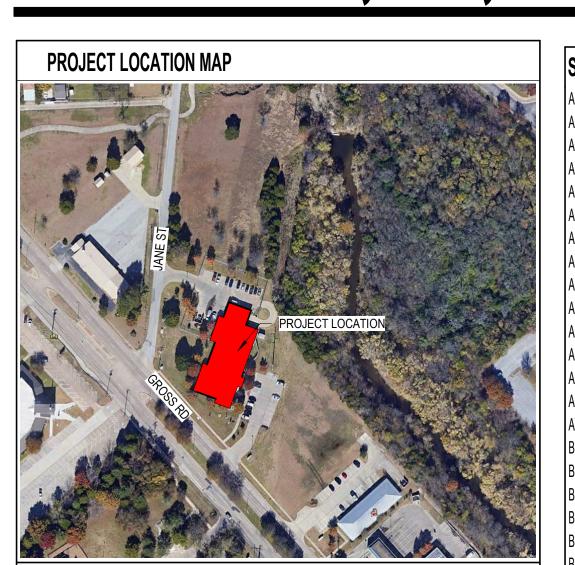
# CITY OF MESQUITE ANIMAL SHELTER & ADOPTION CENTER

1650 GROSS Rd MESQUITE, TX, 75149

CONSTRUCTION DOCS 02-11-2022





#### PROJECT DESCRIPTION

CITY OF MESQUITE - ANIMAL SHELTER 1650 GROSS ROAD MESQUITE, TX 75149 ANIMAL SHELTER ADDITION 16 316

16,316 ADDING ADDITIONAL SQ FT TO EXISTING ANIMAL SHELTER TO INCREASE CAPACITY AND SHELTER

#### APPLICABLE CODES

CITY OF MESQUITE, TEXAS

2018 INTERNATIONAL BUILDING CODE (IBC) WITH AMENDMENTS

2018 INTERNATIONAL FIRE CODE (IFC) WITH AMENDMENTS

2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) WITH AMENDMENTS
2018 INTERNATIONAL FUEL GAS CODE (IFGC) WITH AMENDMENTS
2018 INTERNATIONAL MECHANICAL CODE (IMC) WITH AMENDMENTS

2018 INTERNATIONAL PLUMBING CODE (IPC) WITH AMENDMENTS
2017 NATIONAL ELECTRICAL CODE (NEC) WITH AMENDMENTS
2010 ADAMS (AMERICANIS MITTLE BISARULTIES ACT ACCESSIBILITY)

2010 ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES)
2012 TEXAS ACCESSIBILITY STANDARDS (TAS)

#### PROJECT DATA

OCCUPANCY CLASSIFICATION

TYPE II-B (IBC TABLE 503)

CLIMATE ZONE: 3

ANIMAL SHELTER
IBC 304.1: GROUP B: BUSINESS

OCCUPANCY LOADS

GROUND FLOOR = 3,576
46 OCCUPANTS REFER TO SHEETS LS1.00

CONSTRUCTION TYPE

DESIGN LIMITATIONS
IBC 2018 TABLES 504.3 & 504.4
HEIGHT: ALLOWED - 55 FT / 3 STORIES
PROVIDED - 1 STORY COMPLIANT

AREA: ALLOWED -92,000 SF
PROVIDED - 3,576 SF; COMPLIANT

FIRE PROTECTION REQUIREMENTS
(IBC 2018 TABLE 601; NFPA 101 TABLE 18.1.6.2)
STRUCTURAL FRAME/COLUMN: 0
BEARING WALL: EXTERIOR/INTERIOR 0
NONBEARING WALLS: EXTERIOR/INTERIOR 0

IBC 2018 506.1

FIRE SPRINKLER REQUIREMENTS 100% SPRINKLERED

U-FACTOR

ROOF/CEILING CONSTRUCTION:

FLOOR CONSTRUCTION:

#### THERMAL ENVELOPE MINIMUMS

OLIMATE ZONE. 3	IN-VALUE	0-1 70101
ROOFS		
INSULATION ENTIRELY ABOVE ROOF DECK:	R-25Cl	0.039
METAL BUILDINGS:	R-19 + R-11LS	0.035
ATTIC & OTHER	R-38	0.027
WALLS, ABOVE GRADE		
MASS:	R-7.6Cl	0.123
METAL BUILDINGS:	R-13 + R-6.5Cl	0.079
METAL FRAMED:	R-13 + R-7.5Cl	0.064
SLAB-ON-GRADE FLOORS		
UNHEATED SLABS	NR	F-0.73
FENESTRATION	U-FACTOR	
FIXED FENESTRATION	0.46	
ENTRY DOORS	0.77	
	SHGC	
ORIENTATION	SEW	N
PF < 0.2	0.25	0.33
0.2 <u>&lt; PF</u> < 0.5	0.30	0.37
PF ≥ 0.5	0.40	0.40

R-VALUE

	AIR CONDITIONING	FU	FURR/ FURRING
JST	ACOUSTICAL	FXT	FIXTURE
	ACOUSTICAL CEILING TILE	GA	GAUGE
	ADDENDUM	GALV	•
	ADDITIONAL ADJACENT/ ADJUSTABLE	GC GDR	GENERAL CONTRACTOR GUARDRAIL
	ABOVE FINISHED FLOOR	GEN	GENERAL
	AIR HANDLING UNIT		GLASS FIBER REINF CONC
	ALTERNATE	Gl	GALVANIZED IRON
1	ALUMINUM	GL	GLASS/GLAZING
	ANGLE	GT	GLASS TILE
)	ANODIZED	GYP	GYPSUM
XOX	-	-	HANDICAP
1	ARCHITECT/ ARCHITECTURAL AUDIO/VISUAL	HDR	HOLLOW CORE WOOD HANDRAIL
	BOARD		HARDWARE
ì	BUILDING		HOLLOW METAL
i	BLOCKING	HORZ	HORIZONTAL
	BEAM/ BENCH MARK	HP	HIGH POINT
	BOTTOM OF	HRDBD	-
	BACK OF CURB		HARDWOOD
	BRONZE BUILT-UP ROOF	HT	HEIGHT HEATING/VENTILATION/ AC
	CABINET	HVY	HEAVY
	CONTR FURNISHED/ CONTR INST	ID	INSIDE DIAMETER
•	COLD FORMED METAL FRAMING	IG	INSULATED GLASS
	CORNER GUARD	IN	INCH
	CEILING HEIGHT	INST	INSTALL/ INSTALLATION
	CHANNEL		INSULATION
	CAST IN PLACE		INTERIOR
	CONTROL JOINT CENTER LINE	J-BOX Jan	JUNCTION BOX JANITOR
	CEILING	JG	
	CLEAR	JST	JOIST
	CONCRETE MASONRY UNIT	JT	JOINT
	CASED OPENING/CLEAN OUT	KP	KEYPAD
_	COLUMN		LAMINATE
3	COMBINATION		LAVATORY
ST	CONCRETE CONSTRUCTION	LB LF	LOCAL BUILD (OR BY CONTR) LINEAR FEET
) i	CONTINUOUS		LEAD LINED
ΓR	CONTRACTOR		LONG LEG HORZ
	CORRIDOR	LLV	LONG LEG VERT
	CARPET		LIGHT
	CARD READER		LUXURY VINYL TILE
	CERAMIC TILE DEGREE	MACH MAINT	MACHINE MAINTENANCE
	DEPARTMENT	MAS	MASONRY
	DRINKING FOUNTAIN	MAX	MAXIMUM
	DIAMETER (Ø)	MCWD	MINERAL CORE WOOD
	DIMENSION	MDF	MEDIUM DENSITY FIBERBOAR
	DOWN	MECH	MECHANICAL
	DOOR DOWN SPOUT	MEP MFR	MECH/ ELEC/ PLBG MANUFACTURER
	DETAIL	MHO	MAGNETIC HOLD OPEN
	DISHWASHER	MIN	MINIMUM
	DRAWING	MISC	MISCELLANEOUS
	EACH	MO	MASONRY OPENING
	EXPANSION JOINT	MSG	MFR STD GA
	ELEVATION ELECTRIC (AL)	MTL	METAL
	ELECTRIC (AL) ELEVATOR	MTR NIC	METER NOT IN CONTRACT
	EDGE OF SLAB	NO	NUMBER
	EQUAL	NOM	NOMINAL
	ENGINEERED QUARTZ FAB	NONCOM	NONCOMBUSTIBLE
Р	EQUIPMENT	NR	NOT RATED
V	EQUIVALENT	NTS	NOT TO SCALE
L	ESCALATOR	00	ON CENTER
	EACH WAY ELEC WATER COOLER	OD OF/CI	OUTSIDE DIA/ OVERFLOW DRA OWNER FURNISHED/ CONTR II
	EXTERIOR	OF/OI	OWNER FURNISHED/ OWNER
	FIBER CEMENT	OH	OPPOSITE HAND/OVERHEAD
	FLOOR DRAIN	OPNG	OPENING
	FIRE DEPARTMENT CONNECTION	PAN	PANTRY
	FIRE EXTINGUISHER	PCT	PORCELAIN TILE
	FIRE EXTINGUISHER & CABINET	PLAM	PLASTIC LAMINATE
	FIRE HYDRANT FIRE HOSE CABINET	PLBG PLT	PLUMBING PLATE
	FINISH	PLYWD	PLYWOOD
	FLASHING	PNL	PANEL
	FLOOR	PNT	PAINT
	FACE OF STUD	PNTD	PAINTED
	FIRE RESISTIVE	POL	POLISHED
	FIRE RESISTANCE TREATED	PR	PAIR

FIRE RESISTANCE TREATED

PRE-FAB PREFABRICATED

PROP PROPERTY

FOOT (FEET)

FTG FOOTING

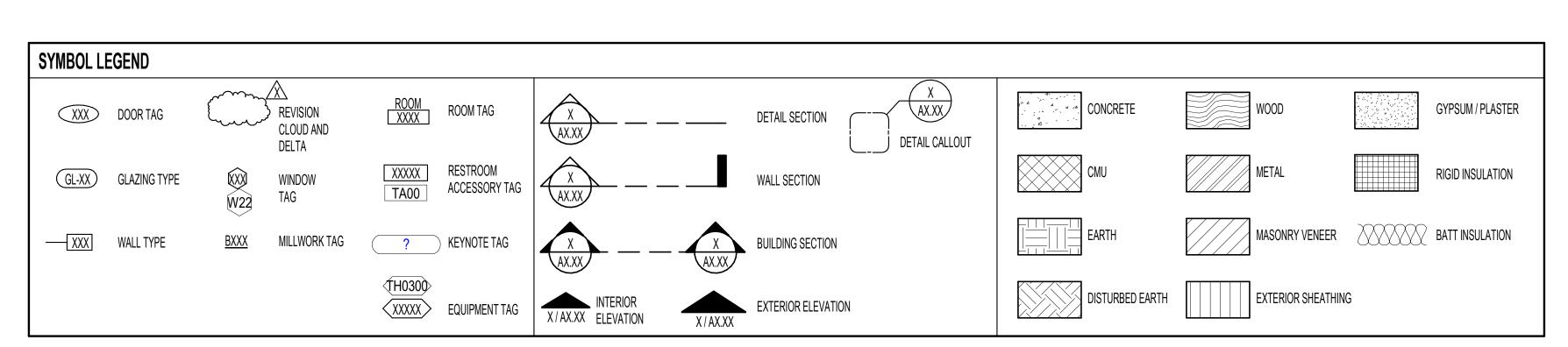
STAND	ARD ABBREVIATIONS	STANE	OARD ABBREVIATIONS	GENERAL N
FU	FURR/ FURRING	PT	POINT	1. PRIOR TO STA
FXT GA	FIXTURE GAUGE	QT R	QUARRY TILE RISER/ RADIUS	TO VERIFY THA
GALV	GALVANIZED	I <sup>N</sup> RA	RETURN AIR	NO CONSTRUC
GC	GENERAL CONTRACTOR	RAD	RADIUS	ALL OF THE PE
BDR	GUARDRAIL	RD	ROOF DRAIN	THE CONTRAC
SEN	GENERAL	RE:	REFER/ REFERENCE	CONTRACTOR MODIFICATION
FRC	GLASS FIBER REINF CONC	RECPT	RECEPTACLE	WODII IOATION
l	GALVANIZED IRON	REF	REFRIGERATOR	2. PRIOR TO STA
L	GLASS/GLAZING	REINF	REINFORCED	WITH THE OWN TIMES IN WHIC
T	GLASS TILE	REQD	REQUIRED	T IIVILO IIV WI IIO
YP	GYPSUM	REV	REVISED/ REVISION	3. CONTRACTOR
C	HANDICAP	RM	ROOM	THE SITE, AND CONDITIONS U
CWD DR	HOLLOW CORE WOOD HANDRAIL	RO RS	ROUGH OPENING ROUGH SAWN	CONDITIONS
DWR	HARDWARE	RST	RESILIENT STAIR TREAD	4. THESE CONTR
M	HOLLOW METAL	RSV	RIGID SHEET VINYL	CONTRACTOR UNDERSTAND
ORZ	HORIZONTAL	RTU	ROOF TOP UNIT	DETAILS, EXIS
)	HIGH POINT	SA	SUPPLY AIR	HERE. NO ADD
RDBD	HARDBOARD	SAC	SUSP ACOUST CLG	TO THE ATTEN
RDWD	HARDWOOD	SCHED	SCHEDULE	5. ALL WORK SHA
Γ	HEIGHT	SCWD	SOLID CORE WOOD	NECESSARY LI
/AC	HEATING/VENTILATION/ AC	SECT	SECTION	AT THEIR EXPE
/Y	HEAVY	SHR	SHEET RUBBER	6. CONTRACTOR
	INSIDE DIAMETER INSULATED GLASS	SHT SHV	SHEET SHEET VINYL	
) 	INCH	SIM	SIMILAR	7. REFER TO PRO
N NST	INSTALL/ INSTALLATION	SOG	SLAB ON GRADE	ASSEMBLY NO OR DIFFERENC
NSUL	INSULATION	SP	STAND PIPE	
NT	INTERIOR	SPEC	SPECIFICATION	8. CONTRACTOR
-BOX	JUNCTION BOX	SPKLR	SPRINKLER	AND SERVICES SHOWN ON TH
٩N	JANITOR	SQ	SQUARE	
G	JAMB GUARD	SS	STAINLESS STEEL	9. IT SHALL BE TI ALL UTILITIES V
ST	JOIST	SSF	SOLID SURFACE FABRICATION	WORK, ALL DA
<u> </u>	JOINT	ST	SMOKE TIGHT	SHALL BE THE
P AM	KEYPAD	STC STD	SOUND TRANSMISSION CLASS	10 ALL MATERIA
AV	LAMINATE LAVATORY	STL	STANDARD STEEL	10. ALL MATERIA AND ALL WOR
}	LOCAL BUILD (OR BY CONTR)	STN	STONE	CONFORMANC
, [	LINEAR FEET	STRUCT		11 ALL WORK O
_	LEAD LINED	SUSP	SUSPENDED	11. ALL WORK SH THE ENTIRE SA
LH	LONG LEG HORZ	SWP	SHEET WALL PROTECTION	WITH THE BES
LV	LONG LEG VERT	SYM	SYMMETRICAL	40 CONTDACTO
T	LIGHT	SYS	SYSTEM	12. CONTRACTO NEW WORK. AI
/T	LUXURY VINYL TILE	T	TREAD	COST TO THE
ACH	MACHINE	TA	TOILET ACCESSORY	42 PDO//IDE ANI
AINT	MAINTENANCE	TC	TOP OF CURB	13. PROVIDE ANI PROTECT ANY
AS AX	MASONRY MAXIMUM	TEL TEMP	TELEPHONE TEMPORARY/ TEMPERATURE	COMPLETION
1AX 1CWD	MINERAL CORE WOOD	TMP	TEMPERED	44 OONTDAGES
DF	MEDIUM DENSITY FIBERBOARD	TO	TOP OF	14. CONTRACTO REQUIREMENT
ECH	MECHANICAL MECHANICAL	TOB	TOP OF BEAM	CODES.
EP	MECH/ ELEC/ PLBG	TOC	TOP OF CONCRETE	/F 001=
FR	MANUFACTURER	TOF	TOP OF FOOTING	15. CONTRACTO THEREOF.
НО	MAGNETIC HOLD OPEN	TOP	TOP OF PARAPET	THENEOI.
IN	MINIMUM	TOS	TOP OF STEEL/ STRUCTURE	16. CONTRACTO
ISC	MISCELLANEOUS	TOW	TOP OF WALL	WASTE MATER THE COMPLET
0	MASONRY OPENING	TP TD7	TOILET PARTITION	CLEAN-UP, INS
SG TI	MFR STD GA METAL	TRZ	TERRAZZO TRANSITION/ TRANSITION STRIP	PROJECT AREA
TL TR	METAL METER	TS TT	TILE TRIM	17. CONTRACTO
IIC	NOT IN CONTRACT	TXR	TRANSFORMER	THE CONTRACTO
0	NUMBER	TYP	TYPICAL	PROOF IN EVE
IOM	NOMINAL	UC	UNDERCOUNTER	L
-	NONCOMBUSTIBLE	UG	UNDERGROUND	
R	NOT RATED	UL	UNDERWRITERS LABORATORY	
TS	NOT TO SCALE	UNO	UNLESS NOTED OTHERWISE	
C	ON CENTER	UPR	UPPER	
D	OUTSIDE DIA/ OVERFLOW DRAIN	VAC	VACUUM	
F/CI =/OI	OWNER FURNISHED/ CONTR INST	VAR	VARIES	
F/OI H	OWNER FURNISHED/ OWNER INST	VCT	VINYL COMPOSITION TILE	
n PNG	OPPOSITE HAND/OVERHEAD OPENING	VERT	VERTICAL VESTIBULE	
AN	PANTRY	VEST	VERIFY IN FIELD	
CT	PORCELAIN TILE	VNR	VENEER	
.AM	PLASTIC LAMINATE	VWC	VINYL WALL COVERING	
.BG	PLUMBING	W	WIDTH	
Τ	PLATE	W/	WITH	
YWD	PLYWOOD	WC	WATER CLOSET	
L	PANEL	WD	WOOD	
T 	PAINT	WF	WIDE FLANGE	
NTD	PAINTED	WH	WATER HEATER	
OL	POLISHED	l WP	WATERPROOF(ING)/WORK POINT	

GENERAL NOTES	SHEET INDE	IEET INDEX				
			ORIGINAL	Current		
1. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE	SHEET#	SHEET NAME	ISSUE DATE	Revision Date   Current Revision Description		
TO VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED.  NO CONSTRUCTION OR FABRICATION OF ANY ITEM SHALL BEGIN UNTIL THE	00 GENERAL					
CONTRACTOR HAS RECEIVED ALL PLANS AND ANY OTHER DOCUMENTATION FROM						
ALL OF THE PERMITTING AND ANY OTHER REGULATORY AUTHORITIES. FAILURE OF	G00.00	COVER - INDEX	02/11/2022			
THE CONTRACTOR TO FOLLOW THIS PROCEDURE SHALL CAUSE THE	01 LIFE SAFETY		'			
CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ANY SUBSEQUENT MODIFICATION OF THE WORK MANDATED BY ANY REGULATORY AUTHORITY.						
MODILIONATION OF THE WORK WINDS TED BY NATINE SOLATION FACILITY.	LS1.00	LIFE SAFETY	02/11/2022			
2. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE	02 CIVIL					
WITH THE OWNER AND BUILDING FACILITY MANAGEMENT TEAM THE DAYS AND						
TIMES IN WHICH THE WORK SHALL BE PERFORMED.	C0.1	COVER	02/11/2022			
3. CONTRACTOR WILL BE HELD TO HAVE STUDIED THE DRAWINGS, TO HAVE VISITED	C1.1	DIMENSIONAL CONTROL PLAN	02/11/2022			
THE SITE, AND TO HAVE SATISFIED HIMSELF REGARDING ALL EXISTING	C2.1	GRADING PLAN	02/11/2022			
CONDITIONS UNDER WHICH HE WILL BE OBLIGED TO OPERATE.	C3.1	PROPOSED DRAINAGE AREA MAP	02/11/2022			
4. THESE CONTRACT DOCUMENTS ARE ABBREVIATED IN CONTENT. THE	C4.1	STORM SEWER PLAN	02/11/2022			
CONTRACTOR AND SUBCONTRACTORS ARE RESPONSIBLE FOR REVIEWING AND	C5.1 C6.1	SITE UTILITY PLAN PAVING PLAN	02/11/2022 02/11/2022			
UNDERSTANDING SCOPE, SITE VISITS, AND ANY VERIFICATION OF SCOPE,	C6.2	PAVING DETAILS	02/11/2022			
DETAILS, EXISTING CONDITIONS, ETC. PERTAINING TO SCOPE OF WORK SHOWN HERE. NO ADDITIONAL COST WILL BE ALLOWED FOR CONDITIONS NOT BROUGHT	C7.1	EROSION CONTROL PLAN & DETAILS	02/11/2022			
TO THE ATTENTION OF ARCHITECT.	03 LANDSCAPE	EROSION CONTROL I LAN & DETAILS	02/11/2022			
	UU LANDOOAI L					
5. ALL WORK SHALL COMPLY WITH APPLICABLE STATE AND LOCAL CODES. ALL	L1.01	TREE PRESERVATION PLAN	02/11/2022			
NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT THEIR EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.	L2.01	LANDSCAPE PLAN	02/11/2022			
AT THEIR EXI ENGL ONLEGGT REVIOUSET OBTAINED BY THE OWNER.	L2.02	LANDSCAPE SPECIFICATIONS AND DETAILS	02/11/2022			
6. CONTRACTOR SHALL NOT SCALE DRAWINGS.	L3.01	IRRIGATION PLAN	02/11/2022			
T DEFED TO DDG IFOT MANUAL FOR ODEGIFIOATIONS FOR DDGDLIGTS AND	L3.02	IRRIGATION SPECIFICATIONS AND DETAILS	02/11/2022			
7. REFER TO PROJECT MANUAL FOR SPECIFICATIONS FOR PRODUCTS AND ASSEMBLY NOTES IN DRAWINGS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES	04 DEMOLITION					
OR DIFFERENCES, PRIOR TO PROCEEDING WITH WORK.						
	DA2.01	DEMOLITION SITE PLAN	02/11/2022			
8. CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FIXTURES	DA2.10	DEMOLITION FLOOR PLANS	02/11/2022			
AND SERVICES NECESSARY FOR THE PROPER EXECUTION OF THE WORK AS SHOWN ON THE PLANS.	DA3.10	REFLECTED CEILING DEMO PLANS	02/11/2022			
SHOW ON THE PERIOR	DA4.10	ROOF DEMOLITION PLAN	02/11/2022			
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF	05 ARCHITECTUR	AL				
ALL UTILITIES WITHIN THE LIMITS OF THE WORK PRIOR TO THE START OF THE SITE WORK. ALL DAMAGES MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR						
SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.	A0.01	2012 TAS ACCESSIBILITY GUIDELINES	02/11/2022			
	A1.00	SITE PLAN	02/11/2022			
10. ALL MATERIALS AND EQUIPMENT INCORPORATED IN THE WORK SHALL BE NEW	A1.01	ENLARGED SITE PLAN	02/11/2022			
AND ALL WORK SHALL BE OF GOOD QUALITY, FREE FROM FAULTS AND IN CONFORMANCE WITH THE PLANS.	A1.11	SITE DETAILS	02/11/2022			
GONI GINIMANOE WITH THE LEANG.	A2.00	OVERALL FLOOR PLAN	02/11/2022 02/11/2022			
11. ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO	A2.10 A2.12	OVERALL ROOF PLAN OVERALL FLOOR FINISH PLAN	02/11/2022			
THE ENTIRE SATISFACTION OF THE OWNER AND ARCHITECT AND IN ACCORDANCE	A2.12 A2.50	ENLARGED FLOOR PLANS	02/11/2022			
WITH THE BEST RECOGNIZED TRADE PRACTICES.	A2.51	ENLARGED EQUIPMENT PLANS	02/11/2022			
12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND	A2.52	ENLARGED FINISH PLANS	02/11/2022			
NEW WORK. ANY WORK DAMAGE FOR ANY REASON SHALL BE REPLACED AT NO	A3.00	OVERAL REFLECTED CEILING PLAN	02/11/2022			
COST TO THE OWNER.	A3.01	ENLARGED REFLECTED CEILING PLAN	02/11/2022			
13. PROVIDE AND INSTALL ALL NECESSARY PROTECTIVE DEVICES REQUIRED TO	A4.00	OVERALL EXTERIOR ELEVATIONS	02/11/2022			
PROTECT ANY OWNER FURNISHED EQUIPMENT INSTALLED PRIOR TO THE	A4.01	OVERALL EXTERIOR ELEVATIONS	02/11/2022			
COMPLETION OF THE WORK.	A5.00	BUILDING SECTIONS	02/11/2022			
14. CONTRACTOR TO PROVIDE ELECTRICAL POWER IN ACCORDANCE WITH	A5.01	BUILDING SECTIONS	02/11/2022			
REQUIREMENTS OF THE INDICATED ELECTRICAL CODE AND LOCAL GOVERNING	A5.02	BUILDING SECTIONS	02/11/2022			
CODES.	A5.10	WALL SECTIONS	02/11/2022			
AL CONTRACTOR CHALL CURERVICE THE WORK AND COORDINATE ALL RORTIONS	A6.00	PLAN DETAILS	02/11/2022			
15. CONTRACTOR SHALL SUPERVISE THE WORK AND COORDINATE ALL PORTIONS THEREOF.	A6.20	SECTION DETAILS	02/11/2022			
	A6.21	SECTION DETAILS	02/11/2022			
16. CONTRACTOR SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF	A6.50	ROOF DETAILS	02/11/2022			
WASTE MATERIALS OR RUBBISH CAUSED BY THE CONTRACTOR'S OPERATIONS. AT	A7.00	PARTITION TYPES	02/11/2022			
THE COMPLETION OF THE WORK THE CONTRACTOR SHALL PERFORM A FINAL CLEAN-UP, INSIDE AND OUT, CLEAN ALL GLASS SURFACES AND LEAVE THE	A7.01	PARTITION DETAILS	02/11/2022			
PROJECT AREA CLEAN.	A7.10	DOOR / WINDOW SCHEDULE & DETAILS	02/11/2022			
AZ CONTRACTOR CHALL CHARANTEE FOR AN VEND THE CONTRACTOR CHARACTER CONTRACTOR CONTRACT	A7.21 A7.30	WINDOW DETAILS INTERIOR FINISH DETAILS & SIGNAGE SCHEDULE	02/11/2022 02/11/2022			
17. CONTRACTOR SHALL GUARANTEE FOR (1) YEAR THAT ALL OF THE WORK UNDER THE CONTRACT IS FREE FROM FAULTY MATERIALS, WATER-TIGHT AND LEAK-	A7.30 A8.00	INTERIOR ELEVATIONS	02/11/2022			
PROOF IN EVERY PARTICULAR AND FREE FROM IMPROPER WORKMANSHIP.	A8.01	INTERIOR ELEVATIONS  INTERIOR ELEVATIONS	02/11/2022			
	A8.02	INTERIOR ELEVATIONS  INTERIOR ELEVATIONS	02/11/2022			

INTERIOR ELEVATIONS

MILLWORK TYPES AND DETAILS

SHEET#	SHEET NAME	ORIGINAL ISSUE DATE	Current Revision Date	Current Revision Descrip
06 STRUCTURAL				
S1.01	STRUCTURAL NOTES	02/11/2022		
S1.02	STRUCTURAL NOTES	02/11/2022		
S1.03	SPECIAL INSPECTIONS	02/11/2022		
\$1.04 \$2.01	SPECIAL INSPECTIONS FOUNDATION PLAN	02/11/2022		
S2.02	LOW ROOF FRAMING PLAN	02/11/2022		
S2.03	HIGH ROOF FRAMING PLAN	02/11/2022		
S3.01	TYPICAL CONCRETE SECTIONS & DETAILS	02/11/2022		
S3.02	TYPICAL CONCRETE SECTIONS & DETAILS	02/11/2022		
\$3.11 \$4.01	CONCRETE SECTIONS & DETAILS  TYPICAL MASONRY SECTIONS & DETAILS	02/11/2022		
S4.01	TYPICAL MASONRY SECTIONS & DETAILS	02/11/2022		
S5.01	TYPICAL STEEL SECTIONS & DETAILS	02/11/2022		
S5.11	STEEL SECTIONS & DETAILS	02/11/2022		
S5.12	STEEL SECTIONS & DETAILS	02/11/2022		
S6.01	TYPICAL CFS SECTIONS & DETAILS	02/11/2022		
S6.11	CFS SECTIONS & DETAILS	02/11/2022		
07 MECHANICAL				
M1.10	MECHANICAL SCOPE	02/11/2022		
M1.20	MECHANICAL DETAILS & ABBREVIATIONS	02/11/2022		
M1.30	MECHANICAL CALCULATION SUMMARY	02/11/2022		
M1.40	MECHANICAL SCHEDULES	02/11/2022		
M1.50	ROOM AIR BALANCE SCHEDULE	02/11/2022		
M2.10 M2.20	HVAC ZONING  HVAC CONTROLS MATRIX & SEQUENCE OF OPERATION	02/11/2022		
M3.10	HVAC EQUIPMENT LAYOUTS & CONDENSATE DRAIN	02/11/2022		
M4.10	HVAC DIFFUSER & BALANCING LAYOUTS	02/11/2022		
M5.10	MECHANICAL ISOMETRIC VIEW I	02/11/2022		
M5.20	MECHANICAL ISOMETRIC VIEW II	02/11/2022		
M6.10	OVERVIEW HVAC SUPPLY DRAWINGS	02/11/2022		
M6.20	OVERVIEW HVAC RETURN DRAWINGS	02/11/2022		
M6.30 M6.40	MECHANICAL SECTION VIEWS I MECHANICAL SECTION VIEWS II	02/11/2022		
08 ELECTRICAL	MESTIVITIONE SECTION VIETO II	02/11/2022		
E1.10	ELECTRICAL SCOPE	02/11/2022		
E1.20	ELECTRICAL DETAILS & ABBREVIATIONS  ELECTRICAL PANEL SCHEDULES I	02/11/2022		
E2.10 E2.20	ONE LINE DIAGRAM	02/11/2022		
E3.10	POWER LAYOUTS	02/11/2022		
E4.10	LIGHTING & ILLUMINATED EXIT SIGN LAYOUTS	02/11/2022		
E4.20	LIGHTING PHOTOMETRICS & DAYLIGHTING	02/11/2022		
E4.30	SITE LIGHTING LAYOUT	02/11/2022		
E4.40	SITE LIGHTING PHOTOMETRICS	02/11/2022		
E5.20	DAYLIGHT AREAS FIRE ALARM FLOOR PLAN	02/11/2022		
E6.10	POWER ROOF	02/11/2022		
09 PLUMBING		<b>V</b> =/ · · ·/ = <b>V</b> ==		
P1.10	PLUMBING SCOPE	02/11/2022		
P1.20	PLUMBING DETAILS & ABBREVIATIONS	02/11/2022		
P1.30 P2.10	PLUMBING SCHEDULES PLUMBING FIXTURE LAYOUTS	02/11/2022		
P4.10	OVERVIEW HOT & COLD SUPPLY DRAWINGS	02/11/2022		
P4.20	SUPPLY PIPING RISER DETAIL	02/11/2022		
P5.10	OVERVIEW SANITARY & HAIRTRAP DRAINAGE & VENTING DRAWINGS	02/11/2022		
P6.10	SANITARY & HAIRTRAP PIPING RISER DETAIL	02/11/2022		
10 FIRE PROTECTI	ON			
F04.40	FIDE CODINIZI ED COODE A COLIEDUA EO	00/44/0000		
FS1.10 FS2.10	FIRE SPRINKLER SCOPE & SCHEDULES FIRE SPRINKLER DETAILS & ABBREVIATIONS	02/11/2022		
FS3.10	FIRE SPRINKLER DETAILS & ABBREVIATIONS  FIRE SPRINKLER RISER DIAGRAM & SECTION VIEWS	02/11/2022		
FS4.10	FIRE SPRINKLER PLAN VIEWS	02/11/2022		



# LANDSCAPE

WWF WELDED WIRE FABRIC

WWM WELDED WIRE MESH

BELLE FIRMA
4245 NORTH CENTRAL EXPY, SUITE 501
DALLAS, TEXAS 75205
CONTACT: KORI HAUG
PHONE: (214) 740-4830

#### PCHECO KOCH CONSULTING ENGINEERS, INC 7557 RAMBLER ROAD, SUITE 1400 DALLAS, TEXAS 75231 CONTACT: STEVE MARKUSSEN

PHONE: (972) 235-3031

DESIGN LEARNED, INC
116 MAIN STREET
NORWICH, CONNECTICUT 06360
CONTACT: SCOTT LEARNED
PHONE: (860) 889-7078

02/11/2022

02/11/2022

# STRUCTURAL JQ INFRASTRUCTURE, LLC 100 GLASS STREET DALLAS, TEXAS 75207 CONTACT: CONNER MAINES PHONE: (214) 623-5881

ARCHITECT

GSR ANDRADE ARCHITECTS
4121 COMMERCE ST., SUITE 1
DALLAS, TEXAS, 75226
CONTACT: ROBERT GAMBOA
PHONE: (214) 824-7040

ITY OF MESQUITE ANIMAL
DOPTION CENTER

SHELTER

MESQUITE
T E X A S.
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Dallas, Texas 75226

P 214.824.7040

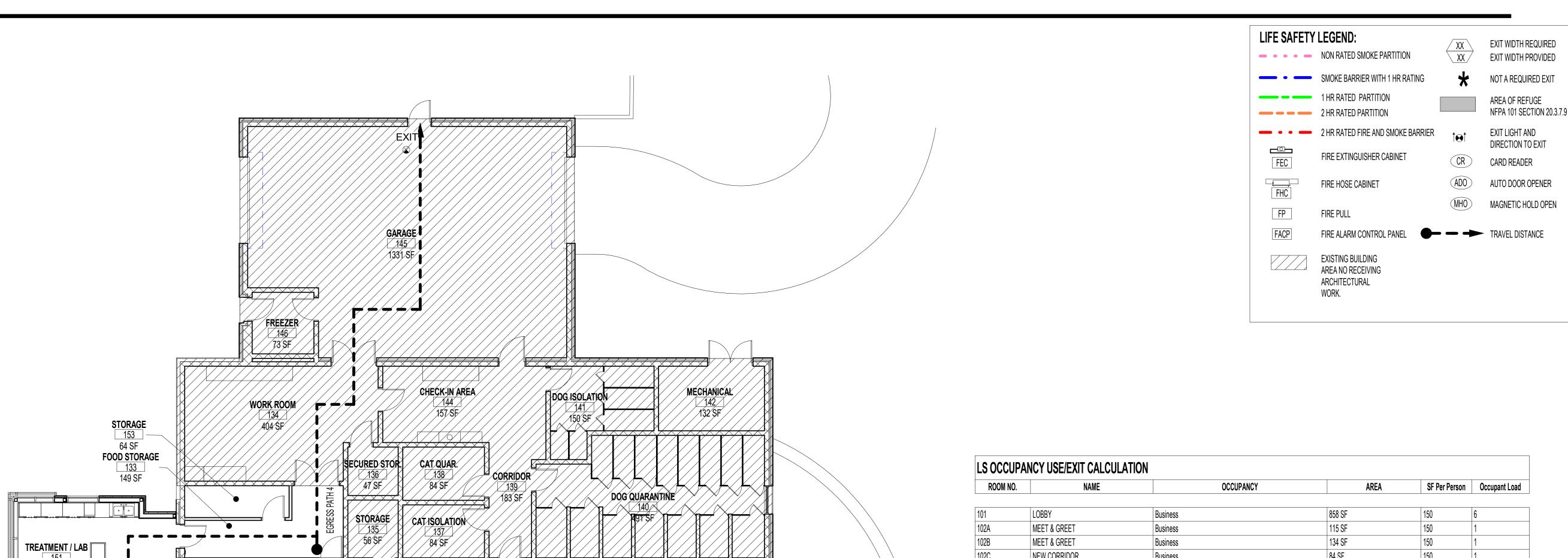


Sheet Title:
COVER - INDEX
Drawing No.

Checked By:

Checker

G00.00



TELEPHONE 122

CAT COLONY

121A

235 SF

EGRESS PATH 6

17 STORAGE 103A 104 SF MEET & GREET 102B 134 SF

MECHANICAL

EGRESS PATH 2

EGRESS PATH 1

JANITOR 112 64.8F

DOG ADOPTION
149
1112 SF

CAT ADOPTION
147

NOOM NO.	IVAIIL	OOODI AIIOT		01 1 01 1 013011	Occupant Loc
				·	
01	LOBBY	Business	858 SF	150	6
102A	MEET & GREET	Business	115 SF	150	1
102B	MEET & GREET	Business	134 SF	150	1
102C	NEW CORRIDOR	Business	84 SF	150	1
133	FOOD STORAGE	Business	149 SF	150	1
134	WORK ROOM	Business	404 SF	150	3
145	GARAGE	Business	1331 SF	150	9
147	CAT ADOPTION	Business	1112 SF	150	8
148	CORRIDOR	Business	252 SF	150	2
149	DOG ADOPTION	Business	1112 SF	150	8
150	ELECTRIC RM.	Business	55 SF	150	1
151	TREATMENT / LAB	Business	499 SF	150	4
153	STORAGE	Business	64 SF	150	1
155	RISER RM	Accessory Storage / Mechanical	38 SF	300	1
Grand total: 14	TOTAL OCCUPANT LOAD PER IBC	CHAPTER 10	-		47

LS TRAVEL DISTANCE	
EXIT ROUTE	DISTANCE
EGRESS PATH 1	64' - 9 7/16"
EGRESS PATH 2	68' - 1 3/8"
EGRESS PATH 3	117' - 0 101/128"
EGRESS PATH 4	73' - 2 5/128"
EGRESS PATH 5	67' - 0 95/256"
EGRESS PATH 6	61' - 7 31/256"

gsr andrade

SHELTER

ANIMAL

MESQUITE

**P** 

1650 GROSS F MESQUITE, T)

MESQUITE T E X A S.

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REV.	DATE	TITLE

Date: CONS 02-11	STRUCTIO -2022	N DOCS
Project 2942	t No.	
Drawr OV	n By:	
Check RG	ked By:	
Sheet	Title:	

LS1.00

Drawing No.

1 LIFE SAFETY PLAN

1/8" = 1'-0"

#### GENERAL DEMOLITION NOTES

DEMOLITION DOCUMENTS ARE INTENDED TO PREPARE THE EXISTING CONDITIONS TO RECEIVE NEW CONSTRUCTION AND MODIFICATIONS, AS INDICATED ON OTHER CONSTRUCTION DOCUMENTS, AND ARE INTENDED TO REFLECT KNOWN CONDITIONS AS CLOSELY AS POSSIBLE. CONTRACTOR IS TO VERIFY ALL CONDITIONS PRIOR TO EXECUTION OF DEMOLITION WORK AND SHALL REPORT ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL CONDITIONS.

01 - SEQUENCING 1. SEQUENCE ACTIVITIES IN THE FOLLOWING ORDER

02 - SCHEDULING

1. SCHEDULE WORK TO COINCIDE WITH [NEW CONSTRUCTION]. 2. PERFORM WORK: BETWEEN HOURS OF [X] AND [X].

03 - PROJECT CONDITIONS

1. CONDUCT DEMOLITION TO MINIMIZE INTERFERENCE WITH ADJACENT AND OCCUPIED BUILDING

2. CEASE OPERATIONS IMMEDIATELY WHEN STRUCTURE APPEARS TO BE IN DANGER AND NOTIFY ARCHITECT/ENGINEER/OWNER. DO NOT RESUME OPERATIONS UNTIL DIRECTED.

04 - PREPARATION

1. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND COORDINATE ALL DEMOLITION WORK WITH EXISTING CONSTRUCTION PRIOR TO EXECUTION OF DEMOLITION. 2. CONFORM TO APPLICABLE BUILDING CODE FOR DEMOLITION WORK, DUST CONTROL, PRODUCTS

REQUIRING ELECTRICAL DISCONNECTION AND RE-CONNECTION. 3. CONFORM TO APPLICABLE BUILDING CODE FOR PROCEDURES WHEN HAZARDOUS OR

CONTAMINATED MATERIALS ARE DISCOVERED.

4. ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES, INCLUDING WARNING SIGNS AND LIGHTS, AND SIMILAR MEASURES, FOR PROTECTION OF THE PUBLIC, OWNER,

CONTRACTOR'S EMPLOYEES AND EXISTING IMPROVEMENTS TO REMAIN. PROTECT EXISTING MATERIALS AND EXISTING CONDITIONS NOT INDICATED TO BE DEMOLISHED. 6. PREVENT MOVEMENT OF EXISTING STRUCTURE; PROVIDE TEMPORARY BRACING AND SHORING REQUIRED TO ENSURE SAFETY OF EXISTING STRUCTURE.

8. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR

9. COORDINATE WITH OWNER, DEMOLITION OF EXISTING UTILITIES THAT WILL AFFECT OWNER'S OPERATIONS ON SITE.

10. ERECT AND MAINTAIN WEATHERPROOF ENCLOSURES FOR EXTERIOR OPENINGS. 11. ERECT AND MAINTAIN TEMPORARY PARTITIONS TO PREVENT SPREAD OF DUST, ODORS, AND

NOISE TO PERMIT CONTINUED OWNER OCCUPANCY. 12. PROVIDE APPROPRIATE TEMPORARY SIGNAGE INCLUDING SIGNAGE FOR EXIT OR BUILDING

05 - DEMOLITION REQUIREMENTS 1. DO NOT DISABLE OR DISRUPT BUILDING FIRE OR LIFESAFETY SYSTEMS WITHOUT 3 DAYS PRIOR WRITTEN NOTICE TO OWNER.

7. MARK LOCATION AND TERMINATION OF UTILITIES.

2. DEMOLISH IN ORDERLY AND CAREFUL MANNER. PROTECT EXISTING CONSTRUCTION, FINISHES, AND EQUIPMENT.

3. REPAIR DAMAGE TO ANY EXISTING CONSTRUCTION, FINISHES, AND EQUIPMENT THAT MAY OCCUR AS A RESULT OF DEMOLITION.

4. CONDUCT DEMOLITION TO MINIMIZE INTERFERENCE WITH ADJACENT AND OCCUPIED BUILDING

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8. OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNERS WHEN DEMOLITION EQUIPMENT WILL TRANSVERSE, INFRINGE UPON OR LIMIT ACCESS TO THEIR PROPERTY. 9. SPRINKLE WORK WITH WATER TO MINIMIZE DUST. PROVIDE HOSES AND WATER CONNECTIONS REQUIRED FOR THIS PURPOSE.

05 - DEMOLITION

1. DISCONNECT, CAP, AND IDENTIFY DESIGNATED UTILITIES WITHIN DEMOLITION AREAS. 2. REMOVE MATERIALS TO BE RE-INSTALLED OR RETAINED IN A MANNER TO PREVENT DAMAGE. STORE AND PROTECT IN ACCORDANCE WITH REQUIREMENTS OF OWNER.

3. DEMOLISH IN ORDERLY AND CAREFUL MANNER. **PROTECT EXISTING IMPROVEMENTS.** 4. REMOVE DEMOLISHED MATERIALS FROM SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT BURN OR BURY MATERIALS ON SITE. 5. REMOVE MATERIALS AS WORK PROGRESSES. UPON COMPLETION OF WORK, LEAVE AREAS IN

CLEAN CONDITION.

6. CONTRACTOR SHALL PREPARE ALL EXISTING SUBSTRATES TO RECEIVE NEW FINISHES. AS INDICATED IN THE CONSTRUCTION DOCUMENTS. 7. WHERE DEMOLITION OF PORTIONS OF EXISTING MONUMENTAL SURFACES OR FINISHES IS CALLED

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APPARATUS, ETC. ARE NOT SPECIFICALLY CALLED OUT TO BE REMOVED, CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL.

9. REFER TO FLOOR PLANS FOR DIMENSIONAL EXTENTS OF FINISH/ ITEM/ MATERIAL REMOVAL OR PARTIAL REMOVAL.

10. REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING ASSEMBLY IN ITS ENTIRETY TO BOTTOM OF STRUCTURE IN AREAS/ROOMS INDICATED IN THE CONSTRUCTION DOCUMENTS. 11. WHERE EXISTING UTILITIES ARE TO BE REMOVED, CAP BELOW FLOOR LEVEL; WITHIN WALLS; OR ABOVE CEILINGS. COORDINATE WITH MEP DOCUMENTS.

12. REMOVE ALL EXISTING HVAC EQUIPMENT, INCLUDING BUT NOT LIMITED TO DUCTWORK, DIFFUSERS, DAMPERS, GRILLES, AND HANGARS IN AREAS/ROOMS AS INDICATED IN THE CONSTRUCTION DOCUMENTS.

13. REMOVE ALL EXISTING LIGHT FIXTURES, INCLUDING BUT NOT LIMITED TO FIXTURES, CONDUIT, WIRING, J-BOXES, AND CONTROLS IN AREAS/ROOMS AS INDICATED IN THE CONSTRUCTION

14. REMOVE ALL INTERIOR PARTITIONS INCLUDING, BUT NOT LIMITED TO GYPSUM BOARD, METAL STUDS, BASE, SIGNAGE, WIRING, OUTLETS, AND CONTROLS IN AREAS/ROOMS AS INDICATED IN THE CONSTRUCTION DOCUMENTS.

15. REMOVE ALL EXISTING RESTROOM ACCESSORIES AND SAVE FOR OWNER'S USE. 16. REMOVE ALL EXISTING PLUMBING FIXTURES AND SAVE FOR OWNER'S USE. 17. REFER TO MEP DOCUMENTS FOR ADDITIONAL DEMOLITION REQUIREMENTS.

2. TAG COMPONENTS AND EQUIPMENT OWNER DESIGNATES FOR SALVAGE.

06 - SALVAGE REQUIREMENTS 1. COORDINATE WITH OWNER TO IDENTIFY BUILDING COMPONENTS AND EQUIPMENT REQUIRED TO BE REMOVED AND DELIVERED TO OWNER.

3. PROTECT DESIGNATED SALVAGE ITEMS FROM DEMOLITION OPERATIONS UNTIL ITEMS CAN BE 4. CAREFULLY REMOVE BUILDING COMPONENTS AND EQUIPMENT INDICATED TO BE SALVAGED.

5. DISASSEMBLE AS REQUIRED TO PERMIT REMOVAL FROM BUILDING. 6. PACKAGE SMALL AND LOOSE PARTS TO AVOID LOSS. 7. MARK EQUIPMENT AND PACKAGE PARTS TO PERMIT IDENTIFICATION AND CONSOLIDATION OF

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10. OWNER TO REMOVE ALL FURNITURE, FIXTURES, AND EQUIPMENT PRIOR TO START OF DEMOLITION.

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> MESQUITE Real. Texas. Flavor.

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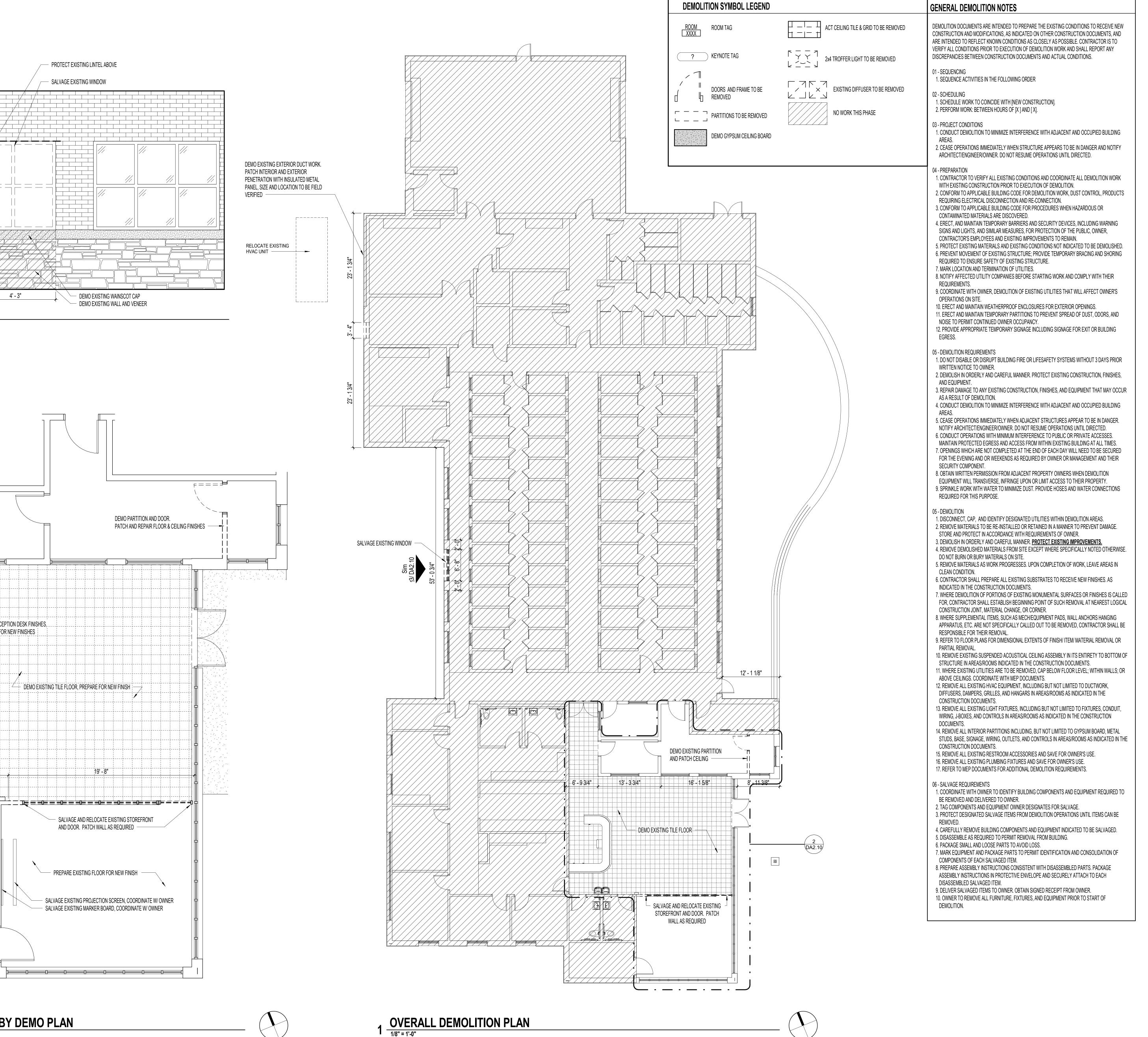


REV. DATE TITLE

Date: CONSTRUCTION DOCS 02-11-2022

DEMOLITION SITE PLAN

**DA2.01** 



TER SHEL ANIM QUITE **M** OF Real. Texas. Flavor.

1650 GROSS MESQUITE,

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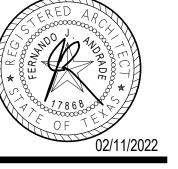
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REV. DATE TITLE

Date: CONSTRUCTION DOCS 02-11-2022

Checked By

DEMOLITION FLOOR PLANS

**DA2.10** 

PROTECT EXISTING LINTEL ABOVE

- DEMO EXISTING WALL AND VENEER

DEMO PARTITION AND DOOR.

SALVAGE EXISTING WINDOW

4' - 3"

REMOVE EXISTING RECEPTION DESK FINISHES, ..

DEMO EXISTING TILE FLOOR, PREPARE FOR NEW FINISH :-

19' - 8"

SALVAGE AND RELOCATE EXISTING STOREFRONT

- SALVAGE EXISTING PROJECTION SCREEN, COORDINATE W/ OWNER

SALVAGE EXISTING MARKER BOARD, COORDINATE W/ OWNER

AND DOOR. PATCH WALL AS REQUIRED -

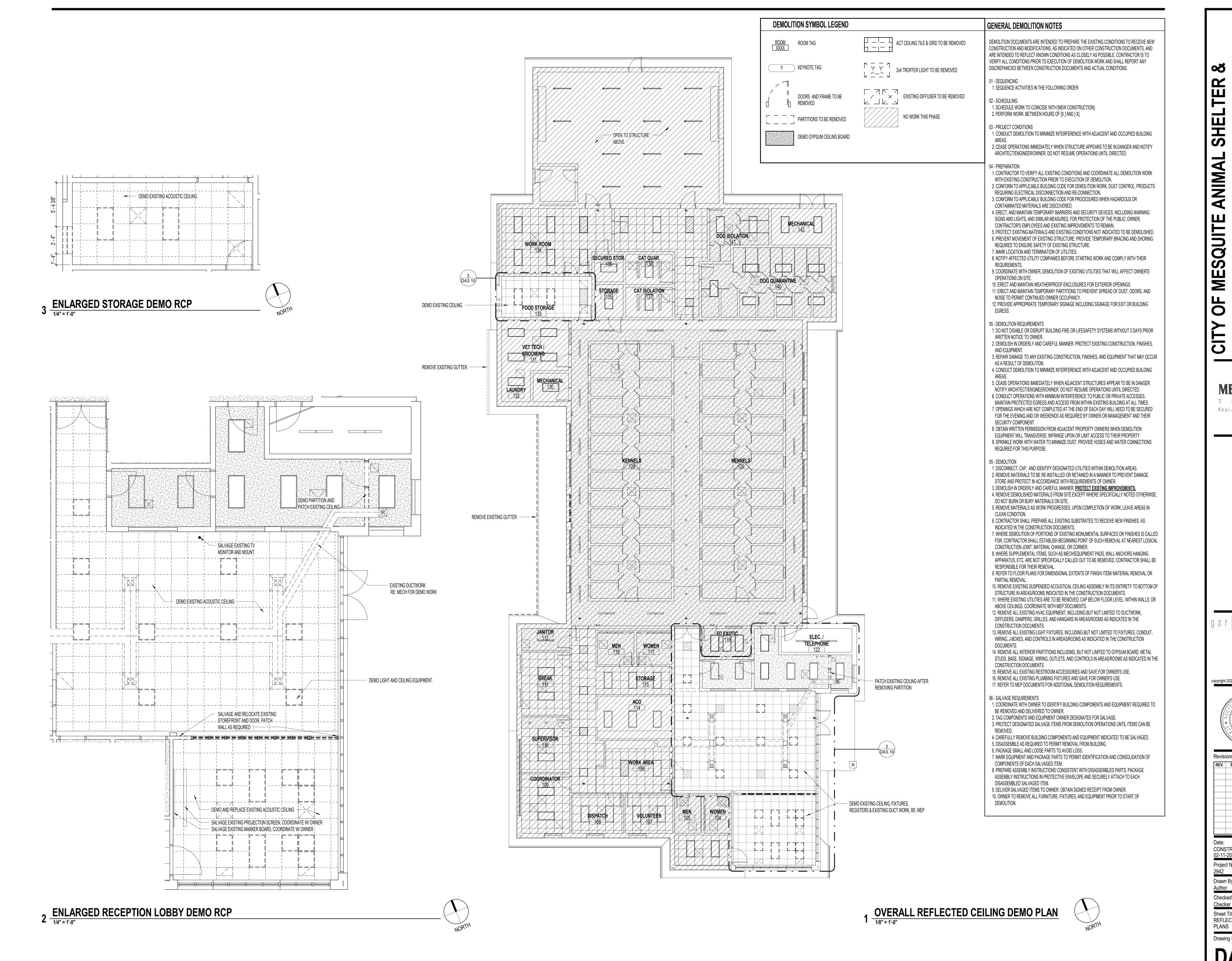
PREPARE EXISTING FLOOR FOR NEW FINISH

PATCH AND PREPARE FOR NEW FINISHES

2 ENLARGED RECEPTION LOBBY DEMO PLAN

1/4" = 1'-0"

**EXISTING WALL OPENING DEMO ELEVATION** 



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Ш Х

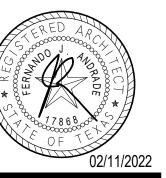
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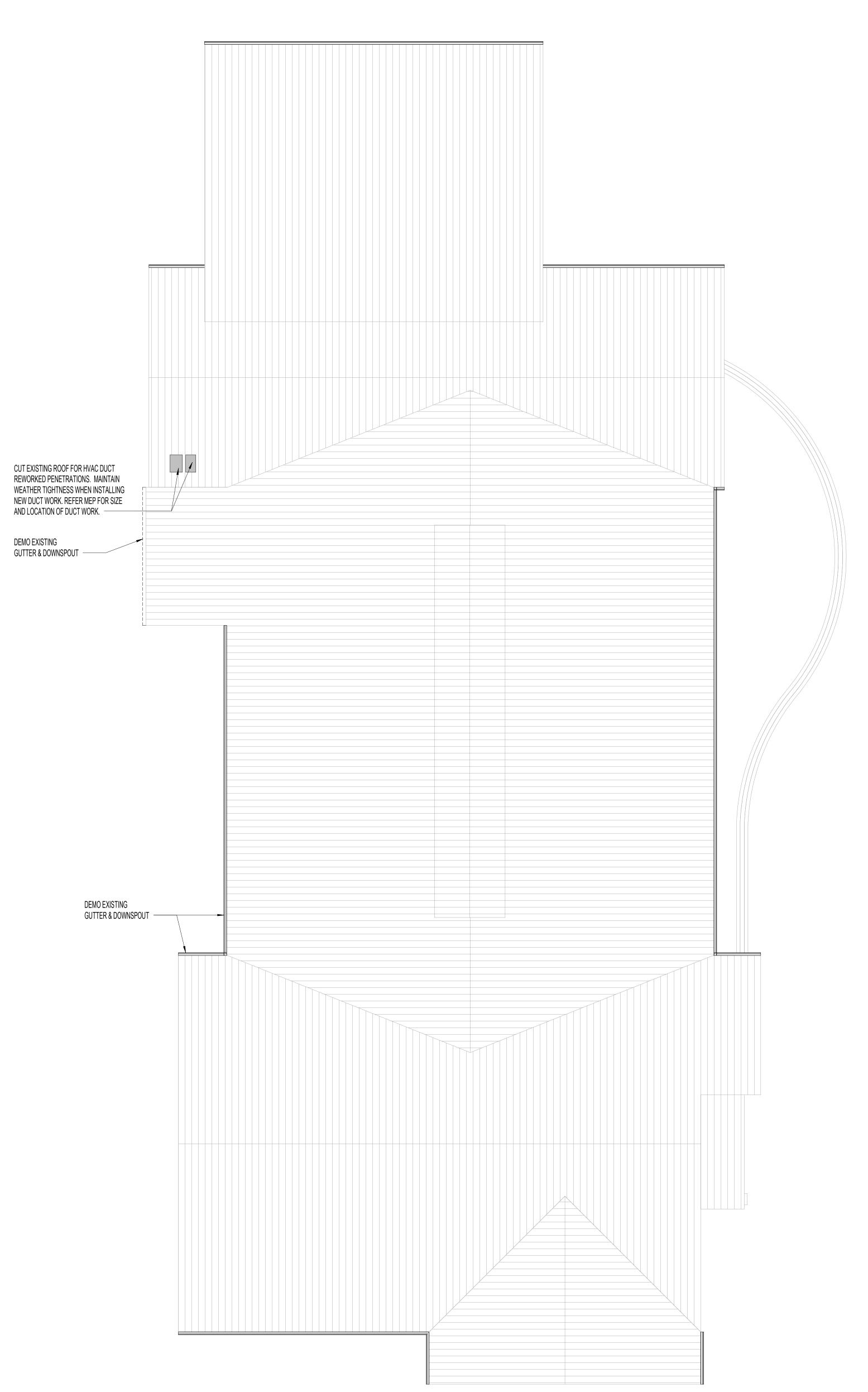
Revisions:

REV.	DATE	TITLE

CONSTRUCTION DOCS 02-11-2022

Checked By: Checker Sheet Title: REFLECTED CEILING DEMO

**PLANS** Drawing No.



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9. DELIVER SALVAGED ITEMS TO OWNER. OBTAIN SIGNED RECEIPT FROM OWNER. 10. OWNER TO REMOVE ALL FURNITURE, FIXTURES, AND EQUIPMENT PRIOR TO START OF DEMOLITION.

Date: CONSTRUCTION DOCS 02-11-2022

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ROOF DEMOLITION PLAN

**DA4.10** 

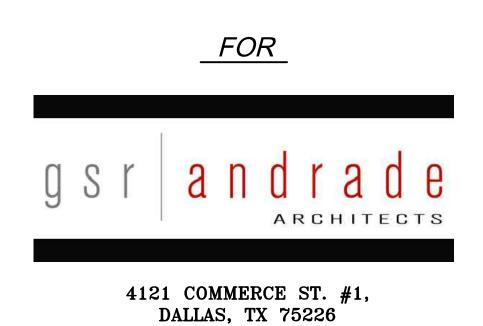
1 ROOF DEMO PLAN

1/8" = 1'-0"

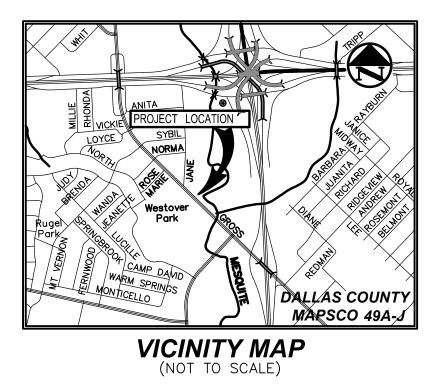
# CONSTRUCTION DOCUMENTS **FOR**

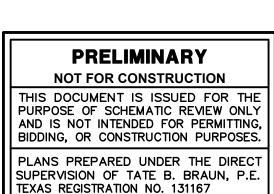
# MESQUITE ANIMAL SHELTER & ADOPTION CENTER FACILITY EXPANSION

2.0136 ACRES CITY OF MESQUITE, DALLAS COUNTY, TEXAS FEBRUARY 2022



(214)824 - 7040







TEXAS REGISTRATION NO. 131167 DATE: 02/11/2022

ISSUED FOR PRELIMINARY PRICING PURPOSES ONLY (SUBJECT TO REVISION PRIOR TO CONSTRUCTION) THESE DOCUMENTS HAVE BEEN PREPARED BY THE ENGINEER WITH THE INTENT OF COMPLYING WITH ALL CITY STANDARD REQUIREMENTS. THESE DOCUMENTS HAVE NOT BEEN APPROVED AND RELEASED FOR CONSTRUCTION BY THE CITY AS OF THIS DATE AND, THEREFORE, REVISIONS MAY BE REQUIRED PRIOR TO CONSTRUCTION. BY ANY USE OF THESE DOCUMENTS, THE USER AFFIRMS THEIR UNDERSTANDING OF THE PRELIMINARY STATUS OF THE PLANS AND THE POTENTIAL FOR REVISION PRIOR TO ANY CONSTRUCTION.

C0.1 COVER

DIMENSIONAL CONTROL PLAN C1.1

C2.1 **GRADING PLAN** 

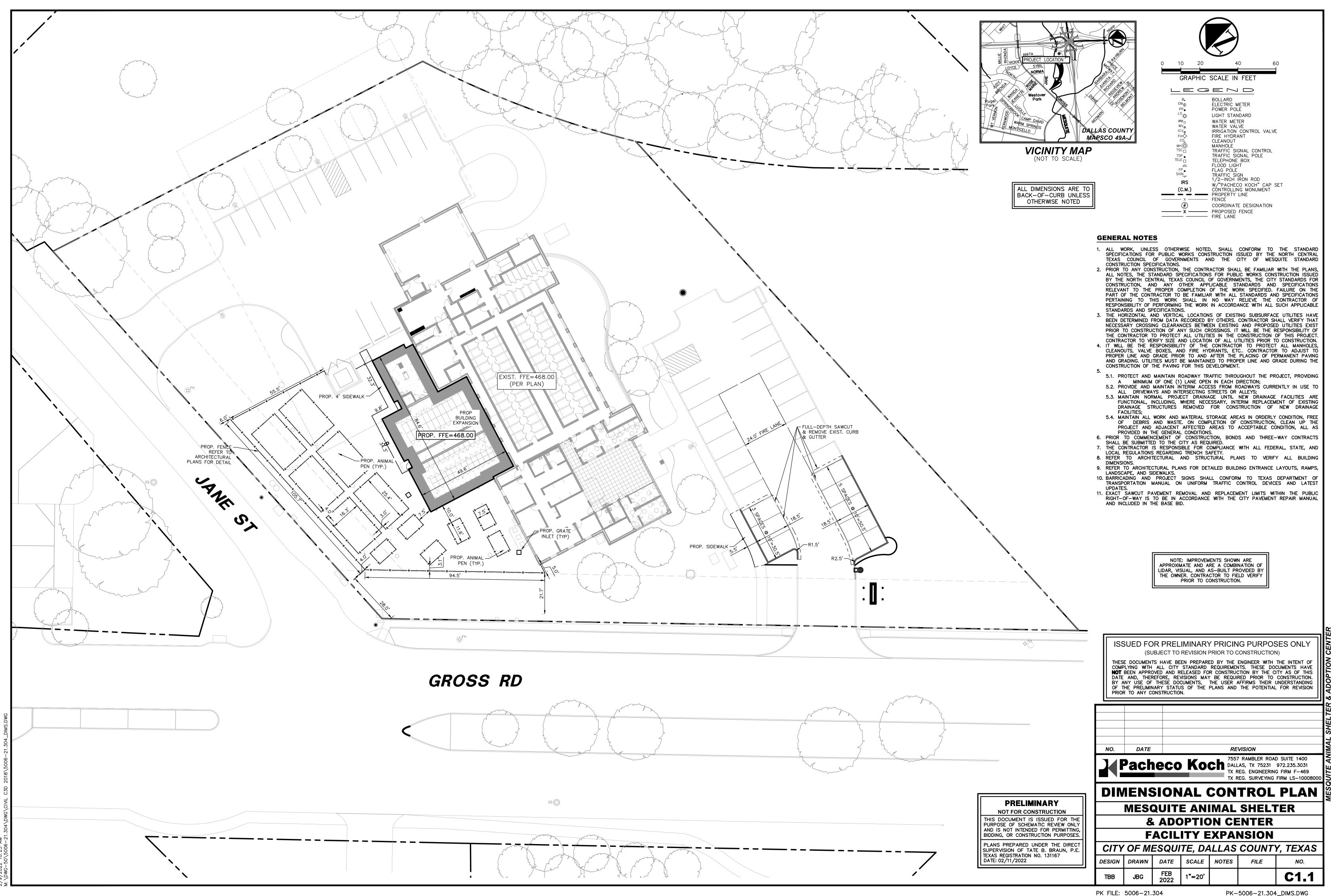
C3.1 PROPOSED DRAINAGE AREA MAP

C4.1 STORM SEWER PLAN C5.1 SITE UTILITY PLAN

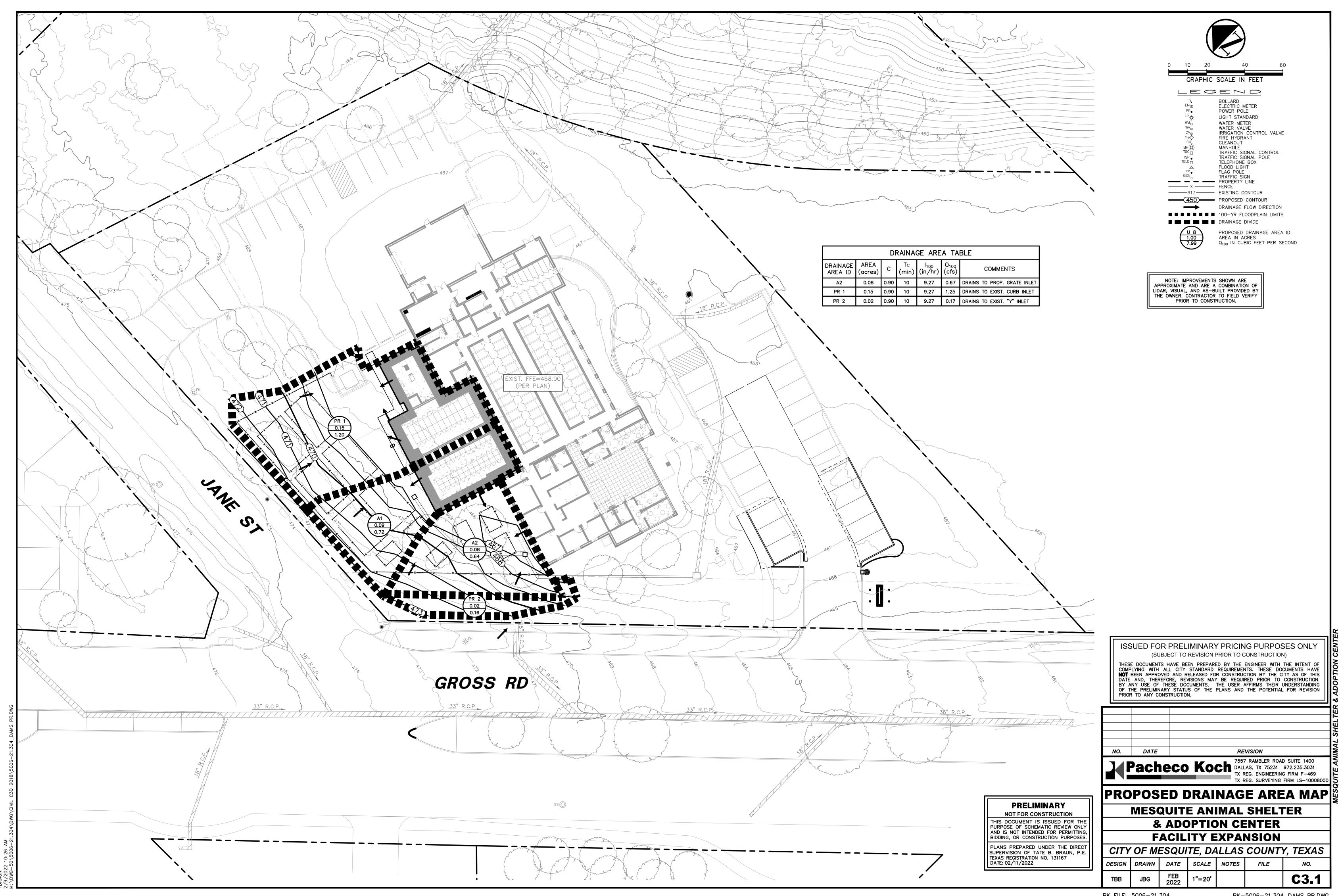
C6.1 **PAVING PLAN** 

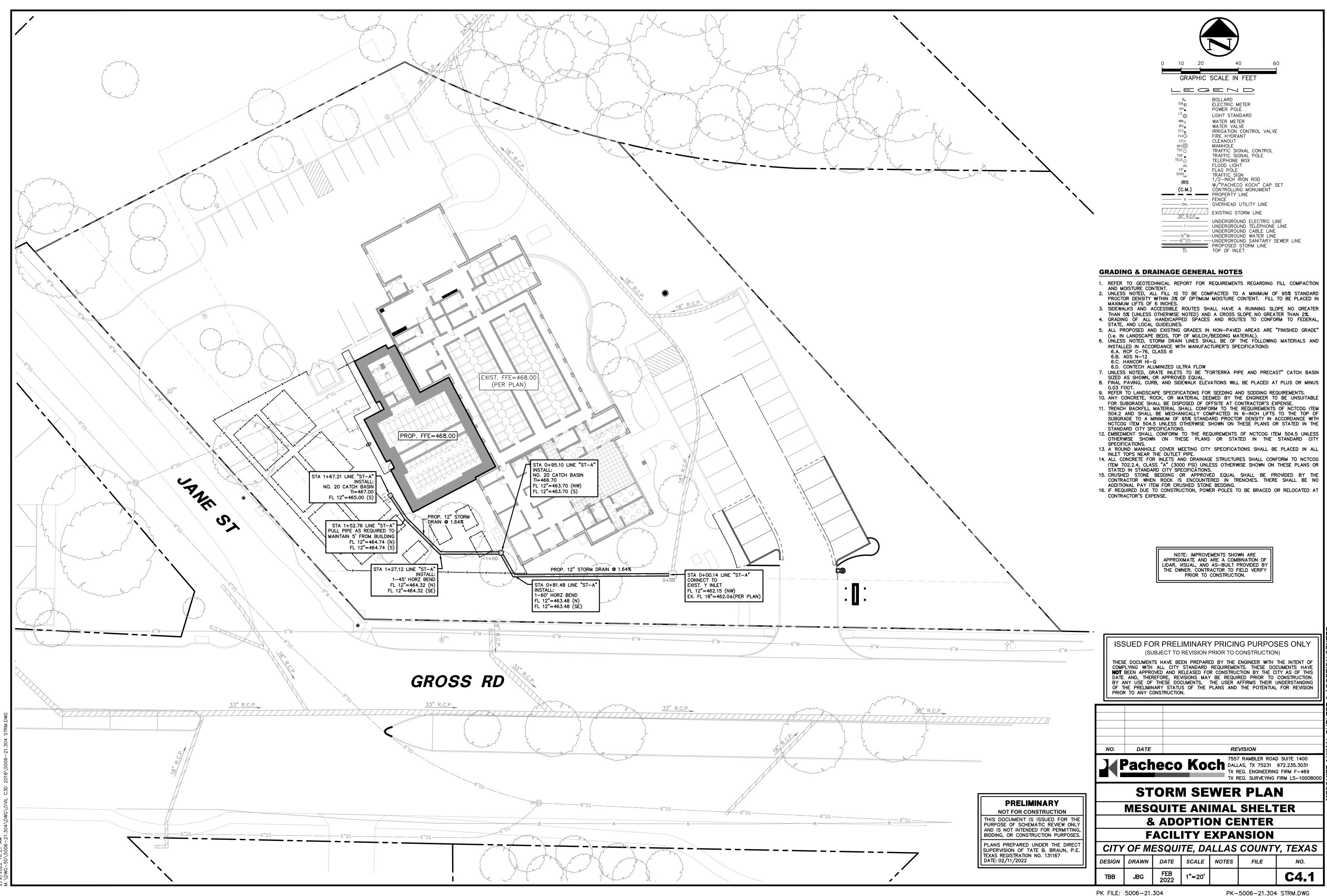
**C6.2 PAVING DETAILS** 

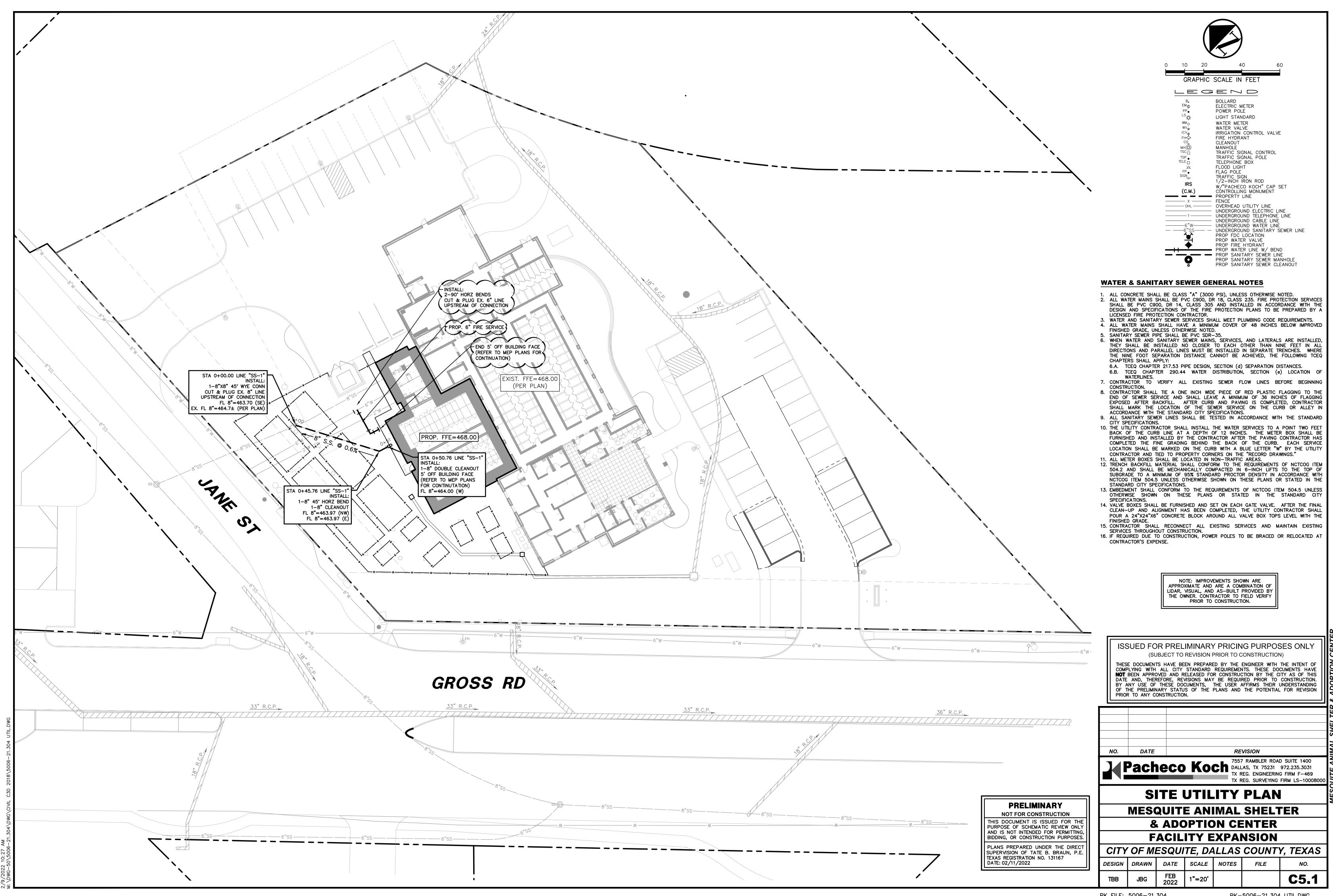
C7.1 **EROSION CONTROL PLAN & DETAILS** 

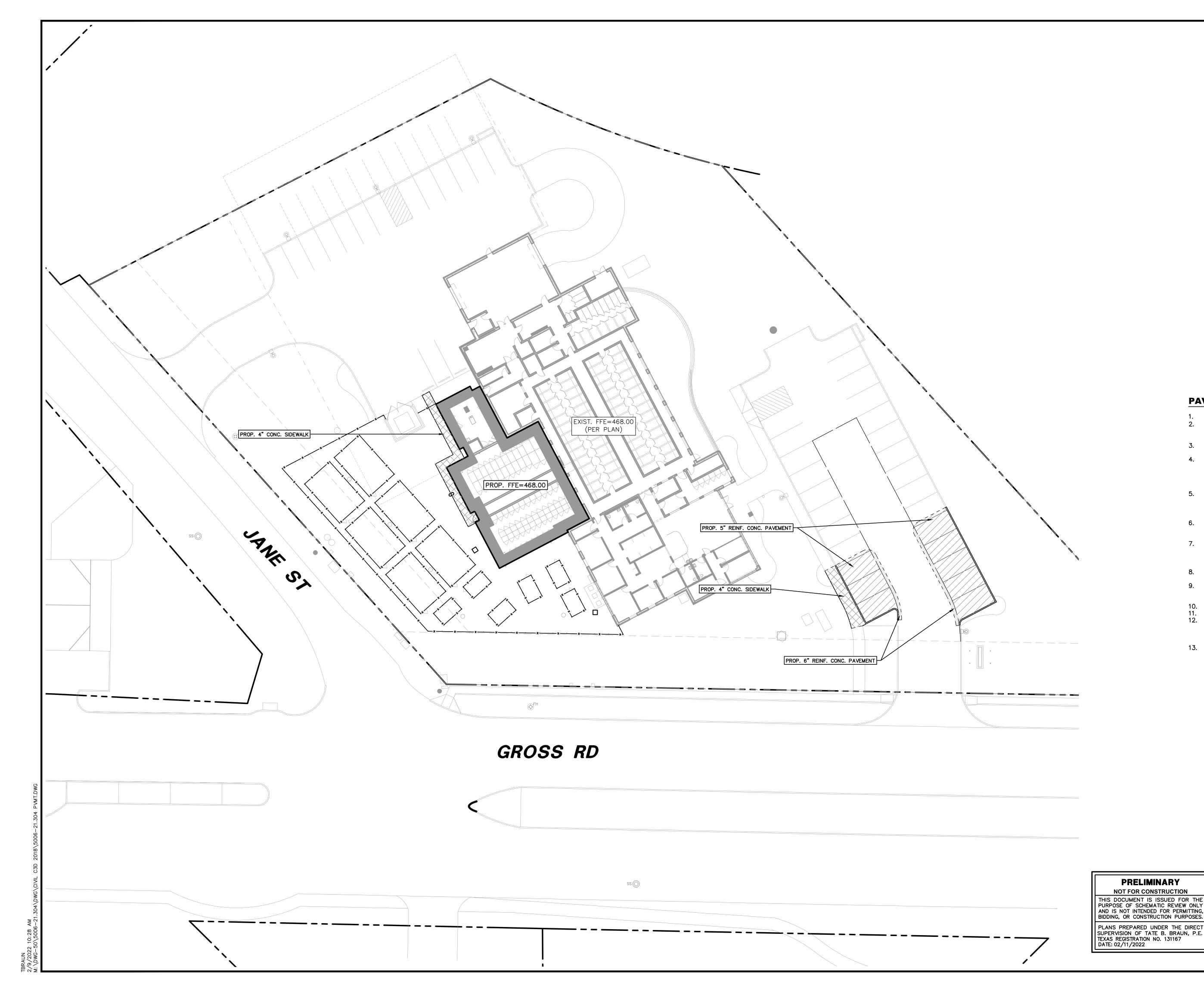


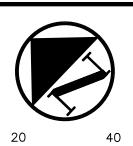












GRAPHIC SCALE IN FEET

ELECTRIC METER POWER POLE LIGHT STANDARD

WATER METER WATER VALVE IRRIGATION CONTROL VALVE FIRE HYDRANT CLEANOUT

MANHOLE TRAFFIC SIGNAL CONTROL TRAFFIC SIGNAL POLE TELEPHONE BOX FLOOD LIGHT

FLAG POLE TRAFFIC SIGN 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CÓNTROLLING MONUMENT PROPERTY LINE - × ----- FENCE — FIRE LANE

4" REINFORCED CONCRETE (CLASS "A", 3000 PSI) PARKING AND DRIVE AREAS, 5" REINFORCED CONCRETE PVMT

(CLASS "C", 3600 PSI) FIRE LANE, 6" REINFORCED CONCRETE PVMT (CLASS "C", 3600 PSI)

#### **PAVING GENERAL NOTES**

- ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED. 2. ALL CONCRETE SHALL CONFORM TO NCTCOG ITEM 303.3.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS, STATED IN STANDARD
- CITY SPECIFICATIONS OR STATED IN TXDOT STANDARD SPECIFICATIONS. SUBGRADE PREPARATION IN RIGHT OF WAY SHALL CONFORM TO STANDARD CITY SPECIFICATIONS OR TXDOT STANDARD SPECIFICATIONS.
- ALL FILL PLACED UNDER PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS, UNLESS OTHERWISE NOTED, OR STATED IN GEOTECH REPORT. REFER TO STRUCTURAL SPECIFICATIONS FOR FILL PLACED BENEATH BUILDING AREAS. ALL OTHER FILL AREAS TO BE
- COMPACTED TO 90% STANDARD PROCTOR. THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER FOR APPROVAL. EXPANSION JOINT SPACING SHALL BE 90' MAXIMUM EACH WAY WITH NO KEYWAYS AND SAWED DUMMY JOINTS SHALL BE 15' EACH WAY, UNLESS OTHERWISE NOTED.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAYS PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
- ALL PAVING TO BE REMOVED SHALL BE SAWCUT TO A NEAT LINE, MINIMUM 1-1/2" DEEP, AND THE PAVEMENT REMOVED IN SUCH A MANNER AS TO PRESERVE THE EXISTING TRANSVERSE REINFORCING STEEL TO THE MAXIMUM EXTENT POSSIBLE.
- ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE PAVEMENT AND HAVE THE SAME COMPRESSIVE STRENGTH.
- PAVEMENT REINFORCEMENT SHALL BE #3 BARS, SPACED AT 18 INCHES CENTER TO CENTER EACH WAY EXCEPT WHERE OTHERWISE NOTED IN THE PLANS OR GEOTECH REPORT.
- BAR LAPS SHALL BE 30 DIAMETERS IN LENGTH.
- ALL STRIPES SHALL BE 4 INCHES WIDE, UNLESS OTHERWISE NOTED. INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECT AND MEP PLANS. CONTRACTOR TO VERIFY ALL SLEEVES HAVE BEEN PLACED PRIOR TO PAVING BEING PLACED.
- 13. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.

### ISSUED FOR PRELIMINARY PRICING PURPOSES ONLY

(SUBJECT TO REVISION PRIOR TO CONSTRUCTION)

THESE DOCUMENTS HAVE BEEN PREPARED BY THE ENGINEER WITH THE INTENT OF COMPLYING WITH ALL CITY STANDARD REQUIREMENTS. THESE DOCUMENTS HAVE NOT BEEN APPROVED AND RELEASED FOR CONSTRUCTION BY THE CITY AS OF THIS DATE AND, THEREFORE, REVISIONS MAY BE REQUIRED PRIOR TO CONSTRUCTION.
BY ANY USE OF THESE DOCUMENTS, THE USER AFFIRMS THEIR UNDERSTANDING
OF THE PRELIMINARY STATUS OF THE PLANS AND THE POTENTIAL FOR REVISION PRIOR TO ANY CONSTRUCTION.

