

# ABBREVIATIONS

ABV above	FFC finished floor elevation	QBS obscure
ACC above suspended ceiling	FFL finished floor line	OC on center (s)
ACR access	FA fire alarm	OP opaque
ACFL access floor	FBK fire brick	OPG opening
AP access panel	FBRK fire extinguisher	OPP open-web joist
AC acoustical	FE fire extinguisher cabinet	OPH opposite
ACPL acoustical plaster	FHS fire hose station	OPH opposite hand
ACT acoustical tile	FPL fireproof	OS opposite surface
ACR acrylic plastic	FRC fire-retardant coating	OD outside diameter
ADD addendum	FRT fire-retardant	OHMS overall
ADH adhesive	FLG flashing	OHMS overall
ADJ adjacent	FHMS flathead machine screw	OHMS overall
ADJT adjustable	FHWS flathead wood screw	OHMS overall
AGG aggregate	FLX flexible	OHMS overall
A/C air conditioning	FLR floor (ing)	OHMS overall
ALT alternate	FLOCO floor cleanout	OHMS overall
AL aluminum	FD floor drain	OHMS overall
ANC anchor, anchorage	FPL floor plate	OHMS overall
AB anchor bolt	FLUR fluorescent	OHMS overall
ANCD anchored	FJ flush joint	OHMS overall
APX approximate	FTG footing	OHMS overall
ARCH architect (ural)	FRG forged	OHMS overall
AD area drain	FND foundation	OHMS overall
ASB asbestos	FR frame (d), (ing)	OHMS overall
ASPH asphalt	FRA fresh air	OHMS overall
AT asphalt tile	FS full size	OHMS overall
AUTO automatic	FBO furnished by others	OHMS overall
BP back plaster (ed)	FUR furred (ing)	OHMS overall
BSMT basement	FUT future	OHMS overall
BRG bearing	GA gage, gauge	OHMS overall
BPL bearing plate	GV galvanized	OHMS overall
BJT bed joint	GI galvanized iron	OHMS overall
BM bench mark	GP galvanized pipe	OHMS overall
BEL below	GSS galvanized steel sheet	OHMS overall
BET between	GKT gasket (ed)	OHMS overall
BVL beveled	GC general contract (or)	OHMS overall
BIT bituminous	GL glass, glazing	OHMS overall
BLK block	GLB glass block	OHMS overall
BLKG blocking	GLF glass flint	OHMS overall
BD board	GCMU glazed concrete masonry units	OHMS overall
BW both ways	GST glazed structural tile	OHMS overall
BOT bottom	GB grab bar	OHMS overall
BRK brick	GD grade, grading	OHMS overall
BRZ bronze	GRN granite	OHMS overall
BLDG building	GVL gravel	OHMS overall
BUR built up roofing	GF ground face	OHMS overall
BBB bulletin board	GT grout	OHMS overall
CAB cabinet	GPDW gypsum dry wall	OHMS overall
CAD cadmium	GPL gypsum lath	OHMS overall
CPT carpet (ed)	GPPL gypsum plaster	OHMS overall
CSMT casement	GPT gypsum tile	OHMS overall
CI cast iron	HH handhold	OHMS overall
CI/PC cast-in-place concrete	HBD hardboard	OHMS overall
CSST cast stone	HDW hardware	OHMS overall
CB catch basin	HDW hardware	OHMS overall
CK calk (ing) caulk (ing)	HWD hardwood	OHMS overall
CHT ceiling height	HJT head joint	OHMS overall
CEM cement	HDR header	OHMS overall
CPL cement plaster (portland)	HTG heating	OHMS overall
CM centimeter (s)	HVAC heating/ventilation/air conditioning	OHMS overall
CER ceramic	HD heavy duty	OHMS overall
CT ceramic tile	HT height	OHMS overall
CMT ceramic mosaic (tile)	HX hexagonal	OHMS overall
CKBD chalkboard	HES high early-strength	OHMS overall
CHAM chamber	HC hollow core	OHMS overall
CR chromium (plated)	HM hollow metal	OHMS overall
CIR circle	HK hook (s)	OHMS overall
CIRC circumference	HOR horizontal	OHMS overall
CLR clear (ance)	HOB hose bibb	OHMS overall
CLS closure	HHH hot water heater	OHMS overall
COL column	INCN incinerator	OHMS overall
COMB combination	INCL include (d), (ing)	OHMS overall
COMPT compartment	ID inside diameter	OHMS overall
COMPO composition (composite)	INS insulate (d), (ion)	OHMS overall
COMP compress (ed), (ion), (ible)	INSC insulating concrete	OHMS overall
CONC concrete	INSF insulating fill	OHMS overall
CMU concrete masonry unit	INT interior	OHMS overall
CX connection	ILK interlock	OHMS overall
CSNST construction	INTM intermediate	OHMS overall
CONT continuous or continue	INV invert	OHMS overall
CONTR contract (or)	IPS iron pipe size	OHMS overall
CLL contract limit line	JC janitor's closet	OHMS overall
CLT control joint	JT joint	OHMS overall
CPR copper	JF joint filler	OHMS overall
CG corner guard	J JOIST	OHMS overall
CCRR corrugated	KCPL keene's cement plaster	OHMS overall
CTR counter	KIT kitchen	OHMS overall
CFL counterflashing	KO knockout	OHMS overall
CS countersink	LBL label	OHMS overall
CTSK countersunk screw	LAB laboratory	OHMS overall
CRS course (s)	LAD ladder	OHMS overall
CRG cross grain	LB lag bolt	OHMS overall
CFT cubic foot	LAM laminate	OHMS overall
CYD cubic yard	LAV lavatory	OHMS overall
DPR damper	LH left hand	OHMS overall
DP dampproofing	L length	OHMS overall
DL dead load	L light	OHMS overall
DEM demolish, demolition	LC light control	OHMS overall
DMT demountable	LP lightproof	OHMS overall
DEP depressed	LW lightweight	OHMS overall
DLT detail	LWC lightweight concrete	OHMS overall
DIAG diagonal	LMS limestone	OHMS overall
DIAM diameter	LTL lintel	OHMS overall
DIM dimension	LL live load	OHMS overall
DPR dispenser	LVR louver	OHMS overall
DIV division	LPT low point	OHMS overall
DR door	MB machine bolt	OHMS overall
DA doublebleeding	MI malleable iron	OHMS overall
DH double hung	MH mahoe	OHMS overall
DTA dovetail anchor	MFR manufacture (er)	OHMS overall
DTS dovetail anchor slot	MRB marble	OHMS overall
DS downspout	MFR manufacture (er)	OHMS overall
DWR drainboard	MAS masonry	OHMS overall
DT drain tile	MO masonry opening	OHMS overall
DRB drainboard	MTL material (s)	OHMS overall
DT downspout	MAX maximum	OHMS overall
DWR drainboard	MECH mechanic (al)	OHMS overall
DT drain tile	MC medicine cabinet	OHMS overall
DWG drawing	MED medium	OHMS overall
DF drinking fountain	MBR member	OHMS overall
DW dumbwaiter	MMB membrane	OHMS overall
EF each face	MET metal	OHMS overall
E east	MFD metal floor decking	OHMS overall
ELEC electric (al)	MTRF metal furring	OHMS overall
ELEVP electrical panelboard	MRD metal roof decking	OHMS overall
EWC electric water cooler	MTHR metal threshold	OHMS overall
EL elevation	M meter	OHMS overall
ELEV elevator	MM millimeter (s)	OHMS overall
EMER emergency	MIK milwork	OHMS overall
ENC enclose (ure)	MIN minimum	OHMS overall
EQ equal	MIR mirror	OHMS overall
EOP equipment	MISC miscellaneous	OHMS overall
ESC escalator	MOD modular	OHMS overall
EST estimate	MLD molding, moulding	OHMS overall
EXCA excavate	MR mop receptor	OHMS overall
EXH exhaust	MT mount (ed), (ing)	OHMS overall
EXG existing	MOV movable	OHMS overall
EXMP expanded metal plate	MULL mullion	OHMS overall
EB expansion bolt	NL nailable	OHMS overall
EXP exposed	NAT natural	OHMS overall
EXT exterior	NI nickle	OHMS overall
EXS extra strong	NRC noise reduction	OHMS overall
FB face brick	NRC noise reduction coefficient	OHMS overall
FCC face of concrete	NOM nominal	OHMS overall
FOF face of finish	NOM nonmetallic	OHMS overall
FOM face of masonry	N North	OHMS overall
FOS face of studs	NIC not in contract	OHMS overall
FF factory finish	NTS not to scale	OHMS overall
FAS fastener fastener	W/WF welded wire fabric	OHMS overall
FBD fiberboard	WB wheel bumper	OHMS overall
FN fence	W width, wide	OHMS overall
FGL fiberglass	WIN window	OHMS overall
	WG wired glass	OHMS overall
	WM wire mesh	OHMS overall
	WO without	OHMS overall
	WD wood	OHMS overall
	WB wood base	OHMS overall
	WPT working point	OHMS overall
	WI wrought iron	OHMS overall

# MATERIALS LEGEND

	CONTINUOUS WOOD BLOCKING
	NON-CONTINUOUS WOOD BLOCKING (SHIM)
	STEEL
	GYPSSUM BOARD
	PLYWOOD
	RIGID INSULATION
	BATT INSULATION
	CONCRETE MASONRY UNITS

# SYMBOLS

	ELEVATION SYMBOL
	SECTION/DETAIL SYMBOL
	WALL TYPE SYMBOL
	WINDOW SYMBOL
	ROOM NAME & NUMBER SYMBOL FIN # FIN #
	DOOR SYMBOL

# GENERAL NOTES

- ALL CONSTRUCTION INCLUDING MATERIAL AND WORKMANSHIP, SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE.
- ALL ASTM STANDARDS LISTED HERE WITHIN, SHALL BE AS REFERENCED IN THE LATEST ISSUE OF THE ANNUAL BOOK OF STANDARDS OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE BEGINNING WORK. THE ARCHITECT AND ENGINEER, SHALL IMMEDIATELY BE NOTIFIED IN WRITING OF ANY DISCREPANCIES. THE CONTRACTOR SHALL CAREFULLY STUDY AND COORDINATE THE MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS WITH THE ARCHITECTURAL WORK PRIOR TO INSTALLATION AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ALL APPARENT INCONSISTENCIES FOR CLARIFICATION.
- ALL OMISSIONS AND OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. WORK SHOULD NOT PROCEED UNTIL A SOLUTION IS GIVEN BY THE ARCHITECT OR ENGINEER.
- IN CASE OF CONFLICTS BETWEEN GENERAL NOTES AND DETAILS, THE DETAILS, SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES. TYPICAL DETAILS, SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR DRAWINGS.
- IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF WORK, THE CONSTRUCTION, SHALL BE THE SAME AS FOR SIMILAR WORK.
- COORDINATE FOUNDATION PLANS AND MECHANICAL DRAWINGS, FOR ALL OPENINGS, INSERTS AND OTHER RELATED ITEMS.
- DIMENSIONS ARE TO FINISH FACE OF WALLS UNLESS NOTED OTHERWISE.
- ADDITIONAL MISCELLANEOUS STEEL ITEMS NOT SHOWN ON STRUCTURAL DRAWINGS MAY BE REQUIRED. GENERAL CONTRACTOR AND FABRICATOR SHALL COORDINATE ALL REQUIREMENTS AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ALL APPARENT INCONSISTENCIES FOR CLARIFICATION. (SUCH AS SIMPSON STRONG TIES)
- DO NOT DIMENSION THIS DRAWING. ANY DIMENSIONS, QUESTIONS, SHOULD BE DIRECTED TO THE ARCHITECT OR ENGINEER.

# INDEX OF DRAWINGS

ARCHITECTURAL	PLUMBING
A0.0 COVER SHEET	PD1.1 PLUMBING - DEMOLITION
AS1.0 SITE PLAN	P1.1 PLUMBING PLAN - SEWER & VENT
DAS1.1 SITE PLAN DEMO	P2.1 PLUMBING PLAN - DOMESTIC WATER
D1.0 DEMO PLANS	P3.1 PLUMBING - SCHEDULES
A1.0 FLOOR PLAN - SECTION C PROPOSED	P4.1 PLUMBING - DETAILS
R1.01 ROOF PLANS	P4.2 PLUMBING - DETAILS
R2.01 ROOF DETAILS	FP1.1 FIRE PROTECTION - SITE PLAN
R2.02 ROOF DETAILS	
A2.0 EXTERIOR ELEVATIONS	
A3.0 ENLARGED PLANS	
A4.0 REFLECTED CEILING PLAN	
A5.0 BUILDING SECTIONS	
A5.1 WALL SECTIONS	
A5.2 WALL SECTION DETAILS	
A5.3 TYPICAL DETAILS	
A6.0 INTERIOR ELEVATIONS	
A7.0 SCHEDULES	
A7.1 FINISH FLOOR	
A8.0 STAIR & RAMP	
A9.0 ADA DETAILS	
MECHANICAL	
MD1.1 MECHANICAL DEMOLITION PLAN	
M1.1 MECHANICAL PLAN	
M2.1 MECHANICAL - SYMBOLS AND ABBREVIATIONS	
M3.1 MECHANICAL - DETAILS	
M3.2 MECHANICAL SCHEDULES	
M4.1 MECHANICAL - KITCHEN HOOD	
M4.2 MECHANICAL - KITCHEN HOOD	
M4.3 MECHANICAL - KITCHEN HOOD	
ELECTRICAL	
ES1.1 ELECTRICAL SITE PLAN	
ED1.1 ELECTRICAL DEMO PLAN	
E1.1 ELECTRICAL - LIGHTING PLAN	
E2.1 ELECTRICAL - POWER PLAN	
E2.2 ELECTRICAL - EQUIPMENT PLAN	
E3.1 ELECTRICAL - SCHEDULES	
E5.1 ELECTRICAL - PANELS	
E6.1 ELECTRICAL - DETAILS	

# OLD SORENSEN ELEMENTARY RENOVATIONS BID #18-19-055



# PROJECT CONTACTS

ARCHITECT: RUDY MOLINA, A.I.A.	MILNET ARCHITECTURAL SERVICES 608 S. 12th STREET MC ALLEN, TEXAS 78501 (956) 688-5656	CIVIL: NA
OWNER: PSAJ ISD	PSAJ ISD 601 E KELLY AVE PHARR, TX 78577 956-354-2000	STRUCTURAL: NA
MEP:		GENERAL CONTRACTOR: NA

# SITE PLAN/LOCATION MAP



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A0.0



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

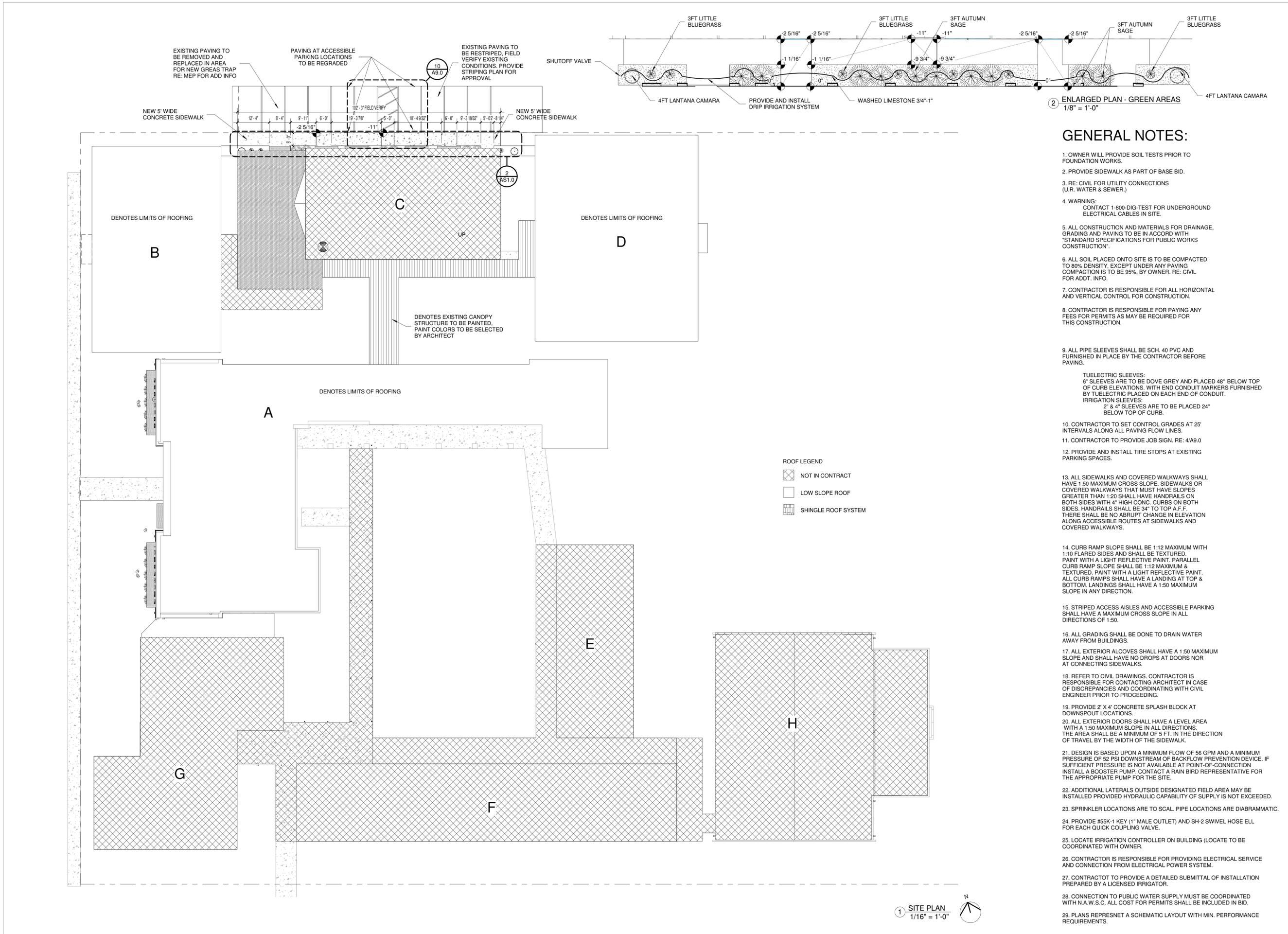
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

AS1.0



### GENERAL NOTES:

1. OWNER WILL PROVIDE SOIL TESTS PRIOR TO FOUNDATION WORKS.
2. PROVIDE SIDEWALK AS PART OF BASE BID.
3. RE: CIVIL FOR UTILITY CONNECTIONS (U.R. WATER & SEWER.)
4. WARNING:  
CONTACT 1-800-DIG-TEST FOR UNDERGROUND ELECTRICAL CABLES IN SITE.
5. ALL CONSTRUCTION AND MATERIALS FOR DRAINAGE, GRADING AND PAVING TO BE IN ACCORD WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
6. ALL SOIL PLACED ONTO SITE IS TO BE COMPACTED TO 80% DENSITY, EXCEPT UNDER ANY PAVING COMPACTIOIN IS TO BE 95%. BY OWNER. RE: CIVIL FOR ADDT. INFO.
7. CONTRACTOR IS RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL FOR CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR PAYING ANY FEES FOR PERMITS AS MAY BE REQUIRED FOR THIS CONSTRUCTION.
9. ALL PIPE SLEEVES SHALL BE SCH. 40 PVC AND FURNISHED IN PLACE BY THE CONTRACTOR BEFORE PAVING.  
TUELECTRIC SLEEVES:  
6" SLEEVES ARE TO BE DOVE GREY AND PLACED 48" BELOW TOP OF CURB ELEVATIONS. WITH END CONDUIT MARKERS FURNISHED BY TUELECTRIC PLACED ON EACH END OF CONDUIT.  
IRRIGATION SLEEVES:  
2" & 4" SLEEVES ARE TO BE PLACED 24" BELOW TOP OF CURB.
10. CONTRACTOR TO SET CONTROL GRADES AT 25' INTERVALS ALONG ALL PAVING FLOW LINES.
11. CONTRACTOR TO PROVIDE JOB SIGN. RE: 4/A9.0
12. PROVIDE AND INSTALL TIRE STOPS AT EXISTING PARKING SPACES.
13. ALL SIDEWALKS AND COVERED WALKWAYS SHALL HAVE 1:50 MAXIMUM CROSS SLOPE. SIDEWALKS OR COVERED WALKWAYS THAT MUST HAVE SLOPES GREATER THAN 1:20 SHALL HAVE HANDRAILS ON BOTH SIDES WITH 4" HIGH CONC. CURBS ON BOTH SIDES. HANDRAILS SHALL BE 34" TO TOP A.F.F. THERE SHALL BE NO ABRUPT CHANGE IN ELEVATION ALONG ACCESSIBLE ROUTES AT SIDEWALKS AND COVERED WALKWAYS.
14. CURB RAMP SLOPE SHALL BE 1:12 MAXIMUM WITH 1:10 FLARED SIDES AND SHALL BE TEXTURED. PAINT WITH A LIGHT REFLECTIVE PAINT. PARALLEL CURB RAMP SLOPE SHALL BE 1:12 MAXIMUM & TEXTURED. PAINT WITH A LIGHT REFLECTIVE PAINT. ALL CURB RAMPS SHALL HAVE A LANDING AT TOP & BOTTOM. LANDINGS SHALL HAVE A 1:50 MAXIMUM SLOPE IN ANY DIRECTION.
15. STRIPED ACCESS AISLES AND ACCESSIBLE PARKING SHALL HAVE A MAXIMUM CROSS SLOPE IN ALL DIRECTIONS OF 1:50.
16. ALL GRADING SHALL BE DONE TO DRAIN WATER AWAY FROM BUILDINGS.
17. ALL EXTERIOR ALCOVES SHALL HAVE A 1:50 MAXIMUM SLOPE AND SHALL HAVE NO DROPS AT DOORS NOR AT CONNECTING SIDEWALKS.
18. REFER TO CIVIL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ARCHITECT IN CASE OF DISCREPANCIES AND COORDINATING WITH CIVIL ENGINEER PRIOR TO PROCEEDING.
19. PROVIDE 2' X 4' CONCRETE SPLASH BLOCK AT DOWNSPOUT LOCATIONS.
20. ALL EXTERIOR DOORS SHALL HAVE A LEVEL AREA WITH A 1:50 MAXIMUM SLOPE IN ALL DIRECTIONS. THE AREA SHALL BE A MINIMUM OF 5 FT. IN THE DIRECTION OF TRAVEL BY THE WIDTH OF THE SIDEWALK.
21. DESIGN IS BASED UPON A MINIMUM FLOW OF 56 GPM AND A MINIMUM PRESSURE OF 52 PSI DOWNSTREAM OF BACKFLOW PREVENTION DEVICE. IF SUFFICIENT PRESSURE IS NOT AVAILABLE AT POINT-OF-CONNECTION INSTALL A BOOSTER PUMP. CONTACT A RAIN BIRD REPRESENTATIVE FOR THE APPROPRIATE PUMP FOR THE SITE.
22. ADDITIONAL LATERALS OUTSIDE DESIGNATED FIELD AREA MAY BE INSTALLED PROVIDED HYDRAULIC CAPABILITY OF SUPPLY IS NOT EXCEEDED.
23. SPRINKLER LOCATIONS ARE TO SCAL. PIPE LOCATIONS ARE DIABRAMMATIC.
24. PROVIDE #55K-1 KEY (1" MALE OUTLET) AND SH-2 SWIVEL HOSE ELL FOR EACH QUICK COUPLING VALVE.
25. LOCATE IRRIGATION CONTROLLER ON BUILDING (LOCATE TO BE COORDINATED WITH OWNER).
26. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ELECTRICAL SERVICE AND CONNECTION FROM ELECTRICAL POWER SYSTEM.
27. CONTRACTOT TO PROVIDE A DETAILED SUBMITTAL OF INSTALLATION PREPARED BY A LICENSED IRRIGATOR.
28. CONNECTION TO PUBLIC WATER SUPPLY MUST BE COORDINATED WITH N.A.W.S.C. ALL COST FOR PERMITS SHALL BE INCLUDED IN BID.
29. PLANS REPRESNET A SCHEMATIC LAYOUT WITH MIN. PERFORMANCE REQUIREMENTS.

1 SITE PLAN  
1/16" = 1'-0"





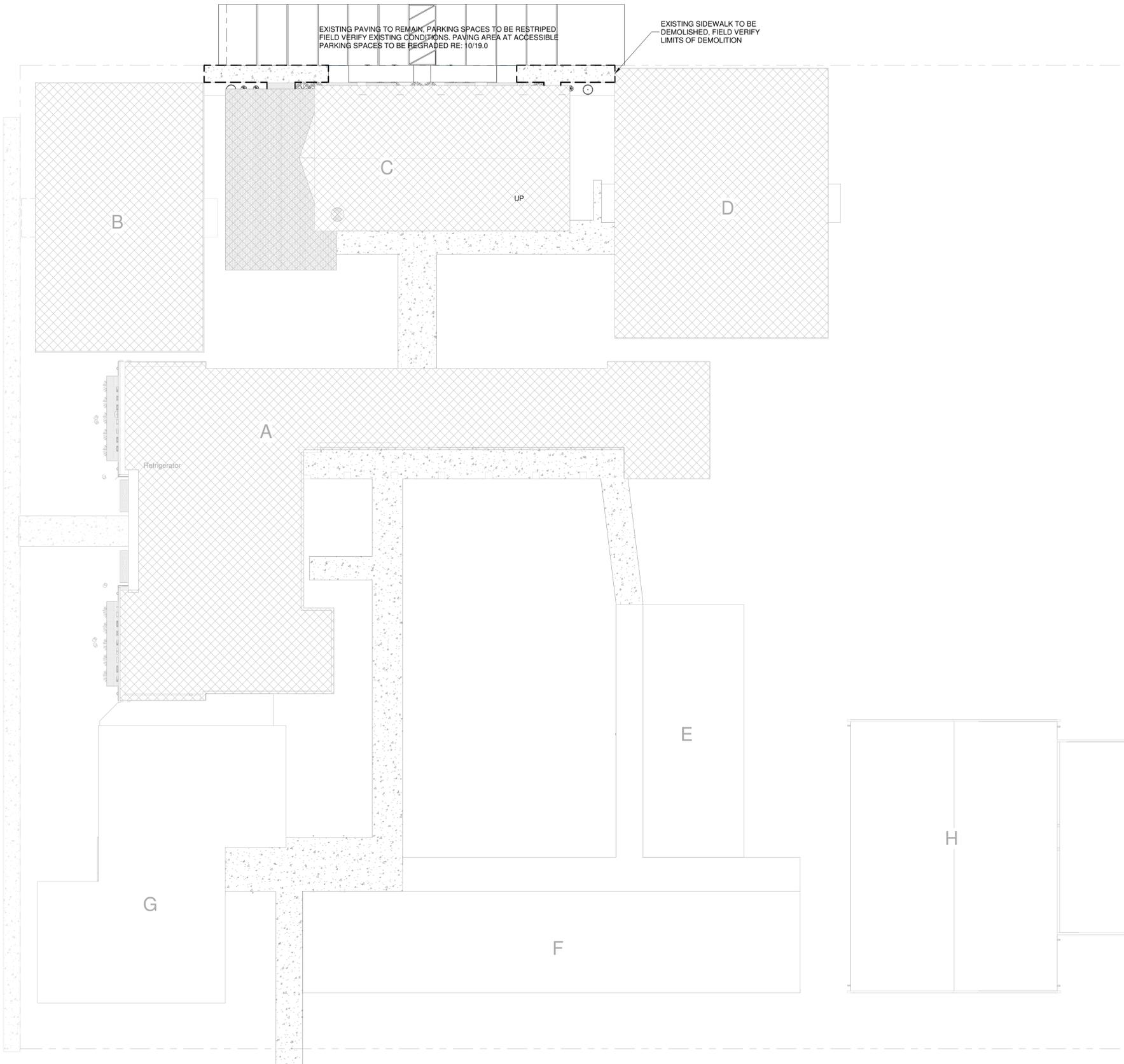
MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



### SITE DEMO GENERAL NOTES

- GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING OR COMMENCING WORK FOR CLARIFICATION
- REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES
- THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT, & BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT, AND SHALL NOT BE REUSED IN THE NEW CONSTRUCTION UNLESS OTHERWISE NOTED OR DIRECTED IN WRITING. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FEDERAL, STATE, & LOCAL REGULATIONS
- FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERCOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN ORIGINAL AND FUNCTIONING CONDITION AFTER NEW CONSTRUCTION IS COMPLETE. REPLACE, PATCH, OR REPAIR ANY DAMAGED EXISTING COMPONENTS OR SYSTEMS, WHICH ARE INTERRUPTED OR DISTURBED
- STRUCTURAL INTEGRITY: PROVIDE SUPPORT FOR THE EXISTING STRUCTURE TO REMAIN PRIOR TO PERFORMING ANY ALTERATION THERETO
- STRUCTURAL INTEGRITY: UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, NEW OPENINGS CUT INTO EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE LINTELS WITH 8" BEARING AS A MINIMUM. REFER TO STRUCTURAL DRAWINGS AND NOTES FOR ADDITIONAL REQUIREMENTS
- CUTTING & PATCHING: PROVIDE MATERIALS FOR CUTTING & PATCHING WHICH WILL RESULT IN EQUAL OR BETTER WORK THAN THAT BEING CUT OR PATCHED
- ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE REMOVED CAREFULLY SO AS NOT TO DAMAGE ANY EXISTING CONSTRUCTION THAT IS TO REMAIN. FLOORS, WALLS, AND CEILINGS ARE TO BE PATCHED TO MATCH EXISTING CONDITIONS AND MADE READY TO RECEIVE ANY NEW FINISHES WHERE APPLICABLE
- PLUMBING LINES THAT ARE TO BE REMOVED SHALL BE REMOVED COMPLETELY. PATCH WALLS AND FLOOR TO MATCH EXISTING CONDITIONS. REFER TO PLUMBING DRAWINGS AND NOTES FOR ADDITIONAL REQUIREMENTS
- WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHES, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS AND MADE READY TO RECEIVE NEW FINISHES. IN ACCORDANCE WITH FINISH MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS INCLUDING LEVEL 4 PLUMB TOLERANCES, REFER TO ROOM FINISH SCHEDULE FOR TYPES & LOCATIONS OF NEW FINISHES
- ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID AND CONSTRUCTION. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQUIRED TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE, AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQUIRED TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE RESPONSIBILITY OF THE CONTRACTOR
- WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB, BUSH HAMMER THE EXISTING CONCRETE FINISH FOR A BETTER BOND
- WHERE EXISTING MASONRY ABUTS NEW MASONRY, EXISTING MASONRY SHALL BE TOOTHED TO RECEIVE NEW MASONRY (U.O.N.) NEW MASONRY SHALL MATCH EXISTING COURSING, TYPICAL
- WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED, PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING (U.O.N.)
- REFER TO STRUCTURAL DRAWINGS & NOTES FOR ADDITIONAL NOTES
- CONTRACTOR SHALL MAINTAIN BUILDING INTEGRITY, BUILDING SECURITY, AND WEATHER-TIGHT BUILDING ENVELOPE (TO INCLUDE EXTERIOR WALL(S), ROOF, EXTERIOR OPENINGS, ETC.) DURING CONSTRUCTION. CONTRACTOR TO COORDINATE BUILDING ACCESS WITH OWNER.



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

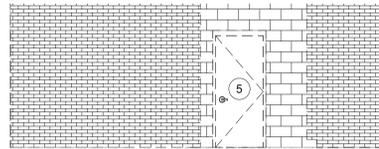
ISSUE FOR BIDS

SHEET NUMBER

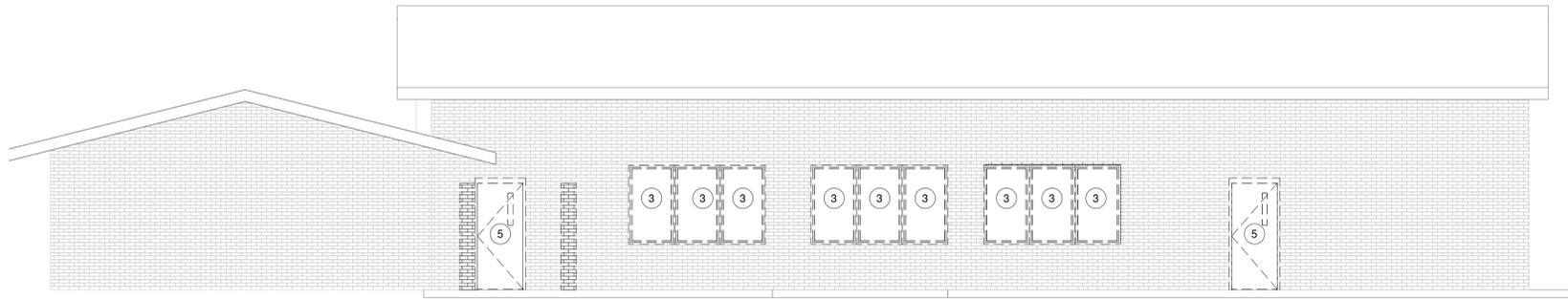
DAS1.1

1 SITE PLAN - DEMO  
1/16" = 1'-0"

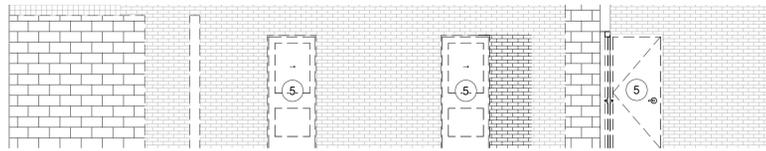
- GENERAL CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH THE SCOPE OF WORK AND TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES OR AMBIGUOUS ITEMS MUST BE REPORTED TO THE ARCHITECT PRIOR TO BIDDING OR COMMENCING WORK FOR CLARIFICATION.
- REFER TO CIVIL, STRUCTURAL, & MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND ALTERATION NOTES.
- THE OWNER HAS FIRST RIGHT OF SALVAGE OF ALL FIXTURES, EQUIPMENT, & BUILDING MATERIALS REMOVED AS PART OF THIS CONTRACT, AND SHALL NOT BE REUSED IN THE NEW CONSTRUCTION UNLESS OTHERWISE NOTED OR DIRECTED IN WRITING. REMOVE ALL OTHER DEBRIS AND WASTE FROM THE SITE AND DISPOSE OF PROPERLY, IN ACCORDANCE WITH FEDERAL, STATE, & LOCAL REGULATIONS.
- FIELD VERIFY LOCATIONS OF ALL EXISTING EXTERIOR PUBLIC ADDRESS SPEAKERS, INTERCOM SPEAKERS, PLUGS, SWITCHES, HOSE BIBS, LIGHTS AND CONTROLS PRIOR TO DEMOLITION. THESE SYSTEMS MUST BE PUT BACK IN ORIGINAL AND FUNCTIONING CONDITION AFTER NEW CONSTRUCTION IS COMPLETE. REPLACE, PATCH OR REPAIR ANY DAMAGED EXISTING COMPONENTS OR SYSTEMS, WHICH ARE INTERRUPTED OR DISTURBED.
- STRUCTURAL INTEGRITY: PROVIDE SUPPORT FOR THE EXISTING STRUCTURE TO REMAIN PRIOR TO PERFORMING ANY ALTERATION THERETO.
- STRUCTURAL INTEGRITY: UNLESS OTHERWISE INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS, NEW OPENINGS CUT INTO EXISTING MASONRY WALLS, WHETHER BEARING OR NON-BEARING, SHALL RECEIVE LOOSE UNTELS WITH 8" BEARING AS A MINIMUM. REFER TO STRUCTURAL DRAWINGS AND NOTES FOR ADDITIONAL REQUIREMENTS.
- CUTTING & PATCHING: PROVIDE MATERIALS FOR CUTTING & PATCHING WHICH WILL RESULT IN EQUAL OR BETTER WORK THAN THAT BEING CUT OR PATCHED.
- ANY EXISTING CONSTRUCTION THAT IS TO BE REMOVED, SHALL BE REMOVED CAREFULLY SO AS NOT TO DAMAGE ANY EXISTING CONSTRUCTION THAT IS TO REMAIN. FLOORS, WALLS, AND CEILINGS ARE TO BE PATCHED TO MATCH EXISTING CONDITIONS AND MADE READY TO RECEIVE ANY NEW FINISHES WHERE APPLICABLE.
- PLUMBING LINES THAT ARE TO BE REMOVED SHALL BE REMOVED COMPLETELY, PATCH WALLS AND FLOOR TO MATCH EXISTING CONDITIONS, REFER TO PLUMBING DRAWINGS AND NOTES FOR ADDITIONAL REQUIREMENTS.
- WHERE EXISTING FLOOR, CEILING, OR WALL FINISHES ARE TO BE REPLACED WITH NEW FINISHES, EXISTING SURFACES SHALL BE STRIPPED CLEAN OF ALL EXISTING COVERINGS AND MADE READY TO RECEIVE NEW FINISHES, IN ACCORDANCE WITH FINISH MANUFACTURERS WRITTEN INSTRUCTIONS AND RECOMMENDATIONS INCLUDING LEVEL 4 PLUMB TOLERANCES, REFER TO ROOM FINISH SCHEDULE FOR TYPES & LOCATIONS OF NEW FINISHES.
- ALL FLOOR FINISHES BEING REPLACED, SHALL BE COMPLETELY REMOVED & THE FLOOR CLEANED & PROPERLY PREPARED PRIOR TO INSTALLATION OF NEW FINISH MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING ALL FLOORS THAT RECEIVE NEW FINISHES PRIOR TO BID AND CONSTRUCTION. FLOORS SHALL BE PATCHED, FILLED, & STRIPPED AS REQUIRED TO PROVIDE A SMOOTH, DURABLE SURFACE FREE OF ALL BURRS OR ADHESIVE, AND SUITABLE FOR APPLICATION OF NEW FINISH MATERIAL. ANY UNDER CUTTING OF DOORS REQUIRED TO ACCOMMODATE NEW FLOOR FINISHES SHALL BE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE NEW CONCRETE TOPPING IS TO BE POURED OVER AN EXISTING CONCRETE SLAB, BUSH HAMMER THE EXISTING CONCRETE FINISH FOR A BETTER BOND.
- WHERE EXISTING MASONRY ABUTS NEW MASONRY, EXISTING MASONRY SHALL BE TOOTHED TO RECEIVE NEW MASONRY (U.O.N.) NEW MASONRY SHALL MATCH EXISTING COURSING, TYPICAL.
- WHERE A PORTION OF AN EXISTING MASONRY WALL IS TO BE REMOVED, PROVIDE A FINISHED EDGE BY TOOTHING IN NEW MASONRY TO MATCH EXISTING (U.O.N.)
- REFER TO STRUCTURAL DRAWINGS & NOTES FOR ADDITIONAL NOTES.
- CONTRACTOR SHALL MAINTAIN BUILDING INTEGRITY, BUILDING SECURITY, AND WEATHER-TIGHT BUILDING ENVELOPE (TO INCLUDE EXTERIOR WALL(S), ROOF EXTERIOR OPENINGS, ETC.) DURING CONSTRUCTION. CONTRACTOR TO COORDINATE BUILDING ACCESS WITH OWNER.



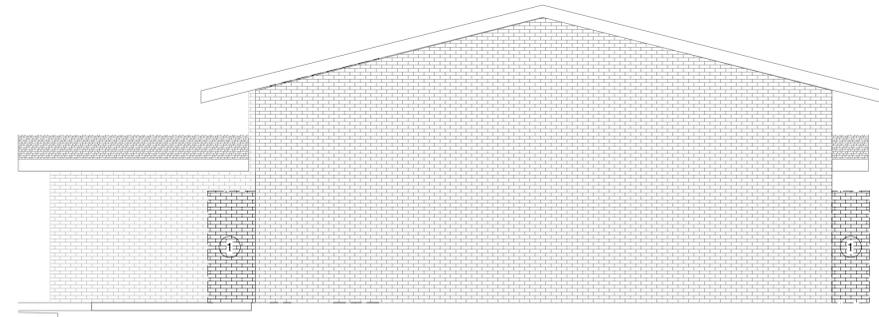
9 ELEVATION - DEMO  
3/16" = 1'-0"



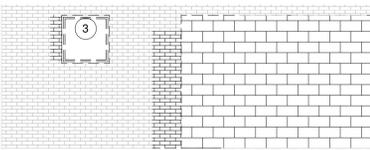
4 ELEVATION - DEMO  
3/16" = 1'-0"



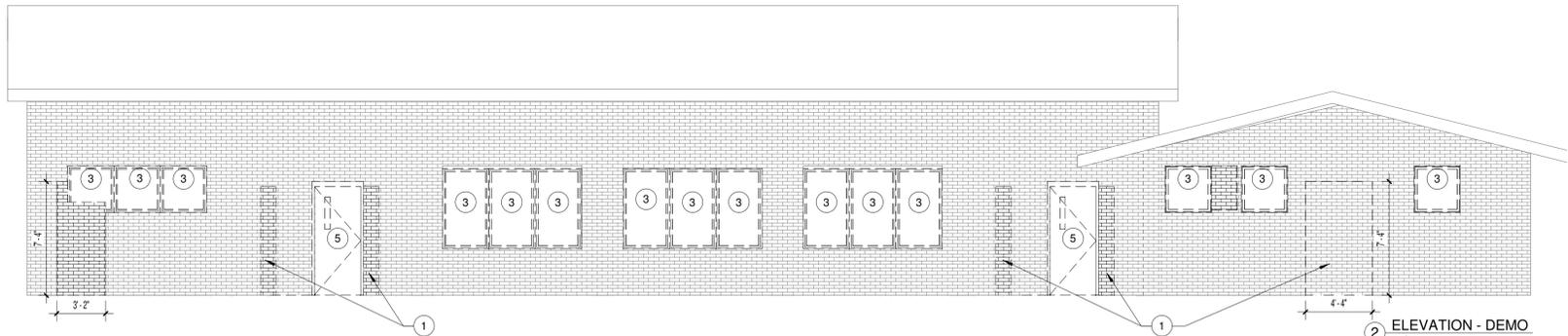
8 ELEVATION - DEMO  
3/16" = 1'-0"



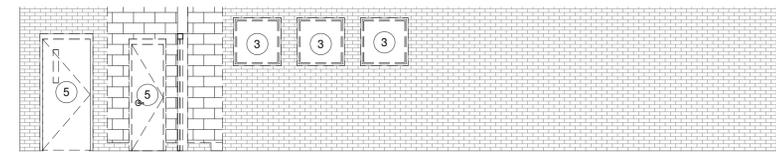
3 ELEVATION - DEMO  
3/16" = 1'-0"



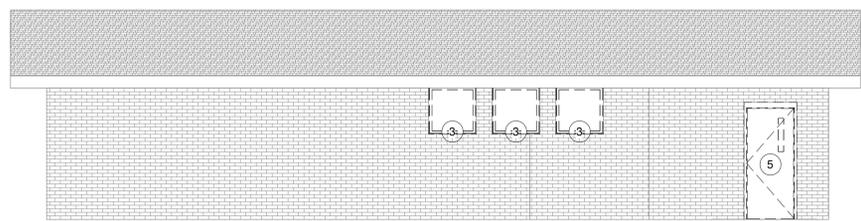
7 ELEVATION - DEMO  
3/16" = 1'-0"



2 ELEVATION - DEMO  
3/16" = 1'-0"



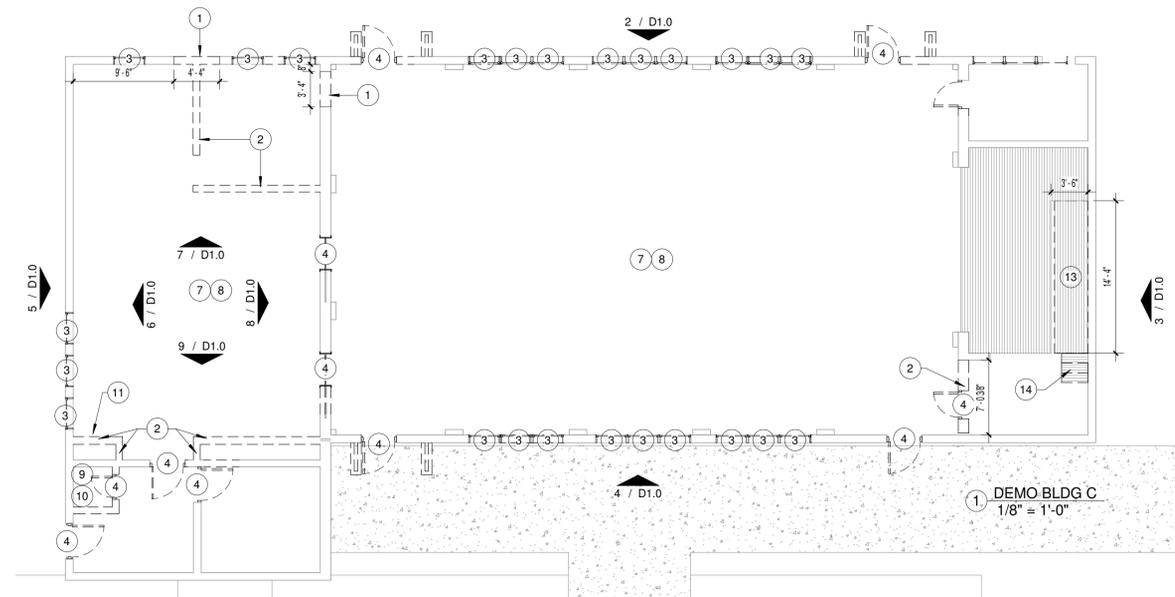
6 ELEVATION - DEMO  
3/16" = 1'-0"



5 ELEVATION - DEMO  
3/16" = 1'-0"

DEMOLITION NOTES (D):

- REMOVE PARTIAL EXISTING WALL.
- REMOVE EXISTING WALL ENTIRELY.
- REMOVE EXISTING WINDOW(S).
- REMOVE EXISTING DOOR(S).
- REMOVE EXISTING DOOR(S) & FRAME(S).
- REMOVE EXISTING DOOR HARDWARE ONLY.
- REMOVE EXISTING FLOORING.
- REMOVE EXISTING CEILING.
- REMOVE EXISTING TOILET.
- REMOVE EXISTING LAVATORY.
- REMOVE EXISTING SINK.
- REMOVE PARTIAL CONCRETE.
- REMOVE PARTIAL WOOD STAGE.
- REMOVE STAIRS.



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

D1.0

# KITCHEN EQUIPMENT

(KITCHEN EQUIPMENT TO BE CONTRACTOR PROVIDED AND INSTALLED)

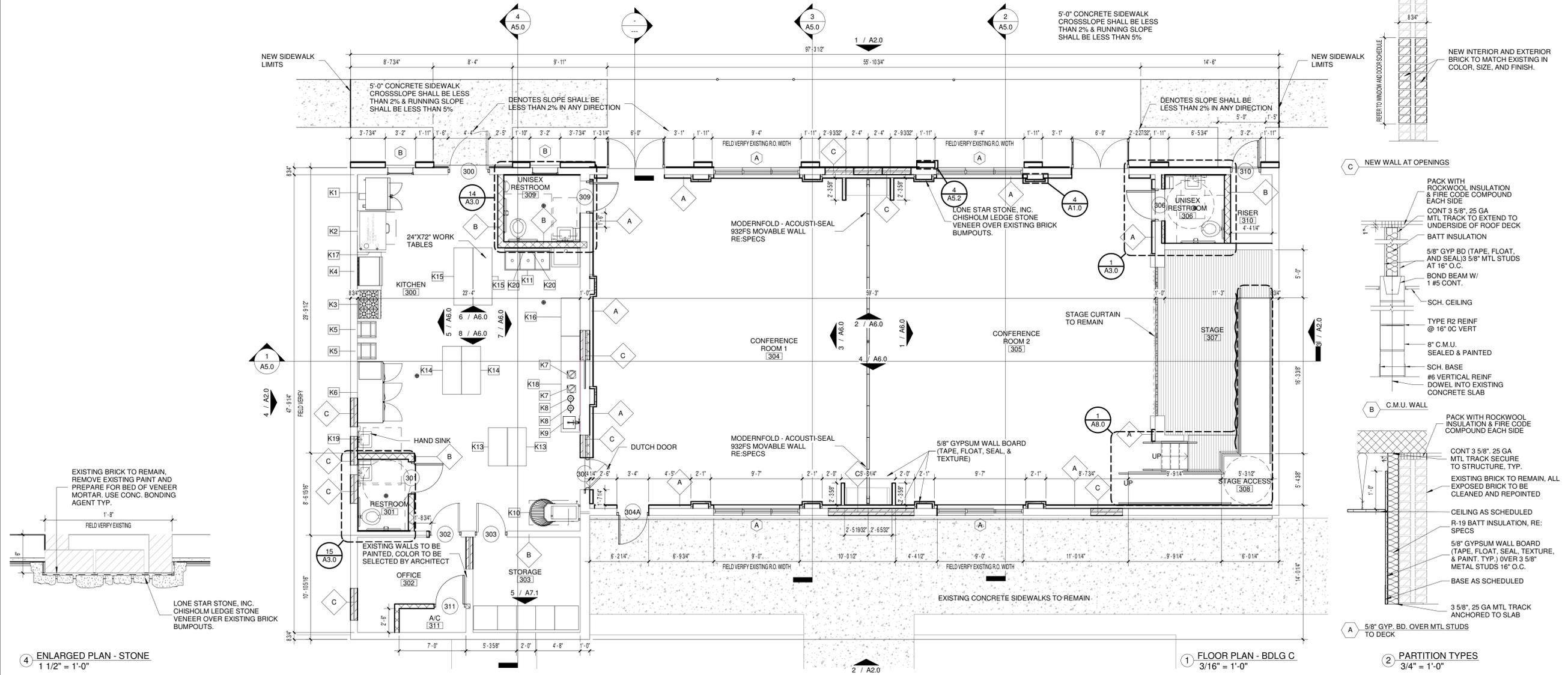
K1	DOUBLE INDUSTRIAL OVEN	-	VULCAN VC44E0
K2	BAKING OVEN	-	LOGIUDICE MINISTAR - MSR-41016
K3	6 BURNER GAS RANGE	-	AMERICAN RANGE AR6
K4	FLAT GRILL	-	VULCAN MSA36 - 36" W HEAVY DUTY GAS COMMERCIAL GRIDDLE
K5	PAN RACKS	-	NEW AGE INDUSTRIAL # 7331
K6	3 DOOR REFRIGERATOR	-	TRUE T-72G-HC
K7	FOOD PROCESSOR	-	HOBART HCM62
K8	COMMERCIAL BLENDER	-	XTREME MX1000TXP
K9	TORTILLA PRESS	-	DUTCHESS DUT/TXM-15
K10	COMMERCIAL MIXER	-	DOYON BTF060 60QT
K11	3 COMPARTMENT SINK	-	ADVANCE TABCO 94-3-54 (3) COMPARTMENT SINK 62"
K12	EXHAUST HOOD	-	RE: MEP
K13	WORK TABLE	-	STEELTON 24"X48"
K14	WORK TABLE	-	STEELTON 24"X60"
K15	WORK TABLE	-	STEELTON 24"X72"
K16	WORK TABLE-BUTCHER	-	JOHN BOOS JNS02 24"X48" BUTCHER BLOCK WORK TABLE W/ GALVANIZED UNDERSHELF
K17	EQUIPMENT STAND	-	REGENCY 30"X48" 16-GUAGE STAINLESS STEEL EQUIPMENT STAND WITH GALVANIZED UNDERSHELF
K18	WORK TABLE	-	REGENCY 24"X120" 16-GUAGE STAINLESS STEEL COMMERCIAL OPEN BASE WORK TABLE W/ 4" BACKSPLASH
K19	HAND SINK	-	REGENCY 17"X15" WALL MOUNTED HAND SINK WITH GOOSENECK FAUCET
K20	3 COM. SINK FAUCET	-	ADVANCE TABCO K-126 10" SWING SPOUT SPLASH MOUNT FAUCET

# GENERAL NOTES:

- ALL PENETRATIONS IN TOP OR BOTTOM PLATES FOR PLUMBING OR ELECTRICAL RUNS TO BE SEALED. SEE ELECTRICAL PLANS FOR ADDITIONAL SPECIFICATIONS.
- ALL DIM. TO FINISH FACE OF WALL. DIM ON GRAY WALLS TO BE FIELD VERIFIED.
- BUILDING MUST HAVE A PANEL BOX (LOCATION AS PER CITY CODES)
- ALL SMOKE DETECTORS ARE TO BE PLACED AS PER CITY CODES.
- ALL LIGHT FIXTURES TO BE REVIEWED BY OWNER. RE: ELEC.
- RE: A7.0 FOR DOOR AND WINDOW SCHEDULES.
- RE: 2/A1.0 FOR PARTITION TYPES.
- ALL PARTITION TYPE "A" U.N.O.
- PROVIDE ROOM SIGNAGE. RE: 3/A9.0 FOR SIGNAGE SPECIFICATIONS.
- BULLNOSE EDGE AT ALL C.M.U. CORNERS FOR INTERIOR C.M.U. WALLS.
- ALL EXISTING INTERIOR WALLS TO BE PAINTED, ALL EXISTING SURFACE MOUNTED CONDUITS NOT NOTED TO BE DEMOLISHED TO BE PAINTED.
- ALL KITCHEN EQUIPMENT TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- REFER TO SHEET A5.3 FOR NEW AND EXISTING MASONRY WALLS FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS, SPECIFICATIONS, DIMENSIONS AND SITE CONDITIONS PRIOR TO BEGINNING ANY WORK AND REPORT ANY INCONSISTENCIES OR DISCREPANCIES TO THE ARCHITECT IMMEDIATELY FOR RESOLUTION DURING THE Q&A PERIOD OF THE BID PHASE, AND AT THE LATEST BEFORE BEGINNING CONSTRUCTION.
- THE DRAWINGS AND SPECIFICATIONS ARE CORRELATIVE AND HAVE EQUAL AUTHORITY AND PRIORITY. BASE DISAGREEMENTS IN THEMSELVES OR IN EACH OTHER ON THE MOST EXPENSIVE COMBINATION OF QUANTITY AND QUALITY OF WORK INDICATED.
- ITEMS SPECIFICALLY MENTIONED IN THE SPECIFICATIONS BUT NOT SHOWN ON THE DRAWINGS OR ITEMS SHOWN ON THE DRAWINGS BUT NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS SHALL BE PROVIDED AS IF THEY WERE BOTH SPECIFIED AND SHOWN IN THE DRAWINGS.
- ALL MINOR DETAILS OF WORK WHICH ARE NOT SPECIFICALLY SHOWN ON THE DRAWINGS, AS WELL AS SUCH ITEMS WHICH ARE NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS, BUT ARE NECESSARY FOR THE PROPER COMPLETION OF THE WORK, SHALL BE CONSIDERED AS INCIDENTAL AND AS BEING PART OF AND INCLUDED WITH THE WORK FOR WHICH PRICES ARE GIVEN IN THE PROPOSAL AND NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE PERFORMANCE THEREOF.
- ALL FLOOR PLAN DIMENSIONS ARE TO FINISH FACE OF WALL. DO NOT SCALE DRAWINGS. WHERE DIMENSIONS ARE NOTED "AS CLEAR" DIMENSION SHALL BE FROM FINISH TO FINISH.
- CASEWORK, PLUMBING FIXTURES, TOILET PARTITIONS, AND OTHER FIXTURES AND EQUIPMENT ARE DIMENSIONED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE.
- ALL SPACES WITH FLOOR DRAINS - SLOPE NOT TO EXCEED 2% (ONE - IN - FIFTY) IN ANY DIRECTION. COORDINATE ALL FLOOR DRAINS WITH PLUMBING DRAWINGS PRIOR TO ANY ROUGH-IN AND CONCRETE PLACEMENT.
- DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
- DIMENSIONS NOTED AS "CLEAR" REQUIRE SPECIFIC COORDINATION BETWEEN DISCIPLINES AND/OR MANUFACTURERS.
- PROVIDE CORNERGUARDS AT ALL INTERIOR GYP. BOARD WALL CORNERS AS SPECIFIED.
- ALL FLOOR FINISH CHANGES SHALL OCCUR AT THE CENTERLINE OF DOORS UNLESS NOTED OTHERWISE. ALL FLOOR FINISH ELEVATION CHANGES SHALL HAVE THRESHOLDS OR REDUCERS STRIPS AS SPECIFIED.
- OPEN EXTERIOR JOINTS AROUND DOOR AND WINDOW FRAMES, BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, BETWEEN WALL PANELS, AT WALL AND ROOF PENETRATIONS AND ANY OTHER BUILDING ENVELOPE PENETRATION SHALL BE SEALED, CAULKED AND/OR WEATHER-STRIPPED TO PREVENT OR LIMIT AIR, MOISTURE AND VAPOR PENETRATION. USE ONLY SPECIFIED MANUFACTURER APPROVED MATERIALS AS DIRECTED BY MATERIAL MANUFACTURERS.

