN THOSE LISTED AS APPROVED MANUFACTURERS, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR REVIEW AND APPROVAL OF PROPOSED SUBSTITUTIONS TO CJD ENGINEERING LLC NOT LESS THAN FIVE WORKING DAYS PRIOR TO BID DATE. APPROVAL OR ACCEPTANCE OF PROPOSED SUBSTITUTION OF MANUFACTURERS OR ITEMS IS FOR THE PURPOSES OF BIDDING ONLY AND DOES NOT RELIEVE THE PROPOSED SUBSTITUTION FROM SUBMITTAL/SHOP DRAWING REVIEW AND DOES NOT CONSTITUTE PRIOR APPROVAL OF PROPOSED SUBSTITUTIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF LARGER WIRING, CONDUIT, ENCLOSURES, CONTROL AND OVERCURRENT PROTECTIVE DEVICES, ETC. RESULTING FROM SUBSTITUTION OF EQUIPMENT OTHER THAN THAT WHICH WAS THE BASIS OF DESIGN AT NO COST TO OWNER OR A/E.
- 17. THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COSTS TO CUT, PATCH AND REPAIR EXISTING WALL, FLOOR AND CEILING CONSTRUCTION AS REQUIRED TO INSTALL NEW FIXTURES, CONDUIT, WIRING, ETC. ARE INCLUDED IN THE BID PRICE.
- LIGHT SWITCHES SHALL BE EQUIVALENT TO HUBBELL 1220 SERIES, 20-AMP, 120/277-VOLT, IN COLOR SELECTED BY THE ARCHITECT/INTERIOR DESIGNER.
- DUPLEX RECEPTACLES SHALL BE EQUIVALENT TO HUBBELL 5300 SERIES, 20A, 125V, NEMA CONFIGURATION 5-20R, IN COLOR SELECTED BY THE ARCHITECT/INTERIOR DESIGNER.
- ALL RECEPTACLES THROUGHOUT SHALL BE TAMPER-RESISTANT TYPE, TO COMPLY WITH ELECTRICAL DEVICE WALL PLATES SHALL BE HIGH IMPACT NYLON PLASTIC IN COLOR AS
- SELECTED BY THE ARCHITECT/INTERIOR DESIGNER. FEEDER AND BRANCH CIRCUIT WIRING SHALL BE COPPER, 600V WITH THHN/THWN INSULATION. BRANCH CIRCUIT WIRING SHALL BE #12 AWG MINIMUM. HOMERUNS FOR
- BRANCH CIRCUITS OVER 75 FEET LONG SHALL BE #10 AWG; OVER 100 FEET LONG, #8 AWG UNLESS INDICATED OTHERWISE. EQUIVALENT WIRING DEVICES BY BRYANT, COOPER, HUBBELL, LEVITON, OR AS APPROVED
- EQUIVALENT PANELBOARDS, LIGHTING CONTACTORS AND DISCONNECT SWITCHES BY CUTLER HAMMER, GENERAL ELECTRIC, SIEMENS, SQUARE D, OR AS APPROVED BY OWNER.
- PROVIDE ALL ACCESSORIES, COMPONENTS, ETC. REQUIRED FOR COMPLETE INSTALLATION OF
- PROVIDE UNISTRUTS AND ACCESSORIES AS REQUIRED FOR SUPPORT OF PIPING, EQUIPMENT,
- COORDINATE LIGHTING AND CEILING DEVICE LOCATIONS WITH ARCHITECTURAL REFLECTED
- ALL WIRING SHALL BE INSTALLED IN EMT CONDUIT AND SHALL BE CONCEALED UNLESS OTHERWISE NOTED. PVC CONDUIT WILL BE ALLOWED BELOW SLAB. ALL TRANSITIONS FROM PVC TO STEEL CONDUIT SHALL BE MADE BELOW GRADE. MINIMUM CONDUIT SIZE FOR LIGHTING AND POWER BRANCH CIRCUITS ABOVE GRADE SHALL BE 1/2". MINIMUM CONDUIT SIZE FOR LIGHTING AND POWER BRANCH CIRCUITS BELOW GRADE SHALL BE 3/4". CONTRACTOR SHALL HAVE THE OPTION TO USE METALLIC CLAD (M/C) CABLE FOR CONCEALED BRANCH CIRCUIT WIRING.
- MINIMUM CONDUIT SIZE FOR INFORMATION OUTLETS SHALL BE 3/4". CONDUIT STUBS SHALL BE TERMINATED WITH INSULATING BUSHINGS.
- ALL LIGHTING AND POWER CIRCUITS SHALL HAVE A GROUNDING CONDUCTOR.