# 7557 RAMBLER ROAD SUITE 1400 Pacheco Koch DALLAS, TX 75231 972.235.3031

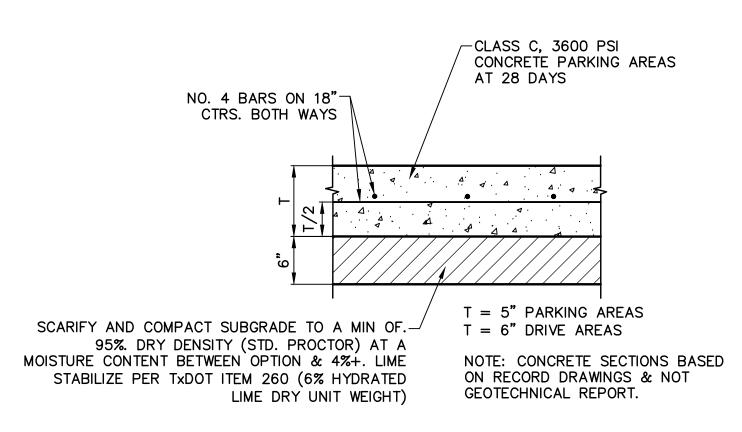
#### TX REG. ENGINEERING FIRM F-469 TX REG. SURVEYING FIRM LS-10008000

#### **PAVING PLAN**

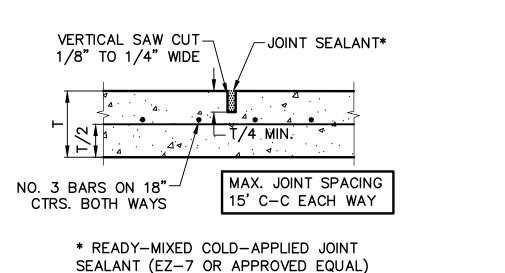
#### **MESQUITE ANIMAL SHELTER** & ADOPTION CENTER

#### **FACILITY EXPANSION** CITY OF MESQUITE, DALLAS COUNTY, TEXAS

JBG







**SAWED DUMMY JOINT** 

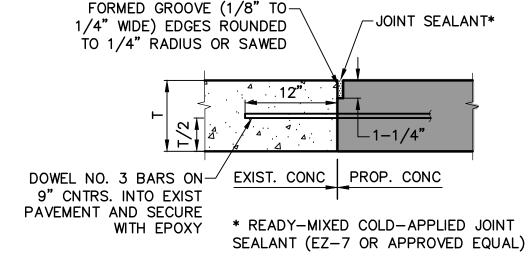
PROVIDE SAW JOINT OR

CONSTRUCTION JOINT AT

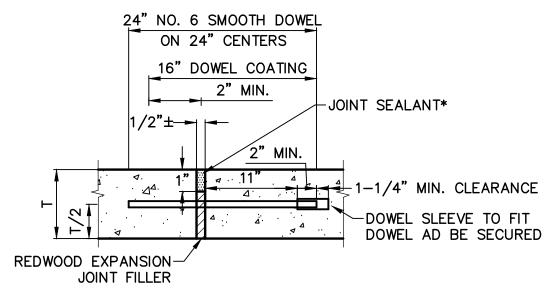
PAVEMENT THICKNESS

NOT TO SCALE

ALL CHANGES IN

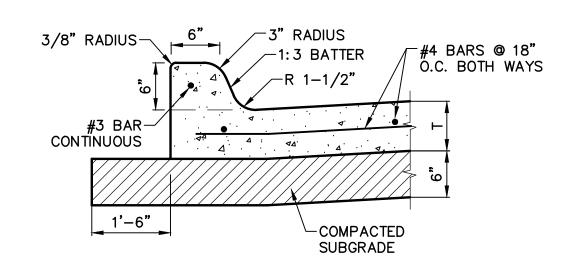




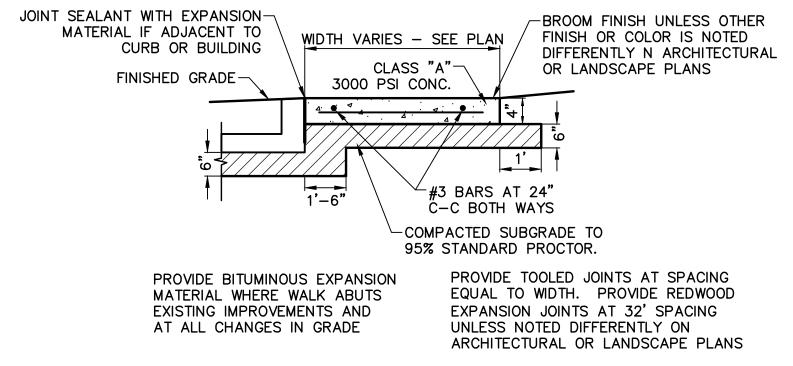


\* READY-MIXED COLD-APPLIED JOINT SEALANT (EZ-7 OR APPROVED EQUAL)





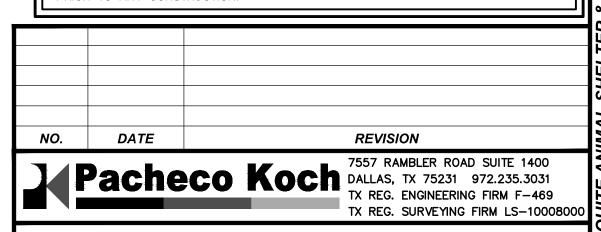






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#### **PAVING DETAILS PRELIMINARY**

**MESQUITE ANIMAL SHELTER** 

& ADOPTION CENTER **FACILITY EXPANSION** 

CITY OF MESQUITE, DALLAS COUNTY, TEXAS SCALE DATE DESIGN DRAWN NOTES

> FEB 2022 N.T.S. JBG

NOT FOR CONSTRUCTION THIS DOCUMENT IS ISSUED FOR THE PURPOSE OF SCHEMATIC REVIEW ONLY

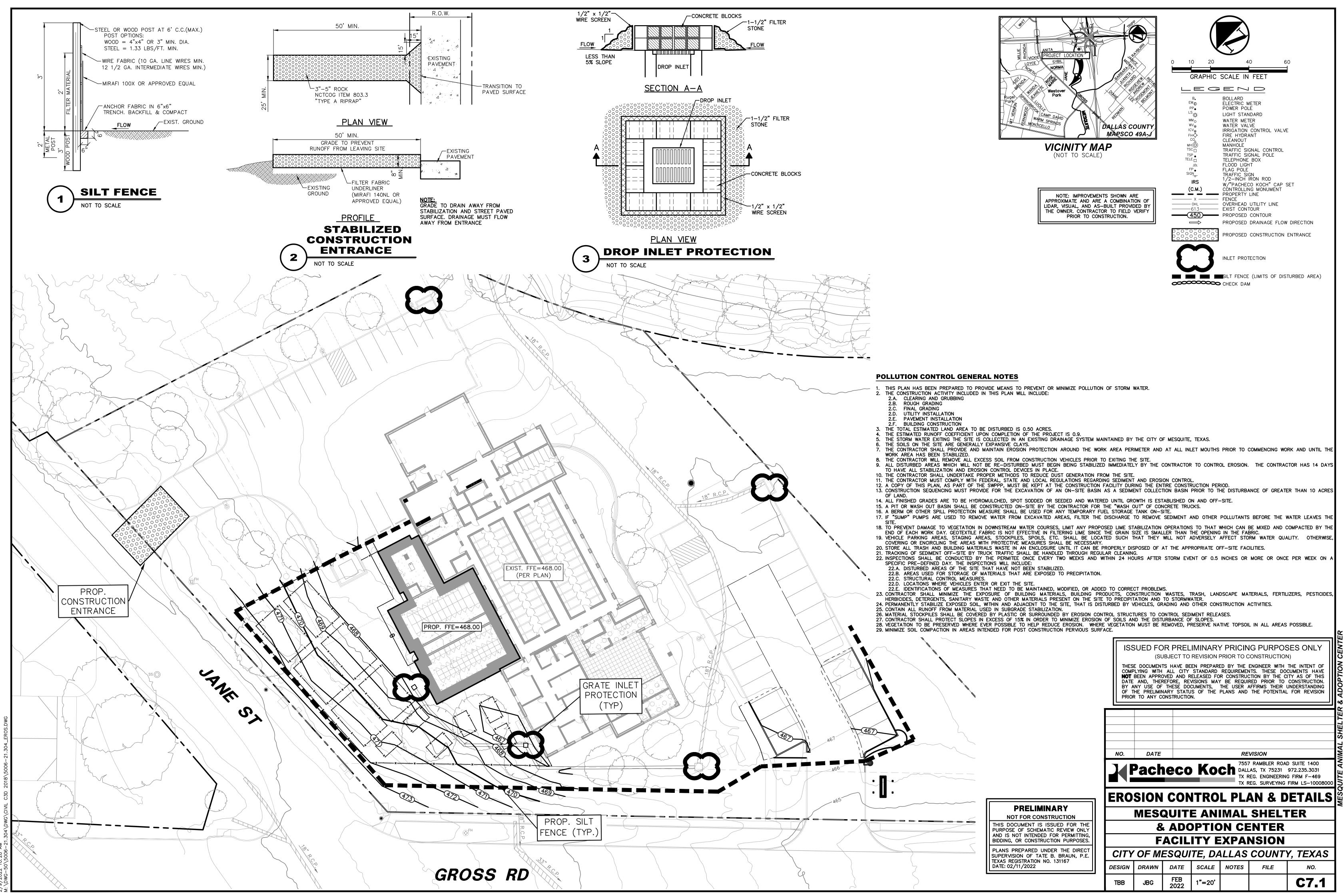
AND IS NOT INTENDED FOR PERMITTING,

BIDDING, OR CONSTRUCTION PURPOSES.

PLANS PREPARED UNDER THE DIRECT SUPERVISION OF TATE B. BRAUN, P.E.

TEXAS REGISTRATION NO. 131167 DATE: 02/11/2022

**C6.2** 



SCALE: 1" = 20'-0"

BELLE
FIRMA





4245 North Central Expy
Suite 501
Dallas, Texas 75205
214.865.7192 office

TREE PRESERVATION NOTES

Dallas, Texas 75226 P 214.824.7040

JSS TX,

1650 GRO MESQUITE, '

Ö

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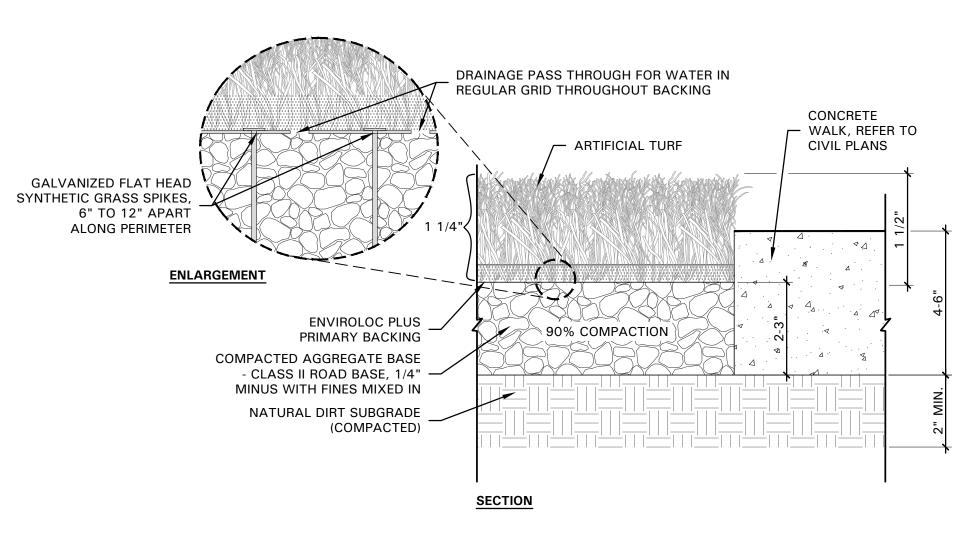


TREE PRESERVATION PLAN

## LANDSCAPE NOTES

- 1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY LANDSCAPE
  - FINAL CONTOURS AS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL FINISHED GRADE IN PLANTING AREAS AND 1" BELOW FINAL FINISHED GRADE IN LAWN AREAS.
  - SEPARATED BY STEEL EDGING. NO STEEL EDGING SHALL BE INSTALLED ADJACENT TO BUILDINGS, WALKS, OR CURBS. CUT STEEL EDGING AT 45 DEGREE
- 8. ALL REQUIRED LANDSCAPE AREAS SHALL BE PROVIDED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM WITH RAIN AND FREEZE SENSORS AND EVAPOTRANSPIRATION (ET) WEATHER-BASED CONTROLLERS AND SAID IRRIGATION SYSTEM SHALL BE DESIGNED BY A QUALIFIED PROFESSIONAL AND INSTALLED BY A LICENSED IRRIGATOR.

- 4. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY AND GROWING CONDITION AS IS
- 5. ALL PLANT MATERIAL WHICH DIES SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR
- 6. CONTRACTOR SHALL PROVIDE SEPARATE BID PROPOSAL FOR ONE YEAR'S MAINTENANCE TO BEGIN



ARTIFICIAL TURF NOTES

ARTIFICIAL TURF SHALL BE: SYNLAWN 'PET PLATINUM'

AVAILABLE FROM: SYNLAWN DALLAS

214-909-0767 THE GRASS MUST BE INSTALLED AND SEAMED WITH ADJACENT PIECES RUNNING IN THE SAME DIRECTION; SEAMS SHOULD BE GLUED WITH SUITABLE SEAMING GLUE AND SEAMING CLOTH, NOT

ADHESIVE TAPE. CONTRACTOR SHALL PROVIDE TURN-KEY INSTALLATION OF ARTIFICIAL TURF INCLUDING BUT NOT LIMITED TO SHIPMENT, HANDLING, ASSEMBLY, PLACEMENT, INSTALLATION, ETC.

CONTRACTOR SHALL COORDINATE SHIPPING AND ORDER PLACEMENT WITH PROPOSED CONSTRUCTION SCHEDULE. ALLOW FOR 10-12 WEEKS FROM ORDER PLACEMENT TO SHIPMENT TO



• 4245 North Central Expy Suite 501
Dallas, Texas 75205
214.865.7192 office

REV. DATE TITLE

Dallas, Texas 75226

P 214.824.7040

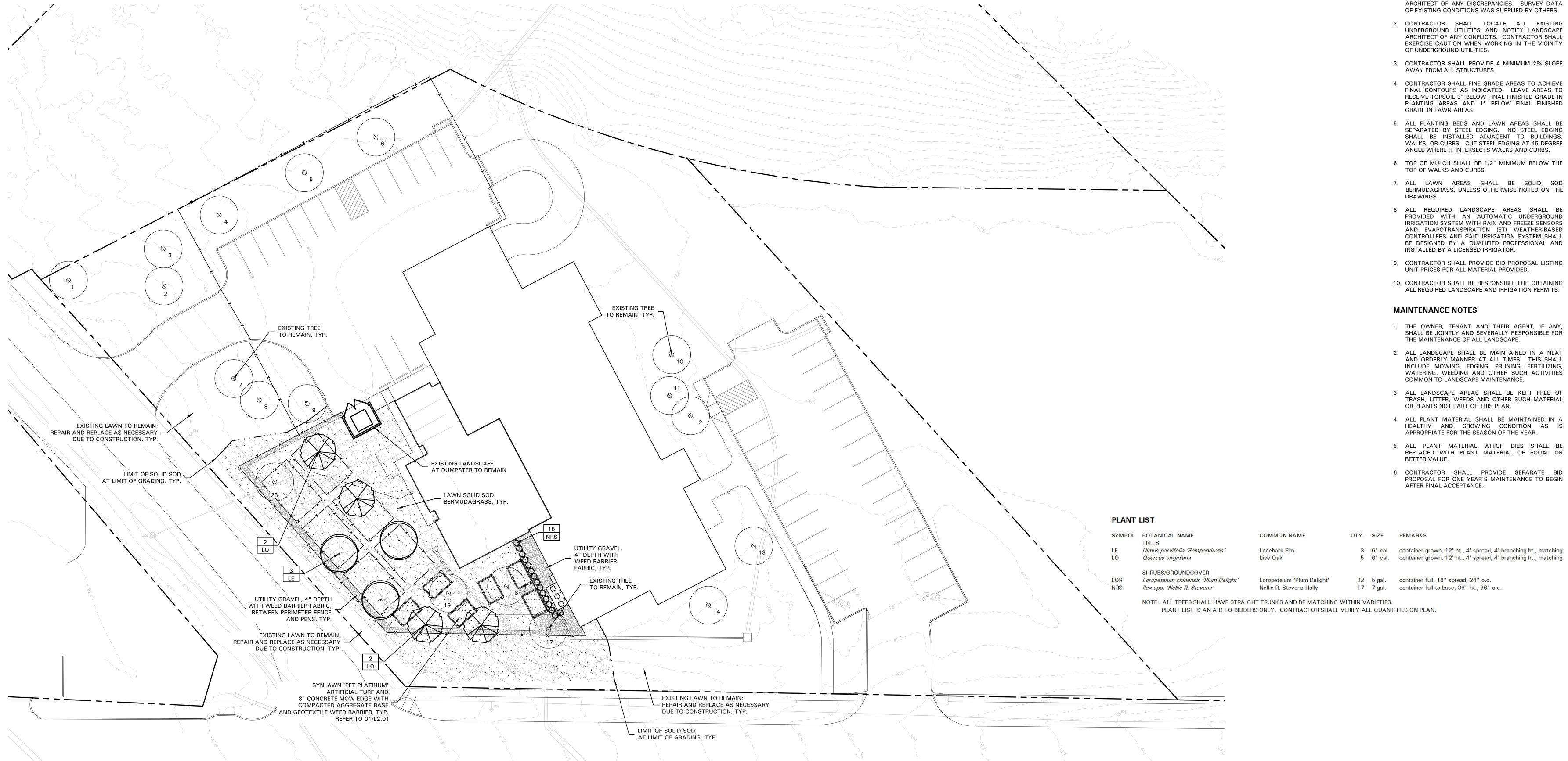
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CONSTRUCTION DOCUMENTS 02.11.22

Checked By:

LANDSCAPE PLAN



**SECTION 32 9300 - LANDSCAPE** 

specifications and landscaping plans, including:

- A. Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these
  - 1. Planting (trees, shrubs and grasses)
  - 2. Bed preparation and fertilization
- 3. Notification of sources
- 4. Water and maintenance until final acceptance
- Guarantee

## 1.3 REFERENCE STANDARDS

- A. American Standard for Nursery Stock published by American Association of Nurserymen: April 14, 2014 Edition; by American National Standards Institute, Inc. (Z60.1) – plant material
- B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.
- C. Texas Association of Nurserymen, Grades and Standards
- D. Hortis Third, 1976 Cornell University
- 1.4 NOTIFICATION OF SOURCES AND SUBMITTALS
- A. Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel, crushed stone, steel edging and tree stakes. Samples shall be approved by Owner's Authorized Representative before use on the project.

#### 1.5 JOB CONDITIONS

- A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape 1.7 QUALITY ASSURANCE installation, General Contractor shall leave planting bed areas three (3") inches below final finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the final finish grade of sidewalks, drives and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.
- B. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

#### 1.6 MAINTENANCE AND GUARANTEE

- A. Maintenance:
- 1. The Landscape Contractor shall be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show healthy growth and satisfactory foliage conditions.
- Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary
- 3. A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by the Owner's Authorized Representative will be completed prior to written acceptance.

#### B. Guarantee:

- 1. Trees, shrubs and groundcover shall be guaranteed for a twelve (12) month period after final acceptance. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry have been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
- a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
- b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises 1.8 PRODUCT DELIVERY, STORAGE AND HANDLING
- c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and re-inspected for full compliance with the contract requirements. All replacements are to be included under "Work" of this section.
- 2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
- 3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
- 4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a complete, undamaged condition and there is a stand of grass in all lawn areas. At that time, the Owner will assume maintenance on the accepted work.
- Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting. In the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense to the Landscape Contractor.
- A. General: Comply with applicable federal, state, county and local

specified.

- regulations governing landscape materials and work. Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.
- Selection of Plant Material: Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will ensure the purchased materials will meet and / or
- exceed project specifications. 2. Substitutions: Do not make plant material substitutions. If the specified landscape material is not obtainable, submit proof of non-availability to Landscape Architect, together with proposal for use of equivalent material. At the time bids are submitted, the Contractor is assumed to have located the materials necessary to complete the job as
- 3. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules
- 4. Measurements: Measure trees with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements six inches above ground for trees up to and including 4" caliper size, and twelve inches above ground for larger sizes. Measure main body of all plant material of height and spread dimensions,

- do not measure from branch or root tip-to-tip.
- 5. Owner's Authorized Representative shall inspect all plant material with requirements for genus, species, cultivar / variety size and quality.
- 6. Owner's Authorized Representative retains the right to further inspect all plant material upon arrival to the site and during installation for size and condition of root balls and root systems, limbs, branching habit, insects, injuries and latent defects.
- 7. Owner's Authorized Representative may reject unsatisfactory or defective material at any time during the process work. Remove rejected materials immediately from the site and replace with acceptable material at no additional cost to the Owner. Plants damaged in transit or at job site shall be rejected.

#### A. Preparation:

- 1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape and future development.
- 2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

- 1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored
- 2. Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
- 3. Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
- 4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport. 5. Notify Owner's Authorized Representative of delivery
- schedule 72 hours in advance job site. 6. Remove rejected plant material immediately from job site.
- 7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

#### PART 2 - PRODUCTS

2.1 PLANTS

- A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Owner's Authorized Representative and his decision as to their acceptability shall be final.
- Quantities: The drawings and specifications are complementary. 2.3 MISCELLANEOUS MATERIALS Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.
- Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae, and are to be of specimen quality.
- D. Approval: All plants which are found unsuitable in growth, or are in any unhealthy, badly shaped or undersized condition will be rejected by the Owner's Authorized Representative either before or after planting and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plant as

- specified at no additional cost to the Owner.
- Trees shall be healthy, full-branched, well-shaped, and shall meet the minimum trunk and diameter requirements of the plant schedule. Balls shall be firm, neat, slightly tapered and well wrapped in burlap. Any tree loose in the ball or with a broken PART 3 - EXECUTION root ball at time of planting will be rejected. Balls shall be ten (10") inches in diameter for each one (1") inch of trunk diameter, 3.1 BED PREPARATION & FERTILIZATION measured six (6") inches above ball. (Nomenclature confirms to the customary nursery usage. For clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of
- Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect prior to final acceptance, shall be executed by the Landscape Contractor at no additional cost to the Owner. 2.2 SOIL PREPARATION MATERIALS

#### A. Sandy Loam:

- 1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
- Physical properties as follows: a. Clay – between 7-27 percent b. Silt – between 15-25 percent c. Sand – less than 52 percent
- 3. Organic matter shall be 3%-10% of total dry weight.
- 4. If requested, Landscape Contractor shall provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above
- B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of 3.2 INSTALLATION course and fine textured material.
- Premixed Bedding Soil as supplied by Vital Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved
- D. Sharp Sand: Sharp sand must be free of seeds, soil particles and
- E. Mulch: Double Shredded Hardwood Mulch, partially decomposed,
- dark brown. Living Earth Technologies or approved equal. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.
- G. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulfur and 4% iron, plus micronutrients.
- H. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

- Steel Edging: All steel edging shall be 3/16" thick x 4" deep x 16' long with 6 stakes per section, painted black at the factory as manufactured by The J.D. Russell Company and under its trade name DURAEDGE Heavy Duty Steel.
- B. Staking Material for Shade Trees: refer to details. C. Gravel: Washed native pea gravel, graded 1 inch to 1-1/2 inch.
- D. Filter Fabric: 'Mirafi Mirascape' by Mirafi Construction Products available at Lone Star Products, Inc., (469) 523-0444 or
- approved equal.

O2 SHRUB / GROUNDCOVER DETAIL NOT TO SCALE

E. River Rock: 'Colorado' or native river rock, 2" - 4" dia.

F. Decomposed Granite: Base material shall consist of a natural material mix of granite aggregate not to exceed 1/8" diameter in size and shall be composed of various stages of decomposed

earth base.

- A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.
- B. All planting areas shall be conditioned as follows:
- 1. Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per Manufacturer's recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1.000) square feet.
- 2. All planting areas shall receive a two (2") inch layer of specified mulch. 3. Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine

(9") inch layers and watered in thoroughly.

#### C. Grass Areas:

acceptance.

- 1. Blocks of sod should be laid joint to joint (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.
- A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all

construction has been satisfactorily accomplished.

- Plant materials shall be delivered to the site only after the beds are prepared and areas are ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final
- Position the trees and shrubs in their intended location as per
- D. Notify the Owner's Authorized Representative for inspection and approval of all positioning of plant materials.
- Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that, when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.
- Shrub and tree pits shall be no less than twenty-four (24") inches wider than the lateral dimension of the earth ball and six (6") inches deeper than it's vertical dimension. Remove and haul from site all rocks and stones over three-quarter  $(\frac{3}{4})$  inch in diameter. Plants should be thoroughly moist before removing 3.3 CLEANUP AND ACCEPTANCE containers.
- G. Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at the surface of the ground. The sides of the hole should be rough and jagged, never slick or
- H. Percolation Test: Fill the hole with water. If the water level does not percolate within 24 hours, the tree needs to move to another END OF SECTION location or have drainage added. Install a PVC stand pipe per

- tree planting detail as approved by the Landscape Architect if the percolation test fails.
- Backfill only with 5 parts existing soil or sandy loam and 1 part bed preparation. When the hole is dug in solid rock, topsoil from the same area should not be used. Carefully settle by watering to prevent air pockets. Remove the burlap from the top  $\frac{1}{3}$  of the ball, as well as all nylon, plastic string and wire. Container trees will usually be root bound, if so follow standard nursery practice of 'root scoring'.
- J. Do not wrap trees.
- K. Do not over prune.
- Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the area above the top of the ball and
- M. All plant beds and trees to be mulched with a minimum settled thickness of two (2") inches over the entire bed or pit.

mulch with at least two (2") inches of specified mulch.

- N. Obstruction below ground: In the event that rock, or underground construction work or obstructions are encountered in any plant pit excavation work to be done under this section, alternate locations may be selected by the Owner. Where locations cannot be changed, the obstructions shall be removed to a depth of not less than three (3') feet below grade and no less than six (6") inches below the bottom of ball when plant is properly set at the required grade. The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.
- O. Trees and large shrubs shall be staked as site conditions require. Position stakes to secure trees against seasonal prevailing winds.
- P. Pruning and Mulching: Pruning shall be directed by the Landscape Architect and shall be pruned in accordance with standard horticultural practice following Fine Pruning, Class I pruning standards provided by the National Arborist Association.
- 1. Dead wood, suckers, broken and badly bruised branches shall be removed. General tipping of the branches is not permitted. Do not cut terminal branches.
- Pruning shall be done with clean, sharp tools

#### 3. Immediately after planting operations are completed, all tree pits shall be covered with a layer of organic material two (2") inches in depth. This limit of the organic material for trees shall be the diameter of the plant pit.

- Q. Steel Curbing Installation: . Curbing shall be aligned as indicated on plans. Stake out
- 2. All steel curbing shall be free of kinks and abrupt bends.

3. Top of curbing shall be  $\frac{1}{2}$ " maximum height above final

limits of steel curbing and obtain Owners approval prior to

- finished arade. 4. Stakes are to be installed on the planting bed side of the
- curbing, as opposed to the grass side. 5. Do not install steel edging along sidewalks or curbs.
- 6. Cut steel edging at 45 degree angle where edging meets sidewalks or curbs.
- A. Cleanup: During the work, the premises shall be kept neat and orderly at all times. Storage areas for all materials shall be so organized so that they, too, are neat and orderly. All trash and debris shall be removed from the site as work progresses. Keep paved areas clean by sweeping or hosing them at end of each

#### TREE PLANTING DETAIL LEGEND AND NOTES

- A. TREE: TREES SHALL CONFORM WITH LATEST AMERICAN STANDARD FOR
- NURSERY STOCK. www.anla.org B. TREE PIT: WIDTH TO BE AT LEAST TWO (2) TIMES THE DIAMETER OF THE ROOT BALL CENTER TREE IN HOLE & REST ROOT BALL ON UNDISTURBED NATIVE
- C. ROOT BALL: REMOVE TOP  $\frac{1}{3}$  BURLAP AND ANY OTHER FOREIGN OBJECT; CONTAINER GROWN STOCK TO BE INSPECTED FOR GIRDLING ROOTS.
- FLARE IS EXPOSED, FREE FROM MULCH, AND AT LEAST TWO INCHES ABOVE GRADE. TREES SHALL BE REJECTED WHEN GIRDLING ROOTS ARE PRESENT & ROOT FLARE IS NOT APPARENT. E. ROOTBALL ANCHOR RING: REFER TO

MANUFACTURER'S GUIDELINES FOR

SIZING. PLACE ROOTBALL ANCHOR

RING ON BASE OF ROOTBALL, TRUNK

D. ROOT FLARE: ENSURE THAT ROOT

SHOULD BE IN THE CENTER OF THE F. ROOT ANCHOR BY TREE STAKE

SOLUTIONS.

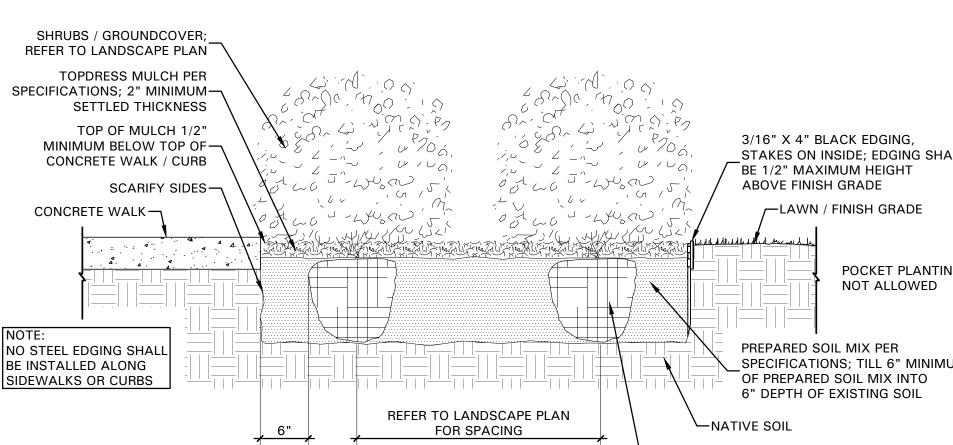
G. NAIL STAKE: REFER MANUFACTURER'S GUIDELINES FOR SIZING. INSTALL NAIL STAKES WITH HAMMER OR MALLET FIRMLY INTO UNDISTURBED GROUND. DRIVE NAIL STAKES FLUSH WITH "U" BRACKET ADJACENT TO ROOTBALL (DO NOT DISTURB ROOTBALL).

- H. BACKFILL: USE EXISTING NATIVE SOIL (no amendments) WATER THOROUGHLY TO ELIMINATE AIR POCKETS.
- MULCH: DOUBLE SHREDDED HARDWOOD MULCH 2 INCH SETTLED THICKNESS, WITH 2" HT. WATERING RING; ENSURE THAT ROOT FLARE IS EXPOSED. BELOW GROUND STAKE SHOULD NOT BE VISIBLE.
- TREE STAKES: TREE STAKE SOLUTIONS 'SAFETY STAKE' BELOW GROUND MODEL AVAILABLE FROM: Tree Stake Solutions ATTN: Jeff Tuley

(903) 676-6143

IS EXPRESSLY PROHIBITED.

- jeff@treestakesolutions.com www.treestakesolutions.com OR APPROVED EQUAL. TREES SHALL BE STAKED BELOW GROUND WHERE NECESSARY; ABOVE GROUND STAKING
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A COPY OF THE MANUFACTURER'S SPECIFICATIONS PRIOR INSTALLATION OF TREE STAKES. CONTRACTOR SHALL ADHERE TO MANUFACTURER'S INSTALLATION GUIDELINES, SPECIFICATIONS, AND OTHER REQUIREMENTS FOR TREE STAKE INSTALLATION.



STAKES ON INSIDE; EDGING SHALL POCKET PLANTING NO STEEL EDGING SHALL SPECIFICATIONS; TILL 6" MINIMUM ROOTBALL, DO NOT DISTURB

BELLE FIRMA

RD 751 SS X

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LANDSCAPE SPECIFICATIONS

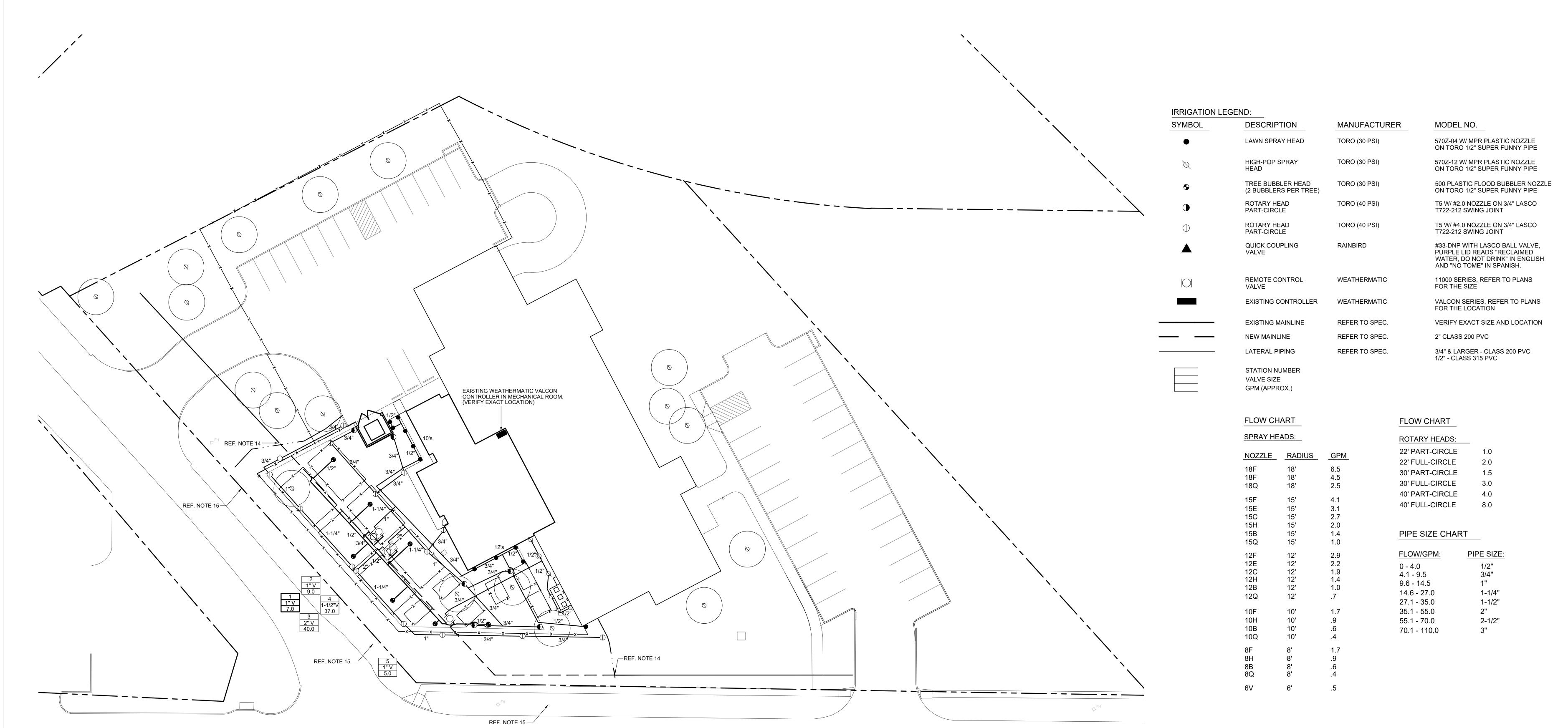
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IRRIGATION PLAN

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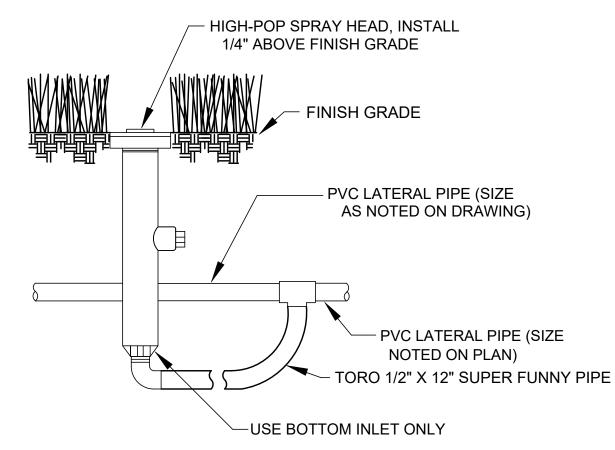
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CONSTRUCTION DOCUMENTS

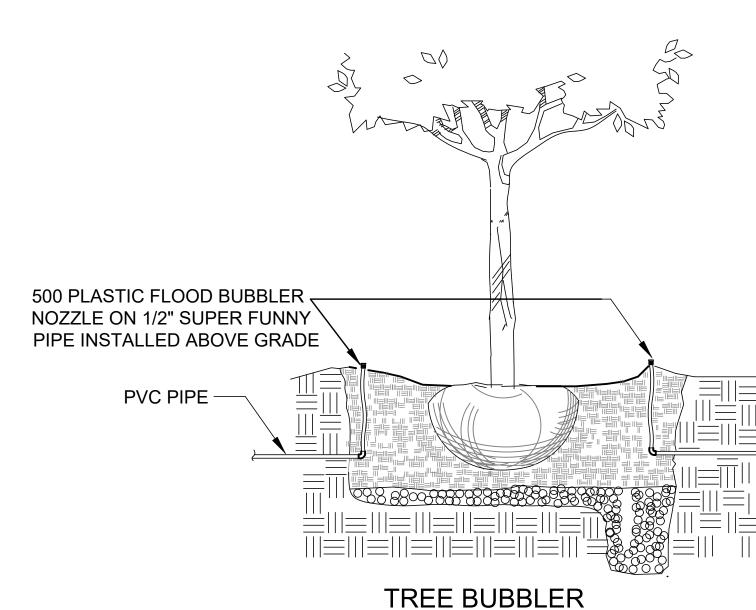
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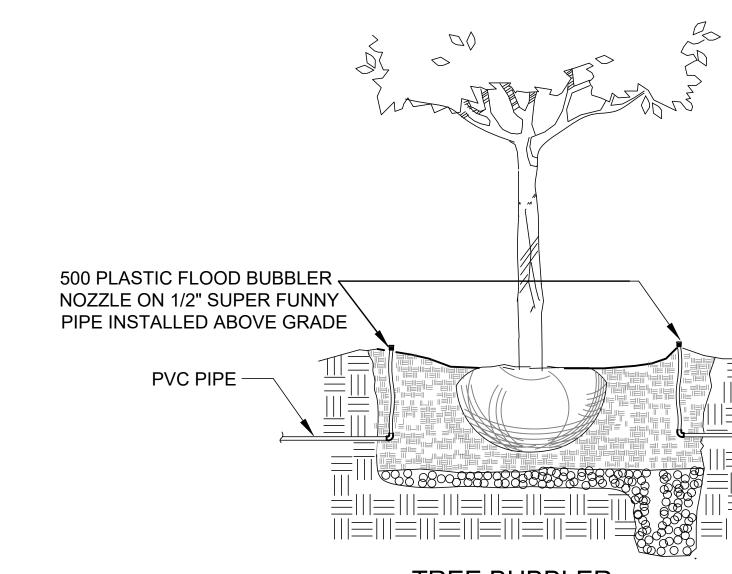
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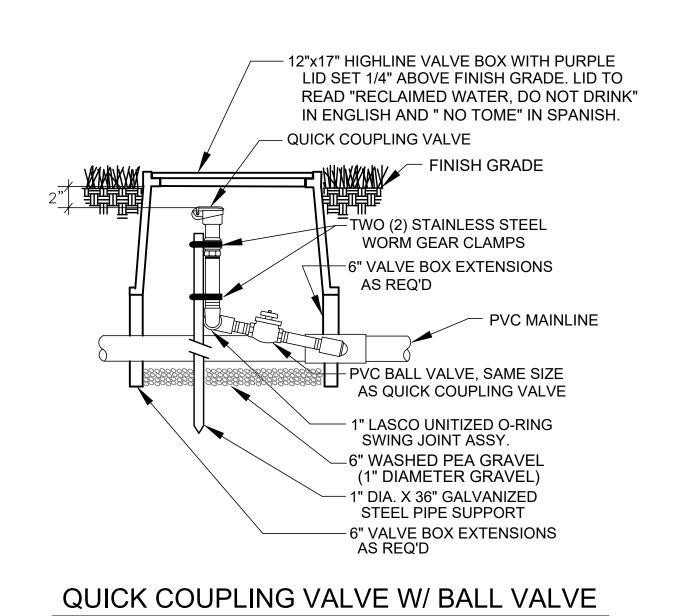
SPECIFICATIONS.











LAWN POP-UP HEAD, INSTAL

1/4" ABOVE FINISH GRADE

LAWN SPRAY HEAD

INSTALL ROTARY HEAD, SET

1/4" ABOVE FINISH GRADE

TAMP SOIL FIRMLY AROUND BODY

- PVC LATERAL PIPE (SIZE

NOTED ON PLAN)

**ROTARY HEAD** 

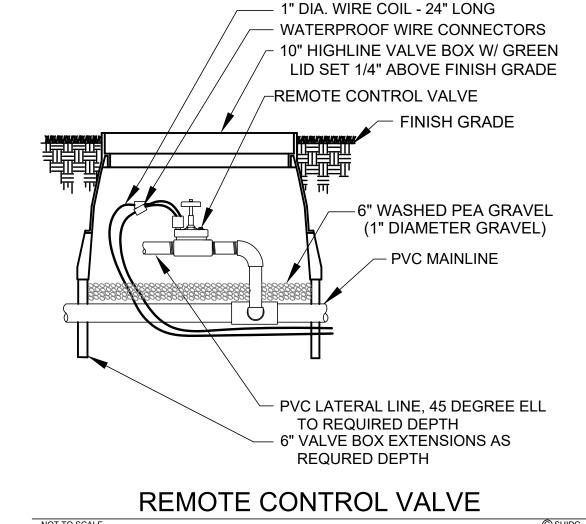
NOT TO SCALE

· LASCO UNITIZED O-RING SWING JOINT ASSY SIZED TO MATCH INLET SIZE OF THE HEAD

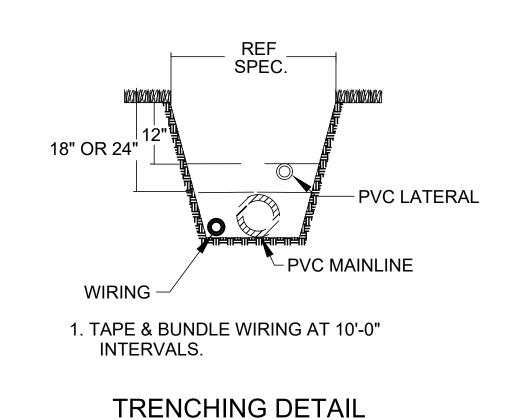
**AROUND BODY** 

TORO 1/2" X 12" SUPER FUNNY PIPE

PVC LATERAL PIPE (SIZE NOTED ON PLAN)

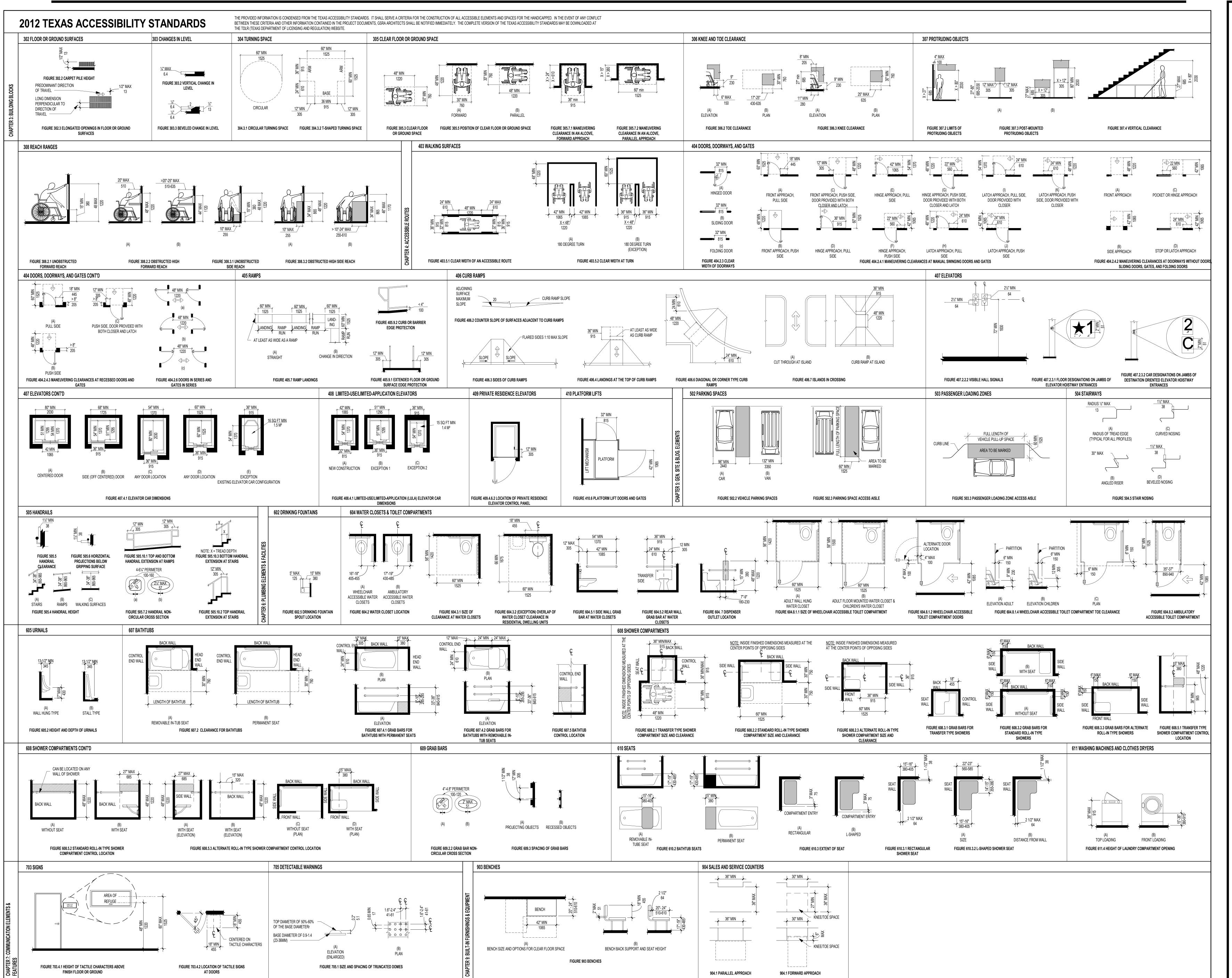


### MAINLINE, LATERAL, AND WIRING



FLOW/GPM:	PIPE SIZE:
0 - 4.0	1/2"
4.1 - 9.5	3/4"
9.6 - 14.5	1"
14.6 - 27.0	1-1/4"
27.1 - 35.0	1-1/2"
35.1 - 55.0	2"
55.1 - 70.0	2-1/2"
70.1 - 110.0	3"
PVC PIPE SI	ZE CHART

- ALL 24 VOLT LEAD AND COMMON VALVE WIRING SHALL BE A MINIMUM OF UF-14 GA. SINGLE CONDUCTOR. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR PROPER WIRE SIZE. WIRE SPLICES SHALL BE
- 3M-DBY PERMANENT AND WATERPROOF PER THE SPECIFICATIONS. COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LANDSCAPE CONTRACTOR TO ENSURE ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND
- PIPING AND VALVES IN PAVING SHOWN FOR CLARITY, INSTALL IN ADJACENT PLANTING BED/LAWN AREA
- LATERAL PIPING SHALL HAVE A MINIMUM OF 12" OF COVER. MAINLINE AND PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18" OF COVER. ALL FITTINGS TO BE SCHEDULE 40 PVC. USE WELD-ON #705 SOLVENT AND #P-68 PRIMER FOR PVC CONNECTIONS PER THE SPECIFICATIONS.
- SIZE PIPING PER MANUFACTURER'S RECOMMENDATIONS OF NOT EXCEEDING 5 FPS. REFERENCE CHART.
- CONNECT LAWN SPRAY, TREE BUBBLER, HIGH-POP SPRAY, AND DRIP INDICATOR HEADS TO LATERAL PIPING WITH RAINBIRD 1/2" SPX SWING PIPE. CONNECT ROTARY HEADS TO LATERAL PIPE WITH LASCO #T722 SERIES"UNITIZED", O-RING SWING JOINTS.
- INSTALL QUICK COUPLING VALVES IN TWELVE BY SEVENTEEN (12"x17") INCH HIGHLINE VALVE BOX. CONNECT QUICK COUPLERS TO MAINLINE PIPE WITH LASCO #T722-212 "UNITIZED", O-RING SWING JOINT. SUPPLY OWNER WITH ONE (1) COUPLER KEY WITH SWIVEL HOSE BIBB EACH. VALVES TO BE INSTALLED SO THAT TOP OF QUICK COUPLER IS 2" BELOW BOTTOM OF VALVE BOX TOP. PURPLE LID READS "NON-POTABLE, NOT SAFE FOR DRINKING" IN ENGLISH AND SPANISH. INSTALL EVERY 200'-0" ON CENTER ALONG ENTIRE LENGTH OF MAINLINE.
- PERFORM ELECTRICAL WORK IN ACCORDANCE WITH LOCAL BUILDING CODE. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX AND HARDWIRED WITHIN FIVE (5') FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR.
- INSTALL REMOTE CONTROL VALVES AND WIRE SPLICES IN TEN (10") INCH HIGHLINE VALVE BOXES.
- INSTALL SLEEVES UNDER ALL HARDSCAPE SURFACES SUCH AS ROADS, DRIVES, WALKS, ETC. WHETHER SHOWN OR NOT. SLEEVES SHALL BE CLASS 200 PVC, SIZED AS NOTED ON PLANS AND INSTALLED BY IRRIGATION CONTRACTOR
- 11. ADJUST NOZZLES FOR SITUATIONS THAT REQUIRE LESS THAN 90 DEGREE RADIUS SPRAY. NO OVERSPRAY ALLOWED ON ANY HARDSCAPE SURFACES.
- 12. DESIGN PRESSURE IS 58.0 PSI. STATIC PRESSURE IS 65 PSI. TEN DAYS PRIOR TO START OF CONSTRUCTION, VERIFY STATIC PRESSURE, IF STATIC PRESSURE IS LESS THAN STATED DO NOT START WORK UNTIL NOTIFIED TO PROCEED.
- 13. MINIMUM DISTANCE BETWEEN MAIN LINE AND LATERAL LINE FITTINGS (EXCEPT FOR REDUCER BUSHINGS) TO BE EIGHTEEN (18") INCHES AND MINIMUM HORIZONTAL DISTANCE OF TWENTY-FOUR (24") INCHES BETWEEN ANY VALVES THAT ARE INSTALLED SIDE BY SIDE.
- 14. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO CONNECT THE PROPOSED 2-INCH SCHEDULE 40 PVC MAINLINE TO THE EXISTING 2-INCH SCHEDULE 40 PVC MAINLINE AT THIS APPROXIMATE LOCATION. VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING MAINLINE PRIOR TO BIDDING. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING OF THE PROJECT.
- 15. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO REPAIR AND MODIFY THE EXISTING IRRIGATION SYSTEM IN THIS AREA SO THAT IT IS 100% OPERABLE AND AUTOMATED UPON THE COMPLETION OF THIS PROJECT. VERIFY THE CONDITION AND LOCATION OF THE EXISTING SYSTEM PRIOR TO BIDDING. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING OF THE PROJECT.
- PROVIDE ALL LABOR AND MATERIALS NECESSARY INSTALL NEW UF-14GA WIRES BACK TO THE EXISTING CONTROLLER LOCATION. VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING CONTROLLER PRIOR TO BIDDING. THIS WORK TO INCLUDE RE-SEQUENCING THE CONTROLLER AND REPAIRING THE SYSTEM DUE TO NEW WIRE DITCH. CONTRACTOR MUST COORDINATE THIS WORK WITH ALL DISCIPLINES PRIOR TO BEGINNING OF THE PROJECT.
- 17. DO NOT INSTALL ANY MAINLINES. VALVES. OR CONTROL WIRES WITHIN THE R.O.W. UNLESS CITY APPROVED.
- 18. PROVIDE ALL LABOR AND MATERIAL NECESSARY TO HAND DIG WITHIN ALL EXISTING TREE ROOT ZONES. CONTRACTOR MUST STAKE DITCHES AND RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT PRIOR TO ANY TRENCHING OR DIGGING.
- 19. ALL STATE OF TEXAS LAWS/RULES AND ALL LOCAL CODES/ORDINANCES ARE MADE PART OF THESE PLANS AND SPECIFICATIONS WHETHER SHOWN OR NOT. THESE LAWS AND ORDINANCES WILL SUPERCEDE THE PLANS, DETAILS, AND/OR SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR IS CAUTIONED THAT HE IS TO INCLUDE ANY AND ALL COST NECESSARY TO MEET OR EXCEED THE LAWS OF THE STATE OF TEXAS OR LOCAL CODES CONCERNING LANDSCAPE IRRIGATION. A LICENSED IRRIGATOR OR LICENSED IRRIGATION TECHNICIAN SHALL BE ON-SITE AT ALL TIMES WHILE THE LANDSCAPE IRRIGATION SYSTEM IS BEING INSTALLED PER CITY OF MESQUITE REQUIREMENTS.
- 20. IT IS THE INTENT OF THESE PLANS TO PROVIDE THE OWNER WITH A FULLY AUTOMATED AND OPERATIONAL IRRIGATION SYSTEM UPON THE COMPLETION OF THIS PROJECT. REFERENCE THE ORIGINAL DESIGN DATED 05-24-2004 FOR ANY QUESTIONS REGARDING THE EXISTING SYSTEM



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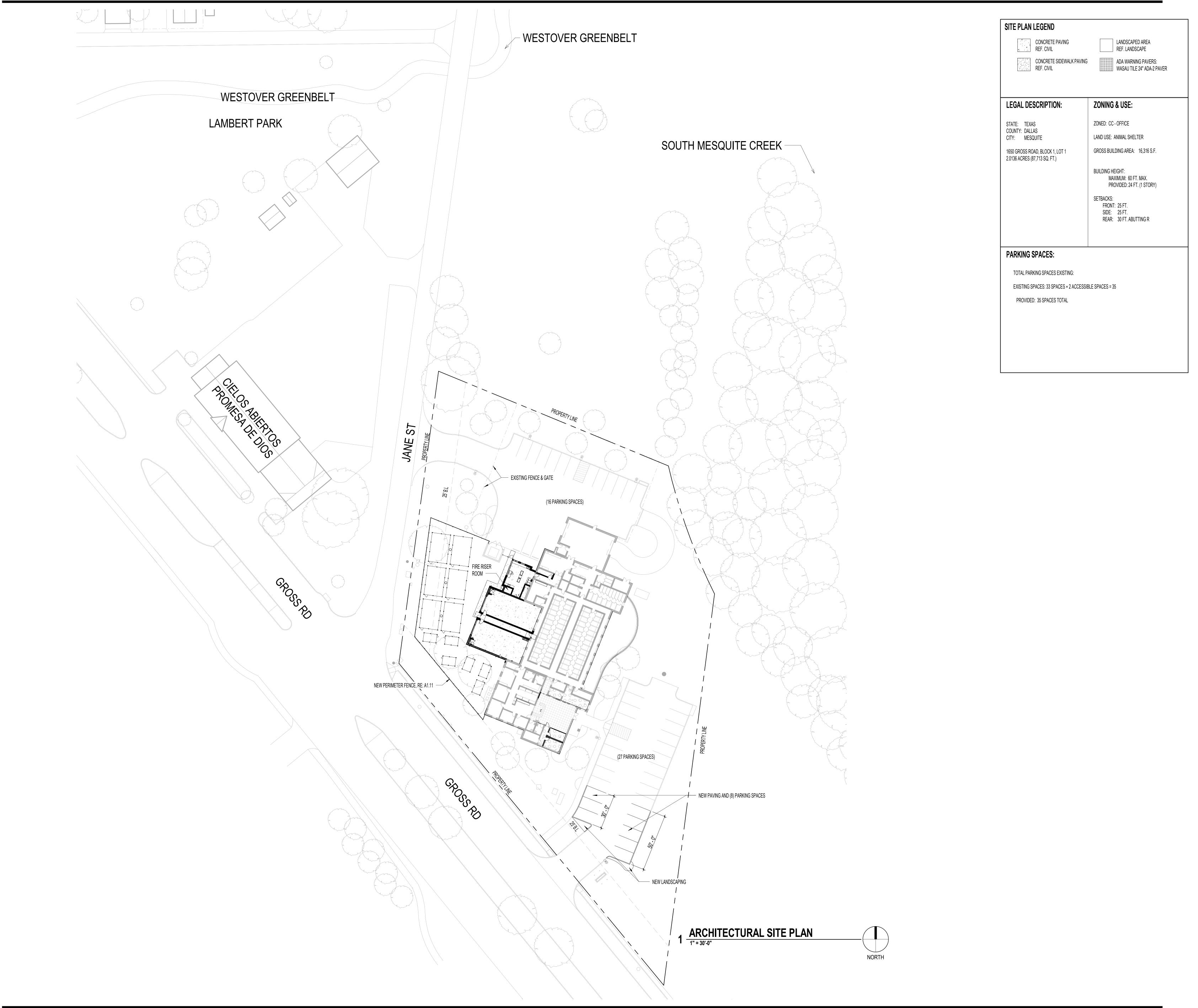
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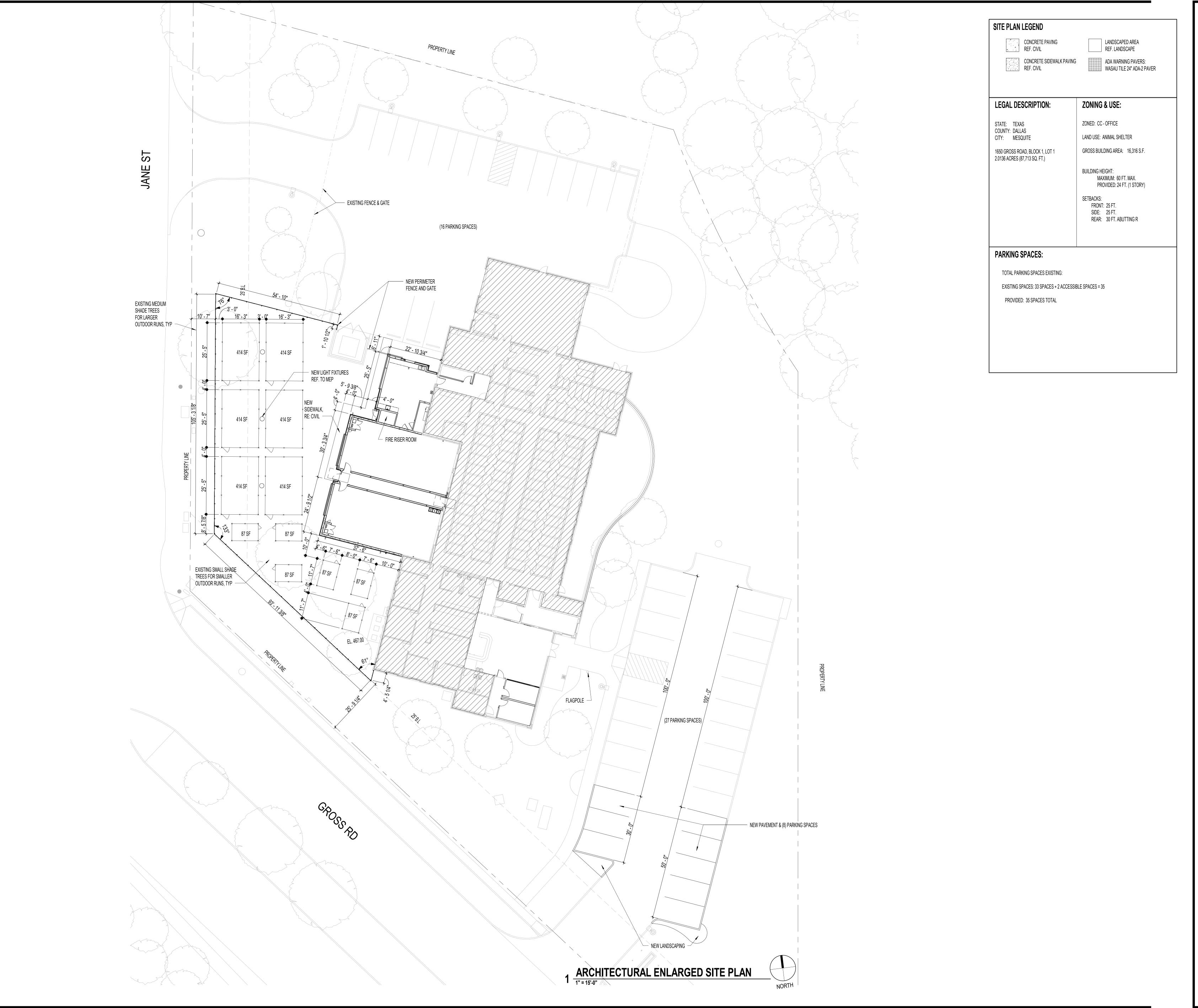
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SITE PLAN
Drawing No.

A1.00



MESQUITE ANIMAL SHELTER & ON CENTER

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ENLARGED SITE PLAN

A1.01

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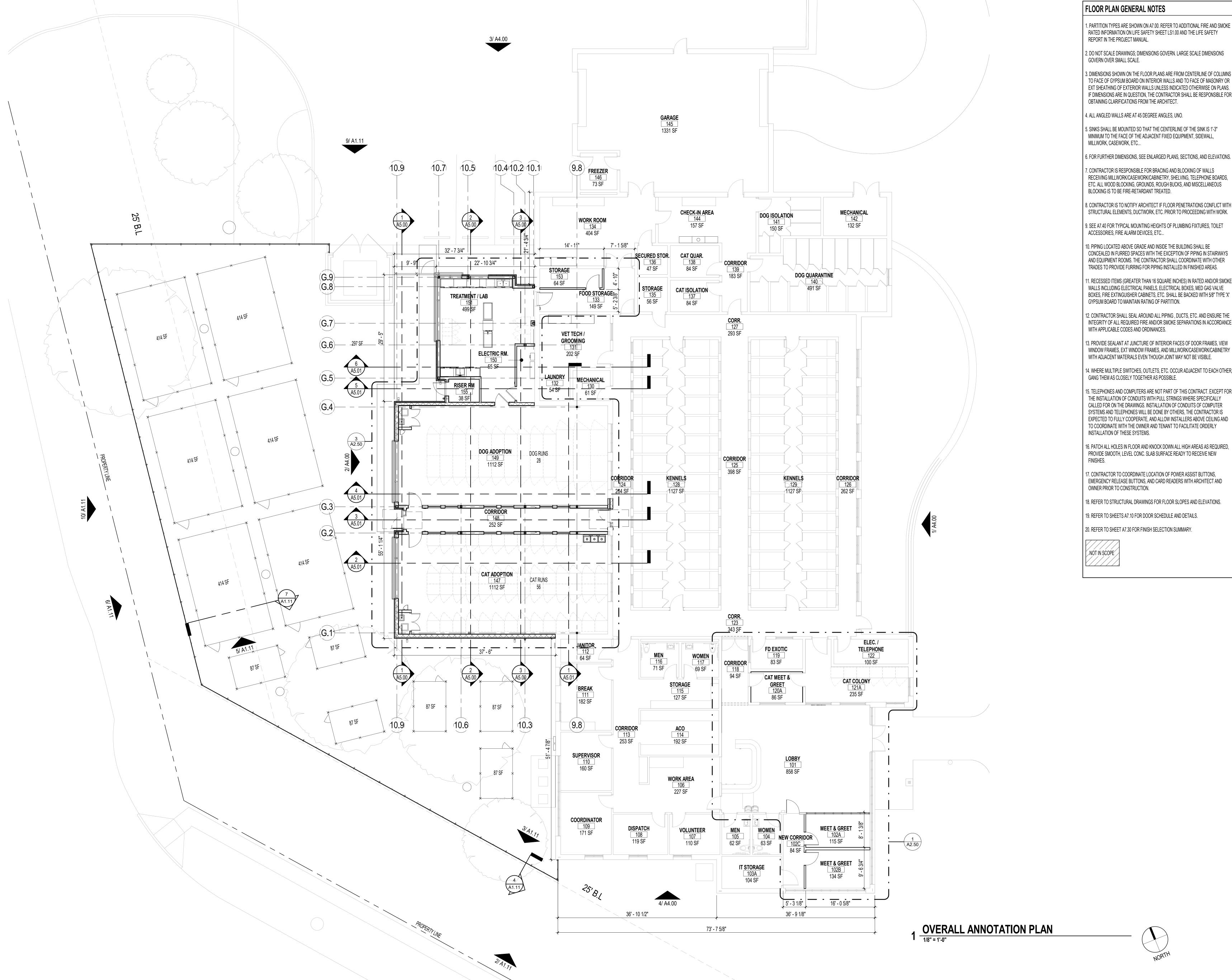
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SITE DETAILS



1. PARTITION TYPES ARE SHOWN ON A7.00. REFER TO ADDITIONAL FIRE AND SMOKE RATED INFORMATION ON LIFE SAFETY SHEET LS1.00 AND THE LIFE SAFETY

2. DO NOT SCALE DRAWINGS; DIMENSIONS GOVERN. LARGE SCALE DIMENSIONS

TO FACE OF GYPSUM BOARD ON INTERIOR WALLS AND TO FACE OF MASONRY OR EXT SHEATHING OF EXTERIOR WALLS UNLESS INDICATED OTHERWISE ON PLANS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR

5. SINKS SHALL BE MOUNTED SO THAT THE CENTERLINE OF THE SINK IS 1'-3" MINIMUM TO THE FACE OF THE ADJACENT FIXED EQUIPMENT, SIDEWALL,

6. FOR FURTHER DIMENSIONS, SEE ENLARGED PLANS, SECTIONS, AND ELEVATIONS.

RECEIVING MILLWORK/CASEWORK/CABINETRY, SHELVING, TELEPHONE BOARDS, ETC. ALL WOOD BLOCKING, GROUNDS, ROUGH BUCKS, AND MISCELLANEOUS

8. CONTRACTOR IS TO NOTIFY ARCHITECT IF FLOOR PENETRATIONS CONFLICT WITH STRUCTURAL ELEMENTS, DUCTWORK, ETC. PRIOR TO PROCEEDING WITH WORK.

9. SEE A7.40 FOR TYPICAL MOUNTING HEIGHTS OF PLUMBING FIXTURES, TOILET

10. PIPING LOCATED ABOVE GRADE AND INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES WITH THE EXCEPTION OF PIPING IN STAIRWAYS AND EQUIPMENT ROOMS. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO PROVIDE FURRING FOR PIPING INSTALLED IN FINISHED AREAS.

1. RECESSED ITEMS (GREATER THAN 16 SQUARE INCHES) IN RATED AND/OR SMOKE WALLS INCLUDING ELECTRICAL PANELS, ELECTRICAL BOXES, MED GAS VALVE BOXES, FIRE EXTINGUISHER CABINETS, ETC. SHALL BE BACKED WITH 5/8" TYPE 'X'

INTEGRITY OF ALL REQUIRED FIRE AND/OR SMOKE SEPARATIONS IN ACCORDANCE

WINDOW FRAMES, EXT WINDOW FRAMES, AND MILLWORK/CASEWORK/CABINETRY WITH ADJACENT MATERIALS EVEN THOUGH JOINT MAY NOT BE VISIBLE.

14. WHERE MULTIPLE SWITCHES, OUTLETS, ETC. OCCUR ADJACENT TO EACH OTHER,

15. TELEPHONES AND COMPUTERS ARE NOT PART OF THIS CONTRACT. EXCEPT FOR THE INSTALLATION OF CONDUITS WITH PULL STRINGS WHERE SPECIFICALLY CALLED FOR ON THE DRAWINGS. INSTALLATION OF CONDUITS OF COMPUTER SYSTEMS AND TELEPHONES WILL BE DONE BY OTHERS, THE CONTRACTOR IS EXPECTED TO FULLY COOPERATE, AND ALLOW INSTALLERS ABOVE CEILING AND TO COORDINATE WITH THE OWNER AND TENANT TO FACILITATE ORDERLY

PROVIDE SMOOTH, LEVEL CONC. SLAB SURFACE READY TO RECEIVE NEW

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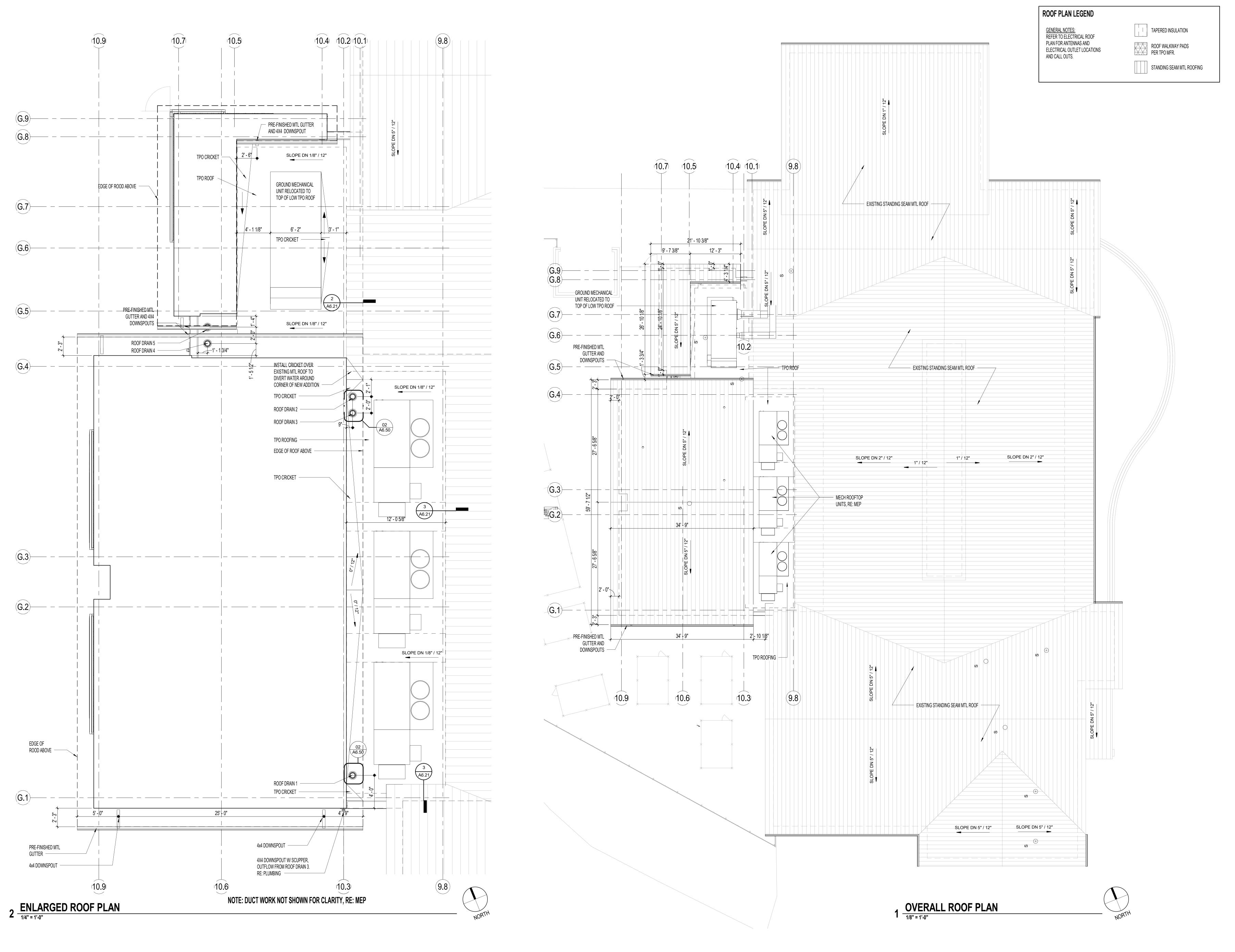
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Sheet Title: OVERALL FLOOR PLAN

Drawing No. A2.00



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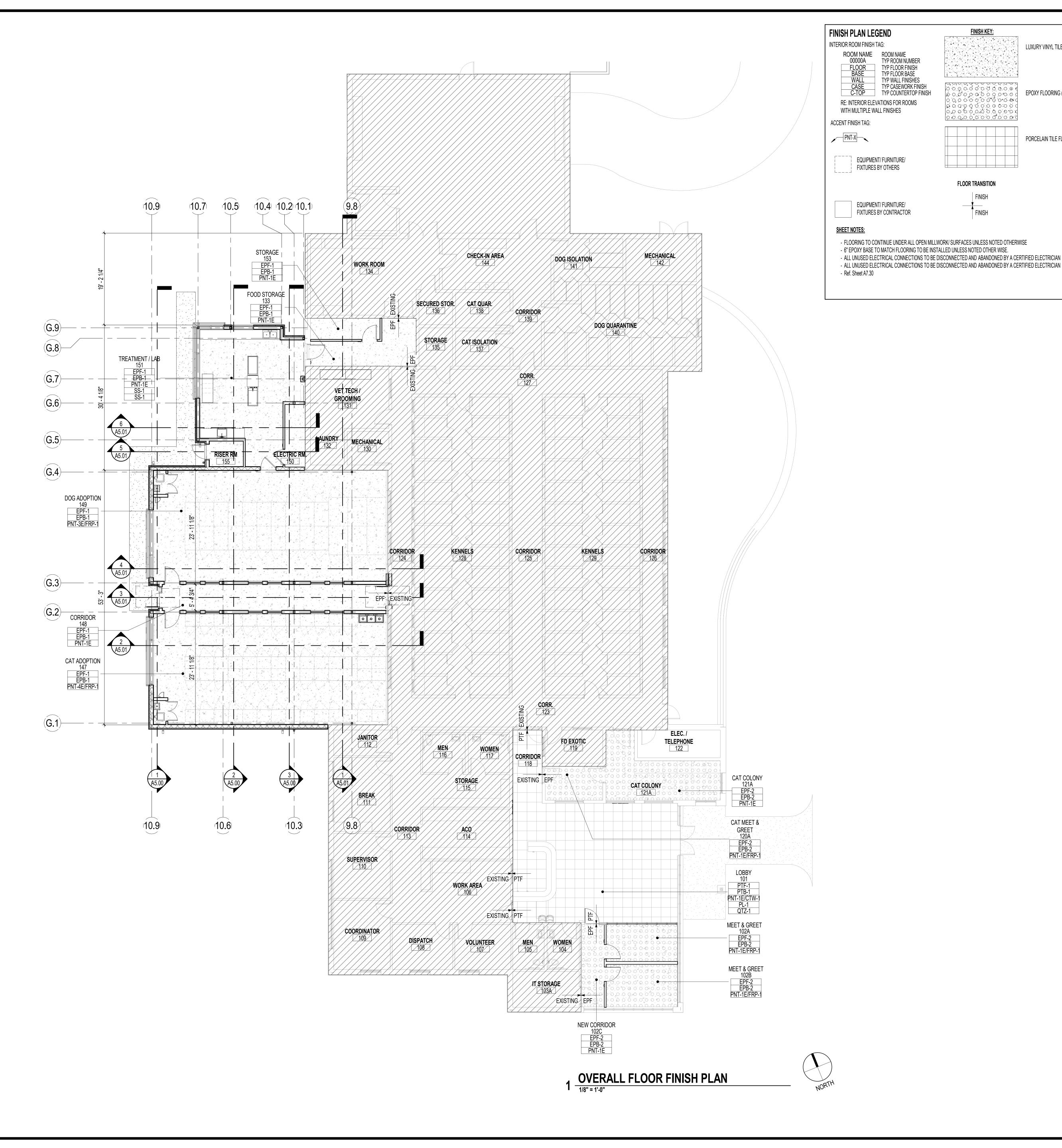
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OVERALL ROOF PLAN

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LUXURY VINYL TILE (EPF-1)

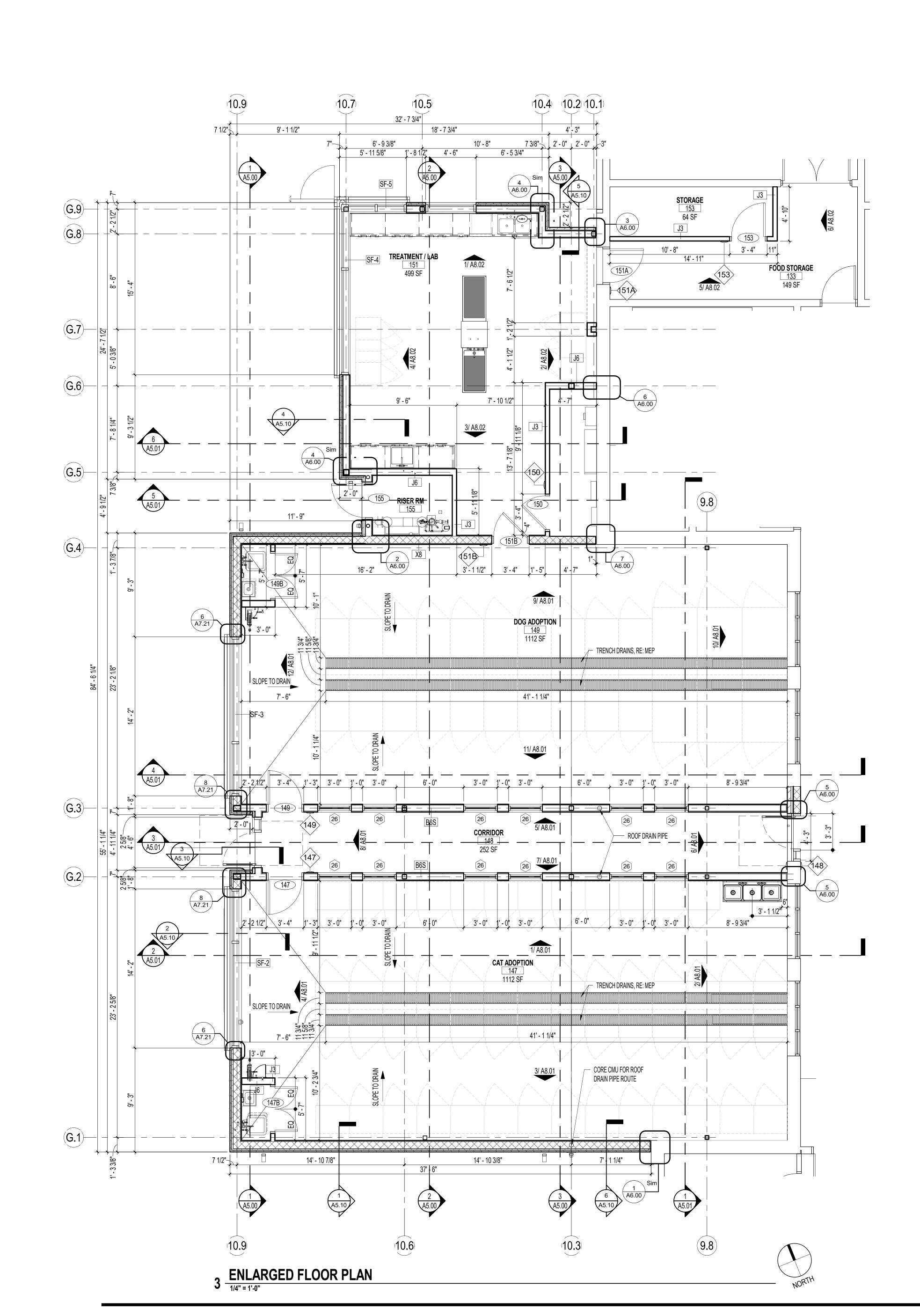
EPOXY FLOORING (EPF-2)

PORCELAIN TILE FLOOR (PTF)



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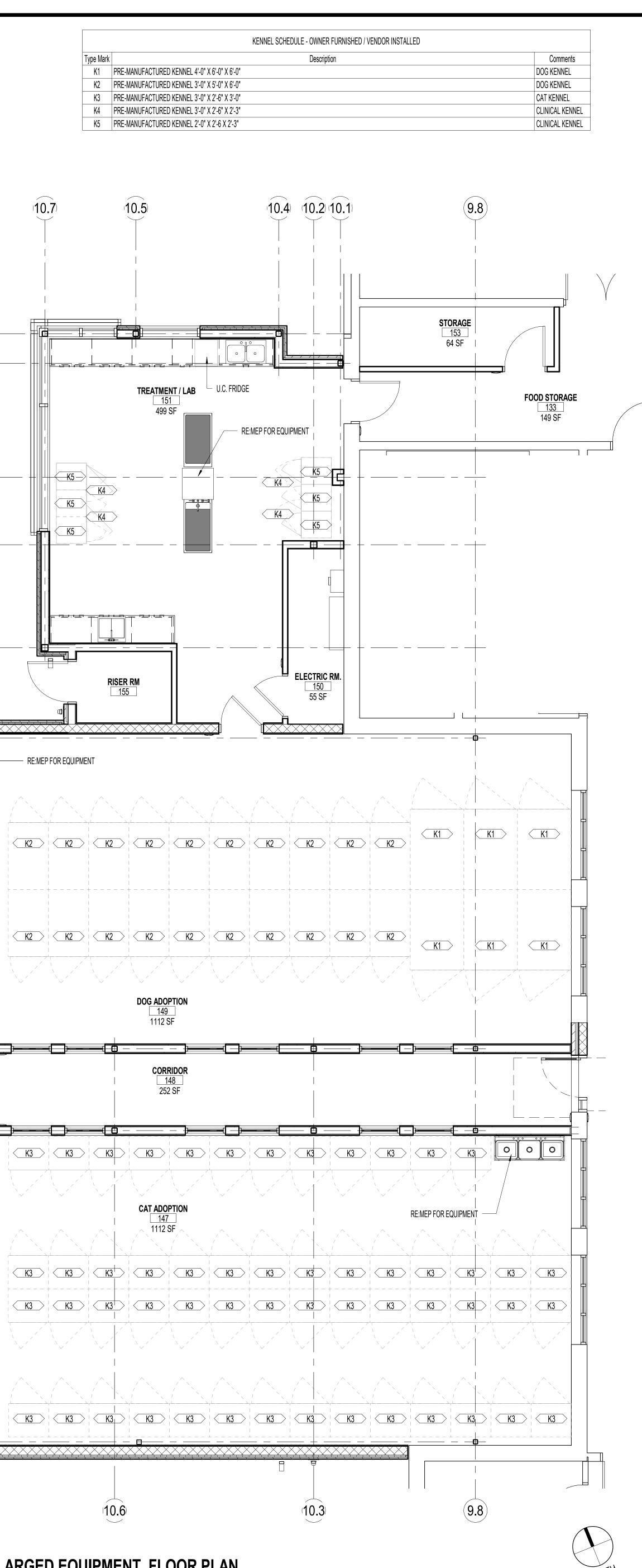
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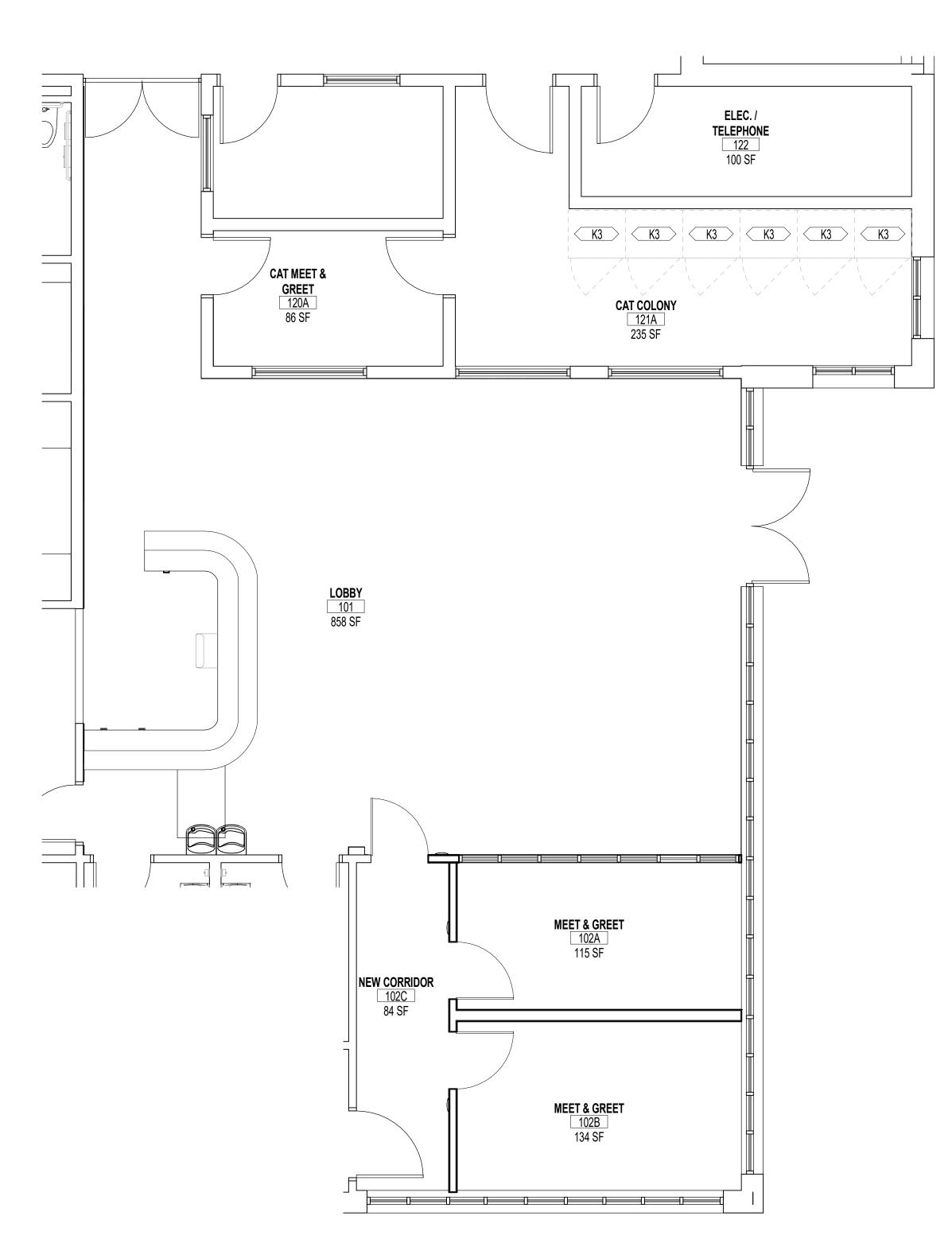
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ENLARGED FLOOR PLANS

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(G.1)—— -1 ENLARGED EQUIPMENT FLOOR PLAN

1/4" = 1'-0"

3 ENLARGED EQUIPMENT FLOOR PLAN

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Sheet Title: ENLARGED EQUIPMENT PLANS

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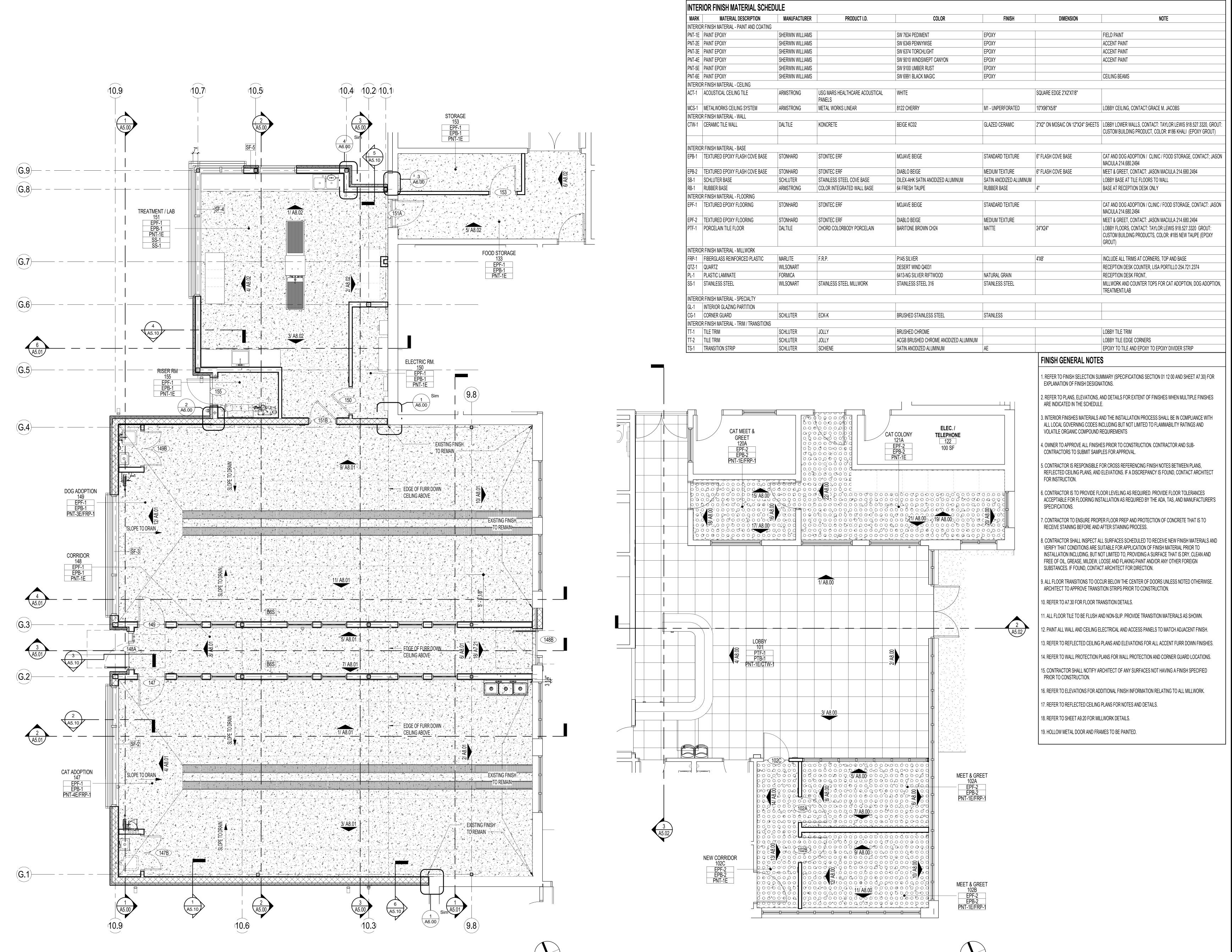
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ENLARGED FINISH PLANS

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2 ENLARGED FINISH FLOOR PLAN

1. REFER TO ELECTRICAL PLANS FOR FIXTURE TYPES

2. ALL DIMENSIONS ARE MEASURED HORIZONTALLY. ADJUST DIMENSIONS FOR SLOPE OF CEILING WHEN APPLICABLE

3. LOCATE LIGHT FIXTURES NOT DIMENSIONED IN THE CENTER OF, OR EQUALLY SPACED WITH THE CEILING PANLE/TILE, OR IN ALIGNMENT WITH OTHER FIXTURES. SHOULD THERE BE ANY QUESTIONS ABOUT PLACEMENT OF LIGHT FIXTURES OR EXIT SIGNS, PLEASE CONTACT ARCHITECT PRIOR TO INSTALLATION.

4. VERIFY LOCATION OF ANY ACCESS PANELS REQUIRED FOR WATER VALVES, HVAC EQUIPMENT, MEDICAL EQUIPMENT WITH ARCHITECT PRIOR TO INSTALLATION OF ACCESS PANLES. FINISH ACCESS PANELS TO MATCH ADJACENT CEILING FINISH.

5. COORDINATE PLACEMENT OF LIGHT FIXTURES IN MECHANICAL ROOMS WITH EQUIPMENT INSTALLED.

6. ALL CEILING GRIDS ARE TO BE CENTERED WITHIN THE SPACE EACH WAY, OR AS

7. COORDINATE WITH ELECTRICAL FOR LOCATIONS OF SMOKE DETECTORS AND EXIT SIGNS. LOCATE SMOKE DETECTORS AND EXIT SIGNS IN THE CENTER OF OR EQUALLY SPACED WITHIN THE OTHER CEILING COMPONENTS.