- EFFECTIVELY ISOLATE ALL DISSIMILAR METALS/MATERIALS TO PREVENT CORROSION BY ELECTROLYTIC ACTION OR OTHER CAUSES AS RECOMMENDED BY THE RESPECTIVE PRODUCT MANUFACTURER OR SUPPLIER.
- PROPERLY TERMINATE ALL MATERIALS WITH APPROPRIATE TRIM, FLASHING, SEALANT, EXPANSION CONTROL, ETC. AS INDICATED ON DRAWINGS OR AS REQUIRED FOR PROPER INSTALLATION AS ACCEPTED BY STANDARD BUILDING PRACTICE.
- COORDINATE AND PROVIDE APPROPRIATE BLOCKING IN WALLS AS REQUIRED TO SECURE ALL EQUIPMENT, HANDRAILS, CASEWORK, ETC. AS REQUIRED. WOOD BLOCKING SHALL MEET CODE REQUIREMENTS.
- SINGLE USER TOILET ROOMS MAY BE CONFIGURED IN ACCORDANCE WITH TECHNICAL MEMORANDUM TM 03-02 ISSUED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS. ARCHITECTURAL BARRIERS DIVISION ALLOWING THE DOOR SWING TO ENCRACH INTO THE 5 FOOT DIAMETER TURNING CIRCLE SPACE SO LONG AS A CLEAR FLOOR SPACE OF 30" X 48" IS PROVIDED.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING TYPES AND HEIGHTS. COORDINATE ALL LIGHT FIXTURES, MECHANICAL DIFFUSERS, NOTIFICATION DEVICES, ETC. WITH MEP DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES FOR RESOLUTION.
- COORDINATE HOUSEKEEPING PAD DIMENSIONS AND LOCATIONS WITH EQUIPMENT TO BE INSTALLED. ALL HOUSEKEEPING PADS SHALL BE A MINIMUM OF 4" TALL REINF. W/ #3 BARS AT 15" O.C.B.W. AND PROVIDE 1" (45-DEGREE) CHAMFERED EDGES UNLESS NOTED OTHERWISE.
- ALL INTERIOR DOORS IN STUD WALL ASSEMBLIES SHALL BE SET A MINIMUM OF 4" OFF THE PERPENDICULAR ADJACENT WALL ON THE HINGE SIDE OF THE DOOR UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS FOR RESOLUTION.
- SET ALL EXTERIOR DOOR THRESHOLDS IN FULL BED OF MANUFACTURER APPROVED SEALANT IN ACCORDANCE WITH MANUFACTURER INSTALLATION INSTRUCTIONS.
- REFER A3.0 AND A8.0 SHEET FOR MOUNTING HEIGHTS OF FIXTURES AND EQUIPMENT AS SCHEDULED. REFER TO THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS, ARCHITECTURAL BARRIERS DIVISION TEXAS ACCESSIBILITY STANDARDS FOR ALL MOUNTING HEIGHTS NOT LISTED AND FOR FURTHER CLARIFICATION AS NEEDED.

BUILDING C GROSS AREA  
 EXISTING KITCHEN AREA: 1,240 SQ. FT.  
 EXISTING DINING AREA: 2,637 SQ. FT.  
 TOTAL (BASE BID): 3,877 SQ. FT.



4 ENLARGED PLAN - STONE  
 1 1/2" = 1'-0"

1 FLOOR PLAN - BLDG C  
 3/16" = 1'-0"

2 PARTITION TYPES  
 3/16" = 1'-0"



MILNET  
 ARCHITECTURAL  
 SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
 RENOVATIONS BID #18-19-055  
 PSJA ISD  
 SAN JUAN, TEXAS

PROJECT NUMBER  
 219006

DATE  
 AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER  
 A1.0





MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

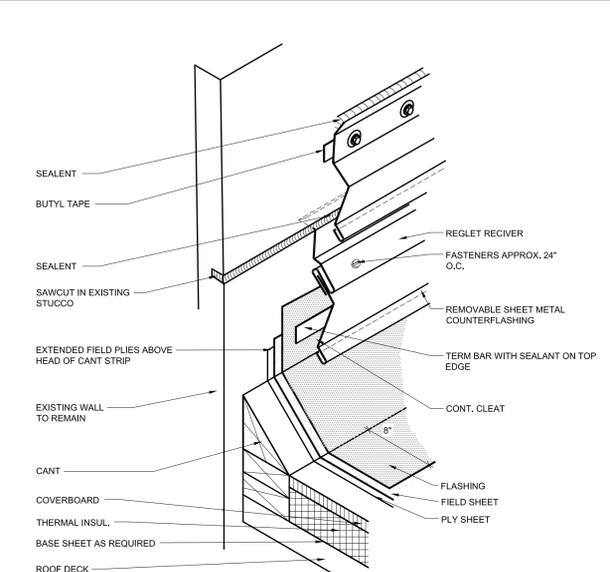
DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

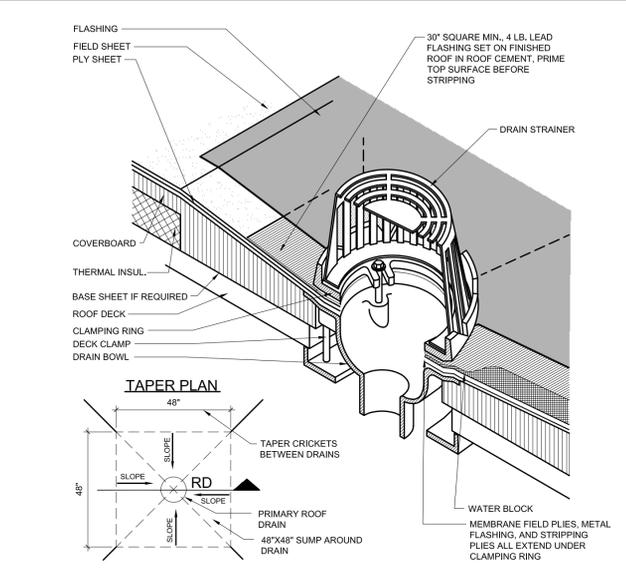
SHEET NUMBER

R2.01

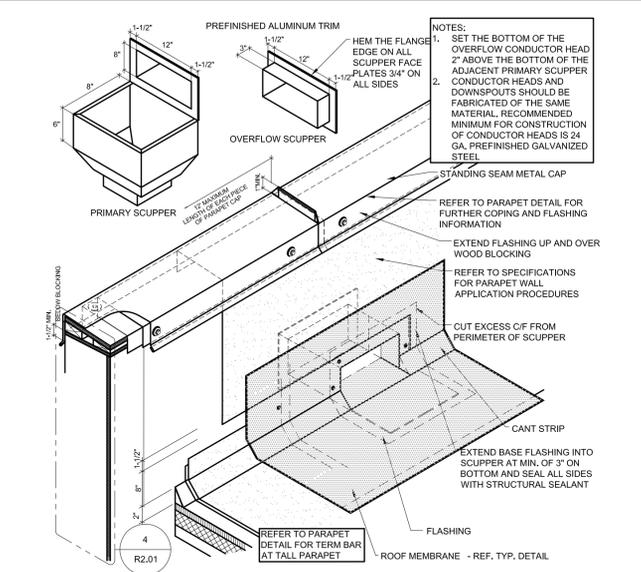
ROOF DETAILS



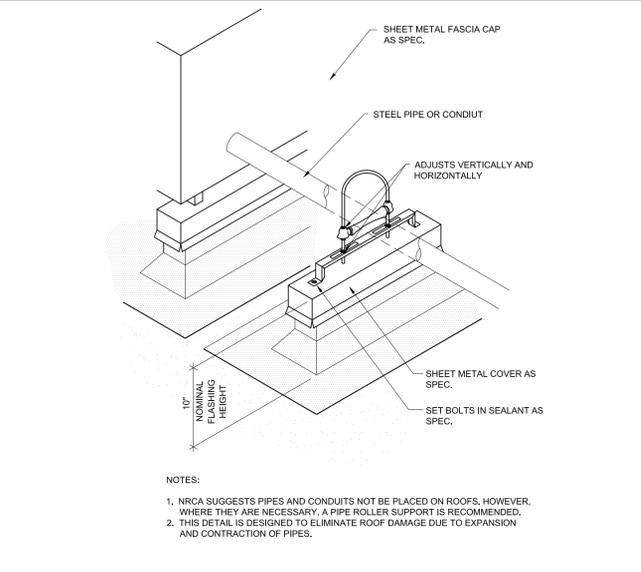
9 REGLET RECIVER AT RISEWALL  
NOT TO SCALE



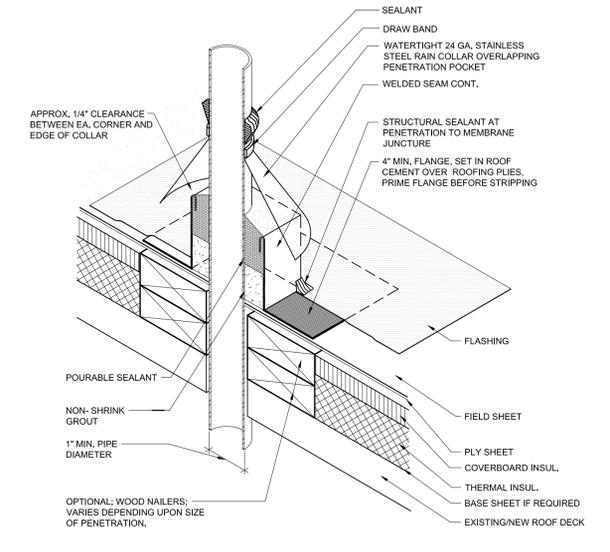
10 PRIMARY ROOF DRAIN  
NOT TO SCALE



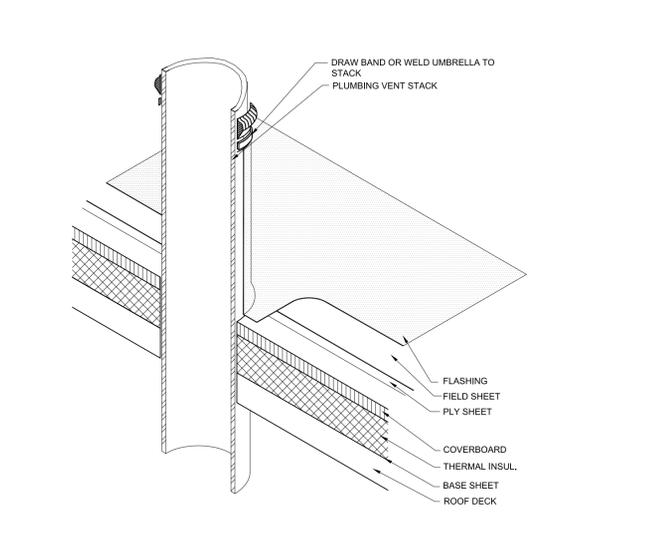
11 PRIMARY SCUPPER  
NOT TO SCALE



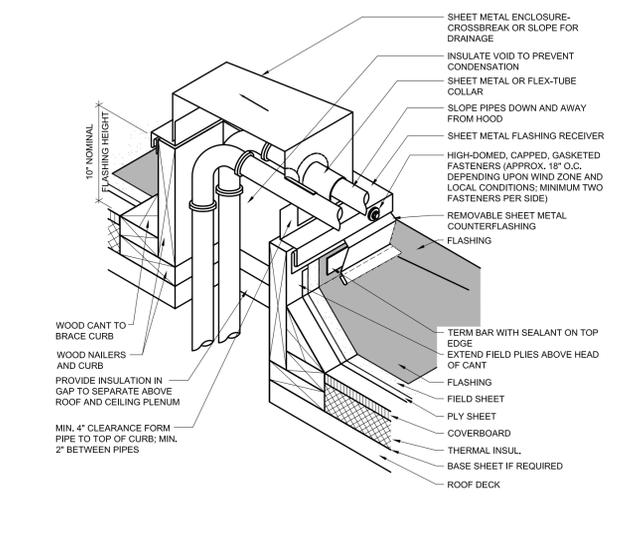
12 PIPE SUPPORT  
NOT TO SCALE



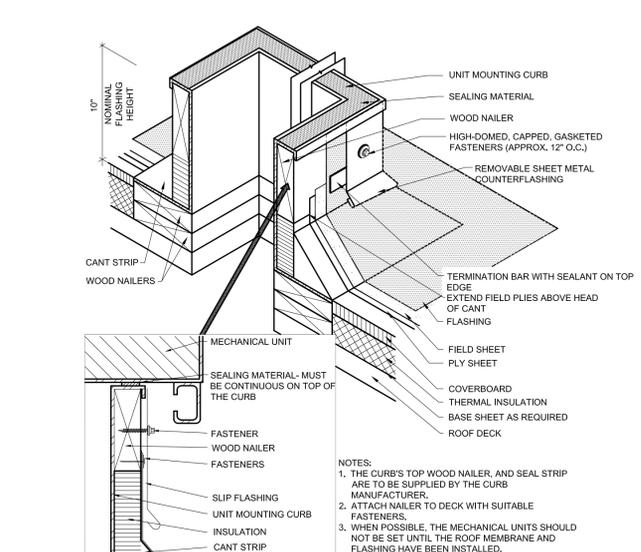
6 PITCHPAN  
NOT TO SCALE



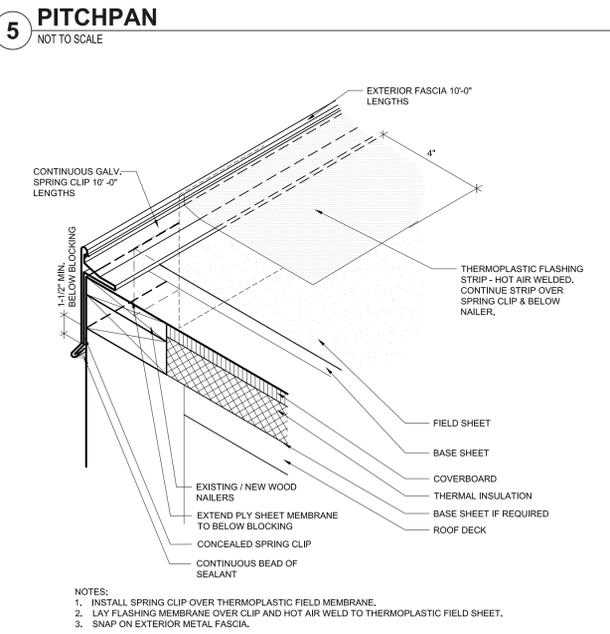
7 PIPE BOX  
NOT TO SCALE



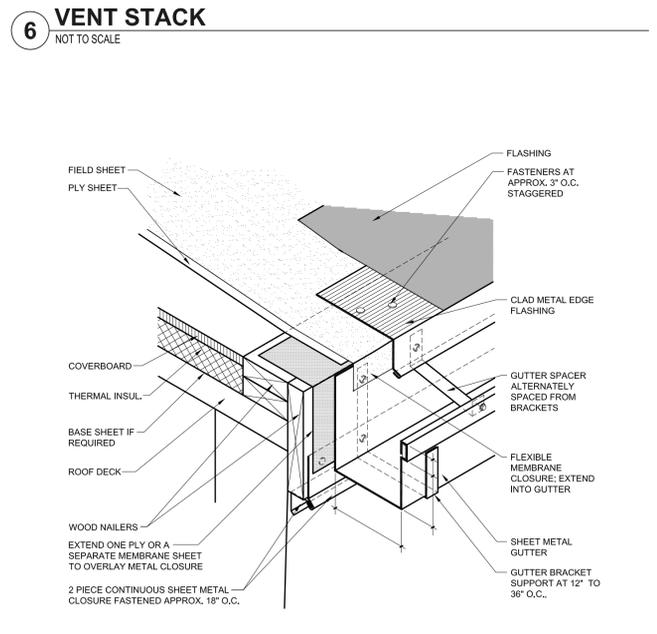
8 MECHANICAL CURB  
NOT TO SCALE



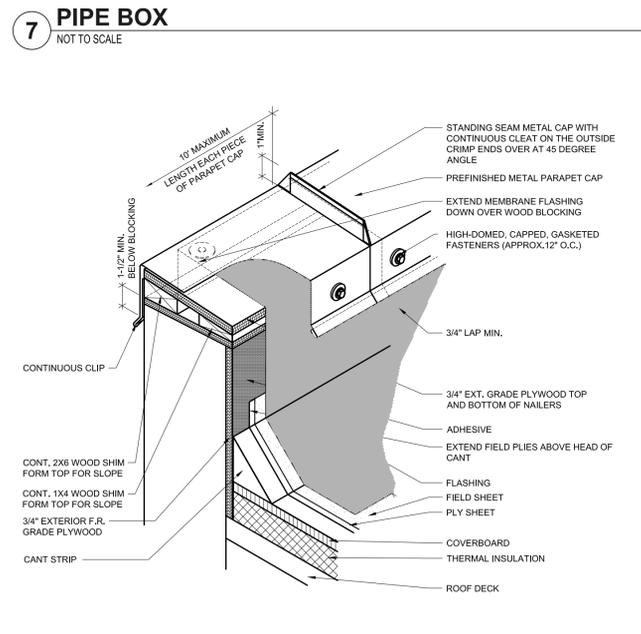
10 PRIMARY ROOF DRAIN  
NOT TO SCALE



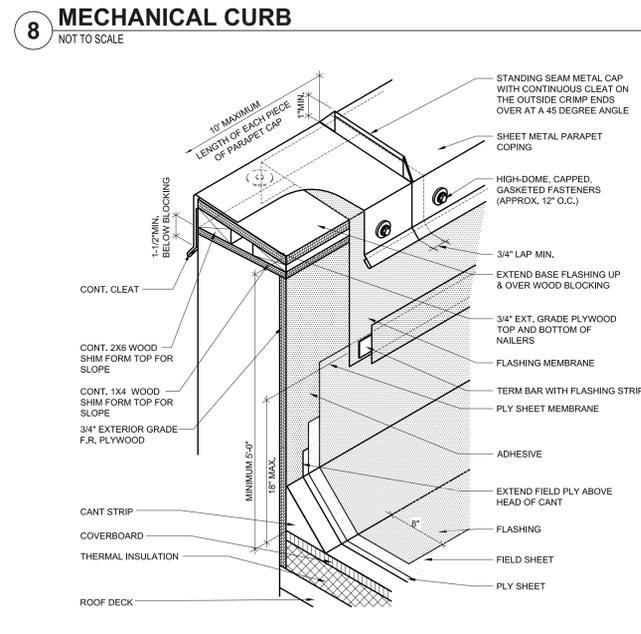
1 METAL EDGE  
NOT TO SCALE



2 METAL EDGE GUTTER  
NOT TO SCALE



3 LOW PARAPET  
NOT TO SCALE



4 TALL PARAPET  
NOT TO SCALE



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 19, 2019

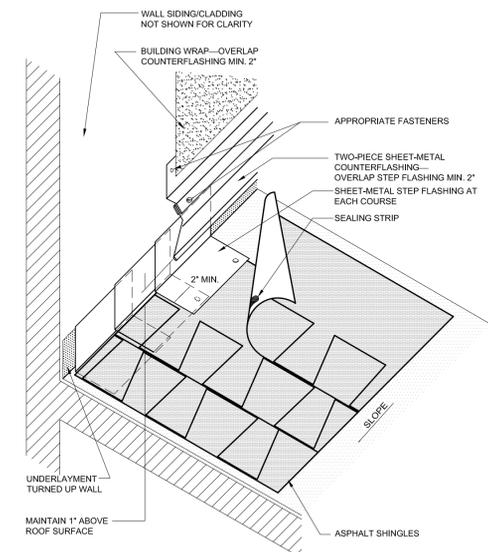
ISSUE FOR BIDS

ROOF DETAILS

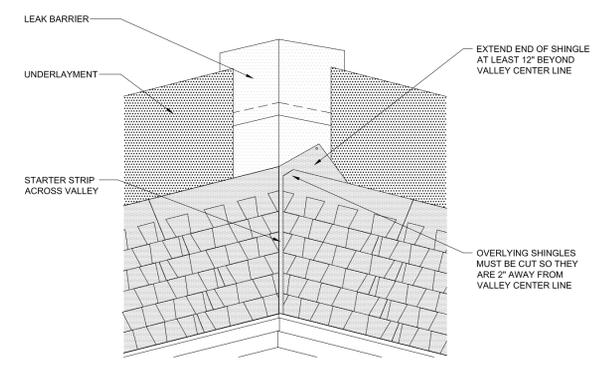
SHEET NUMBER

R2.02

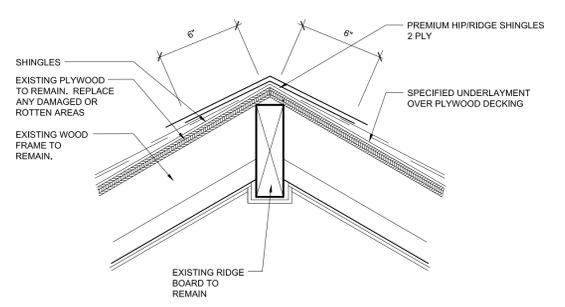
ROOF DETAILS



5 SIDEWALL FLASHING DETAIL  
NOT TO SCALE



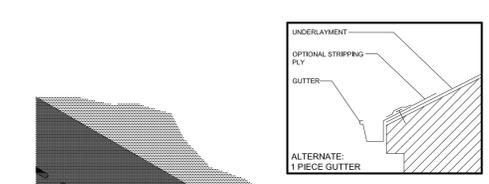
6 CLOSED VALLEY FLASHING DETAIL  
NOT TO SCALE



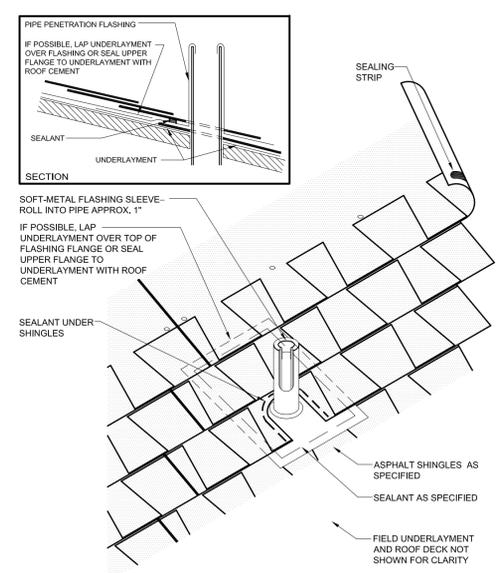
7 NON VENTED RIDGE DETAIL  
NOT TO SCALE



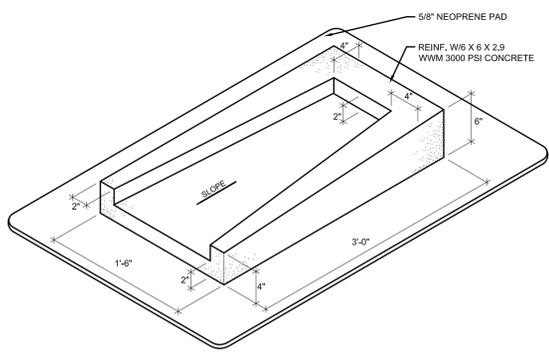
1 SHINGLES - EAVE AND RAKE FLASHING  
NOT TO SCALE



2 SHINGLES - METAL EDGE GUTTER  
NOT TO SCALE



3 SHINGLES - VENT STACK  
NOT TO SCALE



4 SPLASHBLOCK  
NOT TO SCALE



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

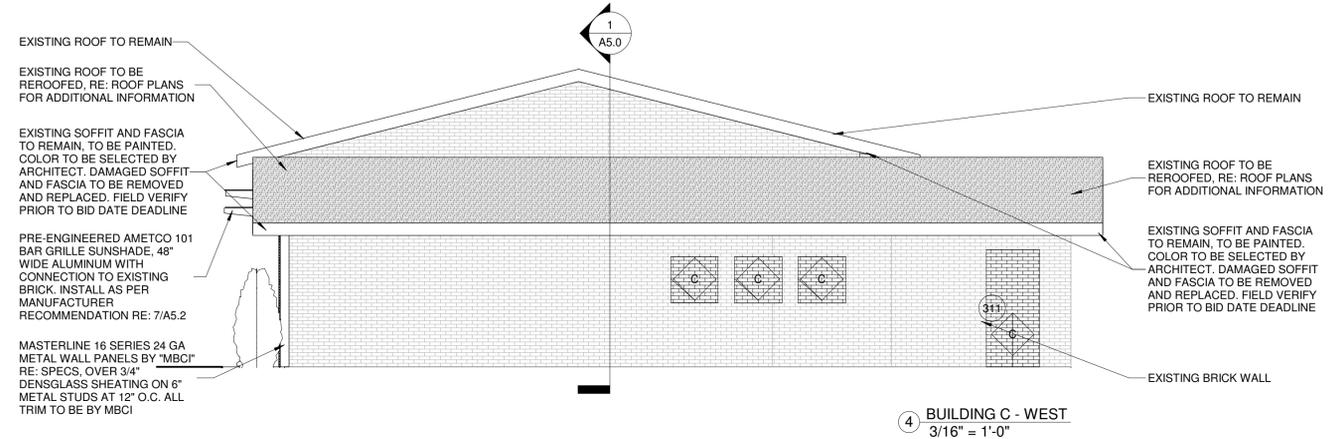
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

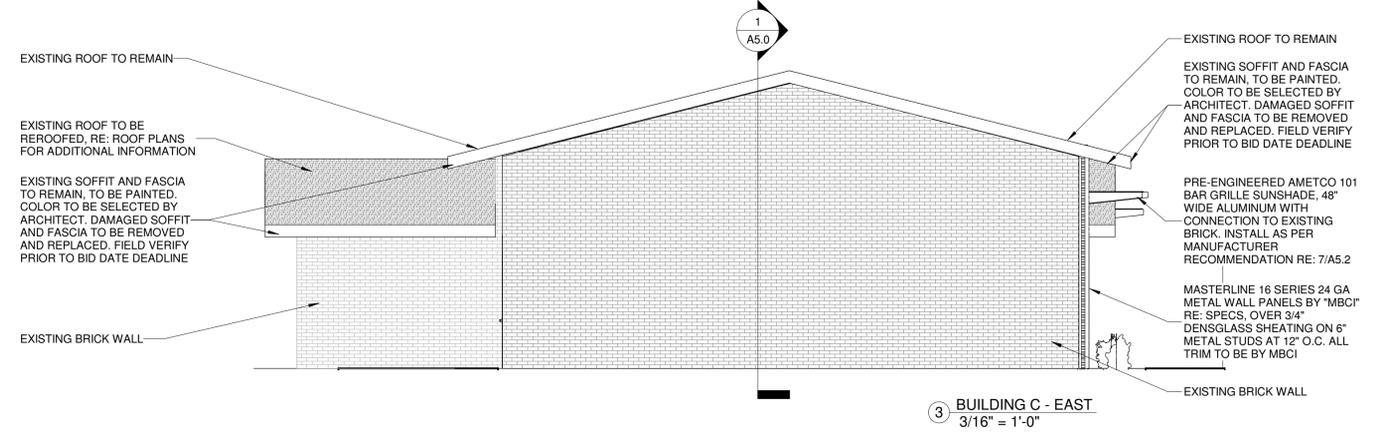
ISSUE FOR BIDS

SHEET NUMBER

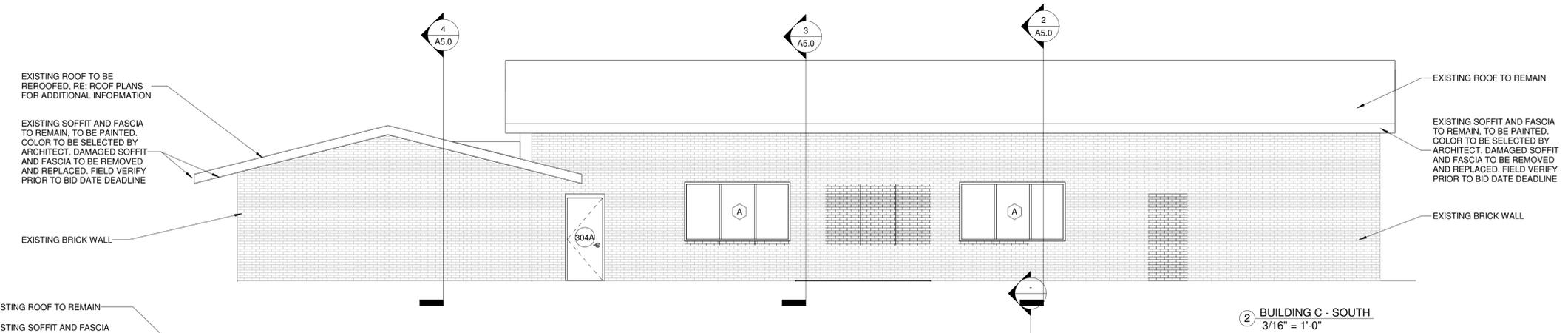
A2.0



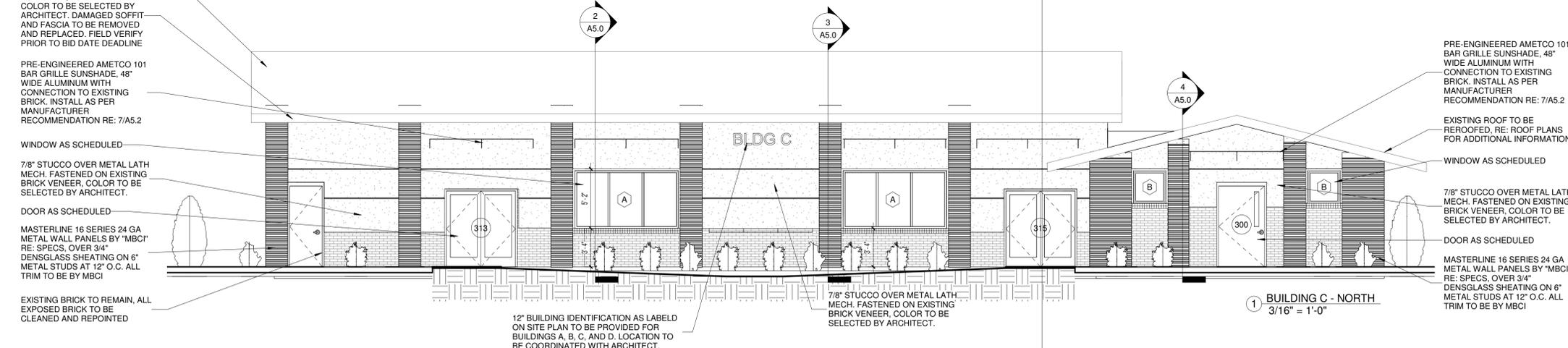
4 BUILDING C - WEST  
3/16" = 1'-0"



3 BUILDING C - EAST  
3/16" = 1'-0"



2 BUILDING C - SOUTH  
3/16" = 1'-0"



1 BUILDING C - NORTH  
3/16" = 1'-0"

12" BUILDING IDENTIFICATION AS LABEL  
ON SITE PLAN TO BE PROVIDED FOR  
BUILDINGS A, B, C, AND D. LOCATION TO  
BE COORDINATED WITH ARCHITECT.

# TOILET ACCESSORIES LEGEND

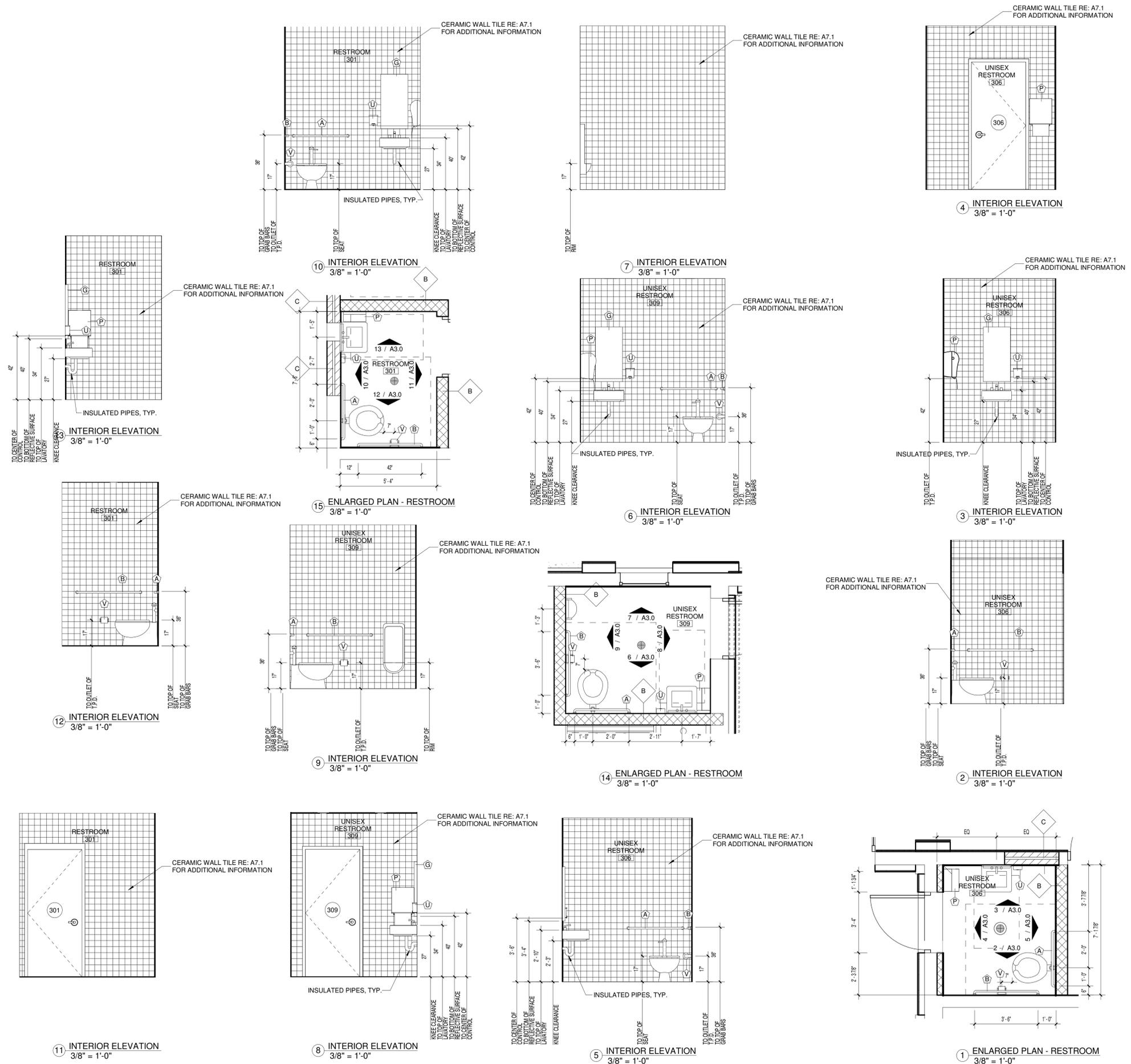
DESCRIPTION	MODEL NO.	NOTES
A STAINLESS STL GRAB BAR 36" LONG	B-6206-36	1
B STAINLESS STL GRAB BAR 42" LONG	B-6206-42	1
C NOT USED		
D NOT USED		
E NOT USED		
F NOT USED		
G FRAMED 1/4" PLATE GLASS MIRROR 18"x36"	B-290-1836	2
H NOT USED		
I STAINLESS STL MOP & BROOM HOLDER 24" LONG	B-223X24	
J NOT USED		
K NOT USED		
L NOT USED		
M NOT USED		
N NOT USED		
P RECESSED PAPER TOWEL DISPENSER	B-369	9 & 10
Q NOT USED		
R NOT USED		
S NOT USED	B-204-2	
T NOT USED		
U BOBRICK CONTURA SERIES SURFACE MOUNTED SOAP DISPENSER	B-4112	9 & 10
V BOBRICK CLASSIC SERIES SURFACE-MOUNTED TOILET TISSUE DISPENSER FOR TWO ROLLS	B-265	

# TOILET ACCESSORIES NOTES

- PROVIDE ALL NECESSARY ANCHORING PLATES AND FASTENERS.
- PROVIDE EXPANSION SHIELDS FOR CMU PTN OR ANCHORING PLATE AND TOGGLE BOLTS AT GYP BD WALL CONDITIONS FOR SECURE ATTACHMENT.
- COORDINATE WITH WALL PTN CONSTRUCTION FOR RECESSED ACCESSORY.
- COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURERS STANDARD COLORS.
- COORDINATE ELECTRICAL REQUIREMENTS AND ANCHORING.
- LENGTH OF ROD SHALL BE FIELD VERIFIED AND COORDINATED BY CONTRACTOR.
- QUANTITY OF HOOKS AND SIZE OF CURTAIN TO BE PROVIDED AS REQUIRED TO FIT OPENING.
- COORDINATE LOCATION WITH OTHER ACCESSORIES ON WALL.
- UNIT SHALL BE FURNISHED BY OWNER AND INSTALLED BY THE CONTRACTOR AS PART OF BASE BID. PROVIDE THREE WEEKS NOTICE TO OWNER AND COORDINATE DELIVERY AND STORAGE UNTIL INSTALLED. SEE SPEC SECTION 10155
  - SOAP DISPENSERS
  - TOWEL DISPENSERS
  - TISSUE DISPENSERS
  - SOAP DISHES
- RE: A3.0 FOR MOUNTING HEIGHTS

# GENERAL NOTES

- GENERAL CONTRACTOR SHALL VISIT SITE AND FAMILIARIZE WITH ALL EXISTING CONDITIONS AND CONTRACT DOCUMENTS. CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES OR IRREGULARITIES THAT MAY EXIST PRIOR TO SUBMITTING A BID.
- GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS AND CONSTRUCTION MATERIAL OFF OF SITE AND DISPOSE ON APPROPRIATE DUMPSITE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, QUANTITIES, ETC. PRIOR TO BIDDING.
- PAINT ALL (4) WALLS WHERE NEW CONSTRUCTION HAS OCCURRED
- PROVIDE A 24X24 CEILING ACCESS PANEL AT ALL RESTROOMS.
- PROVIDE A FLOOR DRAIN AT EVERY RESTROOM. RE: MEP FOR ADDITIONAL INFORMATION. IF PLUMBING DRAWINGS DO NOT INDICATE CONNECTION TO SEWER, CONTRACTOR TO CONNECT TO NEAREST NEW OR EXISTING PLUMBING SEWER LINE.
- PROVIDE A STAINLESS STL. MOP & BROOM HOLDER 24" LONG. AT RM. 303
- RE: A7.1 FOR WALL TILE ELEVATIONS AND LAYOUT.



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A3.0



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



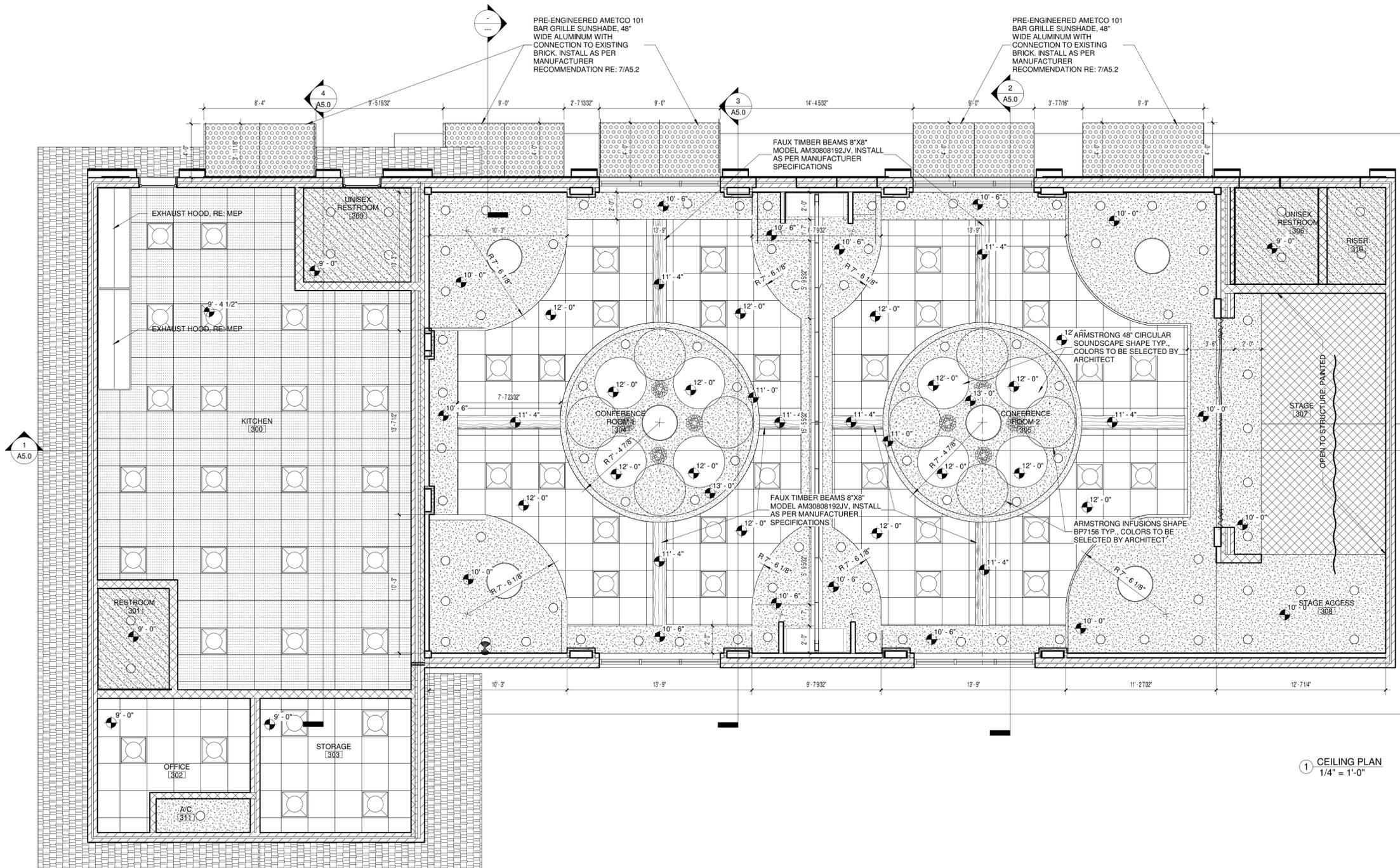
### RCP GENERAL NOTES

1. ALL OUTLETS SHALL BE @ 15" A.F.F. UNLESS NOTED OTHERWISE. ALSO, OUTLETS SHALL BE PLACED 12" MAX. DISTANCE ALONG INSIDE WALLS.
2. GROUND FAULT INTERRUPTERS (GFI) ARE REQUIRED ON CONVENIENCE OUTLETS IN RESTROOMS & KITCHEN.
3. WEATHER PROOF (W.P.) CONVENIENCE OUTLETS ARE REQUIRED OUTSIDE.
4. ALL CLG. 9'-0" U.N.G. NOTED ON PLANS.
5. RE: MEP DWGS. FOR EXACT LIGHTING COUNT AND LOCATIONS.
6. PROVIDE A 24X24 ACCESS PANEL @ RESTROOMS.
7. PROVIDE 24X24 SUSPENDED ACOUSTICAL CEILING UNLESS NOTED OTHERWISE.
8. ALL EXPOSED DUCTS AND FIRE SPRINKLER LINES TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT.
9. ALL CEILING AND SOFFIT HEIGHTS ARE GIVEN ABOVE FINISHED FLOOR ELEVATION (EL. 0'-0").
10. GENERALLY ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. COORDINATE WITH MEP PLANS FOR ADDITIONAL INFORMATION.
11. IF SPRINKLER SYSTEM IS REQUIRED OR IN PLACE, SOME OR ALL SPRINKLERS MAY NOT BE SHOWN ON THIS PLAN. COORDINATE WITH MEP DRAWINGS FOR ADDITIONAL INFORMATION. SPRINKLER HEADS TO BE CENTERED ON CEILING TILE, TYP.
12. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.
13. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY UNLESS NOTED OTHERWISE.
14. LIGHT FIXTURES ARE SHOWN FOR DIMENSIONAL PURPOSES ONLY COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
15. IF PROJECT INCLUDED FIRE RATED CEILING, LIGHT FIXTURES LOCATED IN RATED CEILING ASSEMBLIES ARE TO BE TENTED OR OTHERWISE RATED TO MATCH THE CEILING.