- ALL RECEPTACLES, TELECOMMUNICATIONS OUTLETS, AND TELEVISION OUTLETS SHALL BE INSTALLED AT 18" AFF TO CENTER UNLESS NOTED OTHERWISE. ALL SWITCHES SHALL BE INSTALLED AT 48" AFF TO CENTER UNLESS NOTED OTHERWISE.
- PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL PANELBOARDS. DIRECTORY INFORMATION SHALL INCLUDE CIRCUIT NUMBER AND EQUIPMENT SERVED.
- INSTALL ALL ROOF EQUIPMENT, PIPE, AND CONDUIT SUPPORTS, CURBS AND PENETRATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ROOFING SYSTEM MANUFACTURER.
- SUPPORT CONDUIT ON ROOF WITH PREMANUFACTURERED PIPING SUPPORT EQUIVALENT TO B-LINE C-SERIES. FIELD FABRICATED SUPPORTS CONSISTING OF LUMBER, ETC. ARE NOT
- PROVIDE FACTORY FABRICATED PIPE CURB ASSEMBLIES FOR MULTIPLE CONDUIT AND PIPING PENETRATIONS THROUGH THE ROOF. PIPE CURB ASSEMBLIES SHALL BE FACTORY FABRICATED, 8" TALL (MINIMUM) GALVANIZED STEEL ROOF CURBS WITH INTEGRAL BASE PLATE, 3 LB. DENSITY INSULATION, WOOD NAILER, ACRYLIC CLAD THERMOPLASTIC COVER, FASTENING SCREWS, AND GRADUATED STEP BOOTS WITH STAINLESS STEEL CLAMPS AS MANUFACTURED BY PATE, THYBAR OR APPROVED EQUIVALENT. PROVIDE PIPE SEAL ASSEMBLIES FOR INDIVIDUAL CONDUIT OR PIPE PENETRATIONS. ALL WORK SHALL BE IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS.
- PROVIDE SLEEVES AT CONDUIT PENETRATIONS OF EXTERIOR OR FOUNDATION WALLS. SEAL PENETRATIONS WEATHERTIGHT. SEAL ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES AS NECESSARY TO RESTORE
- FIRE—RESISTANCE RATING OF ASSEMBLY. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR RATED ASSEMBLIES, FIRESTOPPING MATERIALS AND REQUIREMENTS. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO SPECIAL EQUIPMENT. PROVIDE ADAPTERS, FITTINGS, ETC. FOR ALL EQUIPMENT AS REQUIRED. COORDINATE SPECIFIC REQUIREMENTS WITH EQUIPMENT SUPPLIERS. REFER TO SPECIAL EQUIPMENT DRAWINGS FOR
- ELECTRICAL CONTRACTOR SHALL PROVIDE ROUGH—IN FOR THERMOSTATS AND SENSORS. PROVIDE SINGLE—GANG BOX WITH 0.75" CONDUIT TO ABOVE ACCESSIBLE CEILING OR TO MECHANICAL CONTRACTOR. REFER TO HVAC PLANS FOR THERMOSTAT AND CONTROL
- 6. BRANCH CIRCUIT WIRING SERVING EQUIPMENT, LIGHTING, AND RECEPTACLES IN PATIENT CARE AREAS SHALL COMPLY WITH NEC SECTION 517.13. METAL RACEWAYS, ARMORED CABLING AND ASSOCIATED FITTINGS SHALL BE LISTED AS A GROUND RETURN PATH AND SHALL CONTAIN A SEPARATE EQUIPMENT GROUNDING CONDUCTOR AS SPECIFIED.



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ENGINEER OF RECORD: NAME: RYAN JONES LICENSE NO.PE-2004017193

PROJECT NUMBER: 21334 7BSM

REVISION:

Engineering | Energy | Innovation 2225 West Chesterfield Boulevard, Suite 200, Springfield, MO 65807 P: 417.877.1700 F: 417.324.7735 www.cjd-eng.com Missouri State Certificate of Authority #2005026903 Special notice: Drawings prepared by CJD LLC are instruments of service for use solely with respect to this project.
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SCHEDULES AND **DETAILS DATE:** APRIL 26, 2022