8. LOCATE HVAC SUPPLY, RETURN, AND EXHAUST GRILLES NOT DIMENSIONED WITHIN THE CEILING TILES AS INDICATED OR CENTERED BETWEEN LIGHTS ALONG THEIR COMMON CENTERLINE, OR WHEN IN A CORNER, 9" EACH WAY FROM THE ADJACENT PARTITION.

9. CONTRACTOR TO NOTIFY ARCHITECT IF FLOOR PENETRATIONS CONFLICT WITH STRUCTURAL ELEMENTS, DUCTWORK, ETC. PRIOR TO PROCEEDING WITH WORK.

10. UNLESS NOTED OTHERWISE, ALL SPRINKLER HEADS IN PUBLIC AREAS TO BE ARRANGED SYMMETRICALLY AND IN ALIGNMENT. VERIFY WITH ARCHITECT PRIOR TO INSTALLATION.

11. REFER TO SHEETS A3.00 FOR CEILING HEIGHTS.

12. CONTRACTOR TO PROVIDE 2X2 CEILING TILES CUT TO FIT AT ALL LOCATIONS WHERE THE CEILING TILES ARE 3" OR LESS IN WIDTH.

13. ALL LIGHTS, HVAC DIFFUSERS, RETURN AIR GRILLES, ETC. TO BE LOCATED PER THE ARCHITECTURAL PLANS. COORDINATE WITH MEP, EQUIPMENT, AND ALL ADDITIONAL CONSULTANT DRAWINGS. ANY DISCREPANCIES BETWEEN MEP AND ARCHITECTURAL DRAWINGS TO BE BROUGH TO THE IMMEDIATE ATTENTION TO THE ARCHITECT PRIOR TO CONSTRUCTION.

14. MEP RELATED SYMBOLS ARE ILLUSTRATED FOR COORDINATING THE PROPER LOCATION OF DEVICES IN THE COMMON SPACES ONLY. ANY DISCREPANCIES BETWEEN MEP AND ARCHITECTURAL DRAWINGS ARE TO BE BROUGH TO THE IMMEDIATE ATTENTION OF THE ARCHITECT PRIOR TO CONSTRUCTION.

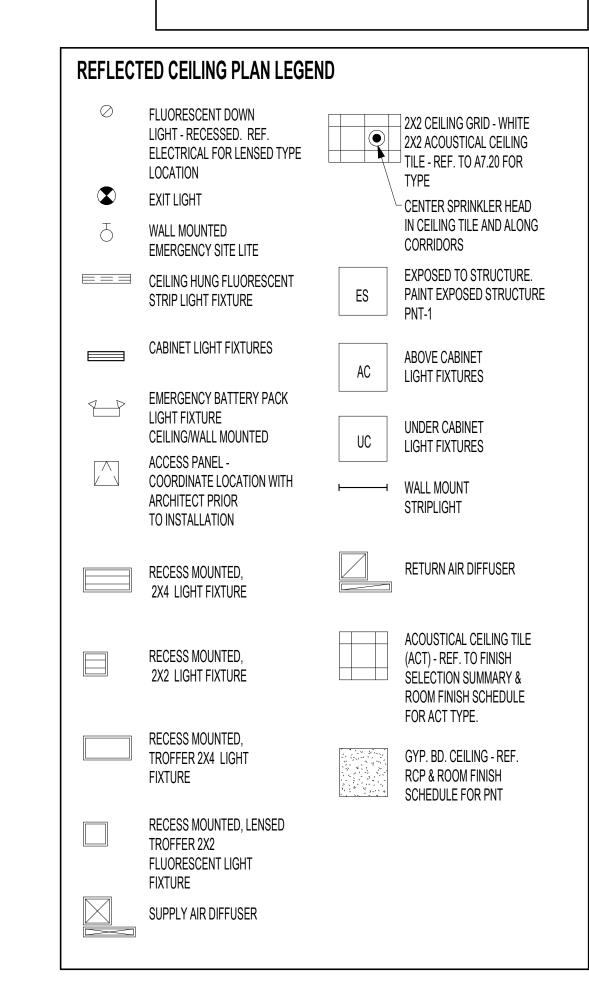
15. SEISMIC BRACING OF SUSPENDED CEILING SYSTEMS TO COMPLY WITH ALL LOCAL AND STATE CODES.

16. GC TO PROVIDE PRE-CONSTRUCTION MEETIN WITH ALL INTERIOR FINISH OUT TRADES, PRIOR TO ANY INTERIOR FINISH CONSTRUCTION.

17. ALL EXPOSED STRUCTURE AND METAL DECK TO RECIEVE PNT-X.

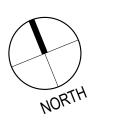
18. ALL MEP DUCTWORK, ACCESSORIES, TRIMS, CONDUITS, HOUSINGS, ECT. TO RECIEVE PNT COLOR TO MATCH ADJACENT SURFACES.





1 GROUND FLOOR REFLECTED CEILING PLAN

1/8" = 1'-0"



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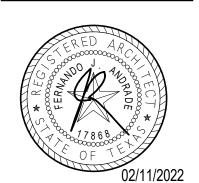
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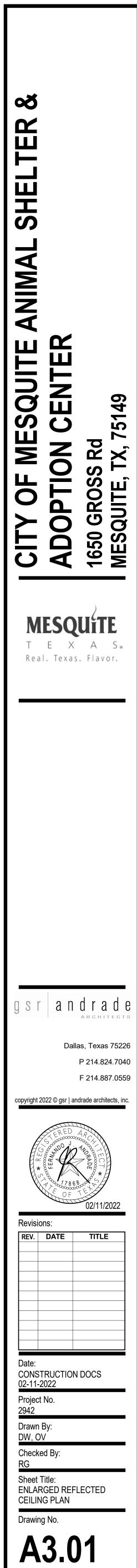
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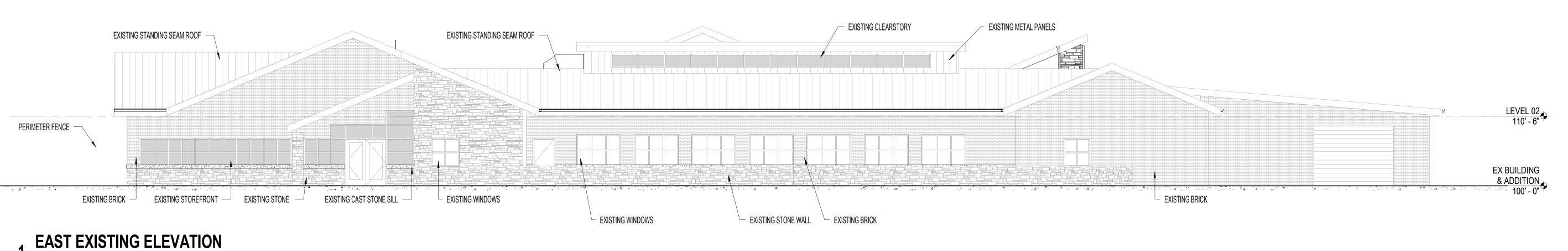
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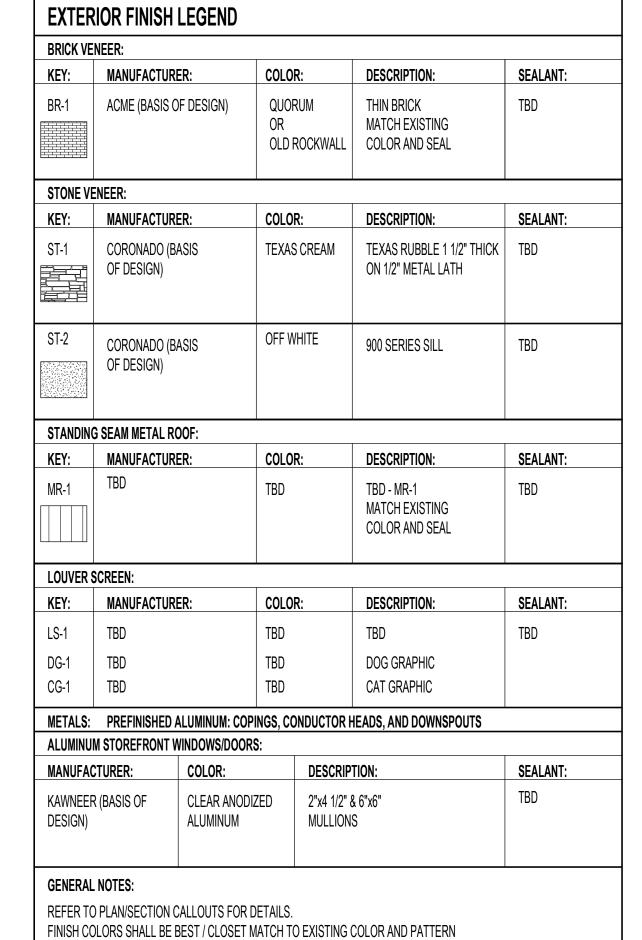
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OVERAL REFLECTED
CEILING PLAN
Drawing No.

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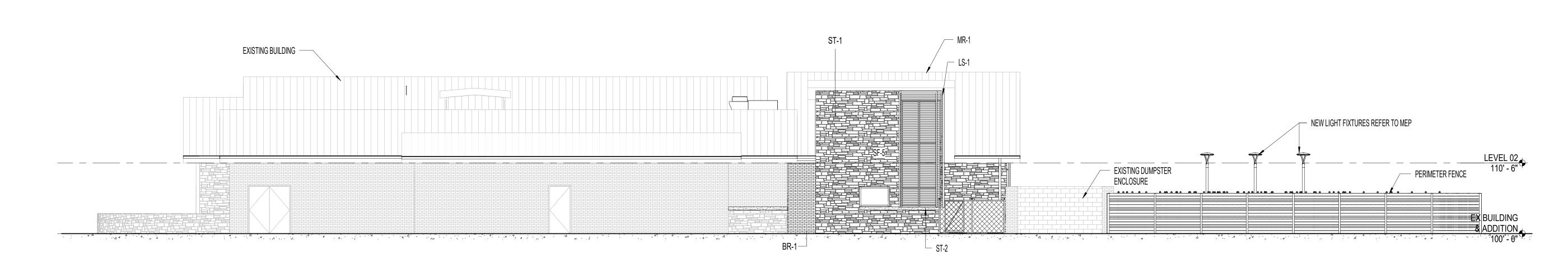






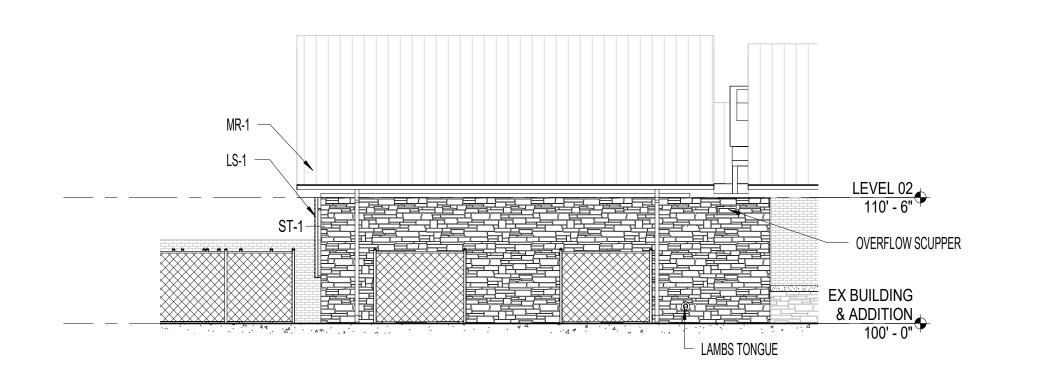
— DOG & CAT MURAL -RE: A4.01 EXISTING STANDING SEAM ROOF EXISTING CLEARSTORY EXISTING STANDING SEAM INSTALL INSULATED METAL PATCH IN REMAINING MTL. ROOF HOLE FROM REMOVED EXTERIOR DUCT WORK FIELD VERIFY SIZE AND LOCATION LEVEL 02 110' - 6" EX BUILDING & ADDITION 100' - 0" - EXISTING STOREFRONT NEW LIGHT FIXTURES
REFER TO MEP 25' - 1" LAMBS TONGUE 4' - 11 1/4" 2 WEST ELEVATION

1/8" = 1'-0"



3 NORTH ELEVATION

1/8" = 1'-0"



4 SOUTH ELEVATION

1/8" = 1'-0"

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Checked By: Sheet Title: OVERALL EXTERIOR ELEVATIONS

Drawing No.

CITY OF MESQUITE ANIMAL SHELTER 8
ADOPTION CENTER
1650 GROSS Rd

MESQUITE

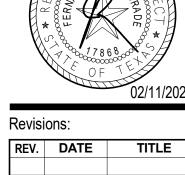
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2942
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RG
Sheet Title:
OVERALL EXTERIOR
ELEVATIONS

Drawing No.

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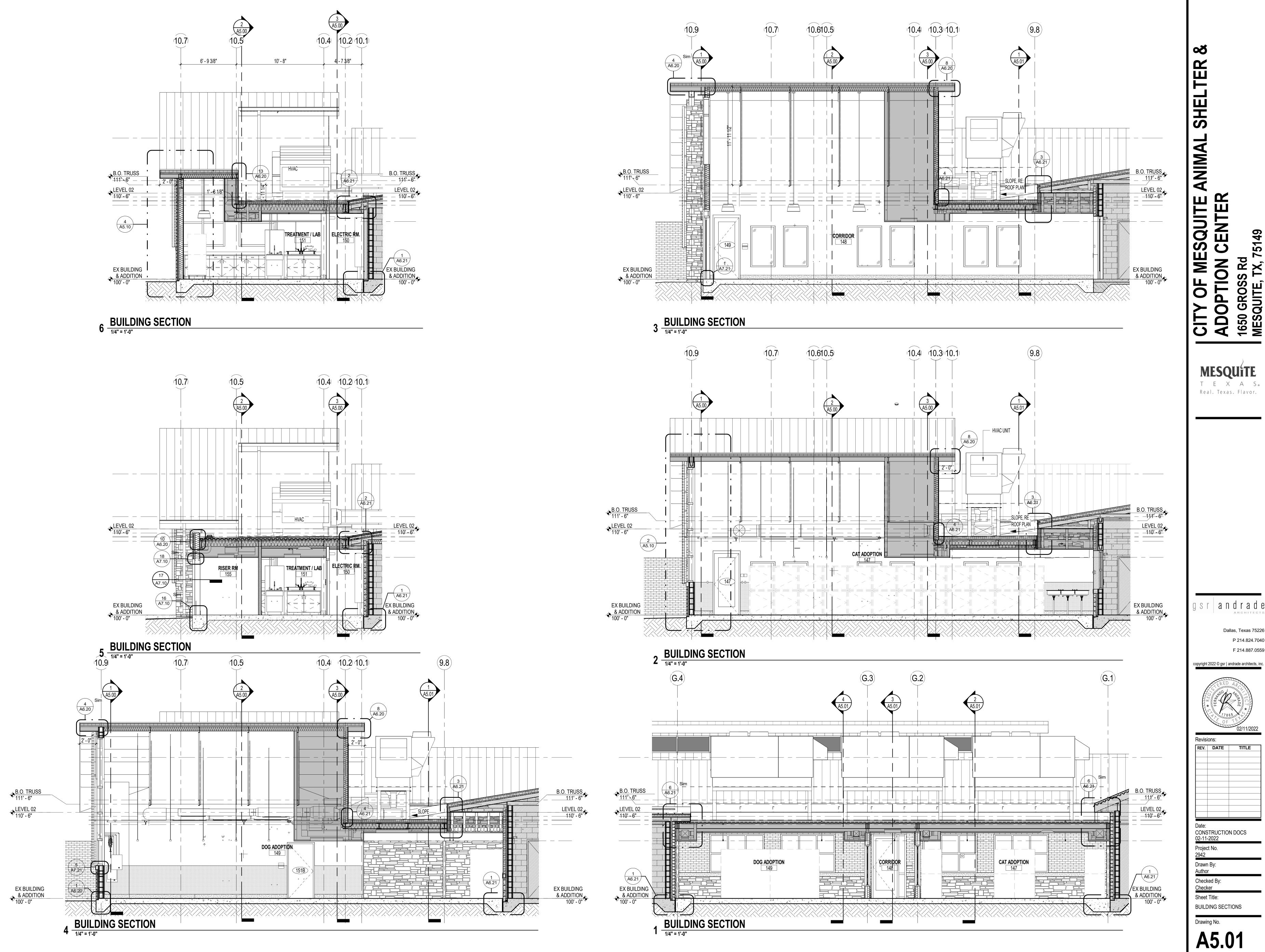
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Sheet Title:
BUILDING SECTIONS
Drawing No.

A5.00



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- INSTALL NEW PENDANT LIGHTING, RE: INTERIOR FINISH SCHED.

INSTALL NEW LINEAR METAL CEILING, RE: INTERIOR FINISH SCHED.

EXISTING STRUCTURE TO BE EXPOSED AND PAINTED (PNT-6E), STRUCTURE SHALL REVIEW EXISTING TRUSSES FOR SIMPLIFICATION

EX BUILDING

& ADDITION

100' - 0"

CAT COLONY

EXISTING RECEPTION DESK, PREPARE SUBSTRATES FOR NEW FINISHES, RE: FINISH SCHED.

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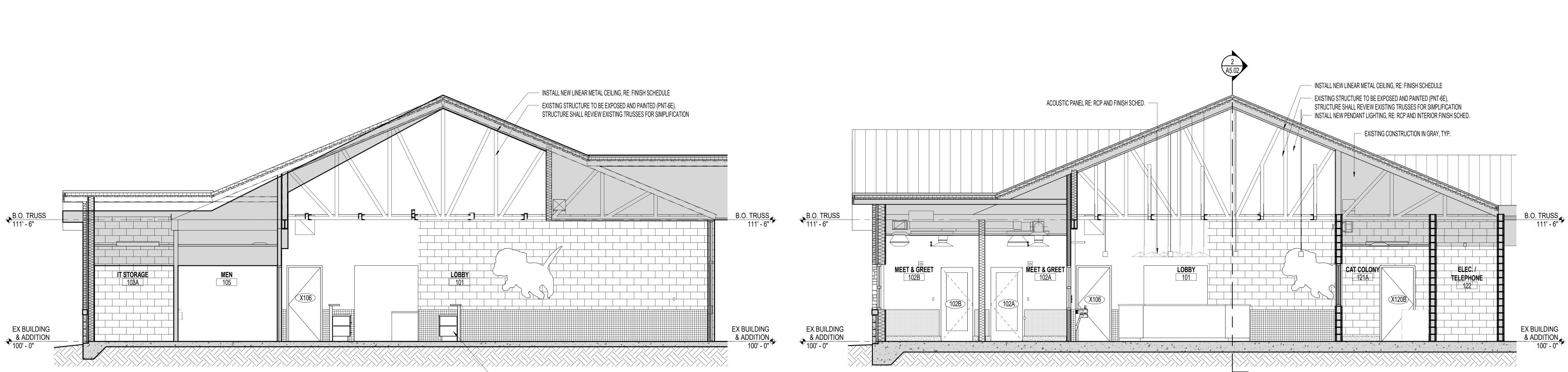
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Checked By: Checker
Sheet Title:

BUILDING SECTIONS Drawing No.

A5.02



- EXISTING RECEPTION DESK, PREPARE SUBSTRATES FOR NEW FINISHES, RE: FINISH SCHED.

3 LOBBY BUILDING SECTION

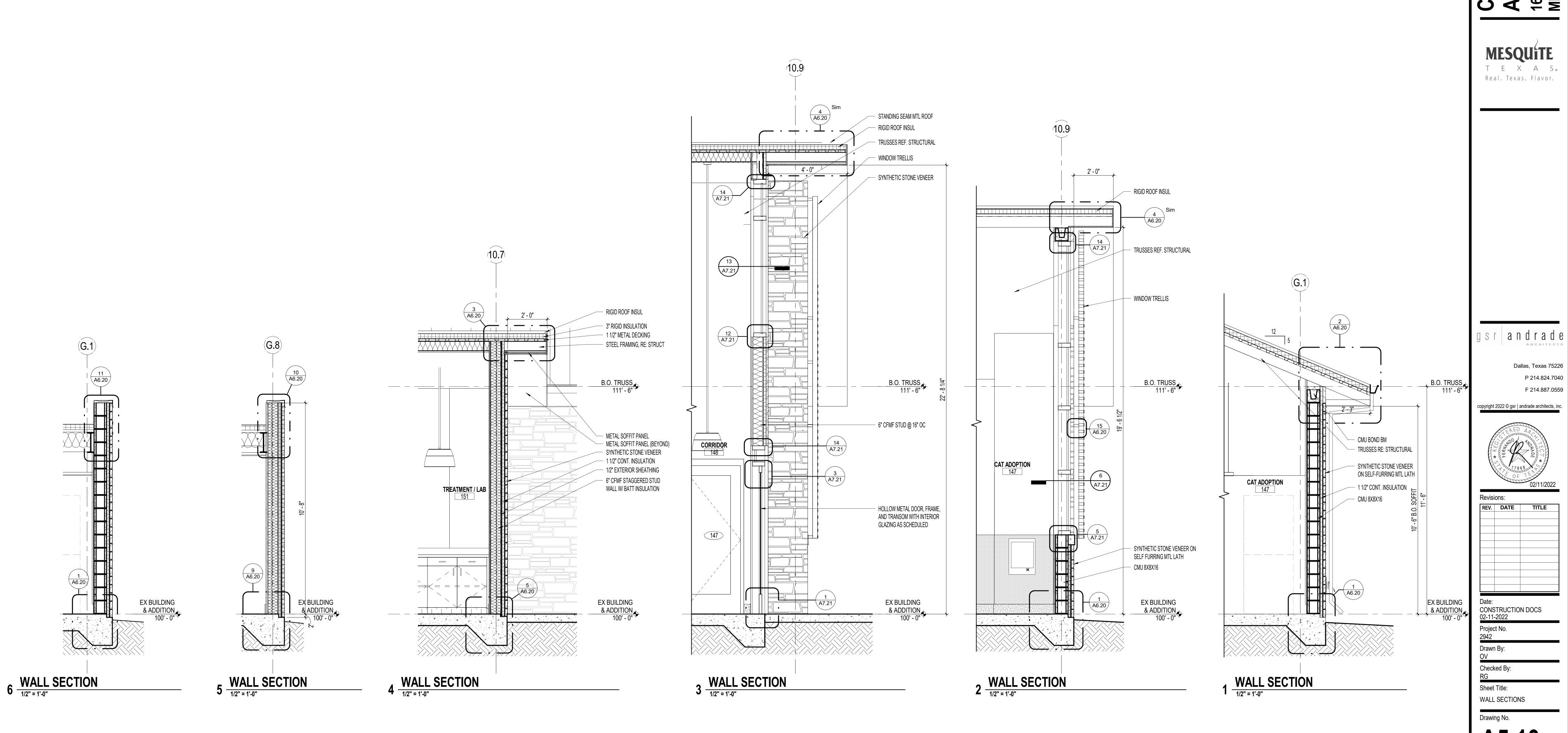
INSTALL NEW FURRING WALL TO UNDERSIDE OF DECKING

2 LOBBY BUILDING SECTION

1 LOBBY BUILDING SECTION

1/4" = 1'-0"

KEYNOTE LEGEND NUMBER DESCRIPTION



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REV. DATE TITLE

A5.10

# 1" EXPANSION JOINT SEALANTFIBER EXPANSION JOINT FILLER 5/8" CEMENT BOARD1/2" FURRING CHANNEL EXISTING CONSTRUCTION

7 **PLAN DETAIL** 3" = 1'-0"

FLUID APPLIED MOISTURE BARRIER

NEW FEILD STONE VENEER -

CONT. FLEXIBLE EXPANSION
JOINT MEMBRANE

1" EXPANSION JOINT SEALANT

ADJUSTABLE WALL ANCHOR -

8" CMU WALL

5/8" CEMENT BOARD —

1/2" FURRING CHANNEL

PLAN DETAIL

3" = 1'-0"

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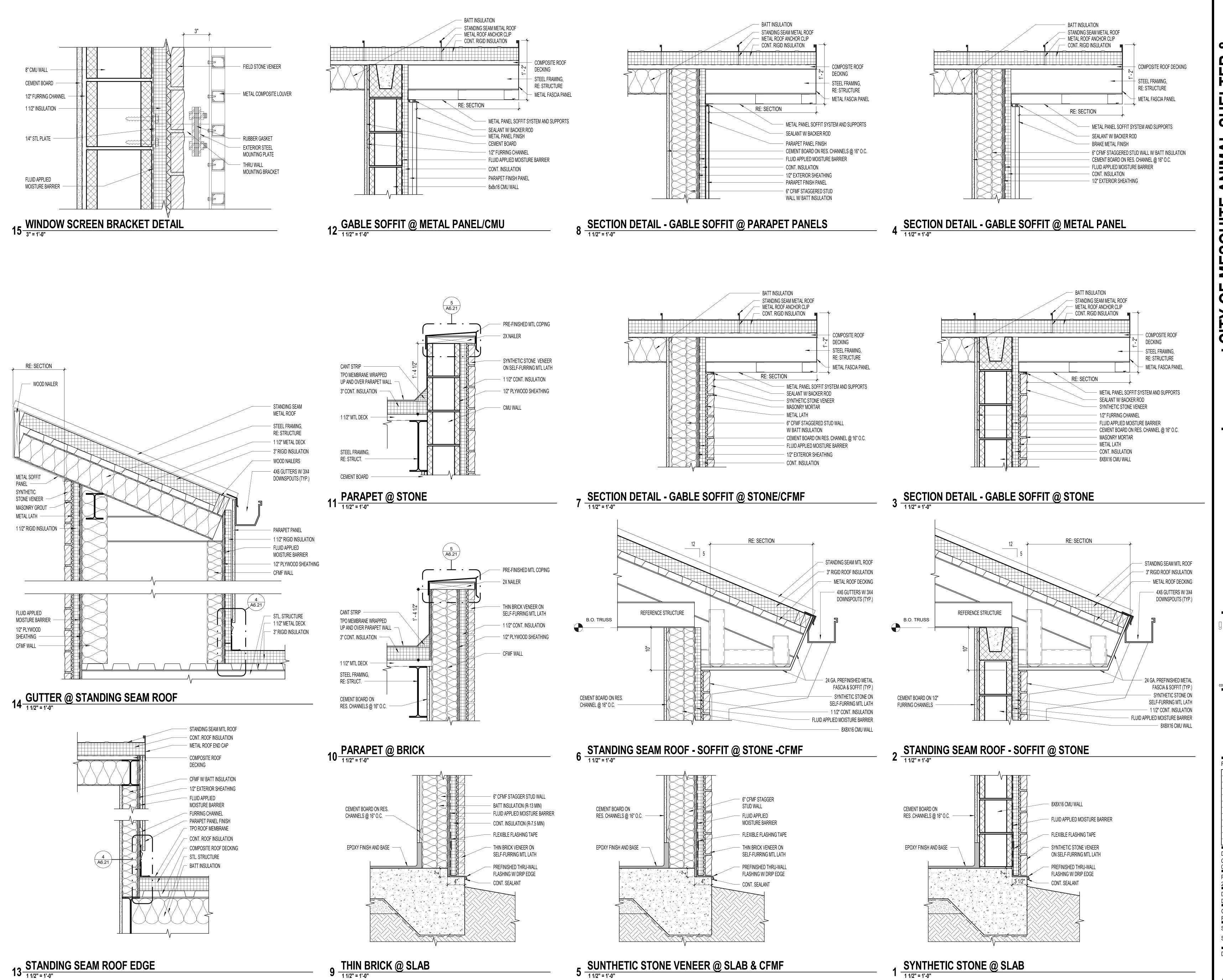
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Drawing No. A6.00



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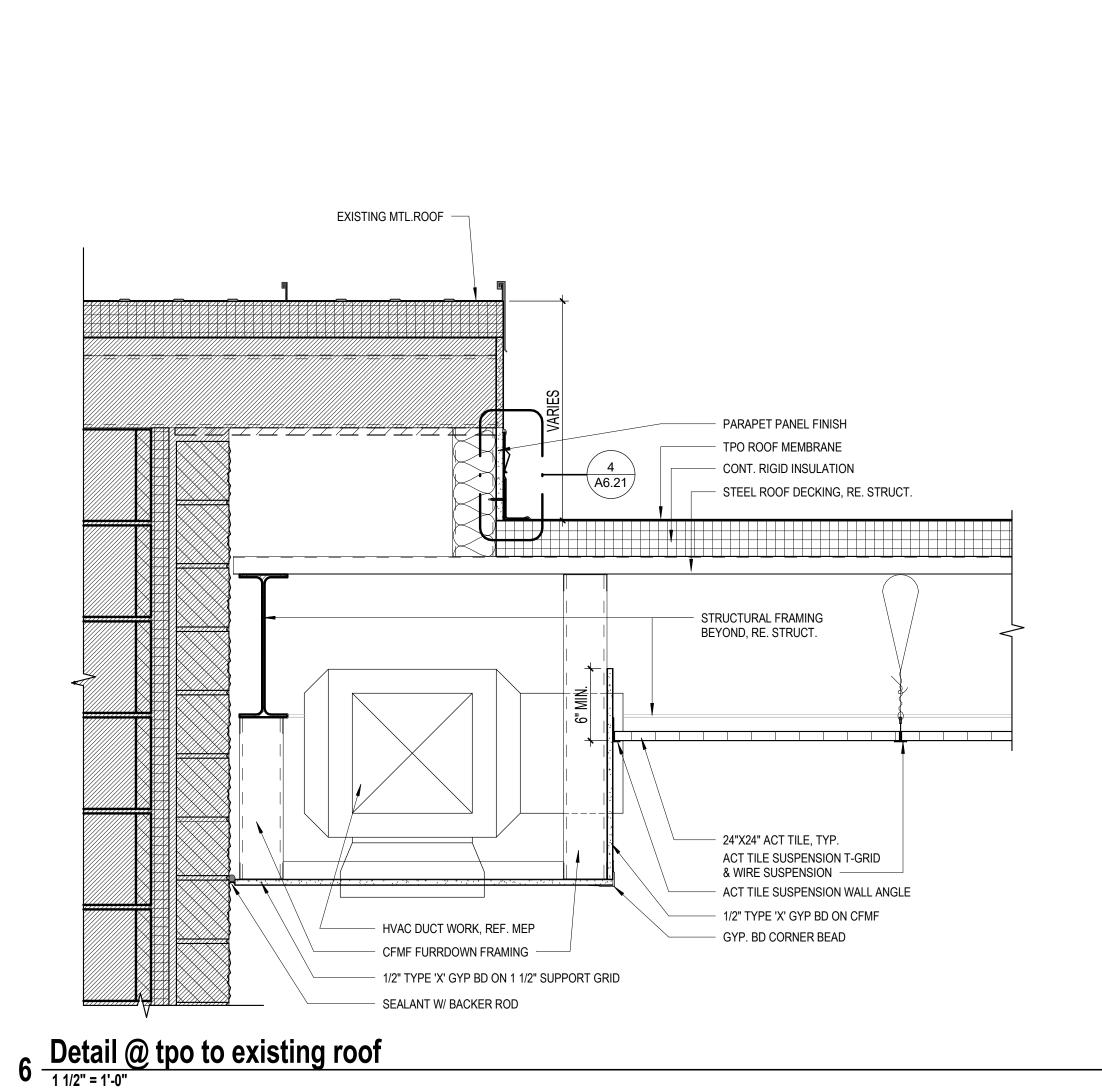
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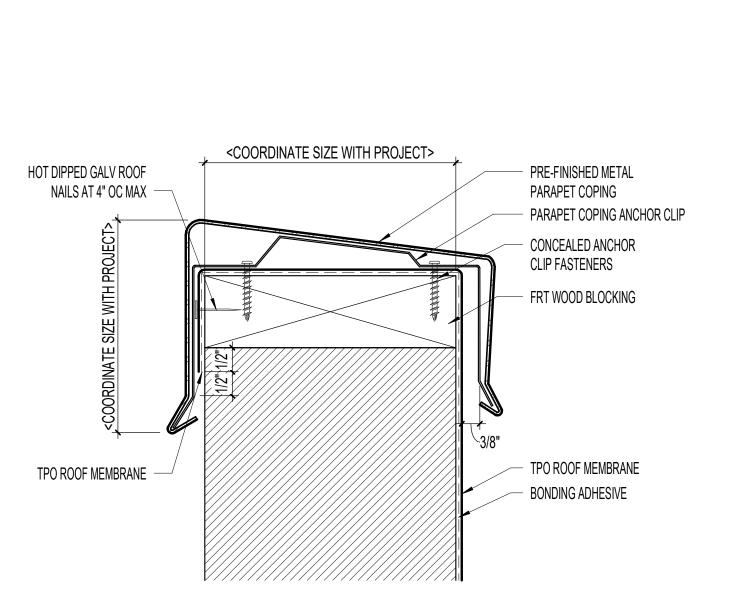
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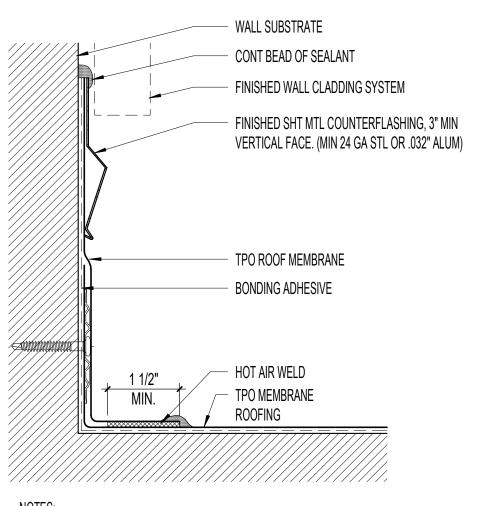
Sheet Title: SECTION DETAILS

Drawing No. A6.20





# 5 TPO - PARAPET CAP DETAIL 6" = 1'-0"

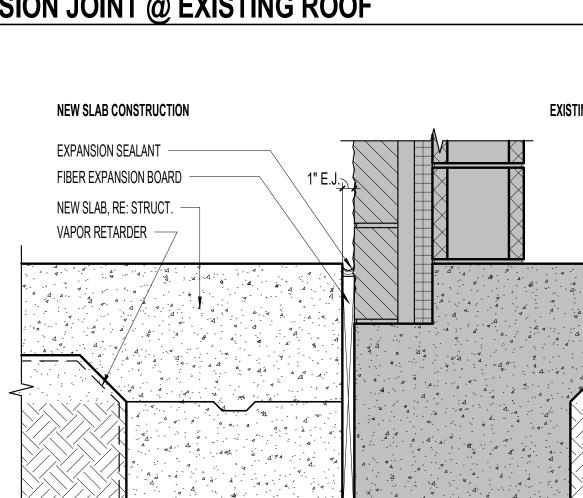


NOTES: 1. WHEN TERMINATION BAR IS USED, ADHESIVE MAY BE ELIMINATED WHEN FLASHING HEIGHT IS 18" OR LESS.

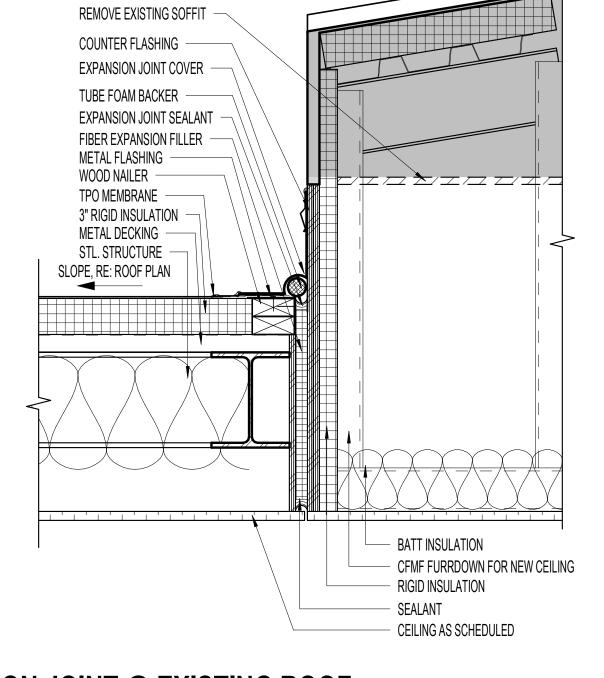
2. HP-X FASTENERS AND PIRANHA PLATES (OR HP-XTRA FASTENERS AND PIRANHA XTRA PLATES) ARE REQUIRED OVER STL AND WD DECKS.

3. FASTENING PLATES CAN BE INSTALLED VERTICALLY.

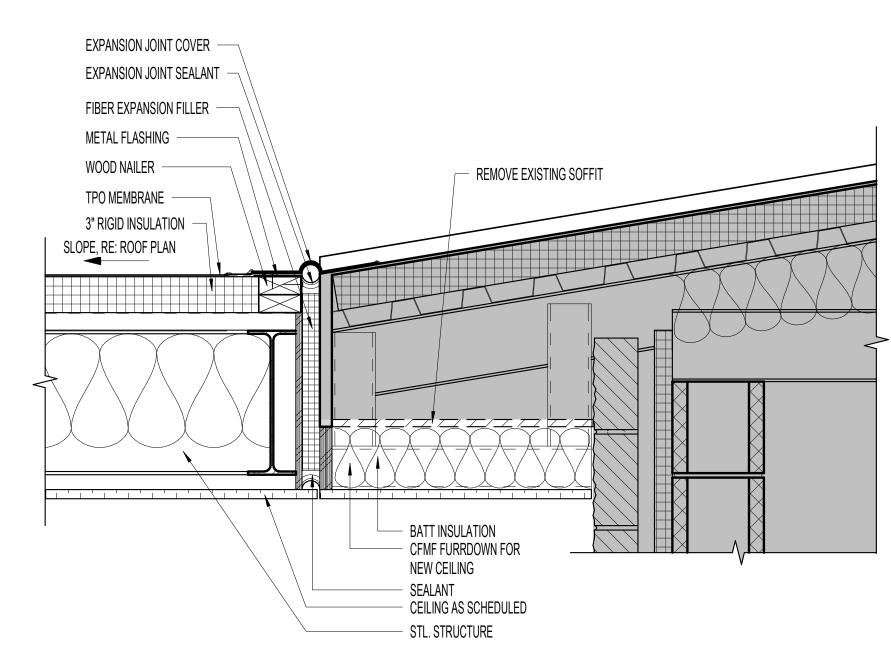
4 TPO - COUNTERFLASHING
6" = 1'-0"



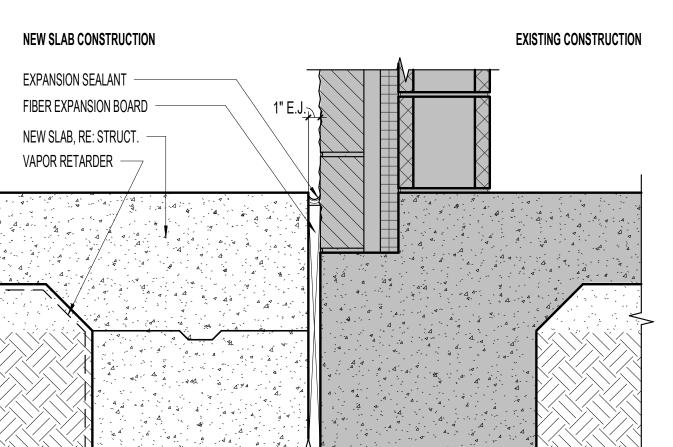
1 EXPANSION JOINT @ SLAB



# 3 EXPANSION JOINT @ EXISTING ROOF



# 2 EXPANSION JOINT @ EXISTING ROOF



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SECTION DETAILS

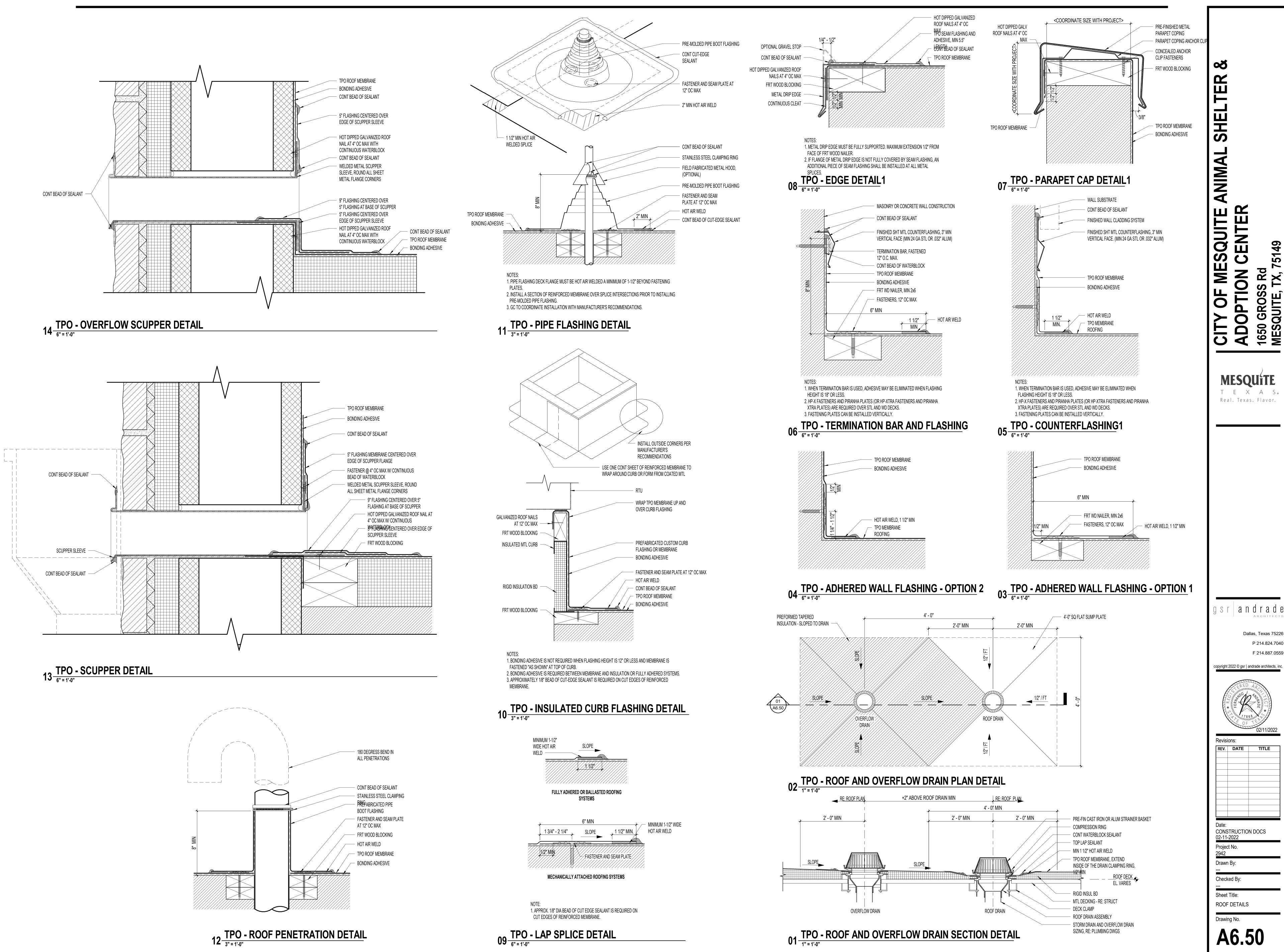
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Drawing No. A6.21



A6.50

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# TYPICAL PARTITION NOTES NOT ALL PARTITIONS SHOWN ON THIS SCHEDULE ARE USED IN THE CURRENT ISSUE. REFER TO PLANS FOR SPECIFIC PARTITIONS USED. ALL PARTITION TYPES ARE DESIGNATED ON THE PLAN BY SYMBOL UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR FRAMING GUAGES AND SPACING. ALL GYPSUM BOARD SHALL BE 5/8" TYPE "X" UNLESS NOTED OTHERWISE. THICKNESS OF FIRE-RATED AND NON-FIRE-RATED SOUND ATTENUATING BATT INSULATION SHALL MATCH THE THICKNESS OF THE FRAMING IN WHICH IT IS INSTALLED. PROVIDE ONE LAYER OF CEMENTITIOUS WALL BOARD AT PARTITIONS BEHIND PLUMBING FIXTURES. MOISTURE RESISTANT GYPSUM BOARD SHALL BE INSTALLED IN PARTITIONS PERPENDICULAR TO PLUMBING FIXTURE WALL WITHIN 2'-0" OF THE INTERSECTION. CERAMIC TILE SHALL BE INSTALLED ON 5/8" CEMENTITIOUS WALL BOARD. CEMENTITIOUS WALL BOARD SHALL BE PROVIDED IN LIEU OF THE OUTER LAYER OF GYPSUM BOARD IN NON FIRE-RATED PARTITIONS CEMENTITIOUS WALL BOARD SHALL BE PROVIDED OVER THE SCHEDULED PARTITION ASSEMBLY IF FIRE-RATED. ALL PARTITIONS EXTEND TO BOTTOM OF STRUCTURE UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS FOR SEALANT TYPES AND USAGE LOCATIONS. ALL FRAMING IS 16" ON CENTER UNLESS NOTED OTHERWISE. REFER TO SECTION 078413-3.5 FOR PENETRATION FIRESTOPPING SCHEDULE. PROVIDE SMOKE AND FIRE DAMPER AT RATED AND SMOKE PARTITION AS REQUIRED. ALL FIRE-RATED AND SMOKE-RATED PARTITIONS SHALL BE IDENTIFIED AS SUCH WITH A LABEL AFFIXED 1

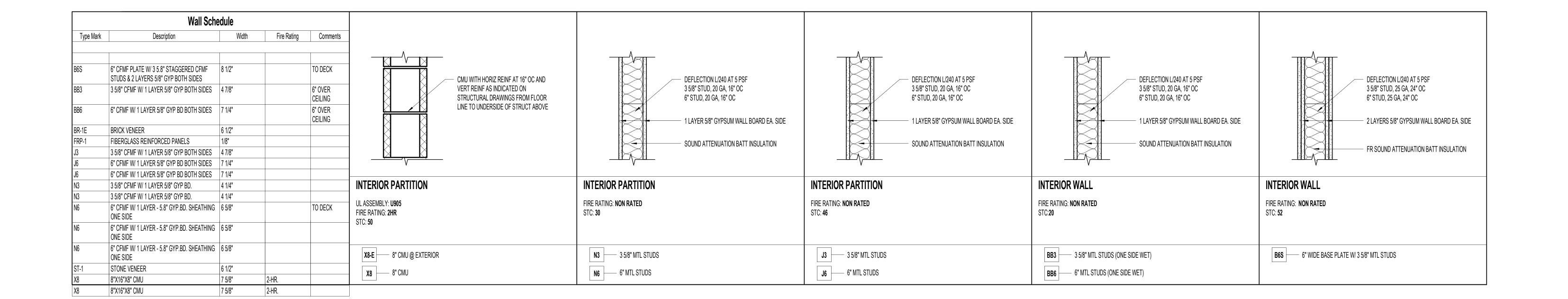
AT THE INTERSECTION OF PARTITIONS, THE HIGHEST RATED PARTITION SHALL BE CONTINUOUS.

FOR TYPICAL PARTITION CONDITIONS AND SECTIONS, REFER TO PARTITION TYPES SCHEDULE.

FIRE AND SMOKE RESISTANCE RATINGS ARE TO CONTINUE ABOVE ALL OPENINGS IN RATED PARTITIONS.

WALL TYPE DESIGNATIONS: X#I - IMPACT GYPSUM BOARD X#S - WALL BUILT TO LIMIT THE PASSAGE OF SMOKE X#W - WOOD STUDS IN LIEU OF METAL

ABOVE THE CEILING OR 10'-0" AFF.



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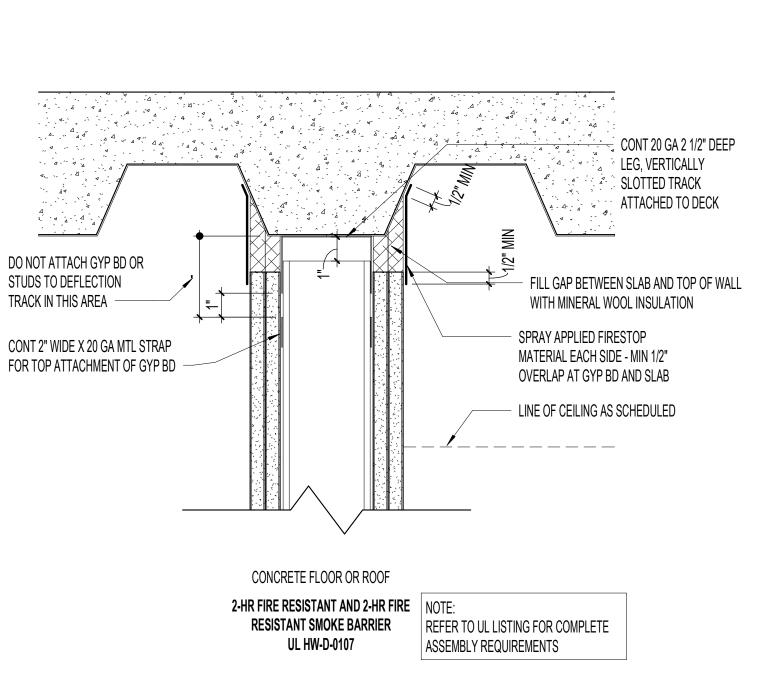


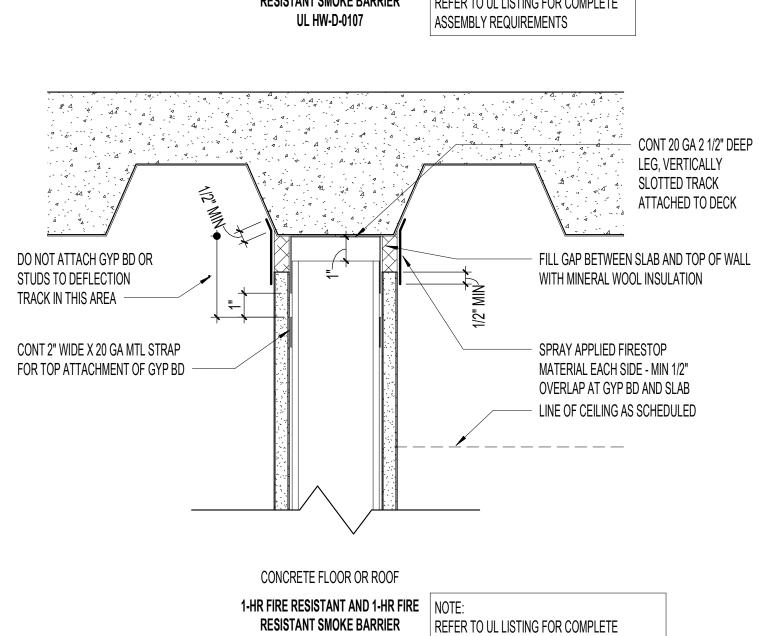
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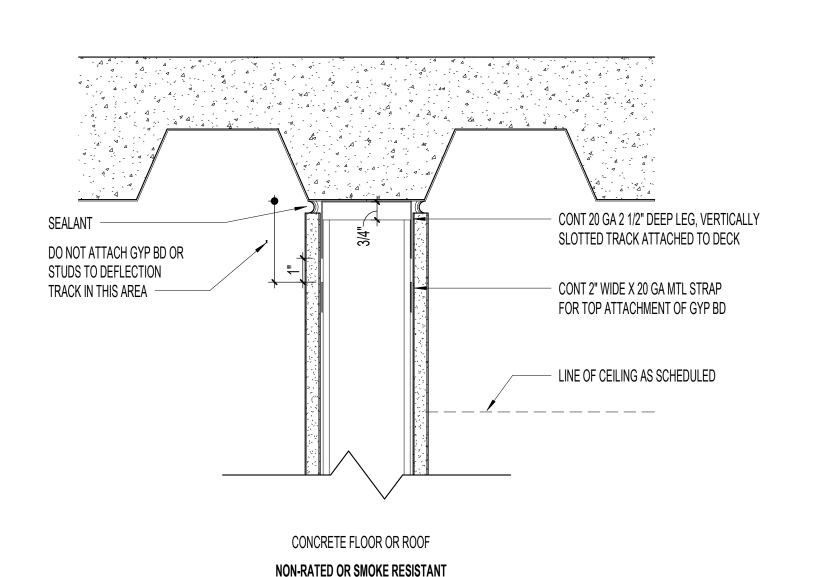
CONSTRUCTION DOCS 02-11-2022 Project No. Drawn By: Checked By:

Sheet Title: PARTITION TYPES

Drawing No.

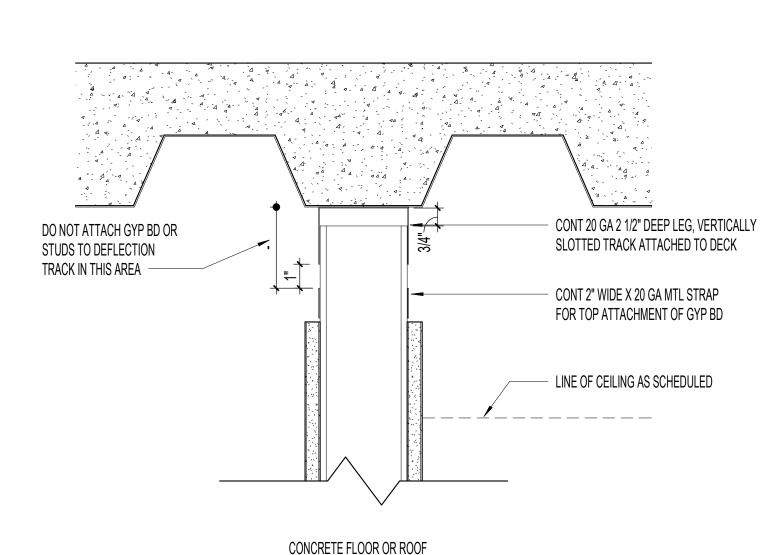




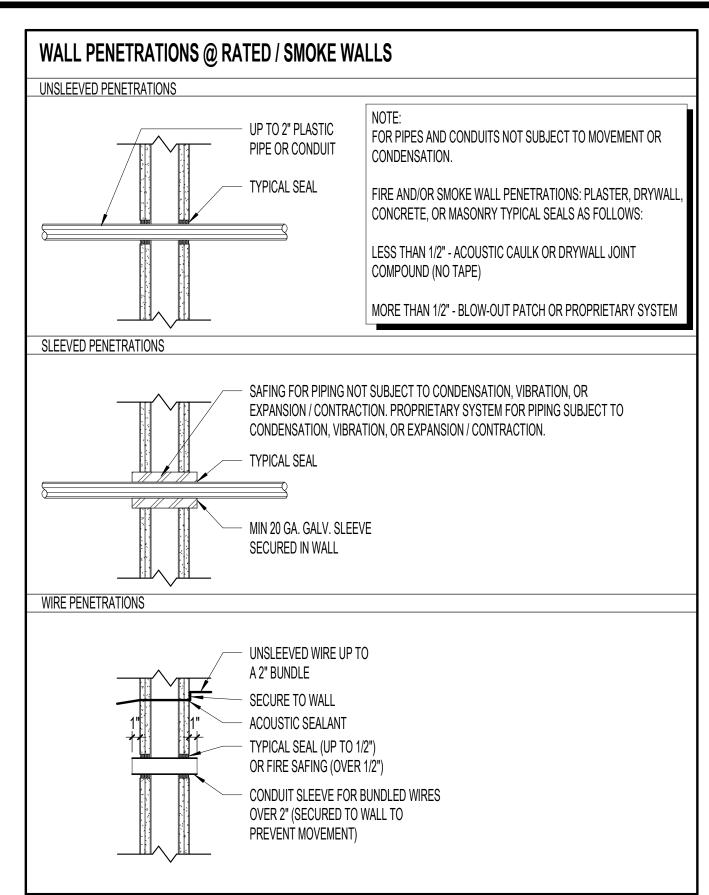


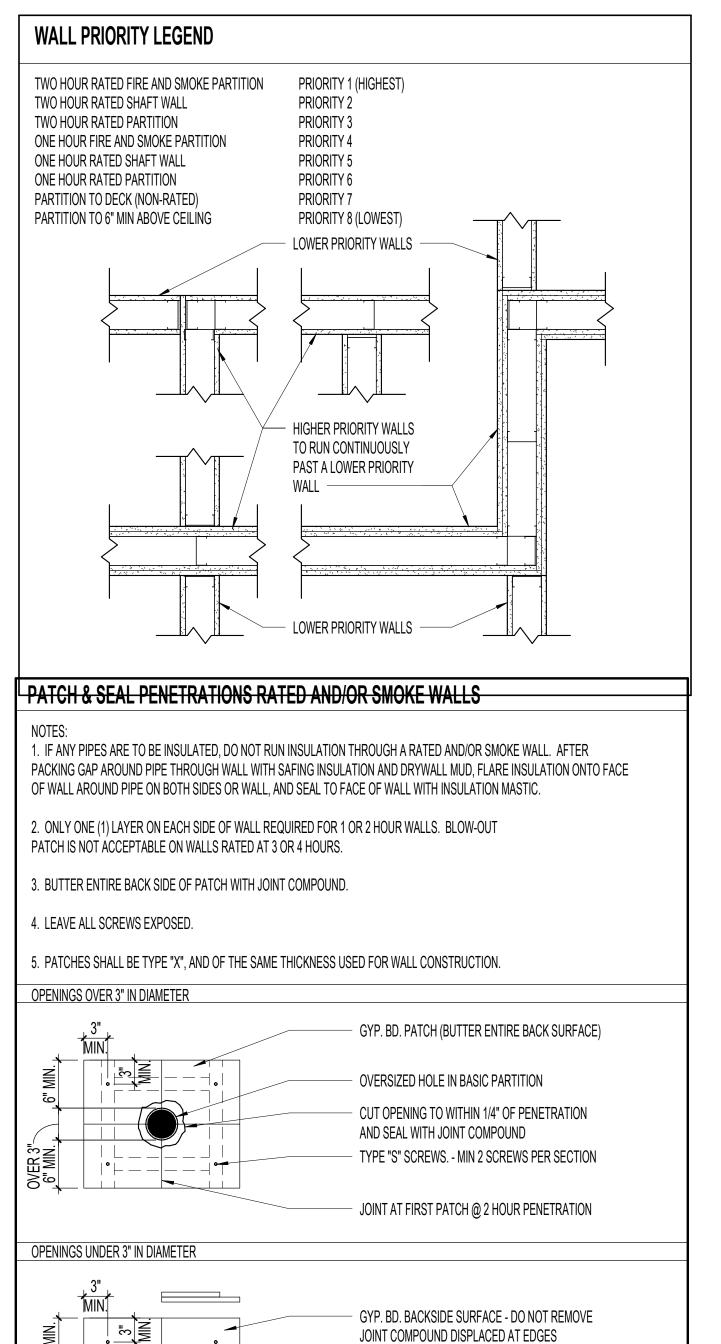
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ASSEMBLY REQUIREMENTS







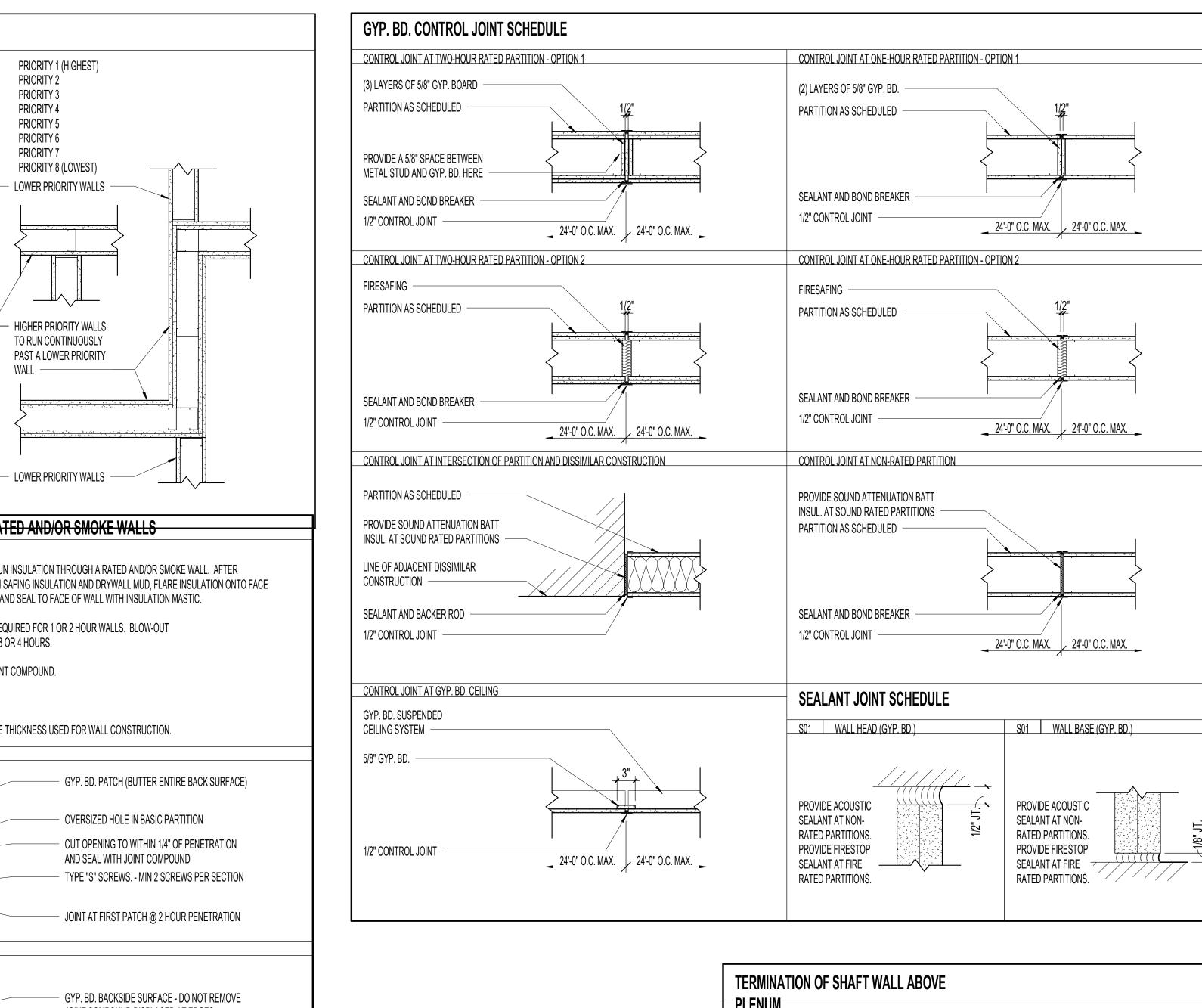


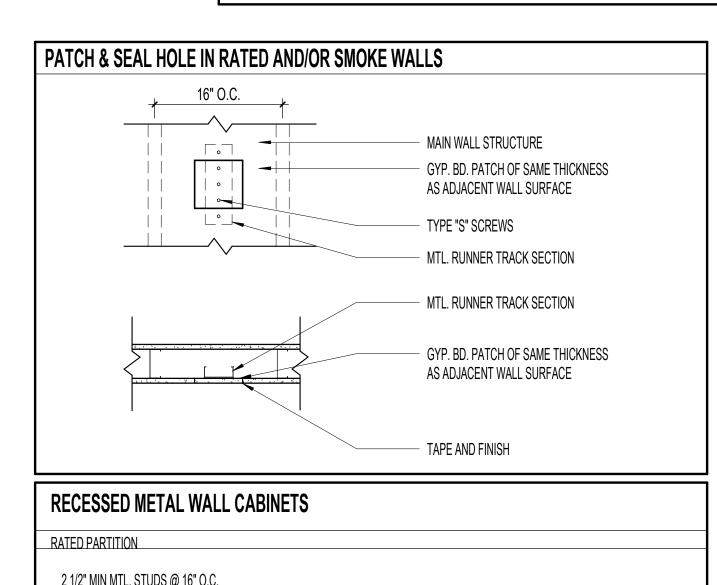
OVERSIZED HOLE IN BASIC PARTITION

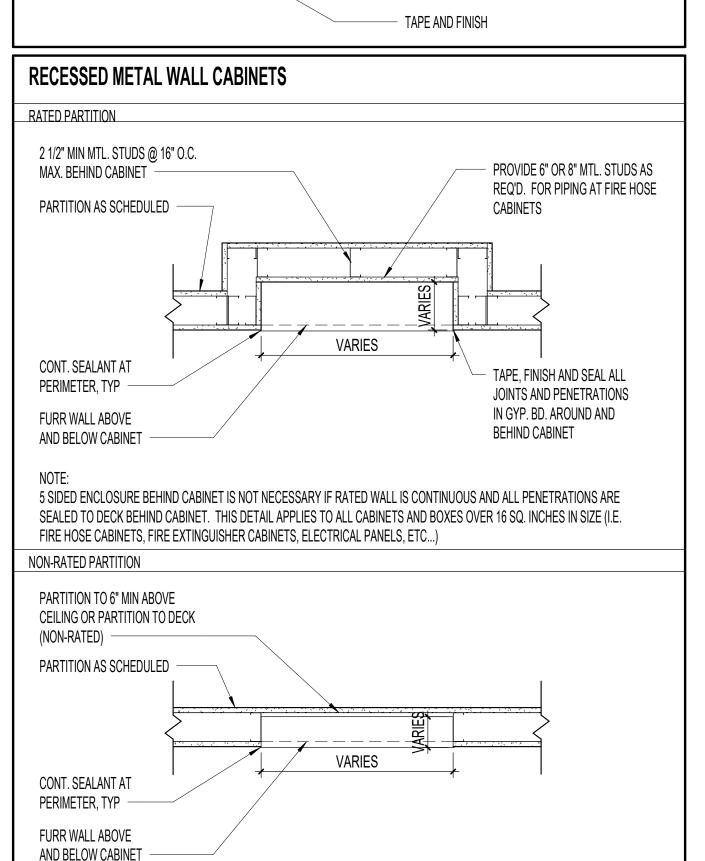
AND SEAL WITH JOINT COMPOUND

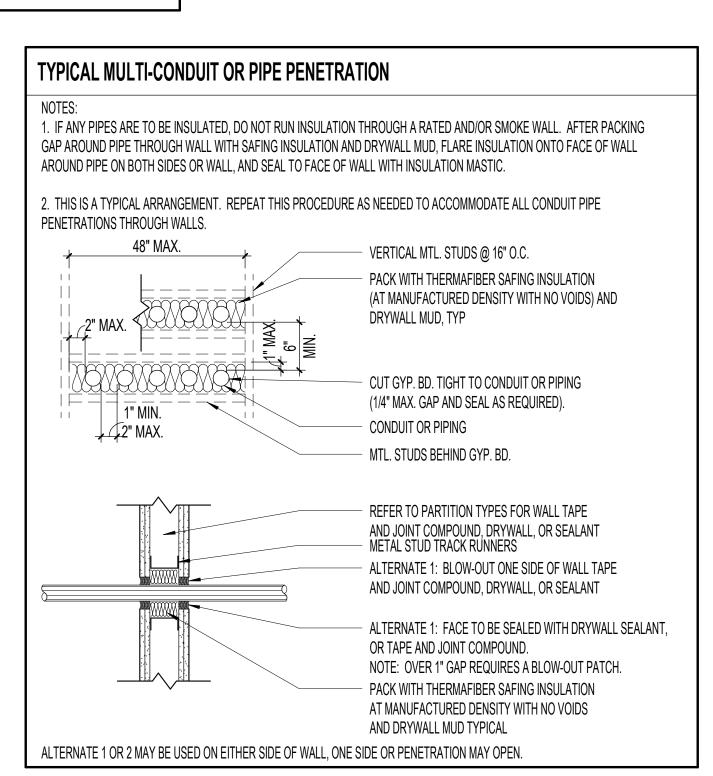
CUT OPENING WITHIN 1/4" OF PENETRATION

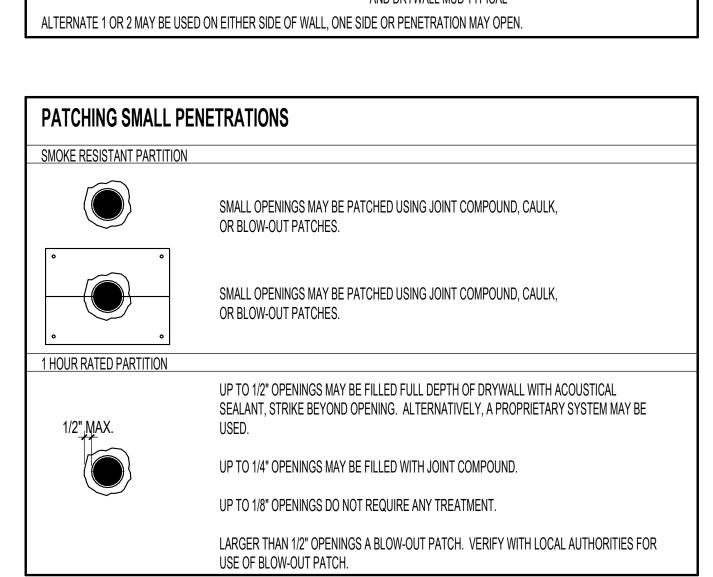
TYPE "S" SCREWS - MIN 2 SCREWS PER SECTION

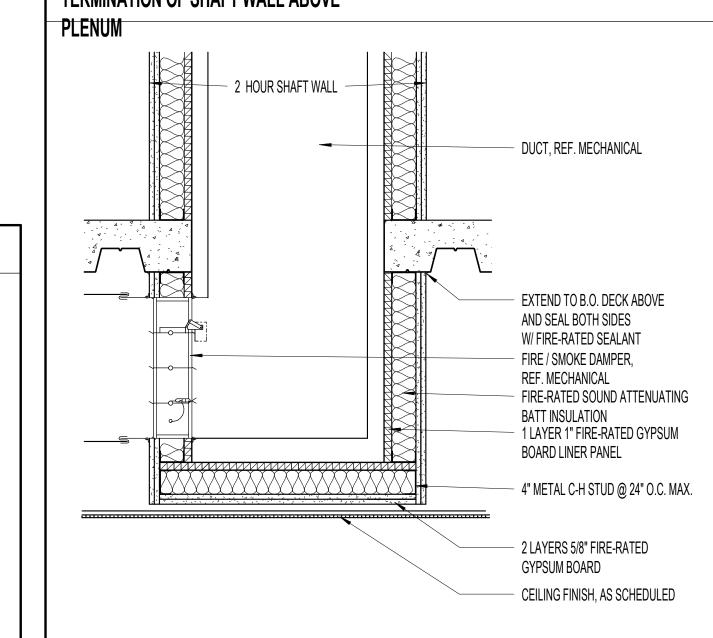


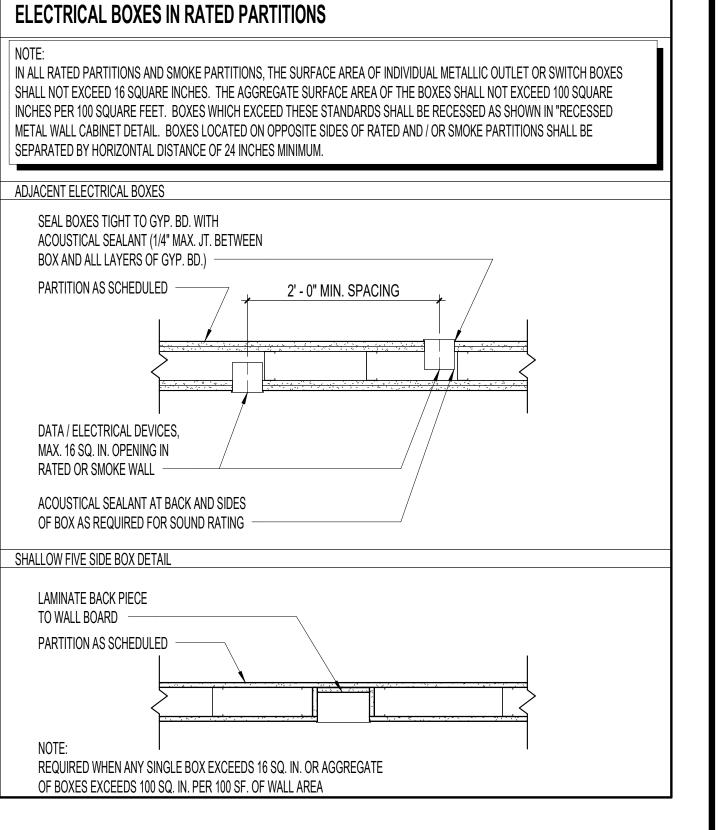














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Drawing No.

PARTITION DETAILS

CONSTRUCTION DOCS

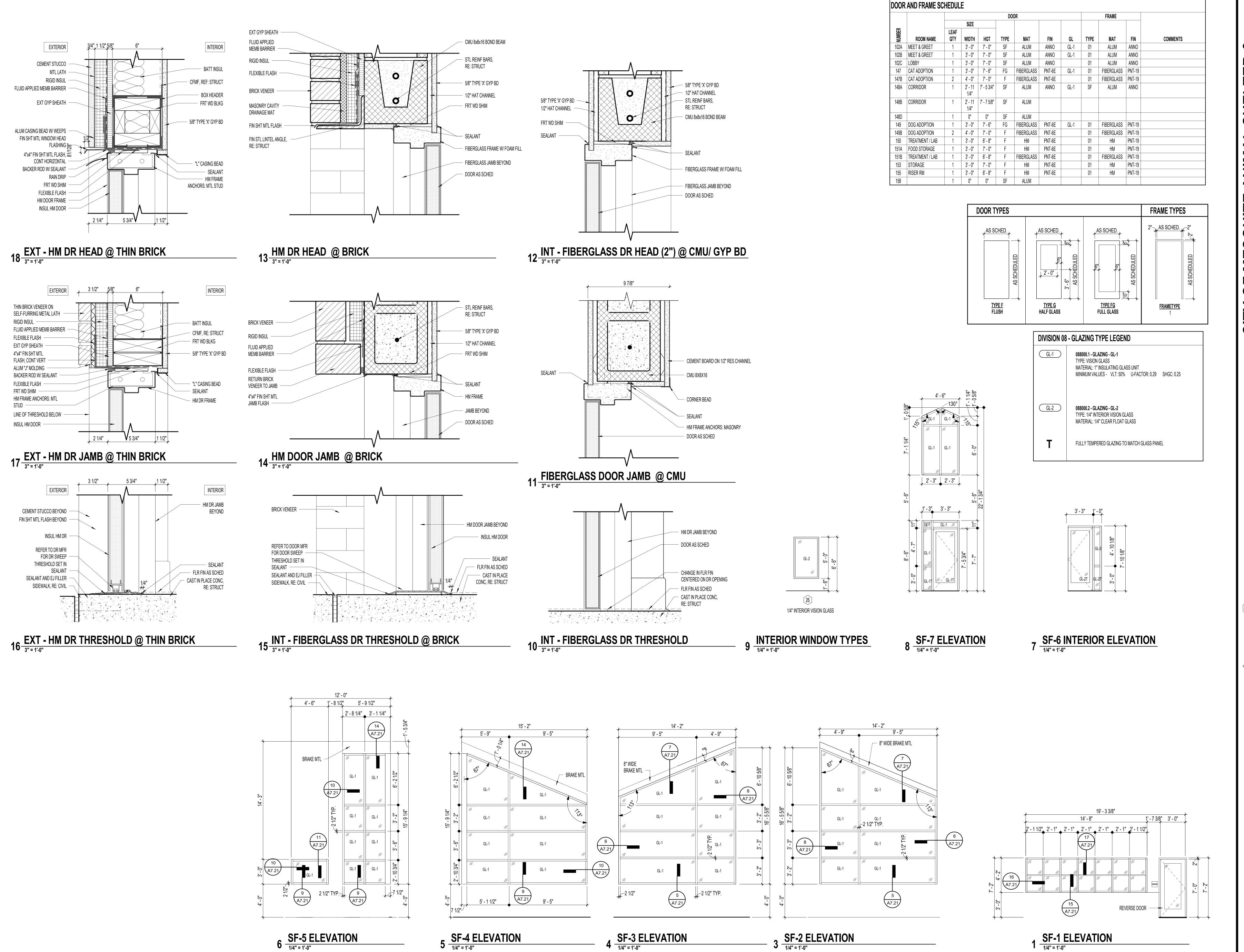
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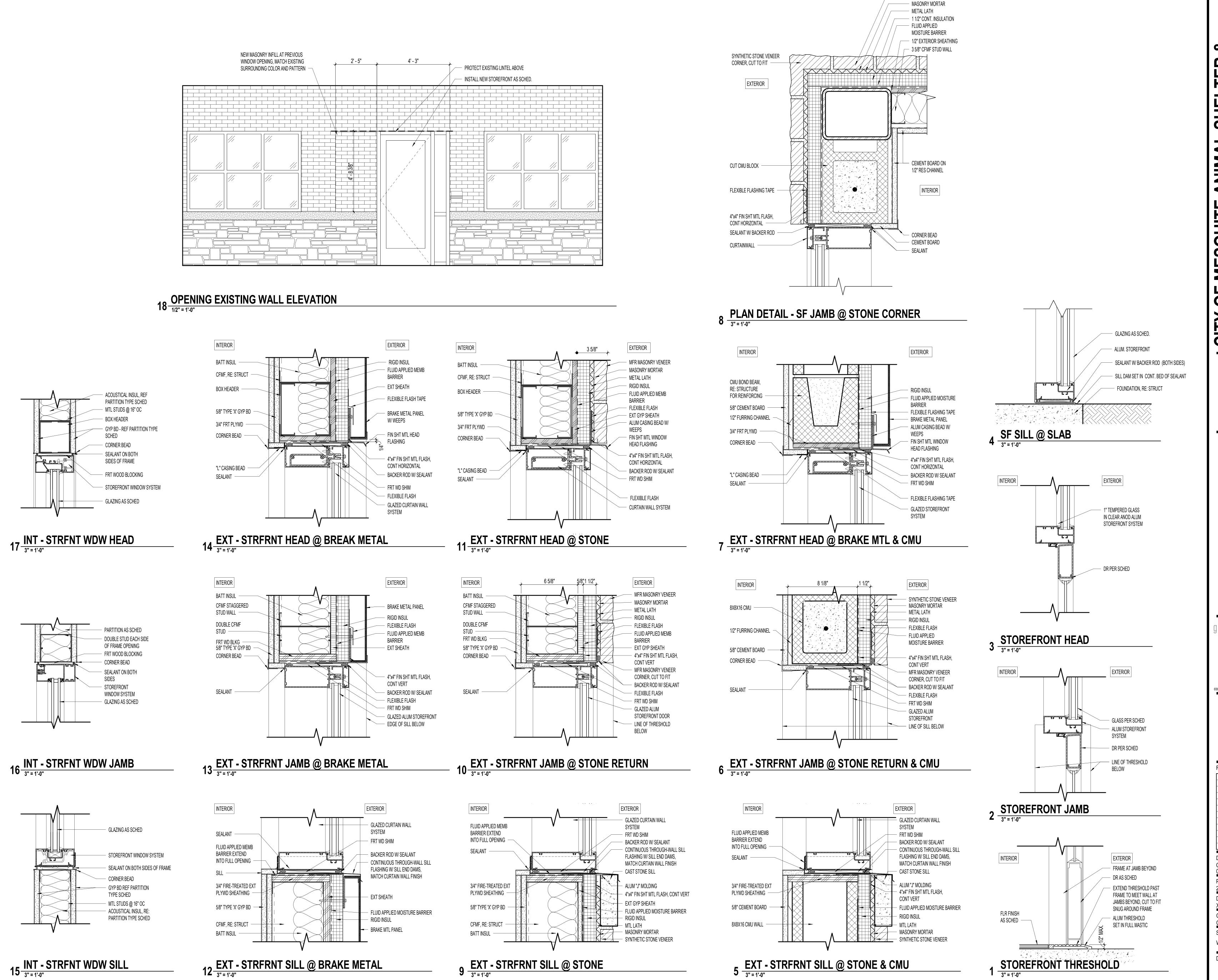
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02-11-2022
Project No.
2942
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Project No. 2942 Drawn By: DW, OV Checked By: RG

Sheet Title:
DOOR / WINDOW SCHEDULE
& DETAILS

Drawing No.

A7.10



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SYNTHETIC STONE VENEER

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Sheet Title:
WINDOW DETAILS

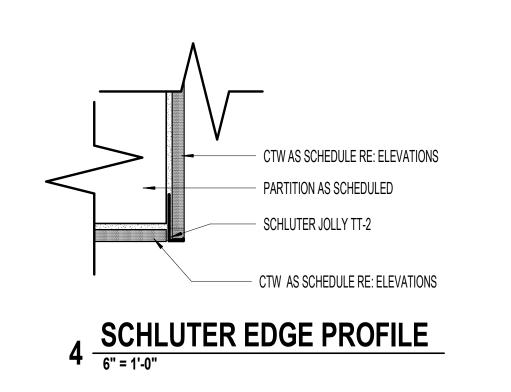
Drawing No.

A7.21

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SIGN	SCHEDULE					SIGNAGE NOTES
MARK	ROOM NAME	SIGN NUMBER	SIGN TEXT	BRAILLE	COMMENTS	
						1. CONTRACTOR TO VERIFY ALL SIGN INFORMATION AND FINISHES WITH ARCHITECT AND OWNER PRIOR
102	LOBBY	102	MEET & GREET	Yes	SIGNAGE	TO FABRICATION.
102A	NEW CORRIDOR	102A	MEET & GREET 1	Yes	SIGNAGE	2. INTERIOR FINISHES:
102B	NEW CORRIDOR	102B	MEET & GREET 2	Yes	SIGNAGE	ALUMINUM WITH RAISED COPY AND BRAILLE
147	CORRIDOR	147	CAT ADOPTION	Yes	SIGNAGE	SIGN BACKGROUND: GRAY
148	CORRIDOR	148	ADOPTION CORRIDOR	Yes	SIGNAGE	• FONT: CALIBRI, COLOR: BLACK
149	CORRIDOR	149	DOG ADOPTION	Yes	SIGNAGE	3. ALL INTERIOR SIGNS TO BE VANDAL RESISTANT, FLUSH MOUNTED, AND BLIND FASTENED TO THE
150	TREATMENT / LAB	150	ELECTRICAL RM	Yes	SIGNAGE	FACE OF FINISHED WALL.
151A	FOOD STORAGE	151	TREATMENT / LAB	Yes	SIGNAGE	
151B	DOG ADOPTION	151	TREATMENT / LAB	Yes	SIGNAGE	4. VERIFY NUMBERS OF PERSONS FOR MAXIMUM OCCUPANCY WITH ARCHITECT AND OWNER PRIOR TO
153	FOOD STORAGE	153	FOOD STORAGE	Yes	SIGNAGE	FABRICATION OF SIGNS.
						5. BASIS OF DESIGN: GEMINI SIGN PRODUCTS
						6. REFER TO FLOOR PLANS AND INTERIOR ELEVATIONS FOR SIGNAGE LOCATIONS.
						7. SIGNAGE FINISHES, TEXT, AND SIZES SHALL BE CONSISTENT WITH EXISTING SIGNAGE THROUGHOUT THE BUILDING. VERIFY DIMENSIONS OF EXISTING SIGNAGE AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.

8. VERIFY ALL SIGN VERBIAGE WITH OWNER AND BUILDING FACILITY MANAGEMENT PRIOR TO PRODUCTION.



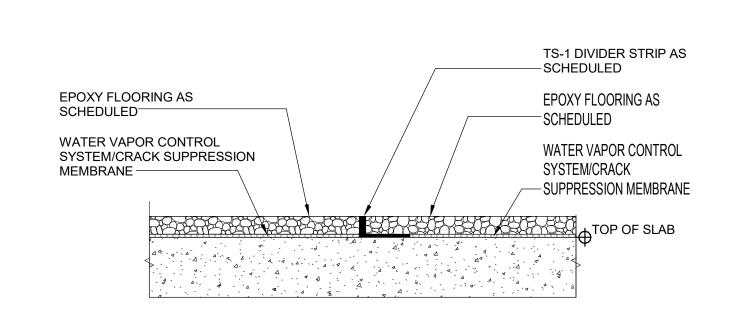
— CTW AS SCHEDULE RE: ELEVATIONS

SCHLUTER - DILEX-AHK COVE BASED PROFILE SB-1

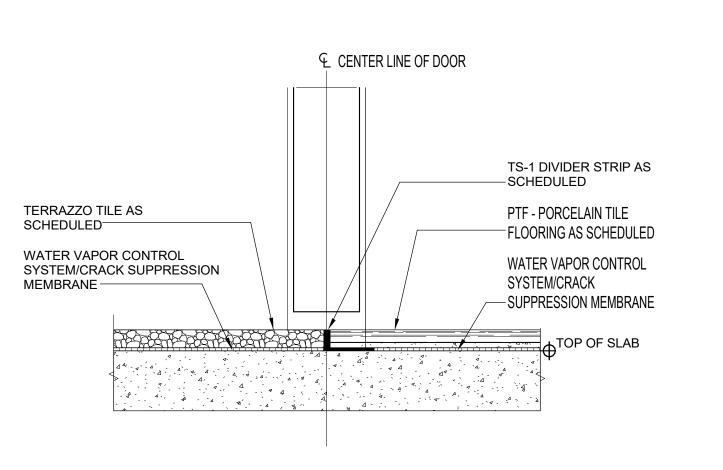
- PARTITION AS SCHEDULED

TILE FLOORING AS SCHEDULED

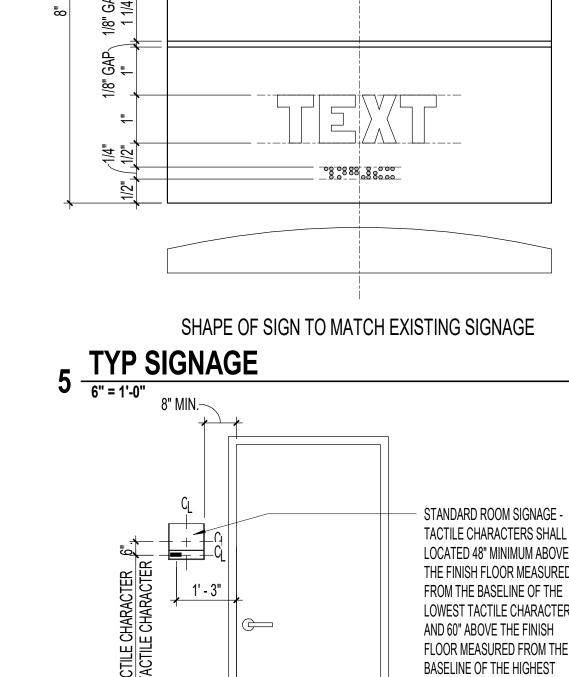
3 SCHLUTER COVED BASE PROFILE







1 EPOXY FLOORING TO PORCELAIN TILE



SIGN MOUNTING DETAIL

TACTILE CHARACTERS SHALL BE LOCATED 48" MINIMUM ABOVE THE FINISH FLOOR MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER 48" MIN. B.O. TACTILE CHARA 60" MAX TO T.O. TACTILE CHAF FLOOR MEASURED FROM THE TACTILE CHARACTER, TYPICAL.