### RCP LEGEND

- SUSPENDED ACOUSTICAL CEILING  
ACOUSTICAL UNITS & SUSPENSION SYSTEM(S)  
2'-0" X 2'-0" SUSPENDED ACOUSTICAL CEILING SYSTEM.
- SUSPENDED ACOUSTICAL CEILING  
ACOUSTICAL UNITS & SUSPENSION SYSTEM(S)  
2'-0" X 2'-0" SUSPENDED ACOUSTICAL CEILING SYSTEM. CERAMA GUARD (MOISTURE RESISTANT).
- GYPSUM BOARD ASSEMBLIES  
5/8" GYPSUM BOARD, (TAPE, FLOAT, TEXTURE & PAINT) ON DRYWALL GRID SYSTEM SUSPENDED FROM STRUCTURE.
- GYPSUM BOARD ASSEMBLIES  
5/8" MOISTURE RESISTANT GYPSUM BOARD, (TAPE, FLOAT, TEXTURE & PAINT) ON DRYWALL GRID SYSTEM SUSPENDED FROM STRUCTURE.
- CEILING ASSEMBLIES  
ARMSTRONG INFUSIONS SHAPES BP7156, COLOR TO BE SELECTED BY ARCHITECT. INSTALL AS PER MANUFACTURE SPECIFICATIONS.
- LED LIGHT FIXTURE  
PENDANT LIGHT, RE: ELECTRICAL
- SEMI-FLUSH LED LIGHT FIXTURE  
14" CEILING MOUNTED, RE: ELECTRICAL
- RECESSED LIGHT FIXTURE  
8" RECESSED LIGHT FIXTURE, RE: ELECTRICAL
- LED LIGHT FIXTURE  
2X2 TROFFER LIGHT, RE: ELECTRICAL

1 CEILING PLAN  
1/4" = 1'-0"



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

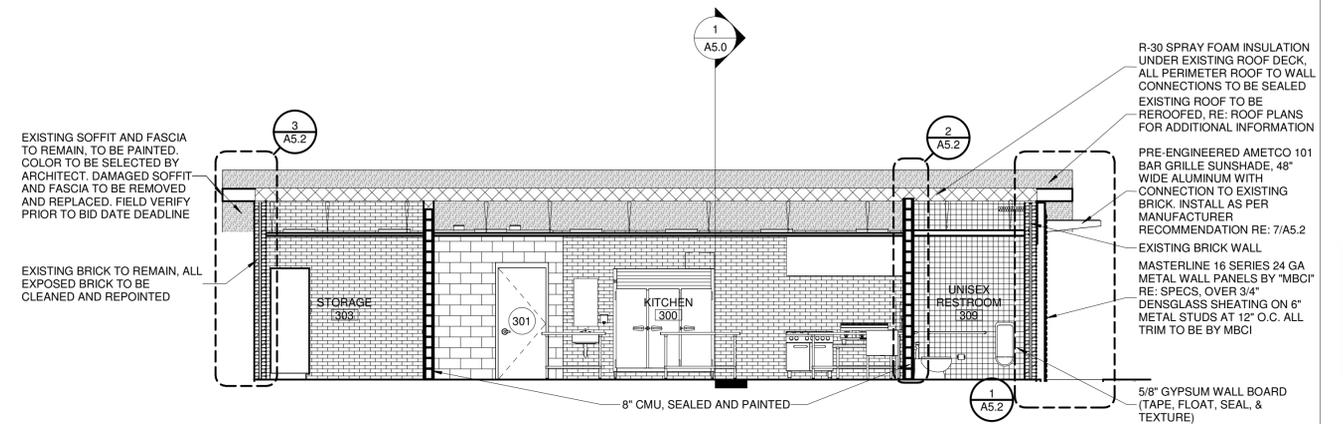
SHEET NUMBER

A4.0

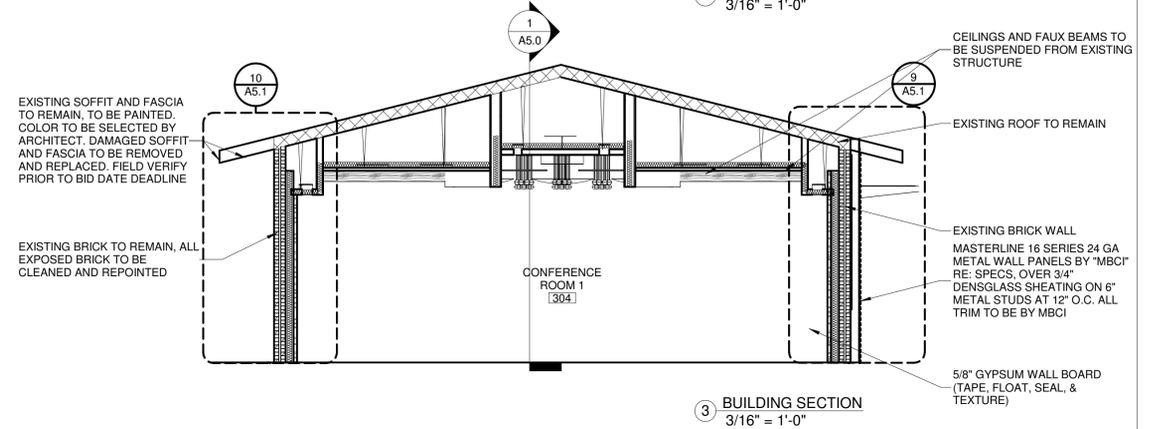


MILNET  
ARCHITECTURAL  
SERVICES

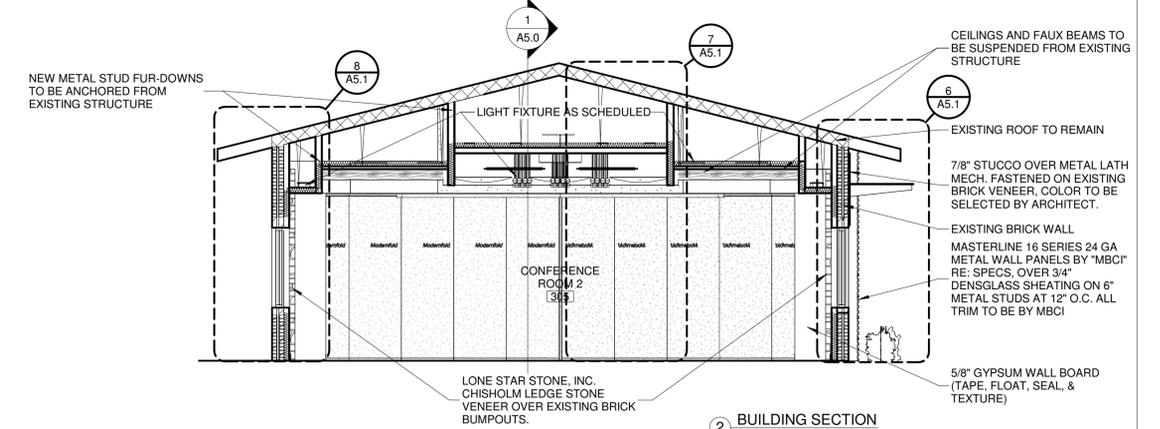
AMERICAN INSTITUTE OF ARCHITECTS



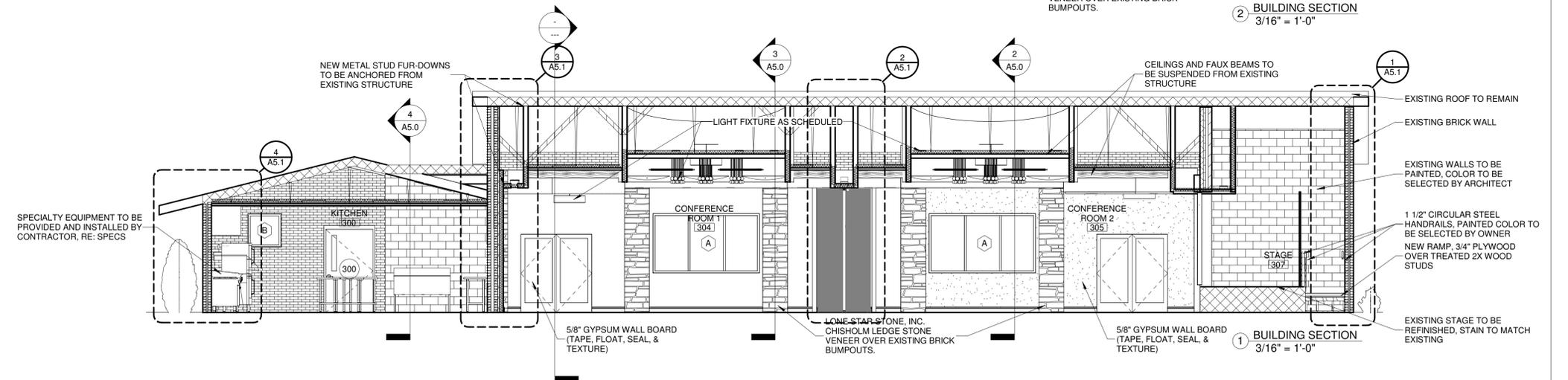
4 BUILDING SECTION  
3/16" = 1'-0"



3 BUILDING SECTION  
3/16" = 1'-0"



2 BUILDING SECTION  
3/16" = 1'-0"



1 BUILDING SECTION  
3/16" = 1'-0"

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A5.0



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

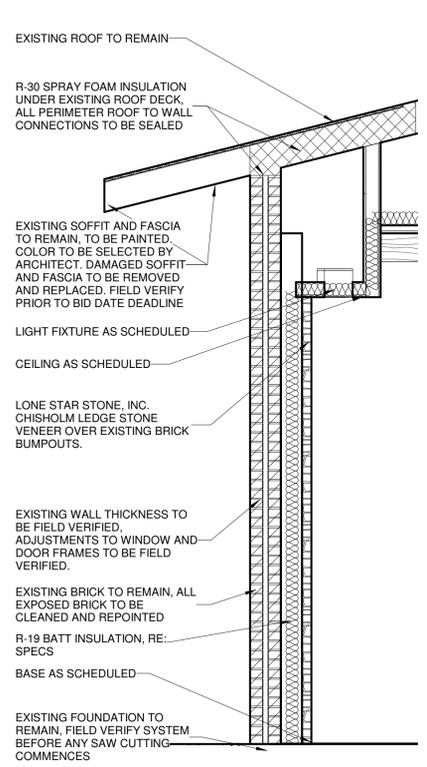
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

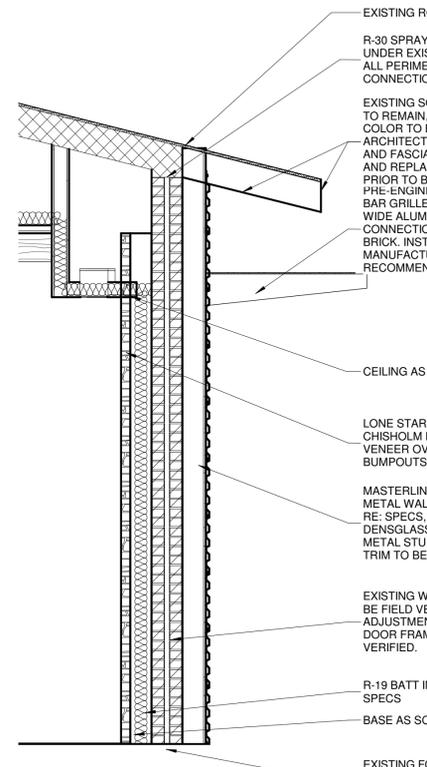
ISSUE FOR BIDS

SHEET NUMBER

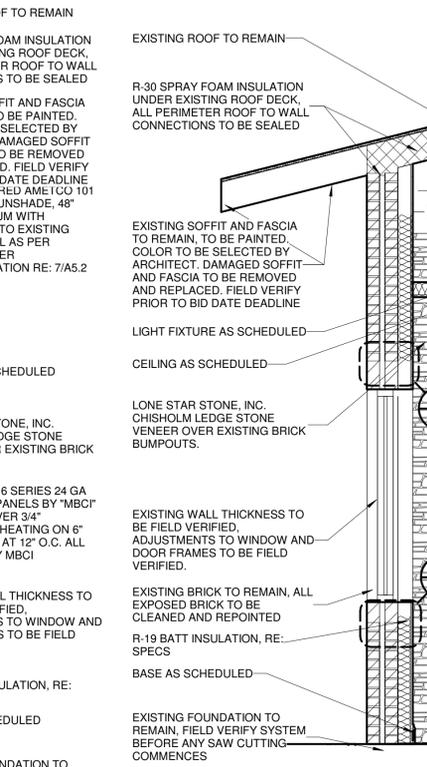
A5.1



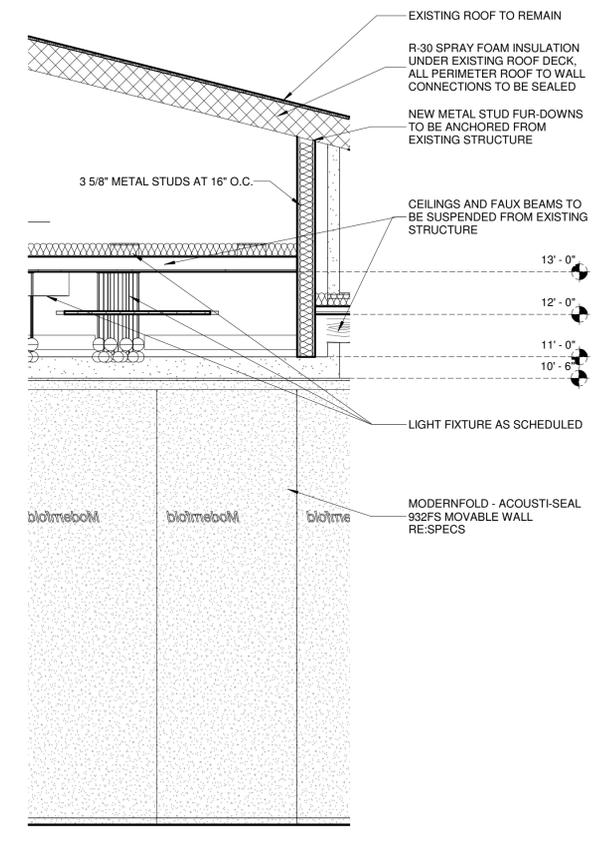
10 WALL SECTION  
1/2" = 1'-0"



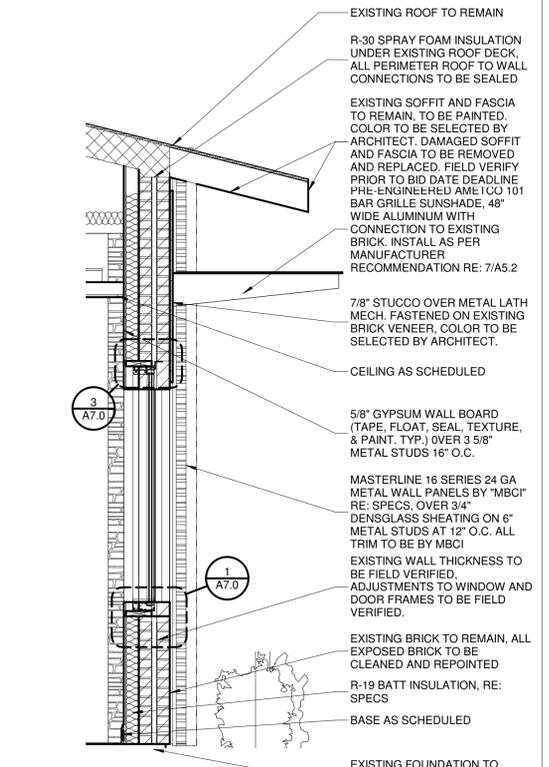
9 WALL SECTION  
1/2" = 1'-0"



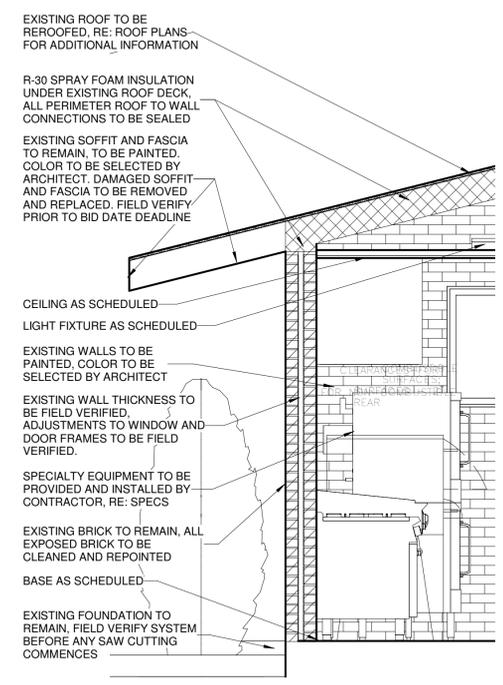
8 WALL SECTION  
1/2" = 1'-0"



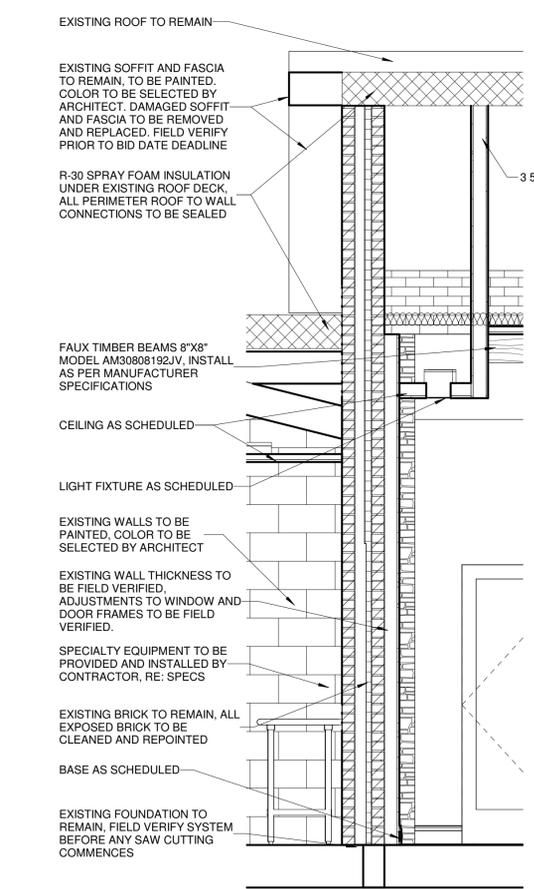
7 WALL SECTION  
1/2" = 1'-0"



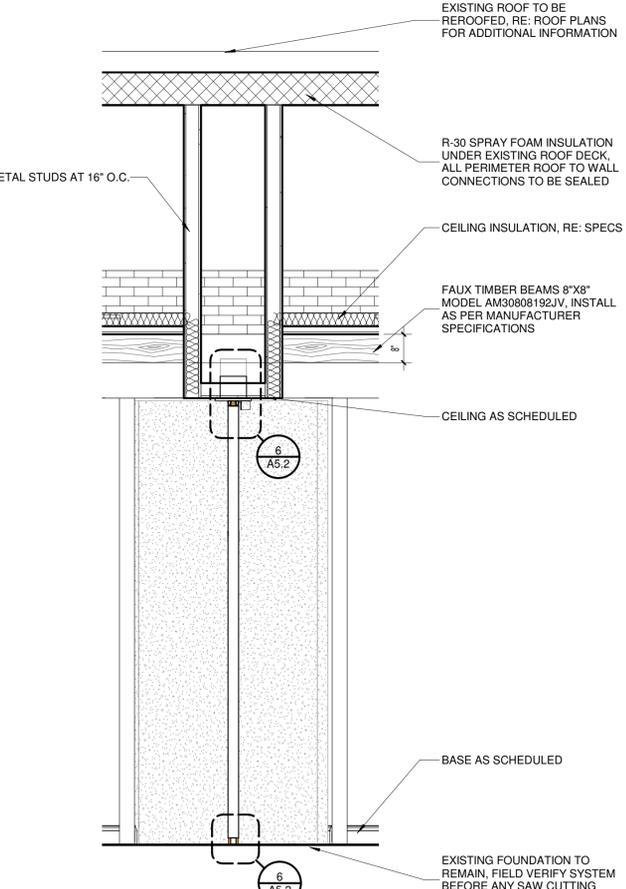
6 WALL SECTION  
1/2" = 1'-0"



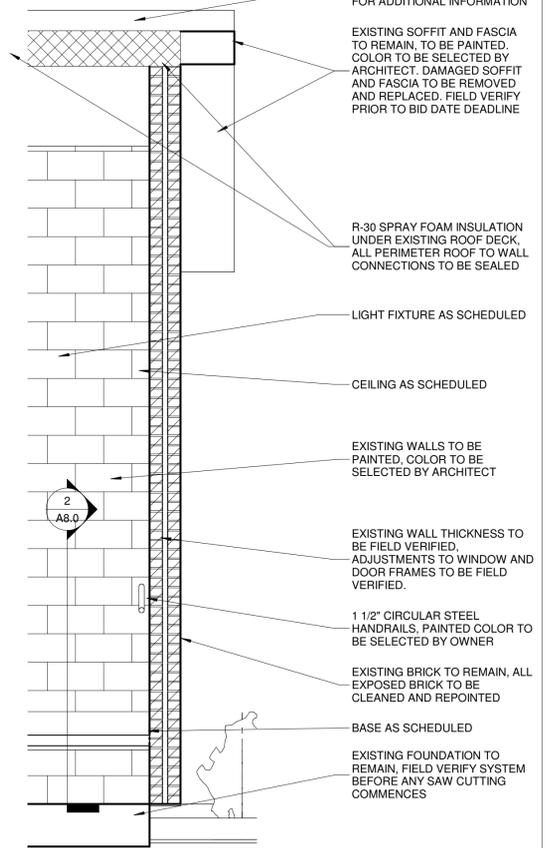
4 WALL SECTION  
1/2" = 1'-0"



3 WALL SECTION  
1/2" = 1'-0"



2 WALL SECTION  
1/2" = 1'-0"



1 WALL SECTION  
1/2" = 1'-0"



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

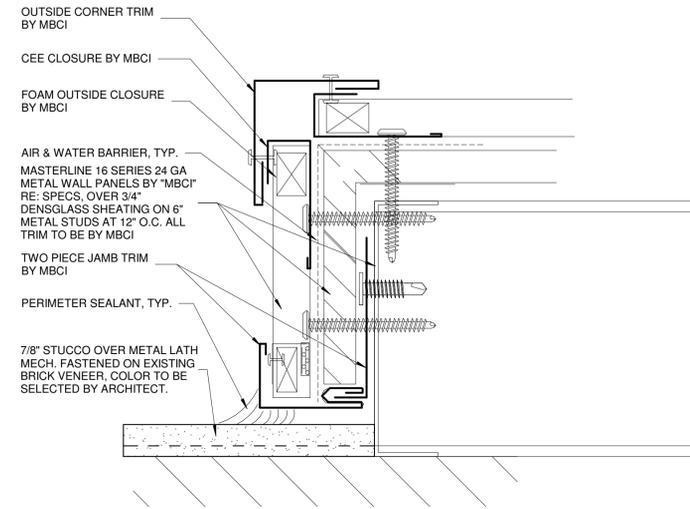
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

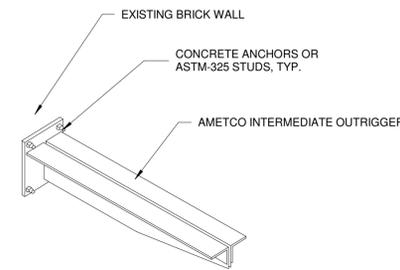
ISSUE FOR BIDS

SHEET NUMBER

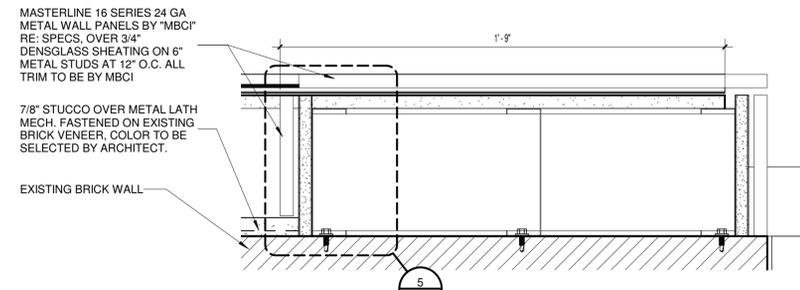
A5.2



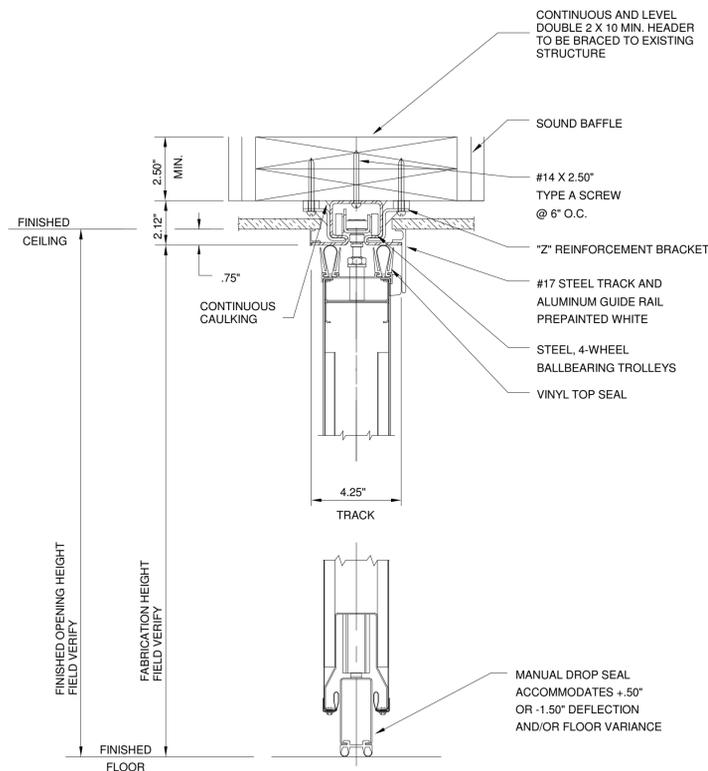
5 WALL SECTION DETAIL  
6" = 1'-0"



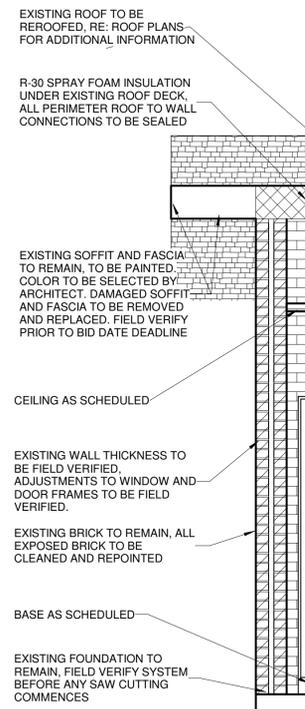
7 SUNSHADE HARDWARE  
N.T.S.



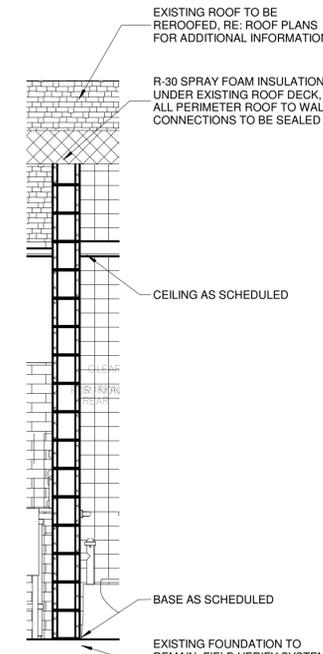
4 ENLARGED PLAN - METAL PANELS  
3" = 1'-0"



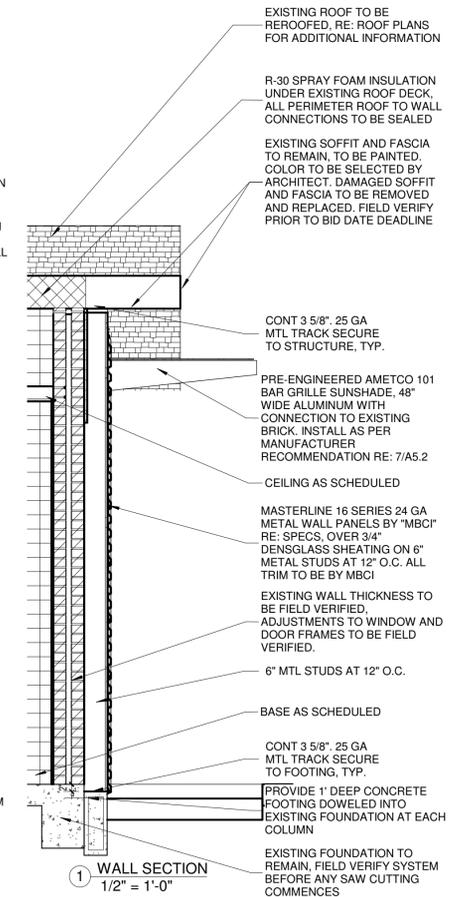
6 DETAIL  
3" = 1'-0"



3 WALL SECTION  
1/2" = 1'-0"



2 WALL SECTION  
1/2" = 1'-0"



1 WALL SECTION  
1/2" = 1'-0"

EXISTING ROOF TO BE REROOFED, RE: ROOF PLANS FOR ADDITIONAL INFORMATION

EXISTING ROOF TO BE REROOFED, RE: ROOF PLANS FOR ADDITIONAL INFORMATION

R-30 SPRAY FOAM INSULATION UNDER EXISTING ROOF DECK, ALL PERIMETER ROOF TO WALL CONNECTIONS TO BE SEALED

EXISTING SOFFIT AND FASCIA TO REMAIN, TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT. DAMAGED SOFFIT AND FASCIA TO BE REMOVED AND REPLACED. FIELD VERIFY PRIOR TO BID DATE DEADLINE

CONT 3 5/8" 25 GA MTL TRACK SECURE TO STRUCTURE, TYP.

PRE-ENGINEERED AMETCO 101 BAR GRILLE SUNSHADE, 48" WIDE ALUMINUM WITH CONNECTION TO EXISTING BRICK. INSTALL AS PER MANUFACTURER RECOMMENDATION RE: 7/A5.2

CEILING AS SCHEDULED

MASTERLINE 16 SERIES 24 GA METAL WALL PANELS BY "MBCI" RE: SPECS, OVER 3/4" DENSGLOSS SHEATING ON 6" METAL STUDS AT 12" O.C. ALL TRIM TO BE BY MBCI

EXISTING WALL THICKNESS TO BE FIELD VERIFIED, ADJUSTMENTS TO WINDOW AND DOOR FRAMES TO BE FIELD VERIFIED.

6" MTL STUDS AT 12" O.C.

BASE AS SCHEDULED

CONT 3 5/8" 25 GA MTL TRACK SECURE TO FOOTING, TYP.

PROVIDE 1' DEEP CONCRETE FOOTING DOWELED INTO EXISTING FOUNDATION AT EACH COLUMN

EXISTING FOUNDATION TO REMAIN, FIELD VERIFY SYSTEM BEFORE ANY SAW CUTTING COMMENCES

EXISTING ROOF TO BE REROOFED, RE: ROOF PLANS FOR ADDITIONAL INFORMATION

R-30 SPRAY FOAM INSULATION UNDER EXISTING ROOF DECK, ALL PERIMETER ROOF TO WALL CONNECTIONS TO BE SEALED

EXISTING SOFFIT AND FASCIA TO REMAIN, TO BE PAINTED, COLOR TO BE SELECTED BY ARCHITECT. DAMAGED SOFFIT AND FASCIA TO BE REMOVED AND REPLACED. FIELD VERIFY PRIOR TO BID DATE DEADLINE

CEILING AS SCHEDULED

EXISTING WALL THICKNESS TO BE FIELD VERIFIED, ADJUSTMENTS TO WINDOW AND DOOR FRAMES TO BE FIELD VERIFIED.

EXISTING BRICK TO REMAIN, ALL EXPOSED BRICK TO BE CLEANED AND REPOINTED

BASE AS SCHEDULED

EXISTING FOUNDATION TO REMAIN, FIELD VERIFY SYSTEM BEFORE ANY SAW CUTTING COMMENCES

EXISTING ROOF TO BE REROOFED, RE: ROOF PLANS FOR ADDITIONAL INFORMATION

R-30 SPRAY FOAM INSULATION UNDER EXISTING ROOF DECK, ALL PERIMETER ROOF TO WALL CONNECTIONS TO BE SEALED

CEILING AS SCHEDULED

EXISTING WALL THICKNESS TO BE FIELD VERIFIED, ADJUSTMENTS TO WINDOW AND DOOR FRAMES TO BE FIELD VERIFIED.

EXISTING BRICK TO REMAIN, ALL EXPOSED BRICK TO BE CLEANED AND REPOINTED

BASE AS SCHEDULED

EXISTING FOUNDATION TO REMAIN, FIELD VERIFY SYSTEM BEFORE ANY SAW CUTTING COMMENCES

EXISTING ROOF TO BE REROOFED, RE: ROOF PLANS FOR ADDITIONAL INFORMATION

R-30 SPRAY FOAM INSULATION UNDER EXISTING ROOF DECK, ALL PERIMETER ROOF TO WALL CONNECTIONS TO BE SEALED

CEILING AS SCHEDULED

EXISTING WALL THICKNESS TO BE FIELD VERIFIED, ADJUSTMENTS TO WINDOW AND DOOR FRAMES TO BE FIELD VERIFIED.

EXISTING BRICK TO REMAIN, ALL EXPOSED BRICK TO BE CLEANED AND REPOINTED

BASE AS SCHEDULED

EXISTING FOUNDATION TO REMAIN, FIELD VERIFY SYSTEM BEFORE ANY SAW CUTTING COMMENCES

CONTINUOUS AND LEVEL DOUBLE 2 X 10 MIN. HEADER TO BE BRACED TO EXISTING STRUCTURE

SOUND Baffle

#14 X 2.50" TYPE A SCREW @ 6" O.C.

"Z" REINFORCEMENT BRACKET

#17 STEEL TRACK AND ALUMINUM GUIDE RAIL PREPAINTED WHITE

STEEL, 4-WHEEL BALLBEARING TROLLEYS

VINYL TOP SEAL

TRACK

MANUAL DROP SEAL ACCOMMODATES +/- .50" OR 1.50" DEFLECTION AND/OR FLOOR VARIANCE

FINISHED CEILING

2.50" MIN

2.12"

.75"

CONTINUOUS CAULKING

4.25"

TRACK

FINISHED FLOOR

FINISHED OPENING HEIGHT FIELD VERIFY

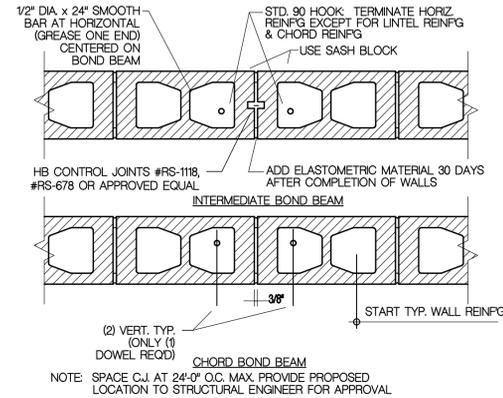
FABRICATION HEIGHT FIELD VERIFY

FINISHED FLOOR



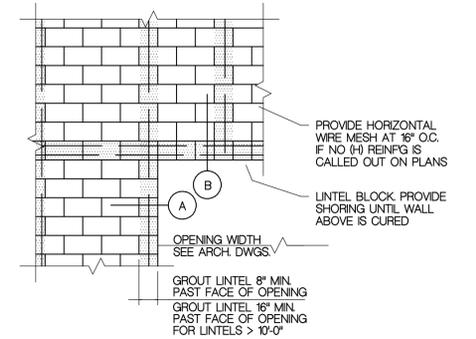
MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

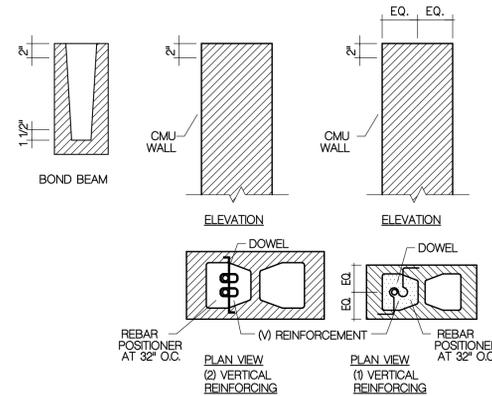


5 TYPICAL CMU CONTROL JOINT (C.J.) N.T.S.

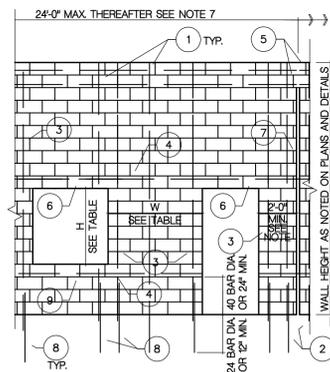
CLEAR SPAN	WIDTH	DEPTH	REINFORCING	#3 TIES AT:	REMARKS
<3'-4"	8"	8"	(1) #6		
<4'-8"	8"	16"	(1) #6 (T) & (B)	8"	
<6'-8"	8"	24"	(1) #7 (T) & (B)	8"	
<10'-0"	8"	32"	(1) #7 (T) & (B)	8"	
<3'-4"	12"	8"	(2) #5		
<4'-6"	12"	16"	(2) #5 (T) & (B)	8"	
<6'-8"	12"	24"	(2) #7 (T) & (B)	8"	
<12'-0"	12"	32"	(2) #7 (T) & (B)	8"	
>12'-0"	12"	48"	(2) #7 (T) & (B)	8"	



2 TYPICAL CMU LINTEL SCH. & DETAILS N.T.S.



4 TYPICAL REINFORCING PLACEMENT AND CLEARANCES N.T.S.



WALL THICKNESS (T)	DIMENSIONAL LIMITS		
	CLEAR	PIER	COLUMN
8"	H > 24" AND W > 32"	H > 24" AND 32" > W > 24"	H > 24" AND W < 24"
8"	H > 32" AND W > 40"	H > 32" AND 40" > W > 24"	H > 32" AND W < 24"
12"	H > 48" AND W > 34"	H > 48" AND 34" > W > 40"	H > 48" AND W < 40"

1/4" DIA. SMOOTH BAR TIES AT 8" O.C., SET IN CMU JOINTS

1/4" DIA. SMOOTH BAR TIES w/ HOOKED END AT 8" O.C., SET IN CMU JOINTS

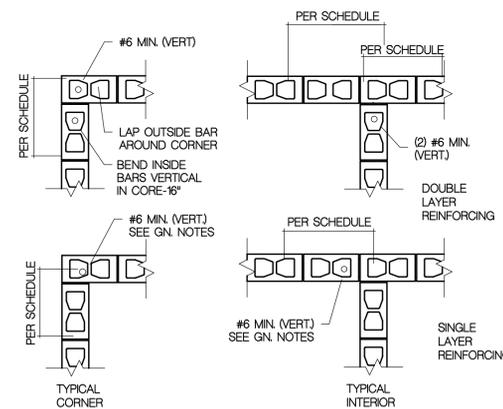
4 (M) BARS TO MATCH TYPICAL WALL REINFORCING

PER DETAIL

VERTICAL BARS EACH CELL TO MATCH TYPICAL WALL REINFORCING

- NORMAL WALL REINFORCING AS NOTED ON DETAILS AND DESCRIBED IN GENERAL NOTES.
- ADDITIONAL VERTICAL REINFORCING AT CONTROL JOINTS - SEE TYPICAL CONTROL JOINT DETAIL.
- ADDITIONAL VERTICAL REINFORCING AT JAMBS OF ALL WALL OPENINGS.
- INTERMEDIATE BOND BEAM REINFORCED AND SPACED AS REQUIRED ON DRAWINGS. ONE INTERMEDIATE BOND BEAM SHALL BE PLACED AT WINDOW LINTEL ELEVATION AND AT 8'-0" O.C.
- ROOF LEVEL BOND BEAM REINFORCED AS NOTED ON DETAILS. CONTINUE ALL REINFORCING UNCUT THROUGH CONTROL JOINTS.
- LINTEL REINFORCING AS DETAILED AND/OR SCHEDULED.
- CONTROL JOINTS (C.J.) UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS, THE C.J. SPACING NOTED IS THE MAXIMUM PERMITTED. THE SPACING OF CJS SHALL BE COORDINATED WITH THE WALL OPENING LOCATIONS AND IN NO CASE SHALL A C.J. BE LOCATED CLOSER THAN 24" TO THE JAMB OF ANY WALL OPENING.
- FOUNDATION DOWELS TO MATCH VERTICAL WALL REINFORCING SIZE AND SPACING.
- SILL LEVEL BOND BEAM REINFORCED AS NOTED IN MASONRY GENERAL NOTES.

6 ELEVATION OF TYPICAL MASONRY WALL REINFORCING N.T.S.



3 TYPICAL REINFORCING AT INT OF CMU WALLS N.T.S.

* ANGLE SIZE (LLV)	CLEAR OPENING		REMARKS
	GREATER THAN	UP TO	
8" x 6" x 7/16"	—	3'-0"	8" MIN. BRG. EA. END
8" x 6" x 7/16"	3'-1"	6'-0"	12" MIN. BRG. EA. END
8" x 6" x 7/16"	6'-1"	8'-0"	12" MIN. BRG. EA. END
8" x 6" x 7/16"	8'-1"	9'-0"	16" MIN. BRG. EA. END
8" x 6" x 7/16"	9'-1"	10'-0"	16" MIN. BRG. EA. END
8" x 6" x 7/16"	10'-1"	11'-0"	16" MIN. BRG. EA. END
8" x 6" x 7/16"	11'-1"	12'-0"	16" MIN. BRG. EA. END

\*FOR EACH 4" WIDTH OF MASONRY SEE ARCHITECTURAL PLANS FOR MASONRY OPENING DIMENSIONS, LOCATION, AND QUANTITIES.

1. CUT HORIZONTAL LEG 1/4" FROM OUTSIDE FACE OF VENEER

NOTE: ALL STEEL SHALL BE HOT DIP GALVANIZED

1 LOOSE ANGLE LINTEL SCHEDULE N.T.S.

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A5.3



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

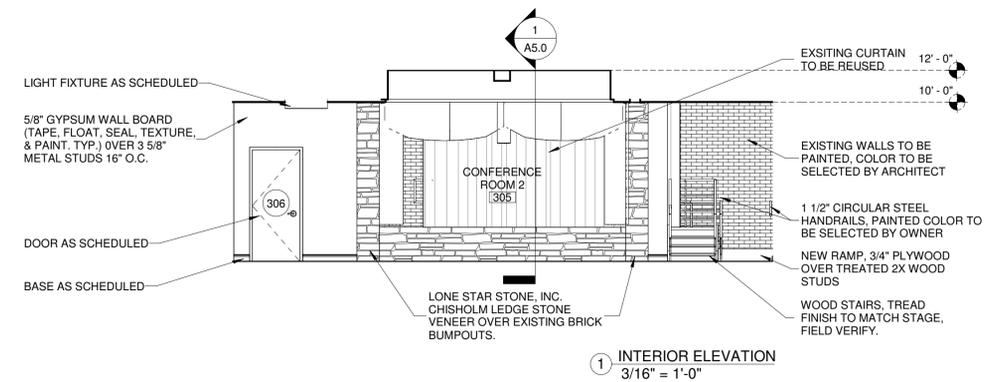
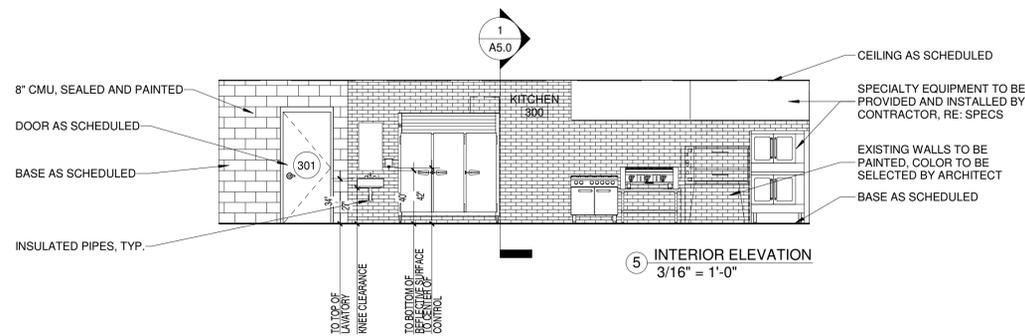
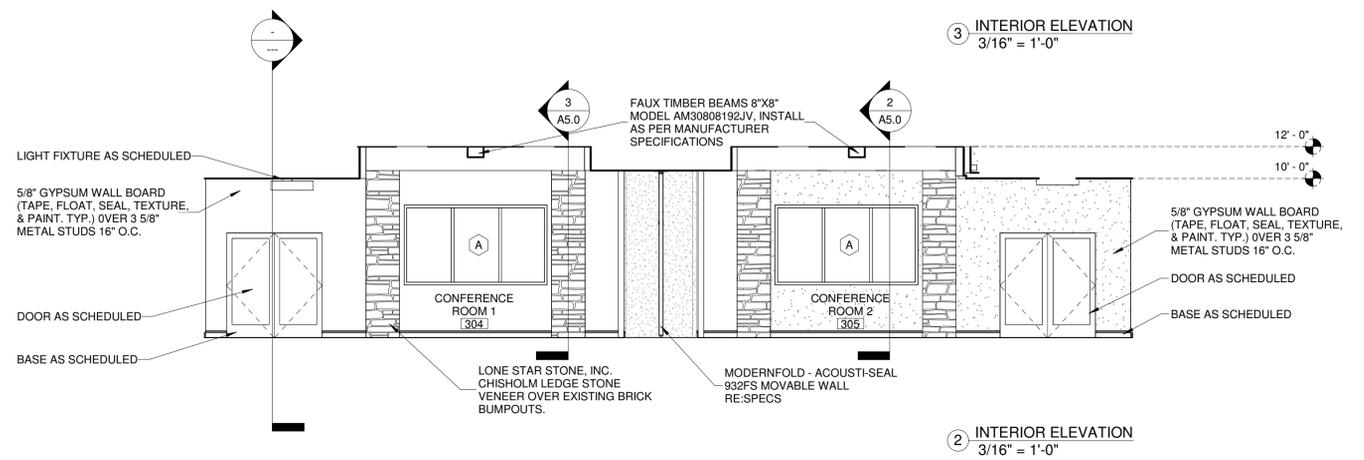
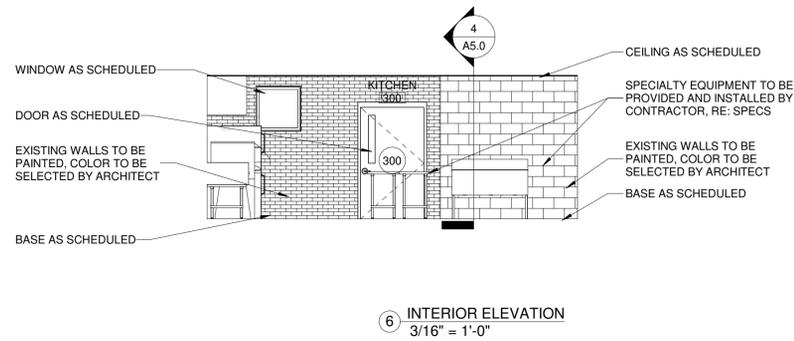
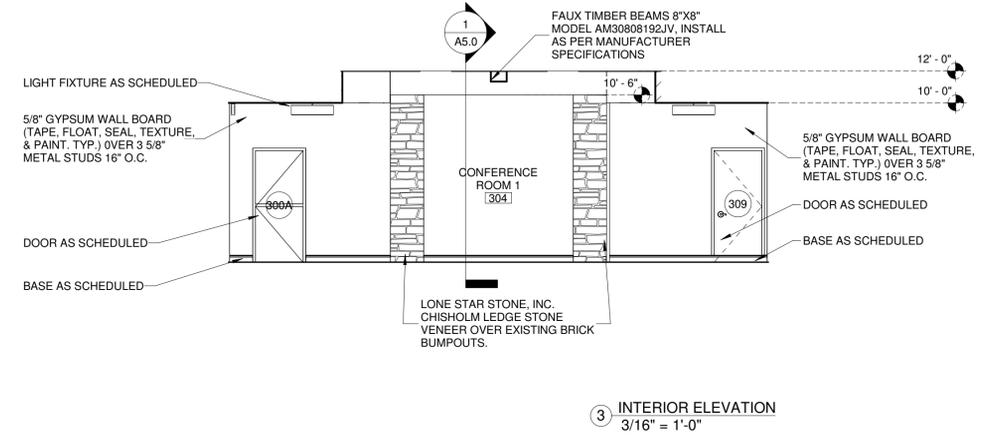
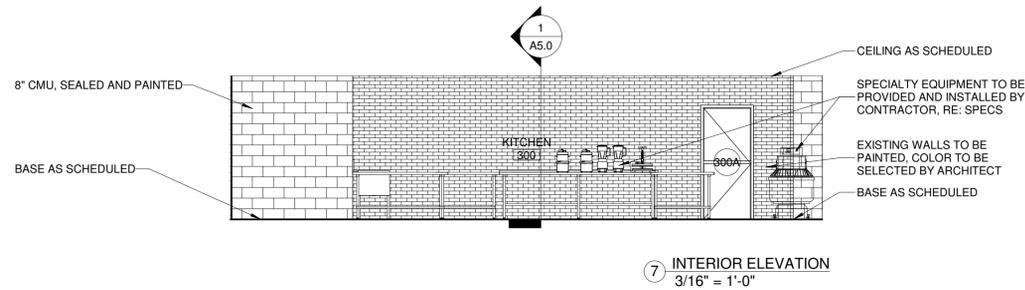
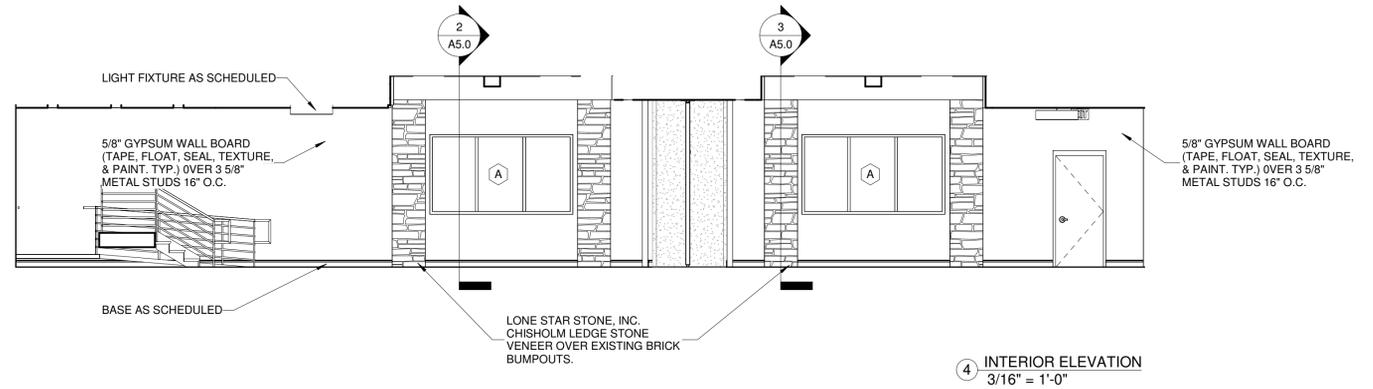
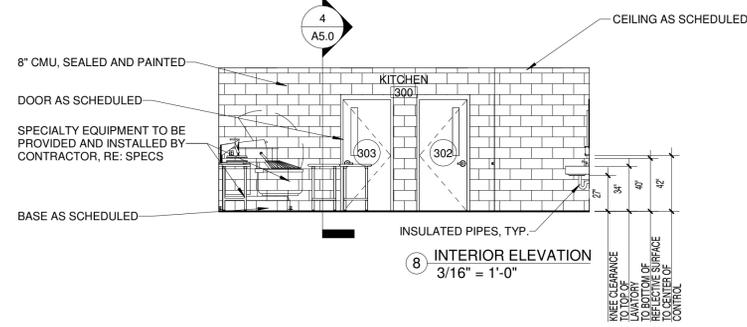
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

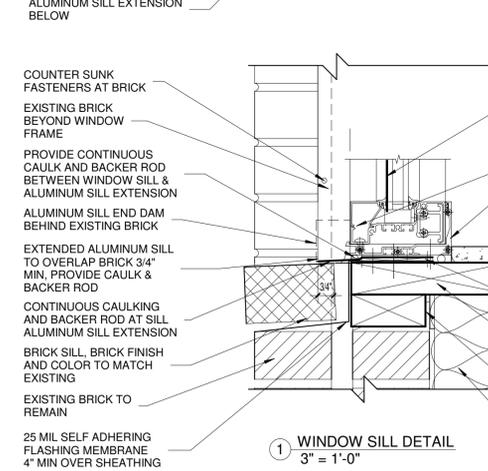
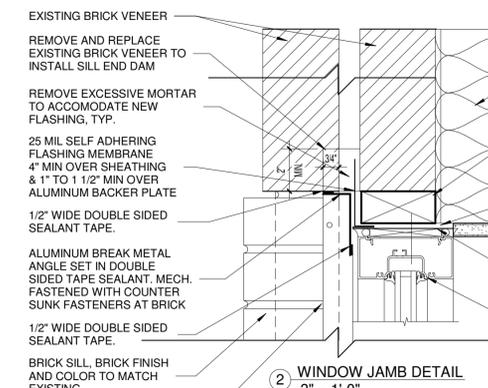
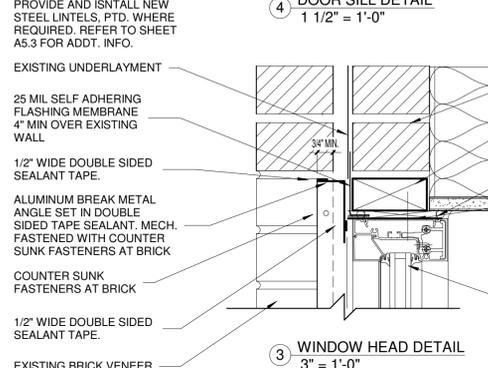
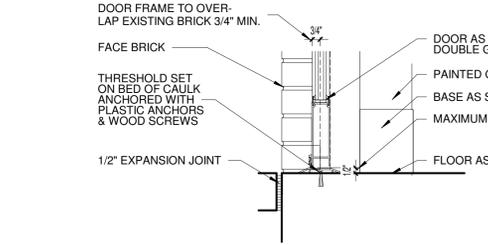
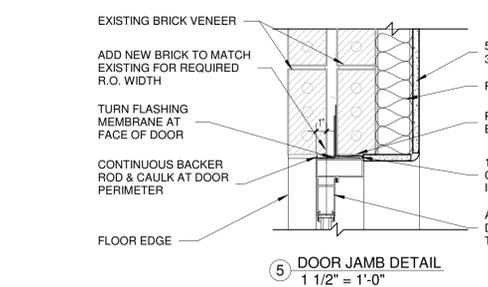
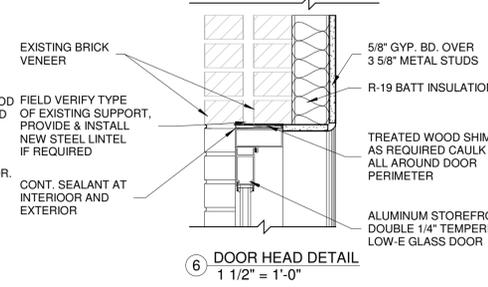
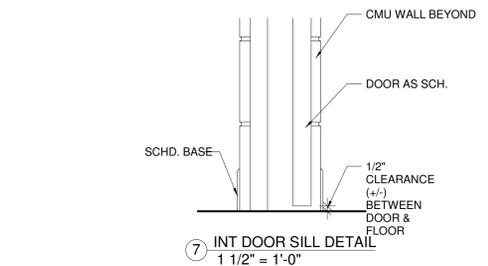
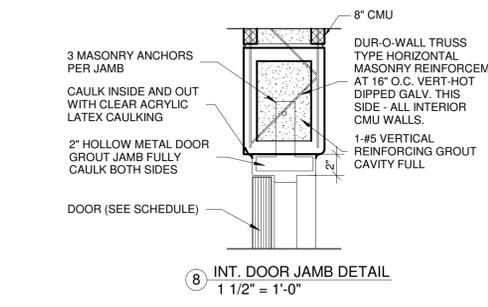
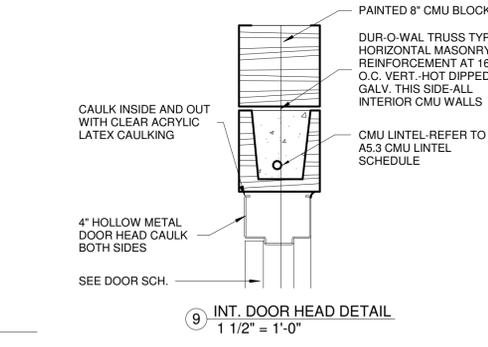
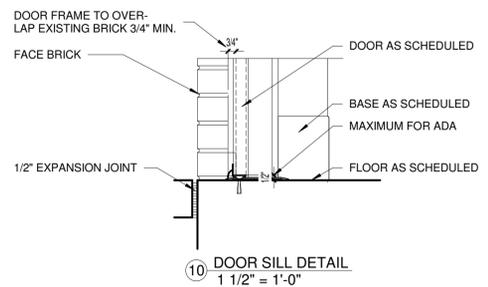
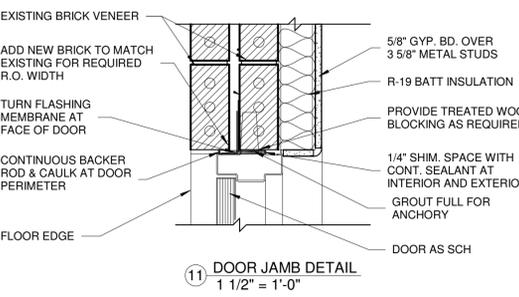
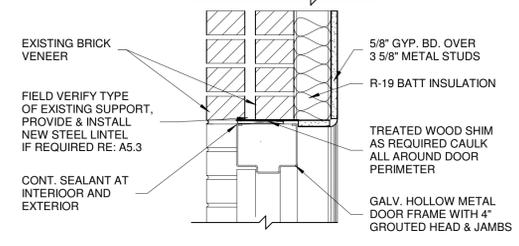
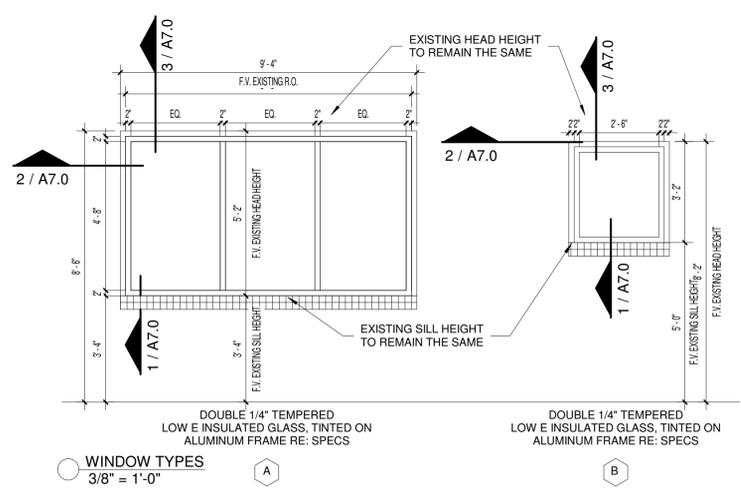
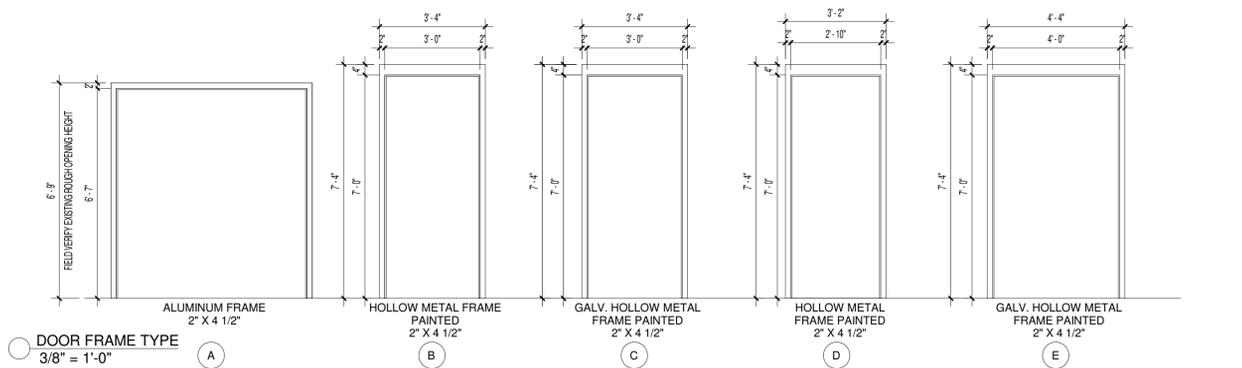
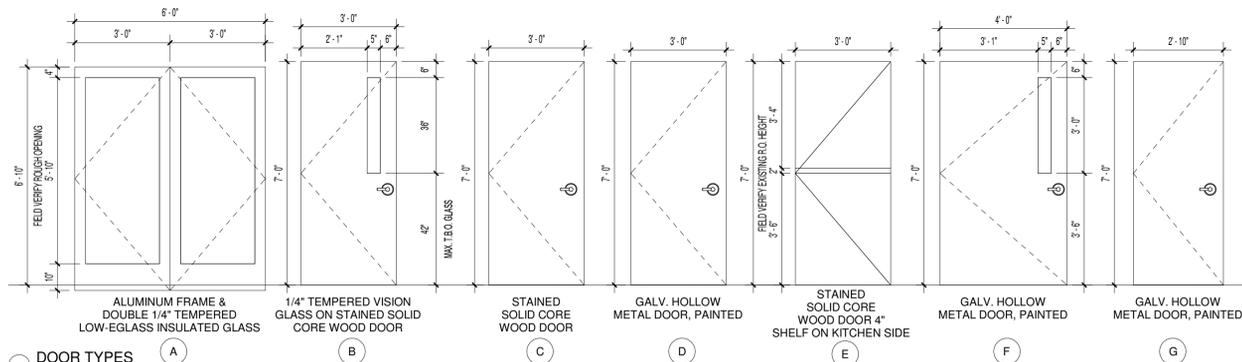
ISSUE FOR BIDS

