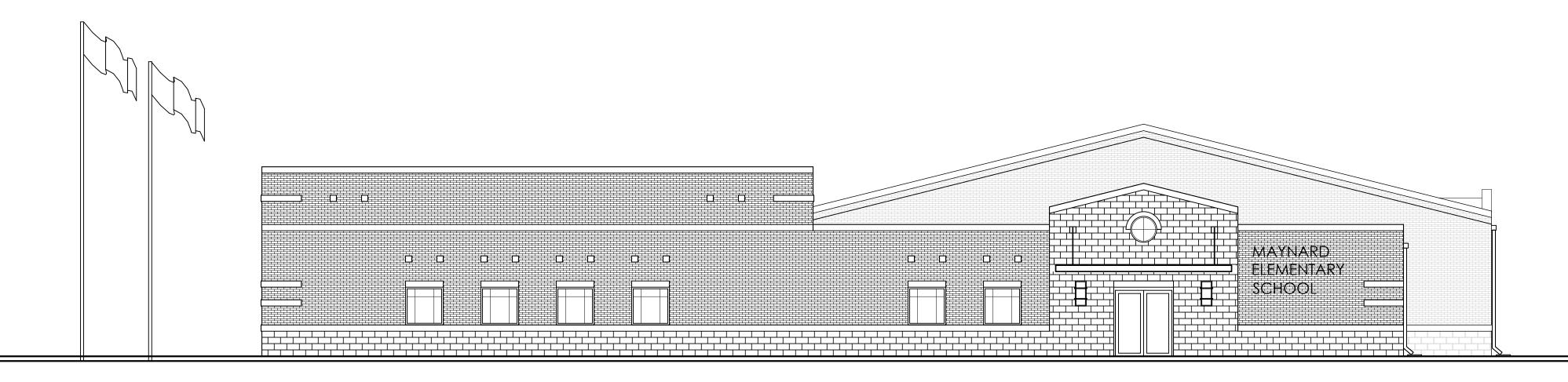
# NEW ELEMANTARY SCHOOL MAYNARD SCHOOL DISTRICT ARKANSAS: DPSAFT # 1415-6102-001



# HWY. 328 W & INGRAM STREET

# PROJECT TEAM

OWNER MAYNARD SCHOOL DISTRICT 74 CAMPUS DRIVE MAYNARD, ARKANSAS 72444 (P) 870-647-2011

ARCHITECT: DILLE & TRAXEL, LLC 4061 HY PP SUITE 2 POPLAR BLUFF, MO 63901 (P) 573-778-0033 (F) 573-778-0057

<u>CIVIL ENGINEER:</u> HORNER & SHIFRIN, INC. 4061 HY PP, SUITE I POPLAR BLUFF, MO. 63901 (P) 573-727-9666

STRUCTURAL ENGINEER: TOTH ENGINEERING, INC. 830 PRIMROSE, SUITE 200 SPRINGFIELD, MO 65807 (P) 417-888-0645

MECH / ELECTRICAL ENGINEER: STRICKLAND ENGINEERING 113 W. MAIN STREET, STE. 1 JACKSON, MO 63755 (P) 573-243-4080 (F) 573-243-2191



4-00	DOOR TAG - DOOR#
ROOM NAME	ROOM TAG
# 	BUILDING SECTION - DETAIL# / SHEET#
# - SHEET	WALL SECTION - DETAIL#-SHEET#
# 	INTERIOR ELEVATION - DETAIL# / SHEET#
# 	ENLARGED DETAIL - DETAIL# / SHEET#
	ELEVATION TARGET
<u> 2</u>  2	ROOF PITCH (12 RUN : 2 RISE)
$\diamond$	WINDOW TYPE
──⊗	PARTITION TYPE

OOOR TYPE

GENERAL NOTE

# MAYNARD, ARKANSAS 72444

# ABBREVIATIONS

A.D.A. BLDG.	AMERICAN DISABILITIES ASSOCIATION BUILDING
C.J.	CONTROL JOINT
CLG.	CEILING
C.M.U.	CONCRETE MASONRY UNIT
CONC.	CONCRETE CONTINUOUS
	DOOR
E.VV.C.	
E.I.	ELECTRIC WATER COOLER EXTERIOR INSULATION AND FINISH SYSTEM EXPANSION JOINT
	EACH
	EXTERIOR
FIN.	FINISH FLOOR
	GRAB BAR
GYP.	GYPSUM
H.M.	HOLLOW METAL HEIGHT
HT.	HEIGHT INTERIOR
MANF	LEVEL MANUFACTURER METAL BUILDING CONTRACTOR MINIMUM OR MINUTE METAL
MBC	
MIN.	MINIMUM OR MINUTE
MTL.	METAL
0.C.	ON CENTER
	PARTITION
PR.	PAIR PRE-FINISHED
	REQUIRED
	SCHEDULE
	STAINLESS STEEL
STI	STEEL
SPEC.	SPECIFICATIONS
TRUCT.	STRUCTURAL
TLT.	TOILET
\\/	
	WITH
V.C.T.	VINYL COMPOSITION TILE

# DRAWING INDEX

- T-1.0 TITLE SHEET
- G 1 CIVIL GENERAL NOTES C 1 EXISTING SITE PLAN
- C 2 EXISTING UTILITY PLAN
- C 3 PROPOSED GRADING PLAN
- C 4 PROPOSED UTILITY PLAN
- C 5 CIVIL DETAILS-1
- A3.0 EXTERIOR ELEVATIONS

A1.0 CODE PLAN

A2.0 FLOOR PLAN

A2.1 ROOF PLAN

A1.1 U.L. ASSEMBLIES

A1.2 U.L. ASSEMBLIES

- A4.0 BUILDING SECTIONS
- A5.0 WALL SECTIONS
- A5.1 WALL SECTIONS
- A5.2 WALL DETAILS
- A5.3 WALL DETAILS
- A5.4 WALL DETAILS
- A7.0 DOOR AND ROOM FINISH SCHEDULES