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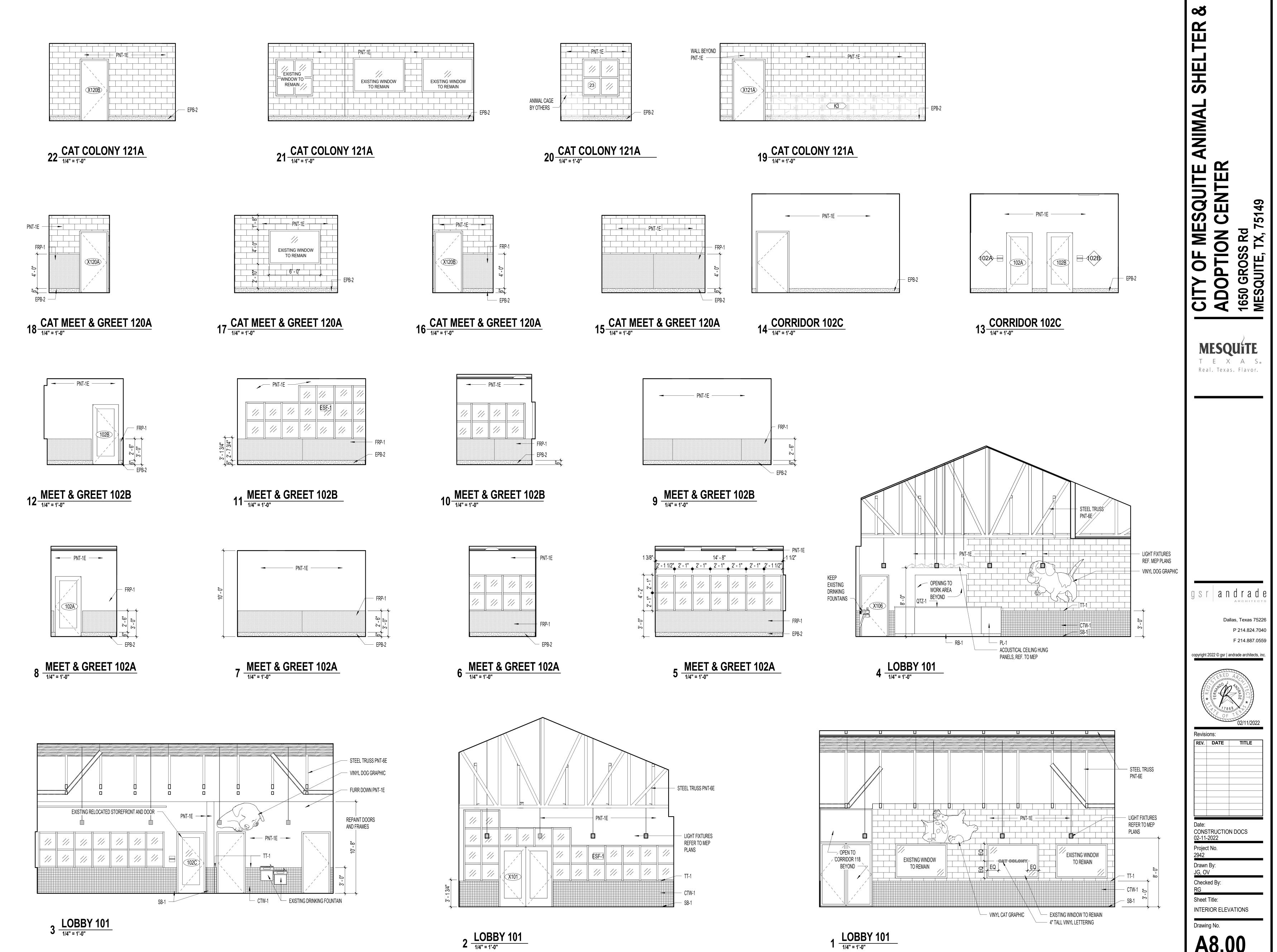
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Drawing No.

INTERIOR FINISH DETAILS & SIGNAGE SCHEDULE



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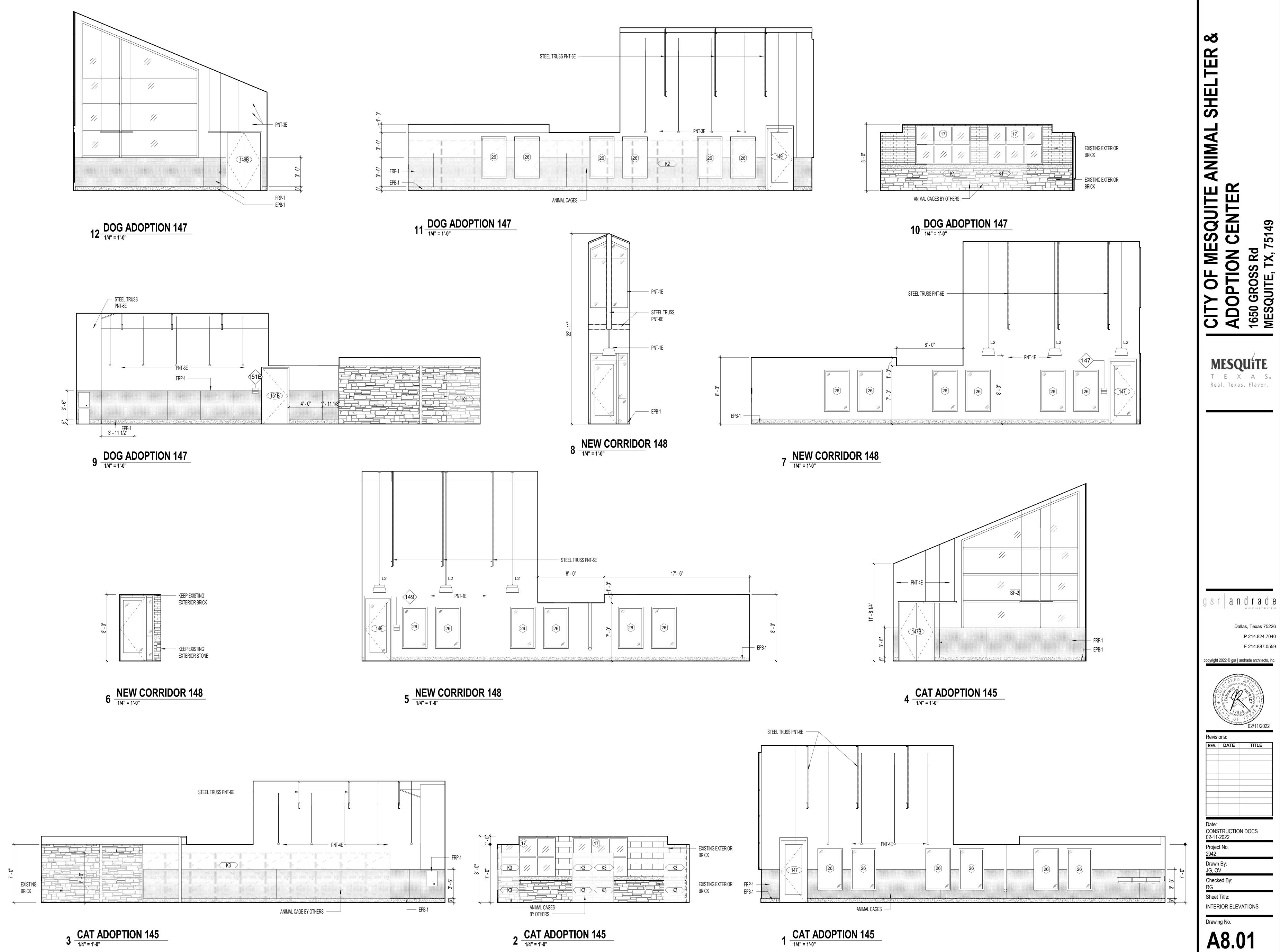
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INTERIOR ELEVATIONS Drawing No. **A8.00** 



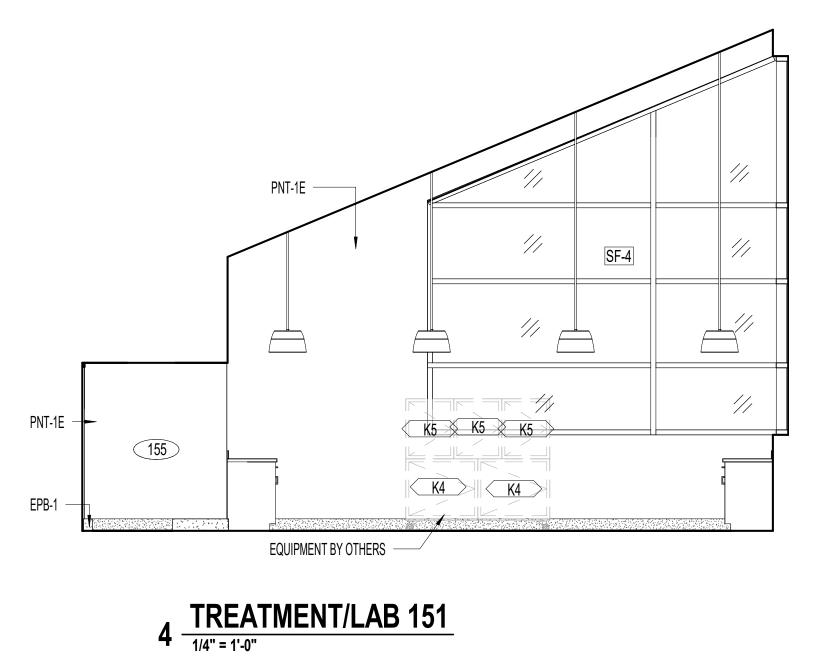
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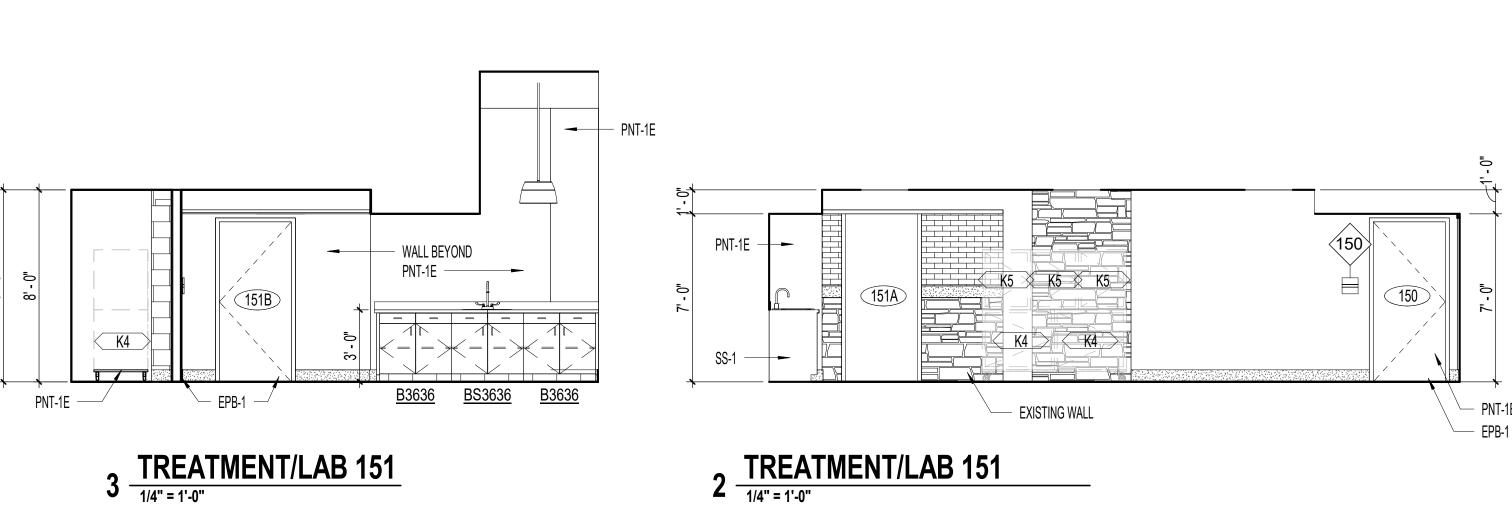
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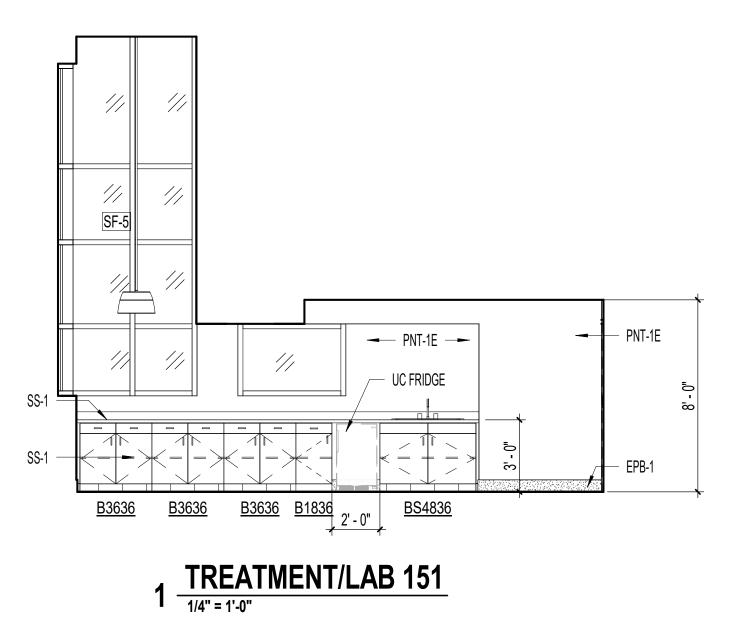
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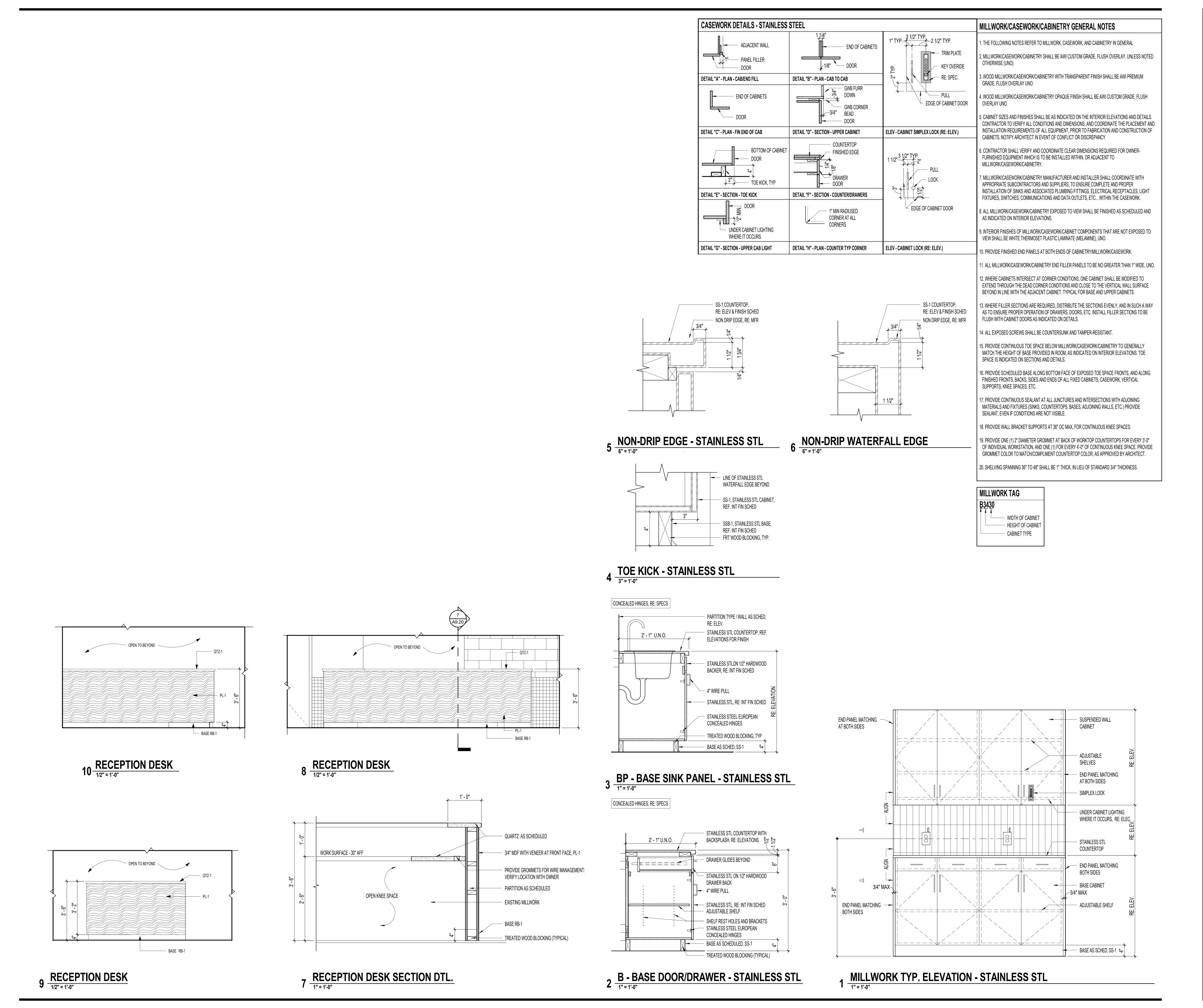
6 FOOD STORAGE 133

5 **FOOD STORAGE 133** 









8 SHELTER ANIMAL QUITE S **M P** 

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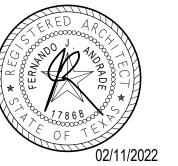
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Drawing No.

MILLWORK TYPES AND

DETAILS

A9.20

Strength psi Agg. Agg. Slump Max Air

Type Size Inches w/c Content

3-5

----

0.45 6%

0.45 6%

All concrete shall conform to the requirements as specified in the table below, unless noted

1. "NWT" refers to normal concrete having air dry unit weight of approximately 145 PCF

2. Where the w/c ratio is not indicated in the table above, it shall be as necessary to meet

3. Where the w/c ratio is shown, it shall be adhered to regardless of strength requirements.

4. "Strength" is required compressive cylinder strength at an age of 28 days.

D. Provide 6 percent plus or minus 1 1/2 percent of entrained air in concrete permanently

B. A maximum of 20% of the cementitious materials used in mix designs may be replaced with

E. Horizontal construction joints in concrete placements shall be permitted only where indicated

on the Structural Drawings. All vertical construction joints shall be made in the center of

construction joints not shown on the Structural Drawings for review by the Architect and

Engineer. Additional construction joints may require additional reinforcing as specified by

2. Conduits, pipes and sleeves shall not be spaced closer than three diameters or widths

3. Form material shall be designed to lose its strength under prolonged contact with the

spans in accordance with the typical details. Contractor shall submit proposed locations for

4500 NWT 1"

4500 NWT 1"

3000 NWT 1"

a. W-shapes shall conform to ASTM A992. b. Channels shall conform to ASTM A36.

c. Angles shall conform to ASTM A36. d. Square or rectangular hollow structural shape members shall conform to ASTM A500, Grade C, Fy = 50 ksi.e. Structural steel plate shall conform to ASTM A36.

f. Any other steel shall conform to ASTM A36. g. Headed stud shear connectors shall conform to ASTM A108. B. Fabrication

1. Splicing of structural steel members is prohibited without prior approval of the Engineer as to location and type of splice to be made. Any member having splice not shown and detailed on shop drawings will be rejected. C. Erection

1. Erection tolerances of anchor bolts, embedded items, and all structural steel unless specified otherwise on the Structural Drawings shall conform to the AISC Code of Standard Practice.

2. Field cutting of structural steel or any field modifications to structural steel shall not be made without prior approval of the Engineer 3. Contractor shall protect any unprimed structural steel from detrimental effects of corrosion, as required, until the steel is enclosed and protected by the new

4. Hot dip galvanize after fabrication all structural steel items and connections permanently exposed to the weather, whether specified on the Structural Drawings or not. Such items include, but are not limited to:

 a. Shelf angles b. Parapet wall supporting members c. Window washing support members

d. All embedded plates in concrete e. Building cladding support steel in space not air conditioned and/or exposed to moisture outside the exterior waterproofing surface if any.

f. Railing exposed to weather. g. Examine the Architectural and Structural Drawings for other items required to be hot dipped galvanized. Galvanize all nuts, bolts, and washers used in connection with such steel. Field welded connections shall have welds protected with "Z.R.C. Cold Galvanizing Compound" as manufactured by Z.R.C. Company.

D. Contractor shall coordinate structural steel fireproofing requirements. All interior structural steel, including steel joists, scheduled or indicated to receive spray applied fireproofing shall be delivered to the project site unprimed. Steel exposed to corrosive conditions after installation shall be primed with a protective coating which does not diminish the bond between the spray applied fireproofing, and the steel substrate. Any primer, and/or coating applied to structural steel shall be approved for use in the applicable U.L. Fire Resistance Assembly used on the

STRUCTURAL STEEL CONNECTIONS

A. Welded Connections All welding shall conform to ANSI/AWS D1.1, latest edition. Minimum fillet weld size to be 3/16 inch or minimum size required by AISC, whichever is larger.

B. Bolted Connections 1. Unless noted otherwise on the Structural Drawings, bolts shall be 3/4 inch diameter and conform to ASTM F3125, grade A325. Bolts shall be designed using values for bearing type bolts with thread allowed in the shear plane. 2. Bolts shall be tightened to "snug tight" as defined by AISC, unless noted otherwise

on the Structural Drawings. C. Any structural steel connection not specifically detailed on the Structural Drawings shall be designed and detailed by the Contractor's professional engineer licensed in the state having jurisdiction at the project site (delegated designer). Sealed calculations for all connections designed by the Contractor's delegated designer shall be submitted for the

D. Connections shall be designed and detailed as follows, unless noted otherwise on the Structural Drawings: 1. Shear connections may be selected or completed by an experienced steel detailer

per the ANSI/AISC 303, Section 3.1.1.(2), in accordance with the details provided in the Structural Drawings for the following connections: a. Double angle shear connections b. Single plate shear connections 2. In general, shop connections shall be bolted or welded and field connections shall

3. Short slotted holes shall be permitted in shear connections provided washers are installed in accordance with AISC requirements. Washers shall be hardened where A325 bolts are utilized. Short slotted holes shall not be oriented parallel to axial or shear loads.

E. All welds denoted as moment connection or complete joint penetration (CJP) weld shall

be ultrasonically or x-ray certified by an independent testing agency. F. Base Plates 1. Column base plates shall be set to the elevation indicated on the Structural Drawings and leveled using shims or by double nuts on anchor bolts. Base plates shall then be grouted with a non-shrink, high strength nonmetallic grout. Tighten anchor bolts after supported members have been positioned and plumbed.

14-2, and welded to the baseplate per AISC minimum. G. Anchor rods shall be:

H. For connections not specifically addressed by these notes or the Structural Drawings, provide fillet welds at all contact surfaces sufficient to develop the tensile strength of the smaller member at the joint.

JQ ENGINEERING, L

PROJECT NO: 3210175

TBPE FIRM F-129

loo glass stree 214.752.9098

2. Hole sizes in base plates shall be oversized with plate washers per AISC Table

1. Typical: ASTM F1554 Gr. 36, Weldable.

# POST-INSTALLED ANCHORS AND DOWELS

A. Mechanical Anchors: Note: Hilti products listed below shall be considered as basis of design, unless noted otherwise. Additional anchors listed below may be utilized if officially requested as a substitution by the Contractor and approved by JQ for the specific applications. If a substitution request is submitted, the anchor size and/or spacing is subject to change. Additional cost for design services may apply.

> Screw Anchors: a. In Concrete: Screw Anchors shall have been tested and qualified in accordance with ACI 355.2 and ICC-ES AC 193. Qualifying anchors shall be one of the following: Kwik HUS-EZ, CRC, or SS (ICC-ES ESR-3027), Hilti Inc.

Titen HD (ICC-ES ESR-2713), Simpson Strong-Tie Co., Inc. Screw Bolt+ (ICC-ES ESR-3889), DEWALT In Grouted Masonry: (Installation permitted in both the top and face of wall) Screw Anchors shall have been tested and qualified in accordance with ICC-ES AC 106. Do not install anchors within 1 1/2" of a head joint, notify

JQ if conflict occurs. Qualifying anchors shall be one of the following 1. Kwik HUS-EZ and HUS-EZ P (ICC-ESR-3056), Hilti Inc.

Titen HD (ICC-ES ESR-1056), Simpson Strong-Tie Co., Inc. Screw Bolt+ (ICC-ES ESR-4042), DEWALT

Adhesive Anchors: Note: Hilti anchor rods & Hilti acrylic (epoxy) adhesive products listed below shall be considered as basis of design, unless noted otherwise. Additional anchors listed below may be utilized if officially requested as a substitution by the Contractor and approved by JQ for the specific applications. If a substitution request is submitted, the anchor size and/or spacing is subject to change. Additional cost for design services

the Engineer which shall be provided by the contractor at no additional cost to the owner. may apply. F. Embedded conduits, pipes, and sleeves shall meet the requirements of ACI 318, Section 1. Conduits and pipes embedded within a slab, wall, or beam (other than those passing 1. Adhesive Anchors with Threaded Rod: through) shall not be larger in outside dimension than 1/3 the overall thickness of the

structural drawings: G. Void forms: Shall be the product of a reputable manufacturer regularly engaged in 1. Epoxy: HIT-RE 500V3 SAFESET (ICC-ES ESR-3814), Hilti Inc. commercial production of void forms. 1. Void form composition shall be of corrugated paper material with a moisture resistant 3. Epoxy: Pure 110+ (ICC-ES ESR-3289), DEWALT exterior and an interior fabrication of a uniform cellular configuration, composed of

components constructed of double-faced wax-impregnated (partially only), corrugated fiberboard that is laminated with moisture resistant adhesive. 2. Design and maintain void forms to support all vertical and lateral loads that might be 6. Acrylic: AC 200+ (ICC-ES ESR-4027), DEWALT applied during construction until such loads can be supported by the concrete structure. b. In Grouted Concrete Masonry: (Installation permitted in both the top and

moisture which normally accumulates beneath slabs and beams on grade. H. Grade beams in contact with earth shall be formed both sides unless noted otherwise in

I. Concrete sampling for quality assurance: Concrete that is pumped shall be sampled at the

CONCRETE REINFORCING

A CONCRETE MIX USAGE SCHEDULE:

Drilled Piers

Grade Beams

Interior Slab-on-Grade

class C or F fly ash.

26.8, including the following:

Exterior Equipment Pads

strength requirements.

otherwise on the Structural Drawings

Topping Slabs and Housekeeping Pads

Fly ash shall not be used in architecturally exposed concrete.

slab, wall or beam in which they are embedded.

exposed to the weather and elsewhere at the contractor's option.

A. Concrete reinforcement for the project shall conform to the following 1. All reinforcing steel shall be new billet steel in accordance ASTM A615, Grade 60, unless noted otherwise in the Structural Drawings or these notes. 2. Welded wire reinforcement. Welded smooth wire reinforcement. ASTM A1064. yield strength 65,000 psi where noted on the Structural Drawings. Welded deformed wire reinforcement, ASTM A1064, yield strength 70,000 psi where noted on the Structural Drawings. Welded wire reinforcement to be provided in flat

B. Detailing of reinforcing steel shall conform to the American Concrete Institute 315 Detailing Manual and all hooks and bends in reinforcing bars shall conform to ACI detailing standards, unless noted otherwise on the Structural Drawings.

C. Welded Wire Reinforcement shall be continuous across the entire concrete surface and not interrupted by beams or girders and properly lapped one cross wire spacing plus 2".

D. Reinforcement in Housekeeping Pads shall be welded smooth wire reinforcement 6 x 6 W2.9 x W2.9 minimum in all housekeeping pads supporting mechanical equipment whether shown on the Structural Drawings or not unless heavier reinforcement is called for on the Structural Drawings.

E. In unscheduled grade beams, walls, and slabs, detail reinforcing as follows: 1. Provide standard hooks in top bars at cantilever and discontinuous ends of beams.

2. Provide corner bars for all horizontal bars at the inside and outside faces of intersecting beams or walls. Corner bars are not required if horizontal bars are

3. Provide 2-#4 diagonal bars at all slab re-entrant corners placed under the top mat F. Welding of reinforcing steel will not be permitted unless specifically shown on the

Structural Drawings. G. Heat shall not be used in the fabrication or installation of reinforcement.

H. Reinforcing steel clear cover shall be as follows: Drilled Piers Formed grade beams 1 1/2" top, 2" sides, 3" bottom 3. Slab-on-grade See detail

STRUCTURAL MASONRY

A. Minimum compressive strength of the masonry (f'm) shall be as noted below.

B. Mortar shall conform to ASTM C270, Type S. Masonry cement shall not be used. Concrete masonry units shall be hollow load bearing units which conform to ASTM C90,

D. Chases shall be built in and not cut in. Chases shall be plumb and shall be minimum

with a minimum net compressive strength as follows: Net area Compressive Strength of CMU Block (psi)

one unit length from jambs of openings. Anchors, wall plugs, accessories and other items to be built in shall be installed as the masonry work progresses. All cutting and fitting of masonry, including that required to accommodate the work of other sections shall be done by masons with masonry saws. E. Coarse grout shall conform to ASTM C476 and placed in accordance with ACI 530.01

Section 3.5, with a maximum aggregate size of 1/2" and a minimum compressive strength as follows: Compressive Strength (psi)

F. Reinforce concrete masonry unit joints with ladder type hot dip galvanized cold-drawn steel conforming to ANSI/ASTM A82, with W1.7 side rods with W1.7 cross rods. 1. Space joint reinforcing at 16 inches o.c. unless noted otherwise. Lap joint reinforcing 14 inches at splices. Provide prefabricated joint reinforcing corner pieces at all wall corners and

4. Joint reinforcing shall be discontinuous at control and expansion joints. G. Lap reinforcing bars in grouted masonry as noted below. Splices in reinforcing shall be

staggered so that not more than 1/2 of all bars are spliced at the same location. Vertical bars: #4, #5 rebar 60 bar diameters #6 rebar 70 bar diameters #7 or larger rebar Mechanical splices only . Bond beams: 40 bar diameters

Do not splice H. Embedded conduits, pipes, and sleeves shall meet the requirements of ACI 530, Section 3.2.2, including the following: 1. Conduits, pipes, and sleeves in masonry shall be no closer than 3 diameters on center. Minimum spacing of conduits, pipes or sleeves of different diameters shall

be determined using the larger diameter. Vertical conduits, pipes, or sleeves placed in masonry jambs, columns or pilasters shall not displace more than 2 percent of the net cross-sectional area. a. The net cross-sectional area is the area of masonry units, grout, and mortar. Ungrouted cells are not considered part of the net cross-sectional area.

I. Z-ties shall be manufactured from 3/16 inch diameter cold drawn wire. Ties shall be hot dip galvanized, 6 inches long with a 2 inches hook at each end, unless noted otherwise on the Structural Drawings.

J. Provide 1 inch clear cover between ties or longitudinal reinforcing and the inside face of masonry used as forms in grouted beams, pilasters and columns.

e. Maximum long term substrate temperature after installation = 110°F site and be made available to the EOR as requested.

E. For adhesive anchors installed in a horizontal orientation subject to sustained tension loading and all upwardly inclined (including soffit installations) orientation: 1. Per ACI 318-14 (17.8.2.2): Installation shall be performed by personnel certified by ACI/CRSI "Adhesive Anchor Installer Certification Program." Certification

a. In Concrete: Adhesive Anchors shall have been tested and qualified in accordance with ACI 355.4 and ICC-ES AC 308. Qualifying anchors shall be one of the following products, unless specifically noted otherwise on

2. Epoxy: SET-3G (ICC-ES ESR-4057), Simpson Strong-Tie Co., Inc. 4. Acrylic: HIT-HY 200 SAFESET (ICC-ES ESR-3187), Hilti Inc. Acrylic: AT-XP (IAPMO-ES ER-0263), Simpson Strong-Tie Co., Inc.

face of wall) Adhesive Anchors shall have been tested and qualified in accordance with ICC-ES AC 58. Qualifying anchors shall be one of the 1. Acrylic: HIT HY-270 SAFESET (ICC-ES ESR-4143), Hilti, Inc.

2. Acrylic: AT-XP (IAPMO-ES ER-0281), Simpson Strong-Tie Co., Inc. 3. Acrylic: AC 100+Gold (ICC-ES ESR-3200), DEWALT c. Threaded anchor rod shall be one of the following: 1. Hilti adhesive: "HAS-V-36" (u.n.o). "HAS-E-55". "HAS-B-105" ASTM

F1554 Threaded Rods. Hot dip galvanize where specified. 2. Simpson adhesive: Steel meeting the requirements of ASTM F1554, grade 36. Hot dip galvanize where specified. 3. DEWALT adhesive: Steel meeting the requirements of ASTM A1554,

grade 36. Hot dip galvanize where specified. 4. Anchor rod shall have a chamfered end on one end to accept a nut and washer; it may have a 45-degree chisel point on the other end. 5. Nuts and washers shall have a proof load strength at least as strong as anchor rod. Stainless steel nuts and washers shall be provided with

2. Adhesive Rebar Dowelling:

stainless steel rods.

a. Adhesive dowels are not permitted to be substituted for cast-in dowels unless authorized in advance by JQ for each specific location Adhesive doweling systems in concrete shall have been tested and qualified in accordance with ACI 355.4 and ICC-ES AC 308. Qualifying

anchors shall be one of the following products, unless specifically noted otherwise on structural drawings: 1. Epoxy: HIT-RE 500V3 SAFESET (ICC-ES ESR-3814), Hilti Inc. 2. Epoxy: SET-3G (ICC-ES ESR-4057), Simpson Strong-Tie Co., Inc.

Epoxy: Pure 110+ (ICC-ES ESR-3289), DEWALT 4. Acrylic: HIT-HY 200 SAFESET (ICC-ES ESR-3187), Hilti, Inc Acrylic: AT-XP (IAPMO-ER-0263), Simpson Strong-Tie Co., Inc. Acrylic: AC 200+ (ICC-ES ESR-4027), DEWALT

C. Anchor and Dowel Installation Requirements

Anchors and dowels of the size and embedment shown on the Drawings shall be installed in accordance with the Contract Documents, the manufacturer's recommendations, and the manufacturer's current evaluation (ICC-ES or IAPMO-ES) report for the anchor. If conflicts exist between these referenced

documents, the most stringent requirements shall govern. The Contractor shall locate all existing reinforcing steel and other embedded items contained in the concrete using non-destructive methods and shall position anchor locations to avoid conflicts with existing embedded items. Anchor or dowel locations can be adjusted by a maximum of 1 1/2" from detailed

locations to avoid conflicts, but shall neither change arrangement nor move closer to a concrete edge. Based on field verified locations of reinforcing steel and embedded items, the Contractor shall create templates for each anchor group. Submit template

dimensions for review prior to fabrication of connection plates. 4. Holes for anchors and dowels shall be drilled in a continuous operation using the drill-bit type and size recommended by the anchor manufacturer. Holes shall be drilled perpendicular to the concrete surface and shall not be enlarged or redirected at any point along its length. Holes shall be drilled using a hammer drill, coring shall not be allowed, unless noted otherwise.

Oil free compressed air shall be used to blow out the holes unless one of the approved systems noted below is utilized. Unapproved shop vacs, squeeze bulbs, etc. shall NOT be used. Refer to manufacturer's information for detailed

a. Hilti SAFESET system with Hilti Hollow Drill Bit and Vacuum System (VC150 or VC300) may be used to eliminate hole cleaning with adhesive b. Simpson Speed Clean DXS system may be used to eliminate manual hole

cleaning with adhesive anchors. DEWALT Dust X system with hollow drill bit may be used to eliminate manual hole cleaning with adhesive anchors. All abandoned holes shall be filled with non-metallic nonshrink grout capable of

reaching a design compressive strength of 5,000 psi at 28 days. Holes in connection plates shall be no more than 1/16" larger than the anchor diameter for 3/4" diameter anchors or less and holes in connection plates shall be no more than 1/8" larger than the anchor diameter for 1" diameter anchors or larger; Unless specified otherwise by the manufacturer. If larger holes are

required for erection purposes, Contractor shall notify Engineer such that a plate washer size can be provided. 8. At the time of anchor installation, concrete shall have a minimum compressive

strength of 2500 psi and an age of 21 days. 9. The following parameters were used in the determination of the bond stress for adhesive anchors. Contractor shall notify JQ if any of these parameters are not

a. Drilled hole condition: Dry

DEWALT AC 100+

b. No diamond core drilling c. Substrate temperature range at the time of installation and conditioned per manufacturer requirements: Concrete Anchors Minimum (°F) Maximum (°F) Hilti HIT RE-500V3 Hilti HY-200 Simpson SET-3G 100 Simpson AT-XP 100 DEWALT Pure 110+ 104 DEWALT AC 200+ 104 Minimum (°F) Maximum (°F) Hilti HY-270 Simpson AT-XP Simpson SET-XP

All post-installed anchors shall be installed by personnel trained by a manufacturer's field representative for each product to be used. A record of training shall be kept on

d. Maximum short term substrate temperature after installation = 130°F

shall include written and performance tests.

A. Dead Loads include the self-weight of the structural elements and the following superimposed loads:

Roofing and rigid insulation B. Live Loads CONCENTRATED OCCUPANCY OR USE UNIFORM Ground Floor

C. Live Load Reduction Floor live loads have not been reduced Roof live load has not been reduced.

D. Snow loads

DESIGN LOADS

**COORDINATION** 

of any structural members.

A. The contractor shall compare the architectural, structural, mechanical, electrical,

plumbing, and other series drawings and report any discrepancies between each

Only larger sleeve openings and framed openings in structural framing component

and openings, including frames and/or sleeves shall be provided for passage,

to mechanical, electrical and plumbing work. This work shall include the

structural drawings, but required as noted above, shall be submitted to the

C. Refer to architectural, mechanical, electrical and plumbing drawings for floor

elevations, slopes, drains and location of depressed and elevated floor areas.

D. Compatibility of the structure and provisions for building equipment supported on

or from structural components shall be verified as to size, dimensions, clearances,

accessibility, weights and reaction with the equipment for which the structure has

been designed prior to submission of shop drawings and data for each piece of

Shop drawings shall be prepared for all structural items and submitted for review

by the engineer. Structural drawings shall not be reproduced and used as shop

drawings in all areas where conditions are similar to those described in the details.

drawings. All items deviating from the structural drawings or from previously

G. All dimensions and conditions of existing construction shall be verified at the job

site prior to the preparation of shop drawings. Differences between existing

construction and that shown on the structural drawings shall be referred to the

H. All structural elements of the project have been designed by the engineer to resist

structure only. It is the responsibility of the contractor to provide all required

elements during the construction process until the lateral-load resisting or

the elements to be braced nor any elements used as brace supports.

The contract structural drawings and specifications represent the finished

structure, and except where specifically shown, do not indicate the means or

and direct the work and shall be solely responsible for all construction means,

not limited to, adherences to all osha guidelines. The engineer shall not have control of, and shall not be responsible for, construction means, methods,

techniques, sequences or procedures, for safety precautions and programs in

any of these persons to carry out the work in accordance with the structural

connection with the work, for the acts or omissions of the contractor,

as indicated by the engineer, shall govern.

the above criteria will not be considered.

1. International Building Code, 2018 Edition

CODES & REFERENCED REPORTS

General Building Code.

Geotechnical engineer:

Report Number:

**SUBSTITUTIONS** 

methods of construction. The contractor and their sub-contractors shall supervise

methods, procedures, techniques, sequences and safety measures including, but

subcontractors, or any other person performing any of the work, or for the failure of

Where conflict exists among the various parts of the structural contract documents,

structural drawings, general notes, and specifications, the strictest requirements,

determining if the work is proceeding in accordance with the structural contract

quality or quantity of the work, but rather a periodic check in an effort to inform the

K. Periodic site observation by field representatives of JQ is solely for the purpose of

documents. This limited site observation is not intended to be a check of the

owner against defects and deficiencies in the work of the contractor.

A. All requests for substitutions of materials or details shown in the Structural

Contract Documents shall be submitted for approval during the bidding

they are officially submitted with an identified savings or duration to be

A. The General Building Code used as the basis for the structural design is as

B. Structural Concrete: Building Code Requirements for Reinforced Concrete,

American Concrete Institute, ACI 318, as referenced by the General

. Concrete Masonry: Building Code Requirements for Concrete Masonry

D. Structural Steel: Manual of Steel Construction, American Institute of Steel

E. Light Gauge Steel: Specification for the Design of Cold-Formed Steel

Geotechnical Report: Foundation elements have been designed in

Construction Inc., ANSI/AISC 360, as referenced by the General Building

Structural Members, American Iron and Steel Institute, as referenced by the

10-Nov-21

accordance with information provided in the following geotechnical report:

Structures, American Concrete Institute, ACI 530, as referenced by the

Once bids are accepted, proposed substitutions will be considered only when

deducted from the contract and/or schedule impact. Submittals not satisfying

bracing during construction to maintain the stability and safety of all structural

stability-providing system is completely installed and the structure is completely

tied together. Temporary supports shall not result in the overstress or damage of

the required code vertical and lateral forces that could occur in the final completed

F. The details designated as "typical details" apply generally to the structural

architect. Differences shall also be clouded on the shop drawings.

submitted shop drawings shall be clouded.

equipment and for structural components. Differences shall be noted on the

members are indicated on the structural drawings. However, all sleeves, inserts

provision and/or incorporation of the work of the contract, including but not limited

coordination of sizes, alignment, dimensions, position, locations, elevations and

grades as required to serve the intended purpose. Openings not indicated on the

set of drawings and within each set of drawings prior to fabrication and installation

**DESIGN LOADS (CONT.)** 

c. Exposure

e. Risk Category

Exterior walls +24.4

1. Wind lateral load on structural frame is based on ASCE 7-16 using the following:

Zone

Interior

Edge

Interior

All surfaces

Interior (1)

All surfaces

Interior (1)

Edge and Corner zone distances shall be "a" = 4'-0"

accordance with the referenced standard.

Eave Edges (2e)

Normal Edges (2n)

Eave Corners (3e)

Ridge Corners (3r)

Eave Edges (2e)

Normal Edges (2n)

Eave Corners (3e)

Ridge Corners (3r)

Pressures for Tributary Areas in between the listed values may be linearly

Negative value signifies pressure acting away from the surface (suction).

- Pressures on parapets shall be determined by combining positive and

uplift values for design of joists, joist girders, and bridging.

accordance with General Building Code with the following criteria:

negative wall pressures or wall and roof pressures listed above in

The structure and structural components of the building have been designed in

Steel System Not Specifically Detailed for Seismic Resistance

Roof pressures are for gross uplift conditions. Refer to roof plan(s) for net

Ridge Edges (2r)

Ridge Edges (2r)

Edge

Interior and edge

Interior and edge

81 mph

+/-0.18

At (ft2)

10 or less

10 or less

10 or less

500 or greater

500 or greater

500 or greater

10 or less

100 or less

100 or greater

0.099

0.055

[XX]

0.085

0.055

1.5

General

Structural

Integrity

30 KSF

3.5 KSF

1.5 KSF

10 FEET

2.5 KSF

Bearing Wall System &

a. Ultimate Design Wind Speed Vult

b. Nominal Design Wind Speed Vasd

d. Internal Pressure Coefficient, Gcpi

Components and cladding wind pressures:

-32.7

+18.2

-20.3

-20.3

+18.2

-64.6

+16.0

-32.6

-32.6

-32.6

a. Seismic Importance Factor, IE

e. Spectral Response Coefficients

g. Basic Seismic-force-resisting system

Seismic Response Coefficient(s), Cs

Response Modification Factor(s), R

A. Remove all organic and other deleterious material from the existing subgrade

B. Moisture condition soils shall be provide to a depth of 8 feet within the building

content of at least +5% above the optimum moisture content. During the

addition of water, the soils should be adequately mixed to unsure a uniform

distribution of moisture throughout the soil mass. Moisture conditioned soils

C. Select fill soil cap shall be provided 1 foot below the building pads and flatwork

or organic matter. Compact select fill to at least 95% of the Maximum Dry

D. Soil placed along the exterior of the grade beams shall be on-site clay soils

E. All fill soils shall be placed to final subgrade elevation in 8 inch loose lifts

for mass grading operations and 4 inches for trench type excavations.

F. Compaction and moisture content of subgrade and each lift of select fill shall be

G. Select fill shall not be placed beyond the limits of the exterior building structure.

maximum water vapor permeance of 0.01 perms per ASTM E96. Vapor

I. The above recommendations have been prepared in accordance with the

B. Pier design is in accordance with the recommendations in the referenced

D. Piers not specifically located on the plan shall be located on centerline of column

E. Provide dowels from piers into concrete above using same bar size and number as

F. Elevation of top of piers, unless noted otherwise on the Structural Drawings, is at

the bottom of the deepest intersecting beam or wall supported by the pier.

G. Reinforcing cage shall be held securely away from earth at sides and bottom by

H. Pier reinforcing and concrete shall be placed immediately after drilling operations

J. The contractor shall verify depths of piers before pier steel is cut. Pier steel may be

delivered to the jobsite in standard lengths and cut as required. Provide 64 bar

K. Reinforcing steel shop drawings shall include placing drawings for templates to set

M. Temporary steel casing may be required during pier drilling operations. Prior to the

N. Contractor shall include in bid documents, unit-costs for casing if required and

O. All piers shall be inspected by a qualified geotechnical laboratory in order to ensure that the proposed bearing material has been reached in accordance with the

P. The contractor shall make and maintain accurate records of the drilled pier depths,

bearing stratum, depth of penetration into bearing stratum, diameter and location (including off center eccentricities), and shall submit this information to the Engineer.

unit-cost for greater and lesser depth of drilling for each pier size

recommendations given in the geotechnical report.

placement of concrete, any seepage water shall be removed from the pier holes.

Special construction procedures in accordance with ACI 336.1 and ACI 336.3R and

specifications shall be followed during extraction of the casing and during concrete

L. Top of pier shall be of the specified diameter. Form top of pier if required to maintain the specified diameter. Any concrete extending beyond the specified

shown for pilaster above. Where no pilaster occurs, use dowels of same size and

number as pier reinforcing steel. Extend dowels 30 bar diameters into pier and

beam, wall, pilaster or column, unless noted otherwise on the Structural Drawings.

sets of 3 spacers at a maximum spacing of 8 ft. along the length of the cage and

are complete; in no case shall a pier be drilled that cannot be placed by the end of

above. Where no column occurs, locate on centerline of wall or beam.

H. Provide a vapor retarder that conforms to ASTM E1745, Class A or better with a

inspected and approved by a qualified engineering technician, supervised by a

shall be compacted to at least 93% of the Maximum Dry Density as defined in

sensitive to movement. Select fill material shall have a plasticity index between

placed and compacted to at least 93% of the Maximum Dry Density as defined

5 and 15, contain 40 to 70 percent passing the No. 200 sieve, and free of debris

for a distance of 5' 0" beyond building line and pavement limits, to a depth of

pads and flatwork sensitive to movement (min. 7 feet of moisture conditioned

soil). This process consist of undercutting, scarifying and/or reworking. On-site

clays should receive adequate amounts of water to ensure a uniform moisture

f. Seismic Design Category

h. Design Base shear, V

k. Analysis Procedure Used

about 6 inches below final subgrade elevation.

Density as defined in ASTM D 698.

retarder shall be no less than 15 mils thick.

A. Pier design is based on the following design criteria:

6. Minimum penetration into bearing stratum:

C. Bearing stratum shown on the pier details is Gray Shale.

referenced geotechnical report.

Allowable end bearing:

Side friction (uplift resistance):

Side friction:

geotechnical report.

1'-0" from the bottom.

I. See plans for pier sizes, reinforcing and depth.

diameter laps in all vertical pier reinforcing.

diameter shall be removed.

placement.

Uplift side friction:

Uplift design depth:

**DRILLED PIERS** 

Geotechnical Engineer.

c. Mapped Spectral Response Accelerations

b. Risk Category

i. Ss (g)

ii. S1 (g)

i. SDS

ii. SD1

d. Site Class

**BUILDING PAD PREPARATION** 

F. Seismic Loads

E. Wind loads

ECS Southwest, LLP

2. Roof - Unreduced

1. Ground snow load, Pg

Ceiling and Mechanical at roof

50 GR( QUITE,

9

Σ Z

Dallas, Texas 75226

P 214.824.7040

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REV. DATE

CONSTRUCTION DOCUMENTS

A. Metal Roof Deck

 1. Metal Roof Deck Schedule:
 Location
 Gauge
 SDI
 Deck
 Sheet
 Min.
 Min.</

Sn = negative section modulus in3
I = moment of inertia in4

Roof deck shall be galvanized.
 Sheet steel for galvanized roof deck and accessories shall conform to ASTM A653, Structural Quality, with a minimum yield strength of 33 ksi. Galvanizing shall conform to ASTM A653 with a minimum coating of G60 as defined in A653.

Roof deck shall be continuous over four or more supports.
 Place deck panels on structural supports and adjust to final position with ends lapped 2 inches over structural supports. Provide minimum end bearing of 2

inches.Roof deck connections shall be as follows:

Support Connx Support Sidelap Fastener/ No Pattern Fastener per span Roof Over LG Trusses #10 Tek #10 Tek/ 2 Interior Field #10 Tek #10 Tek/ 4 Perimeter Band Roof Over Steel Beams 5/8" PW #10 Tek/ 2 Interior Field 5/8" PW #10 Tek/ 4 Perimeter Band 36/4 See Design Wind Load information or plans for "a" dimension and Interior Fields, Perimeter Band, Ridge Band, and Corner Zones wind loads. PW = Puddle Weld

Power driven fasteners shall be selected by the Contractor for the combinations
of deck gauge and deck support member thickness. Submit proposed fasteners
with complete manufacturer's information, including diaphragm shear values for
the Engineer to review.

the Engineer to review.Mechanical, electrical and plumbing systems shall not be supported by the metal roof deck.

### PRE-ENGINEERED LIGHT GAUGE STEEL TRUSSES

- A. All pre-engineered cold-formed steel truss design and manufacture, including anchorage, bracing, and connections to structure during erection and during service life of the structure, shall be signed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site. The design, quality assurance, installation, and testing of cold-formed steel trusses shall be in accordance with the American Iron and Steel Institute (AISI-General, AISI-NAS, and AISI-Truss).
- B. Plates and members shall be manufactured from zinc-coated sheet conforming to ASTM A446 with minimum yield strength of 40 ksi. Provide class G60 zinc coating.
- C. Pre-engineered cold-formed steel trusses, including overhangs and connections to structure, shall be designed for the superimposed dead and live loads as well as special loading conditions provided in the Structural Drawings.
- D. Pre-engineered cold-formed steel trusses, including overhangs and connections to structure, shall be designed to resist the net wind uplift loads provided in the Structural Drawings. Provide additional bridging as required.
- E. The design of pre-engineered cold-formed steel trusses shall include the following
- 1. Top and bottom chords shall be designed to resist local bending induced by the loads noted on the top and bottom chords, including a minimum 300 lb live load at any location.
- Limit live load deflection of trusses to L/240. Total load deflections shall be limited to L/180.
- Trusses shall be designed for the following superimposed loads:
   a. Dead Load
- i. Top Chord: 15
  ii. Bottom Chord: 5 p
  b. Live Load
  i. Top Chord: 20
- ii. Bottom Chord: 10 psf
  c. Trusses shall be designed for the superimposed wind loads and snow loads in accordance with the referenced Building Code and the specified basic wind speed, exposure, and importance factor. Increase member sizes or provide additional bridging as required to resist uplift forces.
- F. The design of pre-engineered cold-formed steel trusses and connections, including connections to structure, shall include the overall stability and resistance to the main wind force resisting forces based on the criteria noted in the Structural Notes, or as provided in the Structural Drawings.
- G. Truss manufacturer shall provide permanent bracing as required by the design of trusses. Erection bracing may remain in place as permanent bracing where it does not interfere with architectural finishes and/or mechanical and plumbing items.
- H. Design layout, spacing, and configuration shall be as indicated in the Structural Drawings. Alternate truss-manufacturer proposed layouts are only acceptable as a change order which will include engineering compensation for re-design of affected building structural components by the Engineer.
- Truss designer/manufacturer shall submit shop drawings for review and approval prior to fabrication or construction. Shop drawings shall be signed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project
- site to include the following:

  1. Framing plan showing truss layout and permanent bracing.

  2. Truss elevations showing member sizes, dimensions, loadings, and bearing
- Truss to truss connections, connections among truss members, truss to structure connections, and any connectors related to items provided as part of the pre-engineered truss system.
   Member properties.
- 5. Calculations including forces in members and design of members.
  6. Erection plan identifying all truss components and all permanent bracing required for truss design.

# DESIGN BY OTHERS

- A. In accordance with the Specifications the items listed below are not included in the Contract Documents. Design of these elements shall be the responsibility of the Contractor, and shall be designed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site.
- Steel Connections
   Guardrail and Handra
- Guardrail and Handrail Systems
   Cold Formed Metal Framing
- Cold Formed Metal Roof Trusses
   Pre-Fabricated Awnings and Canopies
- Curtainwall Systems
   Embedded essemblies and insert.

Code, and shall include all attachments to the structure.

- Embedded assemblies and inserts, clamps, hangers, trapezes, unistrut, etc. for the support of MEP systems.
- B. Design of the items listed above shall be in accordance with the General Building

		ABBREVIATIONS			
ABV. A.F.F. ADDN'L.	-	ABOVE ABOVE FINISHED FLOOR ADDITIONAL	L. L.W.		LENGTH LIGHTWEIGHT
ADH.	-	ADHESIVE	L.W.C.	-	LIGHTWEIGHT CONCRETE
ADJ. AGGR.	-	ADJACENT AGGREGATE	L.L. LOC.	-	LIVE LOAD LOCATION
A/C AHU		AIR CONDITIONER AIR HANDLING UNIT	LLH LLV		LONG LEG HORIZONTAL LONG LEG VERTICAL
ALT. ALUM.		ALTERNATE ALUMINUM	LSH LSV		LONG SIDE HORIZONTAL LONG SIDE VERTICAL
A.C.I.	-	AMERICAN CONCRETE INSTITUTE	LSL	-	LONG SLOTTED HOLE
A.I.S.C. A.B.	-	AMERICAN INSTITUE OF STEEL CONSTRUCTION ANCHOR BOLT	LONG L.P.		LONGITUDINAL LOW POINT
-		AND ANGLE	MFR.	-	MANUFACTURE(R)
APPD. APPROX.		APPROVED APPROXIMATE	MAS. MCJ	-	MASONRY MASONRY CONTROL JOINT
RCH.	-	ARCHITECT	MAT.		MATERIAL
ARCH'L A.E.C.		ARCHITECTURALL ARCHITECTURALLY EXPOSED CONCRETE	MAX. MECH.		MAXIMUM MECHANICAL
E.S.S. D		ARCHITECTURALLY EXPOSED STRUCTURAL STEEL AT	MEP MTL.		MECHANICAL, ELECTRICAL, PLUM METAL
s.F.	_	BACK FACE	MEZZ. MID.		MEZZANINE MIDDLE
3. TO B.	-	BACK TO BACK	MIN.	-	MINIMUM
SMT. BM.		BASEMENT BEAM	MISC. M		MISCELLANEOUS MOMENT
RG. .F.F.		BEARING BELOW FINISH FLOOR	M.C.	-	MOMENT CONNECTION(S)
TWN. EV('D)		BETWEEN BEVEL(ED)	N.F. NOM.		NEAR FACE NOMINAL
LK.	-	BLOCK	N.S.	-	NON-SHRINK
.L. LKG.		BLOCK LINTEL BLOCKING	N/A N.I.C.		NOT APPLICABLE NOT IN CONTRACT
OT. .O.		BOTTOM BOTTOM OF	N.T.S. NO. OR #		NOT TO SCALE NUMBER
.O.S. RKT.		BOTTOM OF STEEL BRACKET	O.C.		ON CENTER
R.L.	-	BRICKLEDGE	OPNG(S)	-	OPENING(S)
RDG. LDG.		BRIDGING BUILDING	OPP. O.H.		OPPOSITE OPPOSITE HAND
		CAMBER	O.D. O.F.	-	OUTSIDE DIAMATER OUTSIDE FACE
I.P.	-	CAST-IN-PLACE	O.F. OVS		OVER-SIZED HOLE
CLG. C.L.		CELING CENTER LINE	Р	-	PAN
.G. .G.S.		CENTER OF GRAVITY CENTER OF GRAVITY OR STRAND	P.J. PAR.		PANEL JOINT PARALLEL
TR'D.	-	CENTERED	PERP.	-	PERPENDICULAR
ELR. FS	-	CLEAR OR CLEARANCE COLD FORMED STEEL	PC. PL.	-	PIECE PLATE
OL. OR		COLUMN COMPRESSION	PT. P-T		POINT POST-TENSION(ED)
OMP.		CONCRETE	# OR LBS. PCF	-	POUNDS POUNDS PER CUBIC FOOT
MU	-	CONCRETE MASONRY UNIT	PLF	-	POUNDS PER LINEAR FOOT
ONN(S) ONST.	-	CONNECTION(S) CONSTRUCTION	PSF PSI		POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH
ONST. JT ONT.		CONSTRUCTION JOINT CONTINUOUS	P.E.M.B. P/C		PRE-ENGINEERED METAL BUILDIN PRECAST CONCRETE
ONTR. .J.	-	CONTRACTOR CONTROL JOINT	PREFAB.	-	PREFABRICATED
OORD.	-	COORDINATE	PRELIM. P.T.		PRELIMINARY PRESSURE TREATED
OV. PL.	-	COVER PLATE	PROJ.	-	PROJECTION
.L. .B.A.		DEAD LOAD DEFORMED BAR ANCHOR	QTY.	-	QUANTITY
).	-	DEPTH	R		RADIUS
OTL. DIAG.	-	DETAIL DIAGONAL	REINF. RCP		REINFORCE(ING)(ED)(MENT) REINFORCED CONCRETE PIPE
DIA OR Ø DIM(S).		DIAMETER DIMENSION(S)	REM. REQ.		REMAINDER REQUIRE
BL. X-STR	-	DOUBLE DOUBLE EXTRA STRONG	REQ'D.	-	REQUIRED
VTL.	-	DOVETAIL	RET. SYS. RIS.		RETENTION SYSTEM RISER
WL(S). N.	-	DOWEL(S) DOWN	RF. R.D.		ROOF ROOF DRAIN
)S. )WG(S).		DOWNSPOUT DRAWING(S)	R.T.U. RM.		ROOF TOP UNIT ROOM
		. ,	R.O.	-	ROUGH OPENING
A. .F.	-	EACH EACH FACE	RND.	-	ROUND
.W. .O.D.		EACH WAY EDGE OF DECK	SCHED. SECT.		SCHEDULE(D) SECTION
LEC.		ELECTRICAL ELEVATION	V SHT.	-	SHEAR SHEET
LEV.	-	ELEVATOR	SSL	-	SHORT SLOTTED HOLE
NGR.	-	EMBEDMENT ENGINEER	SW SIM.		SIDEWALK SIMILAR
		EQUAL EQUIPMENT	S.O.G. SPA.		SLAB ON GRADE SPACE
F		EXHAUST FAN	SPEC(S)	-	SPECIFICATION(S)
Ē) XIST.		EXIST. EXISTING	SPEC'D SQ.		SPECIFIED SQUARE
XP. .J.		EXPANSION EXPANSION JOINT	S.F. STAGG.	-	SQUARE FOOT STAGGERED
.o. XT. -STR	-	EXTERIOR EXTRA STRONG	S.S.	-	STAINLESS STEEL
			STD. STL.	-	STANDARD STEEL
ABR. . TO F.		FABRICATOR FACE TO FACE	S.J.I. STIFF		STEEL JOIST INSTITUE STIFFENER
.S. .V.		FAR SIDE FIELD VERIFY	STIRR. STR.	-	STIRRUPS STRAIGHT
IN('D)	-	FINISH(ED)	STRUCT'L	-	STRUCTURAL
P.	-	FINISHED FLOOR FIREPROOF(ING)	SUBCONTR.	-	STRUCTURE SUBCONTRACTOR
LG. L.		FLANGE FLOOR	SUPT(S).	-	SUPPORT(S)
	-	FLOOR DRAIN FOOT (OR) FEET	TEMP.		TEMPERATURE
DN.	-	FOUNDATION	T TERR.	-	TENSION TERRAZZO
RMG .P.		FRAMING FULL PENETRATION	THK. THRD.		THICK THREAD(ED)
iA.	_	GAGE OR GAUGE	T&G T&B	-	TONGUE AND GROOVE TOP AND BOTTOM
ALV.	-	GALVANIZED	T.O.	-	TOP OF
S.C. SR.	-	GENERAL CONTRACTOR GRADE	T.O.B. T.O.C.	-	TOP OF BEAM TOP OF CONCRETE
SR. BM.	-	GRADE BEAM	T.O.F. T.O.J.		TOP OF FOOTING TOP OF JOIST
.S.A. T.		HEADED STUD ANCHOR HEIGHT	T.O.P.	-	TOP OF PIER
.P.	-	HIGH POINT	T.O.P.C. T.O.S.	-	TOP OF PIER (PIPE) CAP TOP OF STEEL
ISS IK.		HOLLOW STRUCTURAL SECTION HOOK	T.O.W. TRANSV.		TOP OF WALL TRANSVERSE
iORIZ. I.B.	-	HORIZONTAL HORIZONTAL BRACE	TR. TYP.	-	TREAD TYPICAL
1.Б. 1.D.		HOT-DIP			
N.		INCH	U.N.O.	-	UNLESS NOTED OTHERWISE
NFO. D.		INFORMATION INSIDE DIAMETER	VERT. V.B.		VERTICAL VERTICAL BRACE
F.	-	INSIDE FACE INTERIOR			
NT. NTERM.		INTERIOR INTERMEDIATE	WPFG. WS.	-	WATERPROOFING WATERSTOP
JT.	_	JOINT	WT. W.W.M.		WEIGHT WELDED WIRE MESH
J.G. JST(S)	-	JOIST GIRDER JOIST(S)	W.	-	
. ,	-	• •	W.L. WDW.	-	WINDOW
(LF (SF	-	KIP PER LINEAR FOOT KIP PER SQUARE FOOT	W/ W/O	-	WITH WITHOUT
SI	-	KIP PER SQUARE INCH KIPS (1000 LBS)	W.D. W.P.	-	WOOD WORK POINT
		,			

<u>ABBREVIATIONS</u>

SYMBOLS LEGE	ND
SYMBOL	DESCRIPTION
PIER TYPE, T.O.PIER EL. T.O.PIER DETAIL	CONCRETE PIER
SHEAR CONNECTION  BEAM SIZE  WXXXXX  MOMENT CONNECTION	STEEL BEAM MOMENT & SHEAR CONNECTION
COLUMN SIZE BASE PLATE TYPE	STEEL COLUMN
#	NEW COLUMN GRID
#	EXISTING COLUMN GRID
	SLAB OR DECK SPAN DIRECTION
7777)77777	DROP IN SLAB OR DECK
7//////////////////////////////////////	DROP AND SLOPE IN SLAB OR DECK
7//////////////////////////////////////	SLOPE IN SLAB OR DECK
5 == -5	STEEL BEAM SPLICE
	MASONRY WALL
	WINDOW IN MASONRY WALL
	DOOR IN MASONRY WALL
	EXISTING CONSTRUCTION
	ROOF TOP UNIT (RTU)

Shaping the built environment

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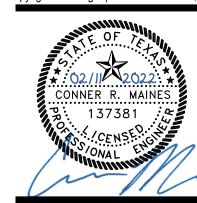
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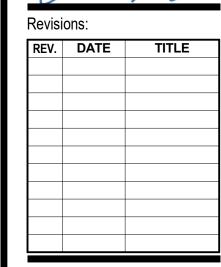


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CONSTRUCTION DOCUMENTS
02.11.2022

Project No.
2942

Drawn By:
JRP

Checked By:
CRM

Sheet Title:
STRUCTURAL NOTES

S1.02

## SPECIAL INSPECTIONS

- 1. Special Inspections shall be performed in accordance with Chapter 17 of the 2018 International Building Code (IBC) by a Special Inspector hired by the Owner to perform the Special Inspections listed below. The Special Inspector shall be qualified by an approved agency according to the City of Mesquite's building official to perform the special inspections for which they will be undertaking. The Contractor shall coordinate with and notify the Special Inspector of all tests. The Special Inspector shall be responsible to verify that the items detailed in the Construction Documents were built accordingly and shall prepare, sign, and furnish inspection reports to the building official and the Architect for all time spent at the site. The Inspector shall bring discrepancies to the immediate attention of the General Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the Architect prior to the completion of that phase of the work. These special inspections are in addition to the other inspections listed in these Structural Notes or Project Specifications.
- 2. Where structural load-bearing members and assemblies are shop fabricated, the Special Inspector shall verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to the Construction Documents and Referenced Standards, unless the fabricator is registered and approved to perform such work without special inspection.

	VERIFICATION AND INSPECTION TASKS FOR WELDING OF	STRUCTURAL STEE	EL <sup>1</sup> (AISC 360-16	Table N5 4)	
SPECIAL	. L C.	INSPECTION FF	,	<u>, , , , , , , , , , , , , , , , , , , </u>	IDO
INSPECTION REQUIRED	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
	Inspection tasks prior to welding:				
YES	Welder qualification records and continuity records.	Х			
YES	b. Welding procedure specifications (WPSs) available	Х			
YES	c. Manufacturer certifications for welding consumables available	Х			
YES	d. Material identification (type/grade) <sup>2</sup>		X	-	
YES	e. Welder identification system <sup>2</sup>		X	1	
120	·			-	
YES	<ul> <li>f. Fit-up of groove welds (including joint geometry)<sup>2</sup></li> <li>1) Joint preparations</li> <li>2) Dimensions (alignment, root opening, root face, bevel)</li> <li>3) Cleanliness (condition of steel surfaces)</li> <li>4) Tacking (tack weld quality and location)</li> <li>5) Backing type and fit (if applicable)</li> </ul>		Х	AISC 360-16 N5.4-1: AWS D1.1	1705.2.1
YES	<ul> <li>g. Fit-up of CJP groove welds of HSS T-, Y- and K-joints without backing (including joint geometry)</li> <li>1) Joint preparations</li> <li>2) Dimensions (alignment, root opening, root face, bevel)</li> <li>3) Cleanliness (condition of steel surfaces)</li> <li>4) Tacking (tack weld quality and location)</li> </ul>	X			
YES	h. Configuration and finish of access holes. <sup>2</sup>		Х		
YES	<ul> <li>i. Fit-up of fillet welds<sup>2</sup></li> <li>1) Dimensions (alignment, gaps at root)</li> <li>2) Cleanliness (condition of steel surfaces)</li> <li>3) Tacking (tack weld quality and location)</li> </ul>		Х		
YES	j. Check welding equipment		Х		
	2. Inspection tasks during welding:				
YES	<ul> <li>a. Control and handling of welding consumables<sup>2</sup></li> <li>1) Packaging</li> <li>2) Exposure control</li> </ul>		Х		
YES	b. No welding over cracked tack welds <sup>2</sup>		Х		
YES	<ul> <li>c. Environmental conditions<sup>2</sup></li> <li>1) Wind speed within limits</li> <li>2) Precipitation and temperature</li> </ul>		Х		
YES	<ul> <li>d. WPS followed<sup>2</sup></li> <li>1) Settings on weld equipment</li> <li>2) Travel speed</li> <li>3) Selected welding materials</li> <li>4) Shielding gas type/flow rate</li> <li>5) Preheat applied</li> <li>6) Interpass temperature maintained (min./max.)</li> <li>7) Proper position (F, V, H, OH)</li> </ul>		X	AISC 360-16 N5.4-2: AWS D1.1	1705.2.1
YES	<ul> <li>e. Welding techniques<sup>2</sup></li> <li>1) Interpass and final cleaning</li> <li>2) Each pass within profile limitations</li> <li>3) Each pass meets quality requirements</li> </ul>		Х		
YES	f. Placement and installation of steel headed stud anchors	Х			
	3. Inspection tasks after welding:				
YES	a. Welds cleaned		Х		
YES	b. Size, length and location of welds	Х			
YES	<ul> <li>c. Welds meet visual acceptance criteria</li> <li>1) Crack prohibition</li> <li>2) Weld/base-metal fusion</li> <li>3) Crater cross section</li> <li>4) Weld profiles</li> <li>5) Weld size</li> <li>6) Undercut</li> <li>7) Porosity</li> </ul>	X		AISC 360-16 N5.4-3: AWS D1.1	1705.2.1
YES	d. Arc strikes	Х		_	
YES	e. k-area <sup>3</sup>	Х		_	
YES	f. Weld access holes in rolled heavy shapes and built-up heavy shapes <sup>4</sup>	Х			
YES	g. Backing removed and weld tabs removed (if required)	Х			
YES	h. Repair activities	Х			
YES	Document acceptance or rejection of welded joint or member	Х			
YES	j. No prohibited welds have been added without the approval of the EOR	Х			

<sup>1.</sup> Inspection tasks noted in this table are the responsibility of the Special Inspector or Quality Assurance Inspector (QAI). The fabricator and erector are responsible for all inspection tasks indicated in AISC 360-16 Section N5 and assigned to the Quality Control Inspector (QCI)

SPECIAL		INSPECTION F	REQUENCY	REFERENCED	IBC
INSPECTION REQUIRED	VERIFICATION AND INSPECTION	CONTINUOUS	CONTINUOUS PERIODIC		REFERENCE
	1. Inspection tasks prior to bolting:				
YES	Manufacturer's certifications available for fastener materials	Х			1705.2.1
YES	b. Fasteners marked in accordance with ASTM requirements		X		
YES	c. Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane) <sup>2</sup>		X	AISC 360-16 N5.6-1	
YES	d. Correct bolting procedure selected for joint detail <sup>2</sup>		Х		
YES	Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements		X		
YES	Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used		X		
YES	g. Proper storage provided for bolts, nuts, washers and other fastener components		Х		
	2. Inspection tasks during bolting:				
YES	<ul> <li>Fastener assemblies placed in all holes and washers and nuts are postioned as required<sup>2</sup></li> </ul>		X		
YES	<ul> <li>b. Joint brought to the snug-tight condition prior to the pretensioning operation<sup>2</sup></li> </ul>		Х	AISC 360-16	1705.2.1
YES	c. Fastener component not turned by the wrench prevented from rotating. <sup>2</sup>		X	N5.6-2	17 00.2.1
YES	d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges		Х		
	3. Inspection tasks after bolting:				
YES	Document acceptance or rejection of bolted connections	Х		AISC 360-16 N5.6-3	1705.2.1

Inspection tasks noted in this table are the responsibility of the Special Inspector or Quality Assurance Inspector (QAI).
 The fabricator and erector are responsible for all inspection tasks indicated in AISC 360-16 Section N5 and assigned to the Quality Control Inspector (QCI)

<sup>2.</sup> Inspection tasks may be coordinated with the fabricator or erector's Quality Control Inspector (QCI) where indicated with this footnote. All other tasks shall be performed by the Special Inspector.

	VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION OT			(120 11001212)	
SPECIAL INSPECTION	VERIFICATION AND INSPECTION	INSPECTION F		REFERENCED STANDARD	IBC REFERENCE
REQUIRED		CONTINUOUS	PERIODIC	STANDARD	INCI LINCINGE
	Inspection or Execution Tasks Prior to Deck Placement				
YES	<ul> <li>Verify compliance of materials (deck and all deck accessories)     with construction documents, including profiles, material     properties, and base metal thickness</li> </ul>	Х		SDI QA/QC- 2017 Table 1.1	IBC 1705.2.2
YES	b. Document acceptance or rejection of deck and deck accessories	Х		2017 Table 1.1	
	2. Inspection or Execution Tasks After Deck Placement				
YES	Verify compliance of deck and all deck accessories installation with construction documents	Х		SDI QA/QC-	
YES	Verify deck materials are represented by the mill certifications     that comply with the construction documents	Х	<b></b>	SDI QA/QC- 2017 Table 1.2	IBC 1705.2.2
YES	Document acceptance or rejection of installation of deck and deck accessories	Х			
	Inspection or Execution Tasks Prior to Welding				
YES	a. Welding procedure specifications (WPS) available	Х		-	
YES	b. Manufracturer certifications for welding consumables available	Х		SDI QA/QC- 2017 Table 1.3	IBC 1705.2.2
YES	c. Material identification (type/grade)		Х	-	
YES	d. Check welding equipment		X		
	4. Inspection or Execution Tasks During Welding				
YES	a. Use of qualified welders		Х	 	
YES	b. Control and handling of welding consumables		Х	SDI QA/QC-	IBC 1705.2.2
YES	c. Environmental conditions (wind speed, moisture, temperature)		Х	2017 Table 1.4	
YES	d. WPS followed		X		
	5. Inspection or Execution Tasks After Welding				
YES	Verify size and location of welds, including support, sideslab, and perimeter welds	Х			
YES	b. Welds meet visual acceptance criteria	Х		SDI QA/QC-	IBC 1705.2.2
YES	c. Verify repair activities	Х		2017 Table 1.5	150 17 00.2.2
YES	d. Document acceptance or rejection of welds	Х			
	6. Inspection or Execution Tasks Prior to Mechanical Fastening				
YES	Manufracturer installation instructions avaliable for mechnical fasteners	Х		]	
YES	b. Proper tools avaliable for fasteners installation		Х	SDI QA/QC- 2017 Table 1.6	IBC 1705.2.2
YES	c. Proper storage for mechanical fasteners		Х		
	7. Inspection or Execution Tasks During Mechanical Fastening				
YES	a. Fasteners are positioned as required		X	SDI QA/QC-	IDO 4705 0 1
YES	b. Fasteners are installed in accordance with manufacturer's instructions		Х	2017 Table 1.7	IBC 1705.2.2
	8. Inspection or Execution Tasks After Mechanical Fastening				
YES	a. Check spacing, type, and installation of support fasteners	Х			
YES	b. Check spacing, type, and installation of sidelap fasteners	Х		1	
YES	c. Check spacing, type, and installation of perimeter fasteners	Х		SDI QA/QC- 2017 Table 1.8	IBC 1705.2.2
YES	d. Verify repair activities	Х		]	
YES	e. Document acceptance or rejection of mechanical fasteners	Х			

SPECIAL		INSPECTION F	REQUENCY	REFERENCED	IBC
INSPECTION REQUIRED	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	STANDARD	REFERENCE
YES	Inspect reinforcement, including prestressing tendons, and verify placement.		Х	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
	2. Reinforcing bar welding:				
NO	a. Verify weldability of reinforcing bars other than ASTM A706		Х	AWS D1.4	
NO	b. Inspect single-pass fillet welds, maximum 5/16"		Х	ACI 318: 26.6.4	
NO	c. Inspect all other welds.	Х			
YES	Inspect anchors and dowels cast in concrete.		Х	ACI 318: 17.8.2	
	4. Inspect post-installed anchors and dowels in hardened concrete.				
YES	Mechanical anchors and adhesive anchors and dowels installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	x <sup>1</sup>		ACI 318: 17.8.2.4	
YES	b. Mechanical anchors and adhesive anchors and dowels not defined in 4.a.		X <sup>1</sup>	ACI 318: 17.8.2	
YES	5. Verify use of required design mix.		Х	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2 1908.2, 1908.3
YES	<ol> <li>Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.</li> </ol>	Х		ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
YES	Inspect concrete and shotcrete placement for proper application techniques.	Х		ACI 318: 26.5	1908.6, 1908.7, 1908.8
YES	Verify maintenance of specified curing temperature and techniques.		Х	ACI 318: 26.5.3- 26.5.5	1908.9
	Inspection of prestressed concrete:				
NO	a. Application of prestressing forces	Х		ACI 318: 26.10	
NO	b. Grouting of bonded prestressing tendons	Х		ACI 318: 26.10	
NO	10. Inspect erection of precast concrete members.		Х	ACI 318: 26.9	
YES	11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		Х	ACI 318: 26.11.2	
YES	<ol> <li>Inspect formwork for shape, location and dimensions of the concrete member being formed.</li> </ol>		Х	ACI 318: 26.11.1.2(b)	

 Post-Installed anchors and dowels shall be either (a.) visually inspected during installation, or (b.) load tested after installation as noted below:
 Visual inspections shall be performed during the installation by a Special Inspector certified by ACI as a "Post-Installed Concrete Anchor Installation Inspector". Submit a report to the licensed design professional and building official documenting that the work covered by the report has been performed and that the materials used and the installation procedures used conform with the approved construction documents and the Manufacturer's Printed Installation Instructions.

b. Load Testing shall comply with the following: i. Test at least ten (10) percent of each type and diameter of post-installed anchors. If one or more anchors fail the test, all post-installed anchors of the same diameter and type installed the same day as the failed anchor shall be load tested at the contractor's expense. If additional anchors fail, the engineer may require testing all anchors of the same diameter and type already installed at the contractor's expense.

ii. Tension testing shall comply with ASTM E488

iii. Test post-installed anchors to 50 percent of ultimate tensile capacity of post-installed anchor.

iv. Apply test loads with a calibrated hydraulic ram. v. Displacement of post-installed anchors shall not exceed D/10, where D is nominal diameter of anchor being tested.

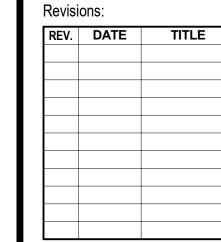
vi. Correct defective work by removing and replacing or correcting, as directed by engineer.
vii. Contractor shall pay for all corrections, engineering, and additional testing associated with failed anchor tests.

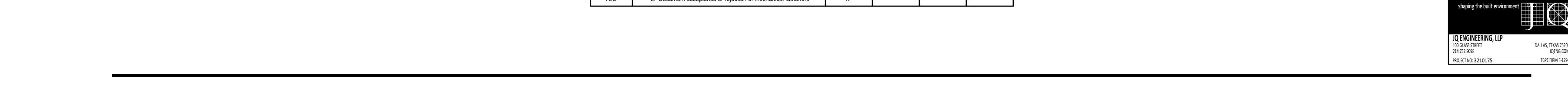
viii. Testing agency shall submit test results to contractor and engineer with 24 hours of completion of test.

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Inspection tasks may be coordinated with the fabricator or erector's Quality Control Inspector (QCI) where indicated with this footnote. All other tasks shall be performed by the Special Inspector.

<sup>3.</sup> When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75 mm) of the weld.

<sup>4.</sup> After rolled heavy shapes and built-up heavy shapes are welded, visually inspect the weld access hole for cracks.

	LEVEL 2 VERIFICATION AND INSPECTION OF MASONRY CONSTR	RUCTION (TMS 60	2-16 Table 3 & <sup>-</sup>	Table 4)
PECIAL		INSPECTION F		,
ISPECTION EQUIRED	VERIFICATION, INSPECTION AND TESTING	CONTINUOUS	PERIODIC	REFERENCE FOR CRITERIA
	MINIMUM TESTS			
YES	Prior to construction, verification of compliance of submittals.			TMS 602-16 Art. 1.5
YES	Prior to construction, verification of f'm and f'AAC, except where specifically exempted by the code.			TMS 602-16 Art. 1.4 b
YES	During construction, verification of slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered tot the project site.			TMS 602-16 Art. 1.5 &1.6.3
	INSPECTION TASKS			
	As masonry construction begins, verify that the following are in compliance:			
YES	a. Proportions of site-prepared mortar		Х	TMS 602-16 Art. 2.1, 2.6 A, & 2.6 C
NO	b. Grade and size of prestressing tendons and anchorages		Х	TMS 602-16 Art. 2.4 B & 2.4 H
YES	c. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		Х	TMS 602-16 Art. 3.4 & 3.6 A
NO	d. Prestressing technique		Х	TMS 602-16 Art. 3.6 B
NO	e. Properties of thin-bed mortar for AAC masonry	Х <sup>1</sup>	X <sup>2</sup>	TMS 602-16 Art. 2.1 C.1
YES	f. Sample panel construction		Х	TMS 602-16 Art. 1.6 D
	Prior to grouting, verify that the following are in compliance:	'		
YES	a. Grout space		X	TMS 602-16 Art. 3.2 D & 3.2 F
NO	b. Placement of prestressing tendons and anchorages		Х	TMS 602-16 Art. 2.4 & 3.6, TMS 402-16 Sec. 10.8 & 10.9
YES	c. Placement of reinforcement, connectors, and anchor bolts		Х	TMS 602-16 Art. 3.2 E & 3.4, TMS 402-16 Sec. 6.1, 6.3.1, 6.3.6, & 6.3.7
YES	d. Proportions of site-prepared grout and prestressing grout for bonded tendons		Х	TMS 602-16 Art. 2.6 B & 2.4 G.1.b
	3. Verify compliance of the following during construction:			
YES	a. Materials and procedures with the approved submittals		Х	TMS 602-16 Art. 1.5
YES	b. Placement of masonry units and mortar joint construction		Х	TMS 602-16 Art. 3.3 B
YES	c. Size and location of structural members		Χ	TMS 602-16 Art. 3.3 F
YES	<ul> <li>Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction</li> </ul>		Х	TMS 402-16 Sec. 1.2.1 (e), 6.2.1, & 6.3.1
YES	e. Welding of reinforcement	Х		TMS 402-16 Sec. 6.1.6.1.2
YES	f. Preparation, construction and protection of masonry during cold weather (temperature below 40°F (4.4°C)) or hot weather (temperature above 90°F (32.2°C))		Х	TMS 602-16 Art. 1.8 C & 1.8 D
NO	g. Application and measurement of prestressing force	Х		TMS 602-16 Art. 3.6 B
NO	h. Placement of grout and prestressing grout for bonded tendons is in compliance	Х		TMS 602-16 Art. 3.5 & 3.6 C
NO	Placement of AAC masonry units and construction of thin-bed mortar joints	X <sup>1</sup>	X <sup>2</sup>	TMS 602-16 Art. 3.3 B.9 & 3.3 F.1.b
YES	Observe preparation of grout specimens, mortar specimens and/or prisms		Х	TMS 602-16 Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, & 1.4 B.4
	Inspect post-installed anchors and dowels in masonry			
YES	Mechanical anchors and adhesive anchors and dowels installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X <sup>3</sup>		Manufacturer's specifications & printed installation instructions
YES	<ul> <li>b. Mechanical anchors and adhesive anchors and dowels not defined by 5 a.</li> </ul>		X <sup>3</sup>	Manufacturer's specifications & printed installation instructions

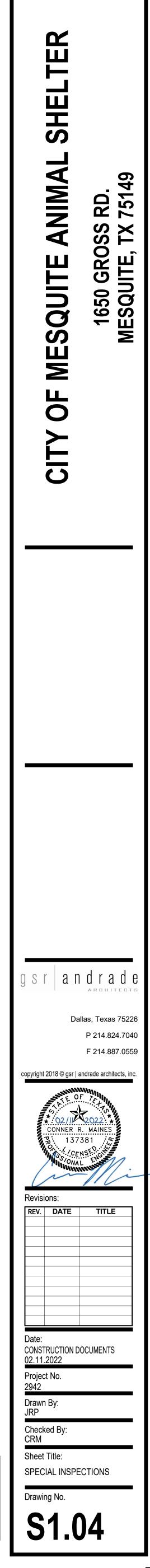
- 1. Required for the first 5,000 square feet (465 square meters) of AAC masonry.
- 2. Required after the first 5,000 square feet (465 square meters) of AAC masonry.
- 3. Post-Installed anchors and dowels shall be either (a.) visually inspected during installation, or (b.) load tested after installation as noted below: a. Visual inspections shall be performed during the installation by a Special Inspector certified by ACI as a "Post-Installed Concrete Anchor Installation
- Inspector". Submit a report to the licensed design professional and building official documenting that the work covered by the report has been performed and that the materials used and the installation procedures used conform with the approved construction documents and the
- Manufacturer's Printed Installation Instructions.
- b. Load Testing shall comply with the following:
  i. Test at least ten (10) percent of each type and diameter of post-installed anchors. If one or more anchors fail the test, all post-installed anchors of the same diameter and type installed the same day as the failed anchor shall be load tested at the contractor's expense. If additional anchors fail, the engineer may require testing all anchors of the same diameter and type already installed at the contractor's expense.
- ii. Tension testing shall comply with ASTM E488
- iii. Test post-installed anchors to 50 percent of ultimate tensile capacity of post-installed anchor. iv. Apply test loads with a calibrated hydraulic ram.

- v. Displacement of post-installed anchors shall not exceed D/10, where D is nominal diameter of anchor being tested.
  vi. Correct defective work by removing and replacing or correcting, as directed by engineer.
  vii. Contractor shall pay for all corrections, engineering, and additional testing associated with failed anchor tests.
  viii. Testing agency shall submit test results to contractor and engineer with 24 hours of completion of test.

VERIFICATION AND INSPECTION TASKS FOR STRUCTURAL COLD-FORMED STEEL FRAMING								
SPECIAL INSPECTION	VEDICIONI INSPECTIONI AND TESTINO	INSPECTION F	REQUENCY	REFERENCED	IBC			
REQUIRED	VERIFICATION, INSPECTION AND TESTING	VERIFICATION, INSPECTION AND TESTING  CONTINUOUS PERIODIC		STANDARD	REFERENCE			
YES	Fabrication process of prefabricated cold-formed structural elements and assemblies shall be in accordance with IBC 1704.2.5 and local amendments		Х		1704.2.5			
	Inspect lateral resisting elements, including shear walls, braces, diaphragms, collectors (drag struts), and hold-downs for the following:							
YES	a. Member size, gauge thickness, and materials.		Χ					
YES	<ul> <li>Size of framing members at adjoining panel edges for diaphragms and shear walls.</li> </ul>		Χ		1705.11.2 1705.12.3			
YES	c. Screw diameter, length, and spacing for diaphragms and shear walls.		Х		1700.12.0			
YES	d. Bolting, anchoring, and other fastening of components.		X					
YES	e. Welding operations.		X					
	Trusses with clear span 60'-0" or greater, inspector shall verify the following:							
YES	<ul> <li>Temporary installation restraint/bracing installed per approved truss submittal package.</li> </ul>	Х		-	1705.2.4			
YES	<ul> <li>b. Permanent individual truss member restraint/bracing installed per approved truss submittal package.</li> </ul>	Х						

	VERIFICATION AND INSPECTION OF SOILS (IBC TABLE 1705.6)			
SPECIAL INSPECTION	VEDICION INCRECTION AND TECTING		INSPECTION FREQUENCY	
REQUIRED	VERIFICATION, INSPECTION AND TESTING	CONTINUOUS	PERIODIC	
YES	<ol> <li>Verify materials below shallow foundations are adequate to achieve the design bearing capacity.</li> </ol>		Х	
YES	2. Verify excavations are extended to proper depth and have reached proper material.		Χ	
YES	Perform classification and testing of compacted fill materials.		Χ	
YES	Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Х		
YES	<ol> <li>Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.</li> </ol>		Х	

	VERIFICATION AND INSPECTION OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS (IBC TABLE 1705.8)							
SPECIAL	SPECTION VERIFICATION AND INSPECTION		INSPECTION FREQUENCY					
REQUIRED			PERIODIC					
YES	Inspect drilling operations and maintain complete and accurate records for each element.	Х						
YES	<ol> <li>Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end bearing strata capacity. Record concrete or grout volumes.</li> </ol>	Х						
YES	For concrete elements, perform additional inspections in accordance with IBC     Section 1705.3							



# north

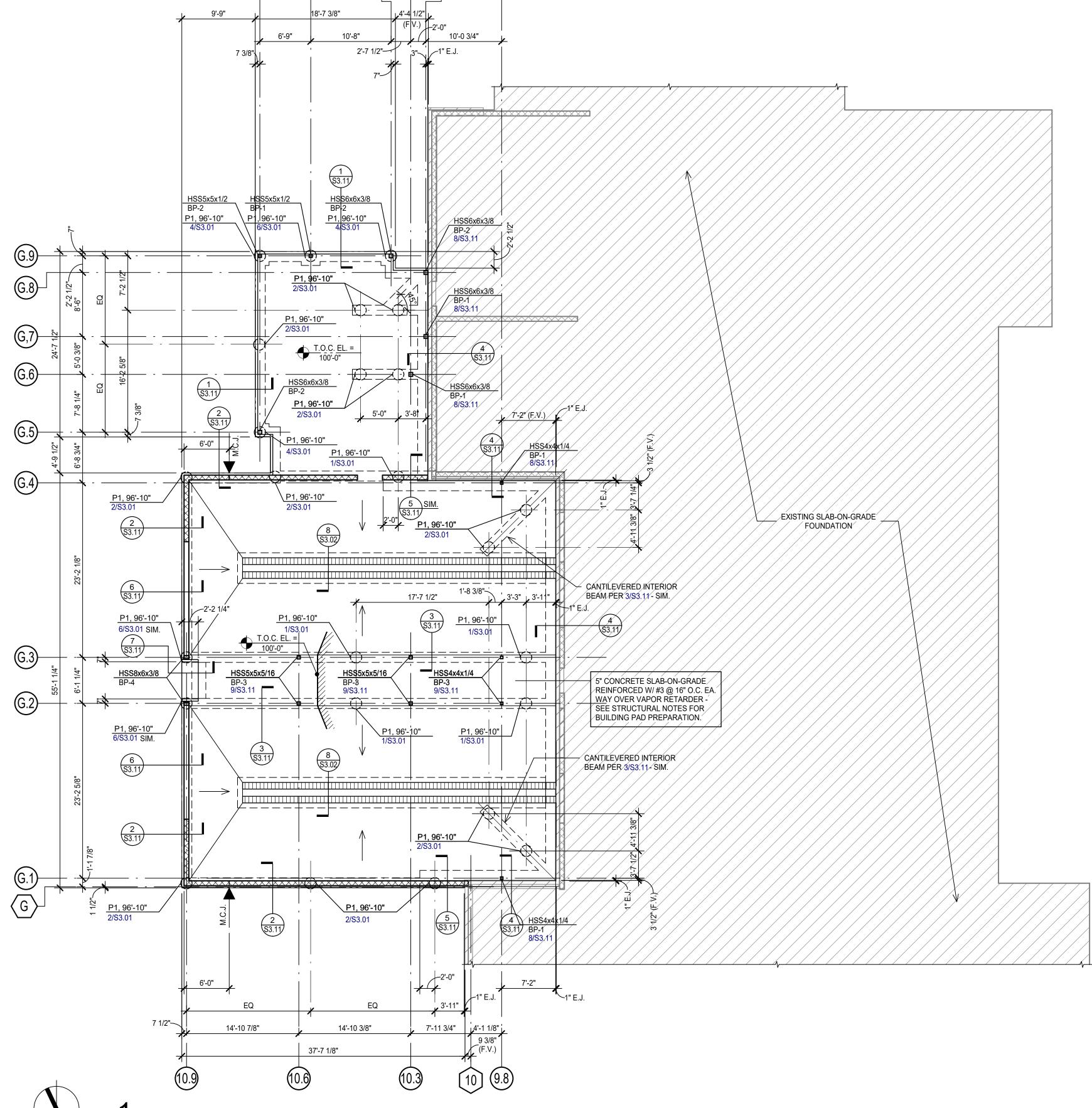
# 2 DUMPSTER FOUNDATION PLAN

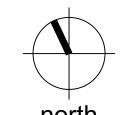
## PLAN NOTES

- FINISH FLOOR ELEVATION = 100'-0", UNLESS NOTED OTHERWISE.
   COORDINATE SLAB ELEVATIONS WITH CIVIL GRADING / TOP OF CONCRETE.
- COORDINATE FINAL TOP OF PIER ELEVATIONS WITH FINAL CIVIL GRADING PLANS.
- 3. SEE ARCHITECTURAL DRAWINGS FOR FINAL LOCATIONS, ORIENTATIONS, AND DIMENSIONS.
- 4. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO DRILLING PIERS.