SHEET NUMBER

A6.0



DOOR SCHEDULE														
Mark	DESCRIPTION	Type Mark	Width	Height	Thickness	PAIR OR SINGLE	MATERIAL	FINISH	FRAME TYPE	DOOR HARDWARE	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	Comments
300	KITCHEN	F	4'-0"	7'-0"	0'-1 3/4"	SINGLE	HOLLOW METAL	PAINTED	E	RE: SPECS	12/A7.0	11/A7.0	10/A7.0	
300A	KITCHEN	E	3'-0"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
301	RESTROOM	C	3'-0"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
302	OFFICE	B	3'-0"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
303	STORAGE	B	3'-0"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
304A	CONFERENCE ROOM 1	D	3'-0"	7'-0"	0'-1 3/4"	SINGLE	ALUMINUM	ANODIZED	C	RE: SPECS	12/A7.0	11/A7.0	10/A7.0	
306	RESTROOM	C	3'-0"	7'-0"	0'-1 3/4"	SINGLE	HOLLOW METAL	PAINTED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
309	RESTROOM	C	3'-0"	7'-0"	0'-1 3/4"	SINGLE	ALUMINUM	ANODIZED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
310	RISER	G	2'-10"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	D	RE: SPECS	12/A7.0	11/A7.0	10/A7.0	
311	A/C	C	3'-0"	7'-0"	0'-1 3/4"	SINGLE	SOLID CORE WOOD	STAINED	B	RE: SPECS	9/A7.0	8/A7.0	7/A7.0	
313	CONFERENCE ROOM 2	H	6'-0"	6'-7"	0'-1 3/4"	PAIR	HOLLOW METAL	PAINTED	A	RE: SPECS	6/A7.0	5/A7.0	4/A7.0	
315	CONFERENCE ROOM 1	H	6'-0"	6'-7"	0'-1 3/4"	PAIR	SOLID CORE WOOD	STAINED	A	RE: SPECS	6/A7.0	5/A7.0	4/A7.0	



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A7.0

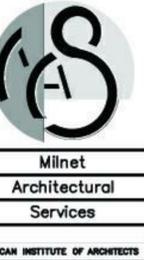
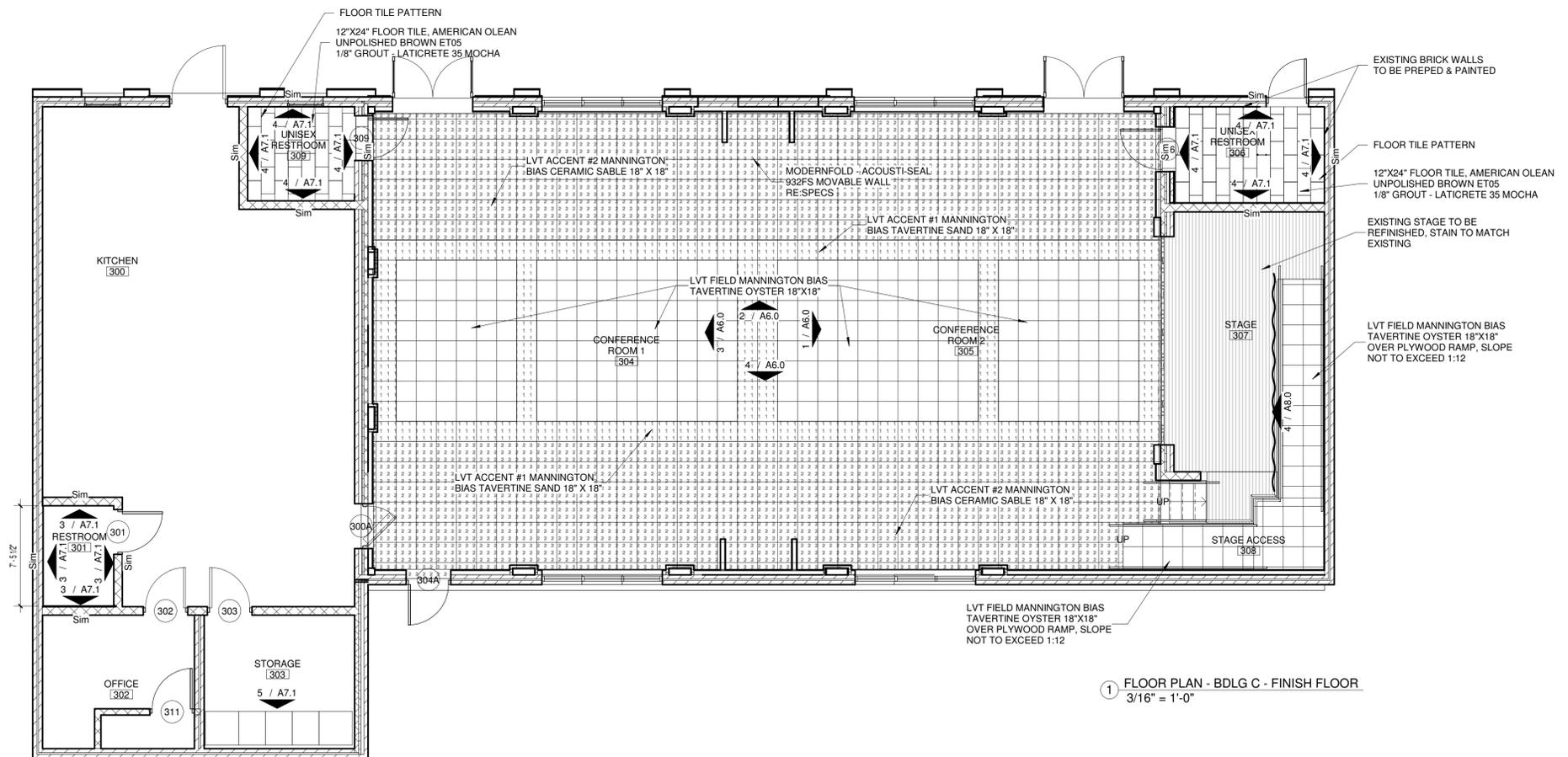
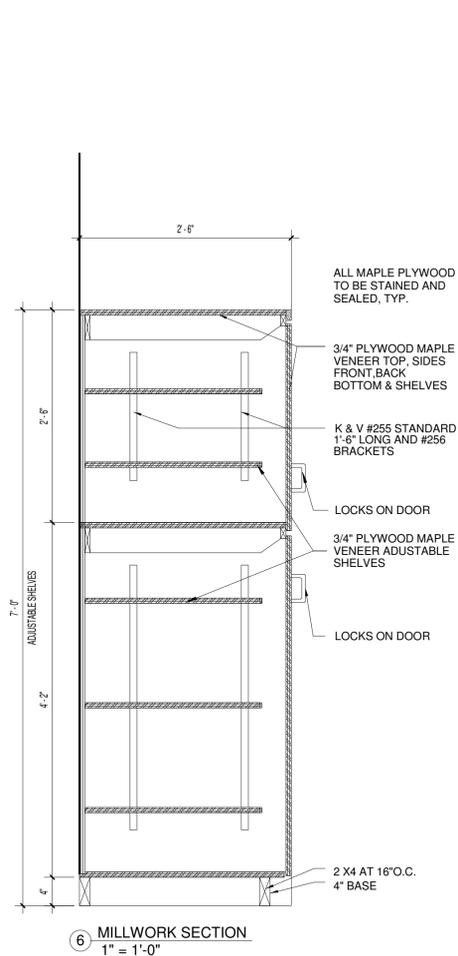
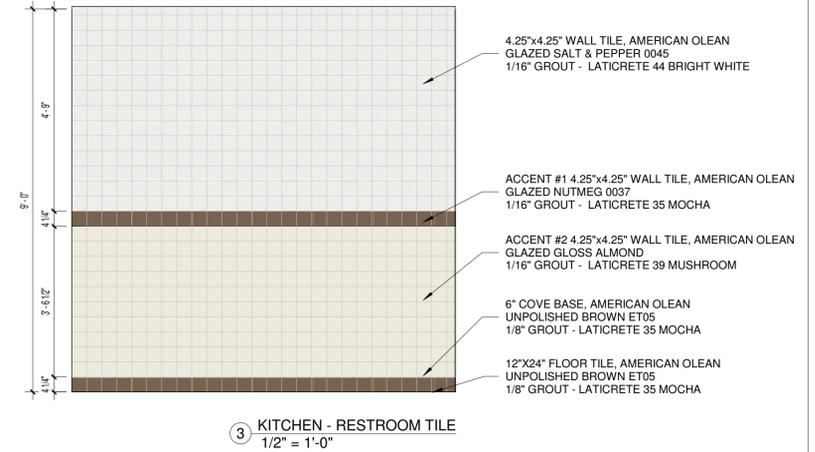
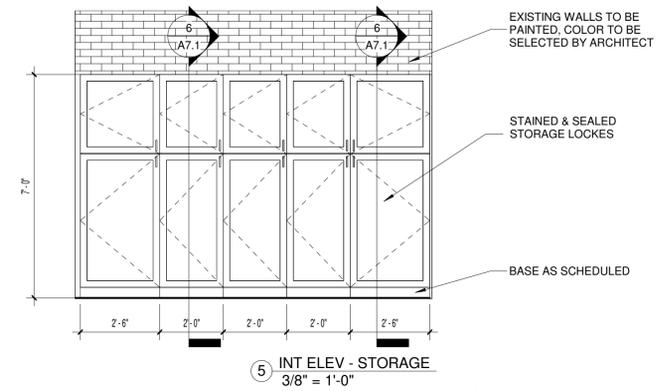
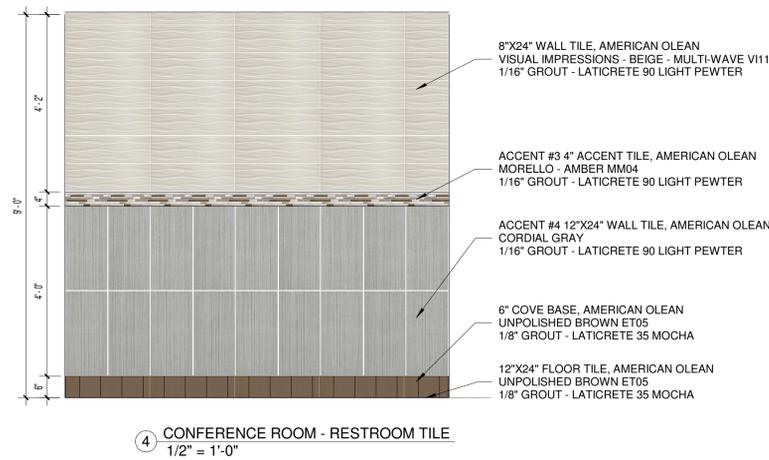
ROOM SCHEDULE							
Number	Name	FINISH KEY NOTE	WALLS	BASE	FLOOR	CEILING	Comments
300	KITCHEN	F3	P-2	B-3	F-3	C-4	
301	RESTROOM	F2	P-3	B-2	F-1	C-3	
302	OFFICE	F1	P-1	B-1	F-2	C-1/C-2	
303	STORAGE	F1	P-1	B-1	F-2	C-1/C-2	
304	CONFERENCE ROOM 1	F1	P-1	B-1	F-2	C-1/C-2	
305	CONFERENCE ROOM 2	F1	P-1	B-1	F-2	C-1/C-2	
306	UNISEX RESTROOM	F2	P-3	B-2	F-1	C-3	
307	STAGE	F-5	P-1	B-1	F-5	C-5	
308	STAGE ACCESS	F1	P-1	B-1	F-2	C-1/C-2	
309	UNISEX RESTROOM	F2	P-3	B-2	F-1	C-3	
310	RISER	F4	P-1	B-1	F-4	C-3	
311	A/C	F4	P-1	B-1	F-4	C-3	

ROOM FINISH SCHEDULE						
KEY NOTE	WALLS	BASE	FLOOR	CEILING	MISC.	REMARKS
F1	P-1	B-1	F-2	C-1/C-2		WALL PAINT LATEX
F2	P-3	B-2	F-1	C-3		WALL PAINT EPOXY
F3	P-2	B-3	F-3	C-4		WALL PAINT EPOXY
F4	P-1	B-1	F-4	C-3		WALL PAINT EPOXY
F5	P-1	B-1	F-5	C-5		WALL PAINT LATEX

ROOM FINISH STANDARDS	
<b>WALLS</b>	
P-1	WALL PAINTED
P-2	CMU SEALED & PAINTED (EPOXY PAINT)
P-3	CERAMIC TILE
<b>FLOOR COVERINGS</b>	
F-1	CERAMIC TILE
F-2	LUXURY VINYL TILE
F-3	ALTRO CLASSIC 25 - COLOR TRUFFLE
F-4	SEALED CONCRETE
F-5	EXISTING STAGE FLOOR TO BE SANDED, SEALED, AND STAINED.
<b>BASE</b>	
B-1	4" RUBBER BASE
B-2	CERAMIC TILE
B-3	4" ALTRO CLASSIC 25 - COLOR TRUFFLE WITH C7 CAP STRIP
<b>CEILING</b>	
C-1	SUSP. ACOUSTICAL CEILING (2X2)
C-2	SUSP. 5/8" GYPSUM BD. T.F.T.&P.
C-3	5/8" THICK, MOISTURE RESISTANT GYP. BD. ON SUSPENDED GRID SYSTEM (2-LAYERS OF 5/8" GYP. BD. AT FIRE RATED CONDITIONS)
C-4	2X2 CERAMA GUARD (MOISTURE RESISTANT) LAY-IN CEILING TILE
C-5	EXISTING TO REMAIN, TO BE PAINTED

### GENERAL FINISH NOTES

1. ALL FINISH MATERIALS MUST MEET THE FLAME SPREAD RATINGS PER THE BUILDING CODE.
2. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL LOCATIONS.
3. PAINT ALL EXPOSED DUCTWORK, CONDUIT, ELECTRICAL EQUIPMENT, ETC TO MATCH ADJACENT SURFACES.
4. PAINT ALL NON-FACTORY FINISHED EXPOSED METAL.
5. REFER TO TYPICAL FLOORING TRANSITION DETAILS FOR ALL FLOORING MATERIALS.
6. FLOORING TRANSITIONS AT DOORS SHOULD BE LOCATED UNDER THE DOOR IN THE CLOSED POSITION, UNLESS NOTED OTHERWISE.
7. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
8. PROVIDE BULLNOSE TRIM AT TRANSITIONS FROM CERAMIC WALL TILE TO OTHER MATERIAL, UNLESS NOTED OTHERWISE.
9. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
10. ALL ELECTRICAL DEVICE COVERS ARE TO BE WHITE UNLESS NOTED OTHERWISE.
11. CARPET PATTERNS TO RUN PARALLEL TO CORRIDOR, UNLESS NOTED OTHERWISE.
12. ALL HOLLOW METAL DOOR FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR.
13. ALL EXISTING WALLS NOTED TO BE PAINTED, SHALL RECEIVE THE NECESSARY PREPARATION IN ORDER TO ADEQUATELY RECEIVE NEW PAINT. REFER TO SPECS FOR ADDT. INFORMATION.



2/21/14



LIC. EXP: 8/31/14

OLD SORESENSEN ELEMENTARY  
RENOVATIONS RFP #18-19-055  
PSJA TSD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

S H E E T

A7.1  
OF



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

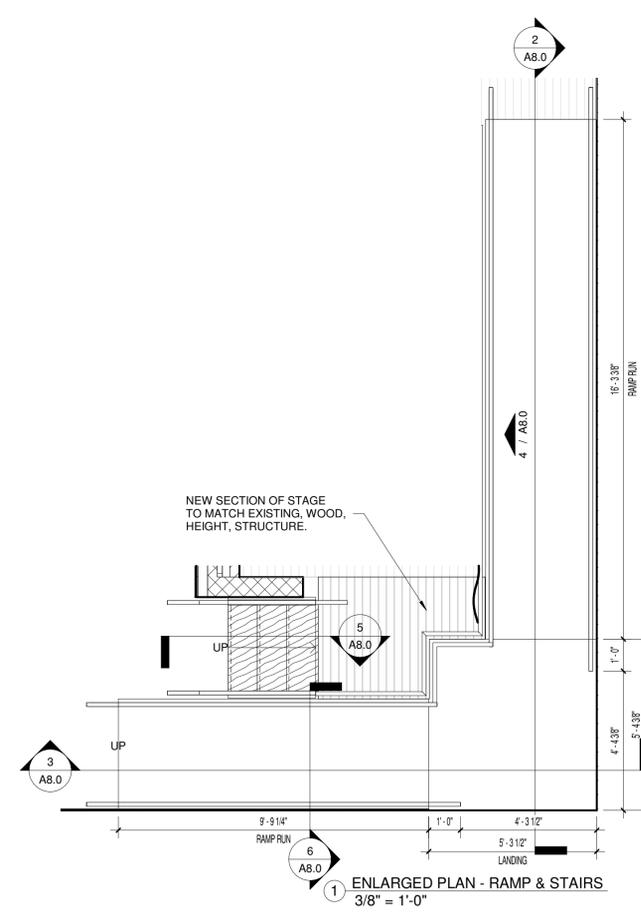
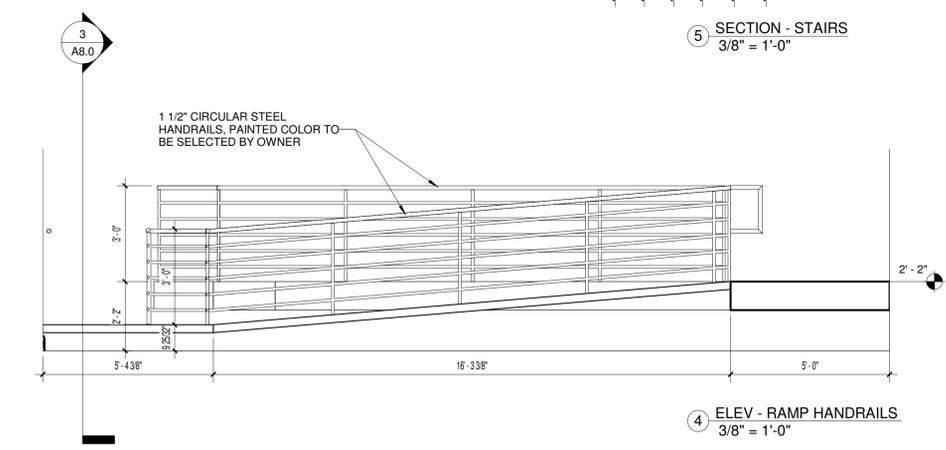
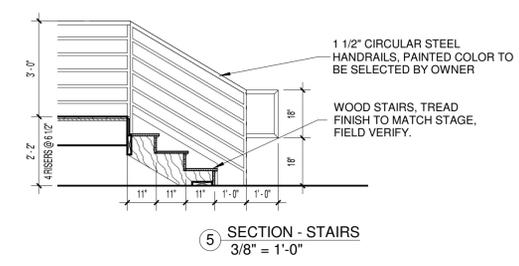
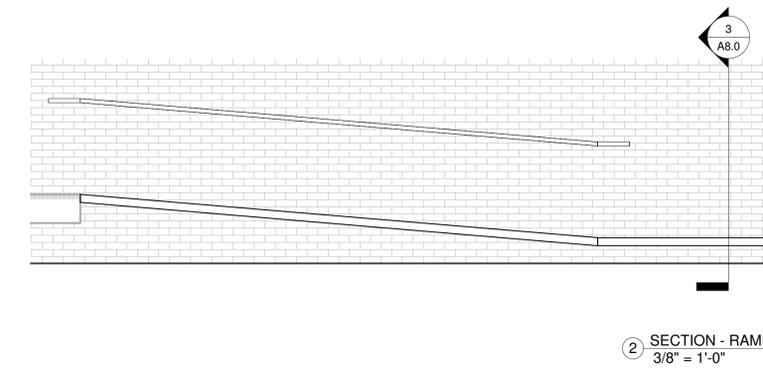
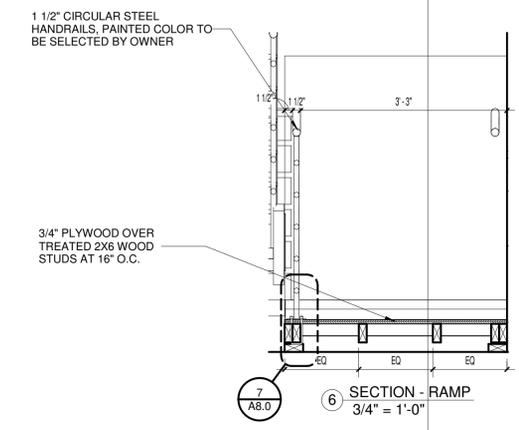
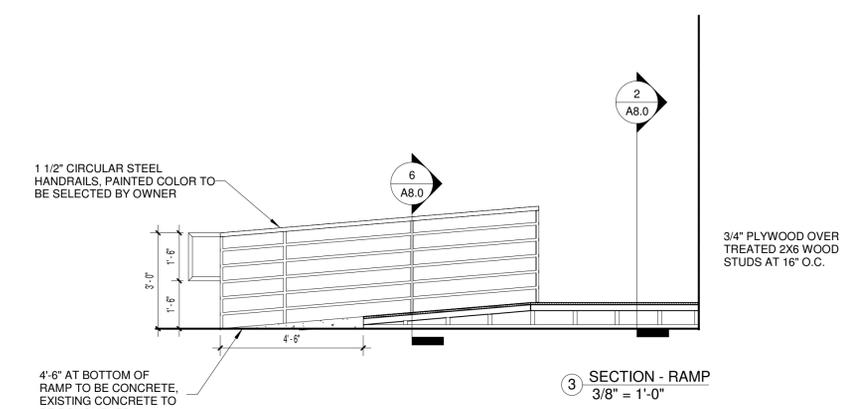
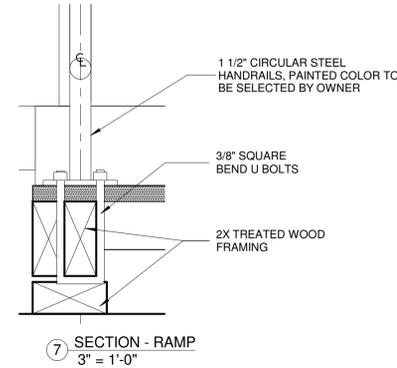
PROJECT NUMBER  
219006

DATE  
AUGUST 26, 2019

ISSUE FOR BIDS

SHEET NUMBER

A8.0





MILNET ARCHITECTURAL SERVICES

AMERICAN INSTITUTE OF ARCHITECTS



OLD SORENSEN ELEMENTARY RENOVATIONS BID #18-19-055

PSJA ISD SAN JUAN, TEXAS

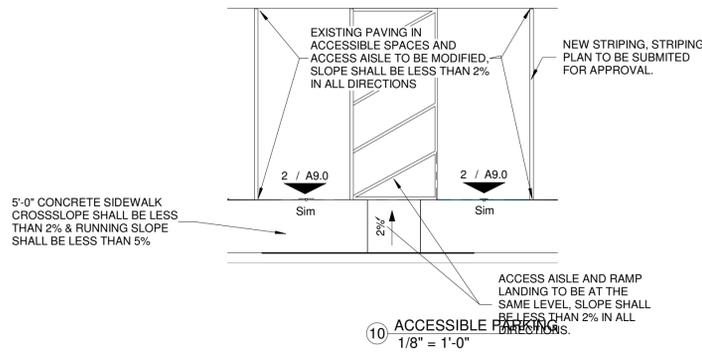
PROJECT NUMBER 219006

DATE AUGUST 26, 2019

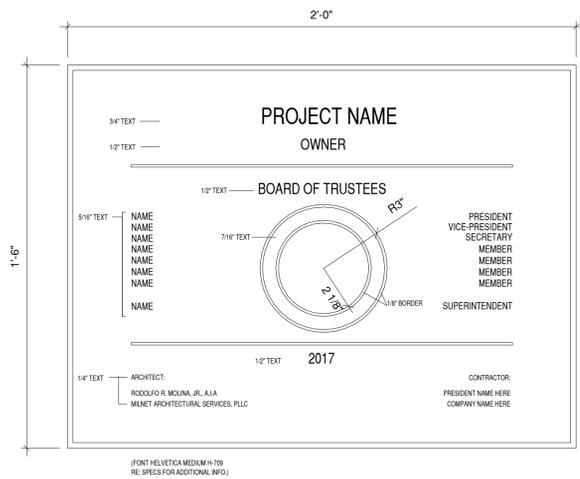
ISSUE FOR BIDS

SHEET NUMBER

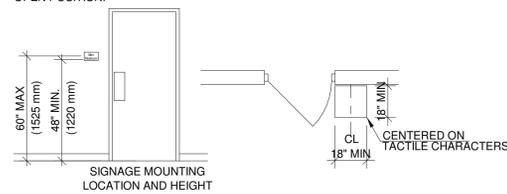
A9.0



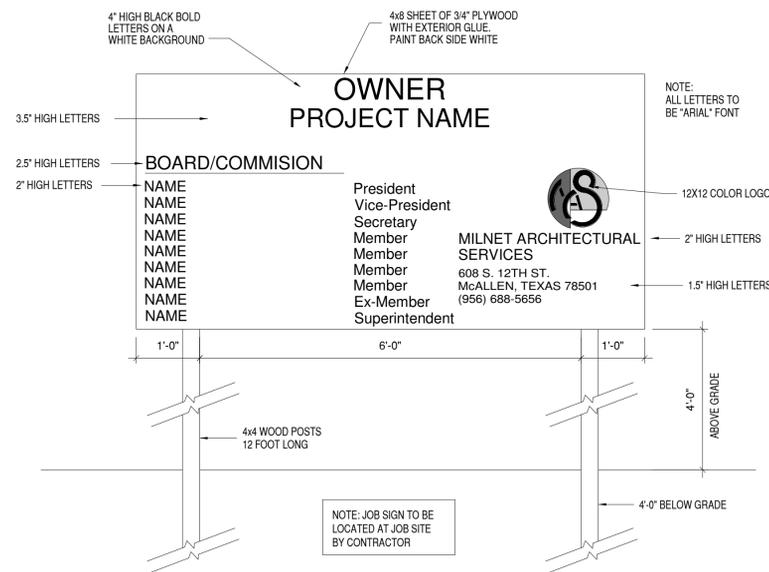
- COLOR AS CLOSE TO COUNTERTOP AS POSSIBLE BASED ON STANDARD COLORS.
- SIGNS THAT DESIGNATE PERMANENT ROOMS AND SPACES MUST COMPLY WITH REQUIREMENTS FOR CHARACTER PROPORTION, RAISED AND BRAILLED CHARACTERS AND PICTORIAL SYMBOLS SIGNS, FINISH AND CONTRAST, AND MOUNTING AND LOCATION HEIGHT.
- CHARACTER PROPORTION: CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER 'O' IS 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER 'I'.
- RAISED AND BRAILLED CHARACTERS AND PICTORIAL SYMBOL SIGNS (PICTORGRAMS): LETTERS AND NUMERALS SHALL BE RAISED 1/32 IN, UPPER-CASE, SANS SERIF AND SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. RAISED CHARACTERS SHALL BE AT LEAST 5/8 IN. (16mm) HIGH, BUT NO HIGHER THAN 2 IN. (50mm). PICTORGRAMS SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTORGRAM. THE BORDER DIMENSION OF THE PICTORGRAM SHALL BE 6 IN. (152mm) MINIMUM IN HEIGHT.
- FINISH AND CONTRAST: CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
- MOUNTING LOCATION AND HEIGHT: WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ALONGSIDE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE INSTALLED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE INSTALLED TO THE RIGHT OF THE RIGHT HAND DOOR, WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGN SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18" MIN. BY 18" MIN., CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION.



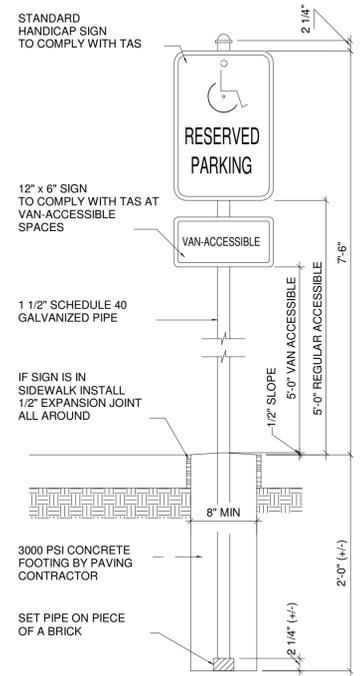
5 PLAQUE N.T.S.



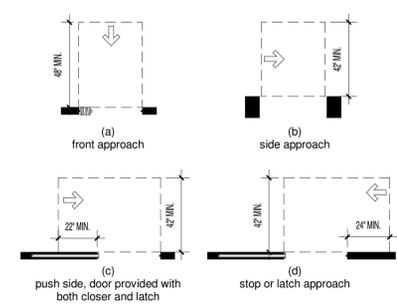
3 ADA - INTERIOR SIGNAGE SPECS N.T.S.



4 JOB SITE SIGN N.T.S.



2 ADA - PARKING SIGNAGE N.T.S.

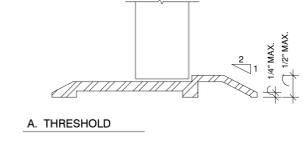


MANEUVERING CLEARANCE AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES AND FOLDING DOORS

### DOOR CRITERIA:

#### GENERAL NOTES:

- FLOOR OR GROUND SURFACE. FLOOR OR GROUND SURFACE WITHIN REQUIRED MANEUVERING CLEARANCE SHALL BE STABLE FIRM, AND SLIP RESISTANT. CHANGES IN LEVEL ARE NOT PERMITTED.
- VISION LIGHTS, DOORS, GATES, AND SIDE LIGHTS ADJACENT TO DOOR OR GATES, SHALL HAVE THE BOTTOM OF AT LEAST ONE GLAZED PANEL LOCATED 43" MAX. ABOVE THE FINISH FLOOR



#### NOTES:

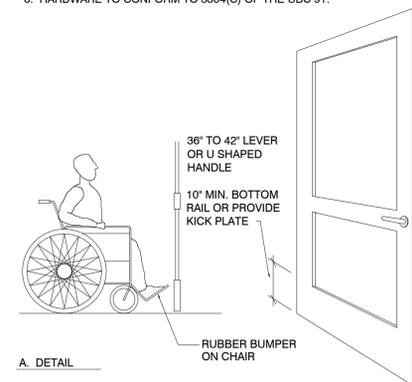
- 1/2" MAXIMUM TOTAL HEIGHT WITH 1/4" MAXIMUM VERTICAL CHANGE AT EDGE.
- 1 : 2 SLOPED BEVEL REQUIRED IF LEVEL CHANGE IS OVER 1/4" VERTICAL LEVEL CHANGE.

#### DOOR TYPE:

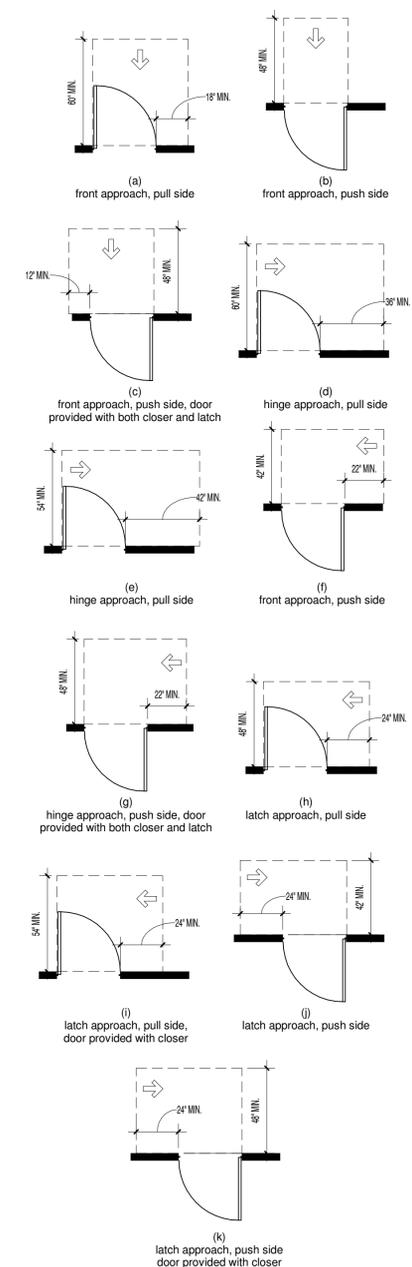
- MINIMUM 10" HIGH SMOOTH SURFACE AT DOOR BOTTOM, EITHER ATTACHED PANEL OR BOTTOM RAIL.

#### HARDWARE:

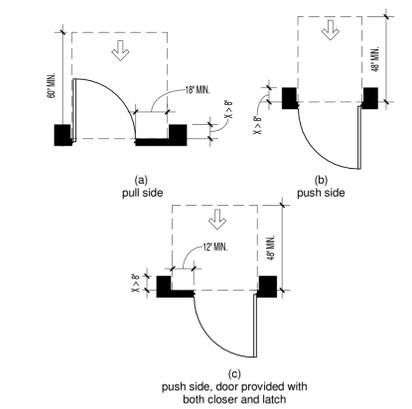
- OPERABLE FROM INSIDE WITHOUT USE OF KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- OPENABLE BY SINGLE EFFORT LEVER-TYPE DEVICE (NOT REQUIRING GRASPING).
- MOUNTED 36" TO 42".
- MAXIMUM 8.5 POUNDS EFFORT TO OPERATE EXTERIOR DOOR, 5 POUNDS FOR INTERIOR.
- HARDWARE TO CONFORM TO 3304(C) OF THE UBC 91.



1 DOOR CRITERIA N.T.S.



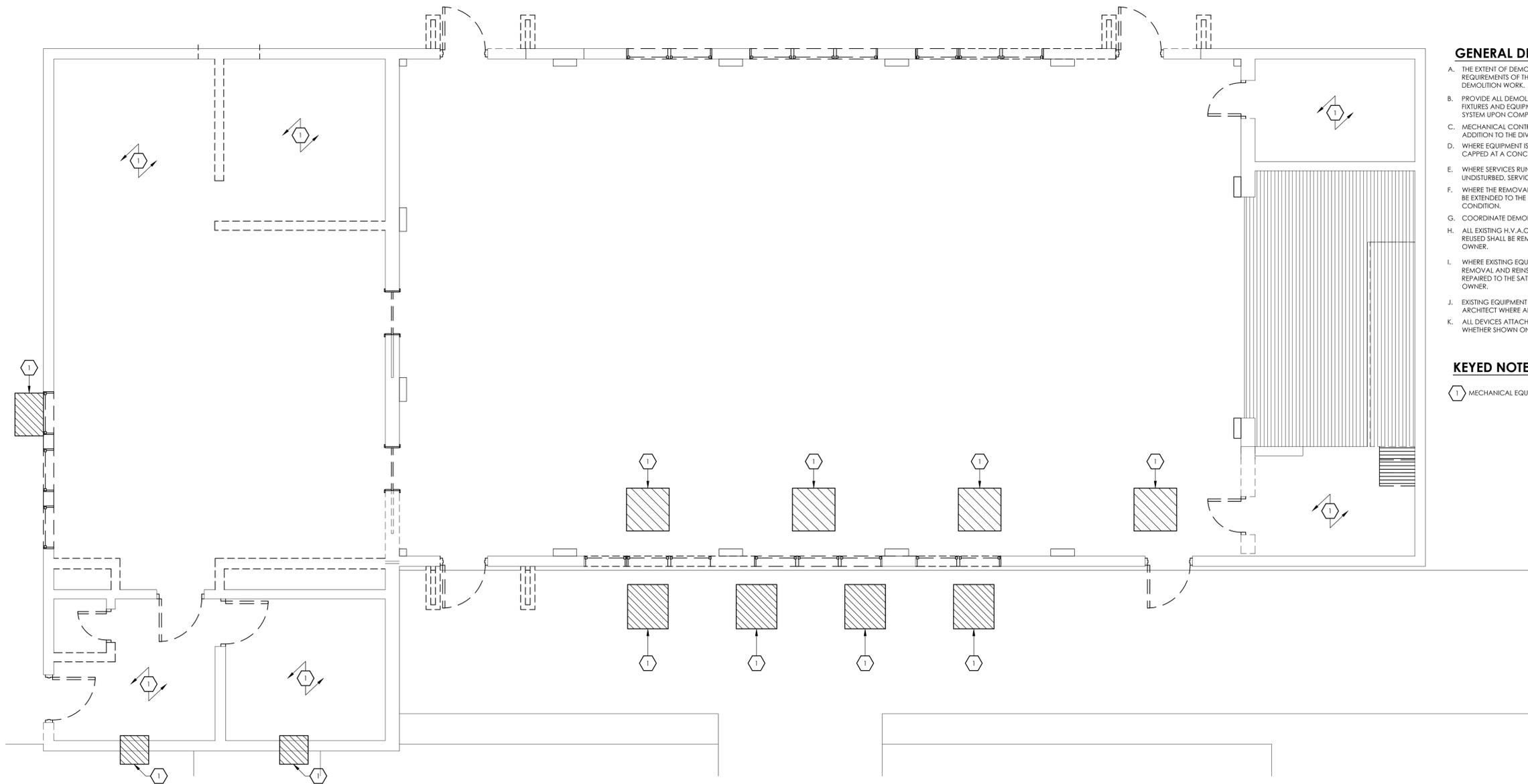
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS AND GATES



MANEUVERING CLEARANCE AT RECESSED DOORS AND GATES



MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS



**GENERAL DEMOLITION NOTES**

- A. THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED TO PROPERLY BID THE DEMOLITION WORK.
- B. PROVIDE ALL DEMOLITION WORK REQUIRED FOR THE REMOVAL AND/OR RELOCATION OF HVAC FIXTURES AND EQUIPMENTS AND ASSOCIATED SERVICES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- C. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCHITECTURAL DOCUMENTS IN ADDITION TO THE DIVISION 15 AND 16 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
- D. WHERE EQUIPMENT IS INDICATED OR REQUIRED TO BE REMOVED, THE ASSOCIATED SERVICES SHALL BE CAPPED AT A CONCEALED LOCATION.
- E. WHERE SERVICES RUN ABOVE INACCESSIBLE CEILING OR IN WALLS WHICH ARE TO REMAIN UNDISTURBED, SERVICES SHALL BE CAPPED AT CONCEALED LOCATION AND ABANDONED.
- F. WHERE THE REMOVAL OF EQUIPMENT RENDERS EQUIPMENT DOWNSTREAM INOPERABLE, SERVICES SHALL BE EXTENDED TO THE DOWNSTREAM EQUIPMENT SO THAT THE FIXTURES ARE LEFT IN OPERATING CONDITION.
- G. COORDINATE DEMOLITION OF DIVISION 15 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
- H. ALL EXISTING H.V.A.C. AND EQUIPMENT REMOVED DURING CONSTRUCTION THAT ARE NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
- I. WHERE EXISTING EQUIPMENT IS TO BE RELOCATED, BE CAUTIOUS TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION AND APPROVAL OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
- J. EXISTING EQUIPMENT TO BE REUSED SHALL BE CLEANED AND REPAIRED AT THE DISCRETION OF THE ARCHITECT WHERE APPLICABLE.
- K. ALL DEVICES ATTACHED TO WALLS OR CEILINGS SHALL BE REMOVED PER DEMOLITION NOTE A - L WHETHER SHOWN ON DRAWINGS OR NOT.

**KEYED NOTES: MECHANICAL DEMOLITION**

- ① MECHANICAL EQUIPMENT TO BE RETURNED TO OWNER.

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

MD1.1

① MECHANICAL DEMOLITION PLAN  
1/4"=1'-0"

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78596  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10082  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

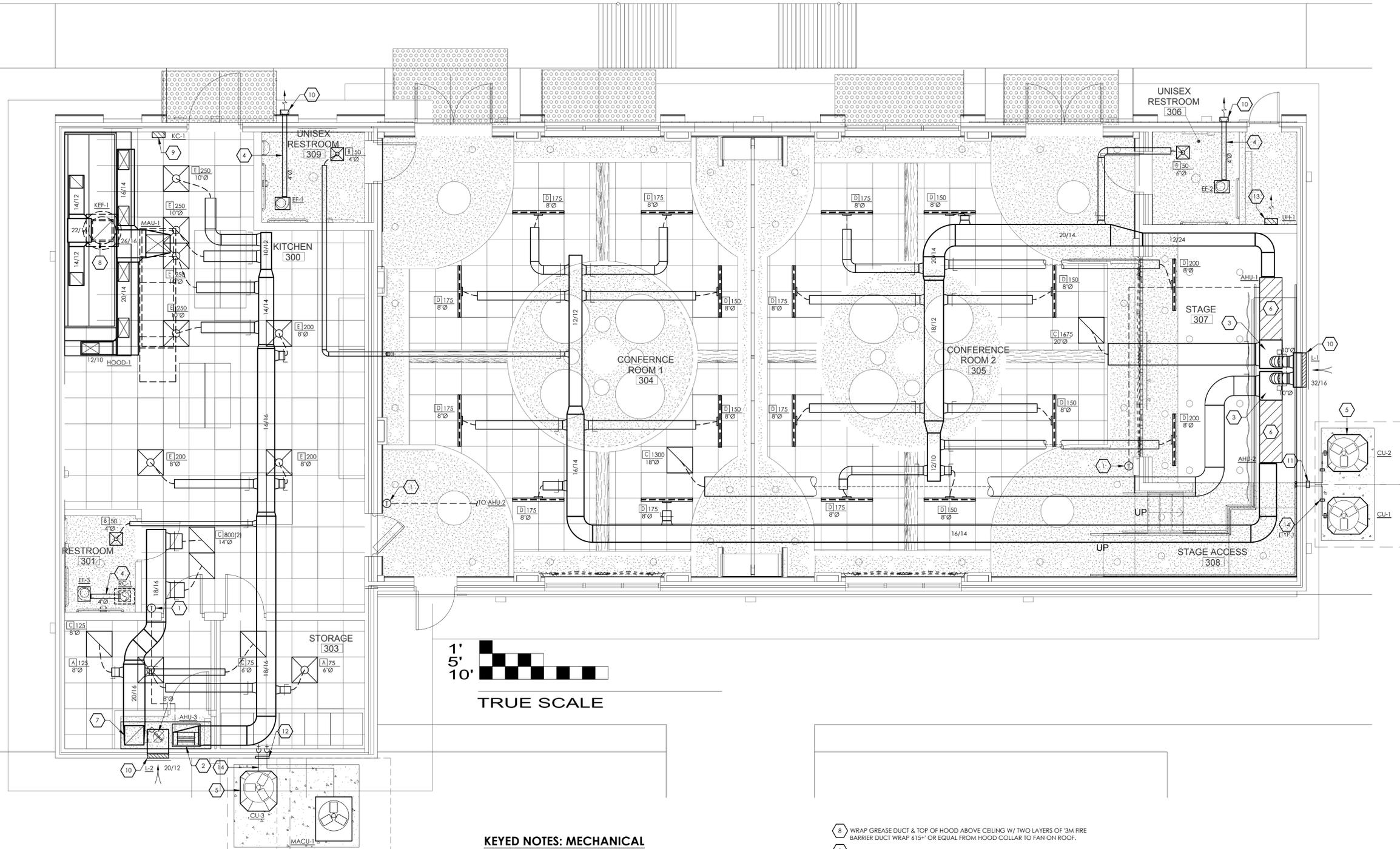
M1.1

08/26/19



**TRINITY**  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Weslaco, Tx 78768  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



**KEYED NOTES: MECHANICAL**

- 1 CONTROLS FOR A/C UNIT WILL BE BY MEANS OF AN HVAC CONTROLS THERMOSTAT WITH HEAT-OFF-COOL AND FAN ON-AUTO CAPABILITIES SHOWN ON A DIGITAL DISPLAY. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE WITH KEYS CLEAR PLASTIC COVER. CONTROLS TO BE EXTENDED FROM EXISTING CAMPUS.
- 2 UNIT TO BE MOUNTED ON A 24" HIGH PLATFORM CONSTRUCTED OF 1-1/2" ANGLE IRON/1" SQUARE METAL TUBING. WRAP PLATFORM IN GALVANIZED SHEET METAL. LINE INTERIOR OF PLATFORM W/ 1" DUCT BOARD. W/ FOIL FACING AIRSTREAM. COAT INSIDE W/ MASTIC (TO FACILITATE CLEANING) & SEAL AIR TIGHT.
- 3 RETURN AIR DUCT TO BE SIZED ACCORDING TO RESPECTIVE AIR OPENING. INTERNALLY LINE RA PLENUM W/ 1" ACOUSTIC DUCT LINER.
- 4 ROUND EXHAUST DUCT OUT TO WALL CAP/ ROOF CAP.
- 5 PLACE CONDENSING UNIT ON 4" CONCRETE PAD. REFER TO DETAILS.
- 6 HANG AIR HANDLER FROM STRUCTURE AND PROVIDE W/ VIBRATION ISOLATION. PROVIDE TWO 4x4" TREATED WOOD TIMBERS INSIDE AN AUXILIARY DRAIN PAN ON WHICH TO MOUNT AIR HANDLING UNIT. REFER TO PLUMBING PAGES FOR CONDENSATE ROUTING. REFER TO IMC 307.2.3 FOR AUXILIARY DRAIN PAN SIZING (OR JURISDICTION HAVING AUTHORITY).
- 7 PROVIDE W/ MOTORIZED DAMPER W/ OPEN/CLOSE OPERATION. DAMPER TO BE ACTUATED TO MAX ONLY WHEN COMPRESSOR OR HEATER IS ENERGIZED & ACTUATED TO THE CLOSED POSITION @ ALL OTHER TIMES. PROVIDE W/ ADDITIONAL MANUAL BALANCING DAMPER TO BALANCE CFM AMOUNTS OF OUTSIDE AIR. MECHANICAL CONTRACTOR TO PROVIDE W/ ANY ELECTRICAL HARDWARE TO POWER DAMPER.
- 8 WRAP GREASE DUCT & TOP OF HOOD ABOVE CEILING W/ TWO LAYERS OF 3M FIRE BARRIER DUCT WRAP 615+ OR EQUAL FROM HOOD COLLAR TO FAN ON ROOF.
- 9 KITCHEN CONTROL PANEL TO BE MOUNTED AT THIS LOCATION. BOTTOM @ 48" A.F.F.
- 10 COORDINATE LOCATION OF LOUVERS/WALLCAPS TO NOT CONFLICT WITH CONTROL JOINTS AND DOWNSPOUTS. SEAL EXTERIOR PENETRATION WATER TIGHT.
- 11 PROVIDE W/ REFRIGERANT LINE WALL PENETRATION HOUSING/PANEL EQUAL TO "WALL VAULT" MADE BY "ROOF PENETRATION HOUSINGS, LLC". WALL PANEL TO BE SIZED TO ACCOMMODATE REFRIGERANT LINES & CONDUIT. COORDINATE W/ ELECTRICAL REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE SECURED WITH LOCK-TYPE TAMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SCORED TO PREVENT UNAUTHORIZED ACCESS. PROVIDE ALUMINUM JACKETING ON ALL LINES EXTERIOR TO THE BUILDING.
- 12 PROVIDE W/ REFRIGERANT LINE WALL PENETRATION HOUSING/PANEL EQUAL TO "TGS SERIES PRO SYSTEM KIT" MADE BY "AIREX MANUFACTURING INC.". WALL PANEL TO BE SIZED TO ACCOMMODATE REFRIGERANT LINES. COORDINATE W/ ARCH FOR COLOR. SECURE WITH LOCK-TYPE TAMPER-RESISTANT FASTENERS TO PREVENT UNAUTHORIZED ACCESS. PROVIDE WITH UV/ WEATHER RESISTANT INSULATION PROTECTOR (E-FLEX GUARD).
- 13 MOUNT UNIT HEATER RECESSED IN WALL OR SURFACE MOUNTED ON WALL. BOTTOM OF UNIT HEATER TO BE AT MINIMUM OF 6'-0" A.F.F. PROVIDE W/ ACCESSORIES AS REQUIRED FOR WALL MOUNTING APPLICATION.
- 14 PROVIDE ALUMINUM PIPING SUPPORTS AT EVERY 4' FEET. PROVIDE ALUMINUM JACKETING ON ALL LINES EXTERIOR TO THE BUILDING.
- 15 CONDENSING UNIT FOR KITCHEN MAKE UP AIR UNIT (MAU-1).

1 MECHANICAL PLAN  
1/4"=1'-0"



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

**GENERAL NOTES - MECHANICAL:**

[1] THE MECHANICAL CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE WORK IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES UNDER THIS SECTION OF THE CONTRACT. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE LOCAL CODES, HE/SHE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET APPLICABLE LOCAL CODES, AND RE-WORK SHALL BE AT CONTRACTOR'S EXPENSE.

[2] CONTRACTOR SHALL HANG AND INSTALL ALL DUCTWORK FLUSH WITH THE BUILDING STRUCTURE TO ACCOMMODATE NEW CEILING. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WORK WITH ARCHITECTURAL AND ELECTRICAL DESIGN. ALL DUCTWORK SHALL BE MODIFIED AS NECESSARY AND REQUIRED TO FIT AROUND BUILDING STRUCTURES, ARCHITECTURAL BUILD-OUT AND ELECTRICAL CABLE TRAY INSTALLATIONS. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

[3] CONNECT EACH DIFFUSER TO THE MAIN DISTRIBUTION DUCTS WITH A FLEX-DUCT SECTION; CONNECTIONS SHALL BE COMPLETED IN ACCORDANCE WITH THE DETAIL. EACH FLEX-DUCT CONNECTION SHALL INCLUDE A BUTTERFLY DAMPER TO BE INSTALLED AT THE TRUNK DUCT.