S0.0 GENERAL NOTES

S0.3 MASONRY DETAILS

S1.1 FOUNDATION PLAN

S4.1 FRAMING DETAILS

S4.2 FRAMING DETAILS

S5.1 BUILDING SECTIONS

S2.1 FOUNDATION DETAILS

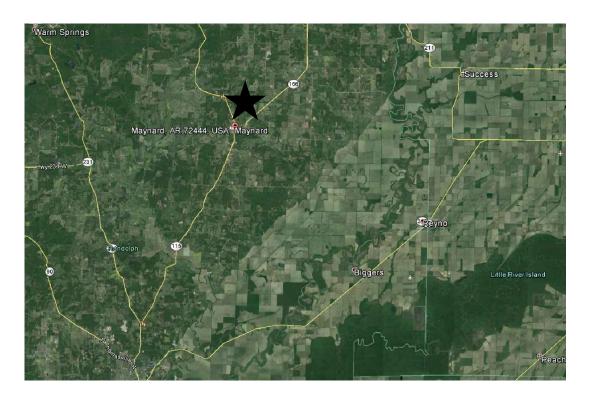
S3.1 ROOF LEVEL FRAMING PLAN

S0.2 SCHEDULES

S0.1 SPECIAL INSPECTIONS & GENERAL NOTES

- A8.0 INTERIOR ELEVATIONS
- A8.1 CABINET DETAILS
- A9.0 FINISH FLOORING PLAN
- A9.1 REFLECTED CEILING PLAN

# CITY LOCATION





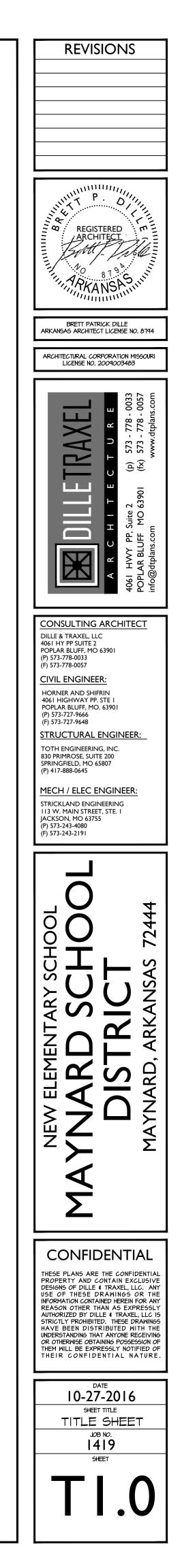
# 10/27/2016

M1.1	HVAC SYSTEM
M1.2	HVAC SYSTEM
M1.3	HVAC SYSTEM
M1.4	HVAC SYSTEM
P1.1	WASTE & VENT
P1.2	WASTE & VENT
P2.1	SUPPLY PIPING
P2.2	SUPPLY PIPING

E1.1 POWER WIRING E1.2 DETAILS E2.1 LIGHTING E3.1 FIRE ALARM

# SITE LOCATION





## GENERAL LEGENDS AND ABBREVIATIONS

AC	AIR CONDITIONER	FH	FIRE HYDRANT
ACI	AMERICAN CONCRETE INSTITUTE	F.L.	FLOW LINE
AFF	ABOVE FINISHED FLOOR	FL	FLANGE OR FLANGED JOINT
ALUM.	ALUMINUM MATERIALS	FL/VC	FLANGE OR VICTAULIC COUPLING
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	FL. OR FLG	FLANGE
ATG	ADJUST TO GRADE	FT.	FOOT OR FEET
AWS B1	AMERICAN WELDING SOCIETY GEOTECHNICAL BORING		
(B)	BOTTOM INVERT ELEVATION OF VERTICAL PIPE	G	GAS
	RISER	GAL.	GALLONS
B.F.	BLIND FLANGE/BOTH FACE	GALV.	GALVANIZED
BIT	BITUMINOUS CONCRETE	G.P.M.	GALLONS PER MINUTE
BOC	BACK OF CURB	GR	GRADE
BOCA	BUILDING OFFICIALS & CODE ADMINISTRATION	GS	GRAVITY SEWER
BM	BENCHMARK	HB	HOSE BIBB
BLV	BALL VALVE	H.D.G.	HOT DIPPED GALVANIZED
BV	BUTTERFLY VALVE	Н.М.	HOLLOW METAL
C.A. CAV	COARSE AGGREGATE COMBINATION AIR VALVE	H.W.L.	HIGH WATER LEVEL
CF	CUBIC FEET	HP	HORSE POWER
CFM	CUBIC FEET PER MINUTE	HWO	HANDWHEEL OPERATOR
		I.D.	INSIDE DIAMETER
CFS	CUBIC FEET PER SECOND	I.E. OR INV.	INVERT ELEVATION
CI	CAST IRON	IN.	INCH OR INCHES
CIP	CAST IRON PIPE	INF	INFLUENT
CISP	CAST IRON SOIL PIPE	INV	INVERT
C.J.T.	CONTROL JOINT	JMP	JET MOTIVE PUMP
С	CENTERLINE	K	ONE THOUSAND
CL	CLEARANCE	L	LITERS
C.M.P.	CORRUGATED METAL PIPE	LB OR LBS	POUNDS
C.M.U.	CONCRETE MASONRY UNIT	L.F.	LINEAL FEET
CONC	CONCRETE		
CP	CONTROL POINT	LO	LEVER OPERATOR
CPLG.	COUPLING	LT.	LEFT
CTR.	CENTER	LS	LIGHT STANDARD
C.Y.	CUBIC YARD	L.W.L.	LOW WATER LEVEL
D	DAY	MAX	MAXIMUM
DIA	DIAMETER	MG	MILLIGRAMS
D.I.	DUCTILE IRON	М.Н.	MANHOLE
D.I.P.	DUCTILE IRON PIPE	M.J.	MECHANICAL JOINT
DND	DO NOT DISTURB	M.G.D.	MILLION GALLONS PER DAY
DR	DRAIN	MIN.	MINIMUM
DS	DOWN SPOUT	MODOT	MISSOURI DEPARTMENT OF TRANSPORTATION
E	EASTING	Ν	NORTHING
EA.	EACH	NIC	NOT IN CONTRACT
EB	ELECTRICAL BOX	NO. OR #	NUMBER
E.F.	EACH FACE	NPW	NON-POTABLE WATER
		N.T.S.	NOT TO SCALE
EFF	EFFLUENT	0.C.	ON CENTER
EL. OR ELEV.		O.D.	OUTSIDE DIAMETER
EO	ELECTRICALLY MOTORIZED OPERATOR	O.E. OR OHE	OVERHEAD ELECTRIC
EQ	EQUAL		
E.W.	EACH WAY	0/F	OVERFLOW
EX	EXISTING	P.E.	PLAIN END
FA.	FINE AGGREGATE	PCC	PORTLAND CEMENT CONCRETE
F.D.	FLOOR DRAIN	PH	POST HYDRANT
FES	FLARED END SECTION		