  SHEET INDEX:

STRUCTURAL NOTES -S1.01, S1.02 TYPICAL DETAILS -S3.01, S3.02 PIER SCHEDULE -S3.01





# 1 FOUNDATION PLAN SCALE: 1/8" = 1'-0"

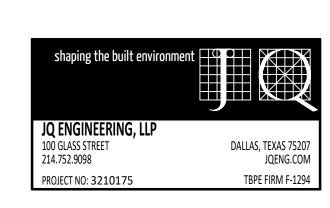
# PLAN NOTE

- 1. FINISH FLOOR ELEVATION = 100'-0", UNLESS NOTED OTHERWISE. EXISTING FOUNDATION ELEVATIONS 468.00' = 100'-0"
- TOP OF CONCRETE ELEVATION (T.O.C. EL.) = FINISH FLOOR. UNLESS RECESSED TO RECEIVE FLOORING MATERIALS.
- 3. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF FLOOR RECESSES, DROPS AND SLOPES NOT DIMENSIONED ON PLAN.
- 4. CENTERLINES OF PIERS NOT SPECIFICALLY LOCATED ON PLAN BY NOTE OR DIMENSION SHALL BE LOCATED AS FOLLOWS:
- A. SUPPORTING FREESTANDING COLUMNS: CENTERLINES OF COLUMN.
- B. SUPPORTING GRADEBEAMS AND WALLS: CENTERLINE OF GRADEBEAM OR WALL IN ONE DIRECTION, GRID OR AS NOTED IN OTHER DIRECTION. AT CORNER CONDITIONS: CENTERLINES OF GRADEBEAMS OR WALLS.
- C. COLUMNS EMBEDED IN GRADEBEAMS OR WALLS (PILASTERS): CENTERLINES OF THE COLUMN.
- DRILLING PIERS.

  6. TYPICAL CONCRETE SLAB THICKNESS IS 5" (OVERALL), UNLESS NOTED

5. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO

SHEET INDEX:
STRUCTURAL NOTES
TYPICAL DETAILS
PIER SCHEDULE
BASE PLATE SCHEDULE
-S3.01
-S5.01



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Revisions:

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Project No.
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Drawn By:
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Checked By:
CRM
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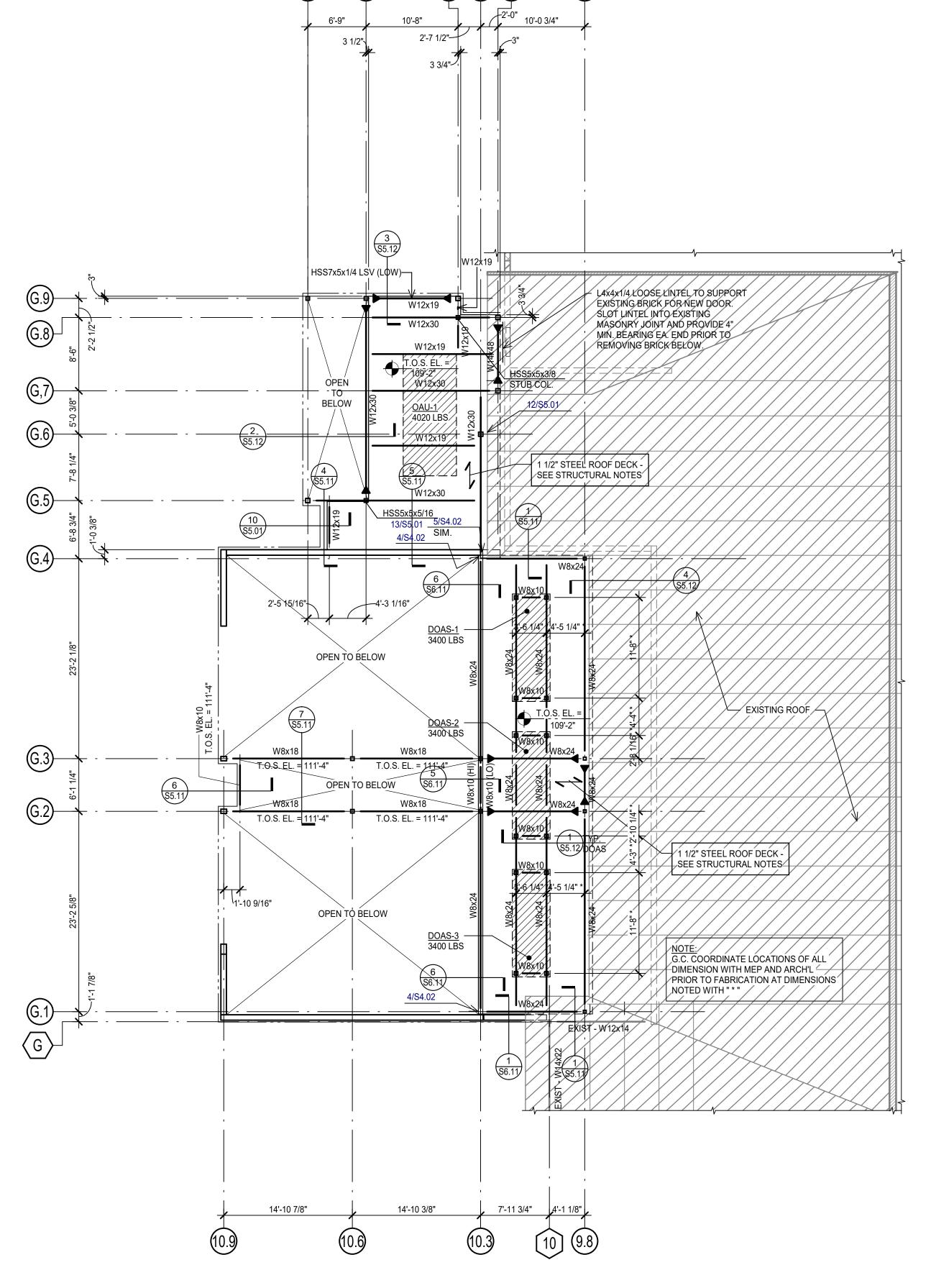
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LOW ROOF FRAMING PLAN

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

TYPICAL DETAILS

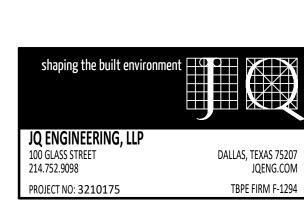
 TOP OF ROOF STRUCTURE IS SLOPED FOR DRAINAGE. SEE ELEVATIONS NOTED ON THE PLAN. SLOPES SHALL BE UNIFORM BETWEEN COLUMN CENTERLINES, UNLESS NOTED OTHERWISE

2. TOP OF STEEL ELEVATION (T.O.S. EL.) = TOP OF BEAM, JOIST, OR MEMBER SUPPORTING ROOF DECK = BOTTOM OF DECK.

3. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR LOCATION AND DIMENSIONS OF ROOF PENETRATIONS NOT DIMENSIONED ON PLAN. CONTRACTOR TO COORDINATE.

4. STEEL BEAMS SHALL BE CENTERED ON AND EQUALLY SPACED BETWEEN COLUMN CENTERLINES, UNLESS NOTED OTHERWISE. SHEET INDEX: STRUCTURAL NOTES -S1.01, S1.02

-S4.01, S5.01, S5.02, S6.01

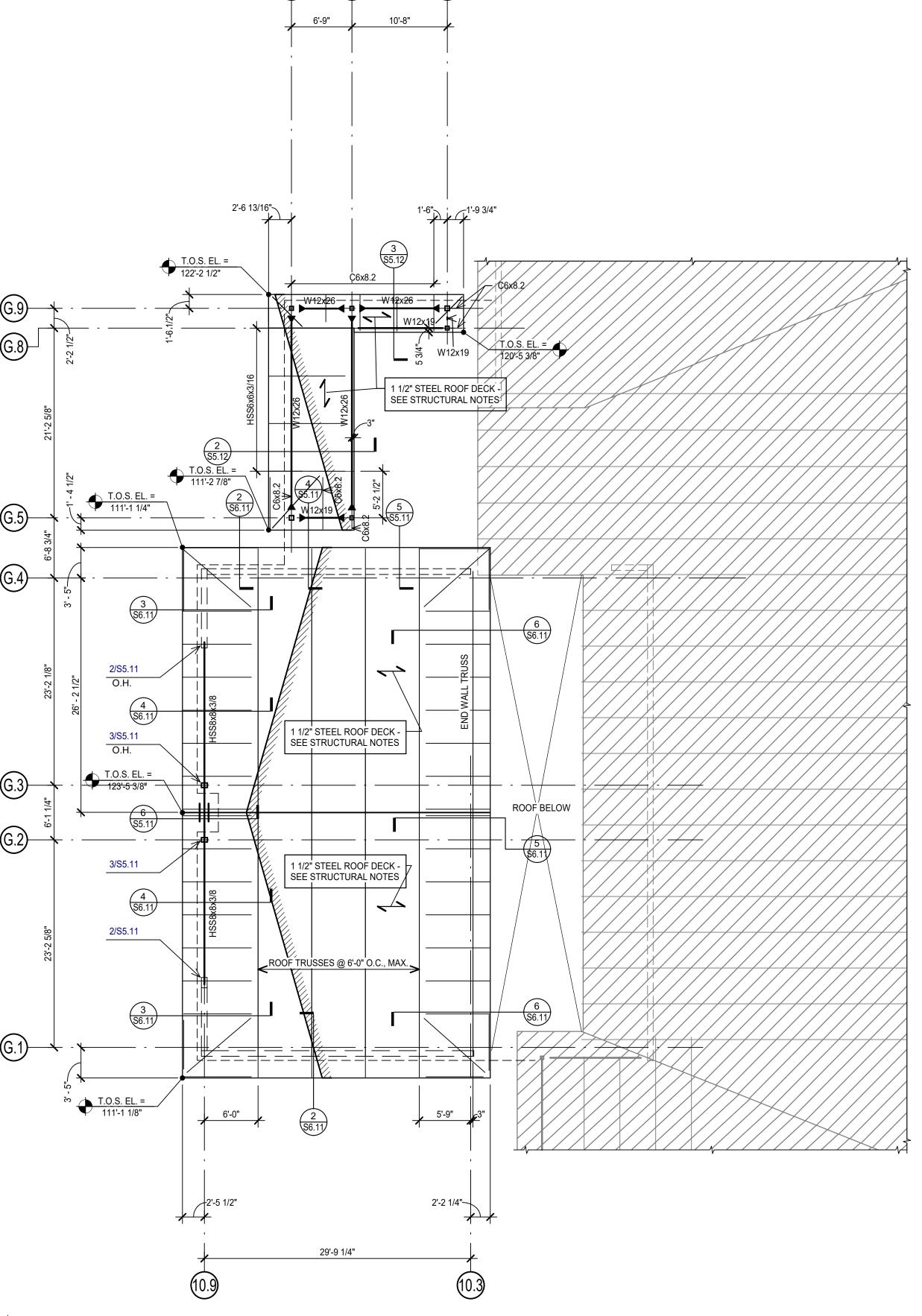


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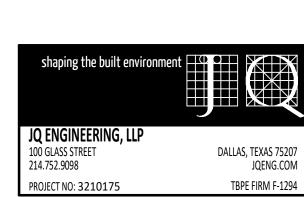
CONSTRUCTION DOCUMENTS



PLAN NOTES:

- TOP OF ROOF STRUCTURE IS SLOPED FOR DRAINAGE. SEE ELEVATIONS NOTED ON THE PLAN. SLOPES SHALL BE UNIFORM BETWEEN COLUMN CENTERLINES, UNLESS NOTED OTHERWISE.
- 2. TOP OF STEEL ELEVATION (T.O.S. EL.) = TOP OF BEAM, JOIST, OR MEMBER SUPPORTING ROOF DECK = BOTTOM OF DECK.
- 3. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR LOCATION AND DIMENSIONS OF ROOF PENETRATIONS NOT
- DIMENSIONED ON PLAN. CONTRACTOR TO COORDINATE. 4. STEEL BEAMS SHALL BE CENTERED ON AND EQUALLY SPACED BETWEEN COLUMN CENTERLINES, UNLESS NOTED OTHERWISE.

SHEET INDEX: STRUCTURAL NOTES -S1.01, S1.02 TYPICAL DETAILS -S4.01, S5.01, S5.02, S6.01



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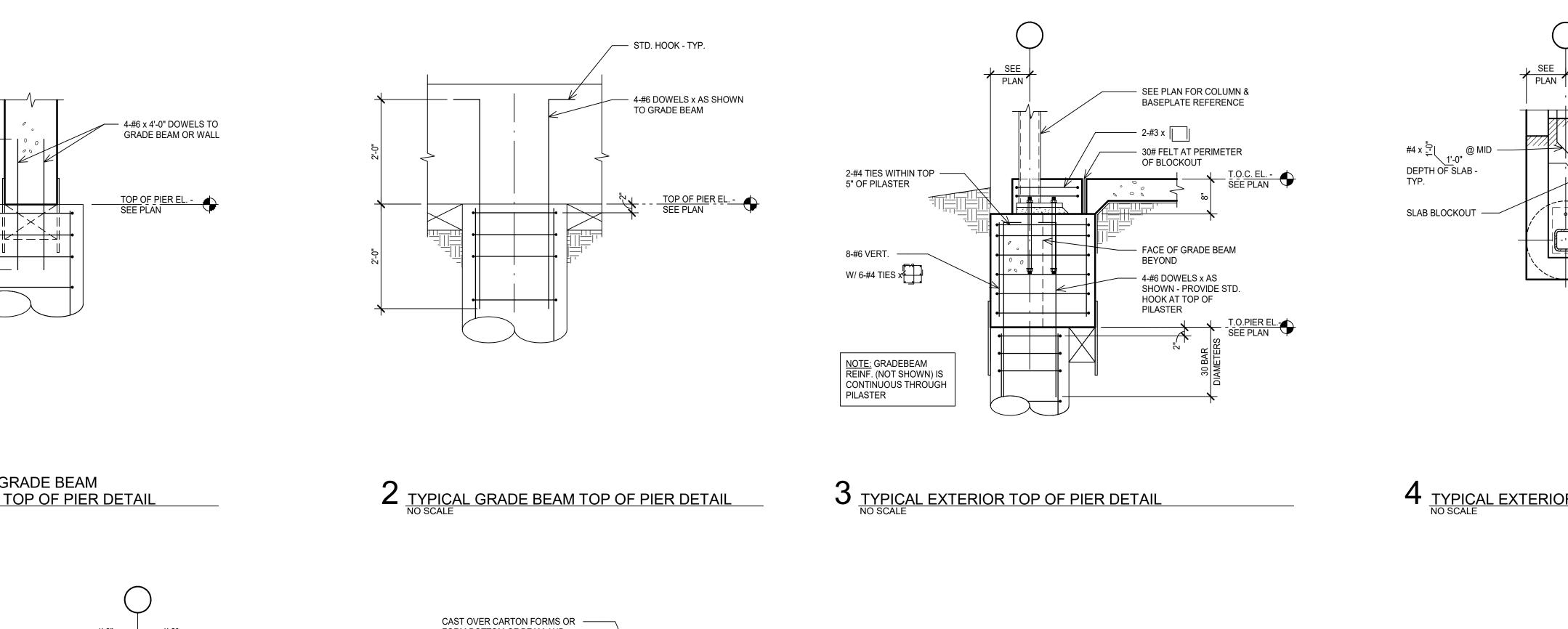
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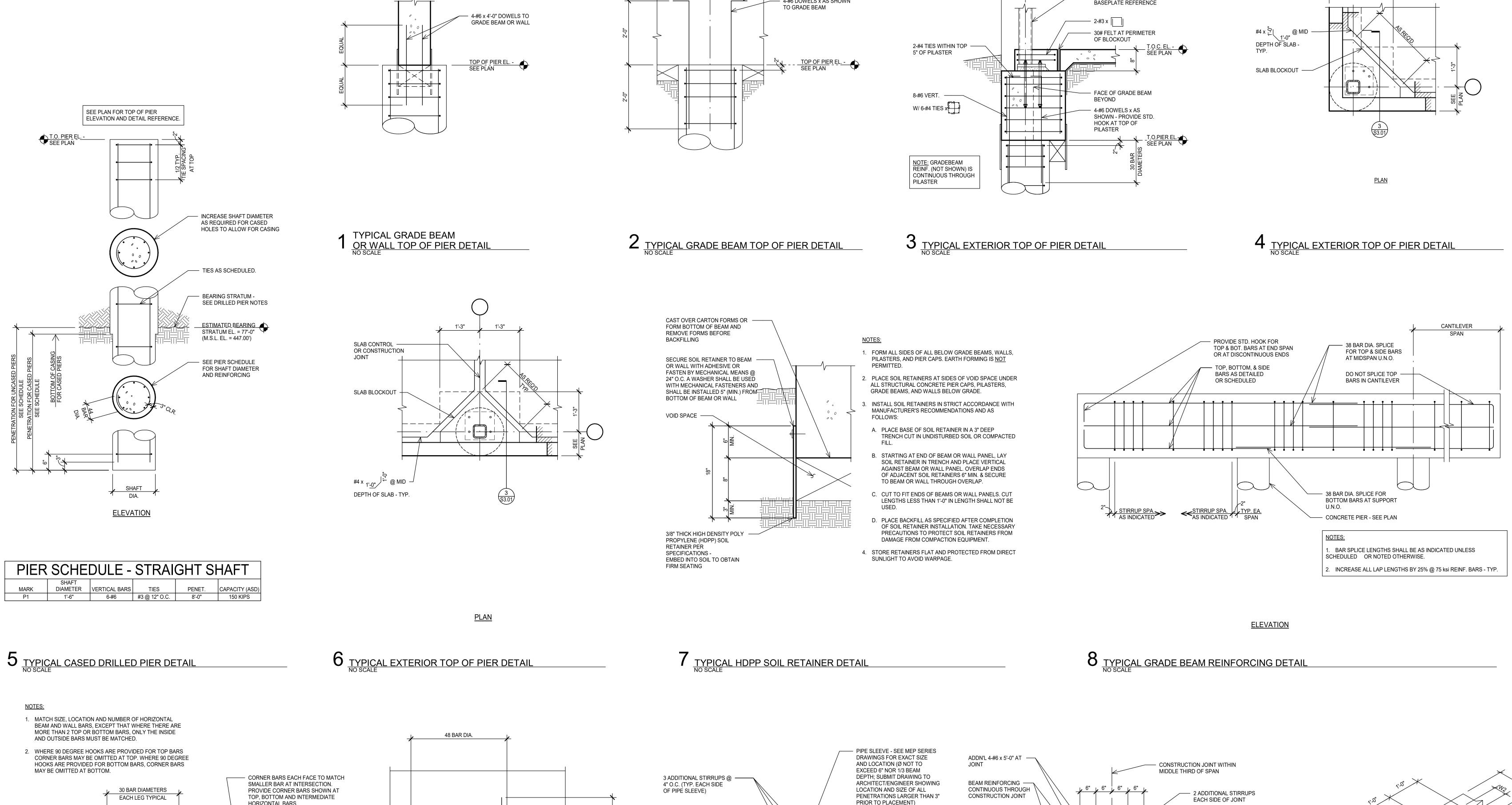
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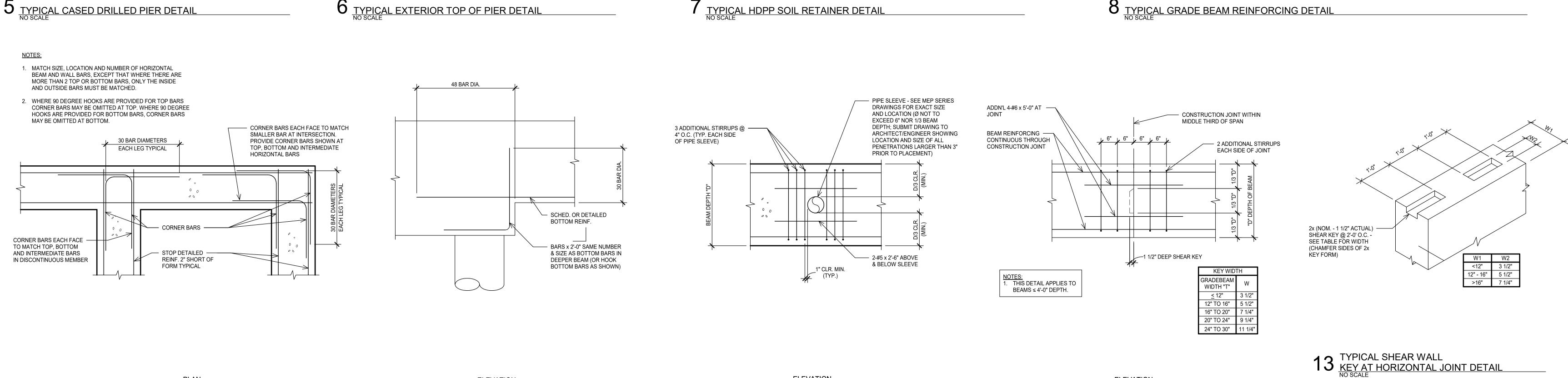
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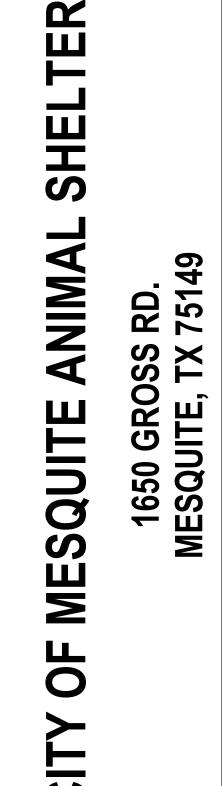
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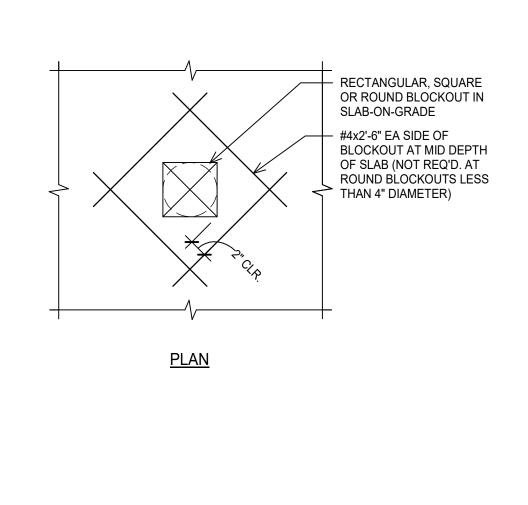
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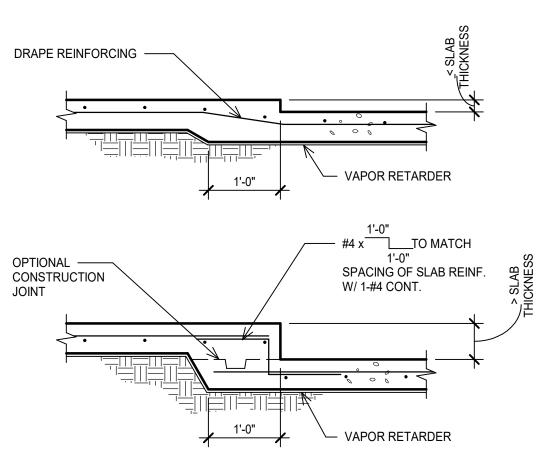
**ELEVATION** 

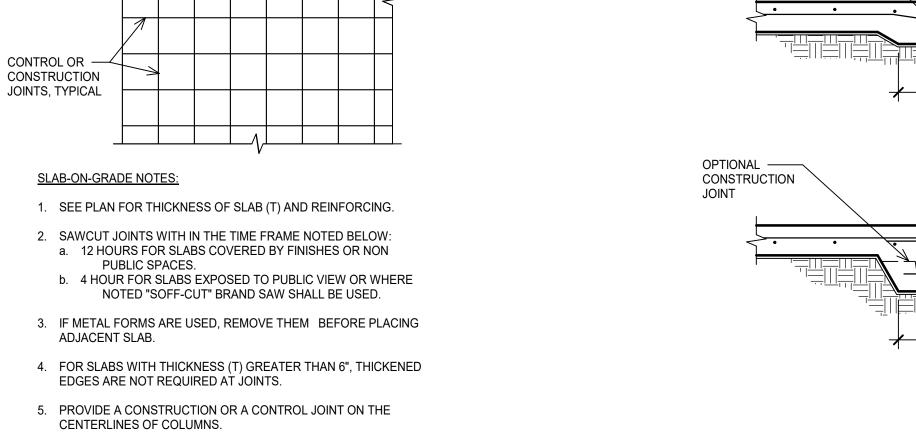
**ELEVATION** 

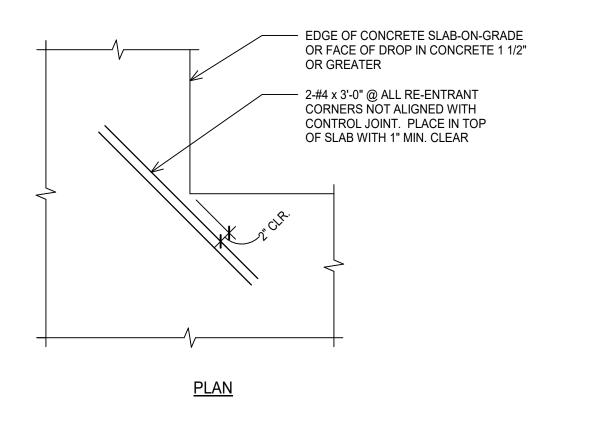
**ELEVATION** 













NOTE:
PROVIDE ONE OF THE FOLLOWING SLIP DOWELS:
- PNA CONSTRUCTION TECHNOLOGIES 1/4" x 4 1/2" x 4 1/2" "DIAMOND DOWEL"

**CONSTRUCTION JOINT** 

**CONTROL JOINT** 

TOOL 1/8" RADIUS AT EDGE OF JOINT

— FILL JOINT WITH SEALANT

CUT AND REMOVE 6" WIDE

STRIP OF ALTERNATE BARS

AT CONTROL JOINT THUS:

— CONTROL JOINT

CONTROL OR -

JOINTS, TYPICAL

6. LAP REINFORCING 38 BAR DIAMETER MINIMUM.

SECOND POUR

PLATE DOWEL SYSTEM.
- GREENSTREAK 5/8" DIA. SMOOTH x 24" "SPEED DOWEL" SYSTEM.

- 1/2" DIA. x 2'-0" A36 SMOOTH ROD.

SLIP DOWEL @ 18" O.C.- SEE NOTE

FIRST POUR —

VAPOR RETARDER —

PREPARED SUBGRADE

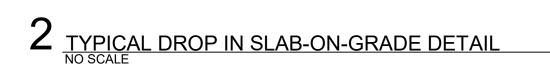
TOOL, SAW CUT OR ——

PREFORMED PLASTIC

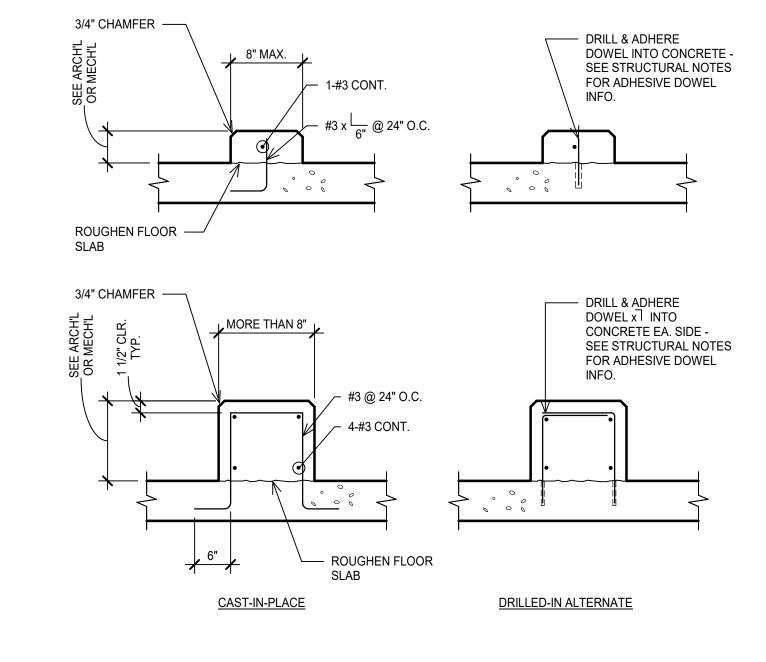
VAPOR RETARDER —

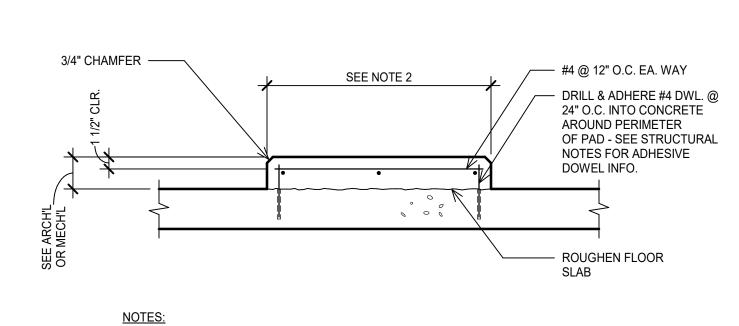
(BUILDING PAD) - SEE

STRUCTURAL NOTES



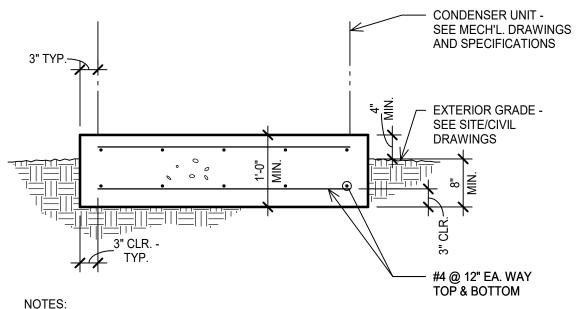




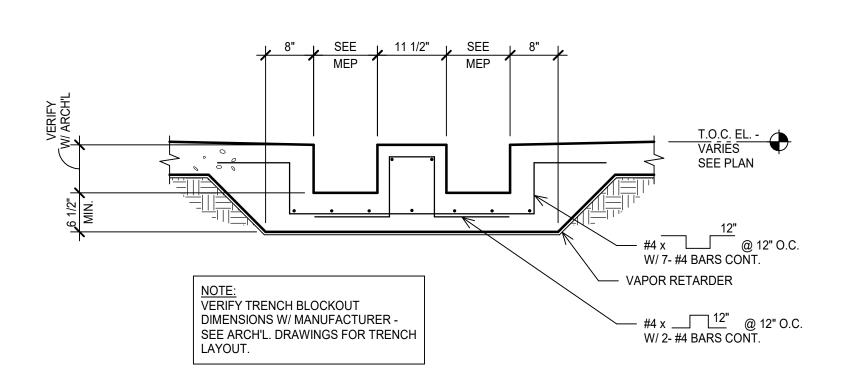


# EQUIPMENT PADS TO BE PROVIDED UNDER EQUIPMENT SUPPORTED ON SLAB-ON-GRADE OR ELEVATED SLABS.

COORDINATE MECHANICAL PAD SIZE, LOCATION AND EMBEDDED ITEMS WITH MEP DRAWINGS AND EQUIPMENT MANUFACTURER.



- COORDINATE ANY EMBEDDED ITEMS IN PAD W/ MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS.
- 2. VERIFY PAD DIMENSIONS WITH UNIT MANUFACTURER PRIOR TO CONSTRUCTION.
- 3. PAD SHALL BE PLACED ON UNDISTURBED EXISTING SOIL OR COMPACTED FILL.
- SEE MEP, SITE AND/OR CIVIL DRAWINGS FOR PAD LOCATION.

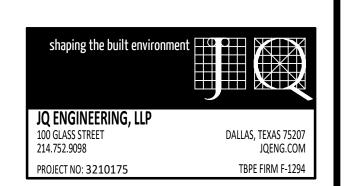


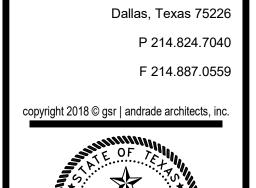




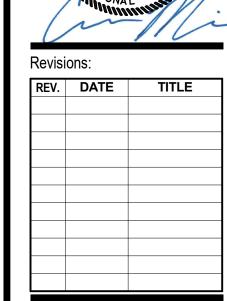








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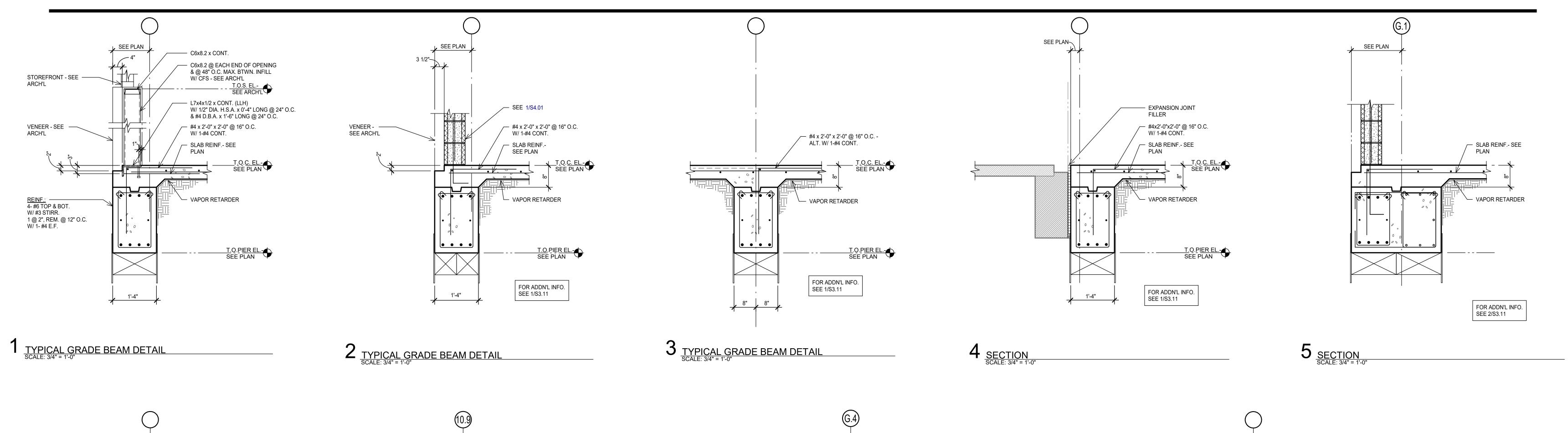
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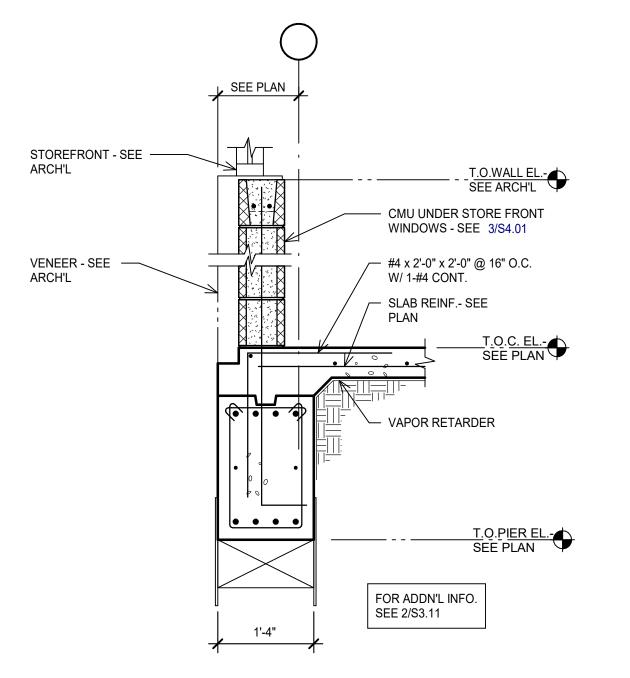
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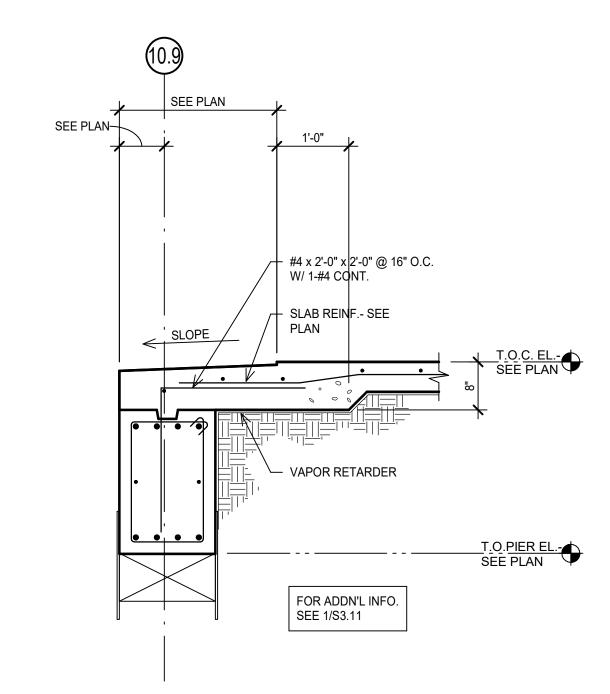
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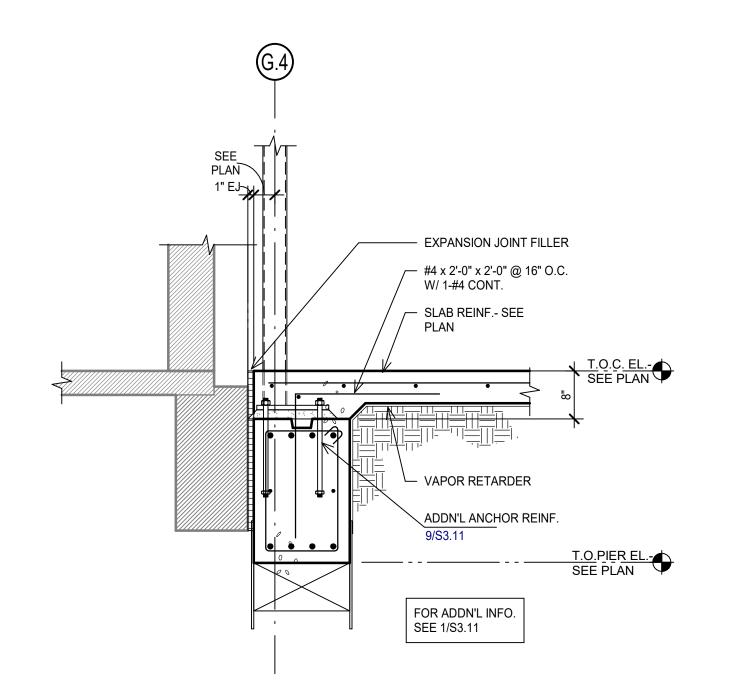
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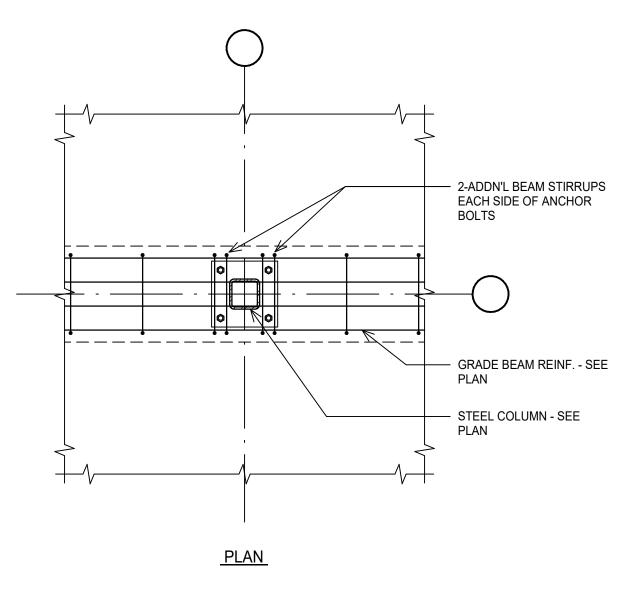
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6 <u>SECTION</u> SCALE: 3/4" = 1'-0"

7 <u>SECTION</u> SCALE: 3/4" = 1'-0"

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

9 <u>DETAIL</u> SCALE: 3/4" = 1'-0"



gsrandrad

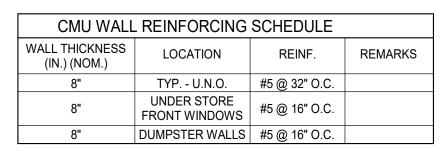
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REV. DATE TITLE

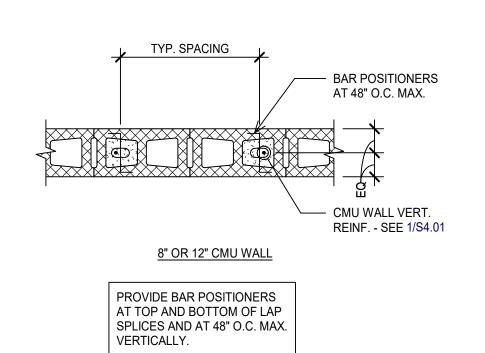
CONSTRUCTION DOCUMENTS

P 214.824.7040

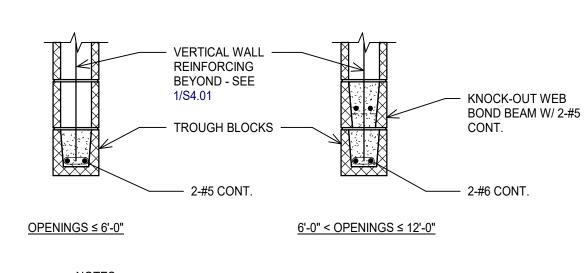
F 214.887.0559



# 3 CMU WALL REINFORCING SCHEDULE



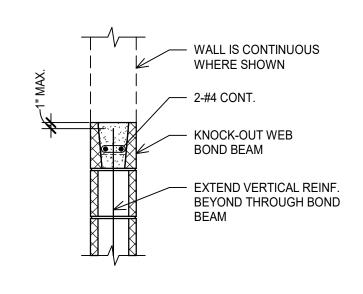
# 4 TYPICAL CMU BAR PLACEMENT DETAIL



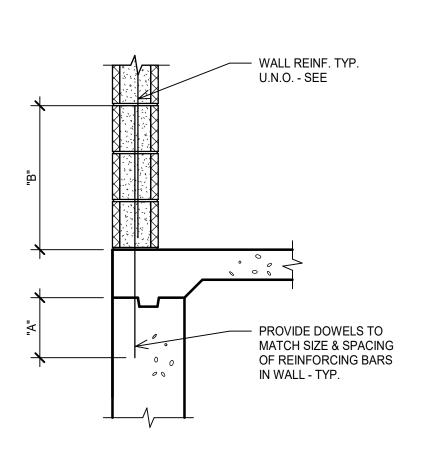
NOTES:

- 1. LINTELS SHALL REMAIN SHORED UNTIL MASONRY CONSTRUCTION ABOVE HAS CURED FOR A MINIMUM OF 14 DAYS. 2. SEE ARCHITECTURAL DRAWINGS FOR OPENING SIZE AND
- 3. VERTICAL CONTROL JOINTS SHALL NOT CROSS LINTEL

# TYPICAL CMU LINTEL DETAIL



8 TYPICAL CMU BOND BEAM DETAIL



# CAST-IN-PLACE (STRAIGHT BAR)

1. AT WALLS WITH DOUBLE REINFORCING, PROVIDE SINGLE DOWEL AT SIZE AND

DIMENSIONS

2'-6"

3'-2"

3'-9"

SEE NOTE 1.b FOR JAMB

REINF. TERMINATION AT

INTERIOR WALLS

"A"

1'-6"

1'-6"

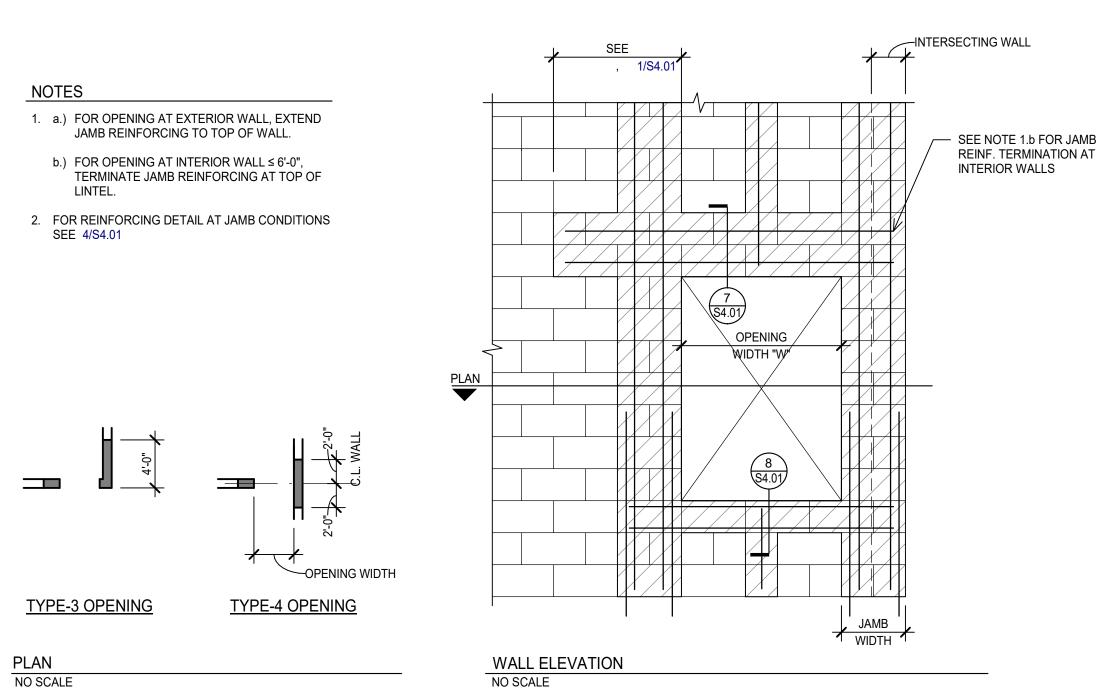
2'-0"

2'-6"

TYPICAL WALL REINFORCING

SEE 1/S4.01

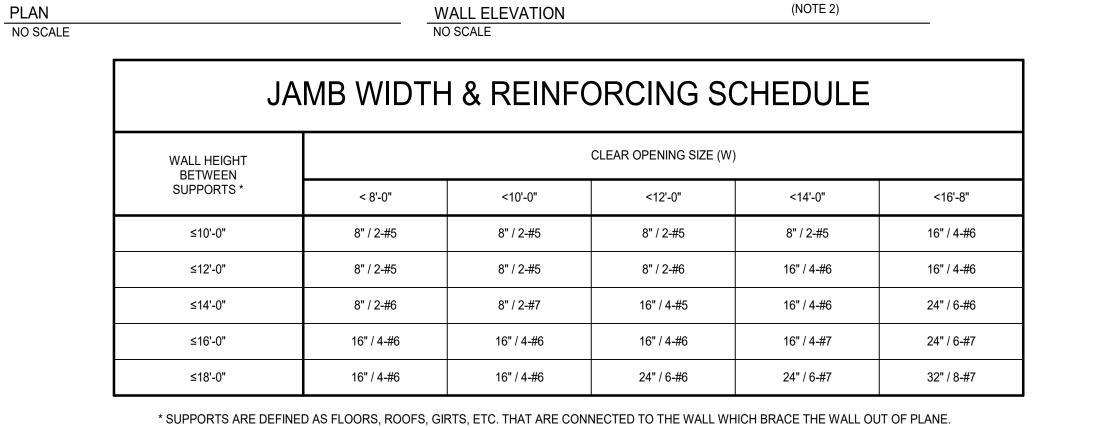
- SPACING OF SCHEDULED WALL REINFORCING. CENTER DOWEL ON WALL, U.N.O. 2. MASONRY DOWELS SHALL BE TIED IN OR DRILLED AND ADHERED. MASONRY DOWELS SHALL NOT BE "STABBED" IN.
- 3. HOLES FOR MASONRY DOWELS MUST BE CLEANEDWITH A WIRE BRUSH AND COMPRESSED AIR. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS.



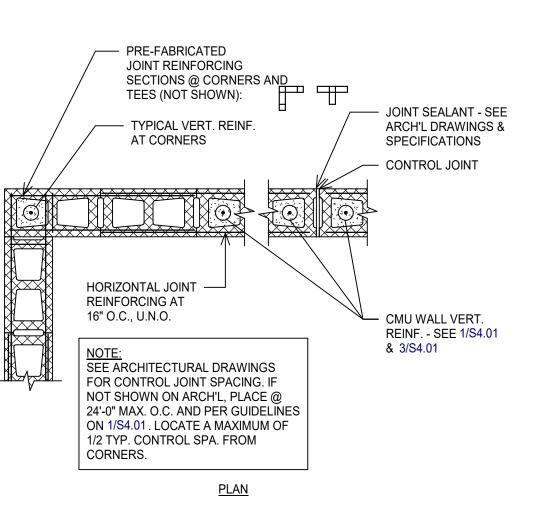
JA	MB WIDTH	1 & REINFO	ORCING SO	CHEDULE	
WALL HEIGHT BETWEEN			CLEAR OPENING SIZE (W)		
SUPPORTS *	< 8'-0"	<10'-0"	<12'-0"	<14'-0"	<16'-8"
≤10'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#5	8" / 2-#5	16" / 4-#6
≤12'-0"	8" / 2-#5	8" / 2-#5	8" / 2-#6	16" / 4-#6	16" / 4-#6
≤14'-0"	8" / 2-#6	8" / 2-#7	16" / 4-#5	16" / 4-#6	24" / 6-#6
≤16'-0"	16" / 2-#7	16" / 4-#6	16" / 4-#6	16" / 4-#7	24" / 6-#7
≤18'-0"	16" / 2-#7	16" / 4-#6	24" / 6-#6	24" / 6-#7	32" / 8-#7

\* SUPPORTS ARE DEFINED AS FLOORS, ROOFS, GIRTS, ETC. THAT ARE CONNECTED TO THE WALL WHICH BRACE THE WALL OUT OF PLANE.

5 CMU WALL JAMB REINFORCING DETAIL - CORNER & TEE-CONDITIONS



6 CMU WALL JAMB REINFORCING DETAIL



- EXTEND HORIZONTAL REINFORCING

JAMB WIDTH AT OPENINGS > 6'-0" -

24" MIN. OR MATCH REINFORCED

16" FOR OPENINGS ≤ 6'-0";

| <u>NOTES:</u> | 1. SEE ARCH'L. DRAWINGS FOR LOCATION

AND DIMENSIONS OF WALL OPENINGS.

2. FOR LAP SPLICE LENGTHS SEE MASONRY

TYPICAL EXTERIOR CMU WALL REINFORCING DETAIL

SEE FLOOR & ROOF ----

SPANDREL SECTIONS

FOR WALL BRACING

DETAIL

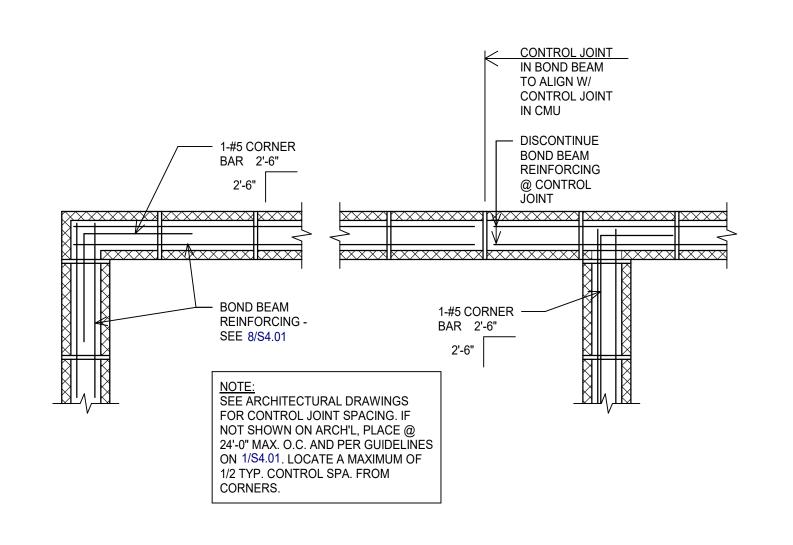
≤ 12'-0"

JAMB REINFORCING -

SEE 6/S4.01, 5/S4.01 - TYP.

24" OR REINFORCED JAMB

WIDTH MIN. AT OPENINGS > 6'-0"



FLOOR OR ROOF BEYOND -SEE PLAN FOR SECTIONS

[<del>/||/|/||/||/||</del>||

- WALL BRACING -

SEE TYPICAL CMU

PARTITION WALL

T.O. PARAPET WALL

 FOR REINFORCING SEE 3/S4.01 REINFORCING SCHEDULE

FOR DOWEL INFO.,

T.O. FOUNDATION

1. a.) FOR OPENING AT EXTERIOR WALL, EXTEND

b.) FOR OPENING AT INTERIOR WALL ≤ 6'-0",

2. FOR TYPE 2 OPENINGS, LINTEL SHALL SPAN

JAMB REINFORCING TO TOP OF WALL.

TERMINATE JAMB REINFORCING AT TOP OF

ACROSS BOTH OPENINGS. INTERMEDIATE CMU

3. REFER TO CM-8 FOR REINFORCING DETAIL AT JAMB

TYPE-1 OPENING

SEE NOTE 2

WALL BETWEEN OPENINGS SHALL BE EQUIVALENT OF COMBINED JAMB REINFORCING FROM EACH

SEE 2/S4.01

BRACE DETAILS

THROUGH WALL MASONRY

\_\_\_\_\_ 16" MIN. FOR OPENINGS ≤ 6'-0"

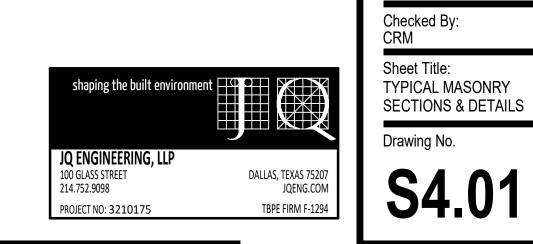
SEE 9/S4.01

CONTROL JOINT - REINFORCED

& GROUTED CELL EACH SIDE -

9 TYPICAL CMU BAR PLACEMENT DETAIL

10 TYPICAL CORNER BARS AT BOND BEAMS DETAIL

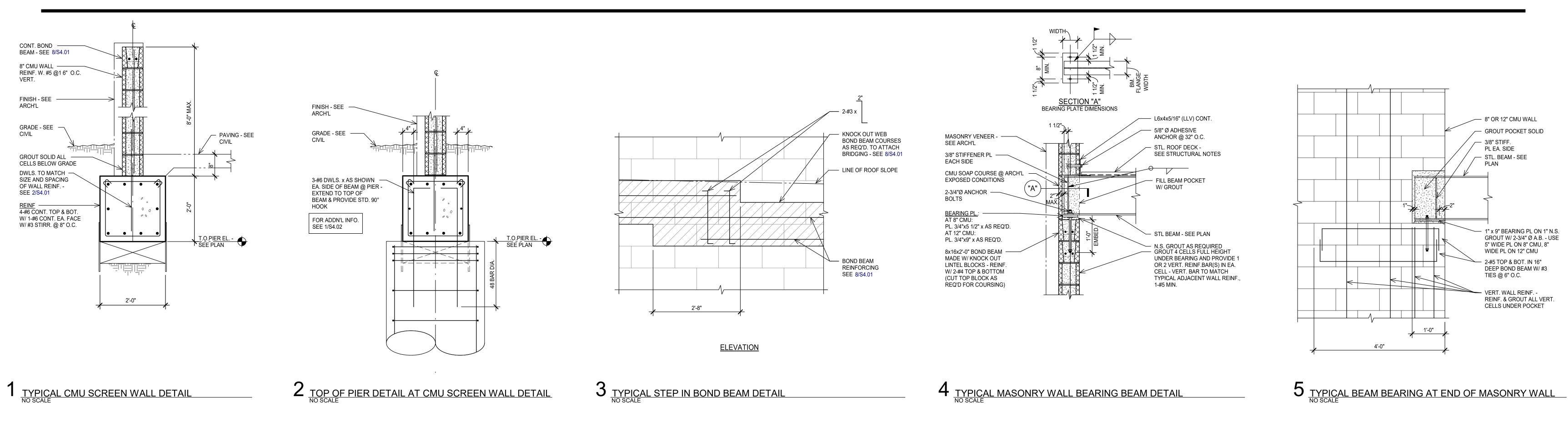


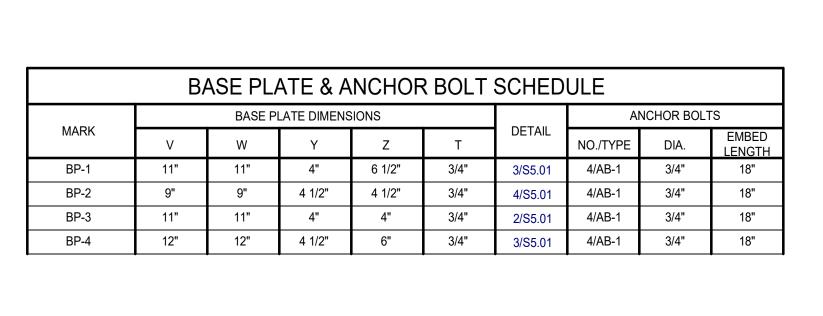


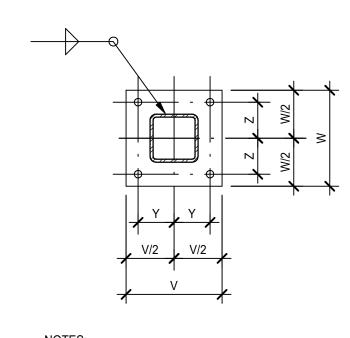




Date: CONSTRUCTION DOCUMENTS 02.11.2022

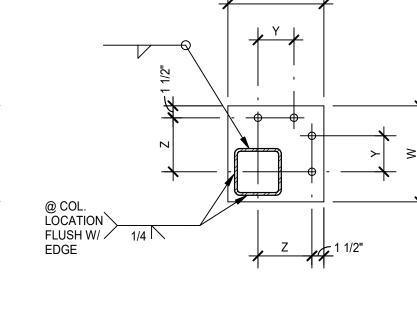






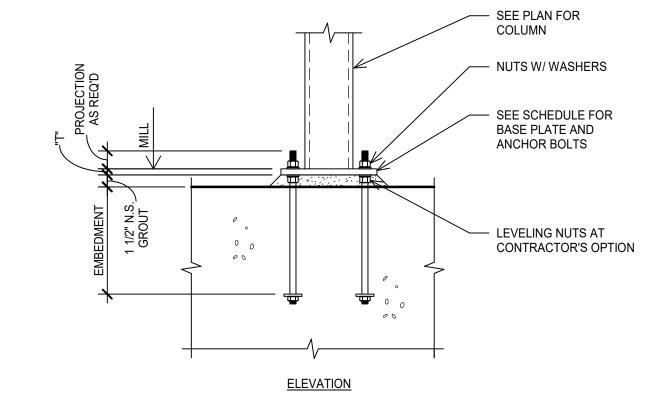
WELD TO BE 1/16" SMALLER THAN THICKNESS OF TUBE.

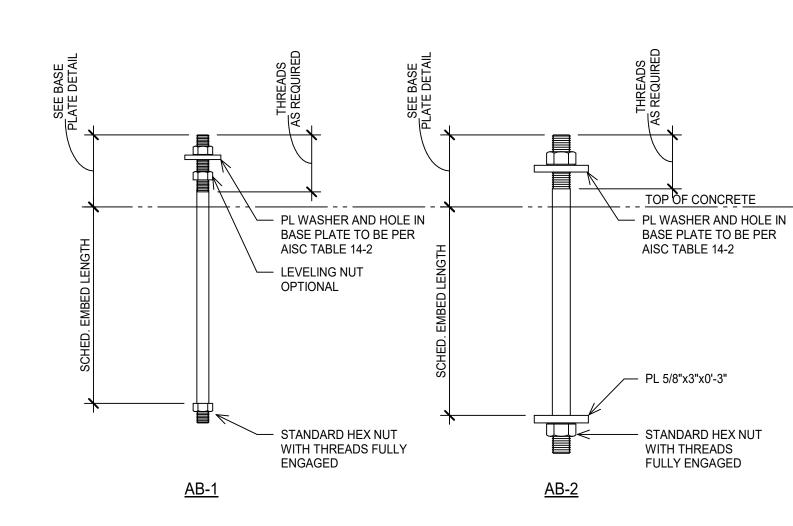
2. FOR BASE PLATE ELEVATION SEE DETAIL 5/S5.01



1. WELD TO BE 1/16" SMALLER THAN THICKNESS

2. FOR BASE PLATE ELEVATION SEE DETAIL 5/S5.01



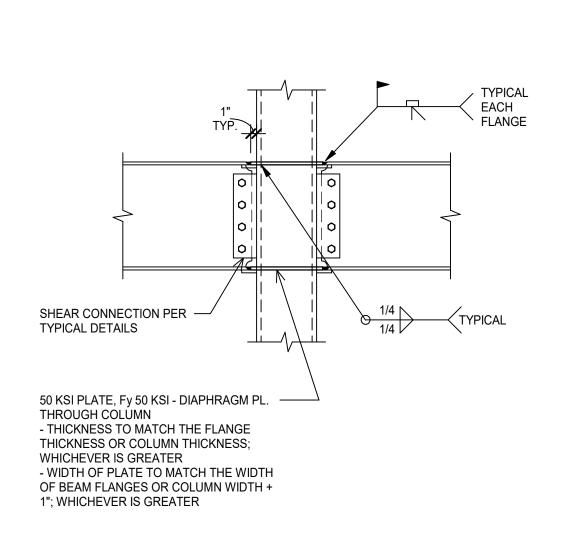


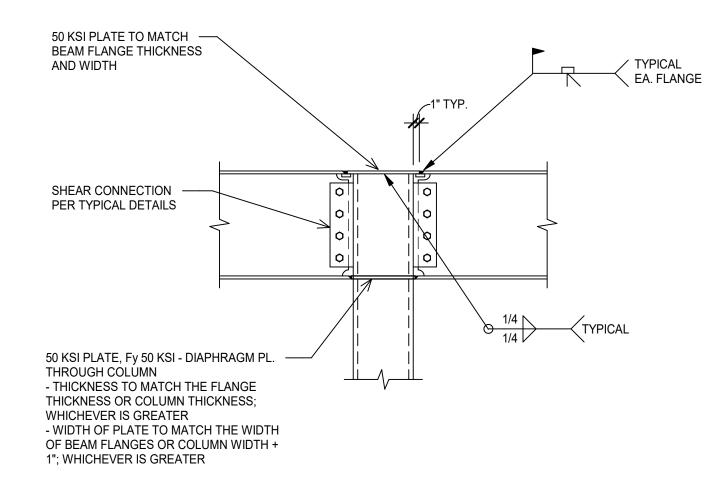
BASE PLATE & ANCHOR BOLT SCHEDULE
NO SCALE

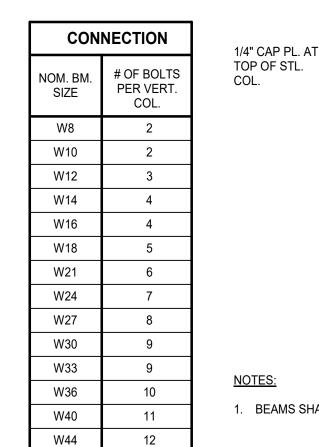
1. WELD TO BE 1/16" SMALLER THAN THICKNESS

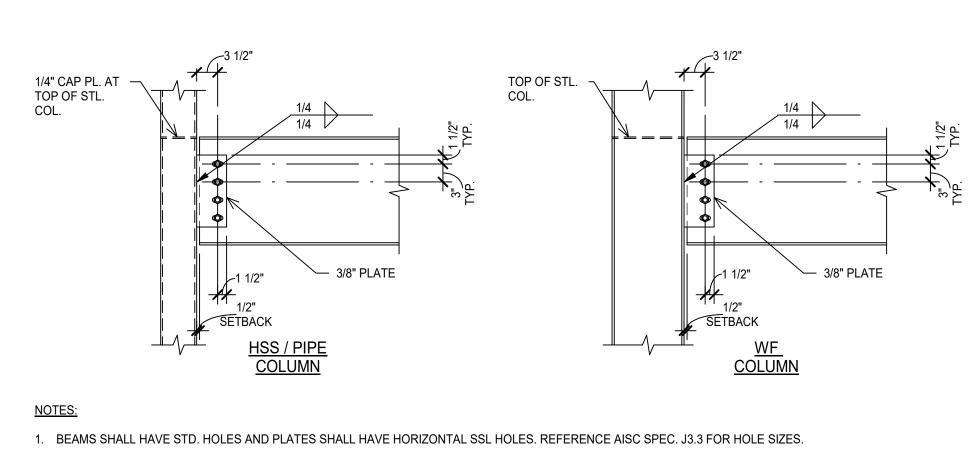
2. FOR BASE PLATE ELEVATION SEE DETAIL 5/S5.01

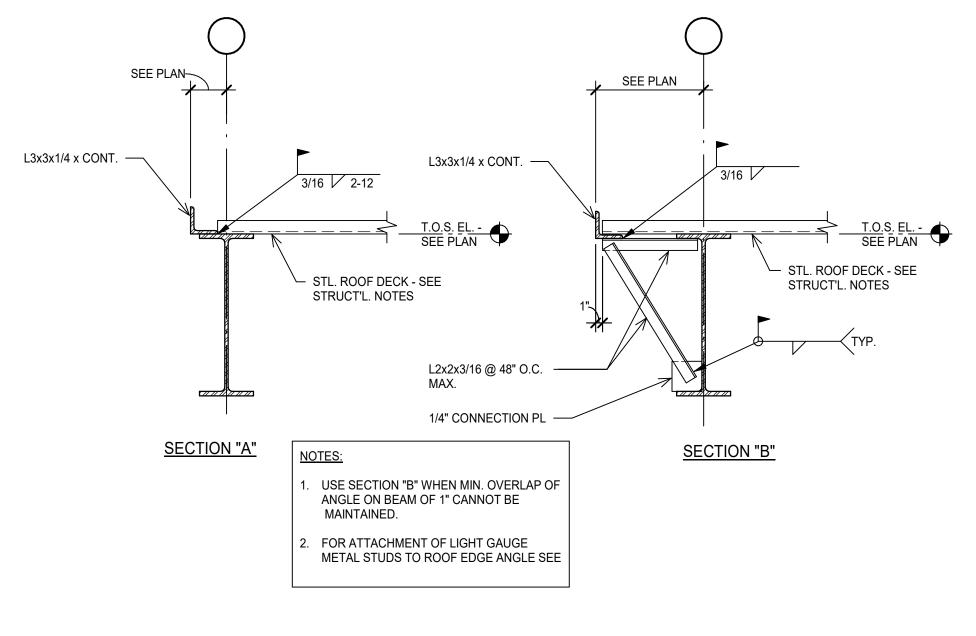
2 TYPICAL BASE PLATE DETAIL
3 TYPICAL BASE
PLATE DETAIL - EDGE COLUMN
4 TYPICAL BASE
PLATE DETAIL - CORNER COLUMN
NO SCALE
5 TYPICAL COLUMN BASE PLATE DETAIL
NO SCALE











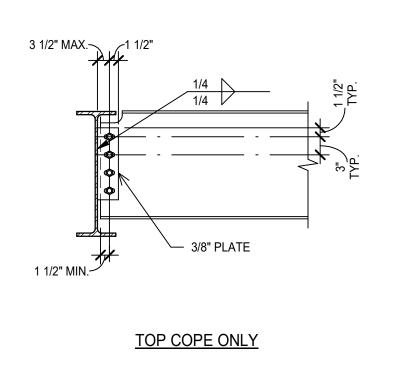
7 TYPICAL GIRDER TO COLUMN FLANGE MOMENT CONNECTION DETAIL

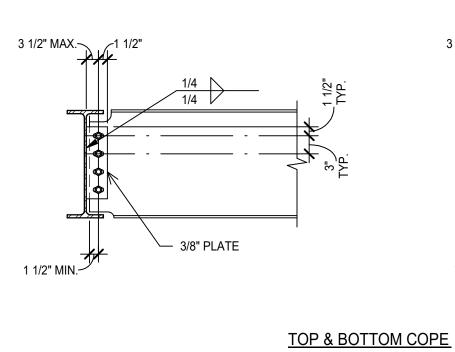
8 TYPICAL BEAM TO TOP OF COL.
HIGH MOMENT CONNECTION DETAIL

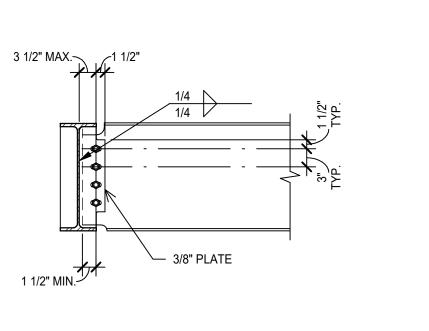
9 TYPICAL BEAM TO HSS / PIPE / WF COLUMN SINGLE PLATE SHEAR CONNECTION DETAIL NO SCALE

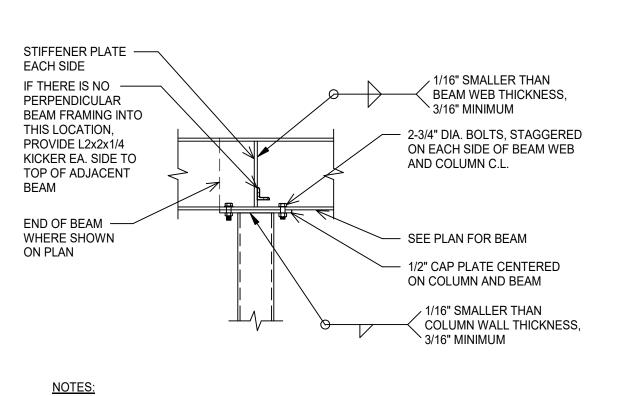
10 TYPICAL EXTERIOR BEAM PARALLEL TO JOISTS DETAIL

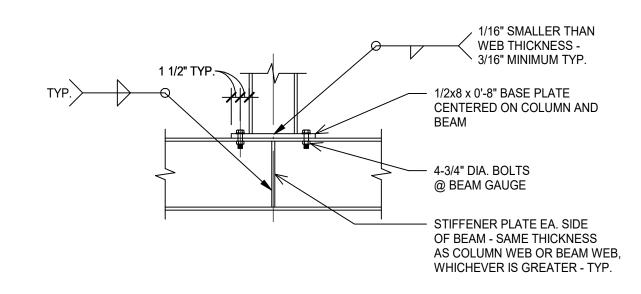
	ECTION - PE ONLY		_	TION - TOP AND TOM COPE
NOM. BM. SIZE	# OF BOLTS PER VERT. COL.		NOM. BM. SIZE	# OF BOLTS PER VERT. COL.
W8	2		W10	2
W10	2		W12	2
W12	2		W14	3
W14	3		W16	3
W16	3		W18	4
W18	4		W21	5
W21	5		W24	5
W24	5		W27	6
W27	6		W30	7
W30	7		W33	8
W33	8		W36	9
W36	9		W40	10
W40 10			W44	11
W44	11	'		











**ELEVATION** 

- 1. CONNECT INTERSECTING BEAMS TO STIFFENER PLATES USING BOLTS IN SINGLE SHEAR DESIGNED FOR ECCENTRIC
- PROVIDE FLANGE EXTENSIONS AS REQ'D TO MATCH COLUMN BASE PLATE WIDTH.

1. BEAMS SHALL HAVE STD. HOLES AND PLATES SHALL HAVE HORIZONTAL SSL HOLES. REFERENCE AISC SPEC. J3.3 FOR HOLE SIZES.

1. SEE ROOF PLAN FOR ROOF SLOPE. SLOPE CAP PLATES ACCORDINGLY. 2. STIFFENER PLATES SHALL BE EQUAL IN THICKNESS TO THE COLUMN WALL THICKNESS OR BEAM WEB THICKNESS, WHICHEVER IS GREATER. 3. CONNECT INTERSECTING BEAMS TO STIFFENER PLATES USING BOLTS IN SINGLE SHEAR DESIGNED FOR ECCENTRIC BEAM REACTION.

JQ ENGINEERING, LLP 100 GLASS STREET 214.752.9098 PROJECT NO: 3210175



12 TYPICAL CAP PLATE - BOLTED CONNECTION DETAIL

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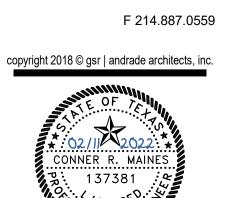
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Revisions:

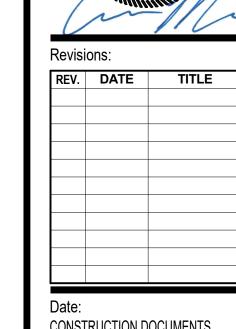
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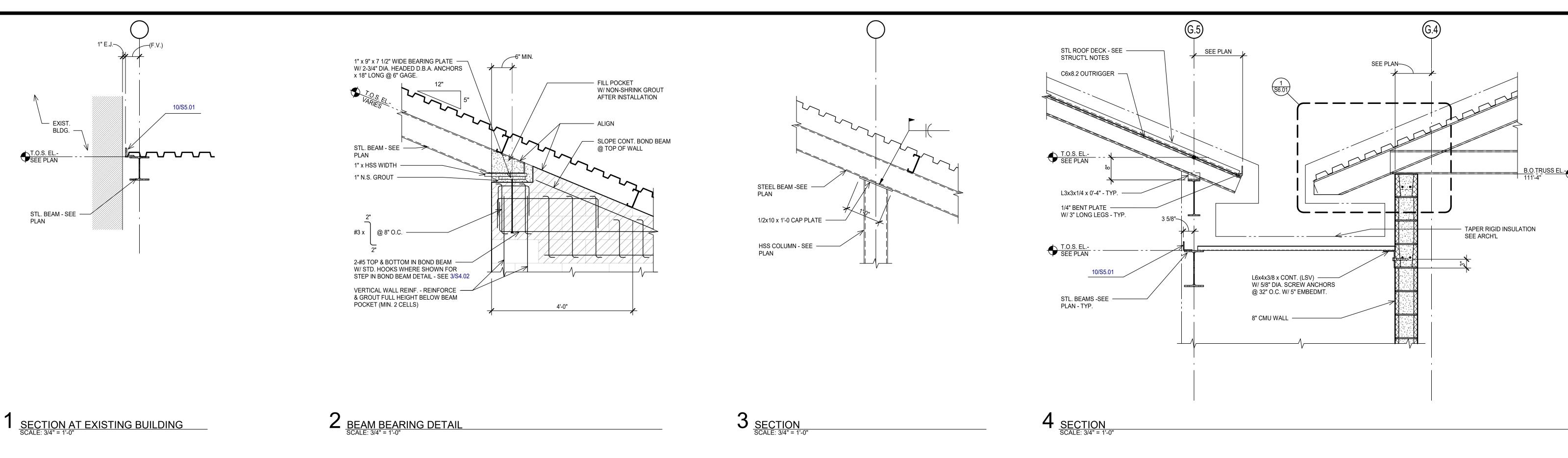
CONSTRUCTION DOCUMENTS

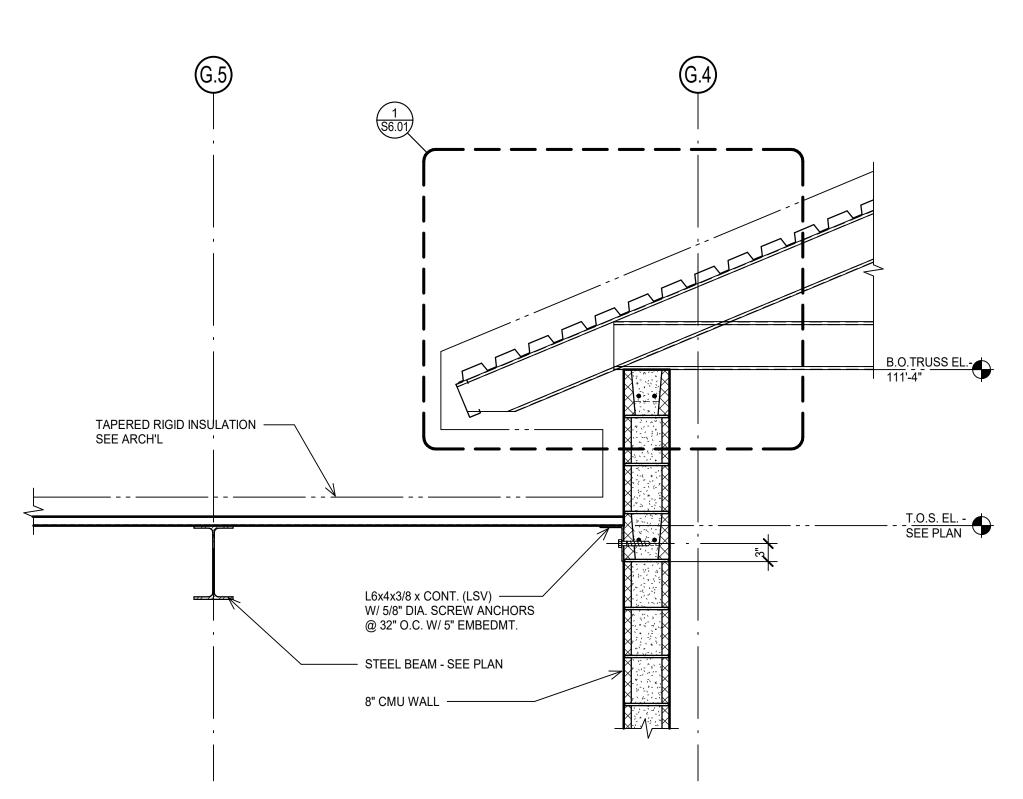
TYPICAL STEEL SECTIONS &

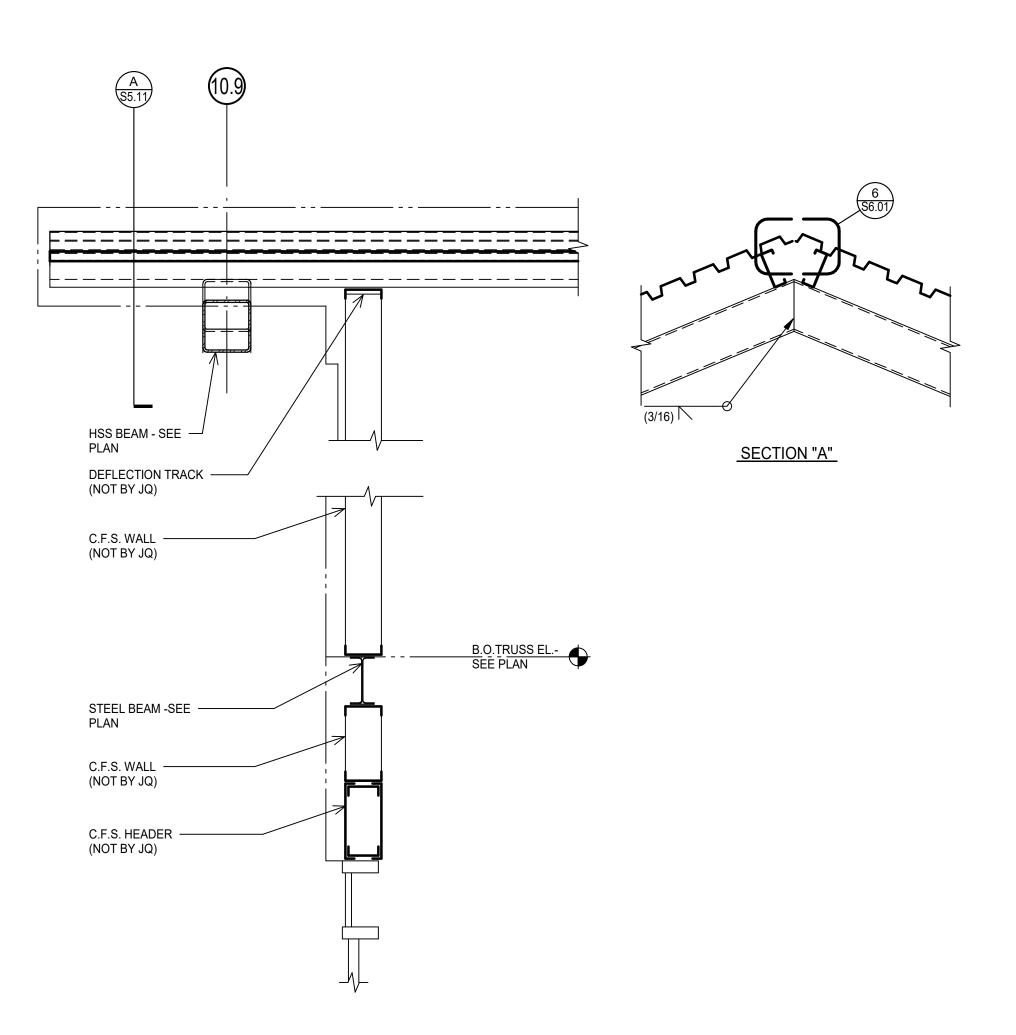


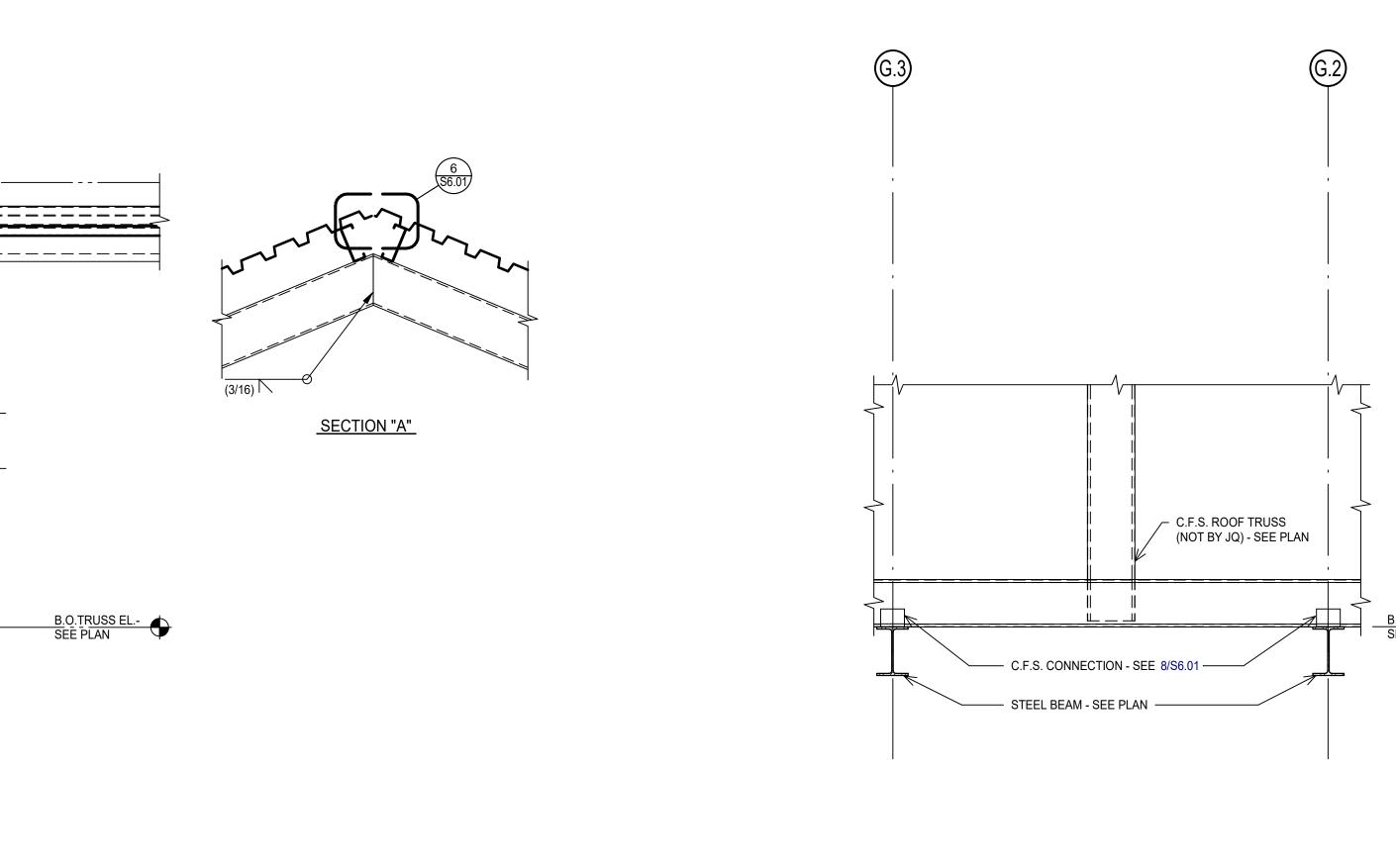
P 214.824.7040











\_\_\_ L3x3x1/4 x 0'-4" EA. SIDE -

3 SIDES

SEE PLAN

STL ROOF DECK - SEE — STRUCT'L NOTES

1/4" BENT PL W/ 3" LEGS  $_{\chi}$  x CONT. - TYP.

OUTRIGGERS - SEE —/ PLAN - TYP.

STL. BEAMS -SEE ——— PLAN - TYP.

STL ROOF DECK - SEE — STRUCT'L NOTES

STL. BEAMS -SEE — PLAN - TYP.

3/16 2-12

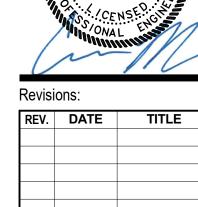
B.O.S. EL.-SEE ARCH'L

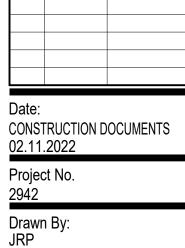
L4x4x3/8 x CONT. OVER WINDOW (H.D. GALV.)