[4] CONTRACTOR SHALL PROVIDE ALL DUCTWORK REQUIRED TO COMPLETE THE HVAC SYSTEM. TIE IN BRANCH DUCTS TO MAIN DUCTS WITH SHEET METAL FLANGES. FLANGE CONNECTION SHALL BE FASTENED WITH CRIMPED SHEET METAL STRIPS AND SEALED WITH SILICONE CAULK.

[5] CONTRACTOR SHALL SUPPLY AND INSTALL FIRE DAMPERS AND ACCESS DOORS IN THE HORIZONTAL DUCTS WHERE THEY PENETRATE FIRE WALLS & BARRIERS.

[6] ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE DRILLED OR SAWEED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS. CONTRACTOR SHALL REINFORCE ALL OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES

[7] ON ANY WORK SHOWN ON MECHANICAL DRAWINGS REQUIRING DEMOLITION OF EXISTING OR NEW BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS. REPAIRS SHALL BE COMPLETED ACCORDING TO ARCHITECTURAL SPECIFICATIONS. ALL REFINISHING SHALL BE APPROVED BY THE ARCHITECT.

[8] CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE INSTALLATION OF THE AIR DISTRIBUTION SYSTEM SHOWN. DUCTWORK, DUCT ACCESSORIES AND CONTROLS SHOWN AND REQUIRED SHALL BE SUPPLIED AND INSTALLED. ALL INSTALLATION WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE CODES, INCLUDING NFPA 90A AND 90B, (NFPA 90A: STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS) (NFPA 90B: STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS)

[9] CONTRACTOR SHALL BALANCE ALL AIR DISTRIBUTION SYSTEMS TO ACHIEVE THE AIR VOLUME REQUIREMENTS INDICATED. BALANCING SHALL INCLUDE ADJUSTMENT OF ALL MANUAL VOLUME DAMPERS, SHUTTER DAMPERS, ZONE DAMPERS (IF REQUIRED), BUTTERFLY DAMPERS AND INDIVIDUAL DIFFUSER VOLUME DAMPERS (FINAL BALANCING ONLY). CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A COMPLETE BALANCING REPORT WHICH INCLUDES: VOLUME, ROOM REFERENCE AND ZONE VOLUME TOTALS.

[10] MOUNT ALL THERMOSTATS (SENSORS) 48" ABOVE THE FINISHED FLOOR LEVEL. THERMOSTATS SHOWN SHALL BE IN CONTROL OF THE ZONE SYSTEM WHICH IS SUPPLYING AIR TO THE AREA WHERE THE THERMOSTAT IS LOCATED. CONTRACTOR SHALL SUPPLY AND INSTALL ALL CONTROL VOLTAGE WIRING AND CONDUIT FOR THERMOSTAT (DDC CONTROL) INSTALLATION.

[11] CONTRACTOR SHALL INSTALL NEW REFRIGERANT PIPING FLUSH WITH THE BUILDING STRUCTURE AND MECHANICAL ROOM BOUNDARIES AS SHOWN. CONTRACTOR SHALL COORDINATE ALL INSTALLATION WORK WITH DUCTS AND ELECTRICAL CONDUIT. MECHANICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE WORK SCOPE OF OTHER TRADES AND PARTICIPATE IN COORDINATING ALL CONSTRUCTION EFFORTS.

[12] ALL PIPING SHALL BE INSULATED AND JACKETED. REFER TO THE SPECIFICATIONS. THE CONDENSING AND ROOF TOP CONDENSER COILS ARE TO BE COATED IN ACCORDANCE WITH THE SPECIFICATIONS.

[13] PROVIDE SMOKE DETECTOR AND SHUTDOWN CONTROLS ON AIR HANDLERS AND SUPPLY FANS. SMOKE DETECTORS SHALL BE PROVIDED BY ELECTRICAL AND INSTALLED BY MECHANICAL. COORDINATE TO PROVIDE A COMPLETE SYSTEM. PROVIDE BOTH SUPPLY AND RETURN SIDE DEVICES.

[14] PROVIDE SEVEN DAY PROGRAMMABLE THERMOSTAT, 24 HOUR SINGLE/MULTI STAGE COMMERCIAL THERMOSTAT, DUAL SET POINTS, OCCUPIED AND UNOCCUPIED PERIODS, UNIT OPTIMIZATION, AUTO HEATING/COOLING AND AUTO CHANGE OVER, SUB-BASE BACK-UP BATTERY AND TEMPORARY OVER-RIDE, 24 VAC CONTROL VOLTAGE. PROVIDE PLASTIC SEE THRU PROTECTIVE COVER WITH KEY LOCK.

[15] **FILTER INSTALLATION AND REPLACEMENT**  
A. INSTALL CONSTRUCTION RETURN FILTER AT EACH RETURN GRILLE BEFORE OPERATING PERMANENT AIR HANDLERS DURING CONSTRUCTION.  
B. REPLACE FILTERS AFTER COMPLETING CONSTRUCTION AND BEFORE CONDUCTING BUILDING FLUSH-OUT.  
1. REPLACE CONSTRUCTION RETURN FILTERS WITH FLUSH-OUT RETURN FILTERS.  
2. REPLACE SUPPLY FILTERS.

MECHANICAL SYMBOL LEGEND		MECHANICAL ABBREVIATIONS	
		A/C	AIR CONDITIONED
		AD	ACCESS DOOR
		AFF	ABOVE FINISHED FLOOR
		AHU	AIR HANDLING UNIT
		APPROX	APPROXIMATE
		ARCH	ARCHITECTURAL
		BDD	BACK DRAFT DAMPER
		BHP	BRAKE HORSEPOWER
		BTU	BRITISH THERMAL UNIT
		CFM	CUBIC FEET PER MINUTE
		CH	CHILLER
		CHP	CHILLED WATER PUMP
		CLG	CEILING
		CWP	CONDENSING WATER PUMP
		CO	CLEANOUT
		CT	COOLING TOWER
		CW	COLD WATER
		CL	CENTER LINE
		DB	DRY BULB
		DIA	DIAMETER
		DN	DOWN
		DWG	DRAWING
		DX	DIRECT EXPANSION
		EAT	ENTERING AIR TEMPERATURE
		EDH	ELECTRIC DUCT HEATER
		EF	EXHAUST FAN
		ELEC	ELECTRICAL
		ELEV	ELEVATION
		F	DEGREES FAHRENHEIT
		FC	FAN COIL
		FD	FIRE DAMPER W/ DUCT ACCESS DOOR
		FLEX	FLEXIBLE
		FLG	FLANGE
		FLR	FLOOR
		FPM	FEET PER MINUTE
		FT	FEET, FOOT
		FS	FLOW SWITCH
		GAL	GALLON
		GALV	GALVANIZED
		GPM	GALLONS PER MINUTE
		HB	HOSE BIBB
		HP	HORSEPOWER
		HR	HEAT PUMP (WATER SOURCE)
		HR	HOUR
		HVAC	HEATING/VENTILATING/ AIR CONDITIONING
		HWP	HOT WATER PUMP
		HZ	HERTZ
		ID	INSIDE DIAMETER
		IE	INVERT ELEVATION (FLOW LINE)
		IN	INCHES
		INSUL	INSULATION
		IN WG	INCHES OF WATER
		KW	KILOWATT(S)
		LAT	LEAVING AIR TEMPERATURE
		LB	POUND
		L	LOUVER
		MAX	MAXIMUM
		MBD	MANUAL BALANCING DAMPER
		MD	MOTORIZED DAMPER
		MECH	MECHANICAL
		MIN	MINIMUM
		MS	MOTOR STARTER
		NA	NOT APPLICABLE
		NC	NORMALLY CLOSED
		NIC	NOT IN CONTRACT
		NO	NORMALLY OPEN
		NIS	NOT TO SCALE
		OA	OUTSIDE AIR
		OAH	OUTSIDE AIR INTAKE HOOD
		OBD	OPPOSED BLADE DAMPER
		OC	ON CENTER
		P	PUMP
		PBD	PARALLEL BLADE DAMPER
		PP	PRIMARY CHILLED WATER PUMP
		PRESS	PRESSURE
		PRV	PRESSURE REDUCING VALVE
		PSIG	POUNDS PER SQUARE INCH (GAUGE)
		R	RETURN (AIR DEVICE)
		RA	RETURN AIR
		RE: 4M7.01	REFER TO DETAIL 4, SHEET M7.01
		RET	RETURN
		RH	RELATIVE HUMIDITY
		RHD	RELIEF HOOD
		RPM	REVOLUTIONS PER MINUTE
		RTU	ROOF TOP UNIT
		S	SUPPLY (AIR DEVICE)
		SA	SUPPLY AIR
		SCH	SCHEDULE
		SCHP	SECONDARY CHILLED WATER PUMP
		SD	SMOKE DAMPER
		SEC	SECOND
		SF	SUPPLY FAN
		SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
		SP	STATIC PRESSURE
		SPEC	SPECIFICATION
		SF	SQUARE FOOT
		STD	STANDARD
		TEMP	TEMPERATURE
		TSTAT	THERMOSTAT
		TYP	TYPICAL
		UF	UNDER FLOOR
		UH	UNIT HEATER
		UL	UNDERWRITERS LABORATORIES
		VEL	VELOCITY
		VENT	VENTILATE
		VF	VENTILATION FAN
		VOL	VOLUME
		VOLT	VOLTAGE
		W	WIDE, WIDTH
		W/	WITH
		WB	WET BULB
		W/O	WITHOUT

**H.V.A.C. SYSTEM**

THE WORK INCLUDES PROVIDING THE HVAC SYSTEMS, INCLUDING DUCTWORK, DIFFUSERS AND GRILLES, INSULATION, CONTROLS, AND ALL OTHER EQUIPMENT NECESSARY FOR A COMPLETE FUNCTIONING SYSTEM. HVAC SYSTEM SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING:

- HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) UNITS.
- SUPPLY AND RETURN DUCTWORK SYSTEMS WITH GRILLES, DIFFUSERS, FILTERS, AND DAMPERS.
- TEMPERATURE CONTROL SYSTEM INCLUDING LOW VOLTAGE WIRING AND CONDUIT.
- DUCT, PIPING, AND EQUIPMENT INSULATION, WHERE INDICATED HEREIN.
- CONTROLS AND WIRING FOR CONNECTION TO LANDLORD'S FIRE-SMOKE ALARM SYSTEM (WHERE APPLICABLE).

**SECTION 15500**

THE CONTRACTOR SHALL COORDINATE ALL NEW DUCTWORK INCLUDING DUCTWORK INSULATION AND REINFORCING WITH EXISTING DUCTWORK AND DUCTWORK ANGLE BRACING SUCH THAT THE NEW DUCTWORK WILL FIT WITHIN THE SPACE LIMITATIONS OF THE PROJECT.

CONDENSATE PIPING: CONDENSATE PIPING SHALL BE A MINIMUM OF 3/4" COPPER TYPE "L" PIPE. ALL CONDENSATE DRAINS SHALL BE INSULATED WITH 1/2" THICK CLOSED CELL INSULATION SIMILAR TO ARMAFLEX 2000.

THE DESIGN, SELECTION, SPACING AND APPLICATION OF HORIZONTAL PIPE HANGERS, SUPPORTS, RESTRAINTS, ANCHORS AND GUIDES SHALL BE IN ACCORDANCE WITH THE STANDARD CODE FOR PRESSURE PIPING ANSI B31.1 AND THE LATEST EDITION OF THE MANUFACTURERS' STANDARDIZATION SOCIETY STANDARDS MSS SP-69, "PIPE HANGERS AND SUPPORTS-SELECTION AND APPLICATION".

PROVIDE PIPE COVERING PROTECTION SHIELDS AND SADDLES FOR ALL INSULATED PIPING AT THE LOCATIONS OF ALL SUPPORTS. THE PROTECTION SHIELD LENGTH AND GAUGE THICKNESS FOR USE AT EACH CLEVIS HANGER SHALL BE AS SPECIFIED FOR TYPE 40 PROTECTION SHIELDS IN THE CURRENT EDITION OF MSS SP-69. PROTECTION SHIELDS SHALL BE GALVANIZED AND SHALL BE ARRANGED TO COVER ONE-HALF OF THE CIRCUMFERENCE OF THE INSULATION AND SHALL BE MOUNTED ON THE OUTSIDE OF THE INSULATION WITH INSULATION BLOCKING BETWEEN THE PIPE AND SADDLE TO PREVENT CRUSHING OF THE INSULATION.

INSULATION BLOCKING SHALL BE UPJOHN 2 POUND HIGH DENSITY MOLDED URETHANE OR SEGMENTED MACHINERY CORK DIPPED IN HOT ASPHALT VAPOR SEAL OF NOT LESS THAN THE SAME LENGTH AND CIRCUMFERENCE AS THE PIPE PROTECTION SHIELD.

ALL HANGERS, HARDWARE, RODS, CLAMPS, CHANNELS, BASE PLATES, ANGLES, BOLTS, NUTS AND OTHER FACTORY-BUILT OR SHOP FABRICATED PIPE SUPPORT DEVICES SHALL BE GALVANIZED OR CADMIUM PLATED UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL SHOP FABRICATED AND WELDED STEEL SUPPORTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

ALL CONCRETE INSERTS FOR HANGER RODS SHALL BE NATIONAL PIPE HANGERS CORPORATION FIGURE 606 WITH FIGURE 607, OR GRINNELL FIGURE 282, FIGURE 152, OR APPROVED EQUAL. METAL DECK CONCRETE INSERT SHALL BE F & S MANUFACTURING CORPORATION FIGURE 282. GALVANIZED FABRICATED STEEL METAL DECK CEILING BOLT, PHILLIPS RED HEAD, OR APPROVED EQUAL. HANGER RODS, INSERTS, ETC., SHALL BE SIZED AND INSTALLED AS RECOMMENDED BY THE HANGER MANUFACTURER FOR THE SERVICE INTENDED.

FIELD VERIFY THE EXACT SIZES AND LOCATIONS OF ALL EXISTING DUCTWORK AND PIPING PRIOR TO DEMOLITION OF ANY EXISTING WORK. THE DEMOLITION WORK SHALL BE COORDINATED WITH THE NEW WORK TO ASSURE PROPER LIMITS OF DEMOLITION.

WARRANTY: PROVIDE LABOR AND MATERIALS TO REPAIR OR REPLACE DEFECTIVE PARTS AND MATERIALS AS REQUIRED FOR ONE YEAR AFTER SUBSTANTIAL COMPLETION OR OWNER ACCEPTANCE OF THE COMPLETED PROJECT. PROVIDE A SEPARATE LINE ITEM DEDUCT AMOUNT ON THE PROPOSAL FORM TO DELETE WARRANTY SERVICE, AT THE OWNER'S OPTION.

DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS, AS REQUIRED. PROVIDE ALL DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED. THE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES OR ORDINANCES AND SUBJECT TO INSPECTION.

COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE LANDLORD, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE.

EXTRA STOCK: PROVIDE TWO SETS OF REPLACEMENT FILTERS PER EACH INSTALLED FOR ALL THE ROOFTOP UNITS, AND OTHER EQUIPMENT AND DEVICES, AND PROVIDE AN ITEMIZED LIST OF THE NUMBER, TYPE REQUIRED, AND WHERE USED. OBTAIN RECEIPT FROM OWNER THAT THESE ITEMS HAVE BEEN DELIVERED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE.

DUCT DIMENSIONS: UNLESS OTHERWISE NOTED, DUCT DIMENSIONS ON DRAWING ARE SHEET METAL DIMENSIONS ON UNLINED DUCTS (INTERIOR DIMENSIONS).

SHEET METAL DUCTWORK: SHEET METAL DUCTWORK SHALL BE FABRICATED AND INSTALLED TO MEET ASHRAE AND SMACNA STANDARDS. SHEET METAL SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS, AS REQUIRED. PROVIDE ALL DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT INDICATED. THE WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES OR ORDINANCES AND SUBJECT TO INSPECTION.

DUCT SHALL BE EXTERNALLY WRAPPED W/ 2" FIBERGLASS BLANKET INSULATION. RIGID ROUND GALVANIZED DUCT SHALL BE SPIRAL OR SNAP LOCK GALVANIZED SHEETMETAL COMPLYING WITH SMACNA.

FLEXIBLE DUCT CONNECTOR: WHERE INDICATED PROVIDE U.L. LABELED 30oz. NEOPRENE COATED FIBERGLASS FABRIC DUCT CONNECTORS.

GRILLES AND DIFFUSERS: PROVIDE GRILLES, DIFFUSERS, AND DAMPERS IN SIZES, CAPACITIES, MATERIALS, AND PATTERN INDICATED ON THE DRAWINGS.

ACCESS PANELS: PROVIDE HINGED ACCESS PANELS IN DUCTWORK WHERE REQUIRED FOR ACCESS TO EQUIPMENT. PROVIDE INSULATED ACCESS DOORS IN INSULATED DUCTWORK.

PROVIDE WHERE APPLICABLE, DUCT MOUNTED SUPPLY AND/OR RETURN AIR PHOTOELECTRIC TYPE UL LISTED SMOKE DETECTORS. DETECTORS SHALL BE LISTED FOR THE AIR VELOCITIES ENCOUNTERED. PROVIDE INTERLOCK WIRING AND RELAYS FOR UNIT SHUT DOWN. ON ACTIVATION OF ANY DETECTOR, ALL HVAC UNIT FANS SHALL STOP.

TEST AND ADJUST EACH PIECE OF EQUIPMENT AND EACH SYSTEM AS REQUIRED TO ASSURE PROPER BALANCE AND OPERATION. TEST AND BALANCE SHALL BE PERFORMED BY AN INDEPENDENT NEBB OR AABC REGISTERED CONTRACTOR. ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF ALL CONTROLS, MAINTENANCE OF TEMPERATURE, AND OPERATION. BALANCE MECHANICAL SYSTEM, AND SUBMIT COMPLETED TEST.

EXPOSED ROUND (SPIRAL) DUCT TO BE INTERNALLY LINED. SUPPLY DUCTWORK SHALL BE LINED W/1" INSULATION. RETURN/SHUT/VENTILATION DUCT TO BE LINED W/1/2" INSULATION. CONCEALED ROUND DUCT TO BE EXTERNALLY INSULATED, USING R-6 INSULATION MIN FOR CONDITIONED SPACES (WHERE PLENUM RETURN IS USED) OR R-8 INSULATION MIN FOR UNCONDITIONED SPACES.

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

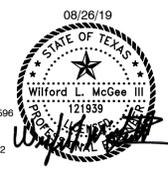
PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

M2.1

TRINITY  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78766  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10082  
Project number: 19.3.6







MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

### AIR TYPE/UNIT SCHEDULE

TAG	AHU-1	AHU-2	AHU-3
TYPE	SNGL ZN VAV VERTICAL	SNGL ZN VAV VERTICAL	SNGL ZN VAV HORIZONTAL
FLOW CONFIGURATION	AREA SERVED	CONF/STAGE	CONFERENCE
INDOOR UNIT FAN	SUPPLY CFM 1750	1400	1850
MIN. OUTSIDE AIR [CFM]	300	250	200
EXT. STATIC INCHES WC	0.5	0.5	0.5
MIN FAN POWER	3/4 HP - ECM	3/4 HP - ECM	1.0 HP
INDOOR UNIT COOLING COIL	ENTERING AIR DB/WB [°F] 78.31/65.11	78.54/65.27	76.35/63.63
LEAVING AIR DB/WB [°F]	57.5/55.3	54.8/54.8	55.9/53.8
MIN. TOTAL/SENSIBLE CAPACITY [MBH]	53.4/41.1	43.2/32.5	52.1/40.4
DESIGN RETURN AIR DB/WB [°F]	73/61	73/61	73/61
DESIGN OUTSIDE AIR DB/WB [°F]	104/81	104/81	104/81
INDOOR UNIT HEATING SELECTION	HEATER TYPE/AMBIENT DESIGN DB [°F] ELEC/33	ELEC/33	ELEC/33
HEAT INPUT/STAGES	9.6 KW/1	7.4/1	7.6 KW/1
ENTERING/LEAVING DB [°F]	63/80.3	64/81.2	65/78
DETAILS AND ACCESSORIES	VOLTAGE/PHASE 240/1	240/1	240/1
MCA/MOCP	60/60	50/50	50/50
MANUFACTURER	TRANE	TRANE	TRANE
MODEL	GAM580C40	GAM580C48	GAM580C40
NOMINAL UNIT SIZE TONNAGE	5.0 TONS	4.0 TONS	5.0 TONS
MAX WEIGHT [lbs]	225 lbs	175 lbs	200 lbs
NOTES	1-5	1-5	1-5

### CONDENSING UNIT SCHEDULE

TAG	CU-1	CU-2	CU-3
OUTDOOR UNIT ELECTRICAL	VOLTAGE/PHASE 240/1	240/1	240/1
MCA/MOCP	37/60	28/45	37/60
DETAILS AND ACCESSORIES	MIN COOL/HEAT EFFICIENCY 17 SEER/-	17 SEER/-	17 SEER/-
COMPRESSOR QTY/STAGE QTY	1/2	1/2	1/2
COOL/HEAT AMBIENT DB [°F]	104/33	104/33	104/33
MANUFACTURER	TRANE	TRANE	TRANE
MODEL	4TR7060	4TR7048	4TR7060
NOMINAL UNIT SIZE TONNAGE	5.0 TONS	4.0 TONS	5.0 TONS
MAX WEIGHT	312 lbs	325 lbs	312 lbs
NOTES	3-7	3-7	3-7

NOTES:  
01. MECHANICAL CONTRACTOR TO PROVIDE ADDITIONAL BELTS & PULLEYS AS NECESSARY SUCH THAT TESTING ADJUSTING & BALANCING CAN BE PERFORMED TO THE DESIGN AIR VOLUMES SPECIFIED IN SCHEDULE ABOVE.  
02. PROVIDE AUXILIARY DRAIN PAN W/ CUTOFF FLOAT SWITCH WIRED TO I-STAT.  
03. PROVIDE W/ SINGLE POINT PWR; TRANE, CARRIER, LENNOX, ACCEPTABLE MFGS.  
04. CLEARANCES & SA/RA COLLARS SHOWN ON PLANS ARE FOR SCHEDULED MAKE/MODEL. IF A SUBSTITUTION IS MADE, CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING SA/RA DUCTWORK & CLEARANCES AS PER SUBSTITUTED MANUFACTURER'S REQUIREMENTS.  
05. PROVIDE W/ SINGLE ZONE VAV CONTROL.  
06. PROVIDE CONDENSER W/ FACTORY HAIL GUARDS & RUBBER ISOLATOR MOUNTING KIT.  
07. PROVIDE CONDENSER COIL W/ FACTORY APPROVED E-COAT.

### MAKEUP AIR UNIT SCHEDULE

TAG	MAU-1
TYPE	SPLIT DX CONST VOL DOWNFLOW
DISCHARGE CONFIGURATION	AREA SERVED
FAN DATA	MIN. OUTSIDE AIR [CFM] 2950
EXT. STATIC INCHES WC	0.5
MIN FAN POWER	1.0 HP
COOLING COIL	ENTERING AIR DB/WB [°F] 104/81
LEAVING AIR DB/WB [°F]	84.3/73.7
MIN. TOTAL/SENSIBLE CAPACITY [MBH]	96/64
HEATING SELECTION	HEAT TYPE/AMBIENT DB [°F] NONE
HEAT INPUT/STAGES	-
ENTERING/LEAVING DB [°F]	-
DETAILS AND ACCESSORIES	MIN COOL/HEAT EFFICIENCY -/-
COMPRESSOR QTY/COOL STAGE QTY	1/1
VOLTAGE/PHASE	240/3
MCA/MOCP	7/15
MOUNTING	14" TDI CURB
MANUFACTURER	GREENHECK
MODEL	MSX-P116-H22-MF
NOMINAL UNIT SIZE TONNAGE	7.5 TONS
MAX WEIGHT	1800 lbs
NOTES	ALL

NOTES:  
01. PROVIDE W/ FACTORY POWERED GFI DUPLEX 120V RECEPTACLE.  
02. PROVIDE W/ SPLIT DX COOLING. PROVIDE W/ 7.5 TON CONDENSER @ 240V/3p POWER. SINGLE STAGE COOLING. COORDINATE POWER REQUIREMENTS W/ ELECTRICAL SUBCONTRACTOR.  
03. UNIT TO BE INTERLOCKED W/ KEF-1 AS PER IMC 508.  
04. PROVIDE W/ ALUMINUM MESH WEATHERHOOD.  
05. PROVIDE W/ INLET DAMPER AT OA INTAKE.  
06. PROVIDE W/ DOUBLE WALL INSULATION FROM COOLING SECTION & DOWNSTREAM.  
07. PROVIDE W/ TEMP SENSORS FOR AUTOMATIC COOLING/HEATING CHANGEOVER.  
08. PROVIDE IBC 2015 COMPLIANT CURB & ATTACHMENTS FROM UNIT TO CURB & CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:  
A) ATTACHMENT OF EQUIPMENT TO CURB.  
B) CURB TO STRUCTURE.  
C) CURB AND ATTACHMENT HARDWARE STRENGTH.  
REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS. EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.  
BOTH THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING & PROJECT SITE & STAMPED & SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.  
09. MAU TO BE CONTROLLED VIA KITCHEN CONTROL PANEL.  
10. PROVIDE W/ EXTERNAL COOLING LOCKOUT RELAY, COORDINATE W/ ELECTRICAL.  
11. PROVIDE W/ FACTORY FREEZE PROTECTION.  
12. CONTRACTOR TO PROVIDE ADDITIONAL PULLEYS & BELTS AS NEEDED FOR TESTING. ADJUSTING & BALANCING OF FAN TO DESIGN AIR VOLUME.

### FAN SCHEDULE

TAG	EF-1-3	KEF-1
SERVICE	RR	HOOD-1
LOCATION	CEILING	ROOF
FAN PROPERTIES	CFM 75	3,100
FAN RPM	900	1081
EXT SP [IN WG]	0.15	0.75
FAN POWER	18 W	2.0 HP - ECM
VOLTS/PHASE	120/1	240/1
SOUND LEVEL	0.6 SONE	14.9 SONES
MOUNTING	CEILING	14" TDI CURB
MANUFACTURER	GREENHECK	GREENHECK
MODEL	SP-880	K-CUE-180-VG
MAX WEIGHT	25 lbs	125 lbs
NOTES	1,2,3,4,5	1,6-12

NOTES:  
01. PROVIDE WITH FACTORY INSTALLED DISCONNECT.  
02. INTERLOCK FAN W/ LIGHTS.  
03. PROVIDE W/ BACKDRAFT DAMPER.  
04. PROVIDE W/ FAN SPEED CONTROL.  
05. PROVIDE W/ TIMED DELAY SHUTOFF.  
06. PROVIDE IBC 2015 COMPLIANT CURB & ATTACHMENTS FROM UNIT TO CURB & CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:  
A) ATTACHMENT OF EQUIPMENT TO CURB.  
B) CURB TO STRUCTURE.  
C) CURB & ATTACHMENT HARDWARE STRENGTH.  
REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS. EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 'A' & 'B' LISTED ABOVE. BOTH THE ENGINEERED ANALYSIS & THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING & PROJECT SITE & STAMPED & SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.  
07. PROVIDE W/ FAN MOUNTED POTENTIOMETER FOR SPEED CONTROL.  
08. PROVIDE W/ LIFTING LUGS.  
09. PROVIDE KITCHEN HOOD EXHAUST FAN W/ VENTED & CANTED CURB, FLASHING FLANGE & HINGE CURB KIT  
10. PROVIDE FAN W/ NONSTICK COATING & GREASE KIT FOR RESTAURANT APPLICATIONS.  
11. FAN TO BE UL/GUL 762 LISTED - "POWER VENTILATORS FOR RESTAURANT EXHAUST APPLIANCES".  
12. FAN TO BE CONTROLLED W/ KITCHEN CONTROL PANEL. PROVIDE W/ TEMPERATURE SENSOR(S) THAT AUTOMATICALLY TURN ON EACH FAN & MAKEUP AIR UNIT FOR EACH HOOD (SECTION).

### KITCHEN HOOD SCHEDULE

TAG	HOOD-1
WALL CANOPY	182
GAS EQUIPMENT	48
HOOD LENGTH [IN]	182
HOOD DEPTH [IN]	48
FRONT AIR CURTAIN DEPTH [IN]	14
REAR AIR CURTAIN DEPTH [IN]	14
LEFT AIR CURTAIN DEPTH [IN]	14
RIGHT AIR CURTAIN DEPTH [IN]	0
FIRE SUPPRESSION UTILITY CABINET DEPTH [IN]	12
OVERALL HOOD LENGTH [IN]	208
OVERALL HOOD DEPTH [IN]	62
AIR FLOW DETAILS	EXHAUST CFM 3100
MIN EXHAUST COLLAR AIR SPEED [FPM]	1500
SUPPLY AIR CONFIGURATION	AIR CURTAIN
SUPPLY CFM	2950
NUMBER OF COLLARS	5
MANUFACTURER	GREENHECK
MODEL	GXEW
NOTES	1-14

NOTES:  
01. PROVIDE PREWIRED FOR POWER AND LIGHTS  
02. PROVIDE HANGER BRACKETS.  
03. UL 710 LISTED WITHOUT FIRE DAMPER  
04. UL TEMPERATURE RATING (600 DEGREES F)  
05. PROVIDE INCANDESCENT LIGHT FIXTURES - MIN. 40 FOOT CANDLES  
06. GREASE CUP MOUNTED ON LEFT END OF HOOD  
07. INTEGRAL 3" AIR SPACE ON HOOD BACK ONLY  
08. PROVIDE WITH FIRE SUPPRESSION SYSTEM.  
09. PROVIDE WITH MINI END SKIRTS ON LEFT END OF HOOD (WHERE INDICATED).  
10. PLACE HOOD 78" ABOVE FINISHED FLOOR.  
11. PROVIDE W/ FILTERS W/ A SPECIFIED CUT POINT @ 5 MICRONS.  
12. PROVIDE FOR BACKSPASH ON REAR & RIGHT SIDES OF HOOD (WHERE APPLICABLE).  
13. PROVIDE W/ TEMPERATURE SENSOR(S) IN HOOD TO AUTO-ENGAGE VENT FANS.  
14. PROVIDE W/ FIRE SUPPRESSION UTILITY CABINET ON LEFT END OF HOOD.

### AIR DEVICE SCHEDULE

TAG	SERVICE TYPE	A	B	C	D	E
PHYSICAL PROPERTIES	FACE SIZE	24"x24"	12"x12"	24"x24"	two 48"x2" slots	24"x24"
NECK SIZE	SEE PLANS					
MOUNTING SURFACE	CEILING	CEILING	CEILING	CEILING	CEILING	
DETAILS AND ACCESSORIES	DAMPER TYPE	OPPOSED BLADE	OPPOSED BLADE	OPPOSED BLADE	BUTTERFLY DAMPER	OPPOSED BLADE
ACCESSORY	INSUL BACKPAN	INSUL BACKPAN	INSUL BACKPAN	INSUL PLENUM	INSUL BACK PAN	INSUL BACK PAN
COLOR FINISH	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
MATERIAL	STEEL	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	SCD	ASCD	80	ASPI	APDN	3
NOTES				1,2		

NOTES:  
01. PROVIDE W/ FACTORY FULLY INSULATED ENGINEERED PLENUM. FIELD INSULATE END CAPS. PROVIDE W/ HARDWARE FOR MOUNTING ON SURFACE INDICATED ON PLANS.  
02. COORDINATE COLOR OF AIR DEVICE & FRAME W/ ARCHITECT.  
03. REMOVE AIR PATTERN CONTROLLERS FOR SUPPLY AIR DEVICES SERVING KITCHEN/COOKING/SERVING AREAS.

### OUTSIDE AIR CALCULATIONS

AREA	OCCUPANT QUANTITY	REQ'D OA CFM/OCC	TOTAL OCC OA REQ'D	SQFT	REQ'D OA CFM/SQFT	TOTAL SQFT OA REQ'D	RM TOTAL OA REQ'D	TOTAL OA SUPPLIED
305 CONFERENCE	39	5	195	1000	0.06	60	255	
307 STAGE	5	5	25	295	0.06	17.7	43	
RESTROOM	1	0	0	50	0	0	0	
<b>TOTAL AHU-1</b>	<b>45</b>			<b>1345</b>			<b>298</b>	<b>300</b>
304 CONFERENCE	38	5	190	975	0.06	58.5	249	
309 UNISEX	1	0	0	55	0	0	0	
<b>TOTAL AHU-2</b>	<b>39</b>			<b>1030</b>			<b>249</b>	<b>250</b>
300 KITCHEN	4	0	0	755	0	0	0	
302 OFFICE	1	5	5	90	0.06	5.4	10	
303 STORAGE	0	5	0	115	0.12	13.8	14	
301 RR	1	0	0	40	0	0	0	
<b>TOTAL AHU-3</b>	<b>6</b>			<b>1000</b>			<b>24</b>	<b>200</b>

### AIR BALANCE SCHEDULE

MARK	O.A. IN (+)	E.A. OUT (-)	TOTALS
AHU-1	300		
AHU-2	250		
AHU-3	200		
MAU-1	2,950		
KEF-1		3,100	
EF-1		75 (INTERMITTENT)	
EF-2		75 (INTERMITTENT)	
EF-3		75 (INTERMITTENT)	
<b>TOTAL=</b>	<b>3,700</b>	<b>3,100</b>	<b>600</b>

### LOUVER SCHEDULE

TAG	L-1	L-2
TYPE	INTAKE	INTAKE
SERVICE	AHU-1,2	AHU-3
DETAILS AND ACCESSORIES	MAX CFM 550	200
LENGTH/HEIGHT [IN]	32/16	20/12
FREE AREA [SQ FT]	1.04	0.37
MAX VELOCITY [FPM]	530	550
MAX PRESSURE DROP [IN. H2O]	0.05	0.05
FINISH	1.2 mils 70% PVDF	1.2 mils 70% PVDF
INCLUDED SCREENS	BIRD	BIRD
ACTUATION TYPE	NONE	NONE
BORDER STYLE	2" FLANGE	2" FLANGE
MANUFACTURER	GREENHECK	GREENHECK
MODEL	EHH-501X	EHH-501X
NOTES	1,2,3	1,2,3

NOTES:  
01. LOUVER OPENINGS TO BE SAW CUT.  
02. SEAL OPENING WEATHER TIGHT.  
03. TO BE AMCA 540 & 550 LISTED

### ROOF CAP SCHEDULE

TAG	RC-1
TYPE	EXHAUST
SERVES	RRs
LOCATION	ROOF
DETAILS AND ACCESSORIES	VOLTS/PHASE 240/1
POWER INPUT	1 KW
AMPERAGE	5
MAX AIR VOL. [CFM]	75
NECK SIZE [INCHES]	4"
MAX PRESSURE DROP [IN WG]	-
MANUFACTURER	MARKEL
MODEL	(3000 series)
NOTES	ALL

NOTES:  
01. PROVIDE W/ AUTOMATIC ON/OFF VIA THERMOSTAT.  
02. UNIT TO SWITCH ON WHEN SPACE TEMPERATURE REACHES 35°.  
03. PROVIDE W/ DISCONNECT.  
04. PROVIDE W/ SURFACE MOUNT FRAME

### UNIT HEATER SCHEDULE

TAG	UH-1
SERVICE/LOCATION	RISER ROOM
DETAILS & ACCESSORIES	

NOTES:  
01. PROVIDE W/ AUTOMATIC ON/OFF VIA THERMOSTAT.  
02. UNIT TO SWITCH ON WHEN SPACE TEMPERATURE REACHES 35°.  
03. PROVIDE W/ DISCONNECT.  
04. PROVIDE W/ SURFACE MOUNT FRAME

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

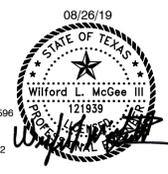
DATE  
AUG 26, 2019

SHEET NUMBER

M3.2

TRINITY  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Westlaco, Tx 78966  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10082  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

M4.1

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	TOTAL CFM	EXHAUST COLLAR(S)				SUPPLY		TOTAL WEIGHT LBS.	SECTION LOCATION	
			LENGTH	WIDTH	HEIGHT				WIDTH	LENGTH	DIA.	CFM	S.P.	MUA CFM			AC CFM
1	HOOD-1	GXEW-181-S	181	48	24	430 SS WHERE EXPOSED	HEAVY	3100	12	12		1550	0.511	2950		527.917	SINGLE

HOOD INFORMATION

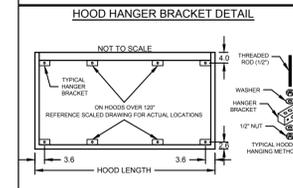
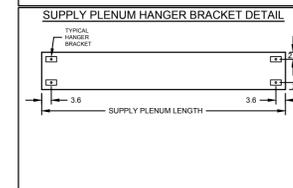
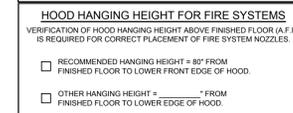
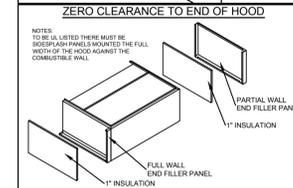
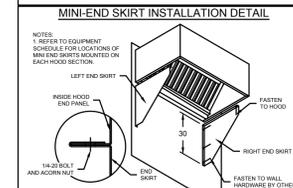
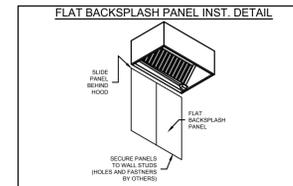
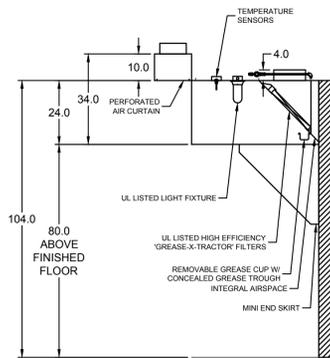
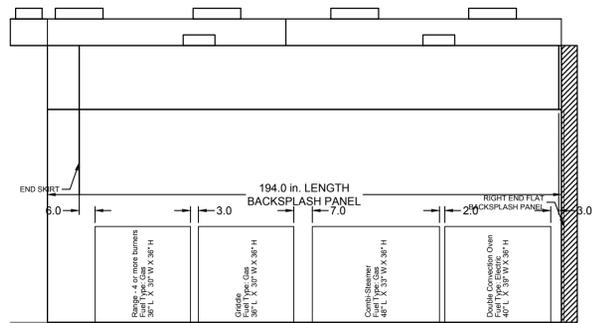
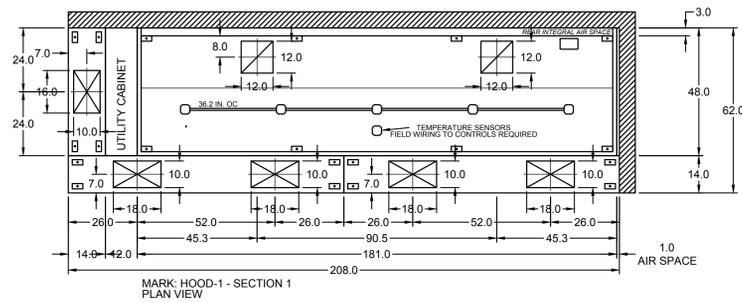
HOOD NO.	MARK	LIGHTING DETAILS				GREASE FILTRATION DETAILS				UTILITY CABINET(S)				
		FIXTURE TYPE	BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL	MATERIAL	QTY	SIZE (IN.)	LOCATION	FIRE SYSTEM	SIZE	MODEL	CONTROLS INTERFACE
1	HOOD-1	INCANDESCENT (GLOBE)	100W A19 (BULBS NOT INCL.)	5	45.09	X-TRACTOR	STAINLESS STEEL	5	16	LEFT				

SUPPLY PLENUM INFORMATION

HOOD NO.	MARK	POS.	TYPE	SIZE (IN.)			INSULATED	DAMPER(S)	LED LIGHT(S)		COLLARS							
				L	W	H			SUPPLIED	QTY	CFM	TYPE	MOUNTING	QTY	W	L	DIA.	CFM
1	HOOD-1	LEFT	ASP	48	14	10	NO	NO	NO	550	MUA	FACTORY	1	10	16	550	0.09	495
1	HOOD-1	FRONT	ASP	104	14	10	NO	NO	NO	1200	MUA	FACTORY	2	10	18	600	0.09	480
1	HOOD-1	FRONT	ASP	104	14	10	NO	NO	NO	1200	MUA	FACTORY	2	10	18	600	0.09	480

HOOD OPTIONS

UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #MH11726  
BACK INTEGRAL AIR SPACE - 3 IN WIDE  
RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE  
FACTORY MOUNTED EXHAUST COLLAR(S)  
LEFT MINI END SKIRT - 30 IN HIGH 30.00 IN TOP WIDTH 4.0 IN BOTTOM WIDTH  
BACKSPASH 80.00 IN HIGH 194.00 IN LONG  
RIGHT SIDESPLASH 80.00 IN HIGH 48.00 IN LONG  
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY  
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



TRINITY  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Westlaco, Tx 78786  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

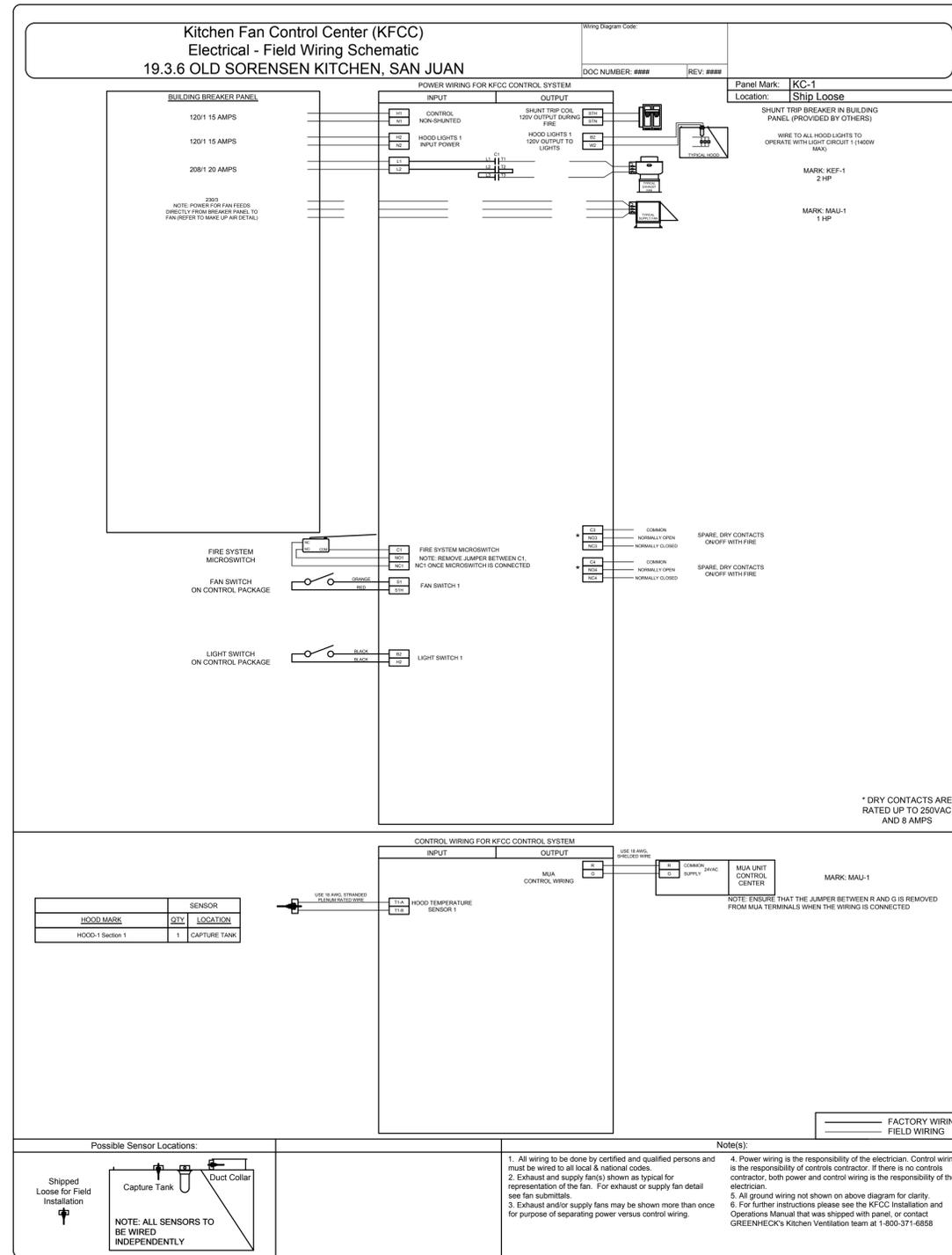
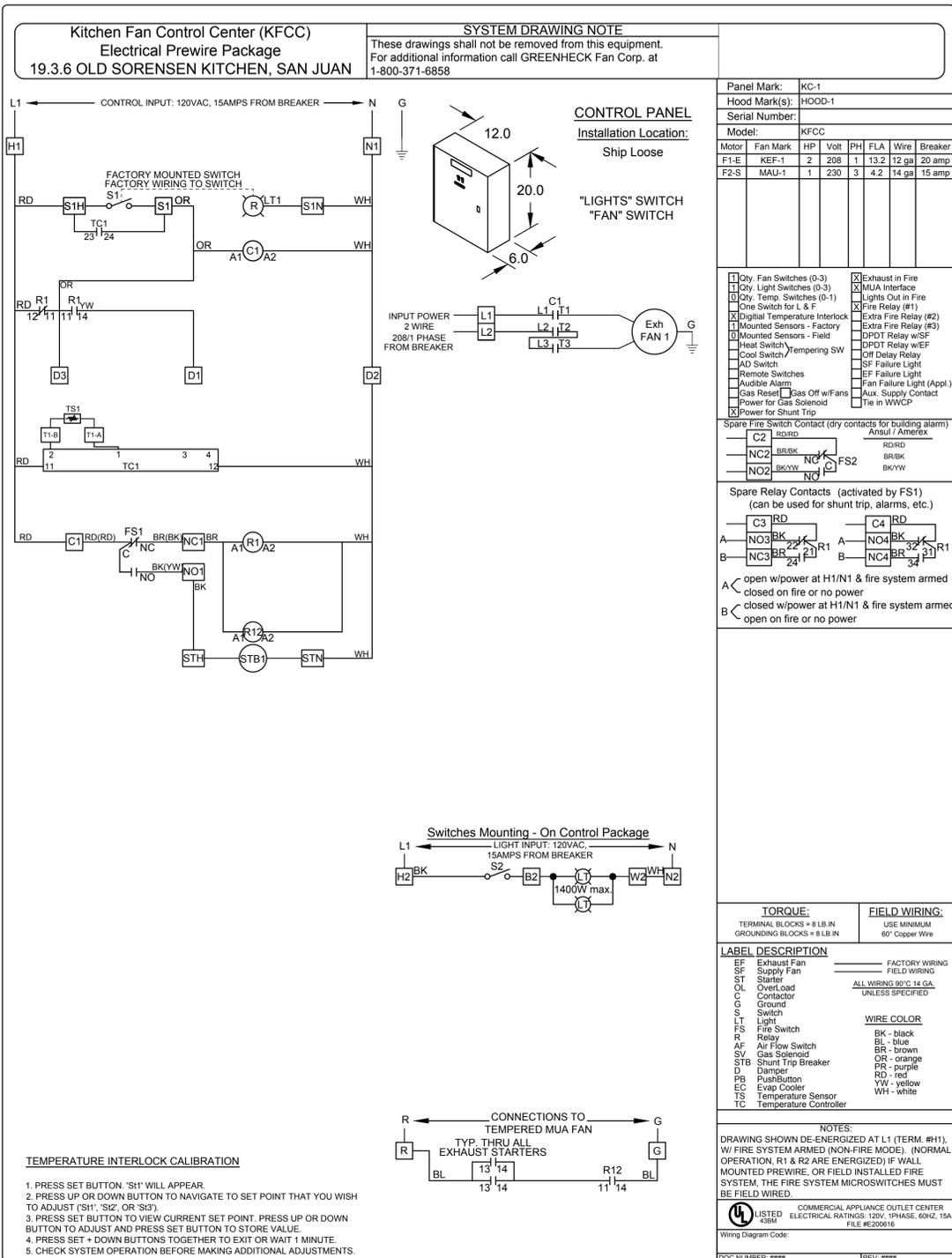
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

M4.2



**TRINITY**  
MEP ENGINEERING



3533 Moreland Dr. Ste A | Westlaco, TX 78786  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

M4.3

Wiring Diagram Code:  
**G521100XX0000PS11**

CAUTION  
UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.  
POWER MUST BE OFF WHILE SERVICING.

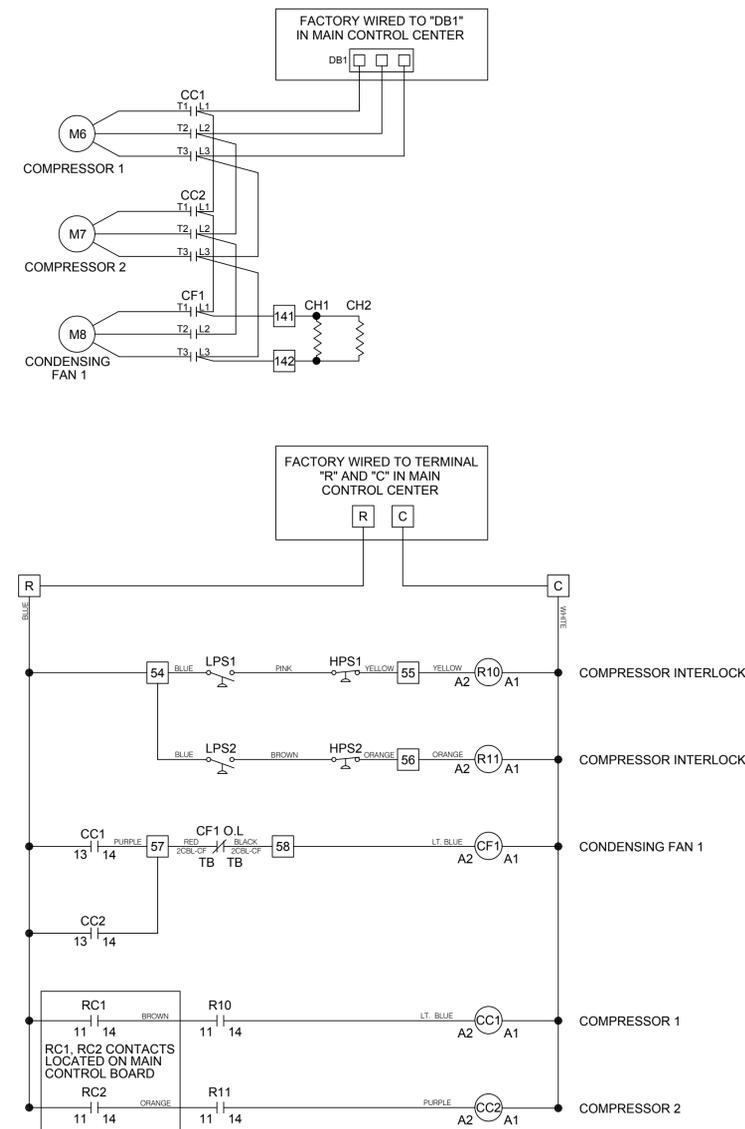
NOTES  
USE COPPER CONDUCTORS ONLY  
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.  
75° C FOR TERMINALS RATED 100 AMPS OR MORE.  
FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.  
FIELD WIRED - - - - -  
FACTORY SUPPLIED AND WIRED \_\_\_\_\_

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND  
CC# COMPRESSOR CONTACTOR  
CF# CONDENSER FAN CONTACTOR  
CH# CRANK CASE HEATER  
DB1 DISTRIBUTION BLOCK  
HPS# HIGH PRESSURE SWITCH  
LPS# LOW PRESSURE SWITCH  
M# MOTOR  
R# CONTROL RELAY

**PDX WIRING DIAGRAM**



Wiring Template: S11 DOC NUMBER: ##### REV: #####

Wiring Diagram Code:  
**GN00N502B013F20DU09**

CAUTION  
UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.  
POWER MUST BE OFF WHILE SERVICING.