## SYMBOLS LEGEND

	WATER	
	GAS	$\sim$
	ELECTRIC	
	OVERHEAD ELECTRIC	
	UNDERGROUND ELECTRIC	$\triangle$
	UNDERGROUND TELEPHONE	-0-
	FIBER OPTIC	ý
	FORCE MAIN	
<u> </u>	EX. MINOR CONTOUR	$\mathbf{}$
	EX. MAJOR CONTOUR	M
501	MINOR CONTOUR	
	MAJOR CONTOUR	
•500	SPOT ELEVATION	<b>——</b>
	EX. PROPERTY LINE	O
	RIGHT OF WAY	
	EX. PAVEMENT	
	EX. SANITARY	
	EX. STORM	

F.F.

FIN.

	MECHANICAL OR PUSH ON JOINT	
	FLANGED JOINT	
¢	BALL VALVE	
$\mathbb{N}$	CHECK VALVE	
	GATE VALVE	
$\bowtie$	PLUG VALVE	50
/	BUTTERFLY VALVE	<b>50</b> •50

FINISHED FLOOR ELEVATION

FINISHED

	UNDERGROUND FACILITIES, STI SURVEYS AND RECORDS, THE THERE MAY BE OTHERS, THE OF THE EXISTING UNDERGROU THE DRAWINGS HAVE BEEN D FOR THE CONVENIENCE OF TH ADVANCE OF CROSSING OVER SHALL NOTIFY THE OWNER IM
	PLANS.

2.	ALL	IMPROVEMENTS	MUS
3.		CONSTRUCTION CIFICATIONS.	SHA

- THAT SHOWN ON THE DRAWINGS.

SWALE TREE/BRUSH LINE EX. FENCE PROPOSED FENCE SURVEY MARKER EXISTING FIRE HYDRANT EXISTING YARD HYDRANT FIRE HYDRANT YARD HYDRANT GATE VALVE EX. MANHOLE GRATE MANHOLE PROPOSED MANHOLE EX. INLET GRATE INLET PROPOSED INLET

CLEANOUT EXISTING POWER POLE  $-0^{-} \rightarrow$ EXISTING POWER POLE W/ GUY WIRE POWER POLE BORING LOCATION LIGHT STANDARD WATER VALVE WATER METER GAS VALVE GAS METER ELECTRIC BOX TELEPHONE BOX TELEPHONE PEDESTAL STREET SIGN

P.J.F.

P.0.

POJ

PΡ

PR

PSF

PSI

ΡV

P.V.C.

PVMT

R.C.P.

REINF.

RD

RJ

RT

ROW

SAN

SCH

S.D.G.

S.J.

S.S.

STA.

STD.

S.T.G.

STL

STM

SV

S.Y.

(T)

Т. & В

TBA&F

TBR&R

TBLV

T.O.C

T.O.F.

TR

T/S

TYP.

U.E.

UIP

VC

FL/VC

V.F.D.

WI

WP

W.S

, ,,

-0-'

-**•**-

X

W.V.

W.M.

G.M.

Ε

Т

 $\bigcirc$ 

\_0\_

U.N.O.