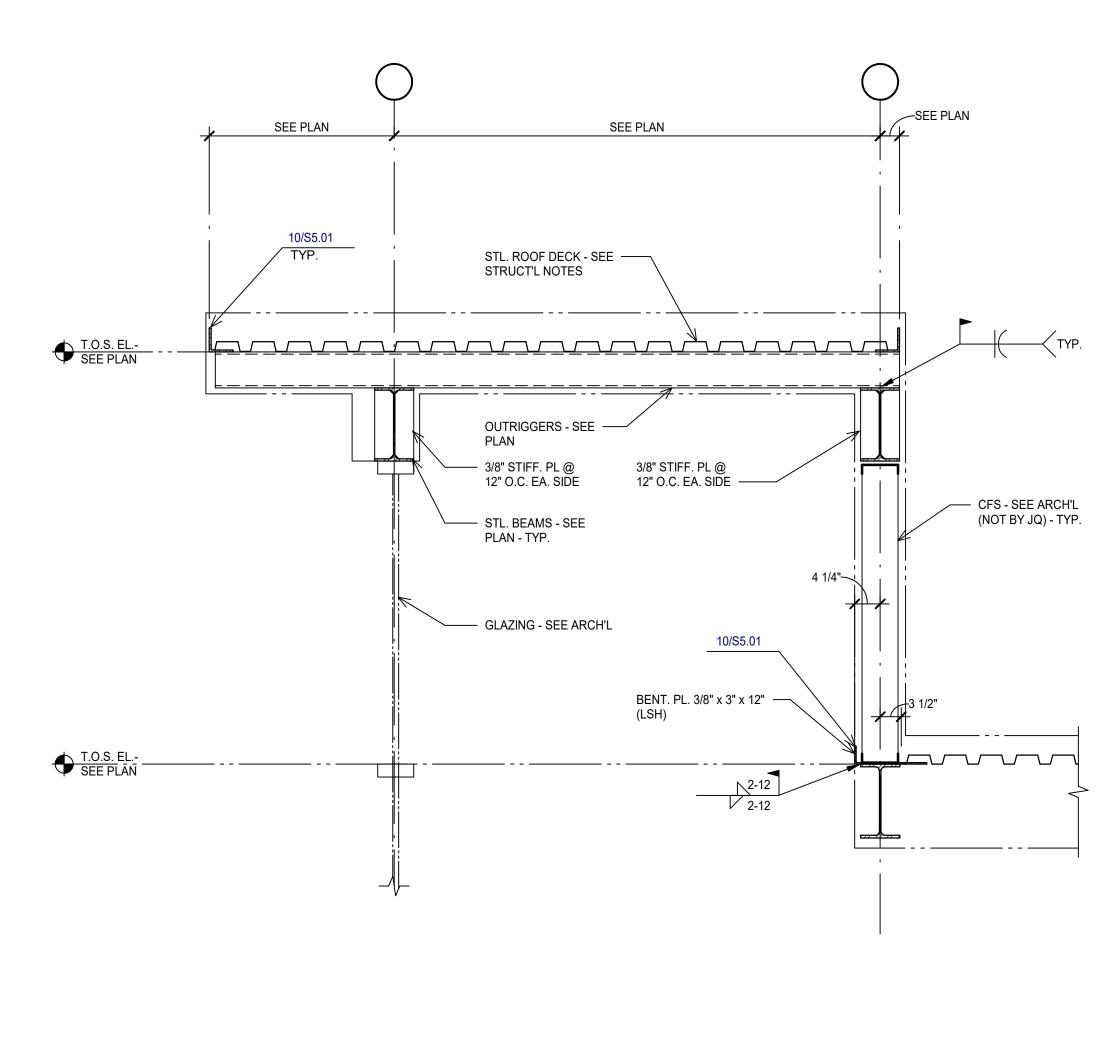
T.O.S. EL.-SEE PLAN

T.O.S. EL.-

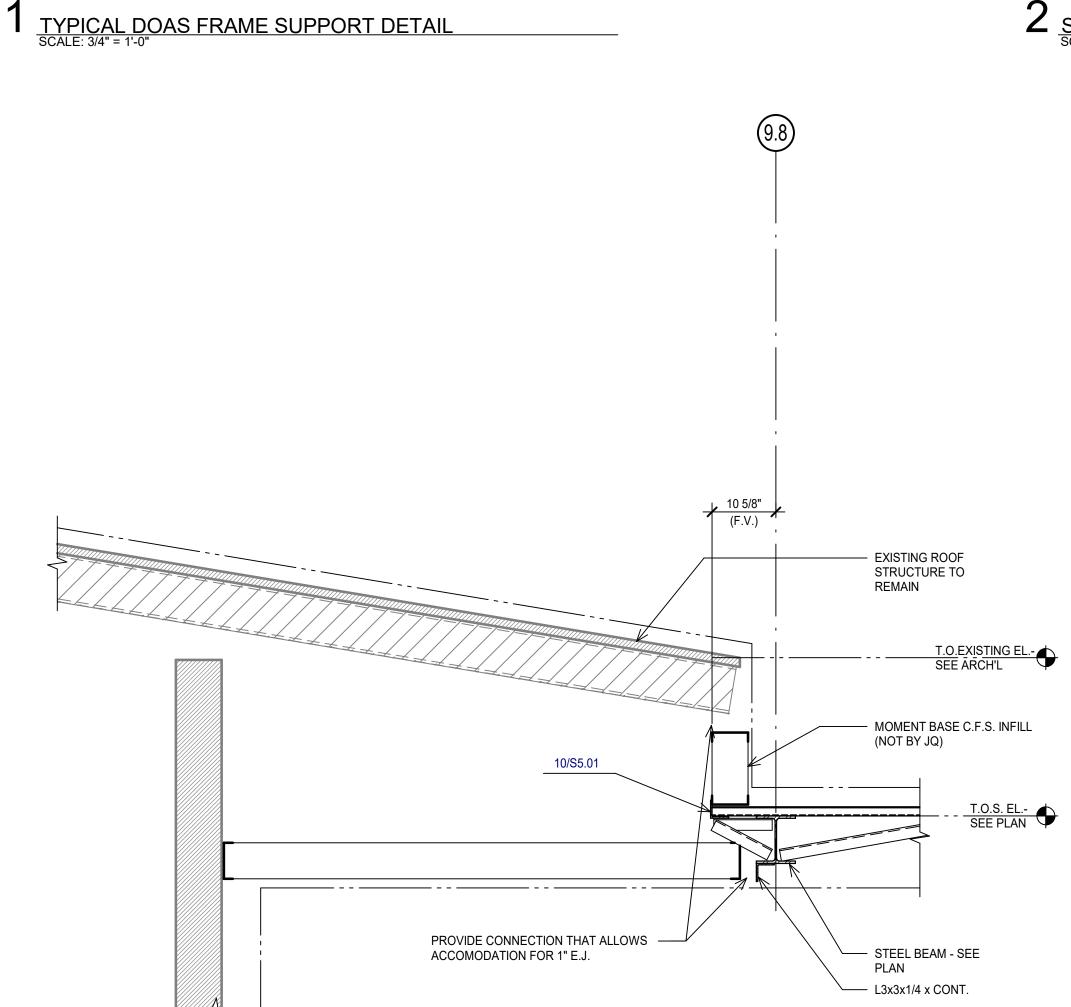












\_\_\_\_\_\_\_

— C6x8.2 - TYP.

FULL DEPTH 3/8" STIFFENER PLATE - TYP.

— STEEL BEAM - SEE PLAN - TYP.

CHANNEL FRAME ALIGNED
 TO OUTSIDE FACE OF HSS POST
 MITER FRAME @ CORNERS - TYP.

— G.C. COORD. — W/ MEP - TYP.

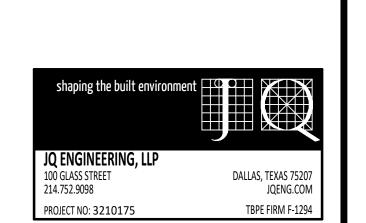
SEE ARCH'L

FULL DEPTH SHEAR

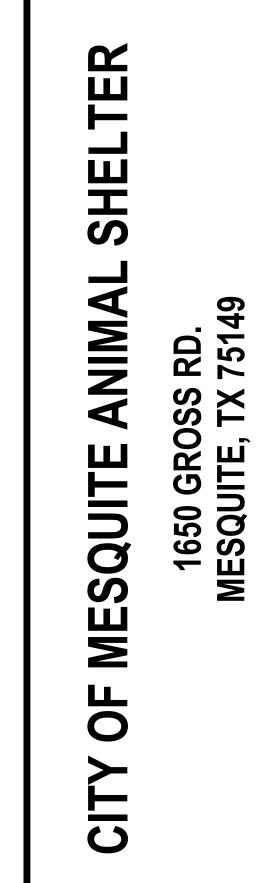
CONNECTION

─ HSS 5x5x1/4 POST - TYP. —

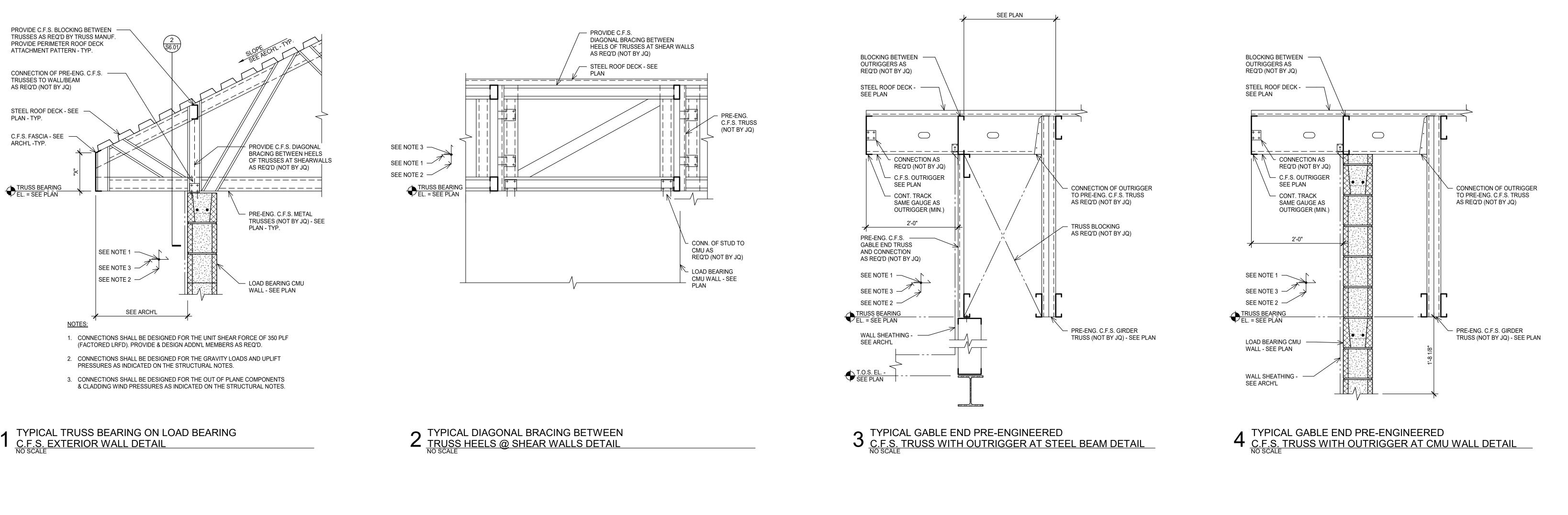
TAPER RIGID INSULATION

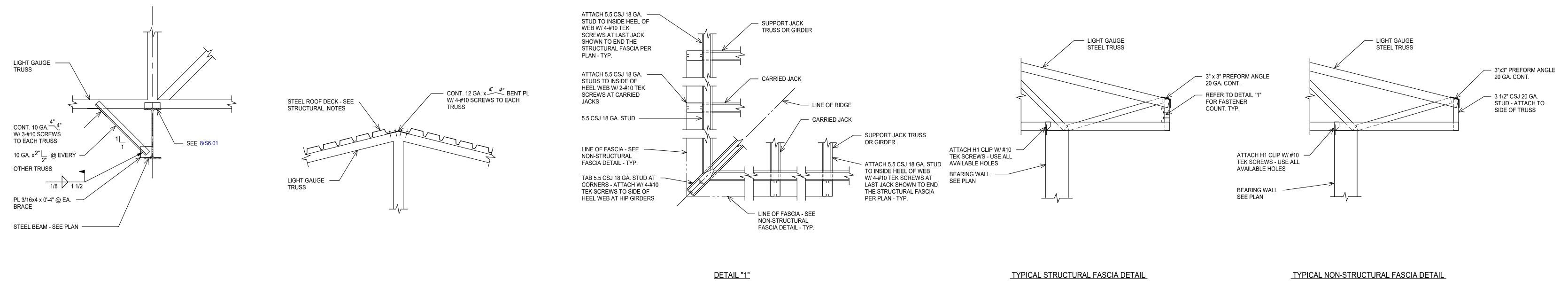






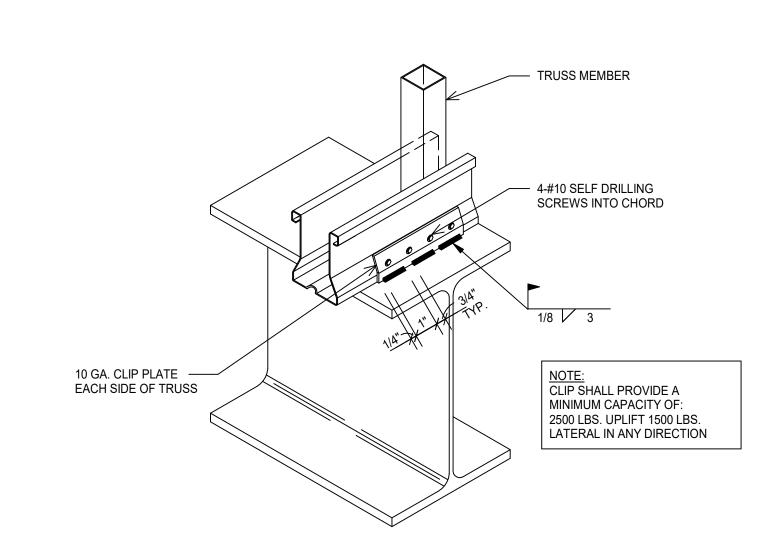






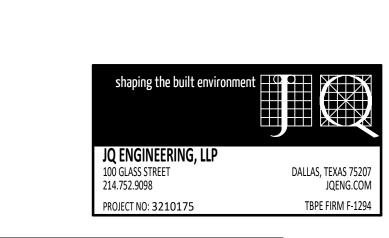






PLAN - TYP.

ARCH'L -TYP.



8 TYPICAL LIGHT GAUGE TRUSS ANCHORAGE NO SCALE

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Dallas, Texas 75226

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CONSTRUCTION DOCUMENTS
02.11.2022

Sheet Title:
TYPICAL CFS SECTIONS &

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1 <u>SECTION</u> SCALE: 3/4" = 1'-0"

T.O.PARAPET EL.=
SEE ARCH'L

T.O.S. EL.-SEE PLAN

CMU BOND BEAM — SEE 8/S4.01

> 2 <u>SECTION</u> SCALE: 3/4" = 1'-0"

STL. ROOF DECK - SEE STRUCT'L NOTES

ROOF TRUSS - SEE -PLAN

8" CMU WALL —

CMU BOND BEAM - SEE 8/S4.01 ——

SEE PLAN

SECTION
SCALE: 3/4" = 1'-0"

SEE PLAN

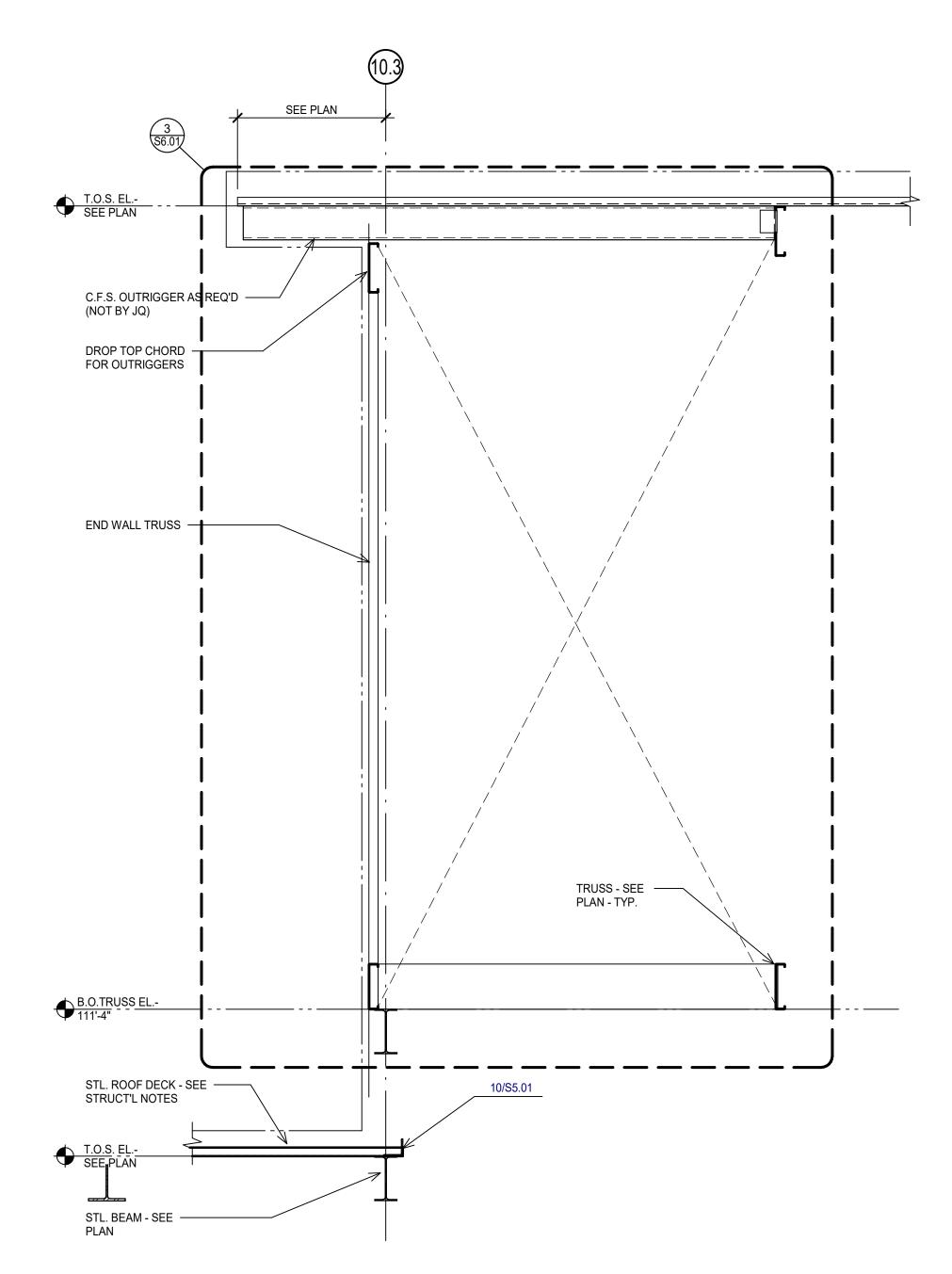
TRUSS - SEE PLAN

C.F.S. OUTRIGGER AS REQ'D — (NOT BY JQ)

CMU CONT. SLOPING BONI BEAM - SEE 8/S4.01

8" CMU WALL ——

4 <u>SECTION</u>
SCALE: 3/4" = 1'-0"



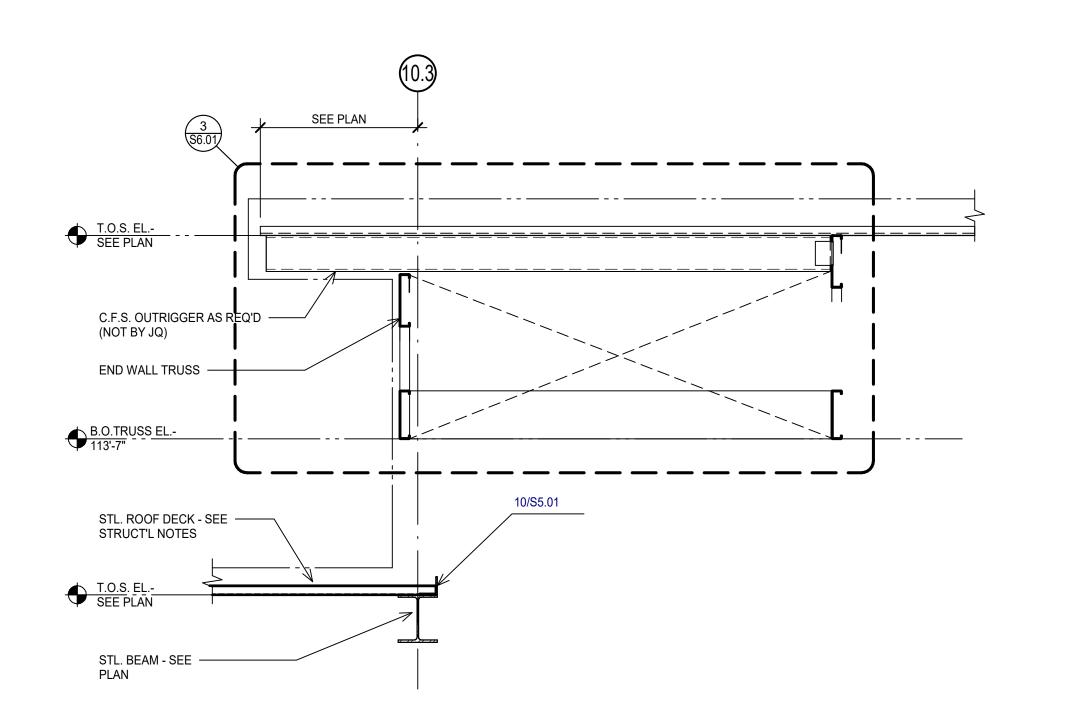
— L4x4x1/4 x CONT.
W/ 1/2" DIA. SCREW ANCHORS
@ 24" O.C. W/ 4" EMBED.
W/ 2" VERTICAL SLOTTED HOLES TO
MATCH ANCHOR SPACING. PLACE
ANCHOR IN THE BOTTOM THIRD OF
THE SLOT. SLOTS MAY EXTEND TO
TOP OF ANGLE.

STL. ROOF DECK - SEE
 STRUCT'L NOTES

STL. BEAM - SEE
PLAN

----- 8" CMU WALL





6 <u>SECTION</u>
SCALE: 3/4" = 1'-0"

CONSTRUCTION DOCS 02/11/2022 Project No. MESQU.TX Drawn By: Checked By: Sheet Title: MECHANICAL SCOPE

Drawing No.

MECHANICAL SCOPE OF WORK

THESE DRAWINGS REPRESENT THE MECHANICAL HVAC WORK FOR THE MESQUITE ANIMAL SHELTER & ADOPTION CENTER, IN MESQUITE, TX. THE CONTRACTOR SHALL VERIFY THE EXISTING SITE CONDITIONS, PRIOR TO BIDDING AND COMMENCING WORK. ALL QUESTIONS AND/OR DEVIATIONS FROM THIS DESIGN SHALL BE SUBMITTED IN WRITING TO THE ENGINEER (DESIGN LEARNED, INC.) FOR APPROVAL. THE TERM 'PROVIDE' SHALL MEAN TO FURNISH AND INSTALL COMPLETELY. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND ACCESSORIES SPECIFIED WITHIN THIS DRAWING SET. ADDITIONALLY, THE CONTRACTOR SHALL PROVIDE AND INSTALL ANY EQUIPMENT, MATERIAL, ACCESSORY, AND/OR HARDWARE REQUIRED TO COMPLETE A FULLY OPERATIONAL SYSTEM. SUBMITTAL INFORMATION, AS OUTLINED BELOW AND IN THE SPECIFICATIONS, SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE THE RELATED INSTALLATION MAY COMMENCE. ANY DEVIATION IN DESIGN DURING THE INSTALLATION PROCESS SHALL BE IMMEDIATELY PRESENTED TO THE ENGINEER FOR REVIEW, AND SHALL BE PERFORMED BY THE CONTRACTOR ONLY WITH THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER. THE CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY COORDINATION OF DUCTWORK, LIGHTING, SPRINKLER HEADS, CEILING TILES, AND STRUCTURAL OBSTRUCTIONS. IN THE EVENT THAT OBSTRUCTION(S) EXIST AND REQUIRE MODIFICATION OF THIS DESIGN LAYOUT, THE CONTRACTOR SHALL SUBMIT COORDINATED REFLECTED CEILING PLANS TO THE ENGINEER FOR REVIEW. CONTRACTOR SHALL PROCEED WITH MODIFICATION OF THE DESIGN LAYOUT ONLY WITH THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER.

INTERIOR DESIGN CONDITIONS ARE 70 DEGREES F IN WINTER, 75 DEGREES F IN SUMMER AND 50% RELATIVE HUMIDITY. THE CONTRACTOR SHALL VERIFY WHETHER FIREWALL PENETRATIONS WILL BE REQUIRED, AND IF SO, FIRE-RATED DAMPERS SHALL BE INSTALLED, AS REQUIRED BY CODE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL PERMIT FEES, AND FOR COMPLIANCE WITH OFFICIAL LOCAL BUILDING REQUIREMENTS. DURING CONSTRUCTION, THE CONTRACTOR MAY CONTACT THE ENGINEER, DESIGN LEARNED, INC., AT (860) 889-7078.

THE HVAC EQUIPMENT SHALL BE AS SPECIFIED IN THE MECHANICAL EQUIPMENT SCHEDULE AND SHALL CONSIST OF THREE DEDICATED OUTDOOR AIR SYSTEMS (WITH BUILT-IN ENERGY RECOVERY. EXHAUST SYSTEMS, RETURN AIR SYSTEMS, AND MODULATING HOT GAS REHEAT). DEHUMIDIFICATION SHALL BE HANDLED BY THE DEDICATED OUTDOOR AIR SYSTEMS. ALL DEDICATED OUTDOOR AIR SYSTEMS SHALL BE SUPPLIED WITH FRESH AIR IN ORDER TO PROVIDE THE APPROPRIATE AMOUNT OF VENTILATION TO EACH ZONE IN PROPORTION TO THE AMOUNT OF ENVIRONMENTAL AIR BEING EXHAUSTED FROM EACH ZONE. EACH ZONE SHALL BE EQUIPPED WITH APPROPRIATE CONTROLS FOR TEMPERATURE AND HUMIDITY PROGRAMMING. INSTALL PER MANUFACTURERS' INSTALLATION INSTRUCTIONS AND VERIFY ANY ENVELOPE PENETRATION LOCATIONS ON-SITE.

PROJECT ADDITIONALLY INCLUDES THE RELOCATION OF AN EXISTING DOAS UNIT FROM THE GROUND TO A ROOF AREA. CONTRACTOR TO RELOCATE EQUIPMENT WITH NEW ROOF CURB, DUCT CONNECTIONS, PENETRATIONS THROUGH THE ROOF, AND RECONNECTION TO THE DUCT SYSTEM SERVING THE EXISTING SHELTER. DUCTWORK SHOWN IS BASED ON RECORD DOCUMENTS AND FIELD CONDITIONS MAY VARY. CONTRACTOR TO CARRY ALLOWANCE FOR MODIFICATIONS TO PROVIDE A COMPLETE, OPERATING DOAS SYSTEM. CONTRACTOR TO VISIT THE SITE AND OBSERVE THESE CONDITIONS BEFORE BIDDING.

SUPPLY REGISTERS AND RETURN GRILLES SHALL BE MANUFACTURED BY METALAIRE AS SPECIFIED IN THE AIR TERMINAL SCHEDULE ON M1.40. ALL DUCTWORK SHALL BE LOCATED AND ROUTED AS INDICATED ON THE DRAWINGS. ALL DUCTWORK SHALL BE SUPPORTED EVERY 8 FEET (MINIMUM).

CONTRACTOR SHALL SUBMIT ANY SUBSTITUTIONS PERTAINING TO DUCTWORK AND INSULATION TO THE ENGINEER IN WRITING, AND SHALL PROCEED ONLY WITH THE EXPRESS WRITTEN APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE AND INSTALL EACH TAKE OFF (DUCT BRANCH LINE) WITH A VOLUME CONTROL DAMPER, REGARDLESS IF THEY ARE INDICATED ON THE PLANS OR NOT. INTEGRAL DIFFUSER AND GRILLE DAMPERS WILL NOT BE ACCEPTED AS CONTROL DAMPERS.

FINALLY, WE EXPECT EXCEPTIONAL INSTALLATION QUALITY. ALL DUCTWORK SHOULD BE NEAT, CLEAN, LEVEL, PLUMB, AND ATTRACTIVE. DUCT CONNECTIONS TO MOTORIZED EQUIPMENT WILL INCLUDE CANVAS TRANSITIONS. INSTALLATIONS WILL BE IMPRESSIVE AND FREE FROM MAINTENANCE OBSTRUCTIONS. GAS AND CONDENSATE PIPING SHALL BE NEATLY AND CAREFULLY INSTALLED, AND FULLY INSULATED (WHERE REQUIRED BY CODE AND WITHIN THE SPECIFICATIONS). ALL DUCTWORK SHALL BE TAPED AND SEALED PER THE ENERGY CONSERVATION CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM, ASHRAE 90.1-2013, AND LOCAL AMENDMENTS.

APPROPRIATE CONTROLS SHALL BE PROVIDED FOR EACH ZONE THAT IS CAPABLE OF MEETING THE SEQUENCE OF OPERATIONS IDENTIFIED ON THESE DOCUMENTS. DEHUMIDIFICATION CONTROLS SHALL BE INCLUDED AS APPLICABLE AND SHALL BE SET TO TRIGGER ABOVE 50% RH IN THE SPACE. EACH DEDICATED OUTDOOR AIR SYSTEM SHALL BE PROVIDED WITH A PRE-PROGRAMMED THERMOSTAT. THE AMOUNT OF FRESH AIR BEING DRAWN INTO THE SPACE SHALL BE PROPORTIONAL TO THE VOLUME OF AIR BEING EXHAUSTED FROM EACH ZONE. BALANCING OF THE FRESH AIR AND EXHAUST AIR FROM EACH ZONE WILL BE CRITICAL AND WILL BE ACCOMPLISHED BY ADJUSTMENT OF VOLUME CONTROL DAMPERS FOR EACH SPACE ZONE SERVED.

MECHANICAL CONTRACTOR MUST PROVIDE SUBMITTALS AND CUT SHEETS FOR ALL SYSTEM CONTROLS OR COMPONENTS PRIOR TO PURCHASE AND INSTALLATION. THE MECHANICAL CONTRACTOR ASSUMES LIABILITY FOR ANY CONTROLS THAT ARE FOUND TO BE INCOMPATIBLE WITH THE EQUIPMENT SPECIFIED OR INCAPABLE OF PERFORMING THE SEQUENCE OF OPERATIONS AS SPECIFIED ON THESE DOCUMENTS. MECHANICAL CONTRACTOR MUST CORRECT ALL NON-APPROVED CHANGES TO THE MECHANICAL SYSTEM CONTROLS AT NO ADDITIONAL COST TO THE CLIENT OR DESIGNER.

## AIR TREATMENT (MECHANICAL AND ELECTRONIC FILTRATION):

ALL MECHANICAL UNITS SHALL BE SUPPLIED WITH MEDIUM EFFICIENCY, MERV 8, CHARCOAL-IMPREGNATED, 2 INCH PLEATED-MEDIA FILTERS (AIRGUARD FRESH AIR SUPREME OR APPROVED EQUAL). ALL AIR HANDLING UNITS SHALL BE PROVIDED WITH AERAPY UV TREATMENT SYSTEMS, AS SPECIFIED IN THE POWERED FILTRATION SCHEDULE SHOWN ON M1.40.

# SEQUENCE OF OPERATION: SEE M2.20 FOR THE SEQUENCE OF OPERATION FOR THE DEDICATED OUTDOOR AIR SYSTEMS.

MECHANICAL CONTRACTOR IS TO PROVIDE AND INSTALL ALL NECESSARY HVAC WIRING AND CONTROLS.

ALL MECHANICAL EQUIPMENT IS TO BE RESILIENTLY MOUNTED.

# FIRE STOP SYSTEM NOTES

SEAL ALL PENETRATIONS THROUGH FIRE-RATED WALLS WITH APPROVED FIRESTOPPING CAULK. CONTRACTOR SHALL PROVIDE AND INSTALL AT ALL WALL AND FLOOR PENETRATIONS A PERMANENT FIRE STOP SYSTEM. THE PENETRATION SEAL MATERIAL MUST BE UNAFFECTED BY MOISTURE AND MUST MAINTAIN THE INTEGRITY OF THE FLOOR OR WALL ASSEMBLY FOR ITS RATED TIME PERIOD.

# **DUCT SMOKE DETECTORS**

2015 IMC, SECTION 606.2.1 STATES THAT "SMOKE DETECTORS SHALL BE INSTALLED IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2.000 CFM. IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS. EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES."

# STRUCTURAL SUPPORT

SUPPORT MECHANICAL DUCTWORK AND PIPING DIRECTLY FROM STRUCTURE ABOVE. DO NOT SUPPORT CONDUIT OR PIPING FROM EXISTING DUCTWORK NOR SUPPORT DUCTWORK FROM EXISTING PIPING OR CONDUIT. DO NOT DRILL STRUCTURAL MEMBERS. USE BEAM CLAMPS OR OTHER APPROVED STRUCTURAL ATTACHMENTS DEVICES. CLAMPS AND HANGERS SHALL ATTACH TO BOTH SIDES OF BEAM TO PREVENT MOMENTS AND TWISTING. WHERE DIRECT ACCESS TO STRUCTURAL MEMBERS IS NOT POSSIBLE PROVIDE INTERMEDIATE UNISTRUT TRAPEZE HANGERS FOR SPAN OF OBSTRUCTION.

# **GENERAL DUCTWORK**

ALL CONCEALED DUCTWORK SHALL BE GALVANIZED STEEL UNLESS OTHERWISE INDICATED. GALVANIZED STEEL FOR DUCTS; HOT-DIPPED GALVANIZED STEEL SHEET, ASTM A653/A653M FS TYPE B, WITH G60/Z180 COATING, SUBMIT FIELD SKETCH OF CONCEALED DUCTWORK AND REGISTER SUBSTITUTIONS FOR APPROVAL PRIOR TO PURCHASE, FABRICATION, OR INSTALLATION. COORDINATE ANY FINISH OR PAINT ON SITE WITH ARCHITECT AND OWNER.

# **EXPOSED DUCTWORK**

ALL EXPOSED DUCTWORK SHALL BE LINDAB SPIRAL ROUND. USE DIAMETER EQUIVALENT TO THE RECTANGULAR DUCTWORK SHOWN. LINEAR REGISTERS SHALL BE REPLACED WITH SPIRO-COMFORT REGISTERS. SUBMIT FIELD SKETCH OF EXPOSED DUCTWORK AND REGISTER SUBSTITUTIONS FOR APPROVAL PRIOR TO PURCHASE. FABRICATION, OR INSTALLATION. COORDINATE ANY FINISH OR PAINT ON SITE WITH ARCHITECT AND OWNER.

# **DUCT INSULATION**

BASED ON 2015 IECC SECTION C403.2.9, FOR 3A CLIMATE ZONE, THE SUPPLY DUCT IN THE UNCONDITIONED INTERIOR SPACES SHALL REQUIRE R-6 INSULATION AND THE SUPPLY AND RETURN DUCT LOCATED OUTSIDE THE BUILDING SHALL REQUIRE R-8 INSULATION.

ALL DUCT WHICH OCCUPIES CONDITIONED INTERIOR SPACE SHALL NOT REQUIRE INSULATION.

ALL SUPPLY DUCT WHICH OCCUPIES UNCONDITIONED INTERIOR SPACE SHALL BE INSULATED WITH CLOSED CELL, MEDIUM DENSITY SPRAY POLYURETHANE FOAM AS PER DIVISION 23 SPECIFICATION SECTION 230713.

ALL DUCT WHICH OCCUPIES EXTERIOR SPACE SHALL BE INSULATED WITH GLASS FIBER, FLEXIBLE WRAP WITH A WEATHERPROOF JACKET AS PER DIVISION 23 SPECIFICATION SECTION 230713.

## ATTENTION: SUBMITTALS ARE REQUIRED

DO NOT PURCHASE EQUIPMENT WITHOUT APPROVED SHOP DRAWINGS AND SUBMITTALS. WE WILL NOT APPROVE PAY REQUISITIONS WITHOUT SUBMITTALS, ANY COSTS INCURRED TO CORRECT PROBLEMS THAT COULD HAVE BEEN AVOIDED BY SUBMISSION OF SAID DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, EVEN IF SUCH CORRECTION IS OUTSIDE THE CONTRACTORS ORIGINAL CONTRACT RESPONSIBILITIES.

## MECHANICAL SUBMITTAL REQUIREMENTS

SUBMITTAL INFORMATION SHALL BE SUBMITTED AND APPROVED BEFORE THE RELATED INSTALLATION MAY COMMENCE. ANY DEVIATION IN DESIGN DURING THE INSTALLATION PROCESS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE INSTALLING CONTRACTOR SHALL PROVIDE THE ENGINEER WITH FIVE COPIES OF THE FOLLOWING DOCUMENTS

AND CONTROL DIAGRAMS FOR ALL SYSTEMS.

MANUFACTURER'S DATA SHEETS FOR ALL EQUIPMENT ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL REGARDLESS OF DEVIATIONS. PROVIDE SHOP DRAWINGS

- DUCTWORK SHOP DRAWINGS INDICATING DUCT SIZES, DUCT ELEVATIONS, DUCT LINER AND INSULATION, FLEXIBLE CONNECTIONS, DUCT SUPPORTS, EQUIPMENT LOCATION AND CLEARANCES, AND TEMPERATURE SENSORS LOCATIONS.
- EQUIPMENT DATA INCLUSIVE OF SPECIFICATION, INSTALLATION, AND MAINTENANCE CATALOGS FROM THE MANUFACTURER, AS WELL AS FITTINGS AND FIXTURES.
- CONTROL INFORMATION DETAILING EACH SYSTEM COMPONENT INTERCONNECTION AND A WRITTEN SEQUENCE OF OPERATIONS.

MANUFACTURER'S DATA SHEETS FOR ALL EQUIPMENT ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL REGARDLESS OF DEVIATIONS. PROVIDE SHOP DRAWINGS AND CONTROL DIAGRAMS FOR ALL SYSTEMS.

## **GENERAL CONTRACTOR COORDINATION**

BE ESPECIALLY CAUTIOUS OF ELECTRICAL CONDUIT, PLUMBING PIPING, AND SPRINKLER LINES: THESE FREQUENTLY AND INAPPROPRIATELY ARE ROUTED IN THE FIELD THROUGH

THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY COORDINATION OF DUCTWORK, LIGHTING, SPRINKLER HEADS, CEILING TILES, AND STRUCTURAL OBSTRUCTIONS. SUBMIT COORDINATED REFLECTED CEILING PLANS FOR APPROVAL PRIOR TO INSTALLATION. SCHEDULING, SEQUENCE OF INSTALLATION, EQUIPMENT CHANGES, CONTRACTOR PREFERENCES, AND ACCUMULATION OF VARIATIONS IN MEASUREMENT AND INSTALLATION ALL CONTRIBUTE TO CONFLICTS IN CONSTRUCTION.

DESIGN LEARNED, INC. WILL INSPECT INSTALLATION DURING AND AFTER CONSTRUCTION TO ENSURE CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS.

GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ALL SUB-CONTRACTORS ADHERE TO ALL DRAWINGS, SPECIFICATIONS, AND ADDENDA EXACTLY. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COST OF REWORK ASSOCIATED WITH ANY UNAPPROVED DEVIATIONS TO DESIGN. MANY ASPECTS OF OUR DESIGNS FIT CLOSELY.

# **APPLICABLE CODES**

BUILDING CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM ADOPTS WITH AMENDMENTS: INTERNATIONAL BUILDING CODE 2015

EXISTING BUILDING CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM ADOPTS WITH AMENDMENTS: INTERNATIONAL EXISTING BUILDING CODE 2015

PLUMBING CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM ADOPTS WITH AMENDMENTS: INTERNATIONAL PLUMBING CODE 2015

MECHANICAL CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM

ADOPTS WITH AMENDMENTS: INTERNATIONAL MECHANICAL CODE 2015

ENERGY CONSERVATION CODE OF THE TEXAS INDUSTRIALIZED HOUSING AND BUILDINGS PROGRAM ADOPTS WITH AMENDMENTS: INTERNATIONAL ENERGY CONSERVATION CODE 2015

NATIONAL ELECTRIC CODE 2020 OF TEXAS ADOPTS WITH AMENDMENTS: NFPA 70, 2020

SPACES THAT HAVE BEEN RESERVED FOR DUCTWORK.

# **DESIGN BASIS**

MECHANICAL LOAD CALCULATIONS BASED ON 2021 ASHRAE FUNDAMENTALS HANDBOOK CLIMATE DATA FOR DALLAS LOVE FIELD

CLIMATE ZONE (PER 2018 IECC, TABLE C301.1):

CLIMATE DATA (PER 2021 ASHRAE FUNDAMENTALS HANDBOOK):

COOLING DB (0.4%): 101.6°F COOLING MCWB (0.4%): 74.7°F HEATING DB (99.6%): 24.7°F

COOLING DB SETPOINT 75°F **HEATING DB SETPOINT:** 70°F RELATIVE HUMIDITY: 50% RH

# **SPECIFICATIONS**

SPECIFICATIONS ARE PROVIDED IN A-SIZE FORMAT AND ARE PART OF THIS CONSTRUCTION DRAWING SET. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO READ AND UNDERSTAND ALL SPECIFICATIONS BEFORE BIDDING AND BEFORE BEGINNING WORK. CONTRACTORS WILL BE HELD TO THE SPECIFICATIONS AND DRAWINGS. WE WILL NOT APPROVE ANY CHANGES, REWORK, SUBSTITUTIONS, OR OMISSIONS DUE TO THE CONTRACTOR'S FAILURE TO FOLLOW THE SPECIFICATIONS.

REFER TO THE FOLLOWING SPECIFICATION SECTIONS FROM DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC):

HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT 23 0548 VIBRATION AND SEISMIC CONTROLS FOR HVAC 23 0553 IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT 23 0593 TESTING, ADJUSTING, AND BALANCING FOR HVAC

23 0713 DUCT INSULATION 23 0800 COMMISSIONING OF HVAC

DEDICATED OUTDOOR AIR UNITS

23 0913 INSTRUMENTATION AND CONTROL DEVICES FOR HVAC SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

23 3100 HVAC DUCTS AND CASINGS 23 3300 AIR DUCT ACCESSORIES 23 3700 AIR OUTLETS AND INLETS 23 4000 HVAC AIR CLEANING DEVICES

23 7433

# **NOTE**

THESE DRAWINGS ARE BASED ON THE LATEST ARCHITECTURAL PLANS DATED

MECHANICAL SHEET LIST MECHANICAL SCOPE MECHANICAL DETAILS & ABBREVIATIONS MECHANICAL CALCULATION SUMMARY MECHANICAL SCHEDULES

ROOM AIR BALANCE SCHEDULE **HVAC ZONING** HVAC CONTROLS MATRIX & SEQUENCE OF OPERATION HVAC EQUIPMENT LAYOUTS & CONDENSATE DRAIN HVAC DIFFUSER & BALANCING LAYOUTS MECHANICAL ISOMETRIC VIEW I MECHANICAL ISOMETRIC VIEW II

> **OVERVIEW HVAC SUPPLY DRAWINGS** OVERVIEW HVAC RETURN DRAWINGS

MECHANICAL SECTION VIEWS I MECHANICAL SECTION VIEWS II

1. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING FIRE DAMPERS WHEREVER NECESSARY TO MAINTAIN FIRE RATING OF WALL OR FLOOR BEING PENETRATED. FIELD VERIFY FIRE WALLS AND FLOORS (IF ANY) WITH ARCHITECT. 2. DAMPER STYLE & SLEEVE CONFIGURATION IS GOVERNED BY MAINTAINING A MAXIMUM 0.06 STATIC PRESSURE @ 2599 F.P.M. FACE VELOCITY.

FIRE DAMPER DETAILS

4. INSTALLATIONS & MATERIALS PER U.L. 555. 5. ALL FIRE DAMPERS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS 6. SUBMIT MANUFACTURER'S DATA SHEETS TO ENGINEER FOR APPROVAL.

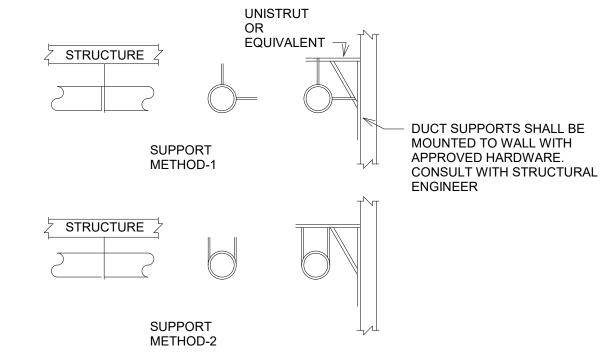
3. DEPTH OF DAMPER TO BE COORDINATED WITH WALL/FLOOR THICKNESS.

SCALE: NTS

**FLEXIBLE FLEXIBLE** CONNECTION CONNECTION HARDWARE (SPRING) ISOLATORS)

DUCTWORK





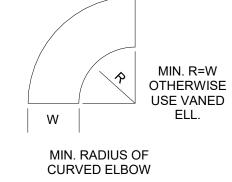
DUCTS SHALL BE SUSPENDED FROM THE STRUCTURE USING EITHER HANGING METHOD

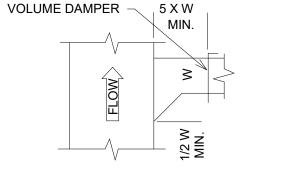
DUCT SUPPORT DETAIL

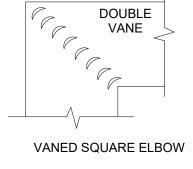
CEILING STRUCTURE DUCTWORK

SCALE: NTS

CONTINUOUS







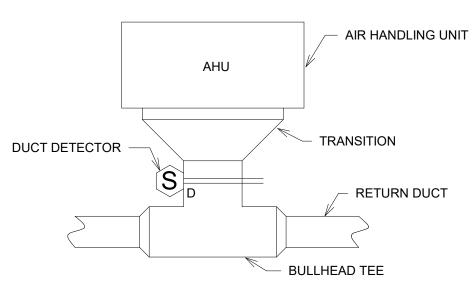
NOTE: MECHANICAL CONTRACTOR TO FOLLOW THESE TRANSITION REQUIREMENTS EXACTLY UNLESS ALTERNATIVES ARE APPROVED BY THE ENGINEER.

DUCT CONSTRUCTION DETAIL (TYPICAL) SCALE: NTS

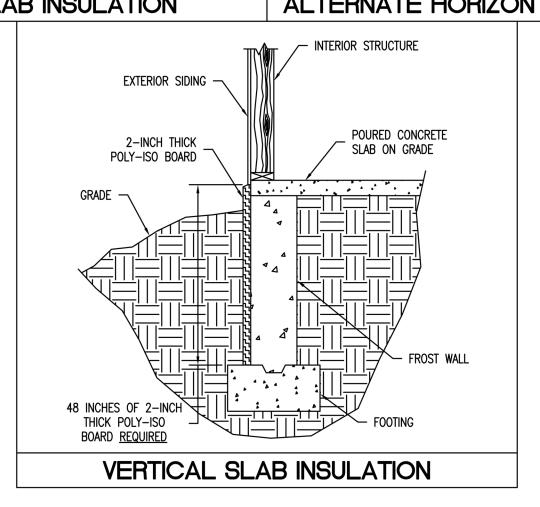
## NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SIMPLEX 4098 SERIES HOUSING WITH 4098-9751 TRUE-ALARM SENSOR DUCT DETECTOR, OR EQUIVALENT, IF UNIT NOT SUPPLIED WITH SUPPLY PLENUM DETECTORS FROM FACTORY, IN AIR HANDLING SYSTEM WHERE REQUIRED BY INTERNATIONAL MECHANICAL CODE VERIFY WITH MECHANICAL CONTRACTOR EXACT LOCATIONS AND REQUIREMENTS PRIOR TO PURCHASE AND INSTALLATION.

2. MECHANICAL CODE STATES: SMOKE DETECTORS SHALL BE INSTALLED IN SUPPLY AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM, IN THE SUPPLY AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES



2-INCH THICK POLY-ISO BOARD,
- CREATING REQUIRED THERMAL BREAK
BETWEEN SLAB AND FROST WALL. 2-INCH THICK POLY-ISO BOARD, - CREATING REQUIRED THERMAL BREAK EXTERIOR SIDING -BETWEEN SLAB AND FROST WALL. POURED CONCRETE POURED CONCRETE SLAB ON GRADE SLAB ON GRADE EXPOSED FOUNDATION — EXPOSED FOUNDATION -GRADE -GRADE 48 INCHES OF 2-INCH THICK 2-INCH THICK POLY-ISO BOARD REQUIRED <u>REQUIRED</u> NOTE: INSULATION MAY BE LESS THAN INSULATION MAY BE LESS THAN 48 INCHES WIDE, PROVIDED IT IS
THICKER THAN 2 INCHES —
PLEASE CALL DESIGN LEARNED,
INC. FOR DETAILS. 48 INCHES WIDE, PROVIDED IT IS THICKER THAN 2 INCHES —
PLEASE CALL DESIGN LEARNED,
INC. FOR DETAILS. HORIZONTAL SLAB INSULATION ALTERNATE HORIZONTAL SLAB INSULATION



SLAB INSULATION DETAIL

SCALE: NTS

SLAB INSULATION PROVIDED FOR COMPLIANCE WITH ENERGY CODE - REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FINAL SLAB INSULATION REQUIREMENTS.

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Real. Texas. Flavor.

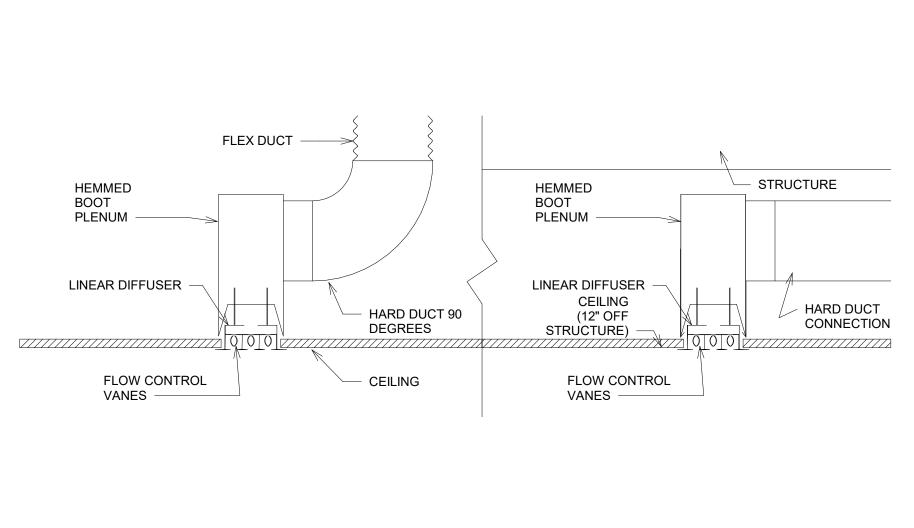
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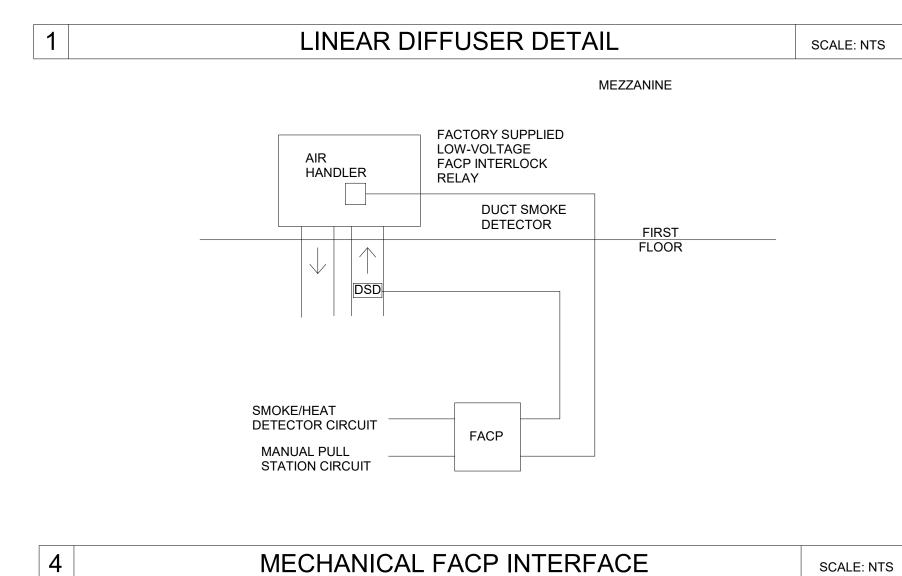


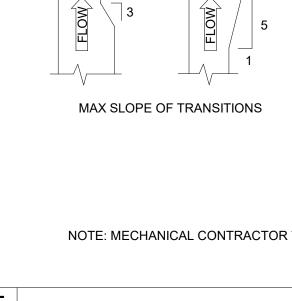
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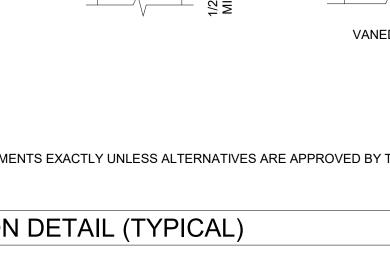
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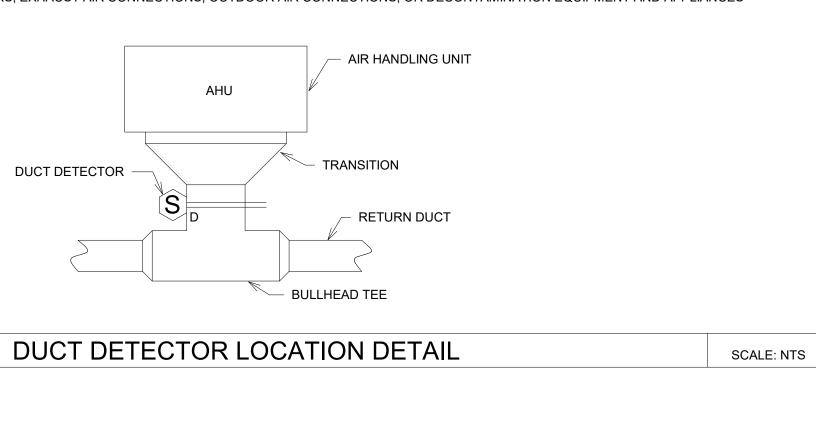
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SUMMARY

SUMMARY
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M1.30

								MESQU.	.TX - ASHRAE	62.1 CALCULATION	ONS									occ	<b>UPAN</b>	ICY - S	<b>ENSIBLE</b>	. & LAT	<b>TENT</b>
							FROM TRANE TRACE 3D PLUS MODEL		FROM QUORUM 2004.05.24 DRAWINGS, SHEET A2.04		From 2015 IMC, TAI	BLE 403.3.1.1					"Nom Vent" from TRACE calculations (2021.07.15)	From 2015 IMC, TABLE 403.3.1.1	1 1	1 CANINE = 0	.25 ANIMAL	= 62.5 BTU	SENSIBLE) = 200 H (SENSIBLE) = 9 ENSIBLE) = 20 B	50 BTU/H (LA	ATENT)
ONE NUMBER	ROO	F TOP UNIT		ROOMS SERVED	CONTROL SENSORS	MAX # PEOPLE	AREA		CEILING HEIGHT	OCCUPANCY	PEOPLE OUTDOOR AIRFLOW RATE	AREA OUTDOOR AIRFLOW RATE	OCCUPANT DENSITY	EXHAUST AIRFLOW RATE		OUTSIDE	AIR	EXHA	UST	HUMAN ANIMALS	NON-H ANIN	HUMAN MALS	TOTAL ANIMALS	TOTAL	L BTU/H
	MARK	TYPE	NUMBER	NAME		Pz	TOTAL SQ. FT.	Az OCCUPIABLE	FT.	CATEGORY	Rp CFM/PERSON	Ra CFM/ SQ. FEET	# PEOPLE / 1,000 SQ. FEET	CFM/ SQ. FEET	Vbz ASHRAE 62.1 MIN CFM	Voz Ez=1	ACTUAL CFM	ASHRAE 62.1 MIN CFM	ACTUAL CFM	# OF HUMANS	# OF CANINES	# OF FELINES	# OF ANIMALS	SENSIBLE	LATEN
			151	TREATMENT/LAB	T'STAT, H'STAT	1	74.24	74.24	11.833	PET SHOPS	7.5	0.18	10	0.9	21	21	67	67	67	0	0	0	0	0	0
ZONE 1	DOAS-1	HEAT PUMP		THE CHILLIANS	1317(1,11317(1	6	574.99	574.99	11.833	PET SHOPS	7.5	0.18	10	0.9	148	148	517	517	517	2	5	5	3.75	937.5	750
														TOTALS:	169	169	584	584	584	2	5	5	3.75	937.5	750
	<u> </u>		140	DOC ADOPTION	TICTAT LUCTAT	T 42	1104.00	1104.00	11.022	DET CHODS	7.5	0.10	I 10		202		1000	1000	1055	2		Ι ο			T 1006
ZONE 2	DOAS-2	HEAT PUMP	149	DOG ADOPTION	T'STAT, H'STAT	12	1184.09	1184.09	11.833	PET SHOPS	7.5	0.18	10	0.9	303	303	1066	1066	1066	2	28	0	9	2250	1800
	<u> </u>													TOTALS:	303	303	1066	1066	1066	2	28	0	9	2250	1800
70115.0			147	CAT ADOPTION	T'STAT, H'STAT	12	1175.39	1175.39	11.833	PET SHOPS	7.5	0.18	10	0.9	302	302	1058	1058	1058	2	0	114	13.4	3350	2680
ZONE 3	DOAS-3	HEAT PUMP			,						I	1	1	TOTALS:		302	1058	1058	1058	2	0	114	13.4	3350	2680

L	ON WORST C	,	HRAE FUNDAMENTALS)	
		ZONE 1	LATENT (DTIL (LI)	CENCIPLE - LATENT (PTIL (LI)
	DEODLE LIGHTS & FOLUDATINE	SENSIBLE (BTU/H)	LATENT (BTU/H)	SENSIBLE + LATENT (BTU/H)
FROM TRACE 3D PLUS	PEOPLE, LIGHTS, & EQUIPMENT	1520	800	2320
FOUNTIONIS ED ON A SCUDA S	BUILDING ENVELOPE	2547	0	2547
EQUATIONS FROM ASHRAE	VENTILATION (PT) (1/2)	16949	9990	26939
FROM TRACE 3D PLUS	AIR SPECIFIC HEAT (BTU/LE AIR DENSITY (LB/F <sup>-</sup> OUTSIDE AIR DB ZONE COOLING SETPOINT	T^3) 0.074 (°F): 101.6	TOTA  VENTILATION CFM:	L: 31806 584
FROM ASHRAE 2021 TABLE & PSYCHROMETRIC CHART	HUMIDITY RATIO FOR DALLAS LOVE FIELD @ 0 COOLING: 101.6 °F DB, 74.7 °F M0 (HUMIDITY RATIO IN LB WATER PER LB DRY A	CWB 0.0128 AIR):		
FROM PSYCHROMETRIC CHART	INDOOR HUMIDITY RA (LB WATER PER LB DRY AIR, 50% RH @ 75	ATIO 5°F):		
		ZONE 2		
Γ		SENSIBLE (BTU/H)	LATENT (BTU/H)	SENSIBLE + LATENT (BTU/H
EDOMATRACE 2D DILIC	PEOPLE, LIGHTS, & EQUIPMENT	2869	1799	4668
FROM TRACE 3D PLUS	BUILDING ENVELOPE	5515	0	5515
EQUATIONS FROM ASHRAE	VENTILATION	30912	18220	49132
FROM TRACE 3D PLUS  FROM ASHRAE 2021 TABLE & PSYCHROMETRIC CHART	AIR SPECIFIC HEAT (BTU/LE AIR DENSITY (LB/F OUTSIDE AIR DB ZONE COOLING SETPOINT HUMIDITY RATIO FOR DALLAS LOVE FIELD @ C COOLING: 101.6 °F DB, 74.7 °F MC	T^3) 0.074 (°F): 101.6 (°F): 75 0.4% CWB 0.0128	VENTILATION CFM:	1066
FROM PSYCHROMETRIC CHART	(HUMIDITY RATIO IN LB WATER PER LB DRY A INDOOR HUMIDITY RA (LB WATER PER LB DRY AIR, 50% RH @ 75	ATIO 0.0093		
		ZONE 3		
		SENSIBLE (BTU/H)	LATENT (BTU/H)	SENSIBLE + LATENT (BTU/H
FROM TRACE 3D PLUS	PEOPLE, LIGHTS, & EQUIPMENT	3669	2799	6468
THOM THACE 3D I E03	BUILDING ENVELOPE	4671	0	4671
EQUATIONS FROM ASHRAE	VENTILATION	30684	18086	48771
FROM TRACE 3D PLUS	AIR SPECIFIC HEAT (BTU/LE AIR DENSITY (LB/F OUTSIDE AIR DB ZONE COOLING SETPOINT	T^3) 0.074 (°F): 101.6	TOTA  VENTILATION CFM:	L: 59910 1058
FROM ASHRAE 2021 TABLE & PSYCHROMETRIC CHART	HUMIDITY RATIO FOR DALLAS LOVE FIELD @ 0 COOLING: 101.6 °F DB, 74.7 °F M0 (HUMIDITY RATIO IN LB WATER PER LB DRY A	0.4% CWB 0.0128 AIR):		
FROM PSYCHROMETRIC CHART	INDOOR HUMIDITY RA (LB WATER PER LB DRY AIR, 50% RH @ 75	ATIO 5°E):		

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MECHANICAL SCHEDULES

														ROOI	FTOP UNI	T SCHE	DULE												
							ELECTF	RICAL DATA	ENERGY EI	FICIENCIES			FAN DA	ATA			MOTO	R DATA		COMPF	RESSOR DATA	(	COIL DATA				CURB DATA		
TAG	ZONE I	MANUFACTURER	MODEL	SUPPLY (CFM)	DIMENSIONS (L X W X H)	WEIGHT (LBS)		MCA MOP			SUPPLY	FAN	EXHAUS1	T FAN	ECONOMIZER FAI	1	SUPPLY MOTOR		HAUST MOTOR				EACE AREA	A REFRIGERANT	FII TER TYPE			WEIGHT	NOTES
17.0	20112	W W W W W W W W W W W W W W W W W W W	WODEL	(CFM)	EMERCIONO (EXTIXII)	WEIGHT (EBG)		(AMPS) (AMPS	) EER	IEER	TYPE	QUANTITY	TYPE	QUANTITY	TYPE QUAN	TITY QUANT	TITY (OPERATING/SIZE)	QUANTITY	HP (OPERATING/SIZE)	TYPE	QUANTITY RLA (A)	MODEL	(SQ FT)	TYPE		MODEL	DIMENSIONS (L X W X H)	(LBS)	
DOAS-1	1	GREENHECK	RV-25-5A	1300	149.5" X 86.4" X 60.2"	2835	208/3/60	28.3 40.0	11.0	17.9	PLENUM, DIRECT DRIVE	1	PLENUM, DIRECT DRIVE	1 F	PLENUM, RECT DRIVE	1	0.37/1	1	0.10/1	INVERTER SCROLL	1 14.1	DX38S04S12-42x42.5-	LH 12	R-410A	MERV 8	GKD-48/145-G14	145" X 48" X 14"	218	1, 2, 3, 4, 5 6, 7, 8, 9, 1
DOAS-2	2	GREENHECK	RVE-40-30-30L-5A	2370	149.5" X 86.4" X 60.2"	3040	208/3/60	29.2 40.0	11.0	17.9	PLENUM, DIRECT DRIVE	1	PLENUM, DIRECT DRIVE	1 F	PLENUM, RECT DRIVE	1	0.93/1	1	0.35/1	INVERTER SCROLL	1 14.1	DX38S04S12-42x42.5-	LH 12	R-410A	MERV 8	GKD-48/145-G14	145" X 48" X 14"	218	1, 2, 3, 4, 5 6, 7, 8, 9, 10
DOAS-3	3	GREENHECK	RVE-40-30-30L-5A	2352	149.5" X 86.4" X 60.2"	3040	208/3/60	29.2 40.0	11.0	17.9	PLENUM, DIRECT DRIVE	1	PLENUM, DIRECT DRIVE	1 F	PLENUM, RECT DRIVE	1	0.91/1	1	0.35/1	INVERTER SCROLL	1 14.1	DX38S04S12-42x42.5-	LH 12	R-410A	MERV 8	GKD-48/145-G14	145" X 48" X 14"	218	1, 2, 3, 4, 5, 6, 7, 8, 9, 10

- INCLUDE END INTAKE & BOTTOM DISCHARGE FOR OUTDOOR AIR, BOTTOM INTAKE & SIDE DISCHARGE FOR EXHAUST AIR INCLUDE HOT GAS REHEAT AND ECONOMIZERS. INCLUDE AERAPY UV FILTRATION.
- INCLUDE RETURN AIR SMOKE DETECTOR.
  INCLUDE FACTORY WIRED NON-FUSED DISCONNECT SWITCH.
  INCLUDE FACTORY WIRED VFDs.

- INCLUDE ELECTROFIN COIL COATING (ALL COILS).
  INCLUDE FACTORY MOUNTED AND WIRED SERVICE OUTLET.
  INCLUDE MOTOR SHAFT GROUNDING.
  INCLUDE REMOTE DISPLAY (DOAS MICROPROCESSOR CONTROLS (SPACE THERMOSTAT, INCLUDES HUMIDITY CONTROL)) AND AIRFLOW MONITORS (OUTSIDE AIR, EXHAUST AIR, & SUPPLY AIR).

																	ROO	TOP	UNI	T PER	FORM	MANC	E DA	ATA												
			GN CONDIT			AIRFL	LOWS								EN	IERGY RECOVE	RY PERFORM	IANCE								COO	LING SPEC	IFICATIONS				Н	IEATING S	SPECIFICAT	TIONS	
TAG	ZONE	SUMMER DB (°F)	SUMMER	WINTER DB (°F)	SUPPLY (CFM)	OA (CFM)	RECIRC (CFM)	EXHAUST (CFM)	OUTDO	OR AIR	SUPPL	YAIR	SUMMER RETURN A		UST AIR	CAPACITY	OUTDOOR /	AIR SUI	PPLY AIR		ITER IRN AIR	EXHAUS	TAIR	CAPACITY	TYPE	TOTAL CAPACITY	SENSIBLE	COIL (D	•	CAPACITY	AT (%E)	TYPE	TOTAI CAPACI	TY FAT (%F		EMPERATURES  AMBIENT
DO40.4	4		, ,	, ,	, ,	,		, ,	DB (°F)	WB (°F)	DB (°F)	WB (°F) DB	(°F) WB/F	RH (°F) DB (°F	) WB (°F)	REDUCTION (BTU/H)	DB (°F) WB	(°F) DB (°	F) WB (°F	DB (°F)	WB/RH (°F	DB (°F) V	/B (°F)	REDUCTION (BTU/H)	AID COUDOE LIEAT DUMA	(MBH)	(IVIDIT)	, ,	LAT (°F)	(MBH)	LAT (*F)	AID COLIDOR LIEAT DUMP	(MBH)	10.0	-) LAI (F)	AMBIENT OUTDOOR AIR (°F)
DOAS-1	1	101.6	74.7	24.7	1300	584	716	584	404.0	74.7	-	7/	-		70.0	-		7 00 7	7 540	70.0		- 00.4	-	-	AIR-SOURCE HEAT PUMP	-			51.0/50.7	49.1		AIR-SOURCE HEAT PUMP		49.6	/6./	24.7
DOAS-2 DOAS-3	3	101.6 101.6	74.7 74.7	24.7	2370	1066 1058	1304	1066 1058	101.6	74.7 74.7	80.0	65.2 75 65.2 75		.5/50 96.3 .5/50 96.3	72.6 72.6	38856 38564	24.7 20 24.7 20	.7 60.7 .7 60.8	51.8 51.8	70.0	58.4/50 58.4/50	33.4	30.3	41446 41250	AIR-SOURCE HEAT PUMP		60.4	1 1 10, 0011	54.0/53.4 53.9/53.3	64.8 64.5		AIR-SOURCE HEAT PUMP AIR-SOURCE HEAT PUMP		65.8 65.8	80.5 80.6	24.7 24.7

MODEL	MANUFACTURER	ASSOCIATED EQUIPMENT	DIMENSIONS (L X W X H)	POWER
PPR-12	AERAPY, LLC	DOAS-1	21" X 3.3" X 2.7"	AC 120V, 277V COMPATIBLE
PPR-20	AERAPY, LLC	DOAS-2	21" X 3.3" X 2.7"	AC 120V, 277V COMPATIBLE
PPR-20	AERAPY, LLC	DOAS-3	21" X 3.3" X 2.7"	AC 120V, 277V COMPATIBLE

					AIR TER	MINAL S	CHEDUL	.E			
TAG	TYPE	SYSTEM CLASSIFICATION	MANUFACTURER	MODEL	QUANTITY	MATERIAL	FACE SIZE (INCHES)	NECK SIZE (INCHES)	MIN CFM	MAX CFM	DESCRIPTION
RG-1	RETURN GRILLE (SPIRAL ROUND)	RETURN AIR	METALAIRE	4000PFR-1	8	ALUMINUM	36 x 3	36 x 3	126	566	Return Grille for Spiral Round Duct, Aluminum with Perforated Face
RG-2	RETURN GRILLE (CEILING)	RETURN AIR	METALAIRE	RH-6	2	ALUMINUM	24 x 24	6 x 6 - 10 x 10	50	800	RH Series Ceiling Return Grille - Roll Formed - 45° Louvered Face
RG-3	RETURN GRILLE (CEILING)	RETURN AIR	METALAIRE	RH-6	5	ALUMINUM	12 x 8	12 x 8	133	667	RH Series Ceiling Return Grille - Roll Formed - 45° Louvered Face
RG-4	RETURN GRILLE (WALL)	RETURN AIR	METALAIRE	RH-1	1	ALUMINUM	22 x 22	22 x 22	672	3361	RH Series Side Wall Return Grille - Rolled Form Aluminum Sidewall Return Grille
SD-1	LINEAR SUPPLY DIFFUSER (SPIRAL ROUND)	SUPPLY AIR	METALAIRE	6610SP	14	ALUMINUM	48 x 4.25	48 x 4.25	80	480	Adjustable Linear Slot Diffuser for Spiral Round Duct - 1" Slot Width, Extruded Aluminum
SD-2	LINEAR SUPPLY GRILLE (CEILING/WALL)	SUPPLY AIR	METALAIRE	2230H	15	ALUMINUM	12 x 5	12 x 5	126	326	Extruded Aluminum Linear Bar Grille - 3/16" Border, 7/32" Bars on 1/2" Centers, 30° Deflection
SD-3	LINEAR SUPPLY GRILLE (CEILING/WALL)	SUPPLY AIR	METALAIRE	2200H	6	ALUMINUM	12 x 5	12 x 5	126	326	Extruded Aluminum Linear Bar Grille - 3/16" Border, 7/32" Bars on 1/2" Centers, 0° Deflection

_								
		DUCT DAMPER SCHEDULE						
	TAG	MANUFACTURER	MODEL	QUANTITY	MIN SIZE	MAX SIZE	DESCRIPTION	
	VD-1	RUSKIN	MD25	17	5"W X 4"H	36"W X 12"H	Galv. Rectangular, light duty, single blade, balancing damper, 1200 FPM, 1"w.c. max.	
	VD-2	RUSKIN	CDRS25	8	4"Ø	24"Ø	Galv. round, dual skin blade, class II leakage, heavy duty, 4000 FPM, 10" w.c. max.	

1650 Gross Rd, Mesquite, TX 75149



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Date: CONSTRUCTION DOCS 02/11/2022	
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Drawn By: RAS	
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CSL
Sheet Title:
ROOM AIR BALANCE
SCHEDULE

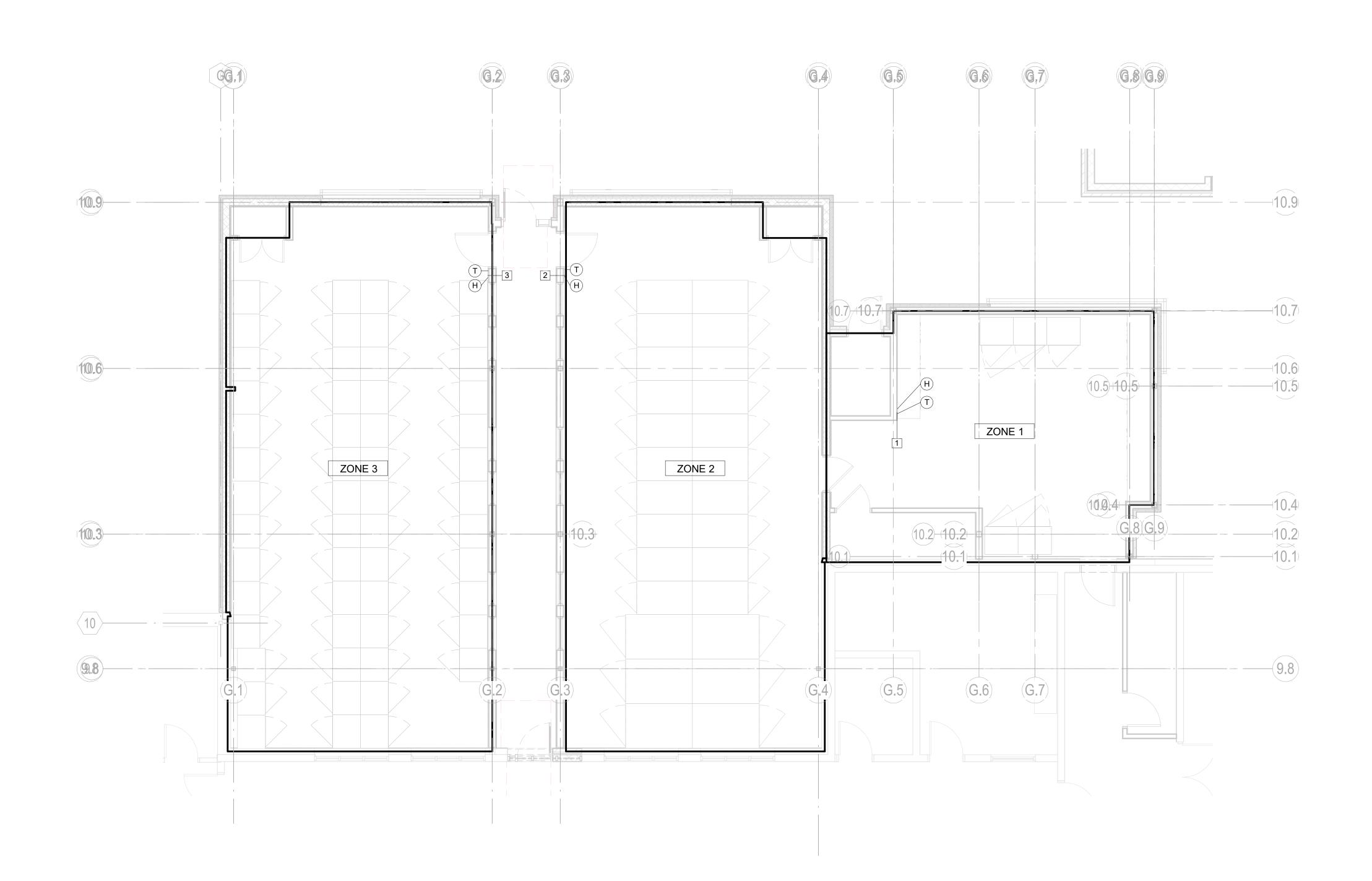
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							ı	MESQU.TX - R	OOM AIR BALAN	NCE SCHE	DULE								
ZONE	SA (CFM)	EA or OA (CFM)		ROOM NUMBER	ROOM NAME	FLOOR AREA (SF)	CEILING HEIGHT AFF (FT)	ROOM VOLUME (CF)	ASHRAE/IMC OCCUPANCY CLASSIFICATION	SA (CFM)	RA (CFM)	OA PORTION OF SA (CFM)	OA ASHRAE 62.1 (MIN CFM)	EA (CFM)	EA ASHRAE 62.1 (MIN CFM)	AIR BALANCE (CFM)		SA CIRCULATIONS/HR	CFM/SQFT
1	1300	584	45%	151	TREATMENT/LAB	74.24	11.833	878	PET SHOPS	150	83	67	21	67	67	0	4.6	10.2	2.02
1	1300	J0 <del>4</del>	43/0		TREATIVIENT/LAB	574.99	11.833	6804	PET SHOPS	1150	633	517	148	517	517	0	4.6	10.1	2.00
					TOTALS:	649.23		7682		1300	716	584	169	584	584	0	4.6	10.2	2.00
2	2370	1066	45%	149	DOG ADOPTION	1184.09	11.833	14011	PET SHOPS	2370	1304	1066	303	1066	1066	0	4.6	10.1	2.00
					TOTALS:	1184.09		14011		2370	1304	1066	303	1066	1066	0	4.6	10.1	2.00
3	2352	1058	45%	147	CAT ADOPTION	1175.39	11.833	13908	PET SHOPS	2352	1294	1058	302	1058	1058	0	4.6	10.1	2.00
				· · · · ·	TOTALS:	1175.39		13908		2352	1294	1058	302	1058	1058	0	4.6	10.1	2.00

Revisions: REV. DATE TITLE

Date: CONSTRUCTION DOCS 02/11/2022 Project No. MESQU.TX Drawn By: RAS Checked By: Sheet Title: **HVAC ZONING** 

2 0 2 4 6 8 10 12 14



EXHAUST GRILLE/REGISTER

HUMIDISTAT LOCATION

THERMOSTAT LOCATION

SUPPLY DUCT

FRESH AIR DUCT \$11111111 FLEXIBLE DUCT LINEAR DIFFUSER/REGISTER SUPPLY DIFFUSER RETURN GRILLE/REGISTER

MECHANICAL LEGEND:

KEYNOTE LEGEND

MOUNT GREENHECK DOAS MICROPROCESSOR CONTROLS (SPACE THERMOSTAT, INCLUDES HUMIDITY CONTROL) FOR DOAS-1 AT THIS LOCATION (SHALL BE WIRED INSIDE THE WALL).

MOUNT GREENHECK DOAS MICROPROCESSOR CONTROLS (SPACE THERMOSTAT, INCLUDES HUMIDITY CONTROL) FOR DOAS-2 AT THIS LOCATION (SHALL BE WIRED INSIDE THE WALL).

MOUNT GREENHECK DOAS MICROPROCESSOR CONTROLS (SPACE THERMOSTAT, INCLUDES HUMIDITY CONTROL) FOR DOAS-3 AT THIS LOCATION (SHALL BE WIRED INSIDE THE WALL).

KEYNOTE TEXT

Drawing No. T

F 214.887.0559

HVAC CONTROLS MATRIX & SEQUENCE OF OPERATION

DEDICATED OUTDOOR AIR SYSTEM INTERFACE POINTS LIST SUPPLY FAN CONTROL ─ DIRTY FILTER SENSOR RETURN AIR DAMPER POSITION RECIRCULATION AIR DAMPER POSITION OUTDOOR AIR DAMPER POSITION OUTDOOR AIR TEMPERATURE SENSOR

SMOKE DETECTOR

RETURN AIR TEMPERATURE SENSOR

SUPPLY AIR TEMPERATURE SENSOR

**OUTDOOR AIR** (ENTERING UNIT)

EXHAUST AIR

(LEAVING UNIT)

EXHAUST BLOWER

**RETURN AIR** 

(FROM SPACE)

COMPRESSOR SUPPLY BLOWER

SUPPLY AIR

(TO SPACE)

CONDENSING COIL

DEDICATED OUTDOOR AIR SYSTEM INTERFACE POINTS LIST SUPPLY FAN CONTROL DIRTY FILTER SENSOR RETURN AIR DAMPER POSITION RECIRCULATION AIR DAMPER POSITION OUTDOOR AIR DAMPER POSITION MODULATING ENERGY WHEEL ECONOMIZER VFD WHEEL BYPASS DAMPER POSITION OUTDOOR AIR TEMPERATURE SENSOR COMPRESSOR SUPPLY BLOWER OUTDOOR AIR (ENTERING UNIT) CONDENSING COIL EXHAUST AIR (LEAVING UNIT) SMOKE DETECTOR RETURN AIR TEMPERATURE SENSOR RETURN AIR SUPPLY AIR (TO SPACE) 

## SEQUENCE OF OPERATION FOR DEDICATED OUTDOOR AIR SYSTEMS

THE DEDICATED OUTDOOR AIR SYSTEMS SHALL EACH BE CONTROLLED UTILIZING A MICROPROCESSOR CONTROLLER WHICH INCLUDES THREE MODES FOR DETERMINING OCCUPANCY: DIGITAL INPUT, OCCUPANCY SCHEDULE, OR BMS. EACH UNIT SHALL INCLUDE A REMOTE DISPLAY TO PERMIT MONITORING AND CONTROL OF THE SYSTEMS FROM WITHIN EACH INDIVIDUAL ZONE.

- THE MICROPROCESSOR WILL ENABLE OPERATION OF THE UNIT AFTER RECEIVING A DIGITAL INPUT, UPON WHICH THE FOLLOWING SHALL OCCUR:
- IF THE UNIT INCLUDES AN ENERGY RECOVERY WHEEL, THEN THIS WILL START.
- DAMPERS WILL BECOME POWERED. THE EXHAUST AND SUPPLY FANS WILL START AFTER ADJUSTABLE DELAY.

AIR TEMPERING WILL BEGIN AFTER ADJUSTABLE DELAY. THESE UNITS SHOULD BE CONFIGURED SUCH THAT THE SUPPLY FANS OPERATE CONTINUOUSLY WHILE THE UNITS ARE IN OCCUPIED MODE.

THE MICROPROCESSOR OFFERS FIVE OCCUPANCY MODES:

- DIGITAL INPUT OCCUPANCY SCHEDULE
- ALWAYS OCCUPIED ALWAYS UNOCCUPIED

ALL THREE DOAS UNITS SHALL BE CONFIGURED TO OPERATE IN OCCUPIED MODE ACCORDING TO A SPACE TEMPERATURE SET POINT CONTROL. THE SUPPLY AIR TEMPERATURE IN EACH SPACE SHALL BE CONSTANT AND SET TO 75°F WHEN IN COOLING MODE AND SET TO 70°F WHEN IN HEATING MODE. WHEN IN OCCUPIED MODE, THE EXHAUST FANS, THE SUPPLY FANS, THE ENERGY RECOVERY WHEEL (IF EQUIPPED), AND THE DAMPER CONTROLS (FOR OUTSIDE AIR AND RECIRCULATED AIR) WILL ALL BE IN OPERATION.

COOLING MODE
THE UNIT SHALL ENTER INTO COOLING MODE WHEN THE SPACE TEMPERATURE IS ABOVE THE COOLING SETPOINT (75°F). THE COMBINATION OF THE RECIRCULATED AIR AND THE OUTSIDE AIR WHICH TOGETHER CONSTITUTE THE SUPPLY AIR ENTERING THE SPACE SUPPLY AIR WILL PASS OVER COILS WHICH CONTAIN REFRIGERANT, WHICH WILL ABSORB HEAT IN THE AIRSTREAM TO REDUCE THE SPACE TEMPERATURE TO THE DESIRED LEVEL.

HEATING MODE
THE UNIT SHALL ENTER INTO HEATING MODE WHEN THE SPACE TEMPERATURE IS BELOW THE HEATING SETPOINT (70°F). THE COMBINATION OF THE RECIRCULATED AIR AND THE OUTSIDE AIR WHICH TOGETHER CONSTITUTE THE SUPPLY AIR ENTERING THE SPACE SUPPLY AIR WILL PASS OVER COILS WHICH CONTAIN REFRIGERANT, WHICH WILL ABSORB HEAT

DEFROST CYCLE
NOTE THAT THESE UNITS WILL PERIODICALLY NEED TO ENTER INTO A DEFROST CYCLE TO ELIMINATE FROST WHICH HAS ACCUMULATED ON THE OUTSIDE COIL WHEN THE UNIT IS IN HEATING MODE. DEFROST MODE WILL START WHEN ONE OF THE TWO FOLLOWING CONDITIONS IS MET:

SATURATED SUCTION TEMPERATURE < -15°F; OR SATURATED SUCTION TEMPERATURE < (AMBIENT CONDITIONS MINUS A 35°F/25°F OFFSET)

IN THE COILS TO INCREASE THE SPACE TEMPERATURE TO THE DESIRED LEVEL.

THE DEFROST CYCLE WILL TERMINATE WHEN ONE OF THE FOLLOWING TWO CONDITIONS IS MET:

SATURATED DISCHARGE TEMPERATURE OF ALL REFRIGERANT CIRCUITS > CANCEL DEFROST SETPOINT (80°F); OR MAX DEFROST TIME HAS BEEN EXCEEDED (5 MINUTES).

ECONOMIZER
THE UNIT WILL ENTER ECONOMIZER MODE IF THE UNIT IS BOTH IN COOLING MODE AND THE OUTSIDE AIR CONDITIONS ARE SUITABLE FOR FREE COOLING. THE ECONOMIZER WILL BE

- OUTSIDE AIR TEMPERATURE > ECONOMIZER HIGH LOCKOUT TEMPERATURE (65°F).
- OUTSIDE AIR ENTHALPY > ECONOMIZER HIGH ENTHALPY LOCKOUT (23 BTU/LB). UNIT IS IN DEHUMIDIFICATION MODE.

UNIT IS IN HEATING MODE.

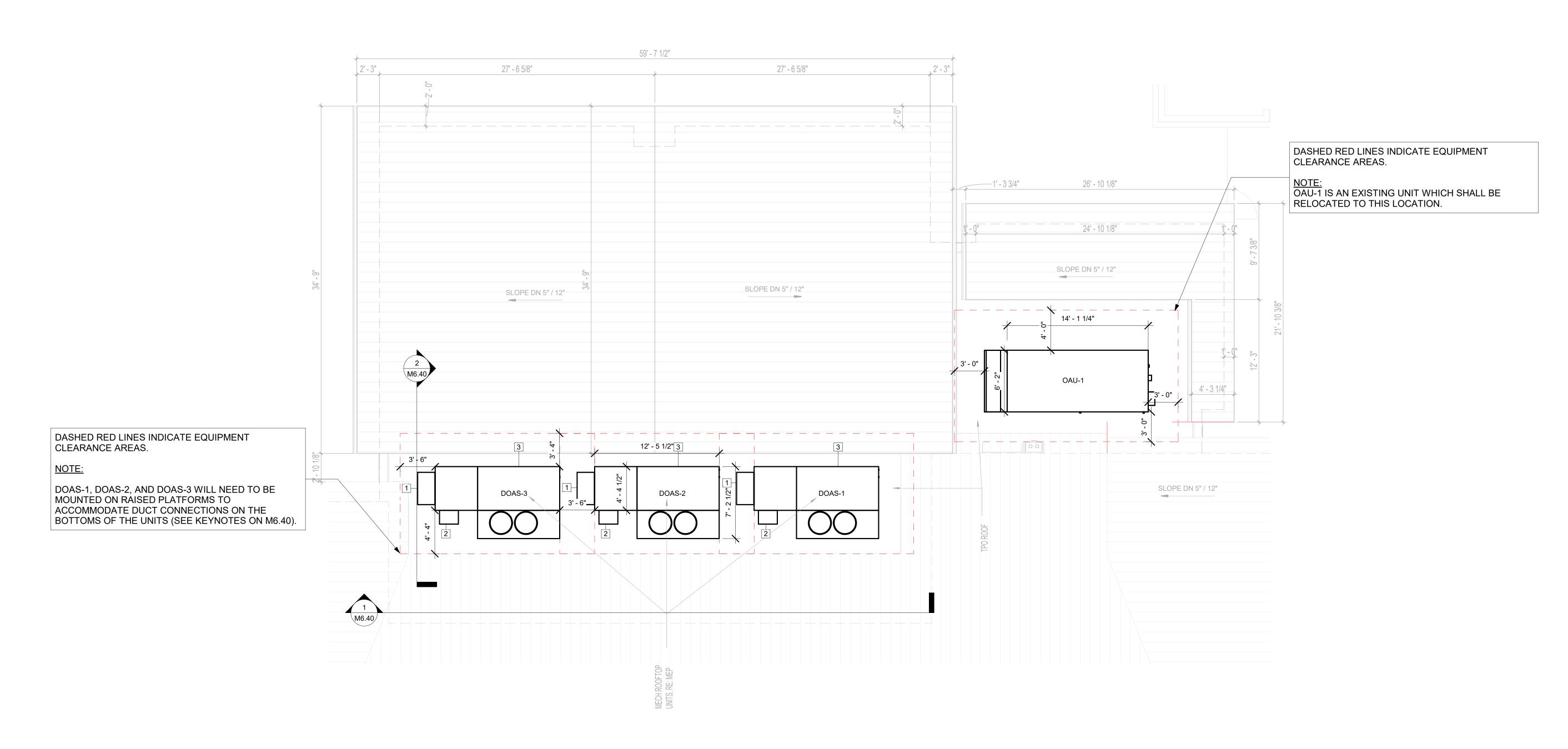
IF THE UNIT IS EQUIPPED WITH AN ENERGY RECOVERY WHEEL (DOAS-2 & DOAS-3), THE ECONOMIZER WILL MODULATE/STOP THE ROTATION OF THE WHEEL TO ACHIEVE FREE

DEHUMIDIFICATION
THE UNIT SHALL ENTER DEHUMIDIFICATION MODE IF THE RELATIVE HUMIDITY WITHIN THE SPACE FALLS OUTSIDE OF THE SETPOINT (50% RH). THE CONTROLLER WILL ADJUST THE LEAVING AIR TEMPERATURE OF THE COOLING COIL BETWEEN THE MINIMUM TEMPERATURE (50°F) AND THE MAXIMUM TEMPERATURE (55°F) TO SATISFY THE DESIRE SPACE RELATIVE HUMIDITY SET POINT. WHILE THIS IS OCCURING, THE SUPPLY AIR TEMPERATURE IS MAINTAINED BY MODULATING THE HOT GAS REHEAT VALVE TO MAINTAIN THE TEMPERATURE SET POINT OF THE AIRSTREAM.