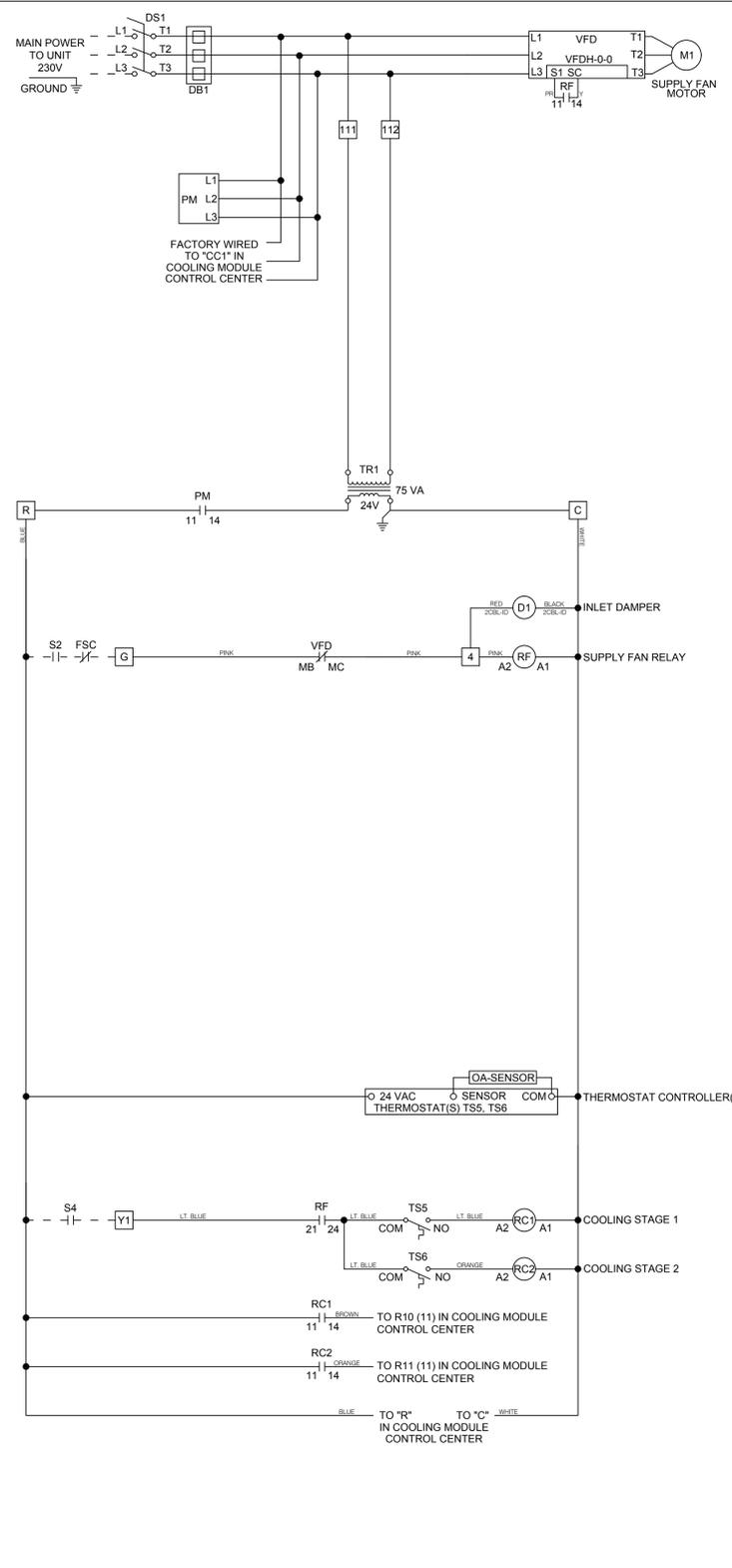
NOTES  
USE COPPER CONDUCTORS ONLY  
60° C FOR TERMINALS RATED LESS THAN 100 AMPS.  
75° C FOR TERMINALS RATED 100 AMPS OR MORE.  
FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.  
FIELD WIRED - - - - -  
FACTORY SUPPLIED AND WIRED \_\_\_\_\_

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND  
CC# COMPRESSOR CONTACTOR  
CF# CONDENSER FAN CONTACTOR  
CH# CRANK CASE HEATER  
D1 INLET DAMPER  
DS1 MAIN DISCONNECT SWITCH  
FSC FIRE SYSTEM CONTACT  
FU# FUSE  
HLC HIGH LIMIT CONTROL  
HPS HIGH PRESSURE SWITCH  
LPS LOW PRESSURE SWITCH  
M# MOTOR  
OL# MOTOR OVERLOAD  
PM PHASE MONITOR  
R10 COMP#1 INTERLOCK RELAY  
R11 COMP#2 INTERLOCK RELAY  
RC1 COOLING STAGE 1 RELAY  
RC2 COOLING STAGE 2 RELAY  
RF SUPPLY FAN RELAY  
RF1 FAN ENABLE RELAY  
S2 FAN SWITCH  
S4 HEAT AND COOL SWITCH  
ST# MOTOR STARTER  
TR# TRANSFORMER  
TS5 INLET AIR SENSOR - COOL  
JUMPER = COOL : DIFFERENTIAL = 5  
TS6 INLET AIR SENSOR - COOL  
JUMPER = COOL : DIFFERENTIAL = 5 : OFFSET = 10  
TS9 LOW DISCHARGE TEMP SENSOR  
JUMPER = COOL : DIFFERENTIAL = 20  
VFD VARIABLE FREQUENCY DRIVE

Template Drawing: U09 DOC NUMBER: ##### REV: #####

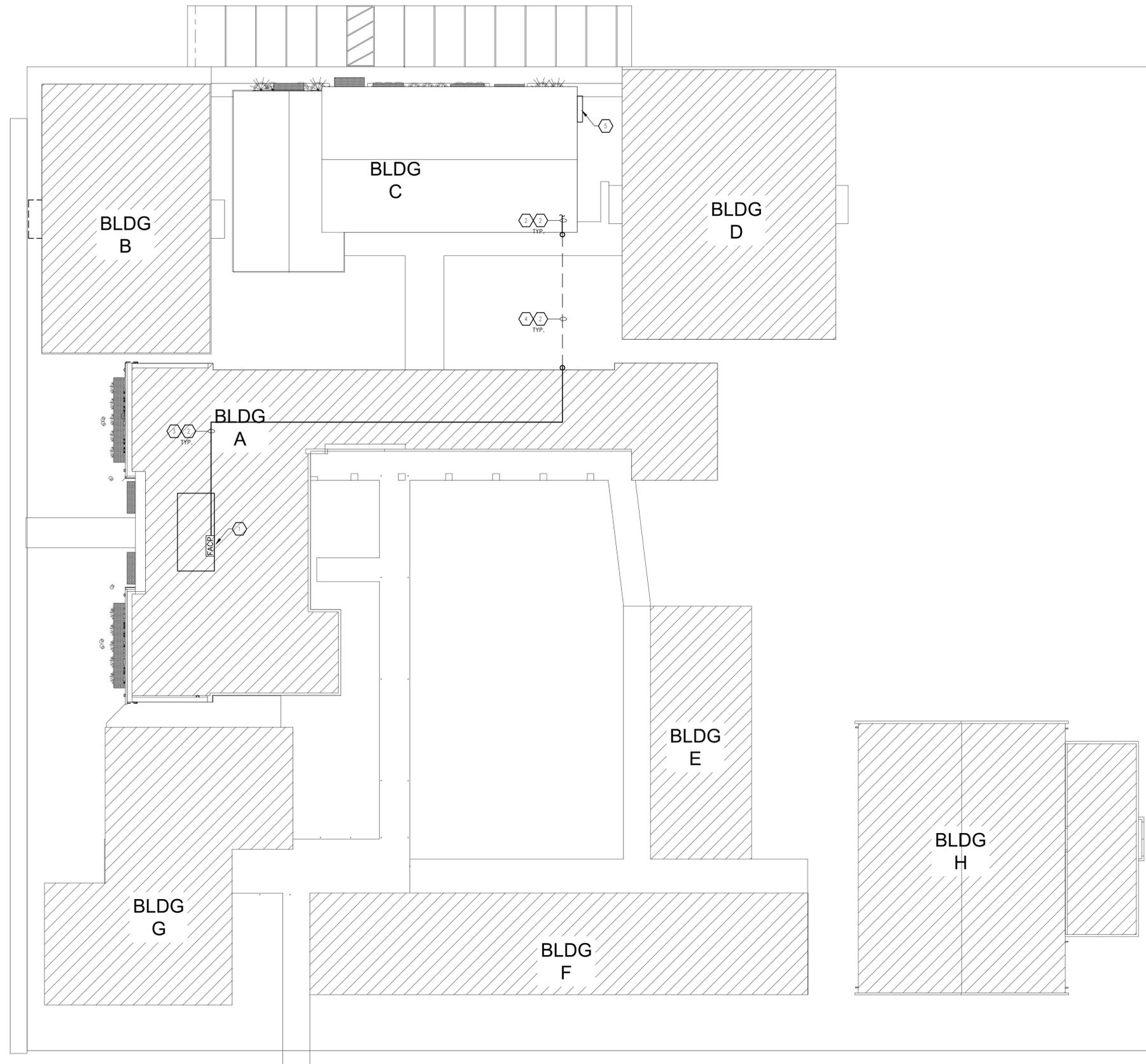


**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78756  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS



**GENERAL ELECTRICAL NOTES (TO ALL SHEETS)**

- A. CONTRACTOR TO VERIFY ALL EXISTING MAIN POWER SERVICES AND FIELD COORDINATE WITH EXISTING CONDITIONS.
- B. CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, TRENCHING AND BACKFILLING. COORDINATE WITH ALL UTILITIES PRIOR TO EXCAVATION.
- C. CONTRACTOR TO VERIFY ALL EXISTING MAIN COMMUNICATION SERVICES AND COORDINATE WITH EXISTING CONDITIONS.
- D. ALL ELECTRICAL EQUIPMENT OUTDOORS SHALL BE RATED TYPE NEMA 3R UNLESS OTHERWISE NOTED.
- E. CONTRACTOR SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODES AND ALL OTHER AUTHORITY HAVING JURISDICTION. OBTAIN PERMITS AND PAY ALL FEES. PERFORM MODIFICATIONS TO MEET CODE AND ORDINANCE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER. ARCHITECT OR ENGINEER. VERIFY PRIOR TO BID DATE.
- F. VERIFY AT JOB SITE THE EXACT LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS, COLUMNS, ETC. TO LOCATE EQUIPMENT CONDUIT, PANELS AND DEVICES. IF DEVIATIONS FROM THE DRAWING ARE NECESSARY TO MEET STRUCTURAL CONDITIONS MAKE DEVIATIONS WITHOUT ADDITIONAL COST, TO OWNER, ARCHITECT, OR ENGINEER.
- G. IN COOPERATION WITH OTHER CONTRACTORS, DETERMINE THE EXACT LOCATION OF EQUIPMENT AND DEVICES AND CONNECTIONS THERETO BY REFERENCE TO THE SUBMITTALS AND ROUGH-IN DRAWINGS, AND BY MEASUREMENTS AT THE SITE. REFER TO ALL OTHER TRADES SUBMITTAL FOR ELECTRICAL INFORMATION.
- H. GROUND ENTIRE ELECTRICAL SYSTEM IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- I. VERIFY AT JOB SITE GENERAL WORK TO BE DONE AS SPECIFIED, AS NOTED, OR AS REQUIRED FOR INSTALLATION ELECTRICAL SYSTEMS PRIOR TO SUBMISSION OF BIDS.
- J. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND EQUIPMENT TO BE REMOVED AND REPLACED BEFORE SUBMITTING HIS BID.
- K. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SMALL SCALE ONLY. THEY CONVEY THE INTENT OF THE WORK BUT DO NOT SHOW DETAIL SUCH AS JUNCTION AND PULL BOXES REQUIRED BY THE SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE (NEC). PROVIDE ALL MATERIALS AND METHODS CALLED FOR IN THE SPECIFICATIONS AND AS REQUIRED IN THE NEC TO PROVIDE A COMPLETE INSTALLATION OF ALL WORK.
- L. ALL WIRING SHALL BE COPPER.
- M. ALL SLEEVES, PENETRATIONS, ETC. SHALL BE SEALED SOLID NON-SHRINKING MATERIAL IMMEDIATELY UPON FILLING OF THE OPENING WITH PIPE OR CONDUIT.
- N. ARRANGE FOR SOURCES OF TEMPORARY CONSTRUCTION SERVICES. SUCH SERVICES SHALL BE NOMINALLY 120/240V, 1-PHASE, 3-WIRE FROM WHICH A COMPLETE SYSTEM OF TEMPORARY POWER AND LIGHTING SHALL BE PROVIDED FOR ALL CONSTRUCTION NEEDS.

**KEYED NOTES: ELECTRICAL**

- 1 EXISTING FIRE ALARM CONTROL PANEL MFR. SILENT KNIGHT #5280, LOCATED IN MAIN OFFICE. FIELD VERIFY EXACT LOCATION. INCLUDE ALL COST IN BID TO INCLUDE ALL NEW FIRE ALARM DEVICES FROM REMODEL BUILDING-C.
- 2 PROVIDE 3-2" WITH PULLSTRING FOR FIRE ALARM AND 2 SPARE CONDUITS FOR COMMUNICATIONS.
- 3 CONDUITS ABOVE THE CEILING LEVEL. SUPPORT CONDUIT FROM STRUCTURAL.
- 4 UNDERGROUND CONDUITS MINIMUM 36". FIELD VERIFY ALL EXISTING UNDERGROUND PRIOR TO ANY WORK.
- 5 ELECTRICAL SERVICE LOCATION.



1 ELECTRICAL SITE PLAN  
1/16"=1'-0"

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

ES1.1

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78596  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



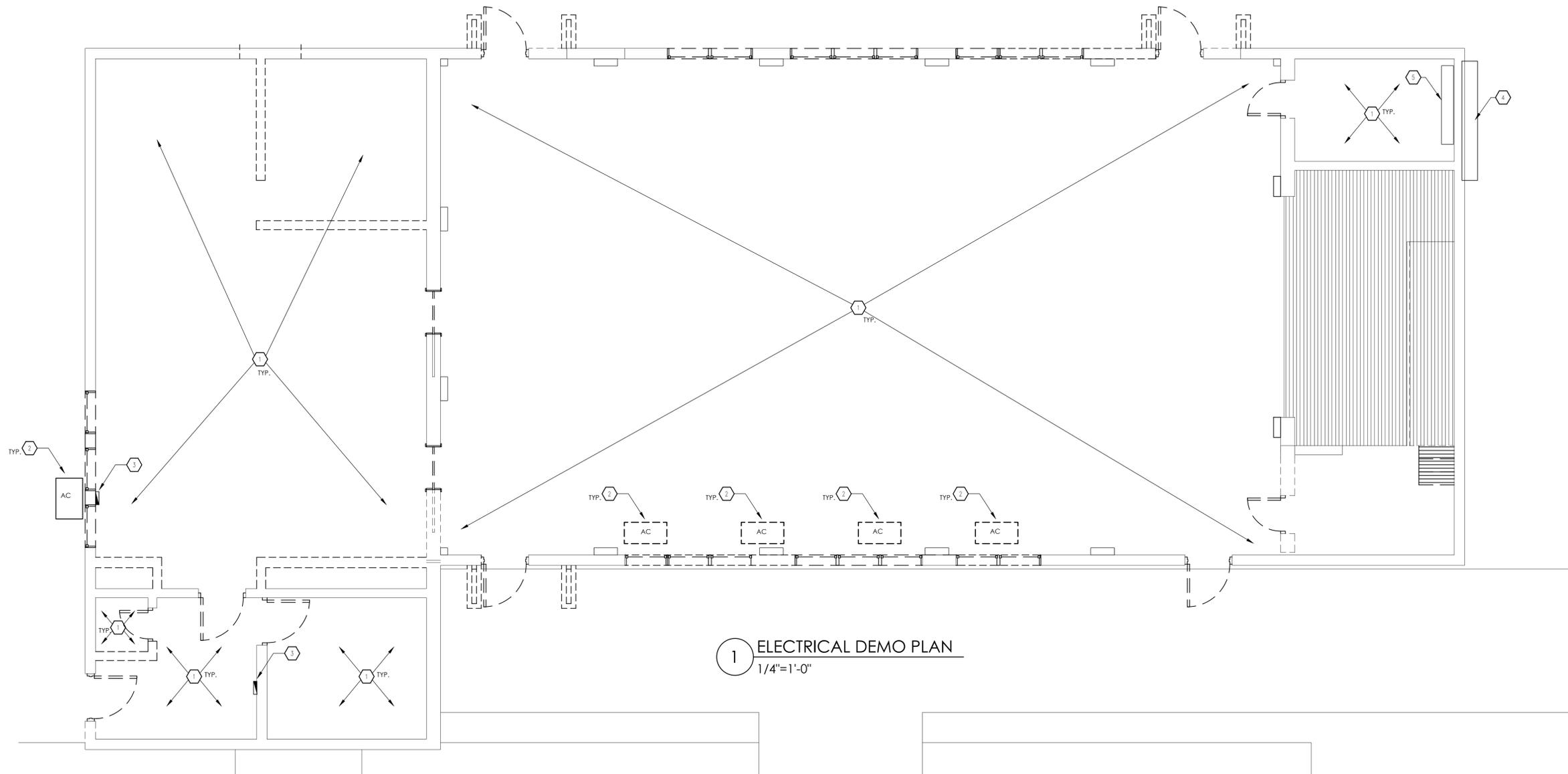
**GENERAL DEMOLITION NOTES: (TO ALL SHEETS)**

- A. THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED TO PROPERLY BID THE DEMOLITION WORK.
- B. PROVIDE ALL DEMOLITION WORK REQUIRED FOR THE REMOVAL AND/OR RELOCATION OF ELECTRICAL EQUIPMENT AND ASSOCIATED CONDUCTORS, CONDUIT, BOXES, ETC., TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- C. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCHITECTURAL DOCUMENTS IN ADDITION TO THE DIVISION 15 AND 16 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
- D. WHERE DEVICES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE REMOVED, THE ASSOCIATED BOXES, CONDUIT, AND CONDUCTORS SHALL BE REMOVED BACK TO THEIR SOURCE.
- E. WHERE DEVICES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE RELOCATED, THE ASSOCIATED BOXES, CONDUIT, AND CONDUCTORS SHALL BE REMOVED BACK TO A CONCEALED JUNCTION BOX AND NEW PRODUCTS SHALL BE USED TO EXTEND THE SERVICE TO THE NEW LOCATION.
- F. WHERE CONDUITS RUN ABOVE INACCESSIBLE CEILINGS OR IN WALLS WHICH ARE NOT PART OF DEMOLITION ARE TO REMAIN UNDISTURBED, CONDUCTORS SHALL BE REMOVED AND THE CONDUITS CAPPED AND ABANDONED.
- G. WHERE THE REMOVAL OF DEVICES OR EQUIPMENT RENDERS EQUIPMENT DOWNSTREAM INOPERABLE, SERVICE SHALL BE EXTENDED TO THE DOWNSTREAM DEVICE OR EQUIPMENT SO THAT THE DEVICE OR EQUIPMENT IS LEFT IN OPERATING CONDITION.

- H. COORDINATE DEMOLITION OF DIVISION 16 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
- I. ALL EXISTING ELECTRICAL EQUIPMENT, CONDUIT AND WIRING REMOVED DURING CONSTRUCTION NO LONGER REQUIRED AS PART OF AN ACTIVE SYSTEM AND NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.
- J. WHERE EXISTING EQUIPMENT IS TO BE RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION AND APPROVAL OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
- K. EXISTING DEVICES AND/OR EQUIPMENT TO BE REUSED SHALL BE CLEANED AND REPAIRED AT THE DISCRETION OF THE ARCHITECT WHERE APPLICABLE.
- L. ALL DEVICES WITH AN "EX" SYMBOL ARE EXISTING TO REMAIN.
- M. ALL DEVICES ATTACHED TO WALLS OR CEILINGS SHALL BE REMOVED PER DEMOLITION NOTE A - L WHETHER SHOWN ON DRAWINGS OR NOT.

**KEYED NOTES: DEMOLITION**

- 1 ALL CONDUITS, WIRING, LIGHTS, CEILING FANS, WIRING DEVICES, FIRE ALARM, INTRUSION, CAMERAS, INTERCOM, AC ELECTRICAL HEATER ELECTRICAL TO BE REMOVED.
- 2 A/C ELECTRICAL TO BE REMOVED.
- 3 ELECTRICAL PANEL TO BE REMOVED.
- 4 ELECTRICAL EQUIPMENT TO REMAIN.
- 5 ELECTRICAL EQUIPMENT TO BE REMOVED.



**1 ELECTRICAL DEMO PLAN**  
1/4"=1'-0"



MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

ED1.1

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





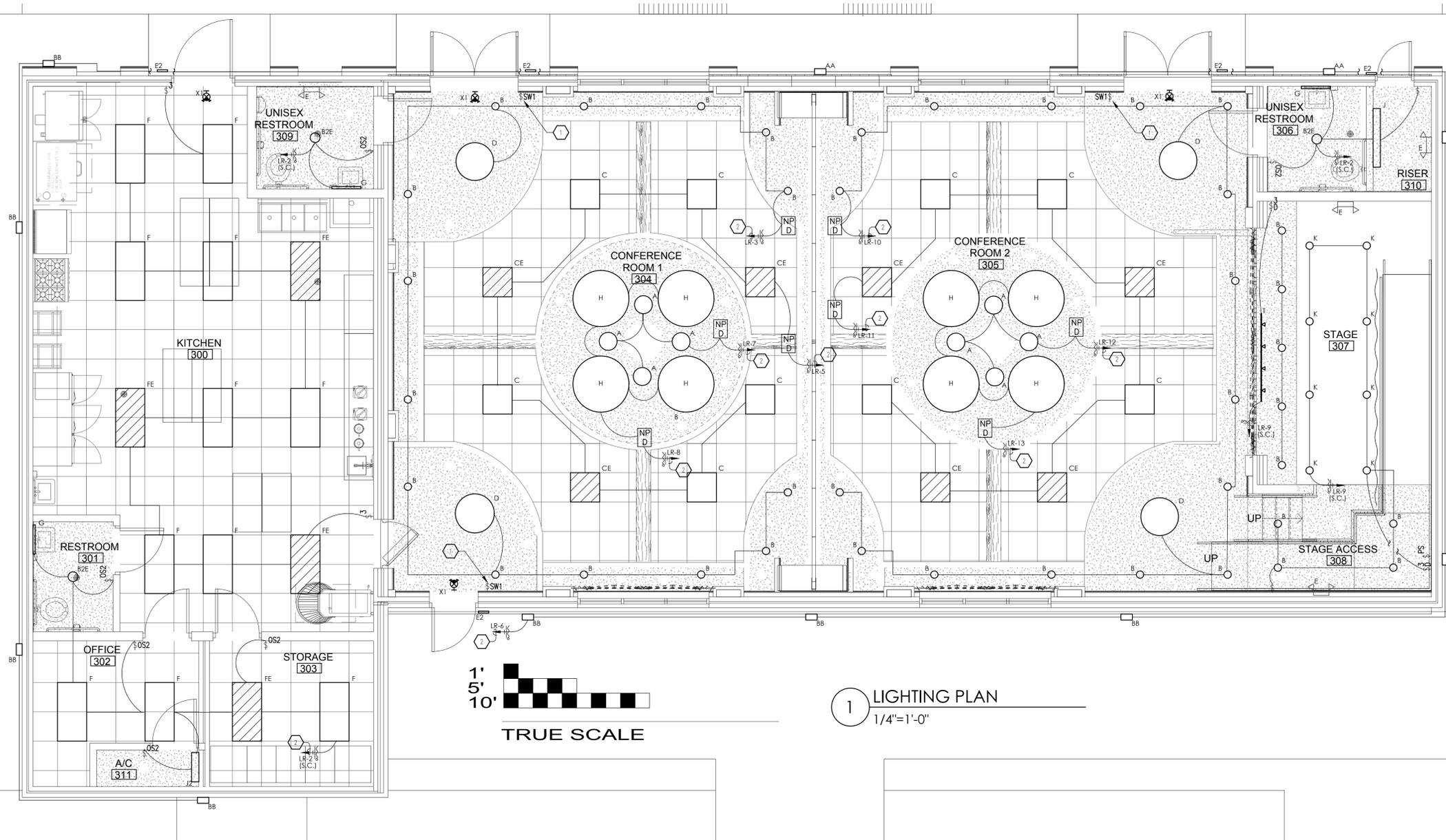
MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

**GENERAL NOTES: LIGHTING**

- A. ALL EXIT FIXTURES/EMERGENCY BATTERY PACK LIGHT FIXTURE SHALL BE CONNECTED TO UNSWITCHED OR NON-DIMMING HOT LEG OF SAME VOLTAGE/PHASE OF LOCAL LIGHTING CIRCUIT IN SPACE.
- B. VERIFY CEILING TYPES AND COORDINATE WITH FIXTURE TYPE LIGHT FIXTURE SHALL BE COMPATIBLE WITH CEILING TYPE AS INDICATED ON THE ARCHITECTURAL DOCUMENTS. NOTIFY ENGINEER IF DISCREPANCIES EXIST PRIOR TO ORDERING FIXTURES.
- C. COORDINATE EXACT ROUTING OF ALL CONDUIT ABOVE CEILING IN BUILDING. TYPICAL FOR ALL BUILDING EXTERIOR LIGHTING.
- D. COORDINATE LOCATION OF LIGHTS WITH DIFFUSERS AND GRILLES.
- E. SWITCH LEGS ARE NOT SHOWN WHERE SWITCHING SCHEME IS OBVIOUS.
- F. ALL EXIT FIXTURES TYPE "X1 & X2", EMERGENCY LIGHT FIXTURE TYPE "E" AND ALL EMERGENCY BALLAST SHALL BE ON CIRCUIT "LR-1". FIXTURE TYPE LABEL WITH AN "E" ARE LIGHT FIXTURES WITH EMERGENCY BALLAST. REFER TO LIGHT FIXTURE SCHEDULE.
- G. CONTRACTOR SHALL REFER TO EQUIPMENT SUBMITTAL FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO COMMENCING ANY WORK.

**KEYED NOTES: LIGHTING**

- 1 LOW VOLTAGE SWITCH. ROUTE TO LIGHTING RELAY PANEL.
- 2 PROVIDE A 4 BUTTON DIFFERENT ZONES AND SCENE.



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

E1.1

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



EQUIPMENT SCHEDULE							
Item No	Qty	Equipment	Amps	KW	HP	Volts	Phase
K1	1	DOUBLE INDUSTRIAL OVEN VULCAN VC44ED	70	25		240	3
K2	1	BAKING OVEN LOGIUDUCE MINISTAR-MSR-41016				GAS	
K3	1	6 BURNER GAS RANGE AMERICAN GAS RANGE AR6				GAS	
K4	1	FLAT GRILL VULCAN MSA36-36" GAS				GAS	
K6	2	3 DOOR REFRIGERATOR TRUE T-72G-HC	7			120	1
K7	2	FOOD PROCESSOR HOBART HCM62	6			240	3
K8	1	COMMERCIAL BLENDER XTREME MX1000TXP	13			120	1
K9	2	TORTILLA PRESS DUTCHESS DUT/TXM-15	15			240	1
K10	1	COMMERCIAL MIXER DOYON BTF60 60QT	16			240	1

NOTE:  
1.) KITCHEN EQUIPMENT SHALL BE VERIFY PRIOR TO ORDER FOR ELECTRICAL REQUIREMENTS

**FIRE ALARM SYSTEM GENERAL NOTES:**

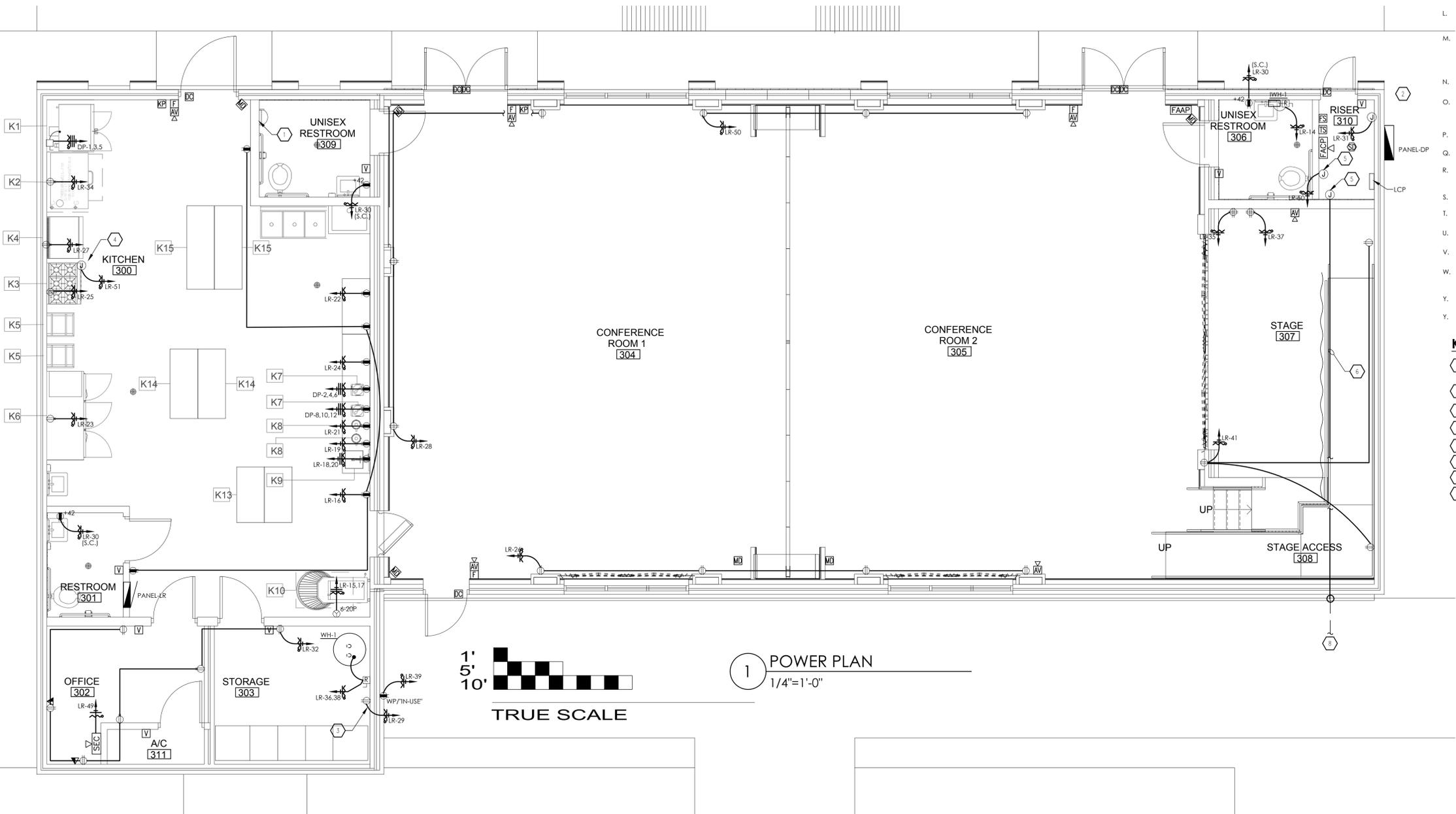
1. PROVIDE A FIRE ALARM SYSTEM & DEVICES AS REQUIRED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA), TEXAS ACCESSIBILITY STANDARDS (TAS), TEXAS DEPARTMENT OF LICENSING AND REGULATIONS, ARCHITECTURAL BARRIERS, LOCAL CODES & ORDINANCES, AND FIRE MARSHALL POLICIES AND REQUIREMENTS.
2. THE FIRE ALARM CONTRACTOR SHALL DEVELOP DIMENSIONED SHOP DRAWINGS INDICATING FINAL LOCATIONS OF ALL DEVICES FOR REVIEW BY THE BUILDER/ENGINEER. THESE SHOP DRAWINGS SHALL INDICATE OBSTRUCTIONS, DUCTWORK, EQUIPMENT, LIGHT FIXTURES, ETC. WHICH MUST BE COORDINATED WITH THE FINAL PLACEMENT OF THE FIRE ALARM DEVICES.
3. THE CONTRACTOR SHALL CERTIFY THE SYSTEM AS COMPLETE AND OPERATIONAL AT COMPLETION OF THE INSTALLATION OF THE SYSTEM.
4. DEVICES ARE INDICATED TO PROVIDE GENERAL PLACEMENT CONFORMANCE AND ARRANGEMENT ONLY, AND SHALL NOT BE CONSTRUED AS INDICATED ACTUAL QUANTITY OF DEVICES REQUIRED NOR FINAL DEVICE LOCATION. ANY ADDITIONAL DEVICES WHICH ARE REQUIRED BY THE ABOVE AUTHORITIES HAVING JURISDICTION WHICH ARE NOT INDICATED ON THESE DRAWINGS SHALL BE PROVIDED WITHOUT ADDITIONAL COST TO THE OWNER. IT SHALL BE THE FIRE ALARM CONTRACTOR'S RESPONSIBILITY TO PROVIDE A COMPLETE OPERATING SYSTEM WHICH SATISFIES THE ABOVE AUTHORITIES. FINAL LOCATIONS OF DEVICES SHALL BE COORDINATED WITH CABINET WORK, CHALKBOARDS, OR OTHER OBSTRUCTIONS WHICH PREVENT DEVICES FROM BEING LOCATED AT THE PROPER HEIGHT AND/OR VIEW.
5. ALL WIRING SHALL BE PLACED IN A CONDUIT SYSTEM WHICH COMPLIES WITH THE ELECTRICAL NOTES & REQUIREMENTS.
6. THE FIRE ALARM CONTRACTOR SHALL HAVE BEEN IN BUSINESS A MINIMUM OF FIVE (5) YEARS & SHALL HAVE EXPERIENCE IN INSTALLING FIRE ALARM SYSTEMS & DEVICES.

**GENERAL NOTES: POWER**

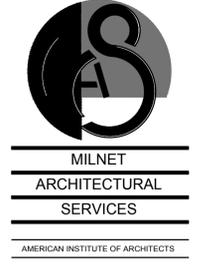
- A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL POWER SOURCE WIRING IN ACCORDANCE WITH ARCHITECTURAL MILL WORK.
- B. CONTRACTOR SHALL VERIFY ALL REQUIREMENTS BEFORE ANY ROUGH-IN IN ORDER TO COORDINATE MANUFACTURERS DRAWINGS FOR EQUIPMENT LOCATION AND INSTALLATION ACCESSORIES.
- C. COORDINATE RUNS FOR CONDUIT UP IN JOIST AND FOR SUSPENDING REQUIREMENT IN ACCORDANCE STRUCTURAL PLANS.
- D. COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH MECHANICAL DRAWINGS TO MEET ELECTRICAL AND MECHANICAL REQUIRED CLEARANCE BY THE LATEST CODE.
- E. ELECTRICAL CONTRACTOR SHALL PROVIDE J-BOX AND ONE INCH CONDUIT (1") FOR H.V.A.C. CONTROLS AND THERMOSTATS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- F. CONTRACTOR TO BRANCH TO CONNECTION WHERE REQUIRED AND TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURE INCLUDING INTER-WIRING TO APPLIANCES AS REQUIRED BY THE SPECIFICATIONS.
- G. CONTRACTOR TO FURNISH GALVANIZED JUNCTION BOXES IN FIXTURE CUT-OUTS AS REQUIRED BY THE ITEM SPECIFICATION AND INCLUDING APPROPRIATE ELECTRICAL RECEPTACLE, STAINLESS STEEL FACEPLATE.
- H. WHERE ELECTRICAL COOKING EQUIPMENT IS SPECIFIED, ELECTRICAL CONTRACTOR TO PROVIDE TIE-IN WIRING BETWEEN FIRE PROTECTION BOTTLE CONTROL HEAD, MICRO-SWITCH AND COOKING EQUIPMENT TO COMPLY WITH APPLICABLE LOCAL CODE REQUIREMENTS FOR EMERGENCY SHUTDOWN. OF ENTIRE COOKLINE.
- I. WHERE ELECTRICAL COOKING EQUIPMENT IS SPECIFIED, ELECTRICAL CONTRACTOR TO PROVIDE TIE-IN WIRING BETWEEN FIRE PROTECTION BOTTLE CONTROL HEAD, MICRO-SWITCH AND COOKING EQUIPMENT TO COMPLY WITH APPLICABLE LOCAL CODE REQUIREMENTS FOR EMERGENCY SHUTDOWN. OF ENTIRE COOKLINE.
- J. CONTRACTOR TO PROVIDE WRAP AROUND HEATER CABLE ON ALL EVAPORATOR DRAIN LINES IN WALK-IN FREEZERS.
- K. THERE SHALL BE NO EXPOSED FLEX CONDUIT, COPPER TUBING, OR GAUGES LOCATED ABOVE WORKTABLES.
- L. ALL ELECTRICAL OUTLET COVER PLATES SHALL BE STAINLESS STEEL. THOSE REQUIRED IN BUILDING STRUCTURE ARE TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR, WITH RECEPTACLES.
- M. CONTRACTOR TO PROVIDE AND INSTALL ALL SWITCHES, STARTERS, DISCONNECTS, ETC. FOR ALL EQUIPMENT UNLESS NOTED OTHERWISE. ALL DISCONNECTS OR LOCK-OUT DEVICES, STARTERS, ETC. TO MEET AUTHORITY HAVING JURISDICTION, VERIFY WITH MANUFACTURER FOR CORRECT NEMA RATING FOR ALL EQUIPMENT PRIOR TO BID DATE.
- N. ALL ROUGH-INS SHOWN ARE TO BE RUN INSIDE WALLS. (EXCEPT STUB-UPS). LOCATION INDICATE POINT OF EXIT FROM WALLS, CEILING OR FLOOR.
- O. ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURE AND EQUIPMENT SPECIFIED AS FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR, UNLESS OTHERWISE NOTED. FOR ANY ADDITIONAL CONVENIENCE OUTLETS, SEE OTHER ELECTRICAL DRAWINGS AND REQUIREMENTS.
- P. CONTRACTOR TO INSTALL AND WIRE EXTRA LIGHTS IN WALK-IN COOLER AND FREEZER AS REQUIRED. THRU DOOR SWITCH.
- Q. ALL KITCHEN EQUIPMENT VOLTAGE SHALL BE AS SCHEDULED, NOTIFY ENGINEER IMMEDIATELY IF ANY DIFFERENT VOLTAGE.
- R. ALL EXHAUST FANS (EF-) LOCATED ON ROOF, PROVIDE ALL CONDUIT, WIRING, RACEWAY, AND BOXES FOR AN OPERABLE SYSTEM. COORDINATE WITH DIVISION 15 FOR EXACT LOCATION.
- S. CONTRACTOR SHALL REFER TO KITCHEN CONSULTANT DRAWINGS SHEETS FOR MORE ELECTRICAL INFORMATION.
- T. ALL KITCHEN DISCONNECTS, ENCLOSE BREAKERS, OR ANY ELECTRICAL GEAR ENCLOSURE SHALL BE NEMA-4X STAINLESS STEEL FINISH.
- U. CONTRACTOR SHALL MAKE FINAL CONNECTION TO H.V.A.C EQUIPMENT, PLUMBING EQUIPMENT, REFER TO PANEL SCHEDULE FOR WIRE SIZE.
- V. ELECTRICAL CONTRACTOR SHALL PROVIDE STARTERS, RELAYS, CONTACTORS AND THE REQUIRED ELECTRICAL ACCESSORIES FOR MECHANICAL SYSTEM AS REQUIRED.
- W. ELECTRICAL CONTRACTOR SHALL PROVIDE J-BOX AND CONDUIT FOR H.V.A.C. CONTROLS AND THERMOSTATS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- Y. NEMA RATED OUTLETS, REFER TO BREAKER SIZE AND COORDINATE WITH EQUIPMENT REQUIREMENTS PRIOR TO BID.
- Z. CONTRACTOR SHALL REFER TO EQUIPMENT SUBMITTAL FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO COMMENCING ANY WORK.

**KEYED NOTES: POWER**

1. COORDINATE ALL REQUIRED CONNECTION WITH BUILDING FIRE ALARM PANEL AND LOCAL AHJ PRIOR TO COMMENCING ANY WORK.
2. PROVIDE J-BOX FOR FIRE SPRINKLER.
3. PROVIDE RECEPTACLE FOR CIRCULATING PUMP.
4. PROVIDE J-BOX FOR HOOD LIGHTS, LIGHTS CONTROL BY KITCHEN CONTROL PANEL.
5. PROVIDE J-BOX FOR FIRE ALARM CIRCUITS.
6. PROVIDE 3-2" CONDUITS, 1-FIRE AND 2-SPARES.
7. PROVIDE J-BOX FOR FIRE ALARM PANEL/ POWER SUPPLY FOR NEW DEVICES.
8. REFER TO SITE PLAN.



1 POWER PLAN  
1/4"=1'-0"



**OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055**  
 PSJA ISD  
 SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

E2.1

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78756  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10082  
Project number: 19.3.6





MILNET

ARCHITECTURAL  
SERVICES

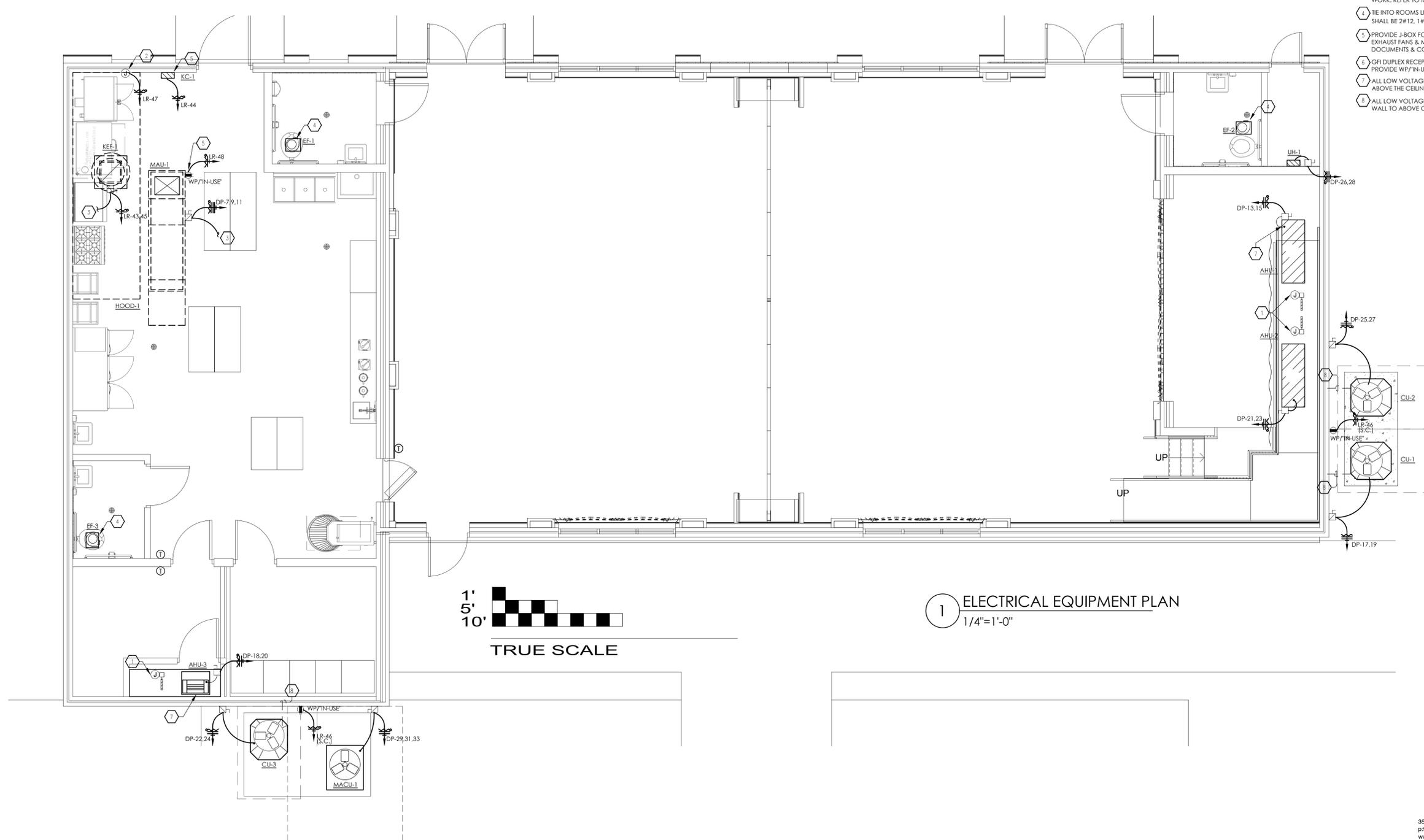
AMERICAN INSTITUTE OF ARCHITECTS

**GENERAL NOTES: ELECTRICAL**

- A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL POWER SOURCE WIRING IN ACCORDANCE WITH ARCHITECTURAL MILLWORK.
- B. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTION TO H.V.A.C. EQUIPMENT, PLUMBING EQUIPMENT, REFER TO PANEL SCHEDULE FOR WIRE SIZE.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE STARTERS, RELAYS, CONTACTORS AND THE REQUIRED ELECTRICAL ACCESSORIES FOR MECHANICAL SYSTEM AS REQUIRED.
- D. COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT IN ACCORDANCE W/MECHANICAL DRAWINGS TO MEET ELECTRICAL AND MECHANICAL REQUIRED CLEARANCE BY THE LATEST CODE.
- E. COORDINATE EXACT LOCATION OF ISOLATED OUTLETS FOR COMPUTERS WITH OWNER.
- F. ELECTRICAL CONTRACTOR SHALL PROVIDE J-BOX AND CONDUIT FOR H.V.A.C. CONTROLS AND THERMOSTATS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- G. NEMA RATED OUTLETS, REFER TO BREAKER SIZE AND COORDINATE WITH EQUIPMENT REQUIREMENTS PRIOR TO BID.
- H. CONTRACTOR SHALL REFER TO EQUIPMENT SUBMITTAL FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO COMMENCING ANY WORK.

**KEYED NOTES: ELECTRICAL**

- 1 PROVIDE J-BOX FOR MOTORIZED DAMPERS, SHALL BE IN CIRCUIT LR-33.
- 2 J BOX FOR HOOD SUPPRESSION SYSTEM. FIRE SUPPRESSION SHALL TIE INTO EXISTING FIRE ALARM SYSTEM.
- 3 ROUTE TO KITCHEN KITCHEN VENTILATION CONTROL PANEL SYSTEM. COORDINATE WITH EQUIPMENT SUPPLIER AND MECHANICAL DOCUMENTS PRIOR TO COMMENCING ANY WORK. REFER TO MECHANICAL DOCUMENTS.
- 4 TIE INTO ROOMS LIGHTING CIRCUIT AND INTERLOCK FAN WITH ROOMS LIGHTS. WIRING SHALL BE 2#12, 1#12G, 3/4".
- 5 PROVIDE J-BOX FOR KITCHEN VENTILATION CONTROL PANEL SYSTEM TO CONTROL LIGHTS, EXHAUST FANS & MAKEUP AIR UNIT. REFER TO MANUFACTURERS INSTALLATION DOCUMENTS & COORDINATE W/ MECHANICAL DOCUMENTS & CONTRACTOR.
- 6 GFI DUPLEX RECEPTACLE LOCATED ON ROOF. PROVIDE ROOF PITCH PAN FOR CONDUIT. PROVIDE WP/IN-USE ENCLOSURE FOR RECEPTACLE.
- 7 ALL LOW VOLTAGE HVAC CONTROL WIRING SHALL BE IN CONDUIT, MINIMUM 3/4" TO ABOVE THE CEILING.
- 8 ALL LOW VOLTAGE HVAC CONTROL WIRING SHALL BE IN CONDUIT, MINIMUM 3/4" TO FULL WALL TO ABOVE CEILING.



1' 5' 10' TRUE SCALE

1 ELECTRICAL EQUIPMENT PLAN  
1/4"=1'-0"

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

E2.2

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78596  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



## ELECTRICAL LEGEND-LIGHTING

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	2'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'x4' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	2'x2' LIGHT FIXTURE W/EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	1'x4' LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	TRACK LIGHT WITH HEADS AS INDICATED
	INCANDESCENT, LED, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD, REFER TO LUMINAIRE SCHEDULE
	INCANDESCENT, LED, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	LED, FLUORESCENT, OR HID FIXTURE WITH EMERGENCY BATTERY PACK, CLG. OR WALL MTD, REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT, CEILING OR WALL MOUNTED - SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED REFER TO LUMINAIRE SCHEDULE
	EXIT LIGHT SAME AS ABOVE, EXCEPT WITH AN EMERGENCY UNIT AS A COMBO, REFER TO LUMINAIRE SCHEDULE
	CEILING FAN
	STRIP UTILITY LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
	STRIP UTILITY STRIP LIGHT WITH EMERGENCY BATTERY PACK, REFER TO LUMINAIRE SCHEDULE
	WALL SWITCH SPST, 20A, 120/277V
	DOUBLE POLE TOGGLE SWITCH, 20A, 120/277V
	3-WAY WALL SWITCH, 20A, 120/277V
	4-WAY WALL SWITCH, 20A, 120/277V
	WALL DIMMER SWITCH
	WALL SWITCH SPST, 20A, 120/277V - PILOT LIGHT SWITCH
	WALL SWITCH SPST, 20A, 120/277V - KEYED SWITCH, X = 3 OR 4 WAY

## ELECTRICAL LEGEND-SPECIAL SYSTEMS

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	WALL MOUNTED TELEPHONE/DATA OUTLET, FURNISH AND INSTALL 1.25" C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING, +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.
	WALL MOUNTED TELEPHONE OUTLET, FURNISH AND INSTALL 1" C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING, +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.
	WALL MOUNTED DATA OUTLET, FURNISH AND INSTALL 1.25" C., WITH PULLSTRING AND INSULATED BUSHING, STUBBED ABOVE CEILING, +24" UNLESS OTHERWISE NOTE. BOX TO BE MINIMUM 2 1/8" DEEP.
	PUBLIC TELEPHONE OUTLET, J-BOX & 1" C.
	TELEVISION OUTLET, CLG. OR WALL MOUNTED - STUB 1" C. ABOVE CEILING FROM OUTLET BOX
	PUSHBUTTON WALL MOUNTED.
	AUDIO VIDEO DROP, REFER TO DETAIL
	INTERCOM - CALL SWITCH- J-BOX WITH 3/4" C.
	INTERCOM/PAGING LAY-IN SPEAKER
	PA EXTERIOR SPEAKER 10'-6" AFF
	SECURITY DOOR CONTACT SENSOR - STUB 1/2" C. ABOVE CEILING FROM OUTLET BOX
	SECURITY MOTION DETECTOR SENSOR - STUB 1/2" C. ABOVE CEILING FROM OUTLET BOX
	SECURITY GLASS BREAK SENSOR - STUB 1/2" C. ABOVE CEILING FROM OUTLET BOX
	SECURITY KEY PAD - STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX
	SECURITY PANEL JUNCTION BOX 54"
	ACCESS CONTROL PANEL JUNCTION BOX - BY OTHERS 54"
	CARD READER BOX - STUB 3/4" C. ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS
	MAGNETIC LOCK BOX - STUB 3/4" C. ABOVE CEILING LEVEL FROM OUTLET BOX SYSTEM BY OTHERS
	INTRUSION EXTERIOR SPEAKER 10'-6" AFF
	SINGLE SIDED CLOCK, J-BOX W/3/4" C. 96" AFF MIN.
	DOUBLE SIDED CLOCK, J-BOX W/3/4" C. 96" AFF MIN.
	CAMERA J-BOX W/ 3/4" CONDUIT
	TELEPHONE BOARD- 3/4"x8" FIRE RATED
	DUCT SMOKE DETECTOR: STUB 3/4" C. ABOVE CEILING FROM J-BOX

## ELECTRICAL ABBREVIATIONS:

ABBY:	DESCRIPTION	ABBY:	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	MFR.	MANUFACTURER
BFC	BELOW FINISHED CEILING	(S.C.)	SHARE CIRCUIT
C	CONDUIT	QRCP(T)(S)	QUAD RECEPTACLE(S)
CB	CIRCUIT BREAKER	RCPT(S)	DUPLEX RECEPTACLE(S)
EC	EMPTY CONDUIT	CRCP(T)(S)	I.G. RECEPTACLE(S)
EX	EXISTING	QCRCP(T)(S)	QUAD I.G. RECEPTACLE(S)
F	FUSE	SO (S.O.)	SPACE ONLY
G	GROUND (EQUIPMENT)	SP	SPARE
GFI	GROUND FAULT INTERRUPTER	ST (S.T.)	SHUNT TRIP
MTD	MOUNT OR MOUNTED	SW	SWITCH
NF	NONFUSED	UF	UNDERFLOOR
NIC	NOT IN CONTRACT	UG	UNDERGROUND
H.D	HEAVY DUTY	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
NL	NIGHT LIGHT	WG	WIRE GUARD
AC	ABOVE COUNTER	WP	WEATHERPROOF
HT.	HEIGHT	XFMR	TRANSFORMER
MTD.	MOUNTING	MB	MAIN BREAKER
FDR.	FEEDER	MLO	MAIN LUGS ONLY
CKT.	CIRCUIT	RMC	RIGID METAL CONDUIT
LTG.	LIGHTING	RNC	RIGID NONMETALLIC CONDUIT
LC	LIGHTING CONTACTOR	EMT	ELECTRICAL METALLIC TUBING CONDUIT
IG	ISOLATED GROUND	S/N	SOLID NEUTRAL
EA.	EACH	AC	ABOVE COUNTER
NI	NEMA-1	AHJ	AUTHORITY HAVING JURISDICTION
NSR	NEMA-3R		
N4K	NEMA-4X		
SS	STAINLESS STEEL		

### NOTES:

- 1.) 48" AFF INDICATES TO TOP OF DEVICE; 15" AFF INDICATES TO BOTTOM OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. AC INDICATES 6" ABOVE COUNTER TO BOTTOM OF DEVICE.