TBA

TBR

PRE-FORMED JOINT FILLE

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

POLYVINYL CHLORIDE PIPE

REINFORCED CONCRETE PIPE

PUSH ON

PRIVATE

PUSH ON JOINT

POWER POLE

PLUG VALVE

ROOF DRAIN

REINFORCEMENT

RIGHT OF WAY

SANITARY SEWER

RESTRAINED JOINT

PAVEMENT

RADIUS

RIGHT

SCHEDULE

SLIDE GATE

SAWN JOINT

STATION

STEEL

TOP

STANDARD

STOP GATE

STORM SEWER

SQUARE YARD

TOP AND BOTTOM

TO BE ABANDONED

TO BE REMOVED

TOP OF CONCRETE

TOP OF FOOTING

TO REMAIN

TYPICAL

TOP OF STEEL

USE IN PLACE

WATERMAIN

WROUGHT IRON

POTABLE WATER

WATER SURFACE

FEET INCHES

VICTAULIC COUPLING

VICTAULIC COUPLING

TO BE ABANDONED AND FILLED

TO BE REMOVED AND REPLACED

TRUE UNION BALL VALVE

UNDERGROUND ELECTRIC

UNLESS NOTED OTHERWISE

VARIABLE FREQUENCY DRIVE

TOP INVERT ELEVATION OF VERTICAL PIPE RISER

CONTACTOR'S OPTION TO USE FLANGED PIPE OR

SEVER VENT

STAINLESS STEEL

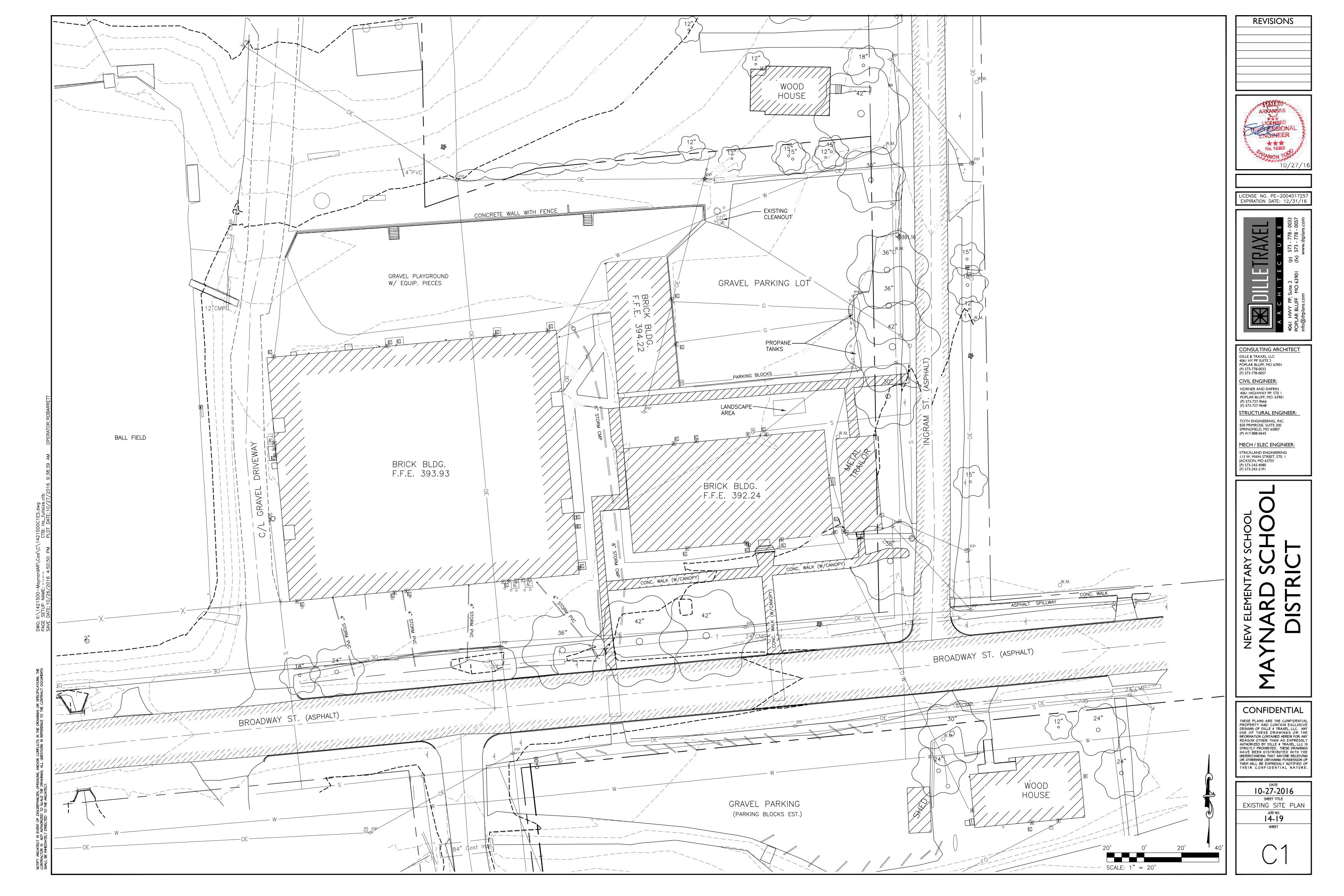
## **DISCIPLINE ABBREVIATIONS**

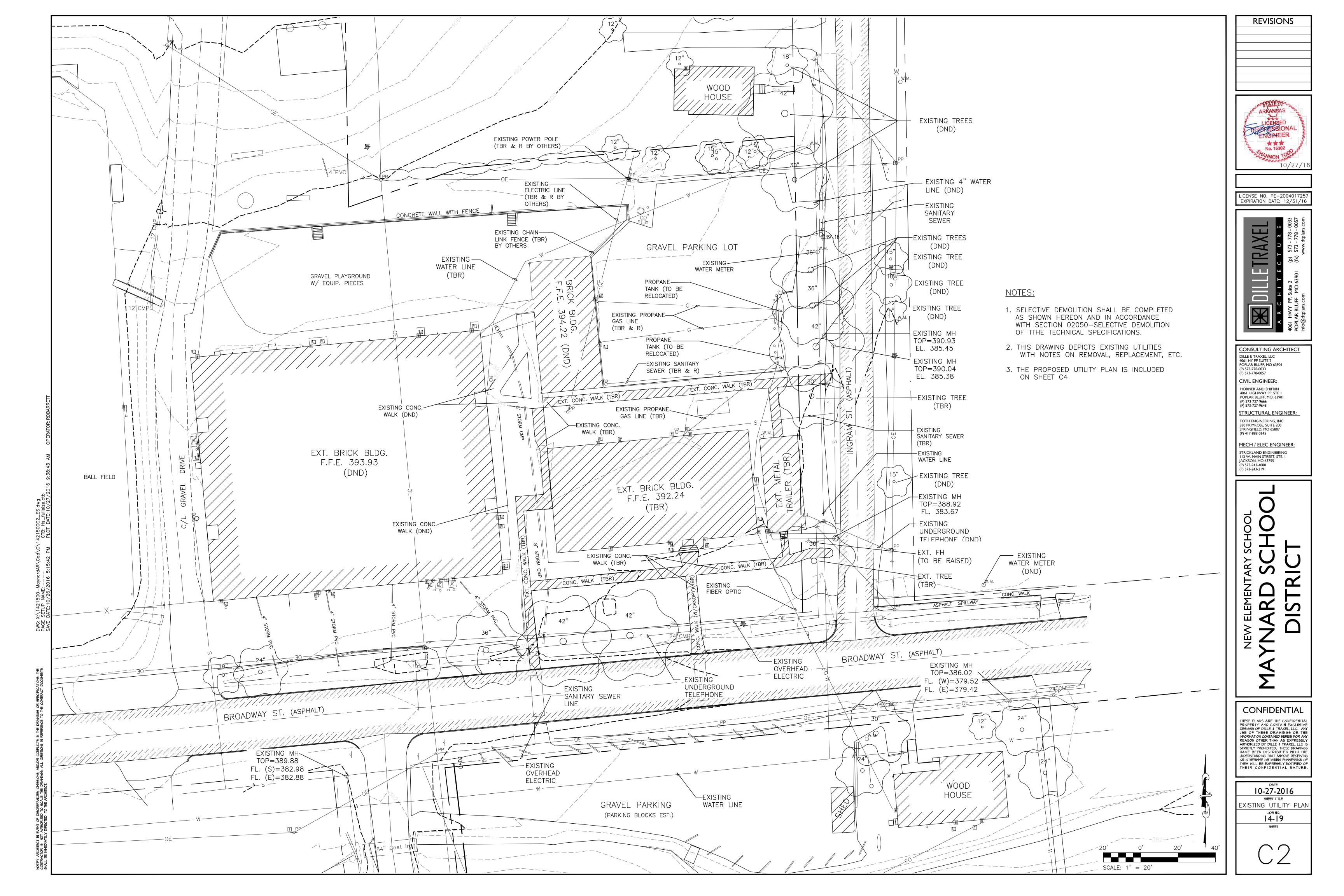
- A ARCHITECTURAL
- C CIVIL E – ELECTRICAL
- G GENERAL M – MECHANICAL
- P PROCESS
- S STRUCTURAL