SUPPLY FAN VFD SEQUENCE
ALL THREE DOAS UNITS SHALL BE CONFIGURED TO OPERATE AT CONSTANT VOLUME SUCH THAT THE SUPPLY FANS OPERATE AT A CONSTANT SPEED BASED ON A CONSTANT VOLUME SET POINT AS SPECIFIED IN THE MECHANICAL EQUIPMENT SCHEDULES.

EXHAUST FAN VFD SEQUENCE
ALL THREE DOAS UNITS SHALL BE CONFIGURED TO OPERATE AT CONSTANT VOLUME SUCH THAT THE EXHAUST FANS OPERATE AT A CONSTANT SPEED BASED ON A CONSTANT VOLUME SET POINT AS SPECIFIED IN THE MECHANICAL EQUIPMENT SCHEDULES.

ALL ROOF PENETRATIONS SHALL BE PROPERLY FLASHED AND SEALED PER THE ARCHITECTURAL SPECIFICATIONS. INSULATE ALL DUCTWORK EXPOSED TO THE ELEMENTS TO R-8 MINIMUM. CONTRACTOR TO PREPARE A FLASHING AND SEALING SKETCH FOR PENETRATIONS FOR SUBMISSION TO THE ENGINEER PRIOR TO FABRICATION.



KEYNOTE LEGEND KEYNOTE TEXT 1 OUTDOOR AIR INLET (SEE OUTDOOR AIRFLOW VALUES ON M1.50).
2 EXHAUST AIR OUTLET (SEE EXHAUST AIRFLOW VALUES ON M1.50). DISCHARGE CONDENSATE (3/4 INCH DIAMETER PIPE, 1/4 INCH SLOPE PER FOOT) DIRECTLY ONTO ROOF SURFACE AT LEAST 1 FOOT AWAY FROM BASE OF UNIT. MECHANICAL LEGEND: SUPPLY DUCT RETURN DUCT EXHAUST DUCT FRESH AIR DUCT FLEXIBLE DUCT LINEAR DIFFUSER/REGISTER SUPPLY DIFFUSER RETURN GRILLE/REGISTER EXHAUST GRILLE/REGISTER HUMIDISTAT LOCATION

THERMOSTAT LOCATION

2 0 2 4 6 8 10 12 14

Mesquite

Keal. lexas. Flavor.

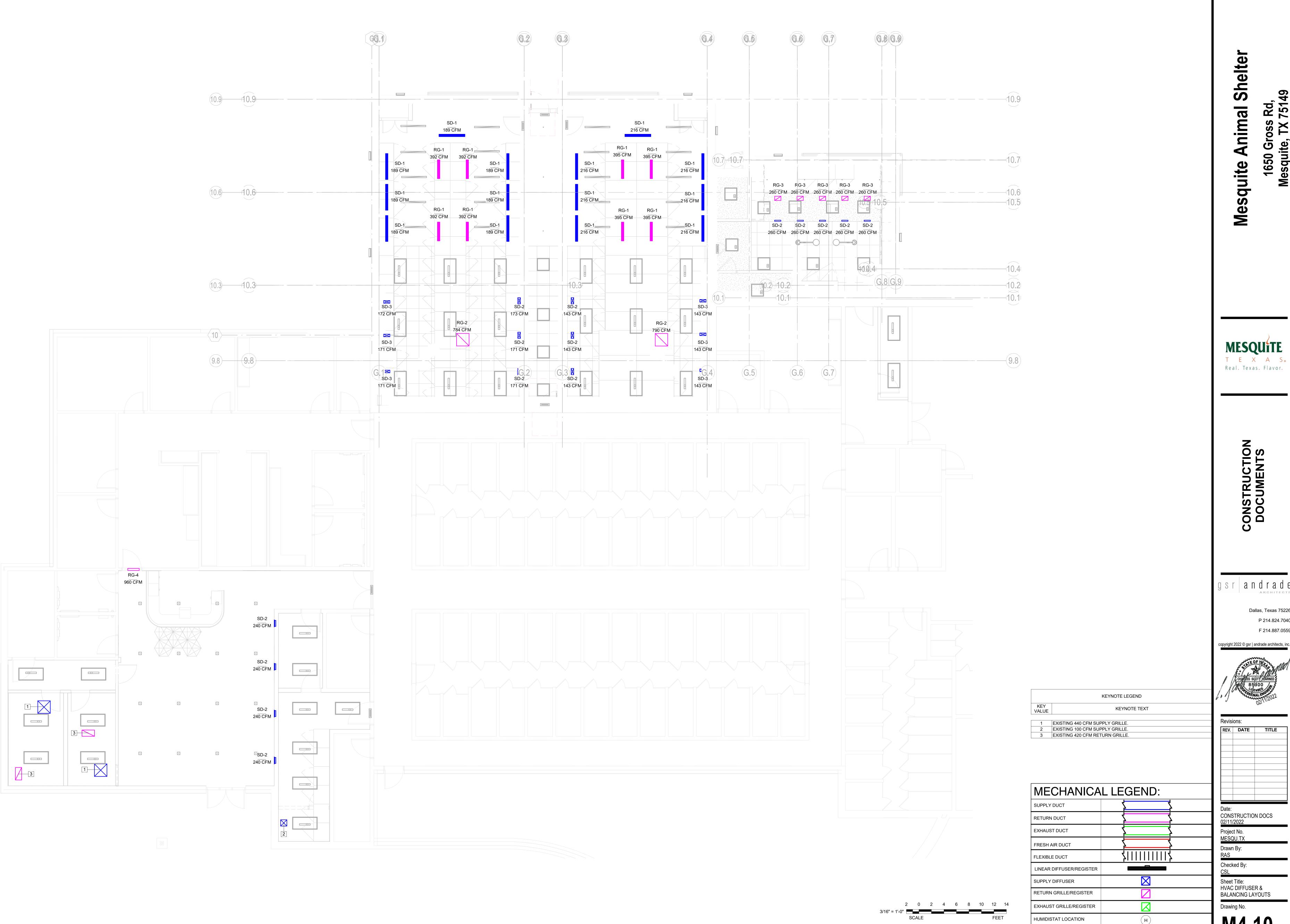
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HVAC EQUIPMENT LAYOUTS & CONDENSATE DRAIN Drawing No.



MESQUITE

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THERMOSTAT LOCATION

Mesquite Animal Shelter

MESQUITE

T E X A S.

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CONSTRUCTION
DOCUMENTS

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ARCHITECTS

Dallas, Texas 75226

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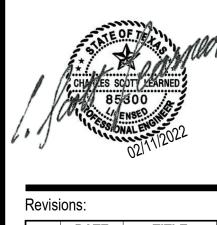
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RAS
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Sheet Title: MECHANICAL ISOMETRIC VIEW I

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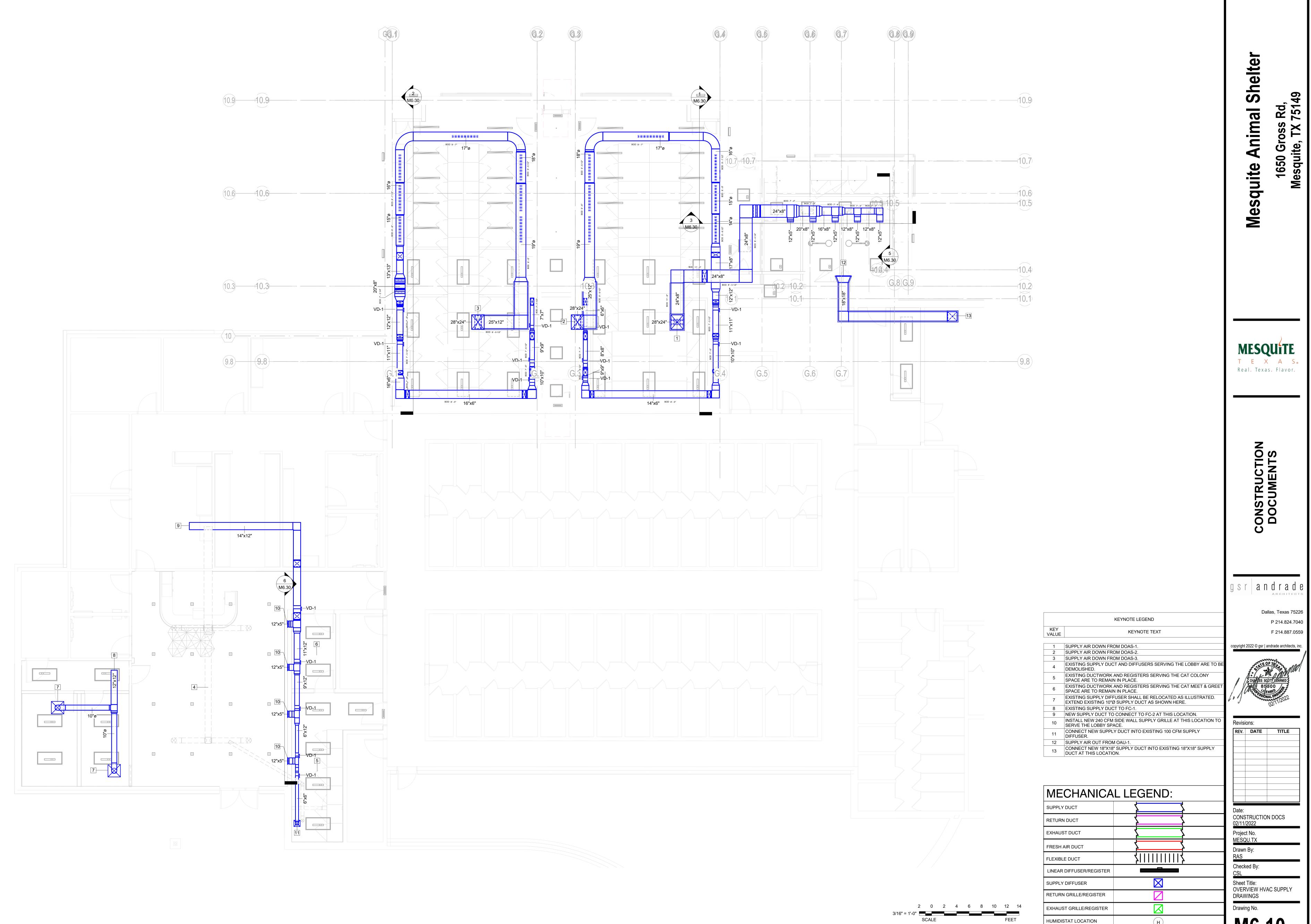
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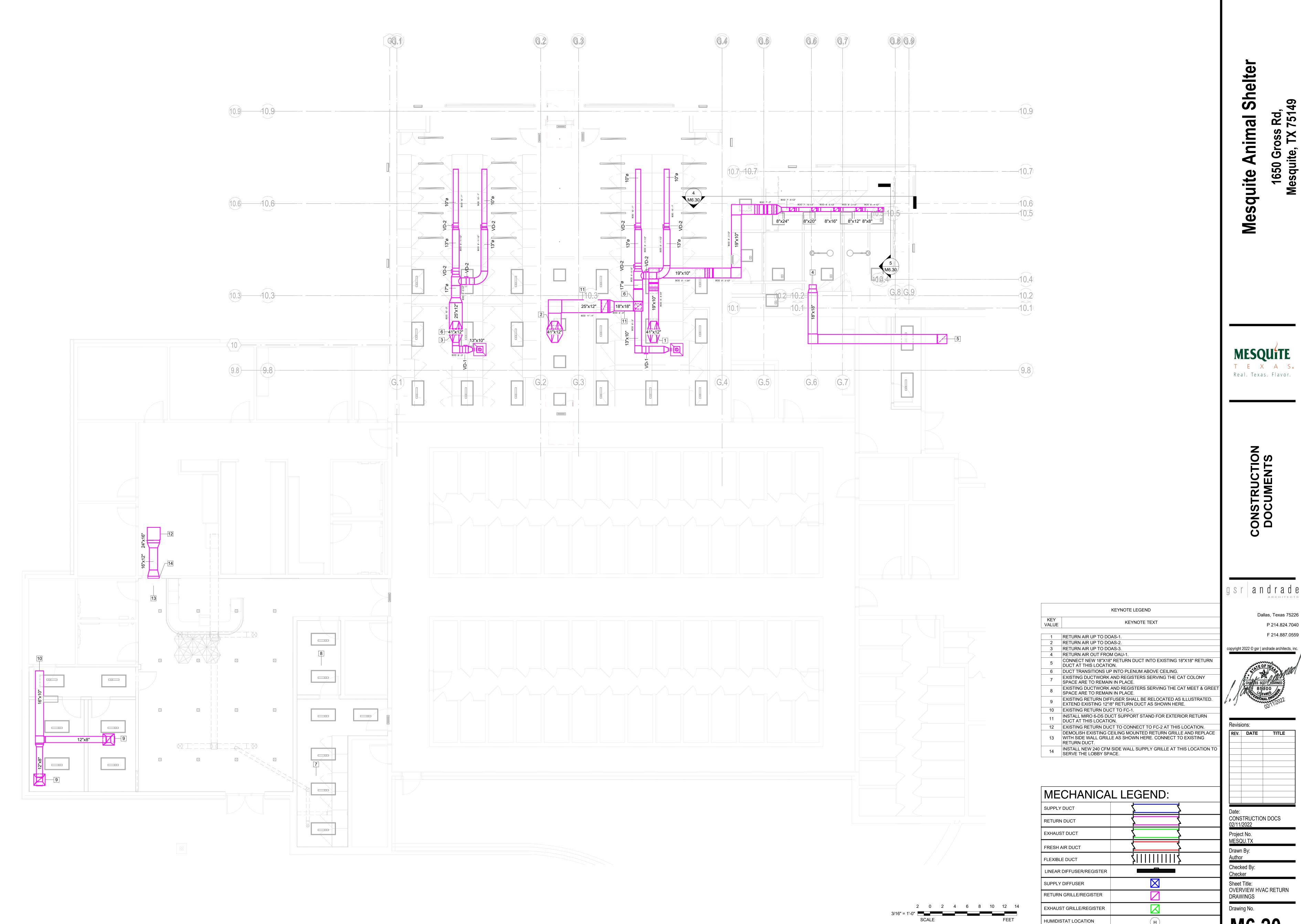
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MECHANICAL ISOMETRIC
VIEW II
Drawing No.

M5.20



THERMOSTAT LOCATION



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THERMOSTAT LOCATION

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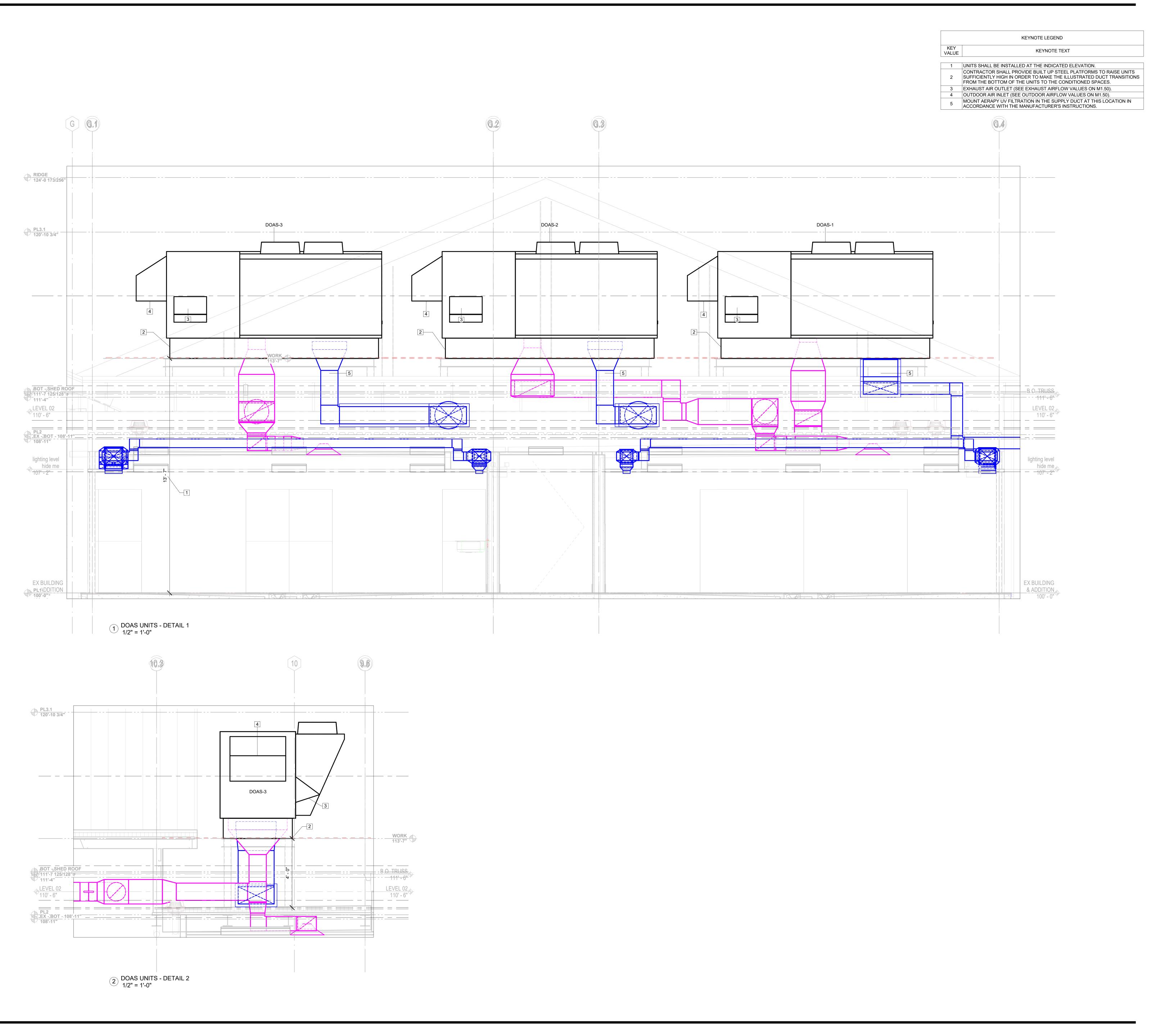
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MECHANICAL SECTION
VIEWS I

Drawing No.

M6 30



Mesquite Animal Shelter

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02/11/2022

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Author

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Checker

Sheet Title:
MECHANICAL SECTION

Drawing No.

M6 40

DISCONNECT IS REQUIRED. THE TERM 'PROVIDE AND INSTALL' SHALL MEAN TO FURNISH AND INSTALL COMPLETELY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL EQUIPMENT, MATERIALS, AND ACCESSORIES SPECIFIED WITHIN THIS ELECTRICAL DRAWING SET. ADDITIONALLY THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ANY EQUIPMENT, MATERIAL, ACCESSORY, AND/OR HARDWARE REQUIRED TO COMPLETE A FULLY OPERATIONAL ELECTRICAL SYSTEM. SUBMITTAL INFORMATION, AS OUTLINED BELOW, SHALL BE SUBMITTED

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL PERMIT FEES, AND LOCAL BUILDING OFFICIAL REQUIREMENTS. DURING CONSTRUCTION, THE CONTRACTOR MAY CONTACT DESIGN LEARNED, INC. (860) 889-7078. CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING ALL SYSTEMS IN COMPLIANCE WITH "NATIONAL ELECTRICAL CODE 2020 OF TEXAS".

AND APPROVED BEFORE THE RELATED INSTALLATION MAY COMMENCE. NO DEVIATIONS MAY BE MADE WITH OUT WRITTEN CONSENT FROM THE DESIGN LEARNED, INC.

ALL CONDUIT, WIRING, ENCLOSURES, AND FIXTURES ARE TO BE NEAT, CLEAN, LEVEL, PLUMB, AND ATTRACTIVE. ENCLOSURES, CIRCUITS, CONDUIT, PULL BOXES, GUTTER BOXES, AND CIRCUIT BREAKERS ARE TO BE CLEARLY LABELED WITH TYPED OR EMBOSSED LABELING SYSTEMS. DO NOT USE TAPE OR HANDWRITTEN TAGS FOR LABELS. PROVIDE ACCESS PANELS AS PART OF THE BASE FEE TO ANY OBSTRUCTED OR CONCEALED ENCLOSURES, PULL BOXES, SPLICES, GUTTER BOXES, OR OTHER TERMINATIONS AT ANY LOCATIONS THAT ARE OTHERWISE HIDDEN OR INACCESSIBLE.

ALL CONDUIT OR MC CABLE, WHETHER HUNG OR RUN IN CONDUIT, SHALL BE MOUNTED WITH HIGH QUALITY, MANUFACTURED CONDUIT OR CABLE SUPPORTS. ANY LOW GRADE HANGER SUCH AS PERFORATED HANGERS, PLASTIC TIES, ROPE, OR WIRE IS UNACCEPTABLE. CONDUIT SUPPORTS SHALL BE MANUFACTURED AND SUBMITTED FOR APPROVAL BEFORE PURCHASE.

ALL DEBRIS SHALL BE REMOVED FROM INSIDE AND AROUND ALL PANELS, ELECTRICAL EQUIPMENT, AND RECEPTACLES. ALL CONNECTIONS SHALL BE SECURELY FASTENED; AND ALL PANELS, CONDUIT, J-BOXES, AND WIRE SHALL BE NEATLY LABELED TO CREATE A NEAT AND CLEAN OPERATING SYSTEM.

CONTRACTOR TO VERIFY AVAILABILITY OF EQUIPMENT PRIOR TO BIDDING. SUBSTITUTIONS MAY BE ALLOWED PENDING ENGINEER APPROVAL. ALL SUBSTITUTIONS MUST BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION.

THE ELECTRICAL CONTRACTOR IS REQUIRED TO COORDINATE WITH THE LOCAL UTILITY TO INSTALL A DISCONNECT FOR THE EXISTING THREE-PHASE SERVICE TO THE BUILDING. THE EXISTING MDP SHALL DISTRIBUTE POWER TO THE LIGHTING PANELS, MECHANICAL EQUIPMENT PANELS AND RECEPTACLE PANELS. FOR ALL CONDUIT AND WIRE SIZES REFER TO THE RISER DIAGRAM AND FEEDER SCHEDULE IN THE FOLLOWING SHEETS.

LIGHTING THROUGHOUT THE BUILDING IS SPECIFIED AS LED LIGHTING WITH INTEGRAL LED DRIVERS.ANIMAL ENCLOSURE ROOMS TO HAVE 4 LEVEL SCENE CONTROLLERS CONTRACTOR TO PROVIDE AND INSTALL LEVITON GREENMAX DRC DIGITAL SWITCH,4 BUTTON, ENGRAVED WITH: OFF, RESTING, FEEDING, CLEANING DESIGNATIONS ON BUTTONS. PROVIDE WITH LEVITON DRC LINE VOLTAGE ROOM CONTROLLER IN EACH ENCLOSURE ROOM. SUBMIT ALL PRODUCTS FOR APPROVAL INCLUDING BUTTON DESIGNATIONS AND CONFIRMATION THAT LIGHT FIXTURE CONTROLS MATCH SWITCH VOLTAGE CONTROLS.

### LIGHTING SCOPE OF WORK

ALL INTERIOR LIGHTING IS DESIGNED TO SUIT THE INDIVIDUAL ENVIRONMENTS. IN AREAS WHERE THE ENVIRONMENT IS WET, DAMP, OR HUMID THE LIGHTING FIXTURES WILL BE GASKETED AND SEALED IN OTHER AREAS GASKETED LIGHTING IS USED TO PREVENT HAIR ACCUMULATION OR AVOID BACTERIAL CONTAMINATION. ALL INTERIOR LIGHT WIRING SHALL BE ROUTED IN EMT OR MC CABLE. ALL BALLASTS ARE TO BE ENERGY EFFICIENT ELECTRONIC BALLASTS.

LIGHTING IN OFFICES AND LOBBY AREAS SHALL BE CONTROLLED BY OCCUPANCY SENSORS, WHERE REQUIRED BY CODE. ONLY USE PASSIVE INFRARED OCCUPANCY SENSORS. OCCUPANCY SENSORS UTILIZING ULTRASONIC SOUND ARE NOT PERMISSIBLE THESE SENSORS OPERATE WITH A SOUND PRESSURE AND FREQUENCY THAT WILL CREATE STRESS IN ANIMALS AND CAUSE UNNECESSARY DISCOMFORT WITHIN THE BUILDING. OCCUPANCY SENSORS SHALL BE A LEARNING ADAPTABLE TYPE AND LOCATED AS SHOWN ON THE DRAWINGS. ALL ROOMS SHALL BE INDIVIDUALLY CONTROLLED BY SWITCHES OR OCCUPANCY SENSORS WHETHER THE SHOWN ON THE DRAWINGS OR NOT.

THE EXTERIOR LIGHTING SHALL BE POLE AND WALL MOUNTED PACKS. ALL LIGHTING AT EXIT DOORS SHALL BE SUPPLIED WITH BATTERY BACK UP TO PROVIDE EMERGENCY EGRESS LIGHTING. THE EXTERIOR LIGHTS SHALL BE CONTROLLED BY AN ASTRONOMICAL TIME CLOCK WHICH AUTOMATICALLY ADJUSTS FOR THE CHANGING SUNSET TIMES. THE TIME CLOCK SHALL BE PRE PROGRAMMED FOR THE COOPERSTOWN AREA SUNSET AND SUNRISE TIMES.EXTERIOR LIGHTING SHALL BE INSTALLED WITH NEMA 4R FITTINGS. CONTRACTOR TO INCLUDE COST AND INSTALLATION OF NEW HOMERUNS BACK TO THE NEW PANELBOARD. CONTRACTOR ALSO TO INCLUDE THE COST AND INSTALLATION OF ASTRONOMICAL TIME CLOCKS TO CONTROL SITE AND FACADE LIGHTING.

THE EMERGENCY LIGHTING SHALL BE SUPPLIED BY THE INTERIOR BUILDING LIGHTING WITH EMERGENCY BATTERY BACKUP AS INDICATED ON THE LIGHTING SCHEDULE. ALL LIGHTING SHOWN WITH THESE LIGHTS SHALL STAY LIT FOR 90 MINUTES. ALL EXIT LIGHTS SHALL HAVE BATTERY BACK UP AND SHALL BE ON ITS OWN CIRCUIT. ALL EXIT LIGHTING SHALL BE MOUNTED TO THE CEILING WITH NO OBSTRUCTIONS BLOCKING THE LIGHT OF SIGHT TO THE SIGN.

### **EMERGENCY SYSTEM SCOPE OF WORK**

EXIT SIGNS SHALL BE INSTALLED AND LOCATED AS SHOWN TO LEAD PEOPLE QUICKLY AND SAFELY TO A MODE OF EGRESS AND BUILDING EXIT. ALL EXIT DOORS SHALL HAVE AN ADJACENT FIRE ALARM MANUAL PULL STATION INSTALLED. SMOKE DETECTORS SHALL BE INSTALLED ON CEILINGS IN GENERAL AREAS SUCH AS, WAITING AREAS, OFFICE AREAS, VESTIBULES, ENTRY AREAS, AND ANY OTHER SPACE NOT COVERED BY A HEAT DETECTOR.

THE FIRE ALARM SYSTEM IS AN EXISTING NOTIFIER SYSTEM. THE FIRE ALARM SYSTEM SHALL BE CONFIGURED FOR EARLY DETECTION TO ALLOW ANIMALS TO BE EVACUATED FROM DANGEROUS ZONES FIRST. ALL SYSTEM WIRES SHALL BE RUN IN CONDUIT AND MAY NOT BE RUN OUTSIDE OF CONDUIT TO DETECTORS OR NOTIFICATION DEVICES. ALL EGRESS DOORS SHALL HAVE MANUAL PULL STATIONS MOUNTED WITHIN 2 FEET OF THE DOOR BELOW ANY LIGHT SWITCHES ON THE WALL. ALL NOTIFICATION DEVICES SHALL HAVE A CANDELA RATING OF AT MINIMUM 15. ALL SMOKE DETECTOR BASES SHALL BE INSTALLED WITH CARBON MONOXIDE DETECTORS AND ALL HEAT DETECTORS SHALL HAVE STANDARD BASES.

### FIRE-RATED PENETRATIONS

ALL PENETRATIONS THROUGH A FIRE-RATED ASSEMBLY MUST BE SEALED IN A MANNER WHICH MEETS OR EXCEEDS THE FIRE-RATING OF THE PENETRATED ASSEMBLY. PENETRATIONS MUST BE SEALED WITH A UL LISTED FIRESTOP SYSTEM AND SHALL COMPLY WITH ALL STATE AND LOCAL CODES.

CONTRACTOR SHALL SUBMIT A SHOP DRAWING INDICATING FIREWALLS TO BE PENETRATED AND SYSTEMS USED TO SEAL PENETRATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL. FIRESTOP SYSTEMS SHALL BE IDENTIFIED BY UL CATALOG NUMBER (e.g. XHEZ - WL1001).

# **FIRE RATINGS**

AT THE TIME OF DESIGN, THERE WERE NO FIRE WALLS INDICATED ON THE ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING WHETHER ANY FIRE-RATED PARTITIONS ARE REQUIRED. IF FIRE-RATED PARTITIONS ARE REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR INCLUDING THE COST OF MAINTAINING THE RATING OF ANY PENETRATION TO THESE ASSEMBLIES IN THEIR WORK.

### GENERAL CONTRACTOR COORDINATION

THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY COORDINATION OF DUCTWORK, LIGHTING, SPRINKLER HEADS, CEILING TILES, AND STRUCTURAL OBSTRUCTIONS. SUBMIT COORDINATED REFLECTED CEILING PLANS FOR APPROVAL PRIOR TO INSTALLATION. SCHEDULING, SEQUENCE OF INSTALLATION, EQUIPMENT CHANGES, CONTRACTOR PREFERENCES, AND ACCUMULATION OF VARIATIONS IN MEASUREMENT AND INSTALLATION ALL CONTRIBUTE TO CONFLICTS IN CONSTRUCTION.

DESIGN LEARNED, INC. WILL INSPECT INSTALLATION DURING AND AFTER CONSTRUCTION TO ENSURE CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS.

GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ALL SUB-CONTRACTORS ADHERE TO ALL DRAWINGS, SPECIFICATIONS, AND ADDENDA EXACTLY.

GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COST OF REWORK ASSOCIATED WITH ANY UNAPPROVED DEVIATIONS TO DESIGN. MANY ASPECTS OF OUR DESIGNS FIT CLOSELY. BE ESPECIALLY CAUTIOUS OF ELECTRICAL CONDUIT, PLUMBING PIPING, AND SPRINKLER LINES: THESE FREQUENTLY AND INAPPROPRIATELY ARE ROUTED IN THE FIELD THROUGH SPACES THAT HAVE BEEN RESERVED FOR DUCTWORK.

### ATTENTION: SUBMITTALS ARE REQUIRED

DO NOT PURCHASE EQUIPMENT WITHOUT APPROVED SHOP DRAWINGS AND SUBMITTALS. WE WILL NOT APPROVE PAY REQUISITIONS WITHOUT SUBMITTALS, ANY COSTS INCURRED TO CORRECT PROBLEMS THAT COULD HAVE BEEN AVOIDED BY SUBMISSION OF SAID DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, EVEN IF SUCH CORRECTION IS OUTSIDE THE CONTRACTORS ORIGINAL CONTRACT RESPONSIBILITIES.

## **ELECTRICAL SUBMITTAL REQUIREMENTS**

SUBMITTAL INFORMATION SHALL BE SUBMITTED AND APPROVED BEFORE THE RELATED INSTALLATION MAY COMMENCE. ANY DEVIATION IN DESIGN DURING THE INSTALLATION PROCESS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE INSTALLING CONTRACTOR SHALL PROVIDE THE ENGINEER WITH FIVE COPIES OF THE FOLLOWING DOCUMENTS FOR APPROVAL:

1. MANUFACTURER'S DATA SHEETS FOR ALL EQUIPMENT AND SUPPLIES TO BE PURCHASED AND/OR USED IN THIS PROJECT. THIS INCLUDES ANY CAULK, TAPE, OR BOXES. ANY ITEMS INSTALLED OR PLACED IN THE BUILDING MUST BE

2. ELECTRICAL SHOP DRAWINGS SHALL BE SUBMITTED INDICATING ANY SUB-SLAB CONDUIT, ALL FIRE WALL PENETRATIONS, AND DEVIATIONS FROM DESIGN.

3. CIRCUITING AND PULL BOX SHOP DRAWINGS INDICATING DEVIATIONS FROM DESIGN, CHANGES IN FITTINGS AND ROUTING, PENETRATIONS, AND INTERFERENCES.

4. EQUIPMENT DATA INCLUSIVE OF SPECIFICATION, INSTALLATION, AND MAINTENANCE CATALOGS FROM THE MANUFACTURER.

5. MANUFACTURER SAFETY DATA SHEETS ON ALL ITEMS BEING SUPPLIED AND LEFT AT THE SITE AFTER COMPLETION. THIS INCLUDES ADHESIVES AND CHALKING MATERIALS.

### **SPECIFICATIONS**

SPECIFICATIONS ARE PROVIDED IN A-SIZE FORMAT AND ARE PART OF THIS CONSTRUCTION DRAWING SET. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO READ AND UNDERSTAND ALL SPECIFICATIONS BEFORE BIDDING AND BEFORE BEGINNING WORK. CONTRACTORS WILL BE HELD TO THE SPECIFICATIONS AND DRAWINGS. WE WILL NOT APPROVE ANY CHANGES, REWORK, SUBSTITUTIONS, OR OMISSIONS DUE TO THE CONTRACTOR'S FAILURE TO FOLLOW THE SPECIFICATIONS.

# **NOTE**

THESE DRAWINGS ARE BASED ON THE LATEST ARCHITECTURAL PLANS DATED 10/19/2021.

	LIC	SHTING FIXT	URE SCHEDULE			
Type Mark	Description	Manufacturer	Model	VOLTS	Wattage	Count
A	2X4 TROFFER	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-35K-MVOLT	120 V	39 W	8
<b>A</b> 1	2X4 TROFFER	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-40K-ZT-MVOLT	120 V	39 W	12
A1E	2X4 TROFFER WITH EMERGENCY BATTERY	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-40K-ZT-MVOLT-E10WLCP	120 V	39 W	6
λE	2X4 TROFFER WITH EMERGENCY BATTERY	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-35K-MVOLT-EL0WLCP	120 V	39 W	7
31	2X2 TROFFER	LITHONIA LIGHTING	CPX-2X2-3200LM-80CRI-35K-MVOLT	120 V	32 W	8
31E	2X2 TROFFER	LITHONIA LIGHTING	CPX-2X2-3200LM-80CRI-35K-MVOLT-E10WLCP	120 V	32 W	6
	SUSPENDED LIGHTS	FINELITE	S19-P-ID-2E-V-835-OPEN-FC-10%	120 V	35 W	8
CE	SUSPENDED LIGHTS WITH EMERGENCY BATTERY	FINELITE	S19-P-ID-2E-V-835-OPEN-FC-10%-FAC CHO	120 V	35 W	12
EXIT	EXIT LIGHTS	Cooper Industries, Inc.	EUS61R	120 V		7
EXLT	CEILING MOUNT EXAM LIGHTS	SHORLINE	913.7000.03	120 V		2
_1	LOBBY PENDANT	USAI LIGHTING	BLSD5-24C3-35KS-50-S-WH	120 V	24 W	16
_2	HOLLOWCORE-LED (PENDANT)	LUMINIS	HC1600-L4L30-29W-80CRI-4000K-120V-BKT	120 V	66 W	7
SL	SITE LIGHTING	LITHONIA LIGHTING	RADPT-P4-35K-SYM-MVOLT-PT4-DBLXD	120 V	48 W	3
V	WALL PACK EXTERIOR LIGHTS	Cooper Industries, Inc.	673 16"-WP-L3/835-UNV-MB-2HTB	120 V	19 W	7

	SWITC	H SCHEDUL	E		FIRE ALAF	RM SCHED	ULE	
Type Mark	DESCRIPTION	MANUFACTURER	MODEL	COUNT	Description	Manufacturer	Model	Count
DS	DAYLIGHT CONTROL SENSOR	ACUITY CONTROLS	nCM ADCX	3	AUDIO/VISUAL ALARM	SYSTEM SENSOR	P2R	1
D	DIMMER SWITCH	LEVITON	GreenMAX DRC	4	MANUAL PULL STATION	NOTIFIER	NOT-BG12LX	1
os	OCCUPANCY SENSOR	LEVITON	ODS15-ID*	10	MULTICRITERIA SMOKE DETECTOR	NOTIFIER	NP-A100	6
S	STANDARD SINGLE POLE	LEVITON	5601-2*	3	SMOKE DETECTOR	SYSTEM SENSOR	NP-200	9
3	THREE WAY SWITCH	LEVITON	5603-2*	4	VISUAL ALARM	SYSTEM SENSOR	SR	5
Т	TIMER SWITCH	LEVITON	VPT24-1PZ	1		·	•	•

RECEPTACLE SCHEDULE									
TAG	DESCRIPTION	MANUFACTURER	MODEL	VOLTAGE	COUNT				
D	STANDARD DUPLEX RECEPTACLE	LEVITON	LEVITON 16352-* WITH 80301-S* WALLPLATE	120 V	10				
EXLT	WALL MOUNT EXAM LIGHT	JUNCTION BOX		120 V	2				
GFCI	GFCI DUPLEX RECEPTACLE	LEVITON	LEVITON GFNT2-*(INCLUDE WALLPLATE)	120 V	3				
HVAC	UV FILTERATION	JUNCTION BOX		120 V	4				
QG	GFCI QUADRUPLEX RECEPTACLE	LEVITON	(2) LEVITON GFNT2-*WITH 80309-S-* WALLPLATE	120 V	2				
RF	REFRIGERATOR	LEVITON	LEVITON 5015-*WITH 80704-*WALLPLATE	120 V	1				
WP	WEATHERPROOF DUPLEX RECEPTACLE	LEVITON	LEVITON GFNT2-*WITH 5977-*WEATHER RESISTANT COVER	120 V	12				

# FEEDER SCHEDULE

EC NFPA 70 TABLE	VOLTAGE	PHASE	MAIN (AMPS)	CONDUCTORS (QUANTITY)	WIRE SIZE	PVC SC 80
MDP TO PD1	208/120	3	200	ONE SET OF THREE	3-#3/0,1-#4,1-#4	3 INCH
MDP TO LP1	208/120	3	100	ONE SET OF THREE	3-#1,1-#6,1-#6	2 INCH
IPERATURE RATING OF CO	NDUCTOR EI	THER 75°C	or 60°C PE	ER NEC 110.14(C)(1)(a) A	ND 110.14(C)(1)(b)	

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REV. DATE

CONSTRUCTION DOCS 02/11/2022 Project No. MESQU.TX Drawn By: Checked By: Sheet Title: **ELECTRICAL SCOPE &** SCHEDULE

**ELECTRICAL SHEET LIST** 

LIGHTING & ILLUMINATED EXIT SIGN LAYOUTS

**ELECTRICAL SCOPE & SCHEDULE** 

ONE LINE DIAGRAM

POWER LAYOUTS

DAYLIGHT AREAS

POWER ROOF

LIGHTING PHOTOMETRICS SITE LIGHTING LAYOUT

FIRE ALARM FLOOR PLAN

SITE LIGHTING PHOTOMETRICS

**ELECTRICAL DETAILS & ABBREVIATIONS** ELECTRICAL PANEL SCHEDULES I

SHEET NAME

SHEET NUMBER

Drawing No.

Date:
CONSTRUCTION DOCS
02/11/2022

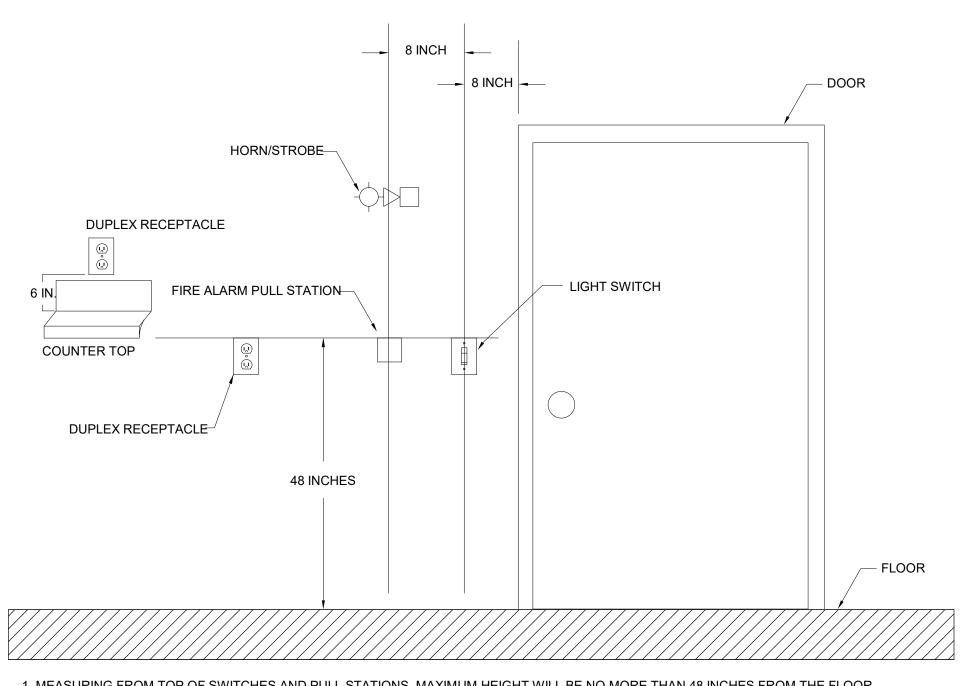
Project No.
MESQU.TX

Drawn By:
ST

Checked By:

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CSL
Sheet Title:
ELECTRICAL DETAILS &
ABBREVIATIONS

Drawing No. F1 20



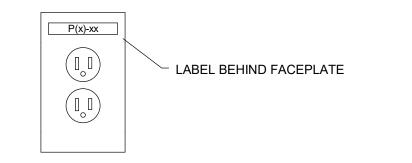
1. MEASURING FROM TOP OF SWITCHES AND PULL STATIONS, MAXIMUM HEIGHT WILL BE NO MORE THAN 48 INCHES FROM THE FLOOR.
2. FROM THE TOP OF THE DUPLEX RECEPTACLE TO THE FLOOR MAY NOT EXCEED 48 INCHES. LOCATE RECEPTACLES AT THIS HEIGHT WHERE

DRAWING DICTATES. UNLESS OTHERWISE NOTED, DEFAULT MOUNTING HEIGHT IS 18" ABOVE FLOOR

(COMPONENTS ARE SHOWN HERE TO ILLUSTRATE ANSI A117 COMPLIANCE)

1 TYPICAL WALL MOUNT DIMENSIONAL DETAIL SCALE: NTS

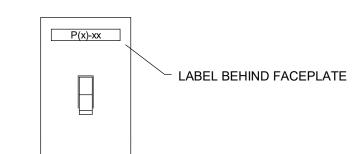
ELECTRICAL CONTRACTOR SHALL PROVIDE EACH OUTLET WITH A PERMANENT LABEL BEHIND THE FACEPLATE, IDENTIFYING THAT OUTLETS CORRESPONDING CIRCUIT, AS SHOWN ON THIS DETAIL.



4 RECEPTACLE OUTLET CIRCUIT I.D. DETAIL SCALE: NTS

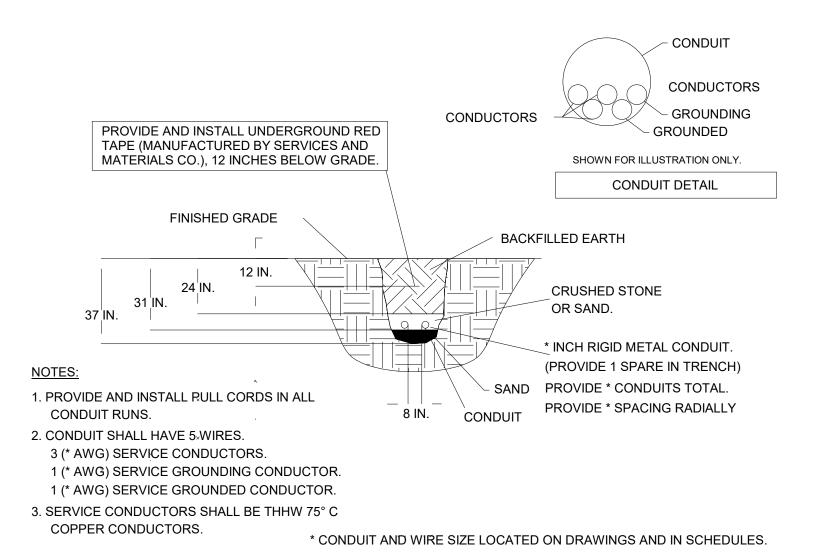
ELECTRICAL CONTRACTOR SHALL PROVIDE EACH SWITCH WITH A PERMANENT LABEL BEHIND THE

FACEPLATE, IDENTIFYING THAT SWITCHES CORRESPONDING CIRCUIT, AS SHOWN ON THIS DETAIL.

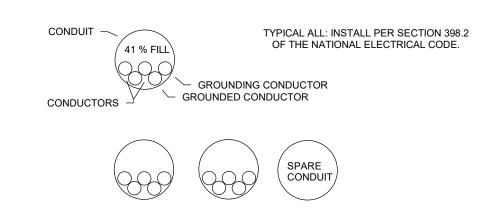


6 LIGHT SWITCH CIRCUIT I.D. DETAIL

SCALE: NTS

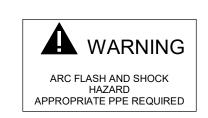


2 GENERAL CONDUIT TRENCH DETAIL SCALE: NTS

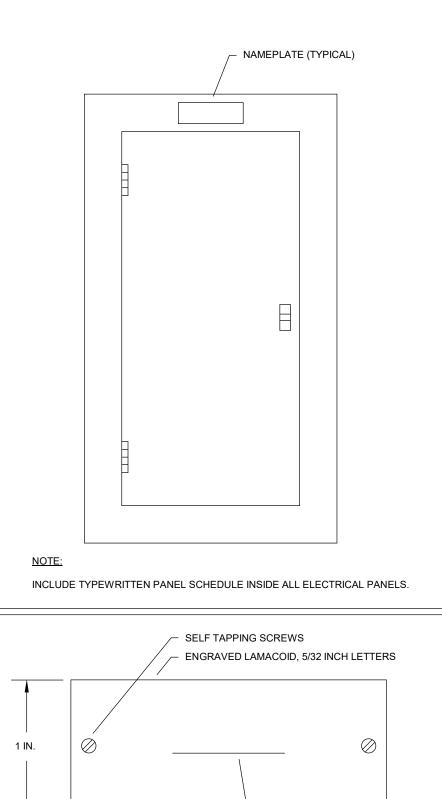


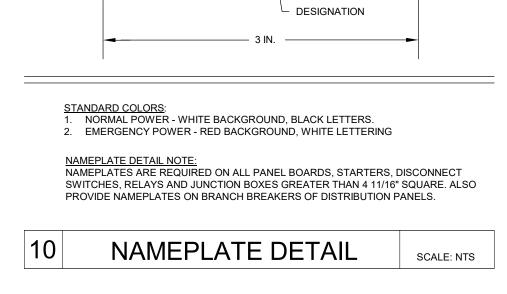
5 PARALLEL CONDUIT DETAIL SCALE: NTS

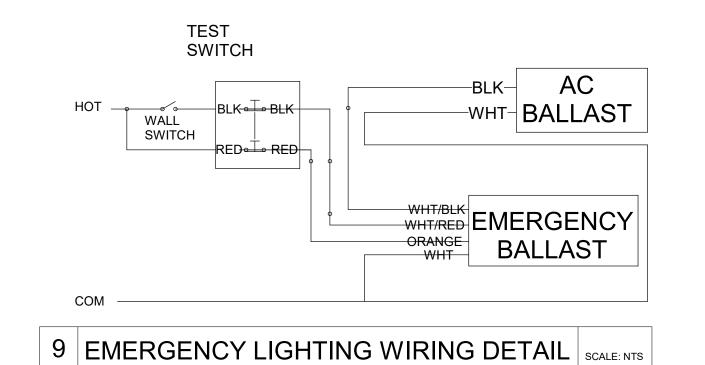
PLACE WARNING SIGN BELOW ALL ELECTRICAL EQUIPMENT CONTAINING VOLTAGE ABOVE 120V. ENSURE THE SIGN IS CLEARLY VISIBLE.



7 WARNING DETAIL SCALE: NTS









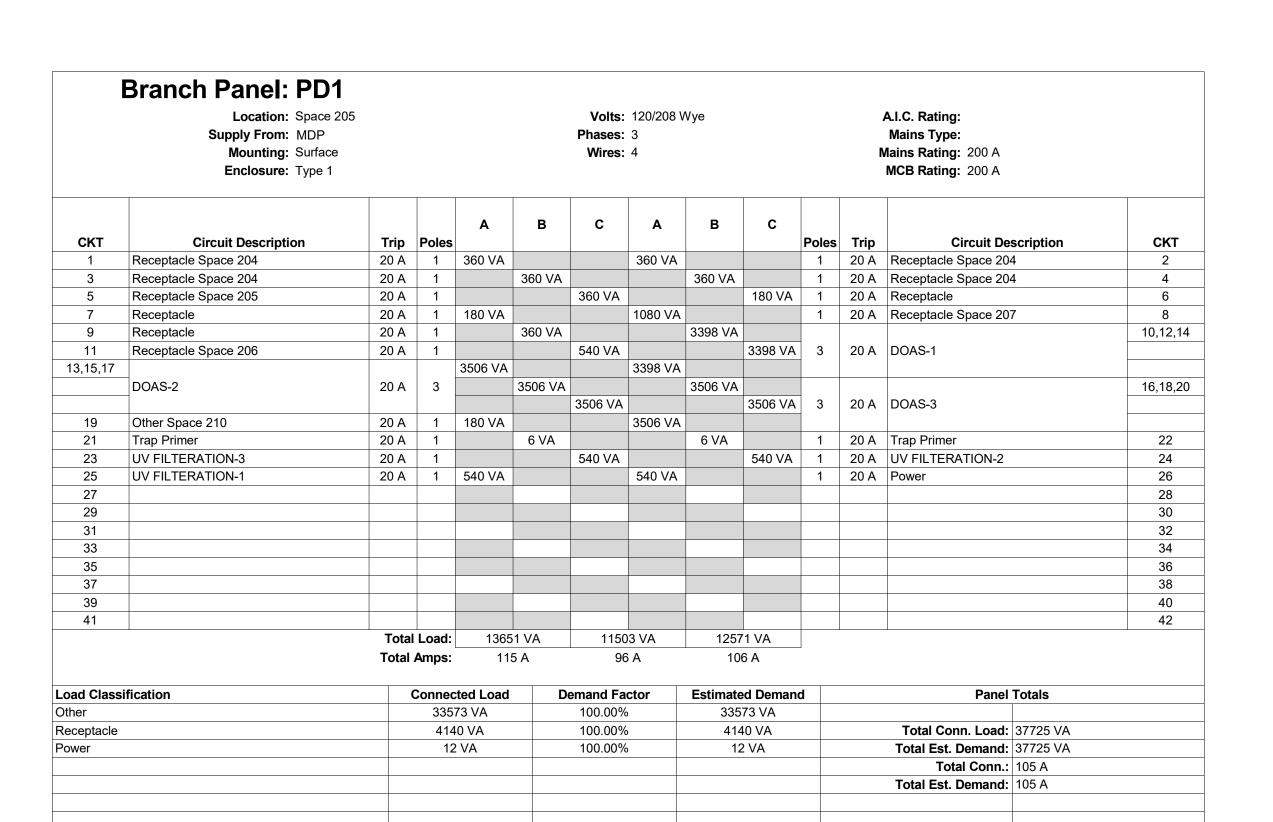
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Date: CONSTRUCTION DOCS 02/11/2022
Project No. MESQU.TX
Drawn By: ST
Checked By: CSL
Shoot Title:

Sheet Title:
ELECTRICAL PANEL
SCHEDULES I

Drawing No.

E2.10



	Location: Space 205 Supply From: MDP Mounting: Surface Enclosure: Type 1					Volts: Phases: Wires:	_	Vye			N	A.I.C. Rating: Mains Type: Mains Rating: 100 A MCB Rating: 100 A	
СКТ	Circuit Description	Trip	Poles	Α	В	С	Α	В	С	Poles	Trip	Circuit Description	СКТ
1	Lighting Space 205	20 A	1	431 VA			401 VA			1	20 A	Lighting Space 207	2
3	Lighting	20 A	1		213 VA			401 VA		1		Lighting Space 206	4
5	Lighting	20 A	1			133 VA			162 VA	1	20 A	Other	6
7	Power Space 204	20 A	1	540 VA			540 VA			1	20 A	Power Space 204	8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41		<u></u>											42
			Load:	1872			S VA		) VA				
		Total	Amps:	16	Α	5	Α	2	Α				
oad Class	sification		Connec	ted Load	De	emand Fa	ctor	Estimate	ed Deman	d		Panel Totals	
ther			258	38 VA		100.00%	)	258	38 VA				
ighting			51	9 VA		100.00%	)	51	9 VA			Total Conn. Load: 2640 VA	
												Total Est. Demand: 2640 VA	
												Total Conn.: 7 A	
												Total Est. Demand: 7 A	
lotes:		·			1							-	

DOAS UNITS ARE SPECIFIED WITH A FACTORY PROVIDED RECEPTACLE. VERIFY AND READ THE INSTALLATION REQUIREMENTS FOR DOAS EQUIPMENT BEFORE WIRING. FOR THE 120 VOLT RECEPTACLE, A FOUR WIRE CONNECTION WILL BE

REQUIRED.

MESQUITE

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Date: CONSTRUCTION DOCS 02/11/2022

ONE LINE DIAGRAM

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PANEL IS PRESENTLY ON THE EXTERIOR OF THE BUILDING

NEW ADDITION WILL ENCOMPASE THIS CT CABINET

THIS CONDITION IS ACCEPTABLE TO THE AUTHORITY HAVING JURIDICTION BUT WILL REQUIRE A NEW DISCONNECT SWITCH ON THE OUTSIDE OF THE BUILDING TO PERMIT COMPLETE DISCONNECTION OF THE POWER

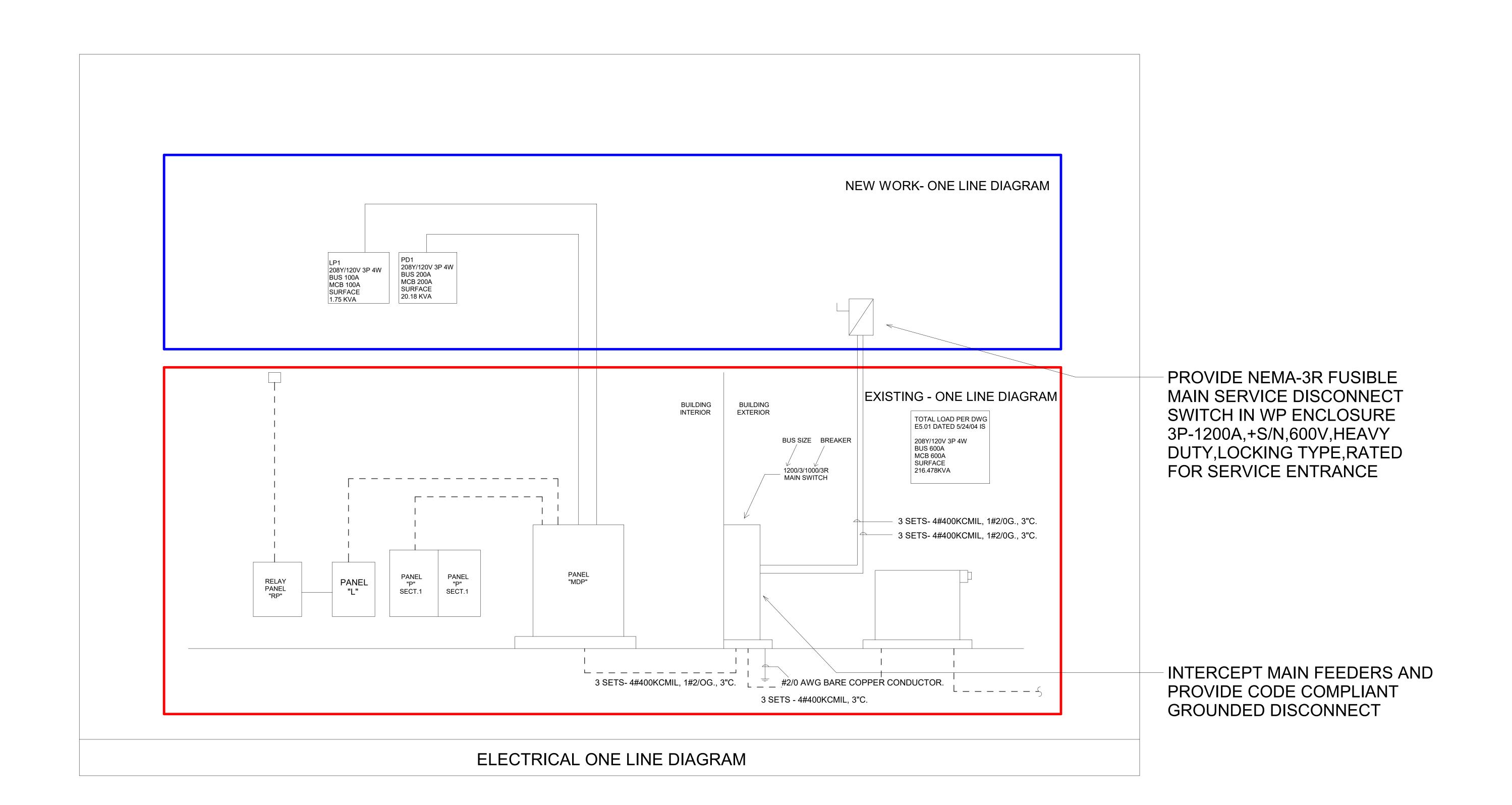
INTERCEPT PRIMARY FEEDERS AND PROVIDE AND INSTALL A NEW DISCONNECT AS SHOWN ON THE DRAWINGS

EXISTING FEEDER INFORMATION BASED ON EXISTING RECORD DOCUMENTS

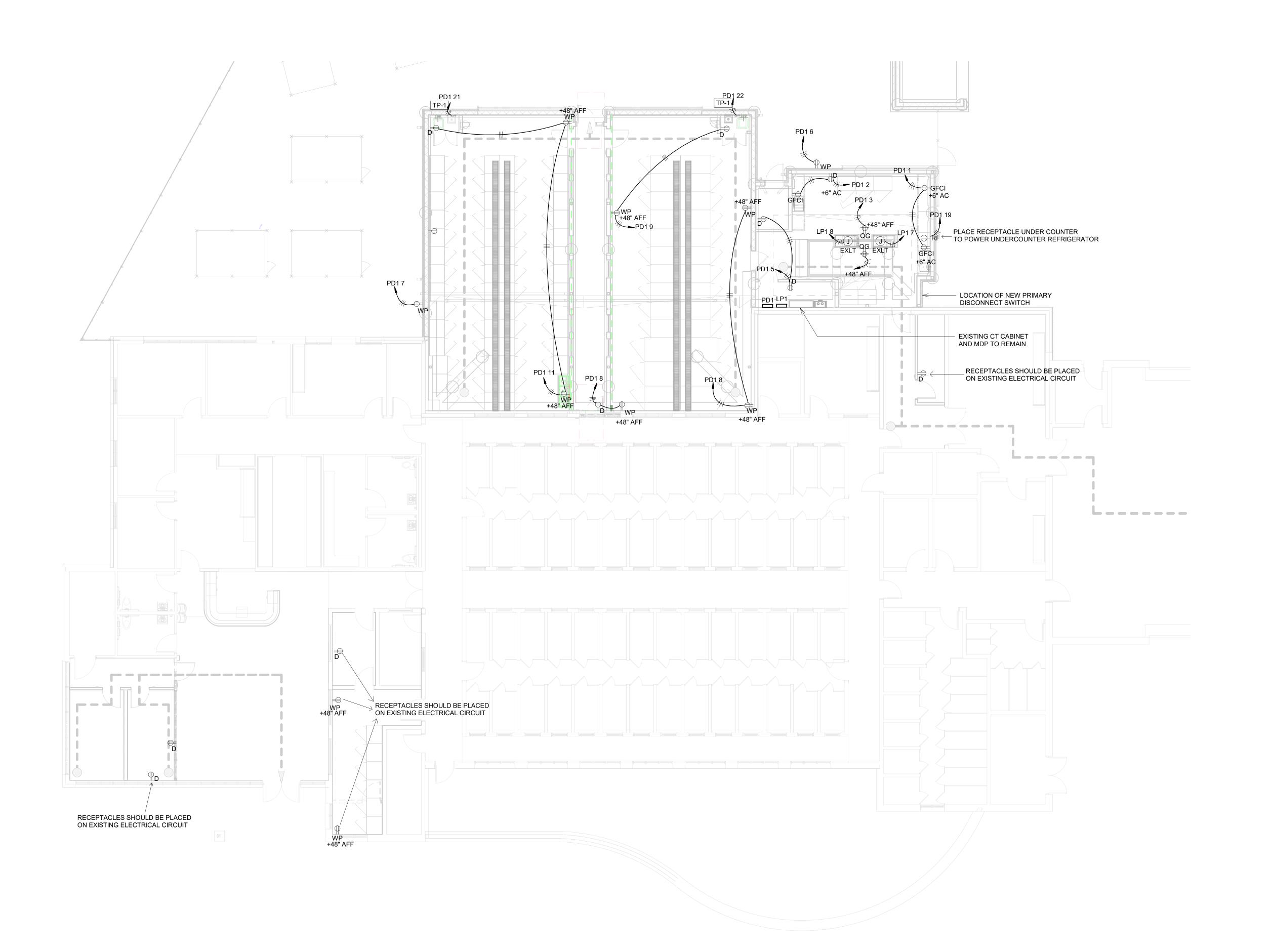
INCLUDE THE COST OF INVESTIGATING THE EXISTING PANEL, DISCONNECTING THE FEEDER, INSTALLING THE DISCONNECT AND RECONNECTING THE CT CABINET.

EXISTING METER AND CT CABINET OUTSIDE BUILDING TO BE INCORPORATED INTO NEW CONSTRUCTION

NOTE INSTALL NEMA-3R DISCONNECT SWITCH FOR MAIN SERVICE ENTRANCE- 208/120V,3P,4W,1200A MODEL:HU368R MANUFACTURER: SCHNEIDER ELECTRIC



		RECEPTA	CLE SCHEDITIE			
	RECEPTACLE SCHEDULE					
TAG	DESCRIPTION	MANUFACTURER	MODEL	VOLTAGE	COUNT	
D S	STANDARD DUPLEX RECEPTACLE	LEVITON	LEVITON 16352-* WITH 80301-S* WALLPLATE	120 V	10	
EXLT V	WALL MOUNT EXAM LIGHT	JUNCTION BOX		120 V	2	
GFCI C	GFCI DUPLEX RECEPTACLE	LEVITON	LEVITON GFNT2-*(INCLUDE WALLPLATE)	120 V	3	
HVAC L	UV FILTERATION	JUNCTION BOX		120 V	4	
QG (	GFCI QUADRUPLEX RECEPTACLE	LEVITON	(2) LEVITON GFNT2-*WITH 80309-S-* WALLPLATE	120 V	2	
RF F	REFRIGERATOR	LEVITON	LEVITON 5015-*WITH 80704-*WALLPLATE	120 V	1	
WP V	WEATHERPROOF DUPLEX RECEPTACLE	LEVITON	LEVITON GFNT2-*WITH 5977-*WEATHER RESISTANT COVER	120 V	12	



ELECTRICAL LEGEND				
	SWITCHES		RECEPTACLES	
$\bigcirc_{oc}$	CEILING OCCUPANCY SENSOR	Φ	SIMPLEX	
\$ <sub>D</sub>	DIMMING SWITCH	Ϋ	DUPLEX	
SDP	DUPLEX SWITCH	-	QUADRUPLEX	
$\mathbb{S}_{DP3}$	DUPLEX THREE WAY SWITCH	J	JUNCTION BOX	
\$4	FOUR WAY SWITCH	Ŷ	SPECIALTY RECEPTACLE	
Sos	OCCUPANCY SWITCH	$\triangleright$	TELEPHONE/DATA DUPLEX	
\$s	STANDARD SWITCH	CR	CARD READER	
$\S_3$	THREE WAY SWITCH		FIRE ALARM	
\$3D	THREE WAY DIMMING SWITCH		AUDIO ALARM	
∫3S	SURGICAL LIGHTS CONTROL		AUDIO/VISUAL ALARM	
	LUMINAIRE		VISUAL ALARM	
	A1 / A2 / A3 / A4 / A5 / A8 A EM / A1 EM / A2 EM FIXTURE	M	MANUAL PULL STATION	
	B1 / B2 / B4 / B5 FIXTURE	s	SMOKE DETECTOR	
0	D FIXTURE	DSD	DUCT SMOKE DETECTOR	

Mesquite 1650

Animal

MESQUITE

T E X A S.

Real. Texas. Flavor.

CONSTRUCTION

srandrad

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Date:
CONSTRUCTION DOCS
02/11/2022
Project No.
MESQU.TX
Drawn By:
ST
Checked By:

POWER LAYOUTS

Drawing No.

ALL INTERIOR LIGHTING IS DESIGNED TO SUIT THE INDIVIDUAL ENVIRONMENTS. IN AREAS WHERE THE ENVIRONMENT IS WET, DAMP, OR HUMID THE LIGHTING FIXTURES WILL BE GASKETED AND SEALED IN OTHER AREAS GASKETED LIGHTING IS USED TO PREVENT HAIR ACCUMULATION OR AVOID BACTERIAL CONTAMINATION. ALL INTERIOR LIGHT WIRING SHALL BE ROUTED IN EMT OR MC CABLE. ALL BALLASTS ARE TO BE ENERGY EFFICIENT ELECTRONIC BALLASTS.

LIGHTING IN OFFICES AND LOBBY AREAS SHALL BE CONTROLLED BY OCCUPANCY SENSORS, WHERE REQUIRED BY CODE. ONLY USE PASSIVE INFRARED OCCUPANCY SENSORS.

OCCUPANCY SENSORS UTILIZING ULTRASONIC SOUND ARE <u>NOT</u> PERMISSIBLE THESE SENSORS OPERATE WITH A SOUND PRESSURE AND FREQUENCY THAT WILL CREATE STRESS IN ANIMALS AND CAUSE UNNECESSARY DISCOMFORT WITHIN THE BUILDING. OCCUPANCY SENSORS SHALL BE A LEARNING ADAPTABLE TYPE AND LOCATED AS SHOWN ON THE DRAWINGS. ALL ROOMS SHALL BE INDIVIDUALLY CONTROLLED BY SWITCHES OR OCCUPANCY SENSORS WHETHER THE SHOWN ON THE DRAWINGS OR NOT.

LIGHTING. THE EXTERIOR LIGHTS SHALL BE CONTROLLED BY AN ASTRONOMICAL TIME CLOCK WHICH AUTOMATICALLY ADJUSTS FOR THE CHANGING SUNSET TIMES. THE TIME CLOCK SHALL BE PRE PROGRAMMED FOR THE COOPERSTOWN AREA SUNSET AND SUNRISE TIMES.EXTERIOR LIGHTING SHALL BE INSTALLED WITH NEMA 4R FITTINGS. CONTRACTOR TO INCLUDE COST AND INSTALLATION OF NEW HOMERUNS BACK TO THE NEW PANELBOARD. CONTRACTOR ALSO TO INCLUDE THE COST AND INSTALLATION OF ASTRONOMICAL TIME CLOCKS TO CONTROL SITE AND FACADE LIGHTING.

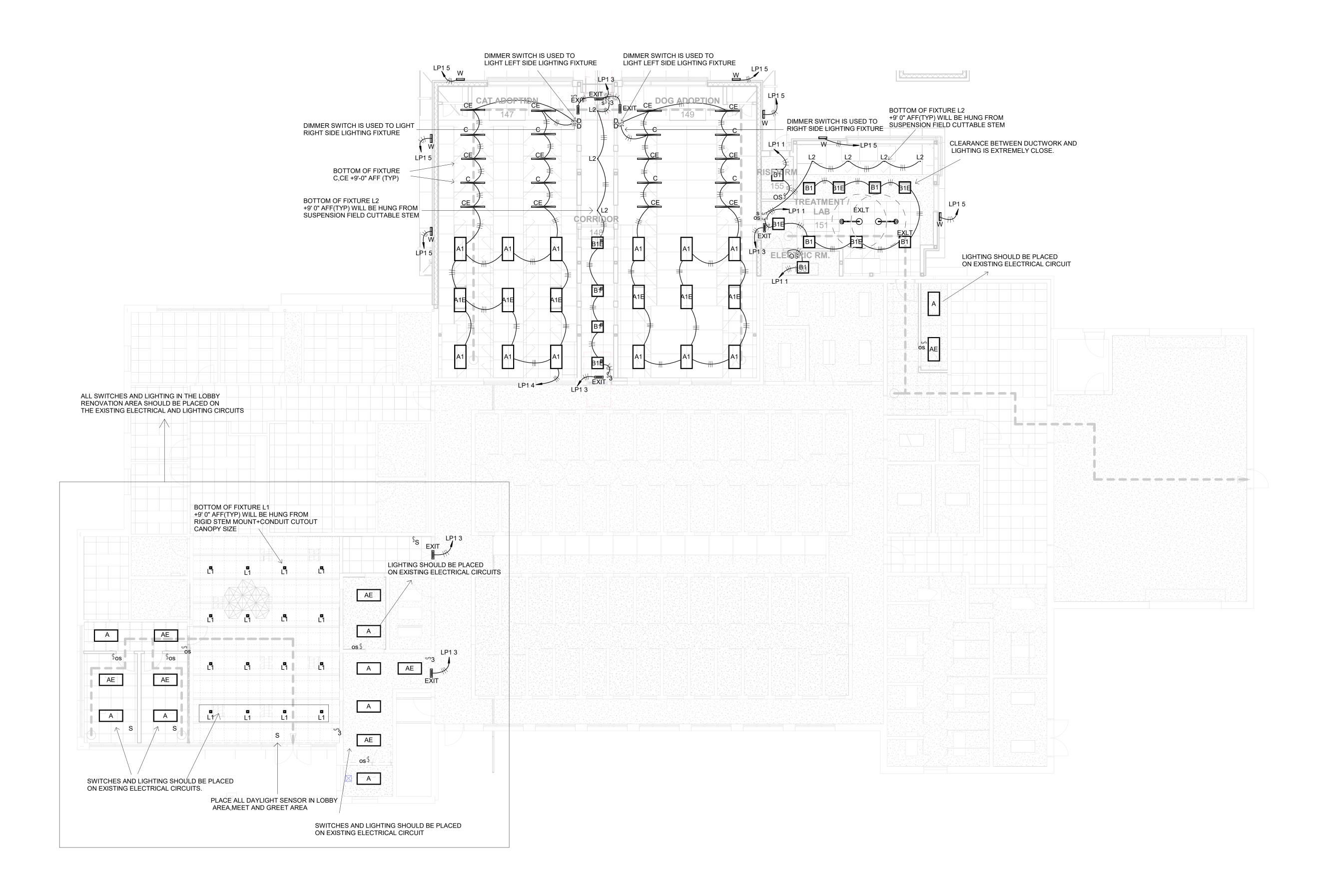
THE EXTERIOR LIGHTING SHALL BE POLE AND WALL MOUNTED PACKS. ALL LIGHTING AT EXIT DOORS SHALL BE SUPPLIED WITH BATTERY BACK UP TO PROVIDE EMERGENCY EGRESS

THE EMERGENCY LIGHTING SHALL BE SUPPLIED BY THE INTERIOR BUILDING LIGHTING WITH EMERGENCY BATTERY BACKUP AS INDICATED ON THE LIGHTING SCHEDULE. ALL LIGHTING SHOWN WITH THESE LIGHTS SHALL STAY LIT FOR 90 MINUTES. ALL EXIT LIGHTS SHALL HAVE BATTERY BACK UP AND SHALL BE ON ITS OWN CIRCUIT. ALL EXIT LIGHTING SHALL BE MOUNTED TO THE CEILING WITH NO OBSTRUCTIONS BLOCKING THE LIGHT OF SIGHT TO THE SIGN.

ANIMAL ENCLOSURE ROOMS TO HAVE 4 LEVEL SCENE CONTROLLERS CONTRACTOR TO PROVIDE AND INSTALL LEVITON GREENMAX DRC DIGITAL SWITCH,4 BUTTON,ENGRAVED WITH: OFF,RESTING,FEEDING,CLEANING DESIGNATIONS ON BUTTONS. PROVIDE WITH LEVITON DRC LINE VOLTAGE ROOM CONTROLLER IN EACH ENCLOSURE ROOM. SUBMIT ALL PRODUCTS FOR APPROVAL INCLUDING BUTTON DESIGNATIONS AND CONFIRMATION THAT LIGHT FIXTURE CONTROLS MATCH SWITCH VOLTAGE CONTROLS.

	LIC	GHTING FIXT	URE SCHEDULE			
Type Mark	Description	Manufacturer	Model	VOLTS	Wattage	Count
A	2X4 TROFFER	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-35K-MVOLT	120 V	39 W	8
A1	2X4 TROFFER	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-40K-ZT-MVOLT	120 V	39 W	12
A1E	2X4 TROFFER WITH EMERGENCY BATTERY	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-40K-ZT-MVOLT-E10WLCP	120 V	39 W	6
AE	2X4 TROFFER WITH EMERGENCY BATTERY	LITHONIA LIGHTING	CPX-2X4-4000LM-80CRI-35K-MVOLT-EL0WLCP	120 V	39 W	7
B1	2X2 TROFFER	LITHONIA LIGHTING	CPX-2X2-3200LM-80CRI-35K-MVOLT	120 V	32 W	8
B1E	2X2 TROFFER	LITHONIA LIGHTING	CPX-2X2-3200LM-80CRI-35K-MVOLT-E10WLCP	120 V	32 W	6
С	SUSPENDED LIGHTS	FINELITE	S19-P-ID-2E-V-835-OPEN-FC-10%	120 V	35 W	8
CE	SUSPENDED LIGHTS WITH EMERGENCY BATTERY	FINELITE	S19-P-ID-2E-V-835-OPEN-FC-10%-FAC CHO	120 V	35 W	12
EXIT	EXIT LIGHTS	Cooper Industries, Inc.	EUS61R	120 V		7
EXLT	CEILING MOUNT EXAM LIGHTS	SHORLINE	913.7000.03	120 V		2
L1	LOBBY PENDANT	USAI LIGHTING	BLSD5-24C3-35KS-50-S-WH	120 V	24 W	16
L2	HOLLOWCORE-LED (PENDANT)	LUMINIS	HC1600-L4L30-29W-80CRI-4000K-120V-BKT	120 V	66 W	7
SL	SITE LIGHTING	LITHONIA LIGHTING	RADPT-P4-35K-SYM-MVOLT-PT4-DBLXD	120 V	48 W	3
W	WALL PACK EXTERIOR LIGHTS	Cooper Industries, Inc.	673 16"-WP-L3/835-UNV-MB-2HTB	120 V	19 W	7

	SWITCH SCHEDULE					
Type Mark	DESCRIPTION	MANUFACTURER	MODEL	C		
DS	DAYLIGHT CONTROL SENSOR	ACUITY CONTROLS	nCM ADCX	3		
D	DIMMER SWITCH	LEVITON	GreenMAX DRC	4		
OS	OCCUPANCY SENSOR	LEVITON	ODS15-ID*	10		
S	STANDARD SINGLE POLE	LEVITON	5601-2*	3		
3	THREE WAY SWITCH	LEVITON	5603-2*	4		
T	TIMER SWITCH	LEVITON	VPT24-1PZ	1		



	<b>ELECTRICAL LEGEND</b>					
	SWITCHES		RECEPTACLES			
◇oc	CEILING OCCUPANCY SENSOR	Φ	SIMPLEX			
\$ <sub>D</sub>	DIMMING SWITCH	φ	DUPLEX			
SDP	DUPLEX SWITCH	$\blacksquare$	QUADRUPLEX			
SDP3	DUPLEX THREE WAY SWITCH	J	JUNCTION BOX			
\$4	FOUR WAY SWITCH	9	SPECIALTY RECEPTACLE			
Sos	OCCUPANCY SWITCH	$\triangleright$	TELEPHONE/DATA DUPLEX			
Ss	STANDARD SWITCH	CR	CARD READER			
<b>S</b> 3	THREE WAY SWITCH		FIRE ALARM			
\$3D	THREE WAY DIMMING SWITCH		AUDIO ALARM			
S3S	SURGICAL LIGHTS CONTROL		AUDIO/VISUAL ALARM			
	LUMINAIRE		VISUAL ALARM			
	A1 / A2 / A3 / A4 / A5 / A8 A EM / A1 EM / A2 EM FIXTURE	М	MANUAL PULL STATION			
	B1 / B2 / B4 / B5 FIXTURE	s	SMOKE DETECTOR			
0	D FIXTURE	DSD	DUCT SMOKE DETECTOR			

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Date: CONSTRUCTION DOCS 02/11/2022 Drawn By: Checked By: Sheet Title: LIGHTING & ILLUMINATED EXIT SIGN LAYOUTS Drawing No.

Date:
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02/11/2022

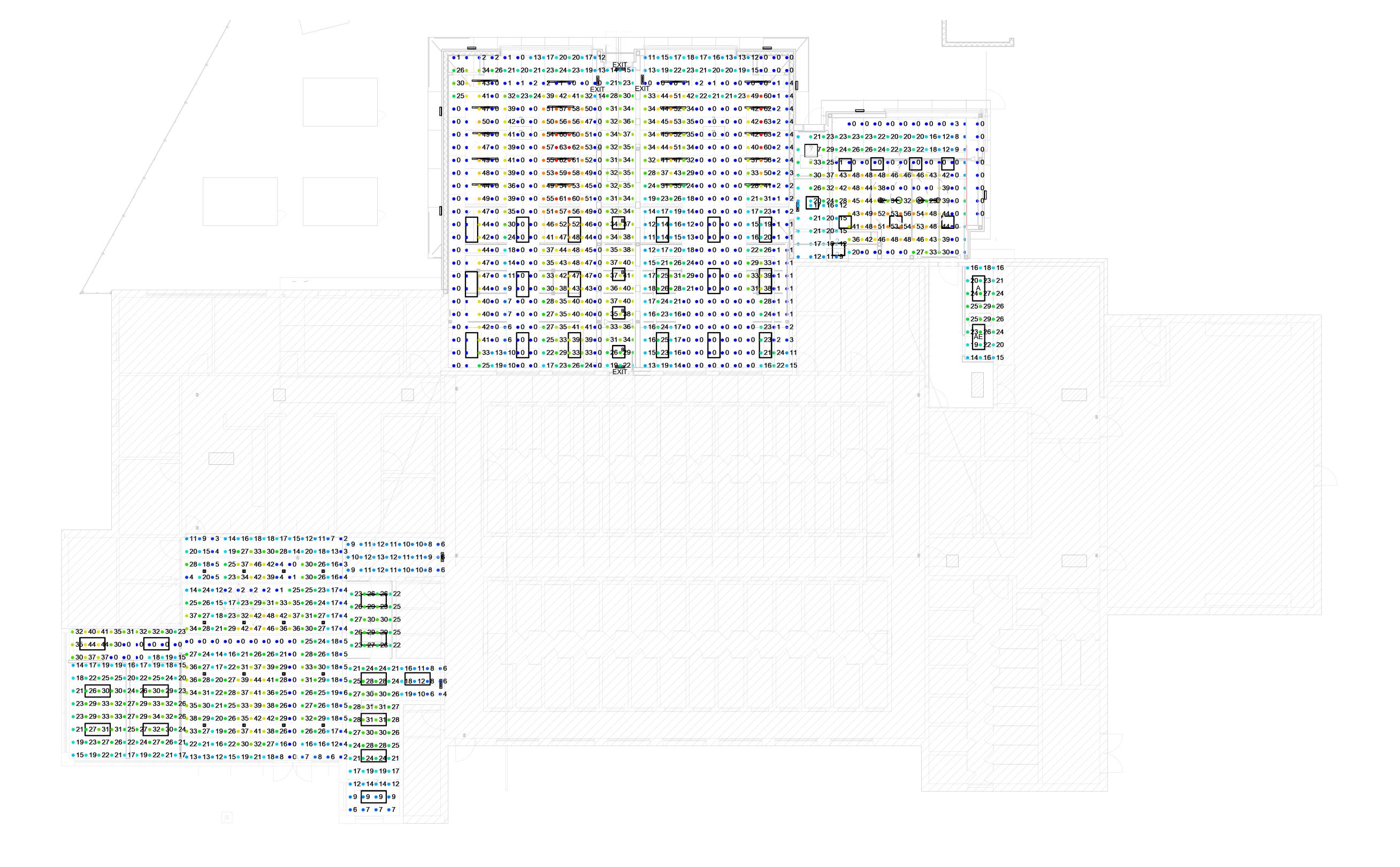
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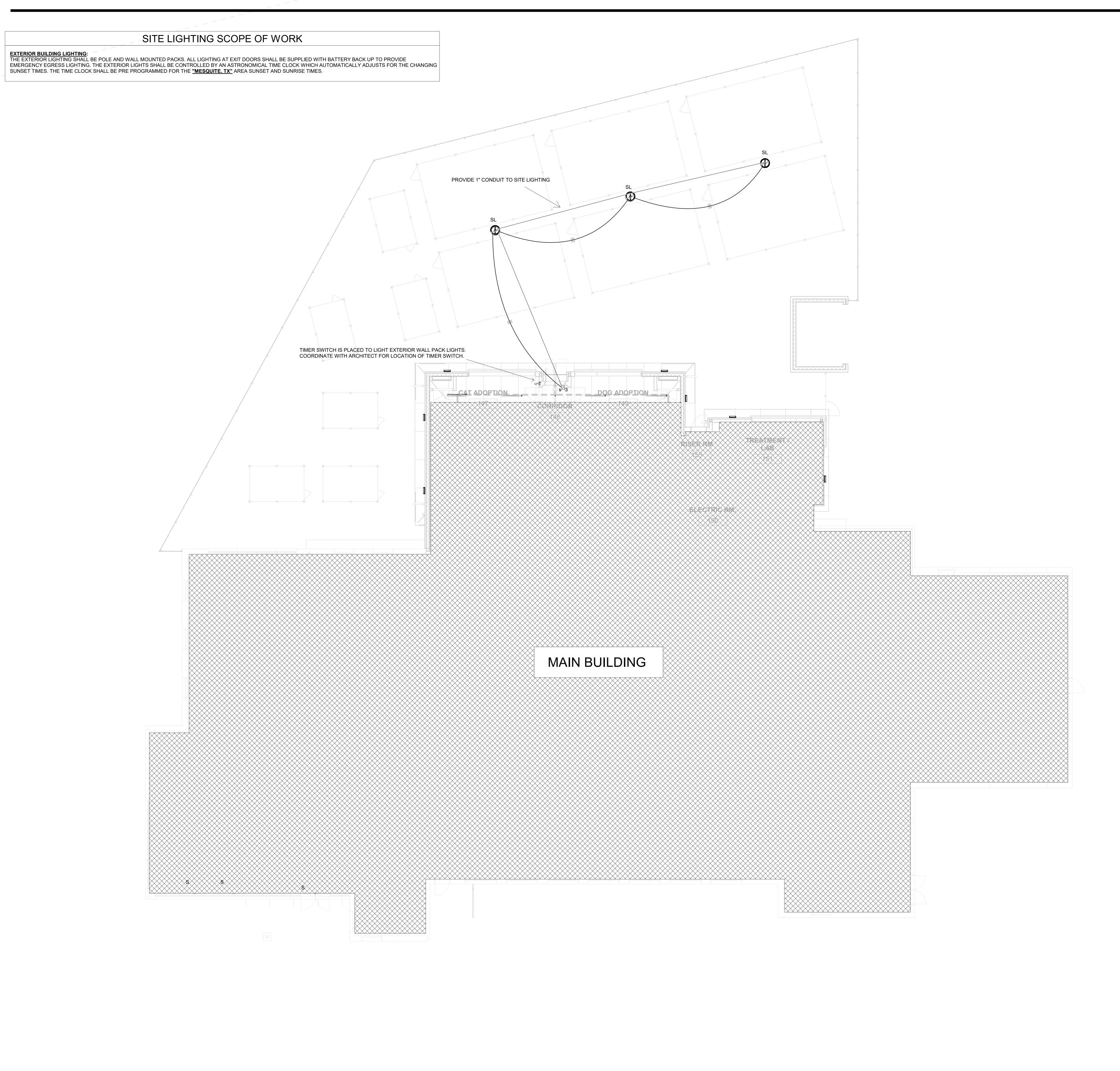
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LIGHTING PHOTOMETRICS

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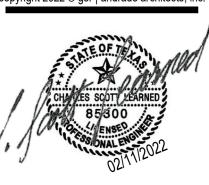
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**ELECTRICAL LEGEND** 

**SWITCHES** 

DIMMING SWITCH

DUPLEX SWITCH

DUPLEX THREE WAY SWITCH

FOUR WAY SWITCH

OCCUPANCY SWITCH

STANDARD SWITCH

THREE WAY SWITCH
THREE WAY DIMMING SWITCH

SURGICAL LIGHTS CONTROL

LUMINAIRE

A EM / A1 EM / A2 EM FIXTURE

A1 / A2 / A3 / A4 / A5 / A8

D FIXTURE

OC CEILING OCCUPANCY SENSOR

RECEPTACLES

SIMPLEX

DUPLEX QUADRUPLEX

JUNCTION BOX

SPECIALTY RECEPTACLE

TELEPHONE/DATA DUPLEX

FIRE ALARM

AUDIO ALARM

AUDIO/VISUAL ALARM

VISUAL ALARM

MANUAL PULL STATION

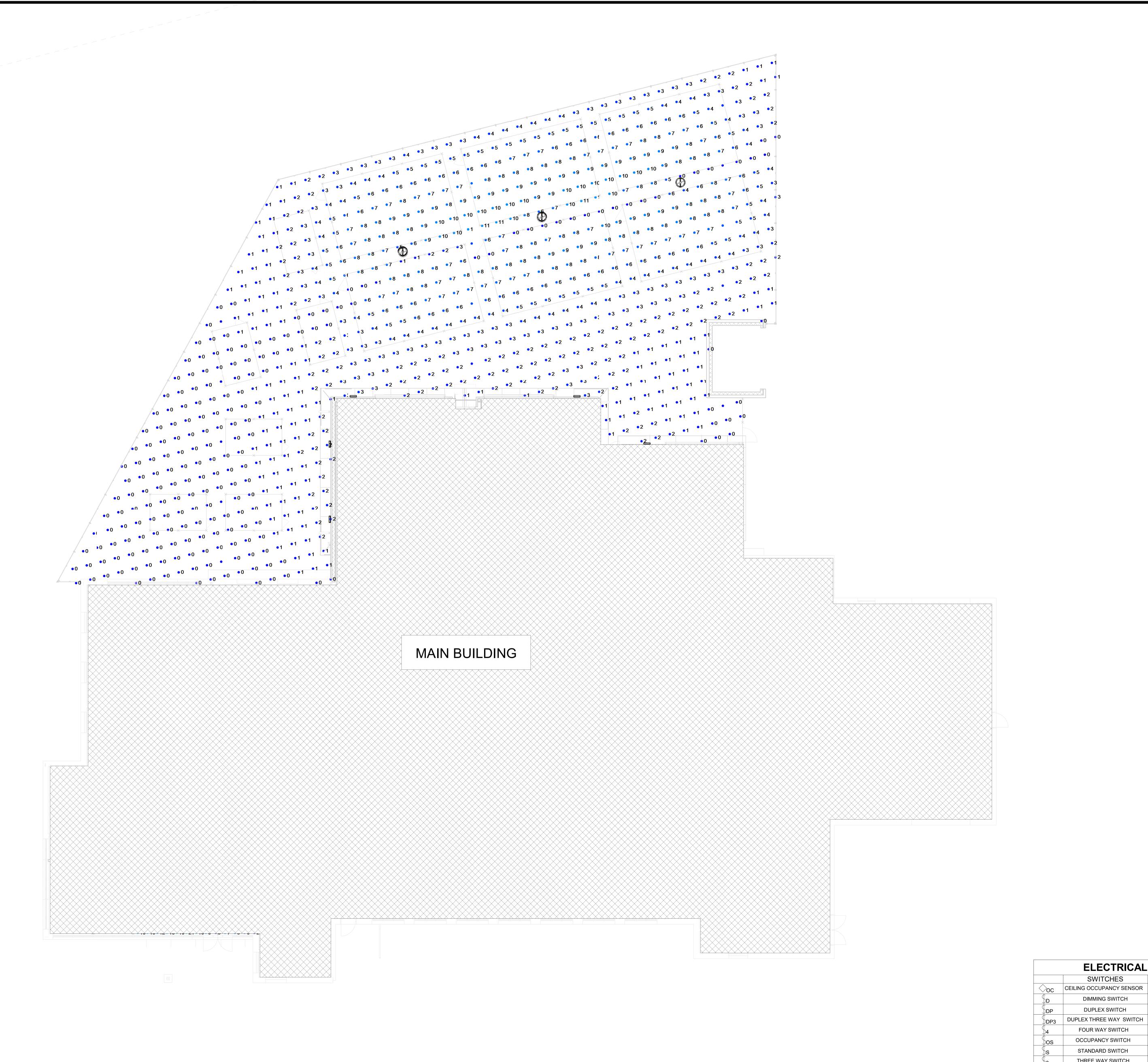
SMOKE DETECTOR

DSD DUCT SMOKE DETECTOR

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SITE LIGHTIN	NG LAYOUT	

E4.30

5 0 5 10 15 20 1/8" = 1'-0" SCALE FEET



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**ELECTRICAL LEGEND** 

**SWITCHES** 

DIMMING SWITCH

DUPLEX SWITCH

FOUR WAY SWITCH

OCCUPANCY SWITCH

STANDARD SWITCH

THREE WAY SWITCH THREE WAY DIMMING SWITCH

SURGICAL LIGHTS CONTROL

LUMINAIRE

A EM / A1 EM / A2 EM FIXTURE

A1 / A2 / A3 / A4 / A5 / A8

B1 / B2 / B4 / B5 FIXTURE

D FIXTURE

RECEPTACLES

SIMPLEX

DUPLEX

QUADRUPLEX

JUNCTION BOX

SPECIALTY RECEPTACLE

TELEPHONE/DATA DUPLEX

CARD READER

FIRE ALARM

AUDIO ALARM

AUDIO/VISUAL ALARM

VISUAL ALARM

MANUAL PULL STATION

SMOKE DETECTOR

DSD DUCT SMOKE DETECTOR

CONSTRUCTION DOCS 02/11/2022 Project No. MESQU.TX Drawn By: Checked By: Sheet Title: SITE LIGHTING PHOTOMETRICS

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1/8" = 1'-0"

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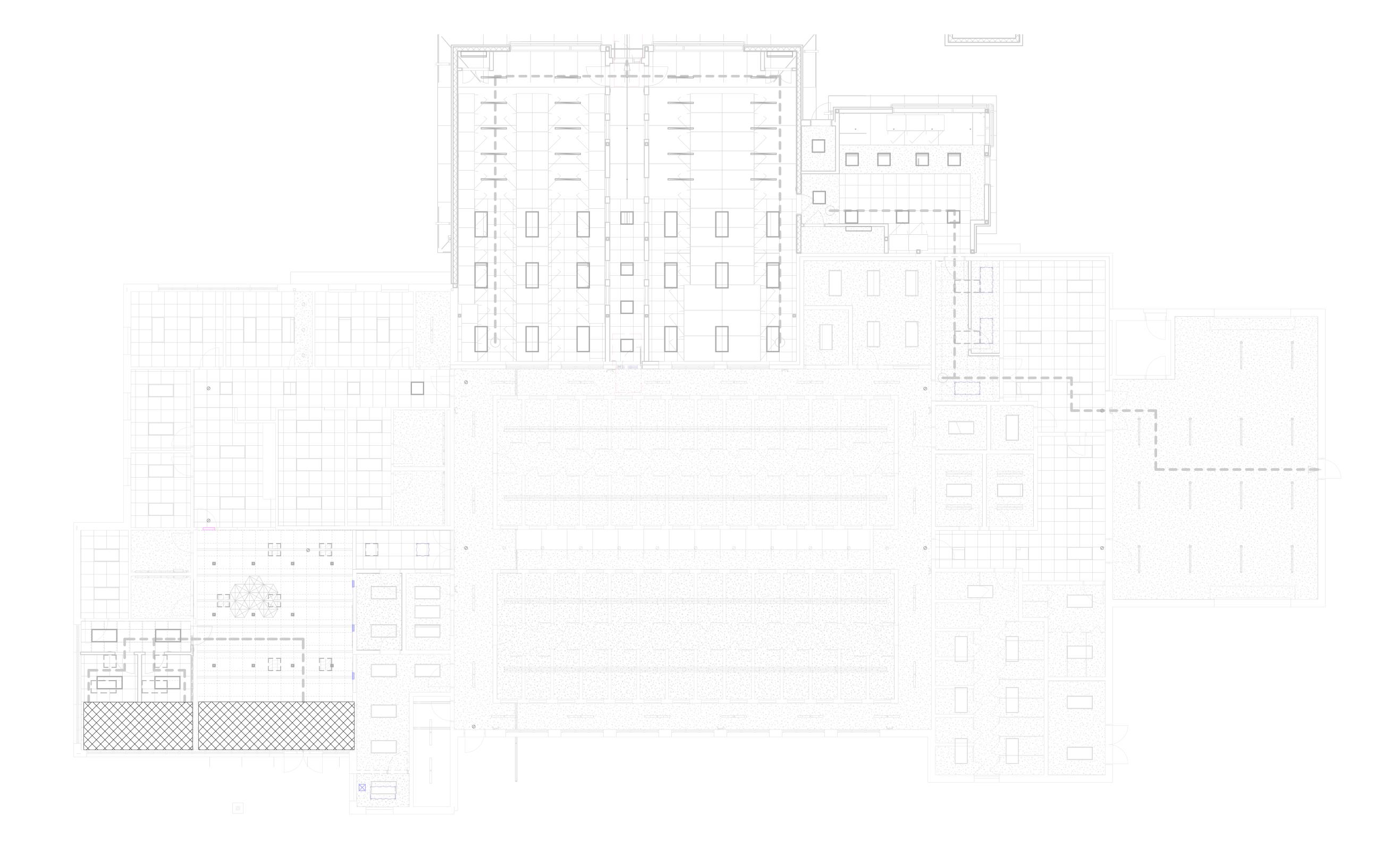
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DAYLIGHT AREAS

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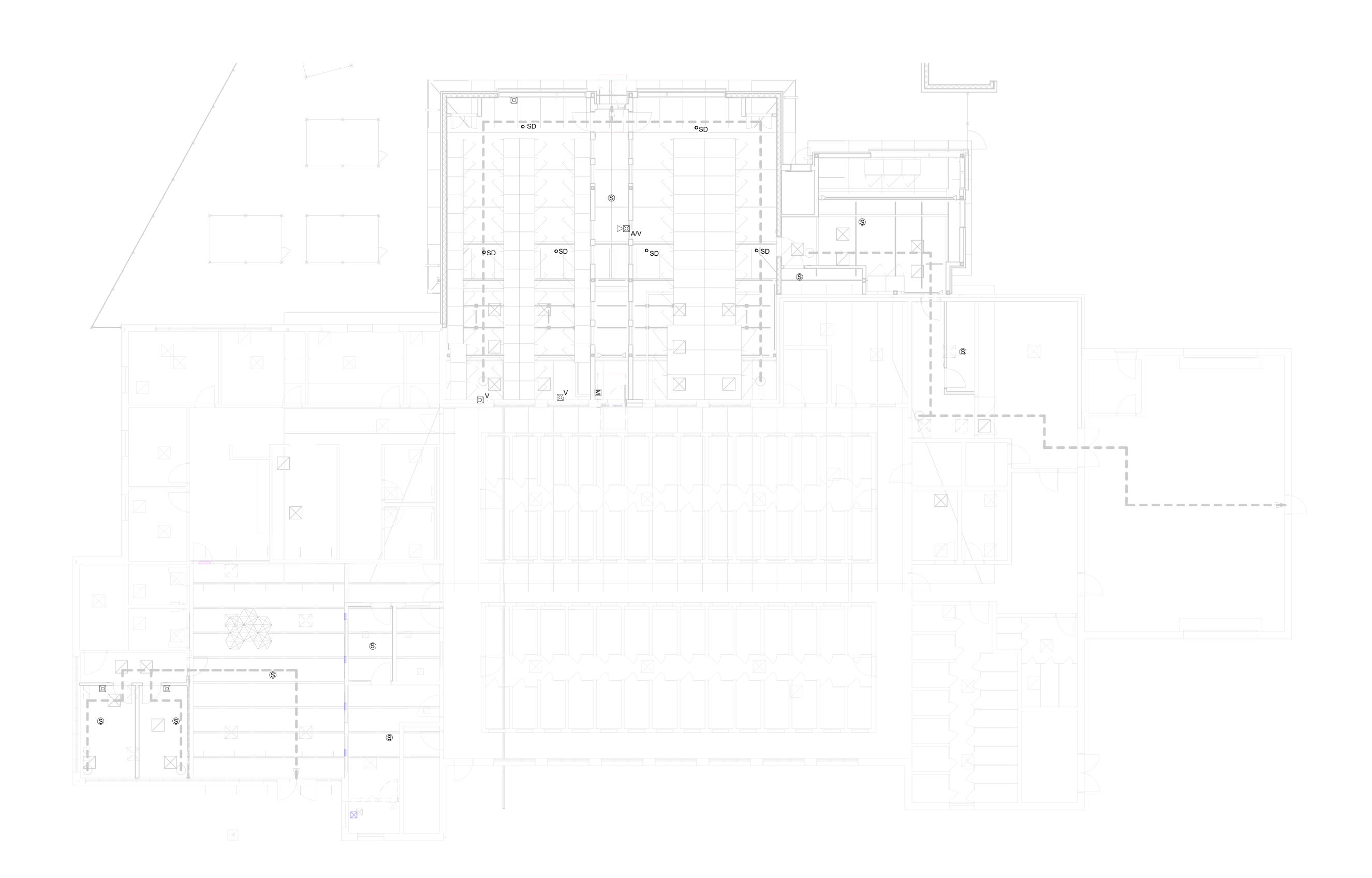
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WHEN PLACING SMOKE DETECTORS INSTALL WITH RESPECT TO LIGHTING FIXTURES AND MECHANICAL AIR DIFFUSERS.SMOKE DETECTORS SHOULD BE CENTERED ON ROOM BETWEEN ELEMENTS OR CENTERED IN ACT THROUGHOUT BUILDING.