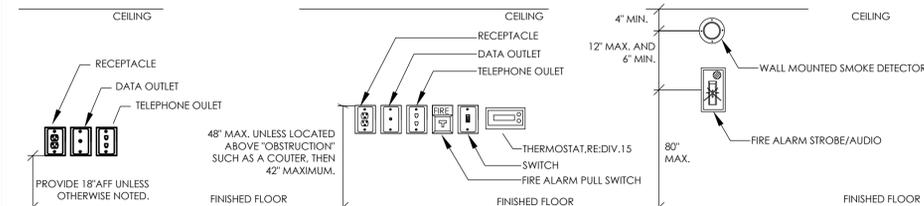
## ELECTRICAL LEGEND-GENERAL

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	HEAVY DUTY DISCONNECT SWITCH FUSED
	HEAVY DUTY DISCONNECT SWITCH NONFUSED
	HEAVY DUTY COMBINATION DISCONNECT/MOTOR STARTER
	HEAVY DUTY MOTOR STARTER
	ENCLOSED BREAKER, RE. TO SCH. FOR MORE INFO.
	ROTARY TYPE DISCONNECT SWITCH
	120/277-208/480V 20AMP, MOTOR RATED SWITCH, NEMA-1 (INTERIOR) ENCLOSURE, NEMA-3R (EXTERIOR) ENCLOSURE. VOLTAGE TO BE SELECTED PER EQUIPMENT CIRCUIT REQUIREMENTS.
	MOTOR
	PANELBOARD, CLEARANCE AS PER LATEST NEC SWITCH LEG
	ELECTRICAL CONDUIT
	UNDERGROUND ELECTRICAL CONDUIT
	COMMUNICATION CONDUIT AND WIRING
	MULTI-POLE DEVICE CIRCUIT NUMBERS
	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS
	CONDUIT AND WIRE HOMERUN TO PANEL, SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
	UNDERGROUND CONDUIT AND WIRE HOMERUN TO PANEL, SHORT HATCH INDICATES NEUTRAL CONDUCTOR, LONG HATCHES INDICATE PHASE CONDUCTORS, AND LONG HATCH WITH CIRCLE INDICATES ISOLATED OR INSULATED GROUND. ALPHANUMERIC DESCRIPTION INDICATES PANEL AND BREAKER.
	DETAIL NUMBER
	SHEET NUMBER
	THERMOSTAT WALL MOUNTED - STUB 1/2" C. ABOVE CEILING FROM OUTLET BOX. COORDINATE EXACT LOCATION AND HEIGHT WITH MECHANICAL DIVISION.
	JUNCTION BOX - SIZE & MOUNTING AS REQUIRED MINIMUM OF 4" SQUARE
	PHOTO CELL (MFR. INTERMATIC #K4136M)
	LIGHTING CONTACTOR, NEMA-1, W/H.O.A. SWITCH
	TIME CLOCK (MFR. TORX #72022)
	CIRCULATING PUMP
	ELECTRICAL DEVICE AS SHOWN ON PLANS SURFACE MOUNT RACEWAY. SURFACE MOUNT RACEWAY SHALL BE WIREMOLD #V700 SERIES. PROVIDE ALL RELATED #V700 SERIES ACCESSORIES FOR AN OPERABLE SYSTEM.

## MOUNTING HEIGHT DETAIL

NOTE: VERIFY WITH ARCHITECTURAL FOR ADA REQUIREMENTS.



## ELECTRICAL LEGEND-FIRE ALARM

---ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS. SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION
	FIRE ALARM PULL STATION: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FIRE ALARM AUDIBLE/VISUAL SIGNAL: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FIRE ALARM VISUAL SIGNAL: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FIRE ALARM CEILING MOUNT SPEAKER STROBE, UL LISTED. : J-BOX WITH 3/4" C.
	FIRE ALARM CEILING WALL MOUNT OUTDOOR SPEAKER STROBE, UL LISTED. : J-BOX WITH 3/4" C.
	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	HEAT DETECTOR CEILING OR WALL MOUNTED: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	DUCT SMOKE DETECTOR: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	SMOKE DETECTOR WITH AN AUDIBLE BASE: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
	FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM, ADDRESSABLE, FLUSH MTD UNO, INCLUDE A FIRE DOCUMENT BOX EQUAL TO MFR. SPACE AGE ELECTRONICS #FDB-ACE-11.
	FIRE ALARM EMERGENCY VOICE EVACUATION SYSTEM, FLUSH OR SURFACE.
	FIRE ALARM REMOTE ANNUNCIATOR PANEL, FLUSH MOUNTED UNO
	POWER SUPPLY, DEDICATED 110V
	DOOR HOLDER DEVICE: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	TAMPER SWITCH: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FLOW SWITCH: STUB 3/4" C. ABOVE CEILING FROM J-BOX
	FIRE ALARM OUTDOOR SPEAKER, WEATHER PROOF: STUB 3/4" C. ABOVE CEILING FROM J-BOX

## GENERAL ELECTRICAL NOTES

1. ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS LEGEND MAY NOT APPEAR ON THIS SET OF DRAWINGS.
2. USE DIRECTIONAL ARROW ON EXIT SIGNS AS REQUIRED.
3. IEEE STANDARD C37.2-1991, ELECTRICAL POWER SYSTEM DEVICE FUNCTION NUMBERS.
4. CONTRACTOR SHALL NOT INSTALL MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY. IF CONTRACTOR IS PLANNING ON GROUPING MULTIPLE CIRCUITS IN A SINGLE RACEWAY, THE CONTRACTOR MUST SUBMIT ALL DERATING CALCULATIONS FOR THE PROPOSED INSTALLATION IN ACCORDANCE WITH NEC ARTICLE 310.15 (B) (2) FOR APPROVAL PRIOR TO INSTALLATION. NON APPROVED INSTALLATIONS WILL BE REMOVED AND REINSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE NEC AT NO ADDITIONAL COST TO THE OWNER.
5. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF THREE 90° BENDS (270 DEGREES TOTAL) BETWEEN PULL POINTS. WHERE THERE ARE MORE THAN THREE QUARTER BENDS, CONTRACTOR SHALL PROVIDE PULL BOXES AS SPECIFIED AND SIZED IN ACCORDANCE WITH NEC.
6. COMPLY WITH NEC REQUIREMENTS FOR ELECTRICAL INSTALLATIONS. ALL ELECTRICAL EQUIPMENT AND MATERIAL TO BE APPROVED, LISTED, LABELED, IDENTIFIED AND INSTALLED PER RECOGNIZED ELECTRICAL TESTING LABORATORY.
7. ALL RECEPTACLES, SWITCHES AND JUNCTION BOXES SERVED BY EMERGENCY BRANCH CIRCUITS SHALL BE "RED" IN COLOR. COVERPLATES SHALL BE LABELED IN ACCORDANCE WITH SPECIFICATIONS TO INDICATE PANELBOARD AND CIRCUIT NO. (IE: "E1A-3").

## LUMINAIRE SCHEDULE

MARK	VOLTAGE	LAMP	MOUNTING	DESCRIPTION	MODEL NO.
A	120V	LED 60W 3000K	PENDANT	ARCHITECTURAL DECORATIVE PENDANT	WAC LIGHTING QMP-LED311-3/12-MR
B	120V	LED 1500LM 4000K 11W	RECESSED	6"LED OPEN DOWN- LUMINAIRE, SEMI-SPECULAR REFLECTOR, WITH 0-10V DRIVER	HALO HC61SD010-HM612840-61-WD-C
B2	120V	LED 2000LM 3500K 22W	RECESSED	6"LED OPEN DOWN- LUMINAIRE, SEMI-SPECULAR REFLECTOR, WITH 0-10V DRIVER	HALO HC62000010-HM612835-61-WD-C
B2E	SAME AS TYPE B2E EXCEPT WITH 1400 LUMEN EMERGENCY BATTERY PACK				
C	120V	LED 3200 LM 4000K 32W	RECESSED	2'x2' LED TROFFER FIXTURE, UL LISTED, LENS, HIGH EFFICIENCY 0-10V DRIVER	METALUX 22FP3240C
CE	SAME AS TYPE 'CE' EXCEPT WITH 1400 LUMEN EMERGENCY BATTERY PACK				
D	120V	LED 4600LM 3500K 42W	SURFACE	14" DIAMETER LED ARCHITECTURAL DECORATIVE CEILING MOUNTED	WAC LIGHTING FM-4315-35-CH
F	120V	LED 4700LM 4000K 41W	RECESSED	2'x4' LED TROFFER FIXTURE, UL LISTED, LENS, HIGH EFFICIENCY 0-10V DRIVER	METALUX 24FP4740C
FE	SAME AS TYPE 'FE' EXCEPT WITH 1400 LUMEN EMERGENCY BATTERY PACK				
G	120V	LED 3200 LM 3500K 32W	SURFACE	4" LED SQUARE VANITY FIXTURE	METALUX 48CLED-LD4-32SL-F-UNV-L835-CD1
E	120V	INCLUDED	SURFACE	EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	SURE-LITES AFLX7RG
E2	120V	INCLUDED	SURFACE @8'-0"	EMERGENCY LIGHTING UNIT W/ SELF-DIAGNOSTICS	SURE-LITES AEL2-31-WH
H	120V	LED 3500K 32W	SURFACE	48" TRANSLUCENT ACRYLIC FIXTURE	CAMMAN LIGHTING F67899-48
J2	120V	LED 2800LM 4000K 29W	SURFACE	2' LED STRIP FIXTURE	METALUX LIGHTING 28CLED-LD4-28HL-F-UNV-840
J4	120V	LED 2800LM 4000K 29W	SURFACE	4' LED STRIP FIXTURE	METALUX LIGHTING 48CLED-LD4-28HL-F-UNV-840
K	120V	LED 2000LM 3500K	PENDANT	4" LED CYLINDER, 0-10V DIMMING, UL LISTED	LITHONIA LDN4CYL-35/20-LO4-AR-LS-MVOLT-G210-FM-DNA
T	120V	LED 442W 3000K	SURFACE	6' TRACK WITH 4 LED HEADS, COLOR OPTICS BEAM CONTROL ACCESSORIES TO BE CHOSEN BY OWNER.	TRACK: WAC LIGHTING# J2-18-XX HEAD: WAC LIGHTING# J-2042-930-XX
X1	120V	LED	SURFACE	LED THERMOPLASTIC EXIT COMBO WITH EMERGENCY UNIT WITH SELF-DIAGNOSTICS	SURE-LITES APLC7RG
AA	120V	LED 3200 LM 3500K 32W	SURFACE @10'-0"	LED WALL LUMINAIRE, WET LOCATION RATED, UL LISTED	COOPER LIGHTING GWC-1.0A-01-LED-E1-13-AP-AHD245
BB	120V	LED 3200 LM 3500K 32W	SURFACE @10'-0"	LED WALL LUMINAIRE, WET LOCATION RATED, UL LISTED	COOPER LIGHTING GWC-600MA-01-LED-E1-13-AP-AHD245

### NOTE:

- 1.) EQUAL MANUFACTURER SHALL BE ACCEPTABLE WITH EQUAL PERFORMANCE OF SPECIFIED EQUIPMENT AND APPROVED BY ENGINEER.
- 2.) SUBMIT EQUAL MANUFACTURES TO ENGINEER 10 DAYS PRIOR TO BID DATE.
- 3.) SUBMIT LIGHT FIXTURES CUTSHEETS TO OWNER FOR APPROVAL PRIOR TO ORDER.
- 4.) CONTRACTOR SHALL VERIFY THAT ANY IRRIGATION SPRINKLER HEAD IS AWAY FROM ANY LIGHT POLE A MINIMUM OF 75' TO AVOID CONSISTENT WATER TO LIGHT POLE. COORDINATE WITH IRRIGATION CONTRACTOR PRIOR TO ANY WORK.
- 5.) CONTRACTOR SHALL VERIFY THAT ANY LIGHT POLES ON COMMON AREAS AND SIDE WALKS, THAT THE LOCATION OF THE POLE TO MEET THE ADA REQUIREMENTS.
- 6.) CONTRACTOR SHALL FIELD VERIFY FOR EXISTING/NEW UNDERGROUND UTILITIES PRIOR TO ANY WORK.



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

E3.1

TRINITY  
MEP ENGINEERING

3533 Moreland Dr. Ste A 1 Weslaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

120/208V, 3Ø, 4W ELECTRICAL LOAD ANALYSIS	
DESCRIPTION	TOTAL KVA
LIGHTING	4
GENERAL POWER	21
A/C	55
WATER HEATER	8.5
EQUIPMENT	43
TOTAL WATTS:	131 KVA
TOTAL AMPS:	315 AMPS
TOTAL AMPS+25%:	394 AMPS
WIRE SIZE AMPS:	400 AMPS

DISCONNECT SCHEDULE	
LABEL	DESCRIPTION
AHU-1,2,3	60AMP, 1Ø, 3W, N1,240V, S/N, N.F., H.D. DISCONNECT
CU-1,2,3	60AMP, 1Ø, 3W, N3R,240V, S/N, H.D. FUSED DISCONNECT
IWH-1	30AMP, 1Ø, 3W, N1,120V, S/N, N.F., H.D. ROTARY TYPE DISCONNECT
WH-1	60AMP, 1Ø, 3W, N1,240V, S/N, N.F., H.D. ROTARY TYPE DISCONNECT

NOTE: 1. REFER TO BREAKER SIZE FOR FUSE SIZE.  
2. REFER TO PANELBOARD FOR DISCONNECT PHASES AND VOLTAGE.

**GENERAL NOTES:**

- A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.
- B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS, LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC., BY ELECTRICAL CONTRACTOR.
- C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.
- D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.
- E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.
- F. PROVIDE 4" CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS.
- G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.
- H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN WEEKENDS OR HOLIDAYS, INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.
- I. ELECTRICAL SERVICE 480/277V 1000AMPS OR MORE SHALL INCLUDE GROUND FAULT PROTECTION.
- J. ELECTRICAL SERVICE 120V THRU 480V 1000AMPS OR MORE SHALL INCLUDE AN ARC REDUCTION MAINTENANCE SWITCH. COORDINATE EXACT LOCATION OF SUCH SWITCH.

**ELECTRICAL RISER  
DIAGRAM KEYED NOTES:**

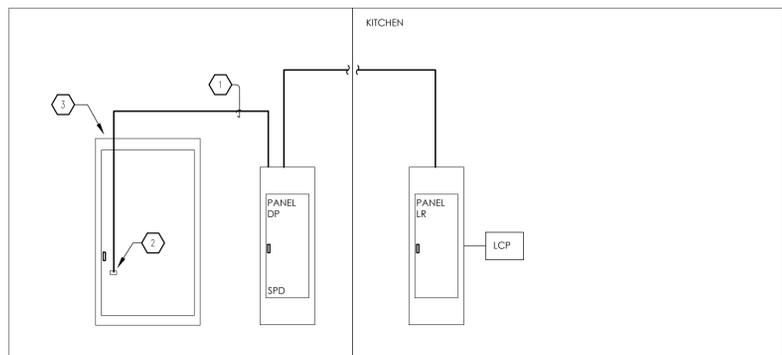
- 1 PROVIDE 1-RUN 4#600KCMIL, 1#3G, 4".
- 2 EXISTING GOULD ITE SWITCHBOARD 120/240V, 3Ø, 4W SWITCHBOARD, FIELD VERIFY EXISTING "CAFETERIA BREAKER" SIZE BREAKER AND VERIFY CONDITIONS PRIOR TO ANY WORK.
- 3 EXISTING ITE SWITCHBOARD 120/240V, 3Ø, 4W 800AMPS NEMA-3R TO REMAIN, PROVIDE 1-400AMP 5-POLE BREAKER IN SPACE AVAILABLE, PROVIDE ALL NEW MOUNTING HARDWARE KIT FOR NEW BREAKER.

**LIGHTING CONTROL SENSORS LEGEND**

SYMBOL	ACUITY MODEL NUMBER	CONDUIT	COMMENTS
§ OS2	WSX-PDT-SA	3/4"	
[LCP]	BLUE BOX LT	RE: PLANS	LIGHTING CONTROL RELAY PANEL, REFER TO RELAY PANEL SCHEDULE.
§ SW1	rPODM-2LAB-WH	3/4"	WALL MOUNT SWITCH WITH ON/OFF WITH RAISE /LOWER FUNCTION AND WITH STAINLESS STEEL PLATE
§ PS	rPODM-4S(B)	3/4"	WALL MOUNT SWITCH WITH ON/OFF WITH RAISE /LOWER FUNCTION AND WITH STAINLESS STEEL PLATE

GENERAL NOTES:  
A. CONTRACTOR SHALL REFER TO MANUFACTURERS INSTRUCTIONS AND WIRING DIAGRAMS PRIOR TO BID DATE.  
B. CONTRACTOR SHALL INCLUDE ALL COST IN BID FOR AN OPERABLE LIGHTING SYSTEM.

- NOTES:
1. All sensor locations are approximate, refer to manufacturers installation instructions prior to installation.
  2. Ultrasonic ceiling mount sensors should be located a minimum of six feet from HVAC supply/return vents.
  3. Contractor is responsible for: proper sensitivity & time delay settings (for non-adaptive products) recommended placement, and field verification of circuits with in respect to power placement.
  4. Contractor is responsible for field verification of required number of power packs:
    - One power pack is required for each circuit to be controlled.
    - One power pack is required for every three sensors in the zone.
    - If multiple circuits are to be controlled by a sensor, an auxiliary relay can be used in conjunction with the power pack.
    - The maximum number of sensors that can be put on a power pack is to be reduced by one for each slave pack used.
  5. Sensors mounted over the door must be placed one foot inside the threshold.
  6. Contractor is responsible for ensuring that the sensor bill of materials complies with the sensor design and layout specifications.
  7. Contractor is responsible for installing equipment in compliance with local code.
  8. Refer to manufacturers wiring diagrams.
  9. NOTE: Contractor shall include all cost for a manufacturer certified technician to provide a complete training session to owner representatives. Training shall include but not limited to the following: calibrate sensors settings, programming existing conditions and how to add new circuits, trouble shooting, overview of panel and any request from owner. Training may take days; contractor/manufacturer shall include all cost in bid. Contractor shall notify owner/Architect/Engineer on the day for the training. Technician shall calibrate all sensors to owners desire, include cost for technician to provide service after the job is complete.



1 ELECTRICAL SCHEMATIC DIAGRAM  
SCALE: NTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

E4.1

**TRINITY**  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Westlaco, Tx 78756  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES

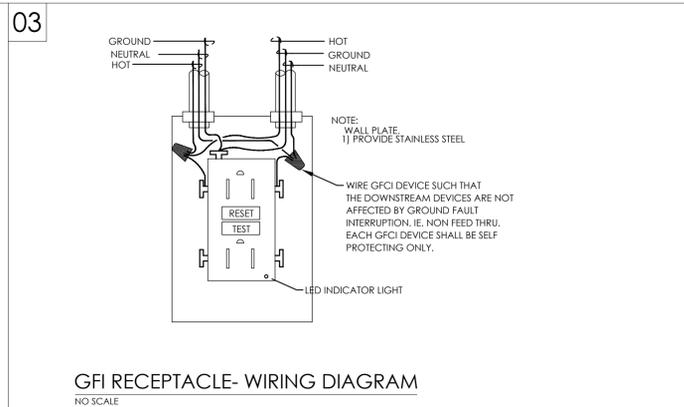
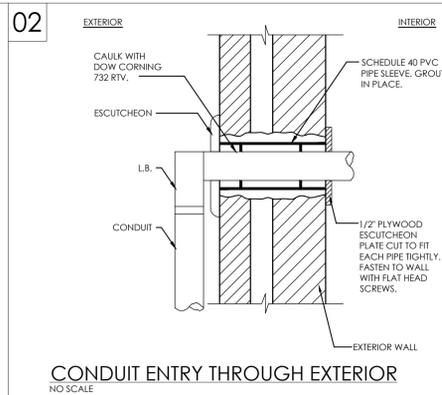
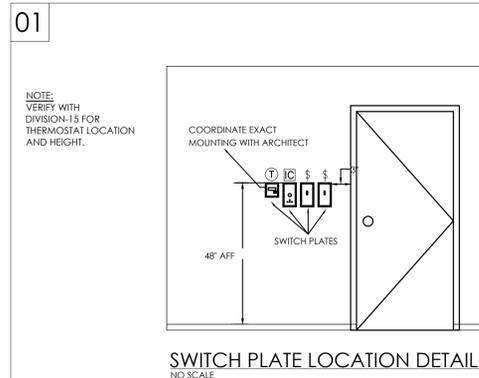
AMERICAN INSTITUTE OF ARCHITECTS

PANEL-LR LOCATION:	AMP 225	LUGS MLO	NEMA 1	V(LL) 240	(P) 1	(W) 3	V(LN) 120	MNT FLU	KAIC 25	FDR 1-RUN 3#4/0, 1#4G, 2 1/2"C			
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	FEEDER/BRANCH CIRCUIT POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED	
EMERGENCY/EXIT	1	0.6	20	1	2#10, 1#10G, 3/4"C	*		2#8, 1#10G, 3/4"C	1	20	0.6	2	LIGHTING
CONF LTG 304	3	0.3	20	1	2#6, 1#10G, 1"C	*	*	2#10, 1#10G, 3/4"C	1	20	0.6	4	KITCHEN LTG
CONF LTG 304	5	0.3	20	1	2#6, 1#10G, 1"C	*	*	2#8, 1#10G, 3/4"C	1	20	0.6	6	EXTERIOR LIGHTING
CONF LTG 304	7	0.3	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	0.3	8	CONF LTG 304
STAGE LTG AREA	9	1	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	0.3	10	CONF LTG 305
CONF LTG 305	11	0.3	20	1	2#12, 1#12G, 1/2"C	*	*	-	1	20	0.3	12	CONF LTG 305
CONF LTG 305	13	0.3	20	1	2#12, 1#12G, 1/2"C	*	*	2#10, 1#10G, 3/4"C	1	25	2.4	14	IWH-1
10-MIXER	15	1.92	20	2	3#10, 1#10G, 3/4"C	*	*	2#12, 1#12G, 1/2"C	1	20	3	16	3 RCPTS
"	17	1.92	20	2	-	*	*	3#12, 1#12G, 1/2"C	2	20	1.6	18	9-TORTILLA PRESS
8-BLENDER	19	1.6	20	1	2#12, 1#12G, 1/2"C	*	*	-	-	-	1.6	20	-
8-BLENDER	21	1.6	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	1.2	22	1 RCPT
6-REFRIGERATOR	23	0.8	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	1.2	24	1 RCPT
1.J 3-TOP GAS RANGE	25	0.4	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	1	26	5 RCPTS
1.J 4-GAS FLAT GRILL	27	0.4	20	1	2#12, 1#12G, 1/2"C	*	*	-	1	20	1.2	28	6 RCPTS
CIRCULATING PUMP	29	0.2	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	0.6	30	3 RCPTS
FIRE SPRINKLER	31	0.6	20	1	2#12, 1#12G, 1/2"C	*	*	-	1	20	1	32	5 RCPTS
MOTORIZED DAMPERS	33	0.6	20	1	2#12, 1#12G, 1/2"C	*	*	2#12, 1#12G, 1/2"C	1	20	1.2	34	1.J 2-BAKING OVEN
QUAD STAGE	35	0.8	20	1	2#12, 1#12G, 1/2"C	*	*	2#10, 1#10G, 3/4"C	1	35	3	36	WH-1
QUAD STAGE	37	0.8	20	1	2#12, 1#12G, 1/2"C	*	*	-	-	-	3	38	-
1 RCPT	39	0.6	20	1	2#12, 1#12G, 1/2"C	*	*	-	-	-	-	40	SPARE
2 RCPTS	41	0.4	20	1	2#12, 1#12G, 1/2"C	*	*	-	-	-	-	42	SPARE
SPARE	43				-	*	*	-	-	-	-	44	SPARE
SPARE	45				-	*	*	-	-	-	-	46	SPARE
SPARE	47				-	*	*	-	-	-	-	48	SPARE
SPARE	49				-	*	*	-	-	-	-	50	SPARE
SPARE	51				-	*	*	-	-	-	-	52	SPARE
SPARE	53				-	*	*	-	-	-	-	54	SPARE
SPARE	55				-	*	*	-	-	-	-	56	SPARE
SPARE	57				-	*	*	-	-	-	-	58	SPARE
SPARE	59				-	*	*	-	-	-	-	60	SPARE
SPARE	61				-	*	*	-	-	-	-	62	SPARE
SPARE	63				-	*	*	-	-	-	-	64	SPARE
LOADS	-	(KVA)									25	24	DESCRIPTIVE LOADS
CONNECTED LOAD	-	49											6 - LIGHTING
RESERVE	-	0											31 - RECEPTACLES
TOTAL LOAD	-	49											0 - COOLING
													3 - EQUIPMENT
TOTAL AMPS	-	202											8 - OTHER

NOTES:  
1) PROVIDE SHUNT BREAKER, INTERLOCK WITH FIRE SUPPRESSION SYSTEM.  
2)  
3)

PANEL-DP LOCATION:	AMP 400	LUGS MLO	NEMA 3R	V(LL) 240	(P) 3	(W) 4	V(LN) 120	MNT SUR.	KAIC 65	FDR 1-RUN 4#600KCMIL, 1#3G, 4"C				
LOAD SERVED	CKT #	LOAD KVA	BKR SIZE	POLE	FEEDER/BRANCH CIRCUIT SIZE	A	B	C	FEEDER/BRANCH CIRCUIT POLE	BKR SIZE	LOAD KVA	CKT #	LOAD SERVED	
2) 1-DOUBLE OVEN	1	8.3	70	3	4#4, 1#8G, 1 1/2"C	*	*	*	4#12, 1#12G, 1/2"C	3	20	0.8	2	7-FOOD PROCESSOR
"	3	8.3			-	*	*	*	-	-	-	0.8	4	-
"	5	8.3			-	*	*	*	-	-	-	0.8	6	-
MAU-1	7	5.67	50	3	4#6, 1#10G, 1"C	*	*	*	4#12, 1#12G, 1/2"C	3	20	0.8	8	7-FOOD PROCESSOR
"	9	5.67			-	*	*	*	-	-	-	0.8	10	-
"	11	5.67			-	*	*	*	-	-	-	0.8	12	-
AHU-1	13	7.2	60	2	3#6, 1#10G, 1"C	*	*	*	3#4/0, 1#4G, 3"C	2	225	25	14	PANEL-LR
"	15	7.2			-	*	*	*	-	-	-	24	16	-
CU-1	17	60	2	2	3#6, 1#10G, 1"C	*	*	*	3#6, 1#10G, 1"C	2	50	6	18	AHU-3
"	19				-	*	*	*	-	-	-	6	20	-
AHU-2	21	6	50	2	3#6, 1#10G, 1"C	*	*	*	3#6, 1#10G, 1"C	2	60	22	22	CU-3
"	23	6			-	*	*	*	-	-	-	24	24	-
CU-2	25	45	2	2	3#6, 1#10G, 1"C	*	*	*	3#12, 1#12G, 1/2"C	2	20	0.5	26	UH-1
"	27				-	*	*	*	-	-	-	0.5	28	-
MACU-1	29	45	2	2	3#6, 1#10G, 1"C	*	*	*	-	-	-	30	30	SPARE
"	31				-	*	*	*	-	-	-	32	32	SPARE
"	33				-	*	*	*	-	-	-	34	34	SPARE
SPARE	35				-	*	*	*	-	-	-	36	36	SPARE
SPD	37	60	3	4#6, 1#10G, 1"C	*	*	*	*	-	-	-	38	38	SPARE
"	39				-	*	*	*	-	-	-	40	40	SPARE
"	41				-	*	*	*	-	-	-	42	42	SPARE
LOADS	-	(KVA)												DESCRIPTIVE LOADS
CONNECTED LOAD	-	135												0 - LIGHTING
RESERVE	-	0												0 - RECEPTACLES
TOTAL LOAD	-	135												30 - EQUIPMENT
														56 - HEATING
TOTAL AMPS	-	324												49 - OTHER

NOTES:  
1) PROVIDE INTEGRAL SURGE PROTECTION DEVICE, 160KA  
2) PROVIDE SHUNT BREAKER, INTERLOCK WITH FIRE SUPPRESSION SYSTEM.  
3)



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

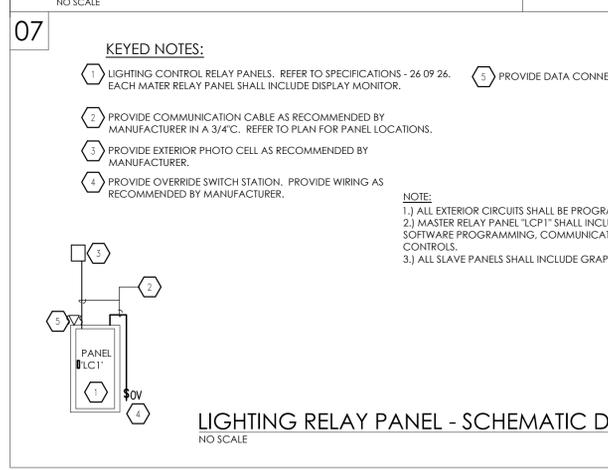
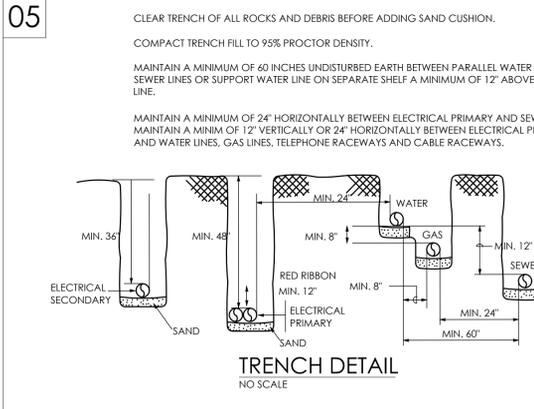
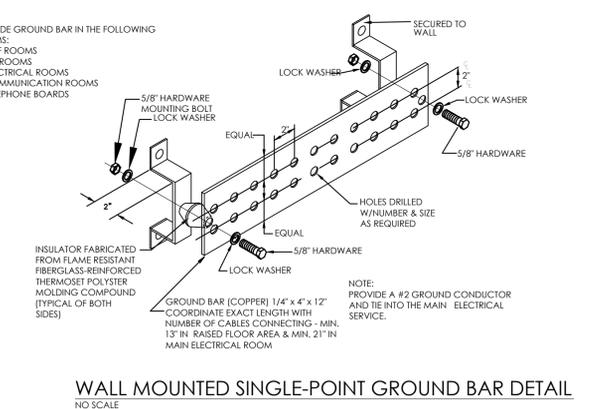
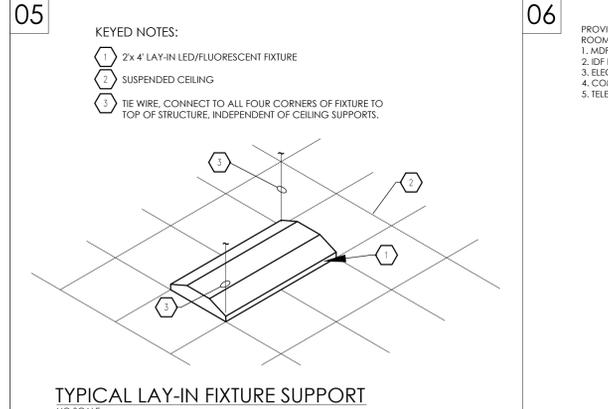
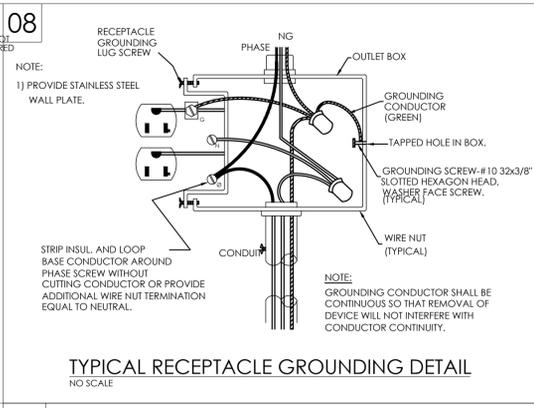
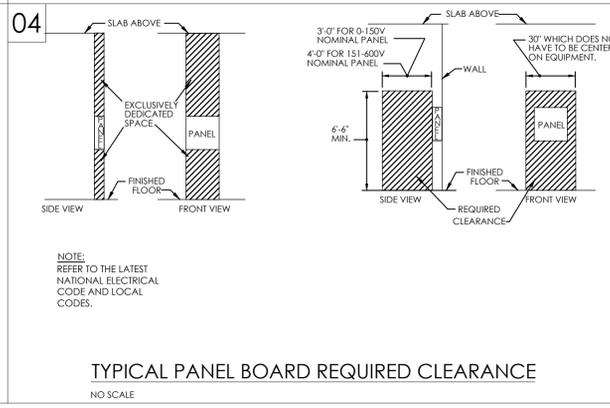
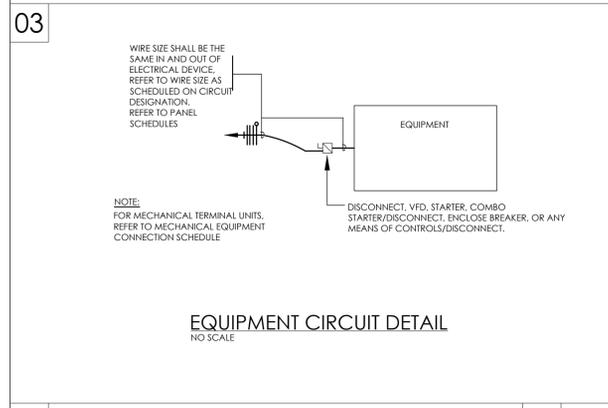
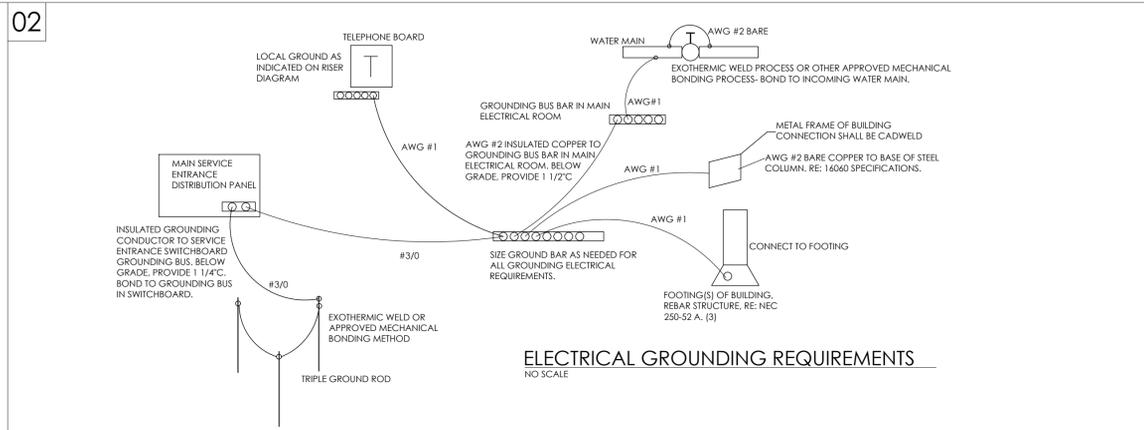
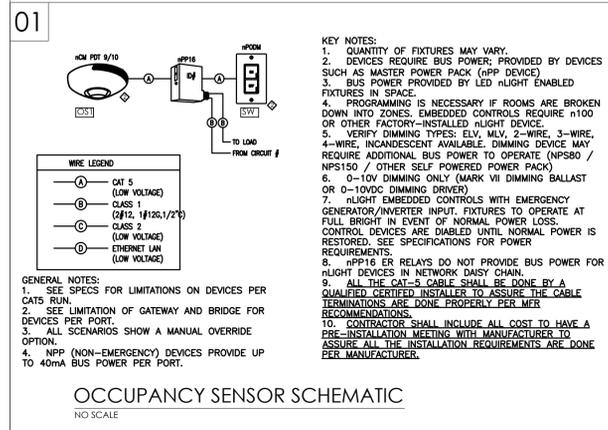
E5.1

TRINITY  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78756  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS



**08**

**RELAY LIGHTING CONTROL PANEL**  
CIRCUIT SCHEDULE  
120/240VAC, 1 PHASE

PANEL LOCATION: NETWORKING 16 Relay Cabinet

PANEL ID: Master

CATALOG NUMBER: XXX

PANEL MOUNTING: Surface

PANEL NAME: LCP1

PANEL FEED: LR

RELAY	A	PNL CIRCUIT	VAC	LOAD W/V/A	LOAD
1	1	LR-3	120V	300	LIGHTING
3	1	LR-7	120V	300	LIGHTING
5	1	LR-10	120V	300	LIGHTING
7	1	LR-12	120V	300	LIGHTING

RELAY	A	PNL CIRCUIT	VAC	LOAD W/V/A	LOAD
2	1	LR-5	120V	300	LIGHTING
4	1	LR-8	120V	300	LIGHTING
6	1	LR-11	120V	300	LIGHTING
8	1	LR-13	120V	300	LIGHTING

**LEGEND:**

- 1 = RELAY-1-POLE 20A. UP TO 277VAC
- 2 = RELAY-2-POLE, 2-POLE, 20A. UP TO 480VAC
- A=AMPS

**NOTES:**

1. INCLUDE EXTERIOR PHOTO CELLS/SOFTWARE PROGRAMMING, COMMUNICATION CARD AND GRAPHICAL CONTROLS.
2. VERIFY WITH OWNER FOR ALL PROGRAMMING SEQUENCE.
3. REFER TO SPECIFICATION 1615.
4. PROVIDE DEDICATED 25AMP 120V FROM NEAREST 120/208V PANEL.
5. INCLUDE ALL TRAINING FOR PROGRAMMING AND STARTUP IN CONTRACT. REFER TO SPECIFICATIONS.
6. INCLUDE REMOTE CONTROL OPTION. OWNER TO PROVIDE DATA INPUT.
7. INCLUDE ASTRONOMICAL TIME CLOCK.

**LIGHTING RELAY PANEL - SCHEDULE**  
NO SCALE

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

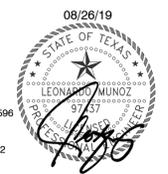
PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER  
E6.1

**TRINITY**  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Westlaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10082  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

**GENERAL DEMOLITION NOTES**

- A. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES INCLUDING THOSE PUBLISHED BY OSHA AND EPA.
- B. THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE WILL BE REQUIRED PRIOR TO BIDDING. CONTRACTOR SHALL IDENTIFY/VERIFY ALL WATER, GAS AND SANITARY LINES BEFORE STARTING ANY DEMOLITION WORK. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK.
- C. PROVIDE ALL DEMOLITION WORK REQUIRED FOR THE REMOVAL AND/OR RELOCATION OF PLUMBING FIXTURES AND EQUIPMENT AND ASSOCIATED SERVICES TO PROVIDE A COMPLETE AND OPERABLE SYSTEM UPON COMPLETION OF THE PROJECT.
- D. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCH'L DOCUMENTS IN ADDITION TO THE DIVISION 15 AND 16 DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.

- E. WHERE FIXTURES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE REMOVED, THE ASSOCIATED SERVICES SHALL BE CAPPED AT A CONCEALED LOCATION.
- F. WHERE FIXTURES OR EQUIPMENT ARE INDICATED OR REQUIRED TO BE RELOCATED, THE ASSOCIATED SERVICES SHALL BE REMOVED AND CAPPED. NEW MATERIALS SHALL BE USED TO EXTEND SERVICES TO NEW LOCATION.
- G. WHERE SERVICES RUN ABOVE INACCESSIBLE CEILINGS OR IN WALLS WHICH ARE TO REMAIN UNDISTURBED, SERVICES SHALL BE CAPPED AT CONCEALED LOCATION AND ABANDONED.
- H. WHERE THE REMOVAL OF FIXTURES OR EQUIPMENT RENDERS EQUIPMENT DOWNSTREAM INOPERABLE, SERVICES SHALL BE EXTENDED TO THE DOWN-STREAM FIXTURES OR EQUIPMENT SO THAT THE FIXTURES OR EQUIPMENT IS LEFT IN OPERATING CONDITION.
- I. COORDINATE DEMOLITION OF DIVISION 15 SYSTEMS AS REQUIRED WITH ALL OTHER TRADES.
- J. ALL EXISTING PLUMBING FIXTURES AND EQUIPMENT REMOVED DURING CONSTRUCTION THAT ARE NOT TO BE REUSED SHALL BE REMOVED FROM THE JOB SITE AND PROPERLY RETURNED TO THE OWNER, IF DESIRED BY OWNER.

**KEYED NOTES: DEMO**

- 1 REMOVE ALL EXISTING PLUMBING FIXTURES IN THIS AREA INCLUDING ALL CONNECTING SERVICES. CAP ALL SERVICE LINES AT A CONCEALED LOCATION.
- L. EXISTING FIXTURES OR EQUIPMENT TO BE REUSED SHALL BE CLEANED AND REPAIRED AT THE DISCRETION OF THE ARCHITECT WHERE APPLICABLE.
- M. ALL DEVICES WITH AN (E) SYMBOL ARE EXISTING TO REMAIN. (UNO).
- N. ALL DEVICES ATTACHED TO WALLS OR CEILINGS SHALL BE REMOVED PER DEMOLITION NOTE A - L WHETHER SHOWN ON DRAWINGS OR NOT.
- O. CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS OR SPECIFICATIONS. PATCH AND SEAL OPENINGS AS REQUIRED. COORDINATE ALL CUTTING AND PATCHING WITH OTHER TRADES.



1 PLUMBING DEMOLITION  
1/4"=1'-0"

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

---

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

---

SHEET NUMBER  
PD1.1



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

GREASE TRAP SIZING CALCULATIONS							
NUMBER OF MEALS	X	TOTAL WASTE FLOW RATE	X	RETENTION TIME	X	STORAGE FACTOR	REQUIREMENT (LIQUID CAPACITY) = SIZE
120	X	2	X	1.5	X	1	= 360

NOTE:

DRAWING IS SCHEMATIC IN NATURE AND SHOW THE GENERAL LAYOUT OF THE PLUMBING SYSTEM. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES AND KITCHEN EQUIPMENT. THIS INCLUDES, BUT NOT LIMITED TO FURNISHINGS AND INSTALLING ALL TRAPS, DRAINS AND SUPPLIES WITH STOPS.

PLUMBING CONTRACTOR TO PROVIDE AND INSTALL SHUTOFF COCKS, QUICK DISCONNECTS AND FLEXIBLE LINES AT GAS EQUIPMENT.

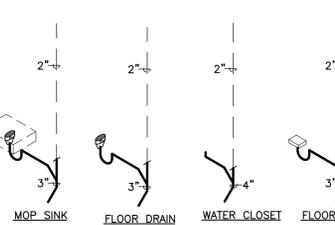
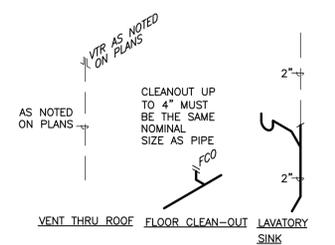
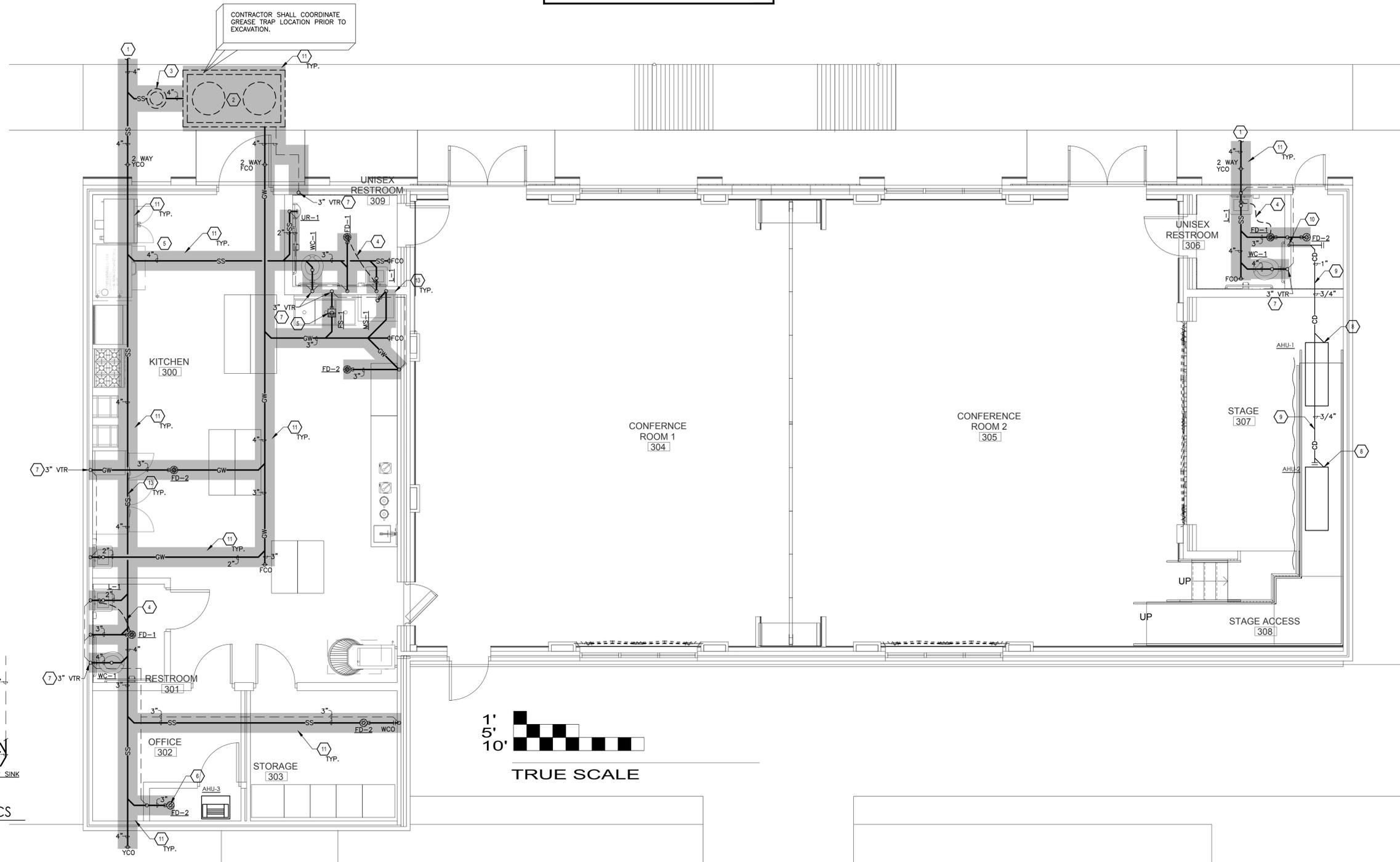
PLUMBER TO REFER TO FSE DRAWINGS FOR ROUGH-IN AND OTHER INSTALLATION INFORMATION.

IT IS MANDATORY FOR GENERAL CONTRACTORS TO FIELD VERIFY AND SURVEY THE ENTIRE SITE PRIOR TO BIDDING. CONTRACTOR TO IDENTIFY ANY POSSIBLE DISCREPANCIES.

KEYED NOTES: PLUMBING

- 1 PLUMBER TO MAKE FINAL CONNECTION TO SANITARY SEWER. FIELD VERIFY EXACT LOCATION, SIZE, FLOW AND INVERT ELEVATIONS OF EXISTING SANITARY SEWER PRIOR TO ANY ROUGH-INS.
- 2 GREASE TRAP PARK GT500 OR EQUAL. REFER TO DETAIL 01/P4.2 COORDINATE LOCATION WITH EXISTING UTILITIES IN THE AREA.
- 3 SAMPLE WELL EQUAL TO PARK SWB-154. REFER 02/P4.2 FOR DETAIL.
- 4 1/2" COPPER FROM TRAP PRIMER, PROVIDE SINK WITH WATER SAVER TRAP PRIMER. SEE DETAIL 06/P4.1. COVER WITH SLEEVE "POLY SLEEVE" OR EQUAL. TYPICAL FOR ALL TRAP-PRIMERS.
- 5 COORDINATE EXACT LOCATION OF ALL FLOOR DRAINS, FLOOR SINKS AND TRENCH DRAIN WITH KITCHEN EQUIPMENT CONTRACTOR.
- 6 FLOOR DRAIN FOR CONDENSATE FROM AHU'S AND COOLER CONDENSATE.

- 7 KEEP ALL VENT THRU ROOF (VTR) AT LEAST 10 FEET AWAY FROM ANY FRESH AIR INTAKE. COORDINATE LOCATION OF ALL VTRs WITH HVAC CONTRACTOR.
- 8 COPPER CONDENSATE LINE FROM AHU, COORDINATE ROUTING WITH HVAC CONTRACTOR.
- 9 COPPER CONDENSATE LINE, PROVIDE 1/2" INSULATION AND 1/8" SLOPE. TYPICAL FOR ALL CONDENSATE LINES.
- 10 1" COPPER CONDENSATE DRAIN LINE DOWN THRU WALL, DISCHARGE TO FLOOR DRAIN.
- 11 SAW-CUT THRU CONCRETE TO TRENCH FOR NEW UNDERGROUND PLUMBING. PATCH CONCRETE FLOOR TO MATCH EXISTING. FIELD VERIFY EXISTING CONCRETE SLAB SYSTEM BEFORE ANY SAW CUTTING COMMENCES.



02 SEWER & VENT TYPICAL RISER SCHEMATICS NOT TO SCALE



1 SEWER & VENT PLUMBING PLAN 1/4"=1'-0"

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER 219006  
DATE AUG 26, 2019

SHEET NUMBER P1.1

TRINITY  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78596  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

**NOTE:**

DRAWING IS SCHEMATIC IN NATURE AND SHOW THE GENERAL LAYOUT OF THE PLUMBING SYSTEM. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.

THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES AND KITCHEN EQUIPMENT. THIS INCLUDES, BUT NOT LIMITED TO FURNISHINGS AND INSTALLING ALL TRAPS, DRAINS AND SUPPLIES WITH STOPS.

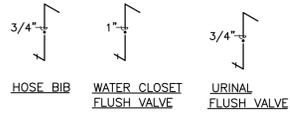
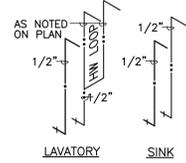
PLUMBING CONTRACTOR TO PROVIDE AND INSTALL SHUTOFF COCKS, QUICK DISCONNECTS AND FLEXIBLE LINES AT GAS EQUIPMENT.

PLUMBER TO REFER TO FSE DRAWINGS FOR ROUGH-IN AND OTHER INSTALLATION INFORMATION.

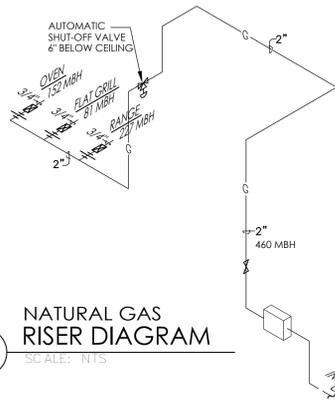
IT IS MANDATORY FOR GENERAL CONTRACTORS TO FIELD VERIFY AND SURVEY THE ENTIRE SITE PRIOR TO BIDDING. CONTRACTOR TO IDENTIFY ANY POSSIBLE DISCREPANCIES.