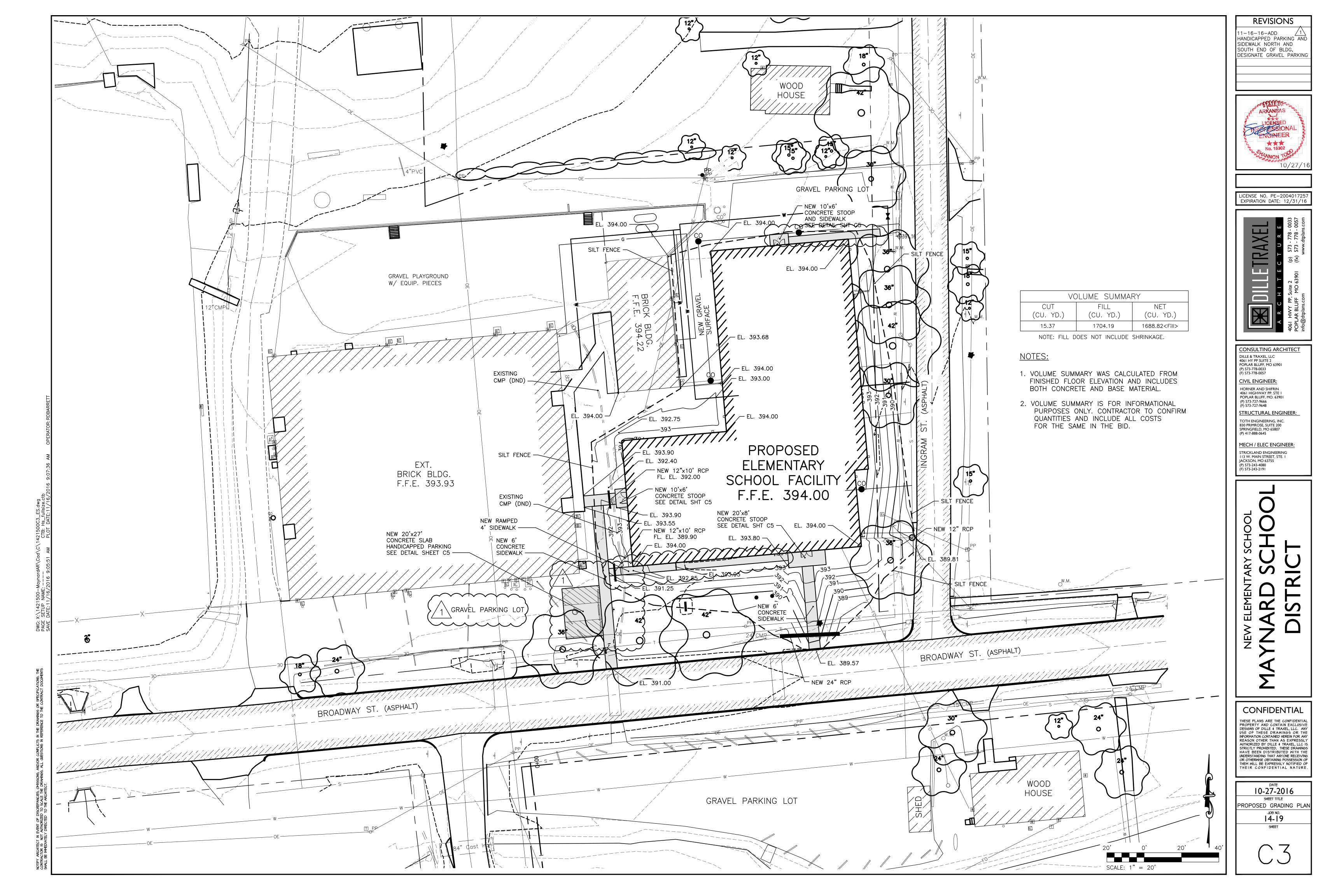
SECTIO SHEET SHEET
DETAIL SHEET SHEET

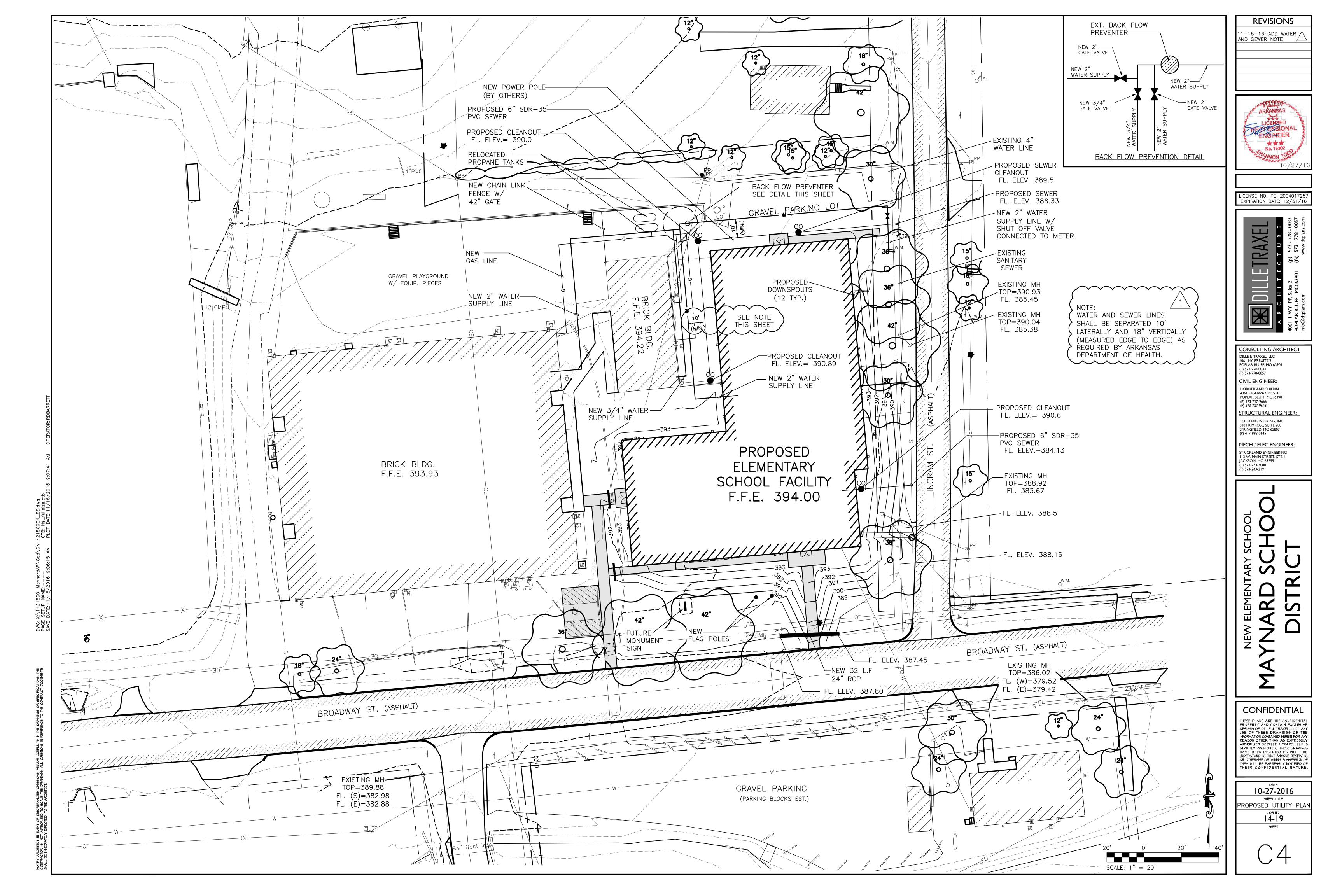
SHEET
SHEET
SECTIO SHEET SHEET
DETAIL

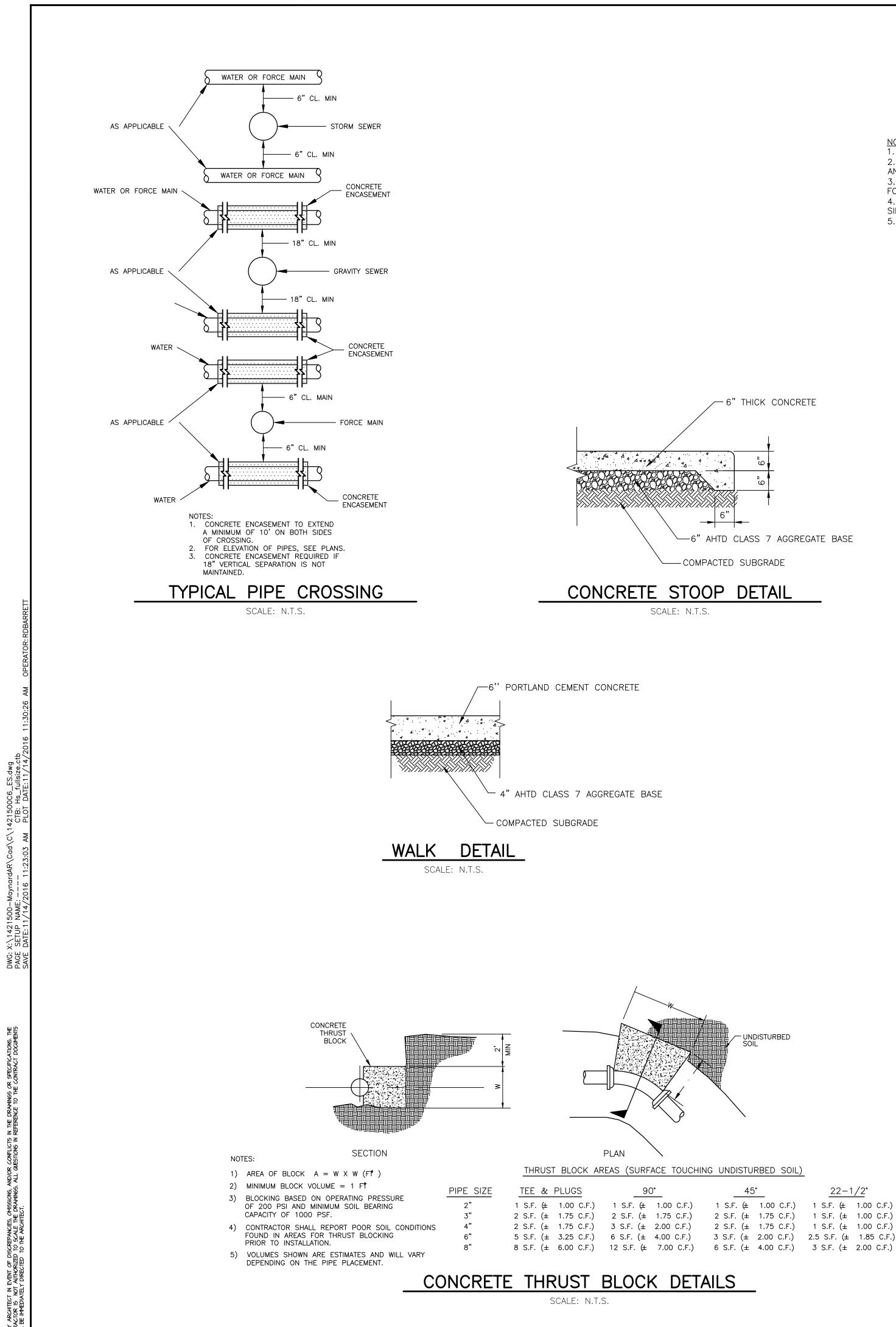
### REVISIONS GENERAL CONSTRUCTION INFORMATION/REQUIREMENTS: RUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE EREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. THE LOCATION JND UTILITIES INCLUDING WATER MAINS, SEWERS, ETC., AS SHOWN ON DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE GIVEN ARKANSAS THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY OWNER IN OR UNDER ANY UTILITIES SHOWN ON THE PLANS. THE CONTRACTOR DETESSIONA MMEDIATELY UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE NGINEER \*\*\* JST BE PERFORMED BY CONTRACTOR UNLESS NOTED OTHERWISE. No. 15302 KANON TOOL ALL BE IN ACCORDANCE WITH STATE, COUNTY, AND LOCAL STANDARDS AND 10/27/1 4. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION, AND FOR THE SAFETY OF ALL PERSONS AND/OR PROPERTY ON SITE. ICENSE NO. PE-20040172 5. ALL EXISTING WATER MAINS AND OTHER FACILITIES SHALL BE KEPT IN SERVICE DURING EXPIRATION DATE: 12/31/16 CONSTRUCTION, EXCEPT WHERE PERMISSION IS GRANTED BY THE OWNER. 6. WHEN CONNECTIONS ARE TO BE MADE TO EXISTING PIPING, THE LOCATION AND ELEVATION OF 0033 0057 THE EXISTING PIPE SHALL BE FIELD VERIFIED, PRIOR TO MAKING NEW CONNECTIONS, ETC. AND ETRAXEI NOTIFICATION GIVEN TO THE ENGINEER IF THE EXISTING PIPING IS FOUND TO BE DIFFERENT THAN 778 -778 -Itplan 573 573 7. IT IS THE INTENT OF THE GRADING SHOWN ON THE DRAWINGS TO PROVIDE ADEQUATE DRAINAGE AWAY FROM THE BUILDINGS AND STRUCTURES. ALTERATIONS MAY BE NECESSARY TO ACHIEVE (d) (Å) THIS IN THE FIELD. ALL CHANGES WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. 