- ALL AUDIO/VISUAL AND VISUAL ALARMS WILL BE MOUNTED AT 9' UNLESS OTHERWISE SHOWN ON DRAWINGS.
- CONNECT ALL DEVICES TO EXISTING FACP.
- VERIFY CAPACITY AND ADD MODULES AS NECESSARY TO PERMIT ADDITION OF NEW DEVICES.
- FIRE ALARM ADDITION EQUIPMENT SHOWN AS A PERFORMANCE REQUIREMENT
- CONTRACTOR TO PROVIDE FULL SHOP DRAWINGS WITH WIRING, ROUTING, CONNECTIONS TO EXISTING EQUIPMENT AND BATTERY CALCULATIONS.

FIRE ALARM SCHEDULE					
Description	Manufacturer	Model	Cour		
AUDIO/VISUAL ALARM	SYSTEM SENSOR	P2R	1		
MANUAL PULL STATION	NOTIFIER	NOT-BG12LX	1		
MULTICRITERIA SMOKE DETECTOR	NOTIFIER	NP-A100	6		
SMOKE DETECTOR	SYSTEM SENSOR	NP-200	9		
VISUAL ALARM	SYSTEM SENSOR	SR	5		



	<b>ELECTRICAL</b>	LE	GEND
	SWITCHES		RECEPTACLES
◇oc	CEILING OCCUPANCY SENSOR	Φ	SIMPLEX
\$ <sub>D</sub>	DIMMING SWITCH	Ф	DUPLEX
SDP	DUPLEX SWITCH		QUADRUPLEX
\$DP3	DUPLEX THREE WAY SWITCH	J	JUNCTION BOX
\$ <sub>4</sub>	FOUR WAY SWITCH		SPECIALTY RECEPTACLE
Sos	OCCUPANCY SWITCH	$\triangleright$	TELEPHONE/DATA DUPLEX
\$s	STANDARD SWITCH	CR	CARD READER
$\S_3$	THREE WAY SWITCH		FIRE ALARM
\$3D	THREE WAY DIMMING SWITCH		AUDIO ALARM
\$₃s	SURGICAL LIGHTS CONTROL		AUDIO/VISUAL ALARM
	LUMINAIRE	[0]	VISUAL ALARM
	A1 / A2 / A3 / A4 / A5 / A8 A EM / A1 EM / A2 EM FIXTURE	М	MANUAL PULL STATION
	B1 / B2 / B4 / B5 FIXTURE	s	SMOKE DETECTOR
0	D FIXTURE	DSD	DUCT SMOKE DETECTOR

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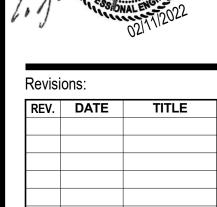
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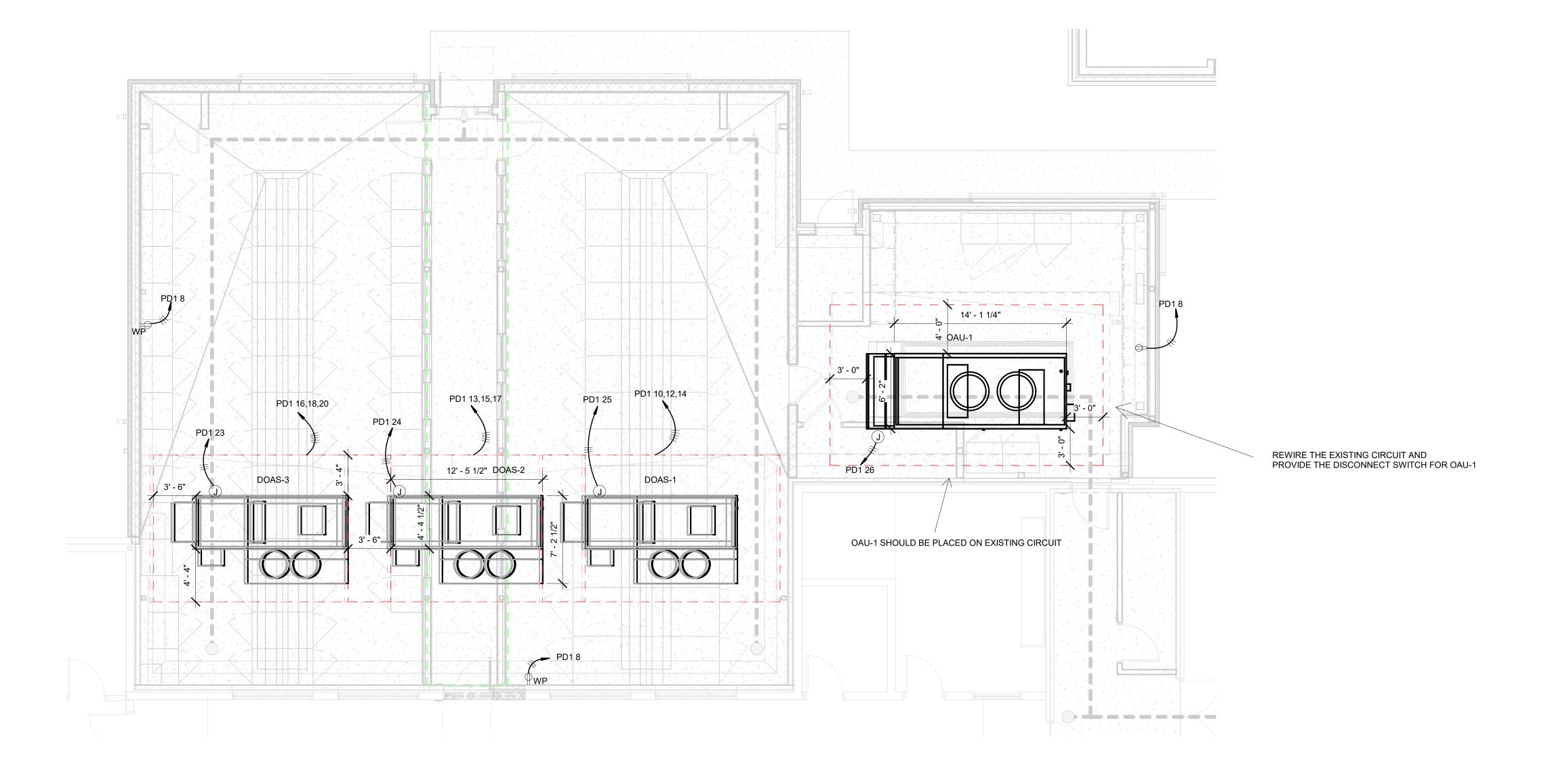
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Sheet Title:
POWER ROOF

Drawing No.
E6.10



DOAS UNITS ARE SPECIFIED WITH A FACTORY PROVIDED RECEPTACLE. VERIFY AND READ THE INSTALLATION REQUIREMENTS FOR DOAS EQUIPMENT BEFORE WIRING.
FOR THE 120 VOLT RECEPTACLE, A FOUR WIRE CONNECTION WILL BE

REQUIRED.

PLUMBING SCOPE OF WORK

- DRAINAGE CONNECTIONS TO EXISTING DRAIN LATERALS - EXTENSION OF SUPPLY PIPING TO NEW FIXTURES

- PROCUREMENT AND INSTALLATION OF FIXTURES AS SCHEDULED

- PLUMBING CONTRACTORS SHALL BE RESPONSIBLE FOR READING THE PLUMBING SPECIFICATIONS AND SHALL REVIEW THE ENTIRE DRAWING SET FOR COORDINATION ISSUES WITH THE OTHER TRADES.
- THE CONTRACTOR SHALL VERIFY THE EXISTING SITE CONDITIONS PRIOR TO BIDDING AND COMMENCING WORK ON THIS PROJECT. ALL QUESTIONS AND/OR DEVIATIONS FROM THIS DESIGN SHALL BE SUBMITTED TO THE ENGINEER, IN WRITING, FOR APPROVAL.
- THE TERM 'PROVIDE' SHALL MEAN TO FURNISH AND INSTALL COMPLETELY. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND ACCESSORIES SPECIFIED WITHIN THIS DRAWING SET. ADDITIONALLY, THE CONTRACTOR SHALL PROVIDE AND INSTALL ANY EQUIPMENT, MATERIAL, ACCESSORY, AND/OR HARDWARE REQUIRED TO COMPLETE A FULLY OPERATIONAL SYSTEM.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL PERMIT FEES, AND LOCAL BUILDING OFFICIAL REQUIREMENTS. CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING ALL SYSTEMS TO THE CURRENT PLUMBING CODE AND LOCAL MUNICIPALITY AMENDMENTS.
- ALL PLUMBING IS TO BE NEAT, CLEAN, PLUMB AND ATTRACTIVE. ALL SUPPLY PIPING, WITHOUT EXCEPTION, IS TO BE INSULATED, TAPED, AND SEALED. VALVES, EQUIPMENT, METERS, AND PIPING WILL BE LABELED. PROVIDE ACCESS PANELS WITH LABELS TO SHUT-OFF VALVES AT ANY LOCATION THAT IS OTHERWISE
- ALL PLUMBING PIPING OR EQUIPMENT, WHETHER HUNG OR RUN ON PIPE STANDS, SHALL BE MOUNTED WITH HIGH QUALITY, MANUFACTURED PIPE SUPPORTS.

### **EXPOSED PLUMBING PIPES**

IN ACCORDANCE WITH SECTION 606.6 OF ICC/ANSI A117.1-2017 (ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES STANDARD) ALL EXPOSED SUPPLY AND DRAINAGE PIPES BENEATH LAVATORIES AND SINKS MUST BE INSULATED OR OTHERWISE PROTECTED AGAINST CONTACT.

PLUMBING LEGEND					
ELBOW SINGLE WYE DOUBLE WYE	DOMESTIC COLD DOMESTIC HOT SANITARY DRAIN HAIR TRAP DRAIN VENT OXYGEN SUPPLY				
REDUCER / INCREASER	SCAVENGER HOT WATER RECIRC. WET/DRY VAC				
□ CAP / PLUG  ### TYPE MARK	STORM DRAIN CONDENSATE TRENCH WASHDOWN				
# KEYNOTE	TRAP PRIMER NATURAL GAS				

INACCESSIBLE.

HANGER SPACING					
PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING (FEET)	MAXIMUM VERTICAL SPACING (FEET)			
CAST IRON PIPE	5	15			
COPPER TUBING, 1-1/4 INCH DIAMETER AND SMALLER	6	10			
COPPER TUBING, 1-1/2 INCH DIAMETER AND LARGER	10	10			
PVC PIPE	4	10			

DO NOT INSTALL WORK WITHOUT APPROVED SHOP DRAWINGS. SHOULD THE CONTRACTOR PROCEED WITHOUT APPROVED SUBMITTALS, ANY COSTS INCURRED TO CORRECT PROBLEMS THAT COULD HAVE BEEN CORRECTED BY SUBMISSIONS OF SAID DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, EVEN IF SUCH CORRECTION IS ABOVE THE CONTRACTORS ORIGINAL CONTRACT RESPONSIBILITIES.

ATTENTION: SUBMITTALS ARE REQUIRED

### PLUMBING SUBMITTAL REQUIREMENTS

SUBMITTAL INFORMATION SHALL BE SUBMITTED AND APPROVED <u>BEFORE THE RELATED INSTALLATION MAY COMMENCE.</u> ANY DEVIATION IN DESIGN DURING THE INSTALLATION PROCESS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE INSTALLING CONTRACTOR SHALL PROVIDE THE ENGINEER WITH COPIES OF THE

- MANUFACTURER'S DATA SHEETS FOR ALL EQUIPMENT ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL REGARDLESS OF DEVIATIONS. PROVIDE SHOP

### GENERAL CONTRACTOR COORDINATION

THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY COORDINATION OF DUCTWORK, LIGHTING, SPRINKLER HEADS, CEILING TILES, AND STRUCTURAL

DESIGN LEARNED, INC. WILL INSPECT INSTALLATION DURING AND AFTER CONSTRUCTION TO ENSURE THAT OUR DESIGNS HAVE BEEN MAINTAINED AND ARE FUNCTIONING

GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ALL SUB-CONTRACTORS ADHERE TO ALL DRAWINGS, SPECIFICATIONS, AND ADDENDA EXACTLY.

## **SPECIFICATIONS**

SPECIFICATIONS ARE PROVIDED IN A-SIZE FORMAT AND ARE PART OF THIS CONSTRUCTION DRAWING SET. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO READ AND UNDERSTAND ALL SPECIFICATIONS BEFORE BIDDING AND BEFORE BEGINNING WORK. CONTRACTORS WILL BE HELD TO THE SPECIFICATIONS AND DRAWINGS. DESIGN LEARNED, INC. WILL NOT APPROVE ANY CHANGES, REWORK, SUBSTITUTIONS, OR OMISSIONS DUE TO THE CONTRACTOR'S FAILURE TO

### **EQUAL ALTERNATES**

EQUAL ALTERNATES ARE ALLOWED FOR ALL SPECIFIED EQUIPMENT AND MATERIALS PROVIDING THE CONTRACTOR ADHERES TO <u>THE SUBMISSION PROCESS</u>. NO ALTERNATES SHALL BE PROCURED OR INSTALLED WITHOUT EXPRESS WRITTEN APPROVAL OF DESIGN LEARNED, INC. REFER TO THE SPECIFICATIONS FOR DETAILS ON SUBMITTAL REQUIREMENTS

# PLUMBING SUBMITTALS REQUIRED

PLUMBING CONTRACTOR IS REQUIRED TO PROVIDE SUBMITTALS IN ACCORDANCE WITH THE

22 0553 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

22 1005 - PLUMBING PIPING

22 3000 - PLUMBING EQUIPMENT 22 4000 - PLUMBING FIXTURES

SUBMITTALS MUST INCLUDE, THE FOLLOWING INFORMATION, AS APPROPRIATE:

ELECTRICAL REQUIREMENTS

**NOTE** 

THESE DRAWINGS ARE BASED ON THE LATEST ARCHITECTURAL PLANS DATED

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PLUMBING SCOPE
Drawing No.

FOLLOWING DOCUMENTS FOR APPROVAL:

- DRAWINGS FOR ALL SYSTEMS.
- PIPING SHOP DRAWINGS INDICATING DEVIATIONS FROM DESIGN, MAJOR CHANGES IN FITTINGS AND ROUTING, PENETRATIONS, AND INTERFERENCES.

GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COST OF REWORK ASSOCIATED WITH ANY UNAPPROVED DEVIATIONS TO DESIGN.

FOLLOW THE SPECIFICATIONS.

AND ADDITIONAL PERFORMANCE REQUIREMENTS FOR EQUIPMENT AND MATERIALS.

FOLLOWING SPECIFICATION SECTIONS:

22 0719 - PLUMBING PIPING INSULATION

22 1006 - PLUMBING PIPING SPECIALTIES

EQUIPMENT PERFORMANCE INFORMATION

MAINTENANCE INFORMATION PIPING SHOP DRAWINGS

PRINTING OF PLANS

ALL PLUMBING PLANS MUST BE PRINTED IN COLOR. IF THIS NOTE DOES NOT APPEAR RED, THE PLANS ARE NOT TO BE USED FOR CONSTRUCTION. ANY CHANGE ORDERS GENERATED DUE TO A FAILURE TO PRINT THESE PLANS IN COLOR ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10/19/2021.

PLUMBING SHEET LIST

OVERVIEW HOT & COLD SUPPLY DRAWINGS

SANITARY & HAIRTRAP PIPING RISER DETAIL

PLUMBING DETAILS & ABBREVIATIONS

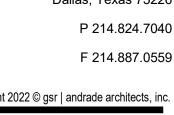
PLUMBING SCOPE

PLUMBING SCHEDULES

PLUMBING FIXTURE LAYOUTS

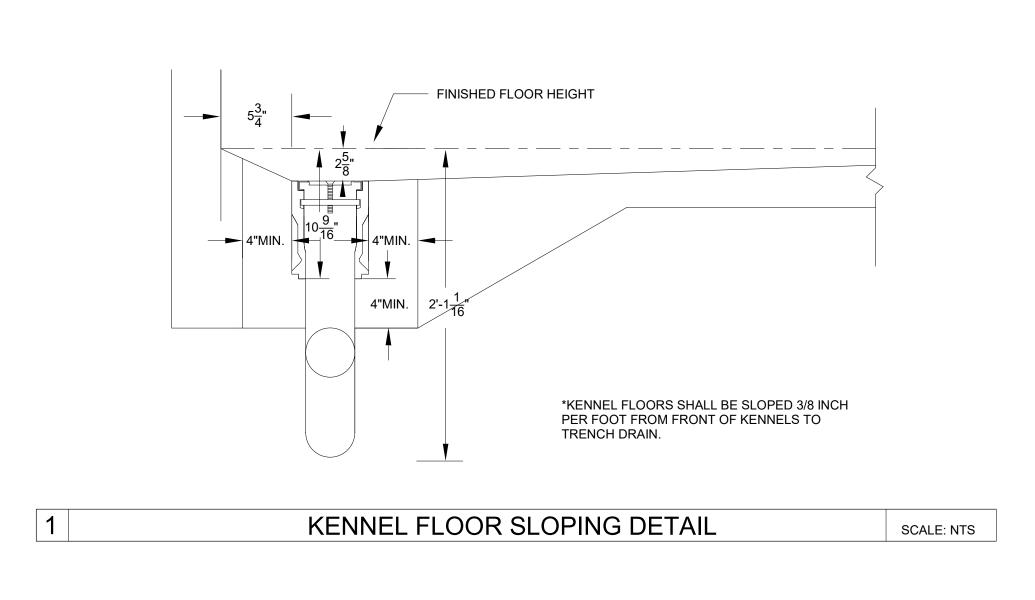
SUPPLY PIPING RISER DETAIL

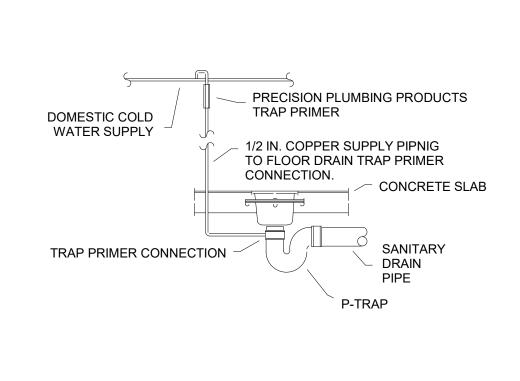
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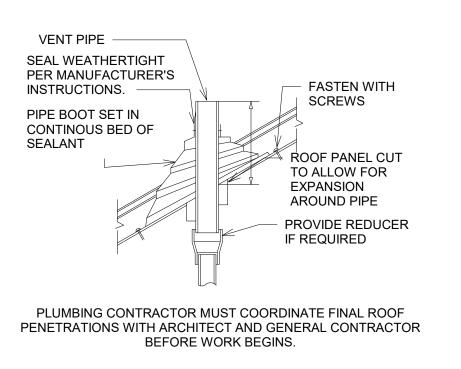
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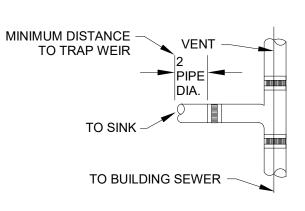
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PLUMBING DETAILS &
ABBREVIATIONS



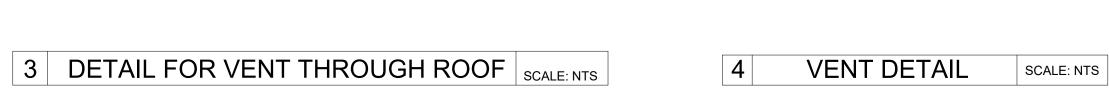


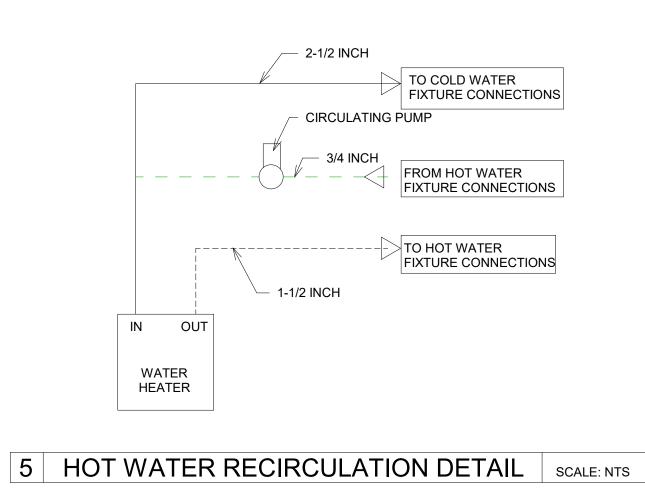
2 TRAP PRIMER AND FLOOR DRAIN DETAIL | SCALE: NTS

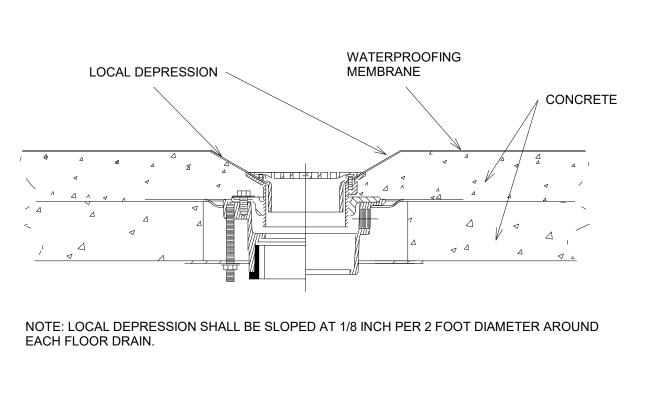


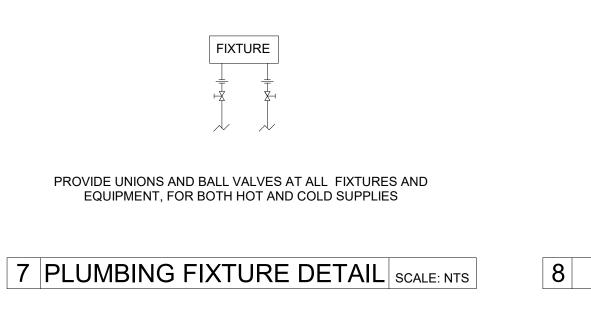


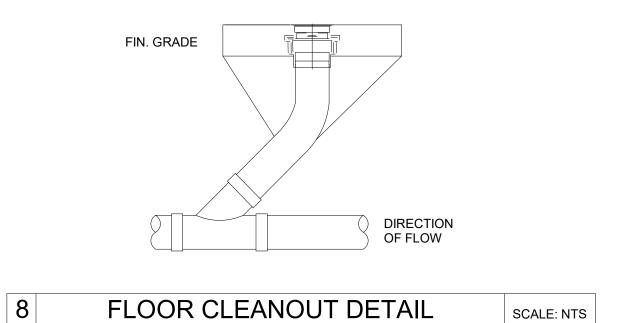




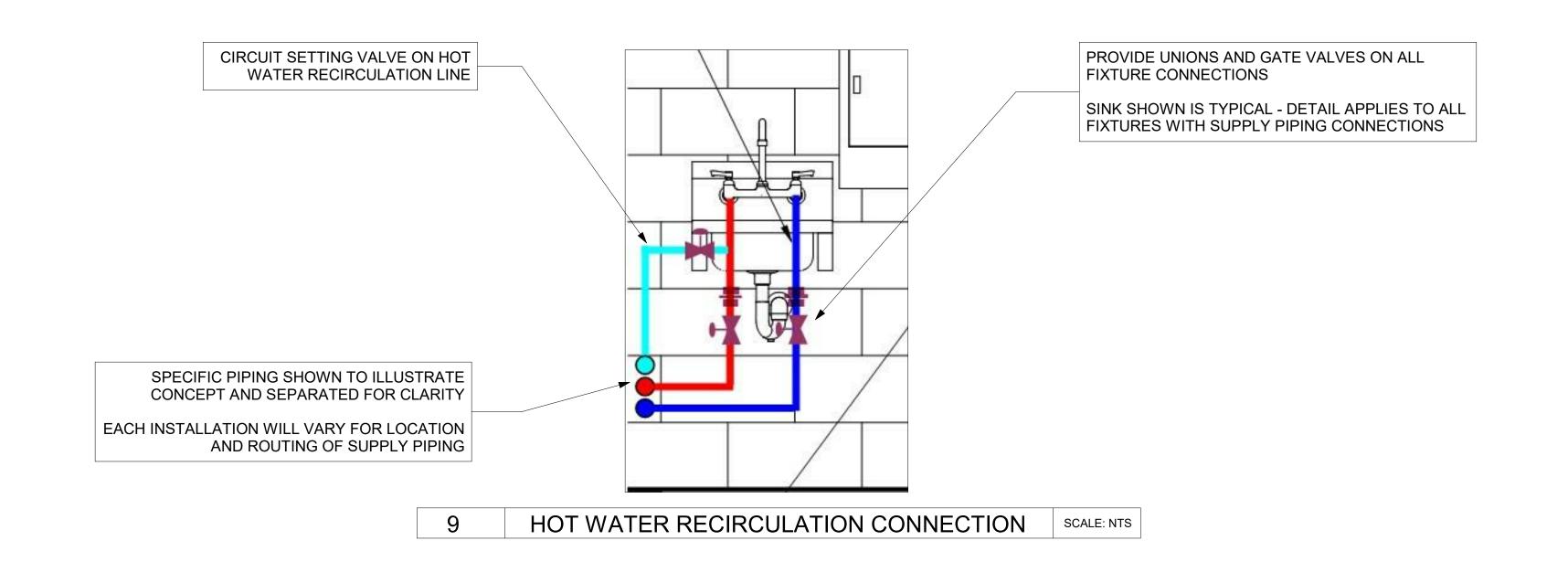












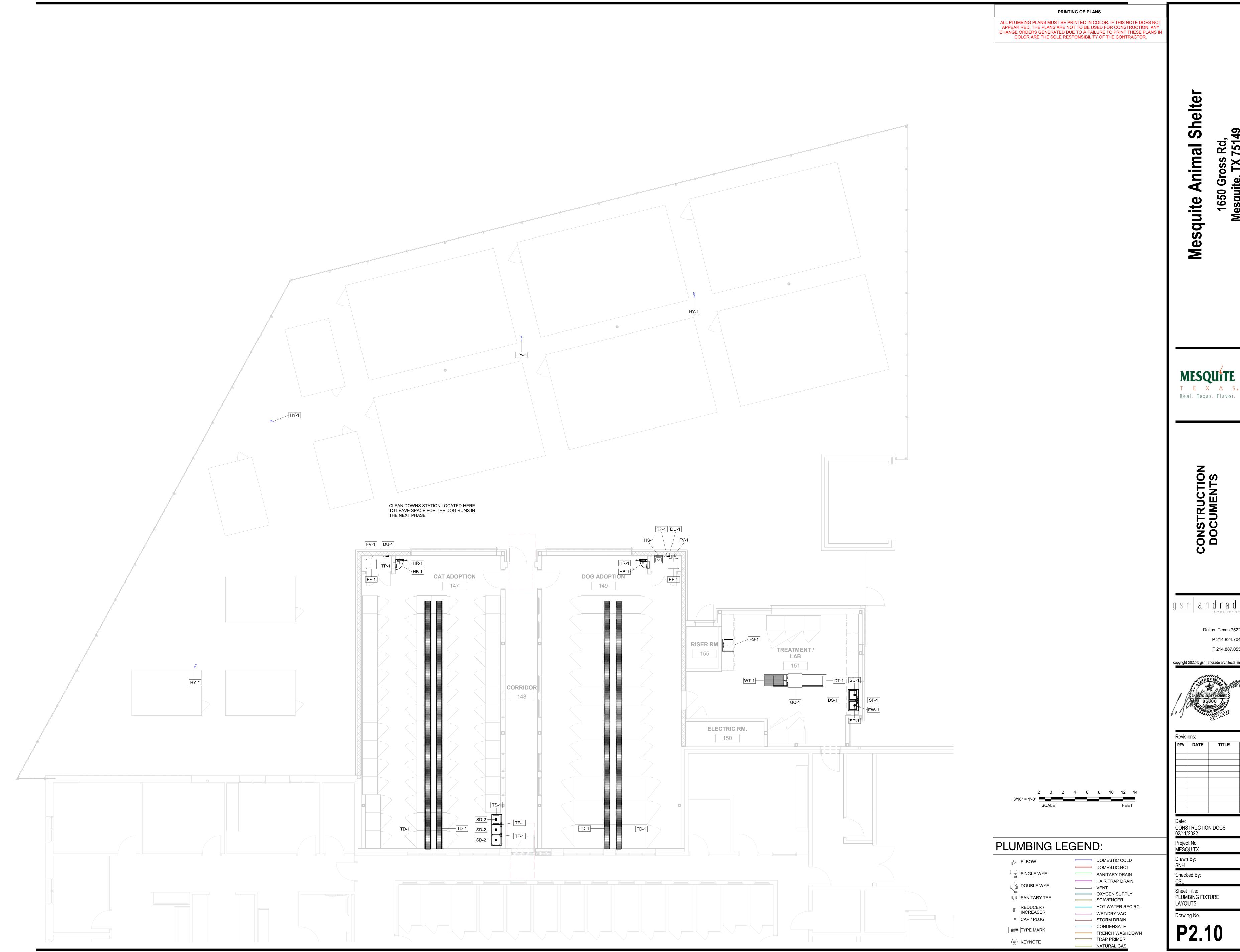
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21 30

							PLUMBIN	GFIXI	URE SCHEDUL	ヒ						
AG DESCRIPTION	MANUFACTURER	MODEL	QUANTITY	CWFU	TOTAL CWFU	HWFU	TOTAL HWFU	COMB. SFU	TOTAL COMB. SFU	DFU	TOTAL DFU	CW CONN.	HW CONN.	DRAIN CONN.	ELEC. REQ'D	COMMENTS
SD-1 DRAIN - Double Bowl Sink	JUST MFG	J-35 DRAIN	2	0	0	0	0	0	0	2	4	0"	0"	1 1/2"	NO	
RD-2 DRAIN - Roof	Zurn Industries, LLC	Z100	1	0	0	0	0	0	0	0	0	0"	0"	4"	NO	
RD-1 DRAIN - Roof Combination	Zurn Industries, LLC	Z163	2	0	0	0	0	0	0	2	4	0"	0"	4"	NO	
D-1 DRAIN - Trench	ZURN	Z886	4	0	0	0	0	0	0	3	12	0"	0"	4"	NO	
D-2 DRAIN - Triple Bowl Sink	ELKAY	LK99	3	0	0	0	0	0	0	2	6	0"	0"	1 1/2"	NO	
U-1 EQUIPMENT - 4 Drain Trap Primer Dist.	Init Precision Plumbing Products	DU-U	2	0	0	0	0	0	0	0	0	1/2"	0"	3/8"	NO	
T-1 EQUIPMENT - Dry Table	Tristar Vet	Dry Table	1	0	0	0	0	0	0	0	0	0"	0"	0"	NO	
P-1 EQUIPMENT - Electronic Floor Drain Tra Primer, 115V	Precision Plumbing Products	MP-500-115V	2	0.5	1	0	0	0.5	1	0	0	1/2"	0"	1/2"	YES	
R-1 EQUIPMENT - Hose Reel	T&S Brass and Bronze Works, Inc.	B-7122-C01	2	3	6	3	6	4	8	0	0	3/8"	3/8"	0"	NO	
C-1 EQUIPMENT - Utility Chase	Tristar Vet	Utility Chase	1	0	0	0	0	0	0	0	0	0"	0"	0"	NO	
B-1 EQUIPMENT - Water Connection Cabine	T&S Brass and Bronze Works, Inc.	B-2339-LR	2	2.25	4.5	2.25	4.5	3	6	0	0	1/2"	1/2"	0"	NO	
T-1 EQUIPMENT - Wet Table	Tristar Vet	D100-25	1	2.25	2.25	2.25	2.25	3	3	2	2	1/2"	1/2"	2"	NO	ORDER W/ TRISTAR VET TS-100 FAUCET
Y-1 EQUIPMENT - Yard Hydrant	Woodford	W34	4	2.5	10	0	0	2.5	10	0	0	3/4"	0"	0"	NO	
F-1 FAUCET - Double Bowl Sink	JUST MFG	J-1174-KS	1	3	3	3	3	4	4	0	0	1/2"	1/2"	0"	NO	
W-1 FAUCET - Eye Wash Attachment	JUST MFG	JG-1100	1	0	0	0	0	0	0	0	0	0"	0"	0"	NO	
V-1 FAUCET - Flush Fixture Valve	ZURN	Z60842AV-H	2	10	20	0	0	10	20	0	0	1"	0"	0"	NO	
F-1 FAUCET - Triple Bowl Sink	ELKAY	LK800HA08T4	2	3	6	3	6	4	8	0	0	3/8"	3/8"	0"	NO	
S-1 SINK - Double Bowl Sink	JUST MFG	DL-ADA-2143-A-GR	1	0	0	0	0	0	0	2	2	0"	0"	0"	NO	
S-1 SINK - Fecal	Tristar Vet	300-80	1	2.25	2.25	2.25	2.25		0	2	2	1/2"	1/2"	2"	NO	ORDER W/ TRISTAR DECK-MOUNTED FAUCET B-1172-TS AND TRISTAR BASKET DRAIL CHF-E38-1010
F-1 SINK - Flush Fixture	ZURN	Z5420	2	0	0	0	0	0	0	2	4	0"	0"	0"	NO	
S-1 SINK - Handwash w/Faucet and Drain	ELKAY	CHSB1716C	1	1.5	1.5	0	0	2	2	0	0	1/2"	1/2"	2"	NO	INCLUDES FAUCET AND DRAIN
S-1 SINK - Triple Bowl	ELKAY	LTR632210	1	0	0	0	0	0	0	2	2	0"	0"	0"	NO	

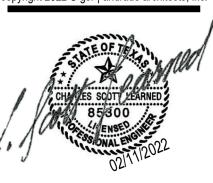


Animal

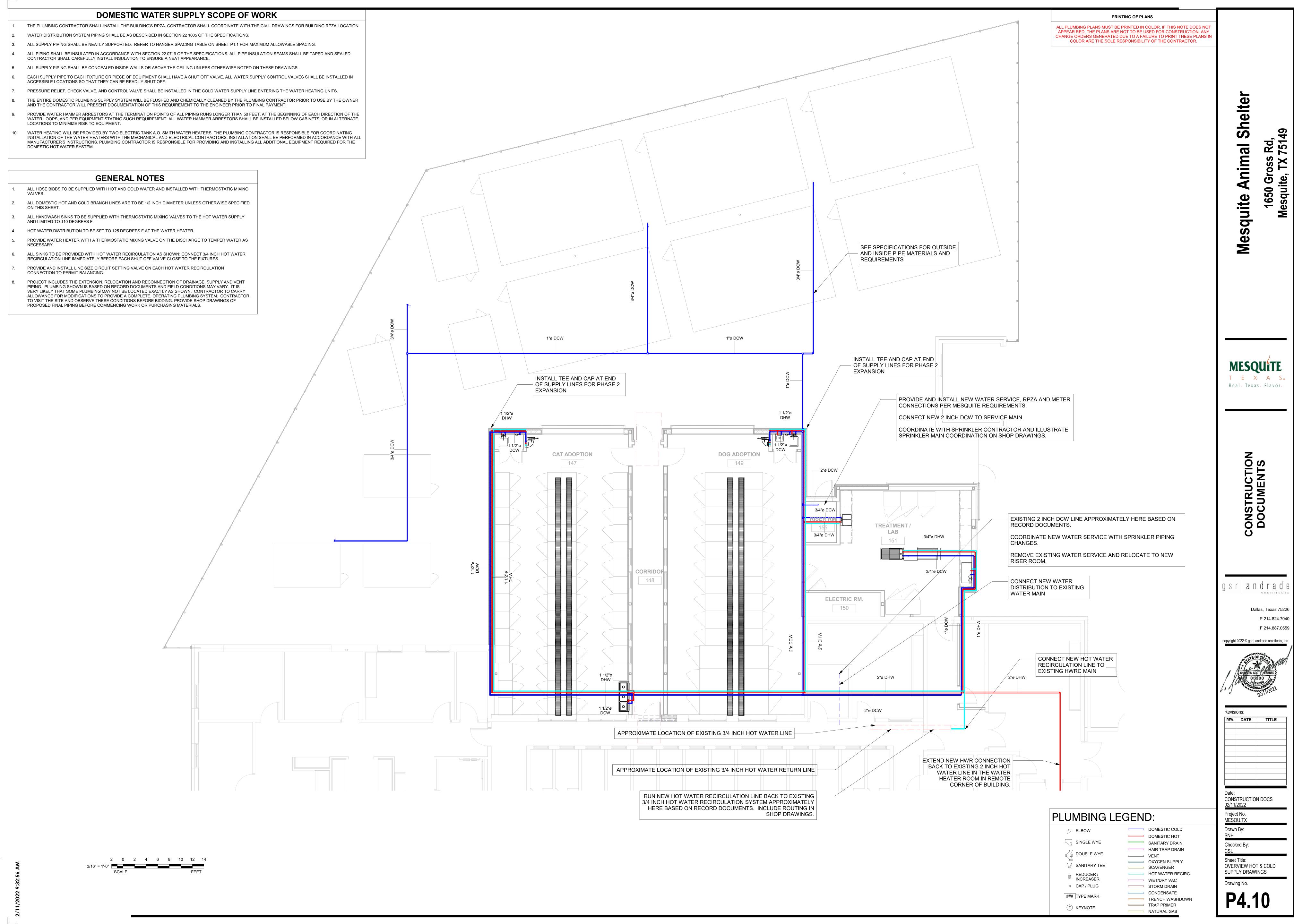
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gsrandrade

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Date: CONSTRUCTION DOCS 02/11/2022 MESQU.TX Checked By: Sheet Title: PLUMBING FIXTURE LAYOUTS



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02/11/2022

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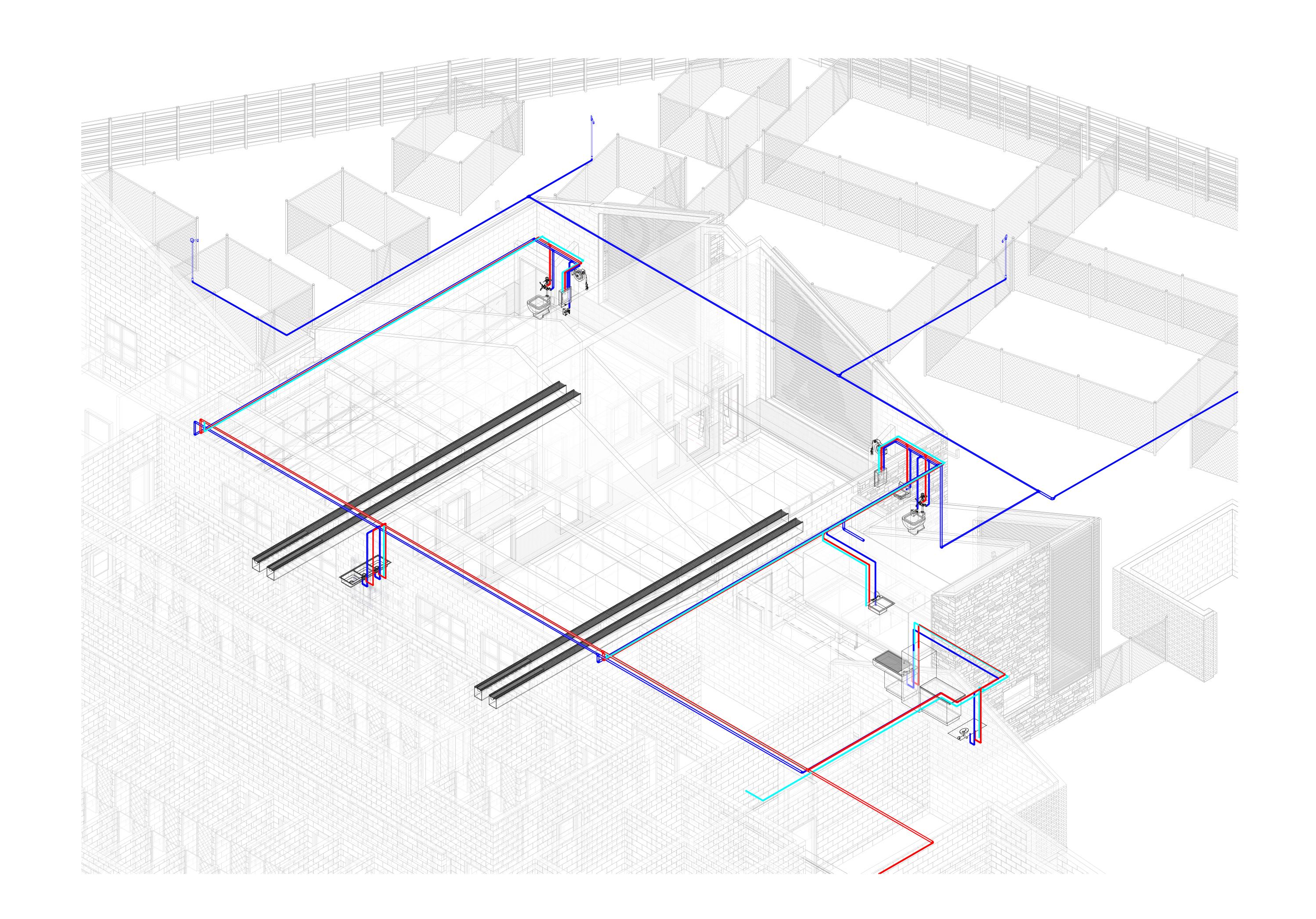
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Sheet Title:
SUPPLY PIPING RISER
DETAIL

Drawing No.

P4.20



equite Animal Shelter 1650 Gross Rd, Mesquite, TX 75149

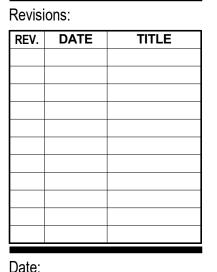
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CSL

Sheet Title:
OVERVIEW SANITARY &
HAIRTRAP DRAINAGE &
VENTING DRAWINGS

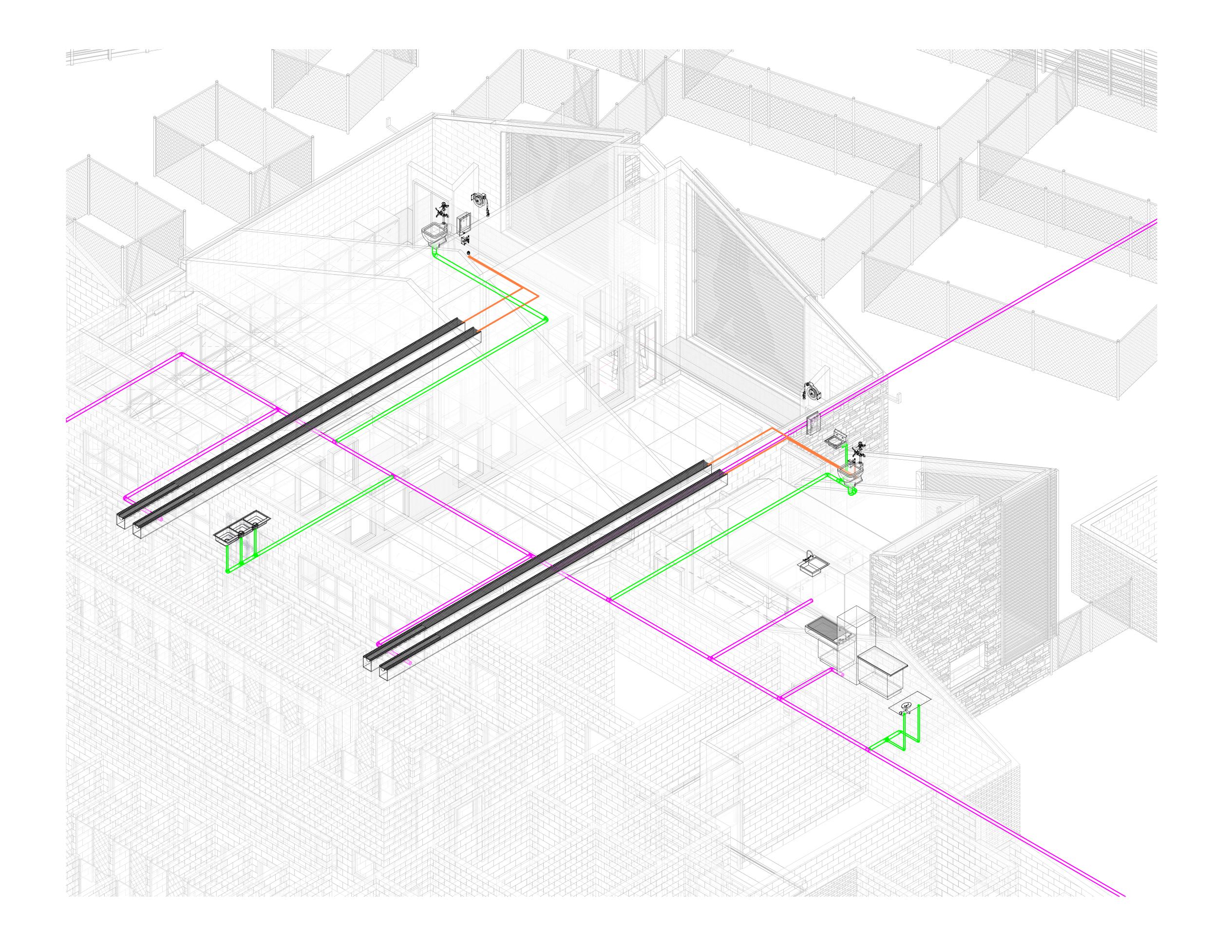
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# KEYNOTE

NATURAL GAS

Date: CONSTRUCTION DOCS 02/11/2022 Project No. MESQU.TX Drawn By: Checked By: Sheet Title: SANITARY & HAIRTRAP PIPING RISER DETAIL

Drawing No.



DOMESTIC HOT

SANITARY DRAIN

UENT

HAIR TRAP DRAIN

OXYGEN SUPPLY

HOT WATER RECIRC.

TRENCH WASHDOWN

SCAVENGER

WET/DRY VAC

STORM DRAIN

CONDENSATE

TRAP PRIMER

NATURAL GAS

SINGLE WYE DOUBLE WYE SANITARY TEE

REDUCER / INCREASER CAP / PLUG

### TYPE MARK # KEYNOTE

1/4" = 1'-0" SCALE FEET

2 0 2 4 6 8 10

PRINTING OF PLANS

ALL FIRE SPRINKLER PLANS MUST BE PRINTED IN COLOR. IF THIS NOTE DOES NOT APPEAR RED. THE PLANS ARE NOT TO BE USED FOR CONSTRUCTION. ANY CHANGE ORDERS GENERATED DUE TO A FAILURE TO PRINT THESE PLANS IN COLOR ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

**CONSTRUCTION DOCS** Project No. MESQU.TX

Drawn By: Checked By:

Sheet Title: FIRE SPRINKLER SCOPE & SCHEDULES

Drawing No.

## SPRINKLER SYSTEM SCOPE OF WORK

THE SPRINKLER WORK CONSISTS OF A NEW SPRINKLER MAIN AND THE EXTENSION OF THE SPRINKLER SYSTEM FOR THE MESQUITE ANIMAL SHELTER & ADOPTION CENTER, IN MESQUITE, TX. THE NEW SPRINKLER SYSTEM SHALL INCLUDE THE NEW ADDITION AS WELL AS ALTERATIONS TO THE SPRINKLER HEADS IN THE LOBBY AREA THE ENTIRE SPRINKLER SYSTEM IS DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE NFPA 13.

THIS SCOPE-OF-WORK IS PROVIDED AS A GENERAL GUIDE. THE SPRINKLER CONTRACTOR IS TO READ AND UNDERSTAND THIS FIRST.

THE SPRINKLER CONTRACTOR SHALL CONTACT DESIGN LEARNED, INC. WITH ANY QUESTIONS REGARDING ITEMS WHICH ARE TO BE INCLUDED OR EXCLUDED IN THE CONSTRUCTION. THE SPRINKLER CONTRACTOR SHALL PROVIDE AND INSTALL ALL OF THE SPRINKLER PIPING AND EQUIPMENT INDICATED IN THIS SCOPE, ON THE DRAWINGS, AND IN THE SPECIFICATIONS, UNLESS OTHERWISE INDICATED. THE SPRINKLER CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR READING AND UNDERSTANDING ALL ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS PRIOR TO BIDDING AND COMMENCING WORK. ANY QUESTIONS OR SUGGESTIONS FOR ALTERATION TO THIS DESIGN ARE TO BE DIRECTED TO THE ENGINEER, DESIGN LEARNED, INC. (860) 889-7078.

THIS PROJECT INCLUDES ALL PIPING AND EQUIPMENT TO CREATE A SPRINKLER SYSTEM THAT SERVES HE NEW ADDITION, LOBBY AREA AND NEW FIRE SPRINKLER MAIN. THE SPRINKLER SYSTEM IS DESIGNED AS A WET SYSTEM. THE PIPING FOR THE SYSTEM WILL BE RUN ABOVE THE CEILINGS BETWEEN STRUCTURAL MEMBERS SO AS NOT TO INTERFERE WITH DUCTWORK OR OTHER BUILDING SYSTEM COMPONENTS.

SPRINKLER DRAWINGS PROVIDE A GENERAL DESIGN INTENTION ONLY. SPRINKLER CONTRACTOR SHALL REVIEW THE EXISTING CONDITIONS AND VERIFY PIPE SIZES AND

SPRINKLER CONTRACTOR IS TO PROVIDE A DESIGNED SYSTEM BY A NICET CERTIFIED OR P.E. SUITABLE FOR PERMIT. SPRINKLER CONTRACTOR TO VERIFY HYDRANT TEST DATA AND PROVIDE HYDRAULIC CALCULATIONS AS A SUBMITTAL WITH THE SHOP DRAWINGS. ALL SUPPORTING DOCUMENTATION SHALL BE PROVIDED TO THE PROJECT ENGINEER (DESIGN LEARNED, INC., 860-889-7078), AS WELL AS TO THE LOCAL FIRE MARSHAL.

THIS SPRINKLER SYSTEM SHALL BE IN COMPLIANCE WITH NFPA 13. ALL EQUIPMENT AND PIPING SHALL BE NEW, LISTED PRODUCTS. THE SPRINKLER CONTRACTOR SHALL SUBMIT MANUFACTURER'S CUT SHEETS FOR ALL FIXTURES AND EQUIPMENT TO DESIGN LEARNED, INC. FOR APPROVAL. THE SPRINKLER CONTRACTOR SHALL PROVIDE ALL FIXTURES, PIPING, FITTINGS, ACCESSORIES, AND INSTALLATIONS TO CREATE NEAT, OPERATING SYSTEMS ACCEPTABLE TO THE ENGINEER AND TO LOCAL AUTHORITIES HAVING JURISDICTION.

BEFORE CONSTRUCTION BEGINS, THE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR SECURING AND PAYING FOR ALL PERMITS NECESSARY TO COMPLETE THIS INSTALLATION. THE SPRINKLER CONTRACTOR IS ALSO RESPONSIBLE FOR CONTACTING AND COORDINATING WITH LOCAL BUILDING AUTHORITIES AND FIRE MARSHALL TO ENSURE THAT THIS SYSTEM IS INSTALLED IN ACCORDANCE WITH THEIR REGULATIONS AND GUIDELINES.

### FIRE ALARM COORDINATION

CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE FIRE ALARM ELECTRICIAN TO ENSURE THAT ALL PARTS OF THE SPRINKLER SYSTEM THAT ARE REQUIRED TO BE CONNECTED TO THE FACP ARE CONNECTED PER MANUFACTURERS INSTRUCTIONS.

### FIRE STOP SYSTEM NOTES

CONTRACTOR SHALL PROVIDE AND INSTALL AT ALL WALL AND FLOOR PENETRATIONS A PERMANENT FIRE STOP SYSTEM. THE PENETRATION SEAL MATERIAL MUST BE UNAFFECTED BY MOISTURE AND MUST MAINTAIN THE INTEGRITY OF THE FLOOR OR WALL ASSEMBLY FOR ITS RATED TIME PERIOD.

# CONTRACTOR NOTES

PER NFPA 13, SECTION 8.16.3, READILY REMOVABLE FITTINGS SHALL BE PROVIDED AT THE END OF ALL CROSS MAINS. ALL CROSS MAINS SHALL TERMINATE IN 1-1/4" OR LARGER PIPE.

SPRINKLER CONTRACTOR IS TO PROVIDE AND INSTALL ALL PIPING, VALVES, AND FITTINGS REQUIRED FOR ALL NEW BRANCH MAINS TO SERVE THE HEAD LAYOUT AS SHOWN ON THESE DRAWINGS. THE SYSTEM IS TO BE TESTED BY THE INSTALLING CONTRACTOR WITH THE FIRE MARSHAL AND THE ENGINEER PRESENT TO WITNESS THE FINAL

SPRINKLER HEADS SHOULD BE LOCATED BELOW HORIZONTAL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13 WHERE CLEARANCE AND COVERAGE ISSUES ARE ENCOUNTERED. CONTRACTOR TO COORDINATE PRECISE ROUTING OF SPRINKLER PIPING WITH OTHER BUILDING SYSTEM COMPONENTS (I.E. DUCTWORK, PLUMBING, ELECTRICAL, LIGHTING). ANY COORDINATION ISSUES ENCOUNTERED SHALL BE REPORTED IMMEDIATELY TO DESIGN LEARNED, INC.

# ATTENTION: SUBMITTALS ARE REQUIRED

DO NOT INSTALL WORK WITHOUT APPROVED SHOP DRAWINGS. SHOULD THE CONTRACTOR PROCEED WITHOUT SUBMITTALS AND APPROVALS OF SUBMITTALS, ANY COSTS INCURRED TO CORRECT PROBLEMS THAT COULD HAVE BEEN CORRECTED BY SUBMISSION OF SAID DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, EVEN IF SUCH CORRECTION IS ABOVE THE CONTRACTOR'S ORIGINAL CONTRACT RESPONSIBILITIES.

### SPRINKLER SUBMITTAL REQUIREMENTS

SUBMITTAL INFORMATION SHALL BE SUBMITTED AND APPROVED BEFORE THE RELATED INSTALLATION MAY COMMENCE. ANY DEVIATION IN DESIGN DURING THE INSTALLATION PROCESS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE INSTALLING CONTRACTOR SHALL PROVIDE THE ENGINEER WITH FIVE COPIES OF THE FOLLOWING DOCUMENTS

FOR APPROVAL: MANUFACTURER'S DATA SHEETS FOR ALL EQUIPMENT ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL REGARDLESS OF DEVIATIONS. PROVIDE SHOP DRAWINGS

PIPING SHOP DRAWINGS INDICATING DEVIATIONS FROM DESIGN, MAJOR CHANGES IN FITTINGS AND ROUTING, PENETRATIONS, AND INTERFERENCES.

# GENERAL CONTRACTOR COORDINATION

THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO FIELD VERIFY COORDINATION OF DUCTWORK, LIGHTING, SPRINKLER HEADS, CEILING TILES, AND STRUCTURAL OBSTRUCTIONS. SUBMIT COORDINATED REFLECTED CEILING PLANS FOR APPROVAL PRIOR TO INSTALLATION. SCHEDULING, SEQUENCE OF INSTALLATION, EQUIPMENT CHANGES, CONTRACTOR PREFERENCES, AND ACCUMULATION OF VARIATIONS IN MEASUREMENT AND INSTALLATION ALL CONTRIBUTE TO CONFLICTS IN CONSTRUCTION.

DESIGN LEARNED, INC. WILL INSPECT INSTALLATION DURING AND AFTER CONSTRUCTION TO ENSURE CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS.

GENERAL CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT ALL SUB-CONTRACTORS ADHERE TO ALL DRAWINGS, SPECIFICATIONS, AND ADDENDA EXACTLY.

GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COST OF REWORK ASSOCIATED WITH ANY UNAPPROVED DEVIATIONS TO DESIGN. MANY ASPECTS OF OUR DESIGNS FIT CLOSELY. BE ESPECIALLY CAUTIOUS OF ELECTRICAL CONDUIT, PLUMBING PIPING, AND SPRINKLER LINES: THESE FREQUENTLY AND INAPPROPRIATELY ARE ROUTED IN THE FIELD THROUGH SPACES THAT HAVE BEEN RESERVED FOR DUCTWORK.

# **SPECIFICATIONS**

SPECIFICATIONS ARE PROVIDED IN A-SIZE FORMAT AND ARE PART OF THIS CONSTRUCTION DRAWING SET. IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO READ AND UNDERSTAND ALL SPECIFICATIONS BEFORE BIDDING AND BEFORE BEGINNING WORK. CONTRACTORS WILL BE HELD TO THE SPECIFICATIONS AND DRAWINGS. WE WILL NOT APPROVE ANY CHANGES, REWORK, SUBSTITUTIONS, OR OMISSIONS DUE TO THE CONTRACTOR'S FAILURE TO FOLLOW THE SPECIFICATIONS.

# **SUBSTITUTIONS**

PRODUCT ALTERNATES MAYBE ALLOWED FOR EQUIPMENT AND MATERIALS PROVIDING THE CONTRACTOR ADHERES TO **THE SUBMISSION PROCESS**. NO SUBSTITUTION SHALL BE PROCURED OR INSTALLED WITHOUT EXPRESS WRITTEN APPROVAL OF OWNER AND ENGINEER. REFER TO THE SPECIFICATIONS FOR DETAILS ON SUBMITTAL REQUIREMENTS AND ADDITIONAL PERFORMANCE REQUIREMENTS FOR EQUIPMENT AND MATERIALS. SUBSTITUTIONS ARE ONLY PERMITTED DURING THE BIDDING PROCESS. REQUESTS FOR SUBSTITUTIONS MUST BE COMPLETE WITH MANUFACTURER'S DATA PROVING THAT THE SUBSTITUTION IS AN EQUAL, OR IT WILL NOT BE REVIEWED. THE BURDEN OF PROOF LIES WITH THE CONTRACTOR. A SUBSTITUTION REQUEST DOES NOT

GUARANTEE APPROVAL.

FIRE RISER SCHEDULE							
DESCRIPTION	MANUFACTURER	MODEL	QTY.	COMMENTS			
FIRE ALARM BELL	POTTER	MBA-6-24	1	FACP ASSUMED AT 24 VDC FOR ANNUNCIATION - VERIFY FACP REQUIREMENTS BEFORE SUBMITTING OR PURCHASING			
WATERFLOW ALARM SWITCH	POTTER	VSR-6	1				
SWING CHECK VALVE	TYCO	CV-1F	1				
TEST AND DRAIN	AGF	1011A	1				
REDUCED PRESSURE ASSEMBLY	AMES	M500 OSY	1	VERIFY COMPLIANCE WITH MESQUITE BACKFLOW PREVENTION ASSEMBLY INSTALLATION GUIDE			
OS&Y SUPERVISORY SWITCH	POTTER	OSYSU	1				

FIRE SPRINKLER SCHEDULE								
RESPONSE	COVERAGE	MANUFACTURER	MODEL	DIA	K-FACTOR	NOTES		
Standard	Standard	VIKING CORP	VK352	3/4"	8	VK352 - Microfast® Quick Response Pendent Sprinkler (K8.0)		

THIS BUILDING IS CLASSIFIED AS ORDINARY HAZARD PER NFPA 13 STANDARDS.

**BUILDING CLASSIFICATION** 

**NOTE** 

THESE DRAWINGS ARE BASED ON THE LATEST ARCHITECTURAL PLANS DATED

SPRINKLER SHEET LIST

FIRE SPRINKLER DETAILS & ABBREVIATIONS FIRE SPRINKLER RISER DIAGRAM & SECTION VIEWS

FIRE SPRINKLER SCOPE & SCHEDULES

FS2.10

FIRE SPRINKLERS PLAN VIEWS

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> Shelter nimal

Mesquite

MESQUITE Keal. lexas. Flavor.

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REV. DATE

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Sheet Title: FIRE SPRINKLER DETAILS & **ABBREVIATIONS** 

Drawing No.

UP/DOWN SPRINKLER HEAD WITH GUARD



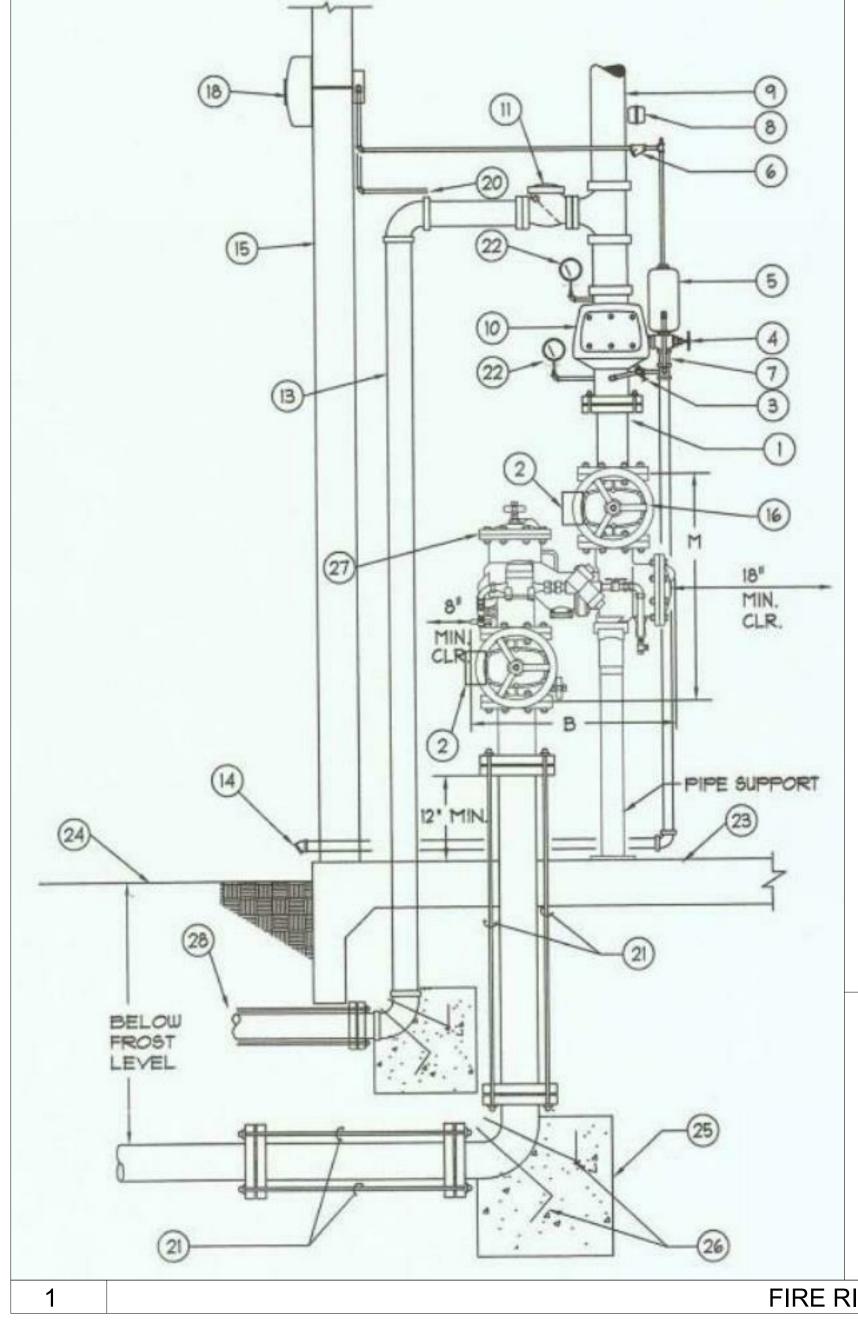
FEBCO MODEL 876V 28. FIRE DEPARTMENT CONNECTION

NOTE:

1. A COPY OF THE TEST REPORT FOR THIS DEVICE SHALL BE SUBMITTED TO THE CITY FIRE MARSHAL. THE TEST SHALL BE PERFORMED BY A STATE-LICENSED AND CITY REGISTERED FIRELINE TESTER WHO IS A FULL TIME EMPLOYEE OF A STATE-LICENSED FIRE SPRINKLER INSTALLER.

FIRE RISER DETAIL

SCALE: NTS



### HANGER DETAILS AND SPECIFICATIONS IN ACCORDANCE TO NFPA 13, SECTION 6-1.1.4, THE SIZE OF THE HANGER RODS AND FASTENERS REQUIRED TO SUPPORT THE STEEL ANGLE IRON OR PIPE SHALL COMPLY WITH THE FOLLOWING TABLES. HOLES AND BOLTS SHALL NOT EXCEED 1/16 INCH GREATER THAN THE DIAMETER OF THE BOLT. BOLTS SHALL BE PROVIDED WITH A FLAT WASHER AND NUT.

OBSTRUCTION LIMITATIONS ON DESIGN

PIPE HANGING AND SEISMIC BRACING DETAILS

EARTHQUAKE BRACE AND SURGE RESTRAINT COMPONENTS

TOLCO FIG. 1000 FAST CLAMPS

UNDERWRITERS LABORATORIES LISTED, MUST

BE USED WITH TOLCO U.L. LISTED

ATTACHMENTS FIG. 909 OR FIG. 910 SWIVEL FITTINGS OR FIG. 975 OR FIG. 908 STRAIGHT

FITTINGS TYPICAL APPLICATIONS

TOLCO FIG. 1000

LATERAL (TRANSVERSE)

TOLCO FIG. 25 SURGE RESTRAINER

NOTE: CAN BE USED TO RESTRICT EITHER

STEEL PIPE OR CPVC PLASTIC PIPE.

MAXIMUM ALLOWABLE

DISTANCE OF

DEFLECTOR ABOVE

**BOTTOM OF** 

OBSTRUCTION (IN.) (B)

TYPE 1- FOR USE WITH 1" AND 1 1/4" PIPE AND HANGER. TYPE 2- FOR USE WITH 1 1/2" AND 2" PIPE AND HANGER

FAST CLAMP

909 OR 910

LATERAL (TRANSVERSE) BRACE

INCORPORATED

796 EAST HARRISON ST. CORONA, CA. 91719

U.S.A. (909) 737-5599

FAX (909) 737-0330

LEAF SPRING

**CONFIGURATION AND** 

ORIENTATION BEFORE

**NUTS ARE TIGHTENED** 

TOLCO FIG. 1000

NOTE: TO ASSURE

**NUTS UNTIL LEAF** 

SPRING IS FLAT

MINIMUM REQUIRED

**TORQUE-TIGHTEN HEX** 

TOLCO BAND HANGER

DISTANCE FROM SPRINKLERS TO

SIDE

1 FT TO LESS THAN 1 FT 6 IN 1 FT 6 IN TO LESS THAN 2 FT 2 FT TO LESS THAN 2 FT 6 IN

2 FT 6 IN TO LESS THAN 3 FT 3 FT TO LESS THAN 3 FT 6 IN 3 FT 6 IN TO LESS THAN 4 FT

4 FT TO LESS THAN 4 FT 6 IN

4 FT 6 IN TO LESS THAN 5 FT

5 FT TO LESS THAN 5 FT 6 IN

5 FT 6 IN TO LESS THAN 6 FT

6 FT TO LESS THAN 6 FT 6 IN

6 FT 6 IN TO LESS THAN 7 FT 7 FT TO LESS THAN 7 FT 6 IN

OF OBSTRUCTION

LESS THAN 1 FOOT

TOLCO

FIG. 1000

FAST CLAMP

LEAF SPRING

SHOWN FLAT

FACTORY MUTUAL ACCEPTED

TOLCO FIG. 909 OR 910

PIPE CLAMP (TOLCO FIG. 4A)

USED IN LONGITUDINAL BRACE (OPTIONAL METHOD)

> TOLCO FIG. 909 OR 910

TOLCO FIG. 907

TOLCO FIG.

909 OR 908

LONGITUDINAL/4 WAY BRACE

(OPTIONAL METHOD)

TOLCO FIG. 1000

TOLCO FIG.

909 OR 910

TOLCO FIG. 25 IS DESIGNED TO BE USED ONLY

TO RESTRICT UPWARD MOVEMENT OF PIPE WITHIN

OBSTRUCTION

HORIZONTAL OBSTRUCTIONS

**ELEVATION VIEW** 

DISCHARGE (STANDARD UPRIGHT AND PENDENT

SPRINKLERS) (2013 NFPA 13, FIGURE 8.6.5.1.2 (a)

POSITION OF SPRINKLERS TO AVOID OBSTRUCTIONS

CEILING

NO SCALE

THE HANGER AS IT OCCURS DURING SPRINKLER HEAD ACTIVATION OR EARTHQUAKE TYPE ACTIVITY

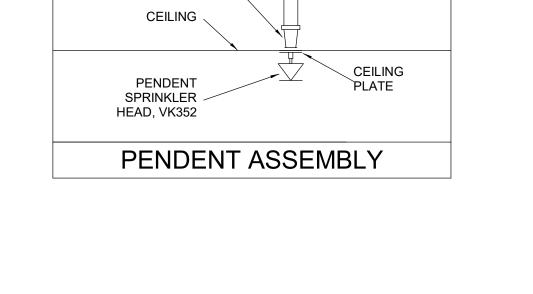
WITH TOLCO BAND HANGERS FIG. 200, NFPA,

CONSULT FACTORY

NFPA 13, TABLE 9	NFPA 13, TABLE 9.1.2.1 HANGER ROD SIZES						
PIPE SIZE	DIAMETER OF ROD						
UP TO AND INCLUDING 4 IN.	3/8 INCH						
5,6, AND 8 IN.	1/2 INCH						
10 AND 12 IN.	5/8 INCH						

NFPA 13, TABLE 9.1.2.4 U-HOOK ROD SIZES						
PIPE SIZE	HOOK MATERIAL DIAMETER					
UP TO 2 IN.	5/16 INCH					
2 1/2 TO 6 IN.	3/8 INCH					
8 IN. 1/2 INCH						

NFPA 13, TABLE 9.1.2.5.1 EYE ROD SIZE						
DIAMETER OF ROD PIPE SIZE WITH BENT EYE WITH WELDED EYE						
UP TO 4 IN.	3/8 INCH	3/8 INCH				
5 TO 6 IN. 1/2 INCH 1/2 INCH						
8 IN.	3/4 INCH	1/2 INCH				



NIPPLE \

REDUCER

BRANCH LINE

1 INCH

MAXIMUM DISTANCE BETWEEN HANGERS FOR BLACK STEEL SPRINKLER PIPING								
NOMINAL PIPE SIZE (IN)	MAXIMUM HANGER SPACING (FT-IN)		NOMINAL PIPE SIZE (IN)	MAXIMUM HANGER SPACING (FT-IN)				
3/4	N/A		3	15-0				
1	12-0		3 1/2	15-0				
1 1/4	12-0		4	15-0				
1 1/2	15-0		5	15-0				
2	15-0		6	15-0				
		1		•				

2 1/2 15-0 8 15-0 NOTES: 2013 NFPA 13, TABLE 9.2.2.1 (a)

# FIRE SPRINKLER LEGEND: WET SPRINKLER PIPE

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Mesquite Animal Shel

MESQUITE

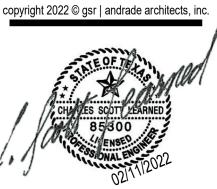
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ONSTRUCTION

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Revision	Revisions:								
REV.	DATE	TITLE							
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MESQU.TX

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SNH

Checked By:
CSL

Sheet Title:
FIRE SPRINKLER RISER
DIAGRAM & SECTION VIEWS

FIRE SPRINKLER LEGEND:

UP/DOWN SEMI-RECESSED SPRINKLER HEAD

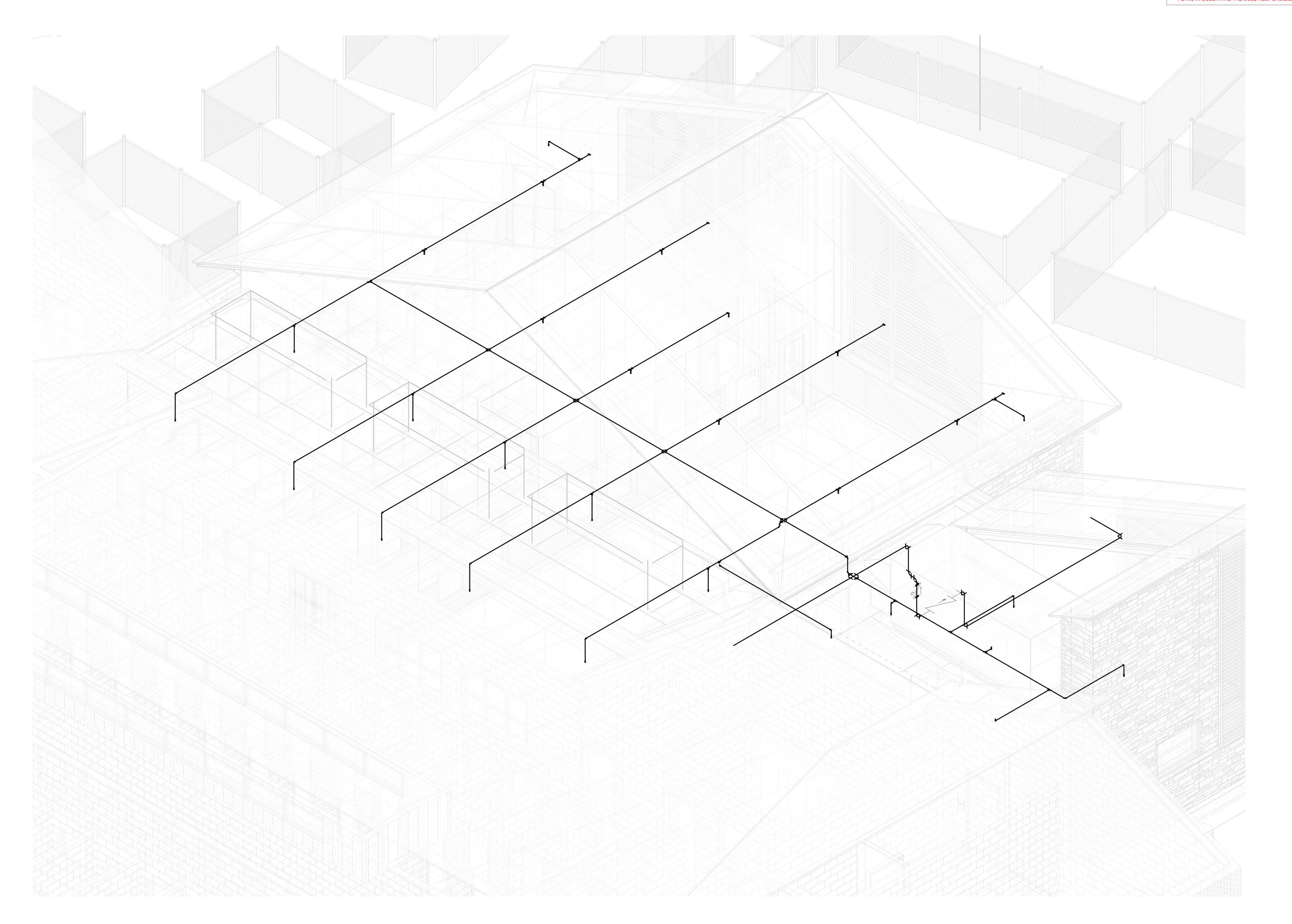
HORIZONTAL SIDEWALL SPRINKLER HEAD

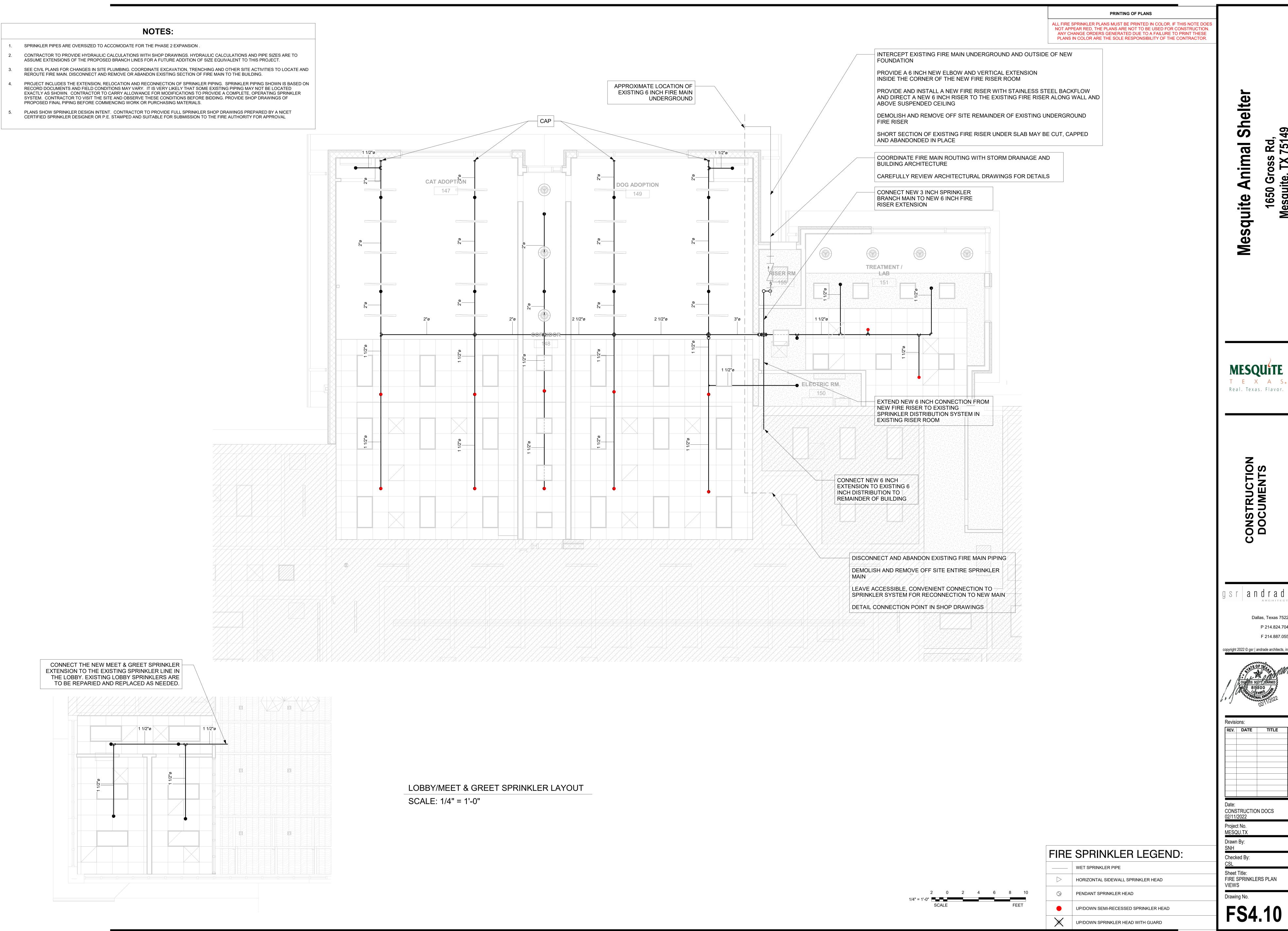
UP/DOWN SPRINKLER HEAD WITH GUARD

WET SPRINKLER PIPE

Drawing No.

FS3 1





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