**PLUMBING KEYED NOTES:**

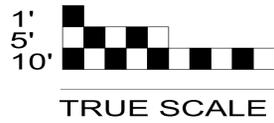
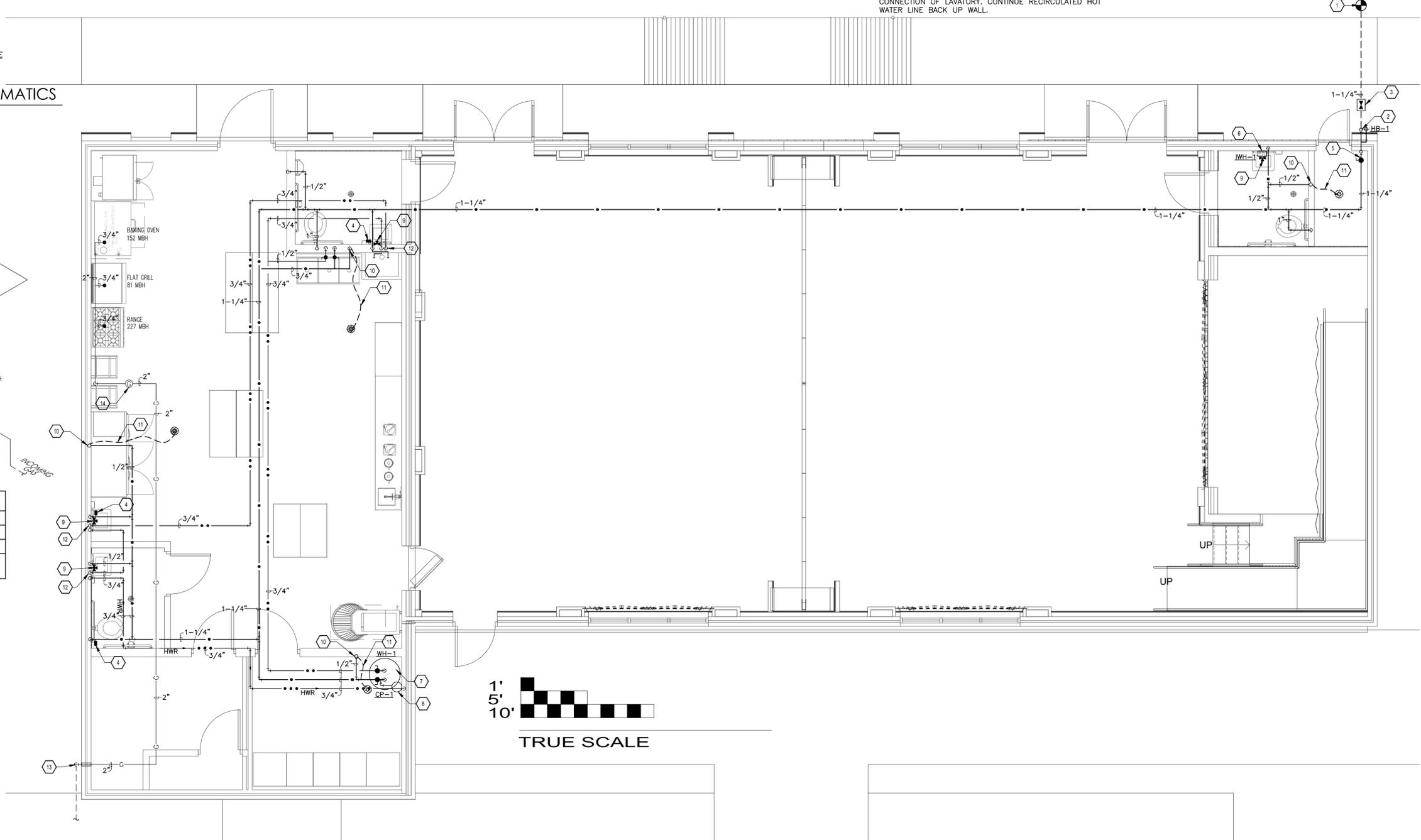
- 1 CONNECT NEW 1-1/4" CW TO EXISTING CW OF EQUAL OR GREATER SIZE. VERIFY SIZE AND LOCATION OF EXISTING CW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE BACKFLOW PREVENTER PER LOCAL JURISDICTION REQUIREMENTS.
- 2 WATER SERVICE ENTRANCE. REFER TO DETAIL 01/P4.1.
- 3 CUT-OFF VALVE IN CAST IRON BOX. SET BOX FLUSH WITH FINISHED GRADE.
- 4 WATER HAMMER ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING.
- 5 BRONZE CUT-OFF VALVE ABOVE CEILING. PROVIDE ACCESS PANEL WHERE LOCATED IN AN INACCESSIBLE CEILING. PANEL SHALL BE 12"X12" PAINTED TO MATCH CEILING.
- 6 PROVIDE POINT OF USE INSTANTANEOUS WATER HEATER TO SERVE LAVATORY.
- 7 PROVIDE ELECTRICAL WATER HEATER, REFER TO DETAIL 8/P4.1. INSTALL AS PER MANUFACTURER'S INSTRUCTION. PROVIDE 6" CONCRETE PAD.
- 8 PROVIDE A CIRCULATING PUMP @ NEW WATER HEATER. SEE DETAIL 03/P4.2.
- 9 PROVIDE SINK/LAV WITH SINGLE OUTLET THERMOSTATIC MIXING VALVE (TMV), WATTS LFMV-US-M1. SET TEMPERATURE AS PER LOCAL JURISDICTION.
- 10 PRESSURE DROP ACTIVATED TRAP PRIMER. PROVIDE ACCESS PANEL IF INACCESSIBLE. SEE DETAIL 04/P4.1.
- 11 1/2" COPPER FROM TRAP PRIMER COVER WITH POLYETHYLENE SLEEVE "POLY SLEEVE" OR EQUAL. TYPICAL ALL TRAP-PRIMERS.
- 12 ROUTE RECIRCULATED HOT WATER LINE DOWN WALL. ROUTE MAXIMUM 2' LONG 1/2" BRANCH TO HOT WATER CONNECTION OF LAVATORY. CONTINUE RECIRCULATED HOT WATER LINE BACK UP WALL.
- 13 UNDERGROUND GAS SERVICE LINE, AND GAS SERVICE REGULATOR APPROVED BY LOCAL GAS COMPANY. SITE VERIFY EXACT LOCATION. COORDINATE INSTALLATION AND PAY ALL ASSOCIATED FEES. APPROXIMATED 50 FEET DISTANCE TO EXISTING GAS POINT OF CONNECTION. RUN LOW PRESSURE GAS UP EXTERIOR WALL TO ABOVE CEILING, AND INTO BUILDING. REFER TO GAS LOAD SUMMARY AND GAS RISER DIAGRAM.
- 14 AUTOMATIC GAS VALVE EXPOSED 6" BELOW CEILING HEIGHT. PROVIDED BY OWNER INSTALLED BY CONTRACTOR. INTERLOCK WITH HOOD SUPPRESSION SYSTEM. PROVIDE UNION ON INLET AND OUTLET.



02 DOMESTIC WATER TYPICAL RISER SCHEMATICS  
SCALE: NTS



03 NATURAL GAS RISER DIAGRAM  
SCALE: NTS



1 DOMESTIC WATER PLUMBING PLAN  
1/4"=1'-0"

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

P2.1

TRINITY  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6



**ABBREV. DESCRIPTION**

AC	ABOVE CEILING
AFF	ABOVE FINISHED FLOOR
ASA	AMERICAN STANDARDS ASSOCIATION
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AW	ACID WASTE
AWWA	AMERICAN WATER WORKS ASSOCIATION
AV	ACID VENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMPRESSED AIR
CI	CAST IRON
CO	CLEANOUT
CU	COPPER
DN	DOWN
EQ	EQUAL
FCO	FLOOR CLEANOUT
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
GAL	GALLON(S)
GALV	GALVANIZED
GW	GREASE WASTE
HB	HOSE BIBB
HP	HORESPOWER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
RD	ROOF DRAIN(S)
RE:4/P6	REFER TO DETAIL 4 DRAWING P-6
RO	REVERSE OSMOSIS
SD	STORM DRAIN
SPEC	SPECIFICATION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
VTR	VENT THRU ROOF
V	VACUUM
W/	WITH
WCO	WALL CLEAN OUT
YCO	YARD CLEAN OUT

MARK	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
		San. Sewer	Vent	Cold Water	Hot Water	
WC-1	WATER CLOSET FLOOR MOUNTED ADA	4"	2"	1"	-	ZURN MODEL NO. Z5665-BWL, FLOOR MOUNTED WATER CLOSET, WITH ELONGATED RIM, 16-3/4" RIM HEIGHT, VITREOUS CHINA, SIPHON JET FLUSH ACTION 10"- 12" ROUGH IN, WITH ZURN FLUSHVALVE MODEL NO. Z6000AV-HET 1.28 GPF, 1" TOP SPUD INLET AND 2 BOLT CAPS. WITH "BENEKE" OPEN FRONT SEAT LESS COVER MODEL 533SS. FLUSH LEVER SHALL BE MOUNTED ON APPROACH SIDE OF FIXTURE.
UR-1	URINAL (STANDARD & HANDICAPPED) REFER TO ARCH'L DRAWING FOR MOUNTING HEIGHTS	2"	2"	3/4"	-	ZURN MODEL NO. Z5738.206.00 SIPHON JET WALL HUNG URINAL. VITREOUS CHINA, .5 GPF FLUSH, COMPACT DESIGN, WITH INTEGRAL TRAP, 3/4" TOP INLET, 14" LIP, INCLUDES WALL HANGERS, 2" IPS OUTLET FLANGE AND RUBBER GASKET. WITH ZURN FLUSHOMETER .5 GPF MODEL NO. Z6003AV-EWS. PROVIDE ZURN CARRIER SYSTEM MODEL NO. Z-1221.
L-1	LAVATORY COUNTER TOP STANDARD & HANDICAPPED	2"	2"	1/2"	1/2"	ZURN MODEL NO. Z5110 SELF-RIMMING OVAL BASIN COUNTERTOP LAVATORY. CONCEALED FRONT OVERFLOW, VITREOUS CHINA. COMPLETE WITH INSTALLATION TEMPLATE. FAUCET HOLES ON 4" CENTERS. PROVIDE FAUCET EQUAL TO MOEN MODEL 8419 WATER SENSE, SINGLE HANDLE, VANDAL RESISTANT, ADA APPROVED. PROVIDE PROTECTIVE COVER ON P-TRAP AND STOPS.
MS-1	MOP SINK	3"	2"	1/2"	1/2"	FIAT MODEL NO. TSB100, 24"X24"X12" TERRAZO MOP SINK, COMPLETE WITH FAUCET MODEL 830-AA, MOP SINK SHALL INCLUDE ALL HOSE BRACKETS, HOSE, AND MOP HANGER. WITH 3" DRAIN WITH STRAINER & DEEP SEAL P-TRAP. PROVIDE WALL GUARD MSG2424.
HB-1	HOSE BIB EXTERIOR GENERAL USE	-	-	3/4"	-	MILD TEMPERATURE WALL HYDRANT SHALL BE WOODFORD MODEL B65 3/4" INLET WITH BRONZE CASING, BRONZE FACE AND STRAIGHT INLET CONNECTION WITH INTEGRAL BACKFLOW PREVENTER.
FS-1	FLOOR SINK KITCHEN	AS NOTED ON PLANS			EQUAL TO JOSAM PART # 49364A-4-31-Z-SSLF, 12" SQUARE A.R.E. TOP, WITH 9-7/8" DEEP SUMP STAINLESS STEEL FLOOR SINK LESS FLANGE, 3/4 GRATE, ALUMINUM SEDIMENT BUCKET.	
FD-1	RESTROOM FLOOR DRAIN	AS NOTED ON PLANS			EQUAL TO JOSAM PART # 30003-6A-Y-50, CAST IRON BODY WITH CLAMP RING, FLANGE, ADJUSTABLE NIKALOVY STRAINER, HUB OUTLET WITH GASKET AND 1/2" PRIMER TAP.	
FD-2	FLOOR DRAIN TRACTOR GRATE	AS NOTED ON PLANS			EQUAL TO JOSAM PART # 30003-7E-Y-50, COATED CAST IRON BODY WITH CLAMP RING, TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WITH 7" TRACTOR GRATE STRAINER AND 1/2" PRIMER TAP. HUB OUTLET WITH GASKET.	
FCO	FLOOR CLEANOUT	AS NOTED ON PLANS			MIFAB MODEL "C1100-R-1" ADJUSTABLE FLOOR CLEANOUT, COMPLETE WITH NICKEL BRONZE TOP ASSEMBLY, LACQUERED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, AND PRIMARY GASKET SEAL.	
YCO	YARD CLEANOUT	AS NOTED ON PLANS			MIFAB MODEL "C-1220" LACQUERED CAST IRON CLEANOUT, THREADED BRONZE PLUG FOR AIR TIGHT SEAL AND STANDARD REINFORCED SATIN FINISHED NICKEL BRONZE ADJUSTABLE TOP ASSEMBLY.	
WCO	WALL CLEANOUT	AS NOTED ON PLANS			MIFAB MODEL "C1430-RD" CAST BRONZE CLEANOUT PLUG. COMPLETE WITH STAINLESS STEEL WALL ACCESS COVER AND ANCHOR SCREW. MOUNT 24" A.F.F.	

**NOTES:**

1. ALL VITREOUS CHINA FIXTURES SHALL BE WHITE.
2. PROVIDE SINGLE FIXTURE WATER HAMMER ARRESTORS EQUAL TO MINI-RESTER/HYDRA-RESTER SIOUX CHIEF. FOR ALL PLUMBING FIXTURES IN THE WATER SUPPLY SYSTEM.
3. INSULATE ALL WATER AND WASTE PIPING UNDER LAVATORIES WITH HANDY-SHIELD JACKET BY PLUMBEREX.

ELECTRIC WATER HEATER SCHEDULE							
DESIG.	STORAGE GALLONS	RECOVERY G.P.H.	DEGREE RISE °F	WATER TEMP LEAVING	WATER INLET	WATER OUTLET	REMARKS
WH-1	80	30	80°	140°	3/4"	3/4"	RHEEM MODEL NO. ELD80, 6KW, 240V/1Ø, ELECTRIC TANK TYPE. PROVIDE 10 GAL EXPANSION TANK.

RECIRCULATING PUMP SCHEDULE						
MARK	GPM	FEET HEAD	H.P.	RPM	VOLTS/PHASE	REMARKS
CP-1	0-20	0-11	1/25	3250	115 volts/Ø	EQUAL TO TACO MODEL 007-BF5 CARTRIDGE CIRCULATOR, MAINTENANCE FREE, WET-ROTOR, IN-LINE, SINGLE STAGE CIRCULATOR. PROVIDE WITH AQUASTAT AND TIME CLOCK.

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE								
MARK	MODEL	VOLTAGE	KW	AMPS	DEGREE RISE AT 0.5 GPM	WATER INLET	WATER OUTLET	MANUFACTURER
IWH-1	SP2412	120/1Ø	2.4	20	33	3/8"	3/8"	EEMAX "SINGLE POINT" WATER HEATER

**PLUMBING PIPING MATERIAL:**

1. SANITARY DRAIN & VENT INSIDE BUILDING BELOW GRADE: SCHEDULE 40 PVC
2. SANITARY DRAIN OUTSIDE BUILDING: SCHEDULE 40 PVC
3. SANITARY DRAIN & VENT INSIDE BUILDING ABOVE GRADE: SCHEDULE 40 PVC
4. SANITARY DRAIN & VENT IN PLENUM CEILING: NO-HUB CAST IRON
5. DOMESTIC HOT & COLD WATER: COPPER, TYPE "L" HARD DRAWN
6. DOMESTIC WATER BELOW GRADE: COPPER, TYPE "K" SOFT ANNEALED
7. DOMESTIC WATER BELOW GROUND OUTSIDE OF BUILDING PIPING 2" SIZE AND SMALLER: COPPER, TYPE "L" HARD DRAWN

**PLUMBING GENERAL NOTES: (ALL SHEETS)**

- ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
- ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH ALL ELECTRICAL WORK, MECH'L WORK AND STRUCTURAL MEMBERS. COORDINATE WITH MECHANICAL, ELEC'L AND STRUCTURAL FOR PROPER CLEARANCES.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION OF WORK.
- SLEEVE ALL OUTSIDE WALL, FLOOR SLAB, AND GRADE BEAM PENETRATIONS PER DETAILS AND PER CODE.
- LOCATE ALL PLUMBING VENTS TO ROOF (VTR) SO THAT THEY TERMINATE A MINIMUM OF 1'-0" AWAY FROM ANY VERTICAL SURFACE AND 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKES.
- RECORD INVERT ELEVATIONS OF ALL YCO'S ON "AS-BUILT" DRAWINGS.
- MINIMUM 3" WASTE LINE BELOW FLOOR AND MINIMUM 2" WASTE RISER. UNLESS NOTED OTHERWISE (UNO).
- PLUMBING CONTRACTOR SHALL PAY FOR ALL UTILITY CONNECTIONS FEES, PERMITS, TESTS AND INSPECTIONS. FURNISH 3 COPIES OF INSPECTION CERTIFICATE BEFORE REQUESTING FINAL PAYMENT.
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND REPAIRING ALL AREAS WHICH ARE DAMAGED BY HIS OPERATIONS.
- CUTTING OF CONCRETE FLOORS SHALL BE BY MACHINE SAW. HOLES FOR PIPES (WALL OR FLOOR) SHALL BE DONE WITH CORE DRILLING EQUIPMENT WITH PRIOR APPROVAL FROM THE STRUCTURAL ENGINEERS.
- PRESSURE TEST ALL INSTALLATIONS PRIOR TO CONNECTING EQUIPMENTS.
- LABEL ALL PIPING PER ANSI STANDARD.
- PROVIDE PROPER INSULATION ON ALL HOT WATER PIPING, STORM PIPING AND CONDENSATE PIPING.
- PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
- PROVIDE ANY BACK FLOW PREVENTION DEVICE REQUIRED BY CODE OR GOVERNING AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY OR LOCAL AGENCIES AND INCLUDE COST OF SAME IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
- PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
- ALL EXPOSED PIPING FOR DESIGNATED DISABLED ACCESS FIXTURES SHALL BE COVERED OR OTHERWISE WRAPPED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND LOCAL AUTHORITY.
- ALTERNATE MATERIALS NOT IDENTIFIED IN SPECIFICATIONS/DRAWINGS BUT APPROVED BY LOCAL AUTHORITY SHALL BE SUBMITTED TO ARCHITECT AND PLUMBING ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
- ISOMETRIC DIAGRAMS ARE FOR SIZING PURPOSES ONLY AND SHALL NOT BE USED FOR MATERIAL TAKE-OFFS, OR BE CONSTRUED TO INDICATE ACTUAL SITE INSTALLATION.
- DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
- EVERY FLOOR DRAIN, FLOOR SINK OR HUB DRAIN SHALL BE SERVED BY AN AUTOMATIC TRAP PRIMER, UNO.
- CLEANING CLEAN AND DISINFECT POTABLE DOMESTIC WATER PIPING AS FOLLOWS:
  1. PURGE NEW PIPING AND PARTS OF EXISTING DOMESTIC WATER PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED BEFORE USING.
  2. USE PURGING AND DISINFECTING PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION OR, IF METHODS ARE NOT PRESCRIBED, PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW:
    - A. FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.
    - B. FILL AND ISOLATE SYSTEM ACCORDING TO EITHER OF THE FOLLOWING:
      - 1) FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 50 PPM (50 MG/L) OF CHLORINE. ISOLATE WITH VALVES AND ALLOW TO STAND FOR 24 HOURS.
      - 2) FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION WITH AT LEAST 200 PPM (200 MG/L) OF CHLORINE. ISOLATE AND ALLOW TO STAND FOR THREE HOURS.
    - C. FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL NO CHLORINE IS IN WATER COMING FROM SYSTEM AFTER THE STANDING TIME.
    - D. SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITIES HAVING JURISDICTION. REPEAT PROCEDURES IF BIOLOGICAL EXAMINATION SHOWS CONTAMINATION.
  - B. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES.
  - C. CLEAN INTERIOR OF DOMESTIC WATER PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.

**PLUMBING SYMBOL LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BALL VALVE		DOMESTIC COLD WATER
	CHECK VALVE		DOMESTIC HOT WATER
	GATE VALVE		DOMESTIC HOT WATER RETURN
	UNION		SANITARY SEWER VENT
	DIRECTION OF FLOW		SANITARY WASTE LINE
	WALL CLEANOUT		140° HOT WATER
	FLOOR CLEANOUT YARD CLEANOUT		SANITARY DIRECTION OF FLOW
	FLOOR SINK		BRANCH - TOP CONNECTION
	FLOOR DRAIN		PIPE RISER
	WALL HYDRANT OR HOSE BIBB		PIPE DROP
	WATER HAMMER ARRESTOR		POINT OF CONNECTION (APPROXIMATED FIELD VERIFY EXACT POINT OF CONNECTION)

- NOTE: 1. NOT ALL SYMBOLS USED ON THIS PROJECT  
 2. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDER SIDE OF WATER CLOSET OR DOOR OPENING.  
 3. INSTALL ADA APPROVED FLUSH VALVE HANDLE FOR ADA PLUMBING FIXTURES



MILNET  
 ARCHITECTURAL  
 SERVICES  
 AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
 RENOVATIONS BID #18-19-055

PSJA ISD  
 SAN JUAN, TEXAS

PROJECT NUMBER  
 219006

DATE  
 AUG 26, 2019

SHEET NUMBER

P3.1

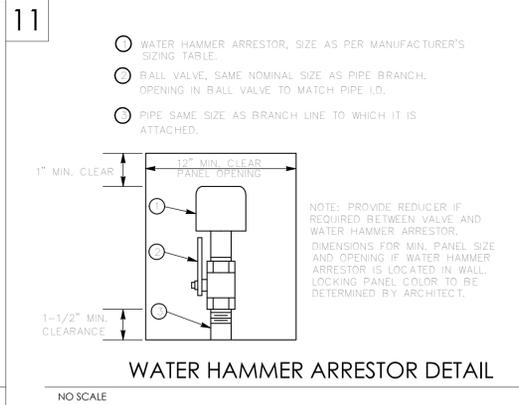
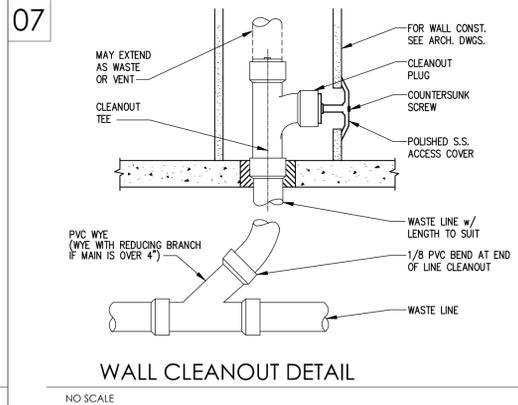
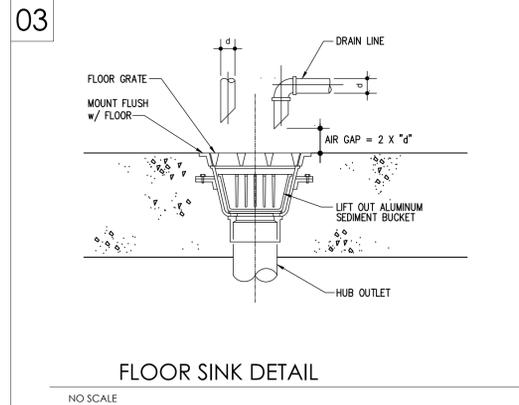
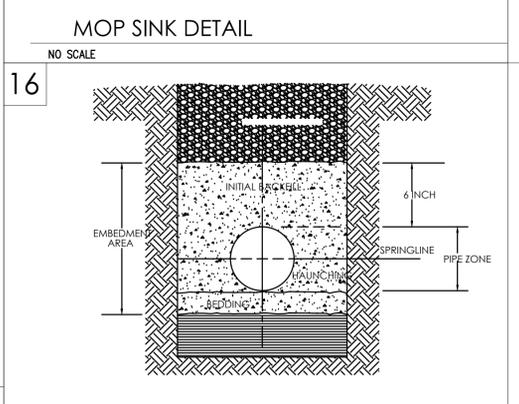
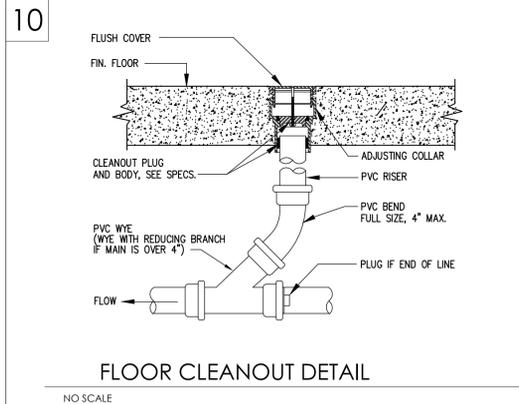
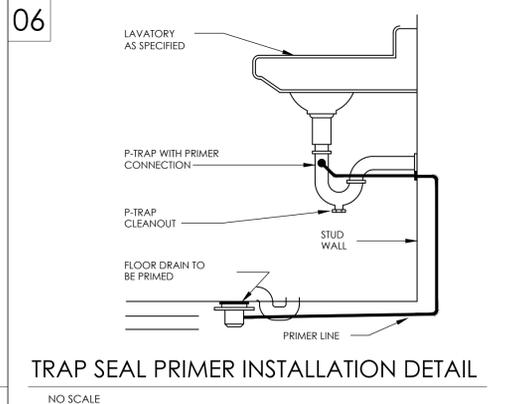
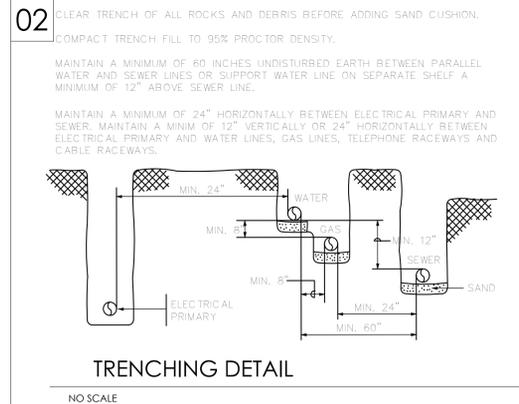
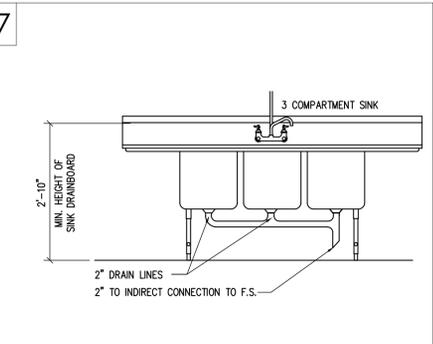
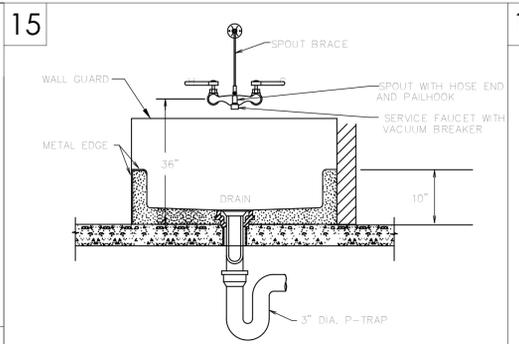
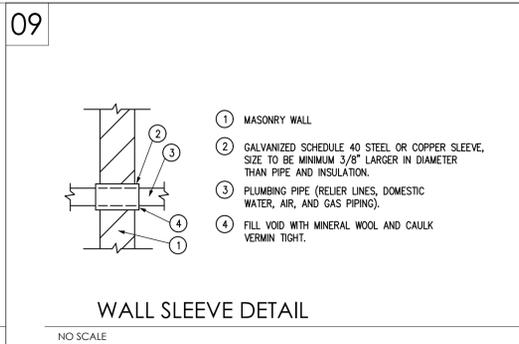
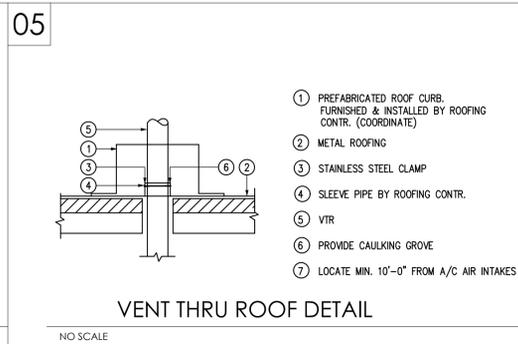
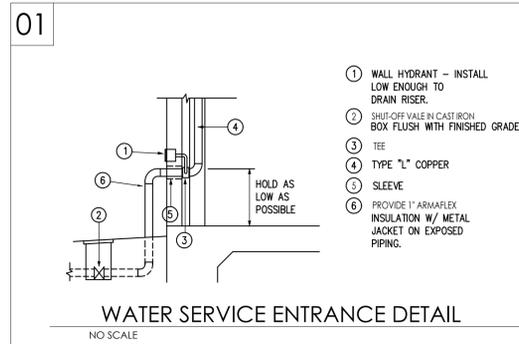
**TRINITY**  
 MEP ENGINEERING

3533 Moreland Dr. Ste A | Westlaco, Tx 78796  
 p:956.973.0500 | f:956-351-5750  
 www.trinitymep.com | Copyright 2019  
 Texas Registered Engineering Firm - F10062  
 Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS



**15 PLASTIC PIPE SHOULD ALWAYS BE BURIED IN STRICT ACCORDANCE WITH THE ASTM STANDARD RELEVANT TO THE TYPE OF PLASTIC PIPING SYSTEM BEING INSTALLED. THOSE STANDARDS ARE:**

ASTM D2321 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS.

ASTM D2774 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING.

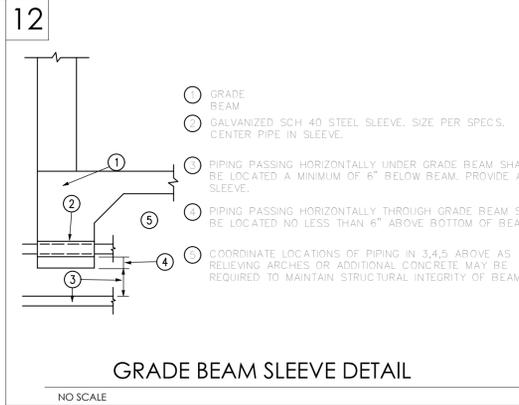
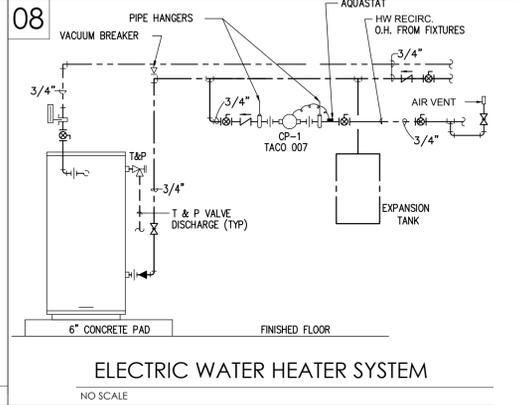
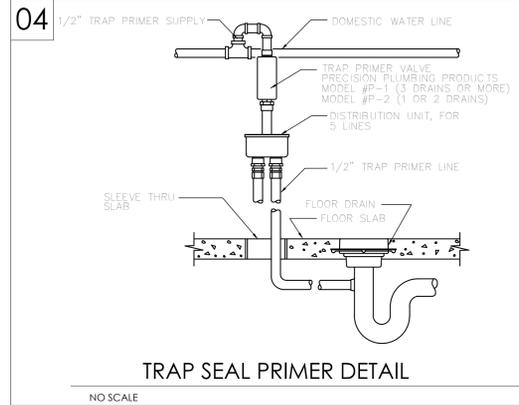
**NOTE: IN ADDITION TO THESE STANDARDS, PIPE SHOULD ALWAYS BE INSTALLED IN ACCORDANCE WITH ALL LOCAL CODE REQUIREMENTS.**

**RECOMMENDATIONS FOR UNDERGROUND INSTALLATION OF PLASTIC DRAINAGE PIPE:**

- THE MINIMUM WIDTH OF THE TRENCH SHOULD BE THE PIPE OD (OUTSIDE DIAMETER) PLUS 6 INCHES OR THE PIPE OUTSIDE DIAMETER TIMES 1.25 PLUS 12 INCHES. THIS WILL ALLOW ADEQUATE ROOM FOR JOINING THE PIPE, SNAKING THE PIPE IN THE TRENCH TO ALLOW FOR EXPANSION AND CONTRACTION WHERE APPROPRIATE AND SPACE FOR BACKFILLING AND COMPACTION OF BACKFILL. THE SPACE BETWEEN THE PIPE AND TRENCH WALL MUST BE WIDER THAN THE COMPACTION EQUIPMENT USED TO COMPACT THE BACKFILL.
- PROVIDE A MINIMUM OF 4 INCHES OF FIRM, STABLE AND UNIFORM BEDDING MATERIAL IN THE TRENCH BOTTOM. IF ROCK OR UNYIELDING MATERIAL IS ENCOUNTERED, A MINIMUM OF 6 INCHES OF BEDDING SHALL BE USED. BLOCKING SHOULD NOT BE USED TO CHANGE PIPE GRADE OR TO INTERMITTENTLY SUPPORT PIPE OVER LOW SECTIONS IN THE TRENCH.
- THE PIPE SHOULD BE SURROUNDED WITH AN AGGREGATE MATERIAL WHICH CAN BE EASILY WORKED AROUND THE SIDES OF THE PIPE. BACKFILLING SHOULD BE PERFORMED IN LAYERS OF 6 INCHES WITH EACH LAYER BEING SUFFICIENTLY COMPACTED TO 85% TO 95% COMPACTION.
- A MECHANICAL TAMPER IS RECOMMENDED FOR COMPACTING SAND AND GRAVEL. THESE MATERIALS CONTAIN FINE-GRAINS, SUCH AS SILT AND CLAY. IF A TAMPER IS NOT AVAILABLE, COMPACTING SHOULD BE DONE BY HAND.
- THE TRENCH SHOULD BE COMPLETELY FILLED. THE BACKFILL SHOULD BE PLACED AND SPREAD IN UNIFORM LAYERS TO PREVENT ANY UNFILLED SPACES OR VOIDS. LARGE ROCKS, STONES, FROZEN GLOBS, OR OTHER LARGE DEBRIS SHOULD BE REMOVED. STONE BACKFILL SHALL PASS THROUGH AN 1-1/2" SIEVE. ROCK SIZE SHOULD BE ABOUT ONE-TENTH OF THE PIPE OUTSIDE DIAMETER. HEAVY TAMPERS OR ROLLING EQUIPMENT SHOULD ONLY BE USED TO CONSOLIDATE THE FINAL BACKFILL.
- TO PREVENT DAMAGE TO THE PIPE AND DISTURBANCE TO PIPE EMBEDMENT, A MINIMUM DEPTH OF BACKFILL ABOVE THE PIPE SHOULD BE MAINTAINED. PIPE SHOULD ALWAYS BE INSTALLED BELOW THE FROST LEVEL. TYPICALLY, IT IS NOT ADVISABLE TO ALLOW VEHICULAR TRAFFIC OR HEAVY CONSTRUCTION EQUIPMENT TO TRAVERSE THE PIPE TRENCH.

**12 UNDERGROUND INSTALLATION DETAIL OF PLASTIC PIPING SYSTEMS**  
NO SCALE

- GRADE BEAM
- GALVANIZED SCH 40 STEEL SLEEVE, SIZE PER SPECS. CENTER PIPE IN SLEEVE.
- PIPING PASSING HORIZONTALLY UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
- PIPING PASSING HORIZONTALLY THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
- COORDINATE LOCATIONS OF PIPING IN 3,4,5 ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.



OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055  
PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006  
DATE  
AUG 26, 2019

SHEET NUMBER  
P4.1

08/26/19

**TRINITY**  
MEP ENGINEERING

3533 Moreland Dr. Ste A | Weslaco, Tx 78596  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10362  
Project number: 19.3.6



MILNET  
ARCHITECTURAL  
SERVICES

AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

P4.2

### GREASE TRAP RECEIVING AND INSTALLATION INSTRUCTIONS

**Overview**  
ParkUSA is a leader in pre-engineered environmental products. Products are catalogued with standard features as shown on specification material. However, these products are often furnished to meet specific engineering requirements, and have special features and arrangements.

In such cases, handling and installation procedures may vary slightly depending upon the actual type of construction. It is recommended that a company representative be consulted in each unique situation. Codes and Installation Local codes and regulations should supersede all recommendations made by ParkUSA and its representatives, and the appropriate authorities should be consulted before installation is made. Where an apparent conflict of code requirements and manufacturer recommendations or standard design exists, the assistance of a company representative should be requested. In almost every instance, ParkUSA will be able to make modifications necessary to comply with local codes, jurisdictions and interpretations, if notified prior to actual fabrication or upon order placement.

**Field Preparation**  
The customer or his contractor shall prepare the excavation to the proper depth using dimensional data and weights from approved submitted drawings. Call 800-256-8041 to confirm excavation dimensions and crane requirements. All excavations should be shored or stepped back in accordance to OSHA recommendations. A level base within the excavation and a minimum of twelve (12) inches of clearance on all sides of the unit is required. The depth of the base and the material shall meet the specifications and requirements for the type of soil at the setting location (consult with design engineer for base specifications). All field excavation and preparation is the sole responsibility of the customer/contractor.

**Scheduling**  
The delivery of the unit should be scheduled at least 48 hours in advance, weather permitting. To reschedule a delivery, a 24 hour notice is required.

**Delivery and Placement**  
Upon arrival of the interceptor, equipment may be needed to unload and set the interceptor in its final installed position. The equipment operator will perform rigging and setting unit. It will be necessary for the customer/contractor to furnish the required labor to install the joint sealant and assist our crane operator with the installation. Backfill is the sole responsibility of the owner/contractor.

### Venting & Trapping

Each fixture discharging into the waste water interceptor must be individually trapped and vented.

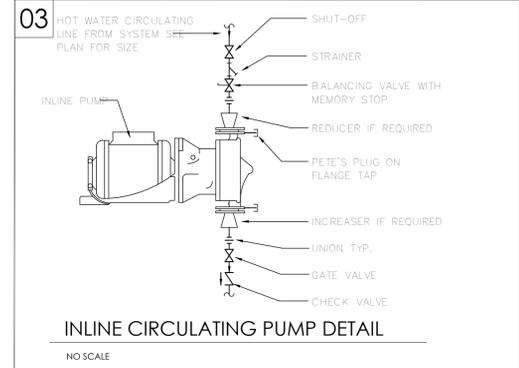
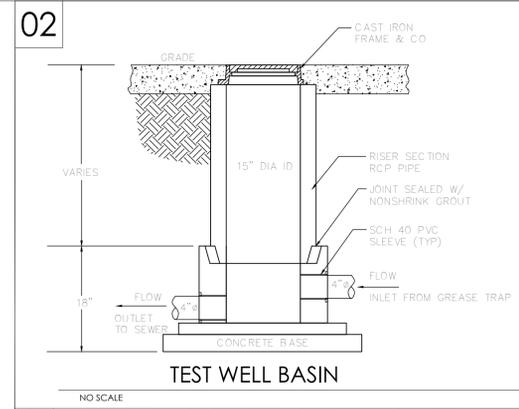
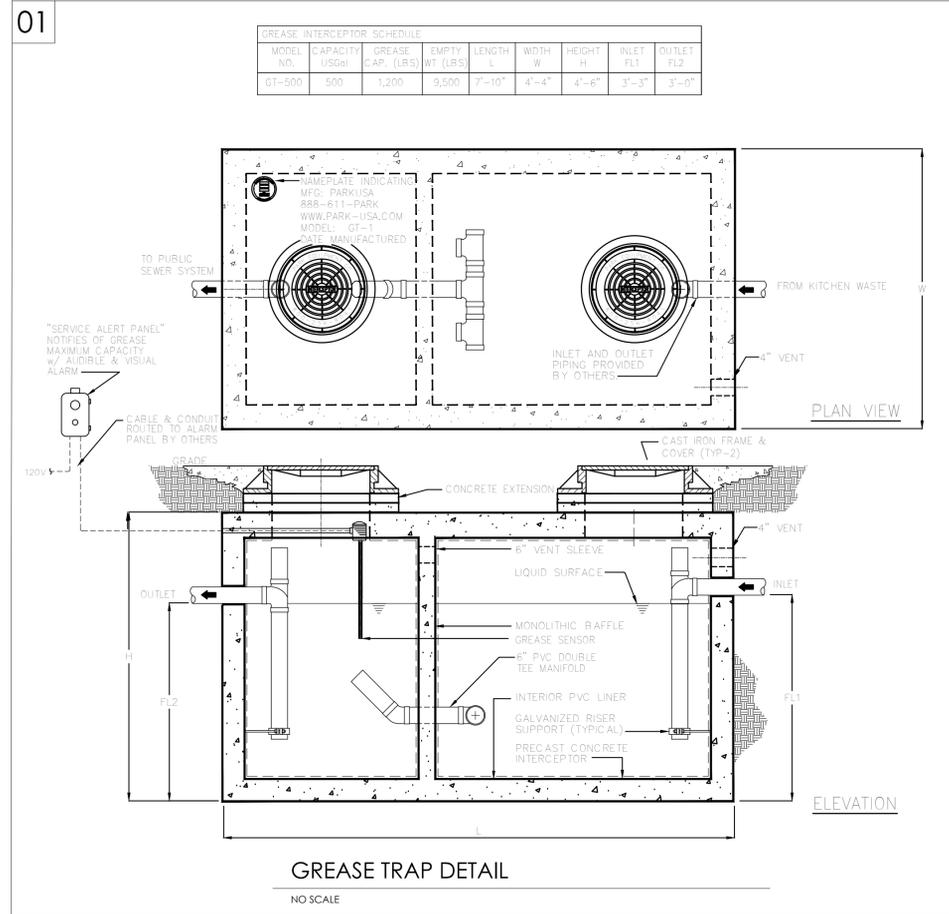
**Fixtures**  
Wastewater Interceptor must be placed as close as practical to fixtures they serve and outside the building. Each interceptor will be accompanied with manufacturer's installation instructions.

After unit is set, the excavation should be completely backfilled immediately and prior to filling with water. The backfill material shall meet the specifications and requirements for setting location (consult with design engineer for backfill specification). It is recommended that backfill material be on site at the time of delivery. Two methods of backfill are:

a. With material excavated placed in (1) one foot lifts and compacted and tamped to original density or per owner/engineer's requirements.

b. Bank sand in (2) two foot lifts and compacted or waterjetted per owner/engineer's requirements.

**Testing (for tanks)**  
If project specifications require testing of tanks, follow the following testing procedure. After completing the piping, the unit shall be properly backfilled. Fill the tank with water to the normal operating level. Record this level and let stand for 24 hours. Recheck the water level. A 5% or less variance is generally acceptable. Note that precast concrete tanks are designed for below grade installation with an earthen backfill. DO NOT fill tanks with water until the tanks are properly backfilled. Filling tanks prior to backfilling may cause abnormal stresses and may result in leakage and/or damage to the tanks and may void the manufacturer's warranty.



**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Westlaco, Tx 78796  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6





MILNET  
ARCHITECTURAL  
SERVICES  
AMERICAN INSTITUTE OF ARCHITECTS

OLD SORENSEN ELEMENTARY  
RENOVATIONS BID #18-19-055

PSJA ISD  
SAN JUAN, TEXAS

PROJECT NUMBER  
219006

DATE  
AUG 26, 2019

SHEET NUMBER

FP1.1

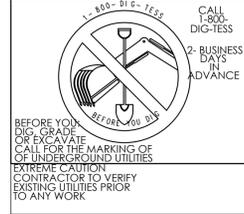
**KEYED NOTES - FIRE PROTECTION:**

- 1 FIRE SPRINKLER MAIN TO CONNECT TO CITY MAIN WATER LINE. SEE DETAIL #2.
- 2 THIS IS A WOOD STRUCTURE EXISTING BUILDING FACILITY. PROVIDE A NEW FIRE SPRINKLER SYSTEM. FIRE PROTECTION SYSTEM TO COORDINATE WITH ALL OTHER TRADES.
- 3 ESTIMATED LOCATION OF EXISTING CITY MAIN WATER LINE. CONTRACTOR VERIFY EXACT PIPE LOCATION AND SIZE.
- 4 3000 PSI CONCRETE THRUST BLOCK AT EVERY CHANGE IN DIRECTION AS PER NFPA 24.
- 5 FIRE SPRINKLER SYSTEM RISER SHALL BE PLACED IN THIS PROPOSED RISER ROOM. REFER TO DETAIL #4.
- 6 PROVIDE FREE STANDING F.D.C. COORDINATE EXACT LOCATION WITH A.H.J. PROVIDE SIGN WITH BUILDING IT SERVE. REFER TO DETAIL #5.
- 7 RUN FIRE MAIN AND FDC LINES BETWEEN 3 AND 4 FEET DEEP. PROVIDE 4 INCHES OF SAND UNDER PIPE. COVER ALL PIPE AND LEAVE JOINTS EXPOSED FOR ENGINEER AND FIRE DEPARTMENT INSPECTION.
- 8 DROP F.D.C. LINE DOWN @ THIS POINT. PROVIDE STAINLESS STEEL IN BUILDING RISER @ FLOOR PENETRATION. CONTRACTOR COORDINATE EXACT LOCATION.
- 9 INSPECTOR'S TEST TO CONNECT TO FIRE PROTECTION SYSTEM. REFER TO DETAIL #3. CONTRACTOR COORDINATE WITH ARCHITECTURAL FOR PIPE ROUTE, VALVE LOCATION AND ACCESS. INSPECTOR'S TEST SHALL BE INSIDE A FURR-OUT WITH ACCESS PANEL IF INSPECTOR'S TEST IS LOCATED IN COMMON AREA.
- 10 PROVIDE NEW PENDANT SPRINKLER HEAD AND BRASS UPRIGHT IN OPEN AREAS.
- 11 SAW-CUT EXISTING ASPHALT/CONCRETE TO INSTALL FIRE LINE. REPAIR TO MATCH EXISTING AFTER LINES ARE INSTALLED AND APPROVED BY A.H.J.
- 12 EXISTING BUILDING. NO WORK WILL BE DONE AT THIS BUILDING.
- 13 PROVIDE A FIRE SPRINKLER SYSTEM TO PROTECT ATTIC @ THIS BUILDING. DESIGN SHALL BE AS PER NFPA 13.

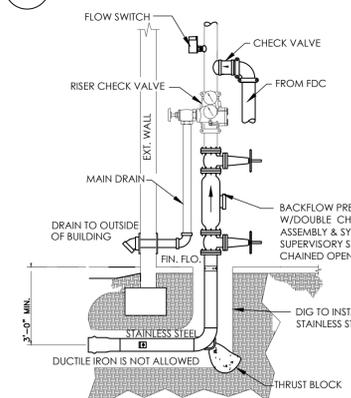
**GENERAL NOTES - FIRE PROTECTION:**

- A. SYSTEM TO BE DESIGNED TO MEET CITY OF SAN JUAN AND FIRE MARSHAL CODES. PLANS SHALL BE SUBMITTED TO THE CITY OF SAN JUAN FOR REVIEW AND APPROVAL. FIRE MARSHAL TO BE THE FINAL APPROVING AUTHORITY FOR ALL FIRE PROTECTION WORK.
- B. FIRE DEPARTMENT CONNECTION SHALL BE AS REQUIRED BY LOCAL FIRE MARSHAL.
- C. ALL PIPE TO BE SIZED HYDRAULICALLY.
- D. ALL PIPING UNDER SLAB SHALL BE STAINLESS STEEL. ELSE USE DUCTILE IRON. VERIFY WITH LOCAL APPROVING AUTHORITY.
- E. DETAILS DESCRIBE SOME SPRINKLER COMPONENTS REQUIRED BY A AUTOMATICALLY OPERATED SYSTEM. SPRINKLER CONTRACTOR TO PROVIDE ALL SYSTEM COMPONENTS REQUIRED FOR A TURN KEY FIRE SPRINKLER SYSTEM.
- F. PROVIDE SIGNS FOR FDC, ALL VALVES, AND RISER.
- G. HAZARD CLASSIFICATION SHALL BE AS PER NFPA 13.
- H. ALL UNDERGROUND PIPE TO BE DR-18 C900 AND TO BE INSTALLED AS PER NFPA 24.
- I. REFER TO SPECIFICATIONS FOR FURTHER INSTRUCTIONS.
- J. ALL ABOVE CEILING PIPING WILL NEED TO BE ROUTED AROUND EXISTING CONDUITS, BEAMS, MECHANICAL DUCT WORK AND DRAIN LINES. ALL PIPE LEFT WITH TRAP WATER NEEDS TO BE PROVIDED W/ A DRAIN VALVE.
- K. SEAL ALL WALL OPENINGS W/ MORTAR OR FIRE CAULKING.
- L. NO FIRE SPRINKLER PIPING TO RUN OVER ELECTRICAL EQUIPMENT, IT ROOM AND ANY OTHER SYSTEM THAT MAY BE DAMAGED FROM WATER LEAK.
- M. CONTRACTOR MUST VISIT SITE TO ASSESS PRESENT CONDITION BEFORE BID DATE.
- N. FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE ARCHITECTURAL DOCUMENTS TO DETERMINE THE COMPLETE SCOPE OF WORK.
- O. ALL EXPOSED PIPE TO BE PROTECTED AGAINST FREEZING AS PER NFPA 13.
- P. ALL NFPA CODES APPLICABLE SHALL BE USED AND FOLLOWED.

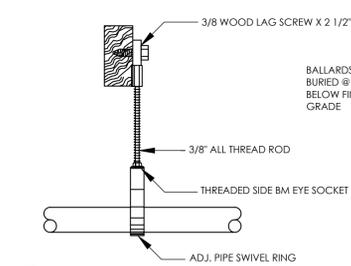
NOTE: CARE SHALL BE TAKEN DURING DIGGING. ALL LINES DAMAGED UNDERGROUND WILL BE FIXED BY THE CONTRACTOR.



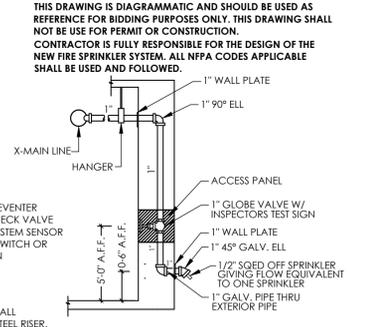
2 FIRE LINE CONNECTION DETAIL



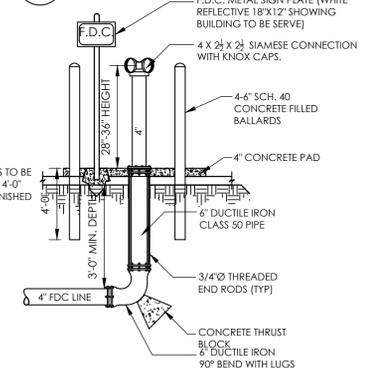
4 RISER ROOM DETAIL



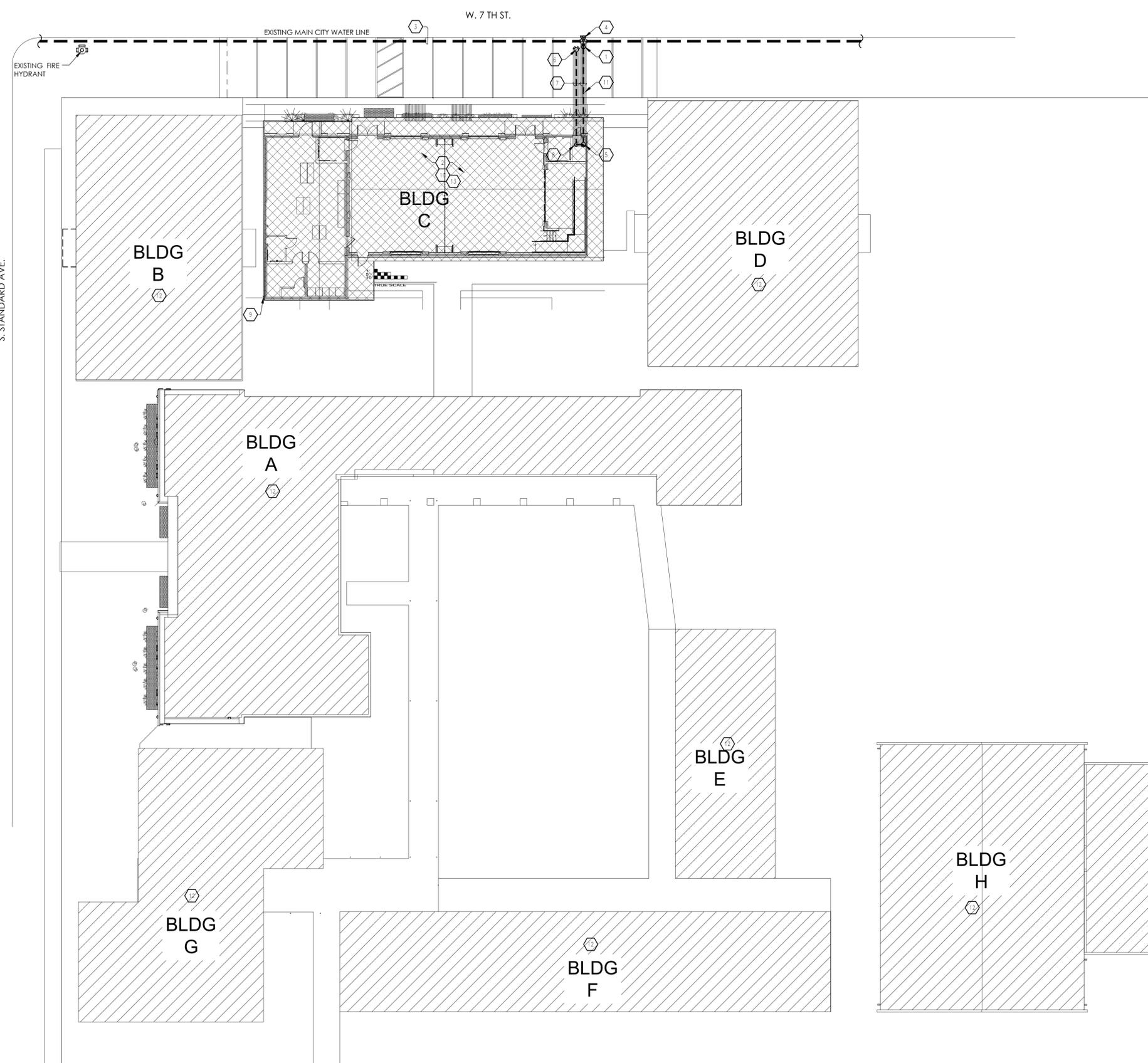
6 HANGER DETAIL



3 INSPECTOR'S TEST DETAIL



5 FREE STANDING F.D.C. DETAIL



1 FIRE PROTECTION SITE PLAN  
1/16"=1'-0"

**TRINITY**  
MEP ENGINEERING  
3533 Moreland Dr. Ste A | Weslaco, Tx 78766  
p:956.973.0500 | f:956-351-5750  
www.trinitymep.com | Copyright 2019  
Texas Registered Engineering Firm - F10062  
Project number: 19.3.6