8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS RELATED TO ANY EQUIPMENT SHOWN ON THESE DILL DRAWINGS WITH CORRESPONDING DIMENSIONS INDICATED ON APPROVED EQUIPMENT MANUFACTURERS SHOP DRAWINGS PRIOR TO START OF CONSTRUCTION. M te PROVIDE, INSTALL AND MAINTAIN SILT FENCE AROUND DISTURBED CONSTRUCTION SITE FOR Е́Щ DURATION OF THE PROJECT. PROVIDE OTHER METHODS OF EROSION CONTROL AS REQUIRED TO PREVENT SOIL EROSION AND CONTROL SEDIMENTATION. SEE SILT FENCE DETAIL ON SHEET C10. Ξ₩ 10. ALL ELEVATIONS SHOWN FOR PIPELINES ARE INVERT ELEVATIONS, UNLESS OTHERWISE NOTED. 11. ALL ELEVATIONS SHOWN ARE TO THE FINISHED GRADE OF TOPSOIL SURFACE IN GRADED EARTHEN AREAS, TOP OF PAVEMENT, OR TOP OF SLAB, UNLESS OTHERWISE NOTED. CONSULTING ARCHITECT 12. EROSION CONTROL SHALL BE IN ACCORDANCE WITH STATE, COUNTY, AND LOCAL REQUIREMENTS. DILLE & TRAXEL, LLC 4061 HY PP SUITE 2 POPLAR BLUFF, MO 63901 13. EARTH SLOPES SHALL NOT EXCEED 3:1 (HORIZONTAL:VERTICAL) UNLESS OTHERWISE NOTED. (P) 573-778-0033 (F) 573-778-0057 14. ALL EXISTING FEATURES NOT LABELED SHALL BE USED IN PLACE. CIVIL ENGINEER: HORNER AND SHIFRIN 15. ALL MATERIAL REMOVED DURING GRADING OPERATIONS, INCLUDING RUBBISH, SHALL BE DISPOSED 4061 HIGHWAY PP. STE 1 POPLAR BLUFF, MO. 63901 OFF SITE BY THE CONTRACTOR IN ACCORDANCE WITH STATE, COUNTY, AND LOCAL ORDINANCES. (P) 573-727-9666 (F) 573-727-9648 16. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH. SEEDING STRUCTURAL ENGINEER AND TOPSOIL SHALL BE COMPLETED BY CONTRACTOR. TOTH ENGINEERING, INC. 830 PRIMROSE, SUITE 200 17. ANY DISTURBED PROPERTY (I.E. BUSHES, FENCES, MAILBOXES, ETC.) SHALL BE REPLACED IN SPRINGFIELD, MO 65807 (P) 417-888-0645 KIND, AT THE CONTRACTORS EXPENSE. MECH / ELEC ENGINEER 18. THE CONTRACTOR SHALL NOT BE ALLOWED TO CLOSE ANY STREET OR PORTION OF STREETS STRICKLAND ENGINEERING WITHOUT PRIOR APPROVAL OF THE LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT ANY 113 W. MAIN STREET, STE. 1 CLOSURES ARE REQUIRED AND APPROVED, THE CONTRACTOR SHALL INSTALL ADEQUATE JACKSON, MO 63755 ) 573-243-4080 BARRICADES AND SIGNAGE IN ACCORDANCE WITH THE FEDERAL HIGHWAY'S "MANUAL OF UNIFORM (F) 573-243-2191 TRAFFIC CONTROL DEVICES". 19. TEMPORARY TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". O 20. IN ORDER TO AVOID DAMAGE TO UNDERGROUND UTILITIES, THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES BELONGING TO THE MISSOURI ONE CALL SYSTEM ALONG WITH THOSE WHO DO 0 NOT, AND OBTAIN THE LOCATION AND DEPTH OF THEIR RESPECTIVE FACILITIES. 0 0 21. UPON REQUEST, HORNER & SHIFRIN WILL PROVIDE THE CONTRACTOR A COPY OF THE ELECTRONIC FILES FOR CONSTRUCTION STAKING PURPOSES. HORIZONTAL AND VERTICAL CONTROL FOR LOCATION OF IMPROVEMENTS ARE CONTAINED IN THESE FILES. S AR, S Ш 2 S ш ĹШ $\succ$ SECTION AND DETAIL CUT LEGEND POINTS IN DIRECTION OF VIEW ION DESIGNATOR (LETTER) CONFIDENTIAL WHERE SECTION WAS CUT +++\* THESE PLANS ARE THE CONFIDENTIA PROPERTY AND CONTAIN EXCLUSIVE DESIGNS OF DILLE & TRAXEL, LLC. ANY USE OF THESE DRAWINGS OR THE INFORMATION CONTAINED HEREIN FOR ANY WHERE SECTION IS SHOWN VIEW REASON OTHER THAN AS EXPRESSIN AUTHORIZED BY DILLE & TRAXEL, LLC IS DESIGNATOR (NUMBER) — $\angle *$ STRICTLY PROHIBITED. THESE DRAWING WHERE DETAIL WAS CUT UNDERSTANDING THAT ANYONE RECEIVING OR OTHERWISE OBTAINING POSSESSION OF WHERE DETAIL IS SHOWN THEM WILL BE EXPRESSLY NOTIFIED OF THEIR CONFIDENTIAL NATURE WHERE DETAIL IS SHOWN A SECTION ON DESIGNATOR (LETTER) -10-27-2016 WHERE SECTION WAS CUT -+\* \* / SCALE: N.T.S. SHEET TITLE WHERE SECTION IS SHOWN GENERAL CIVIL NOTES JOB NO. \DETAI 14-19 DETAIL DESIGNATOR (NUMBER) \* \*/ SHEET WHERE DETAIL WAS CUT -SHEET CALE: N.T.S. SHEET WHERE DETAIL IS SHOWN $\bigcirc$







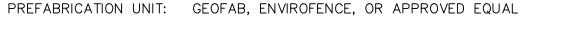


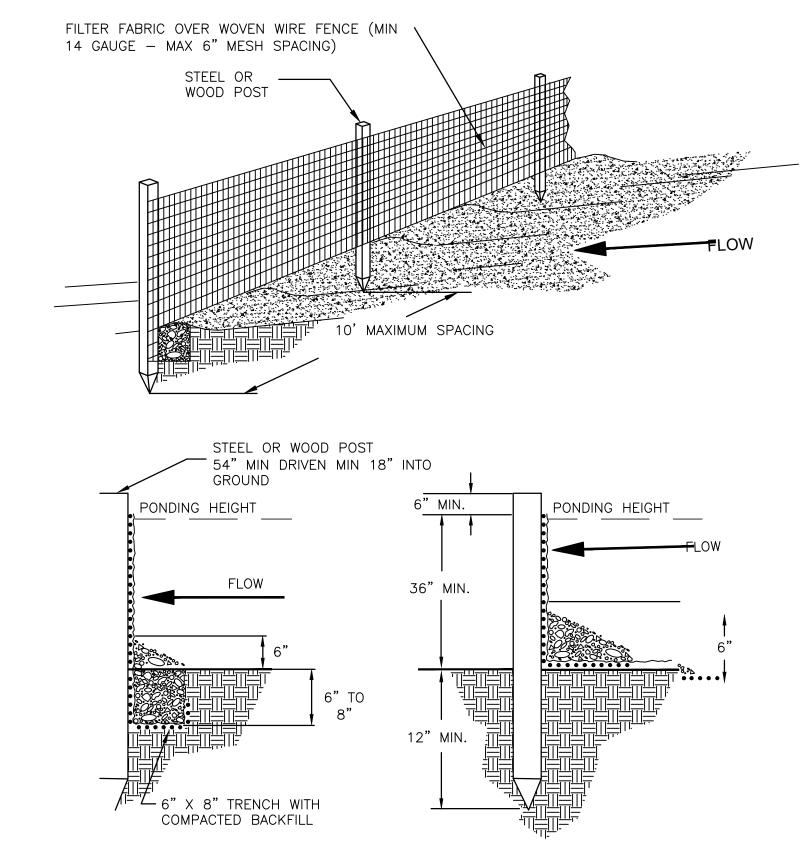


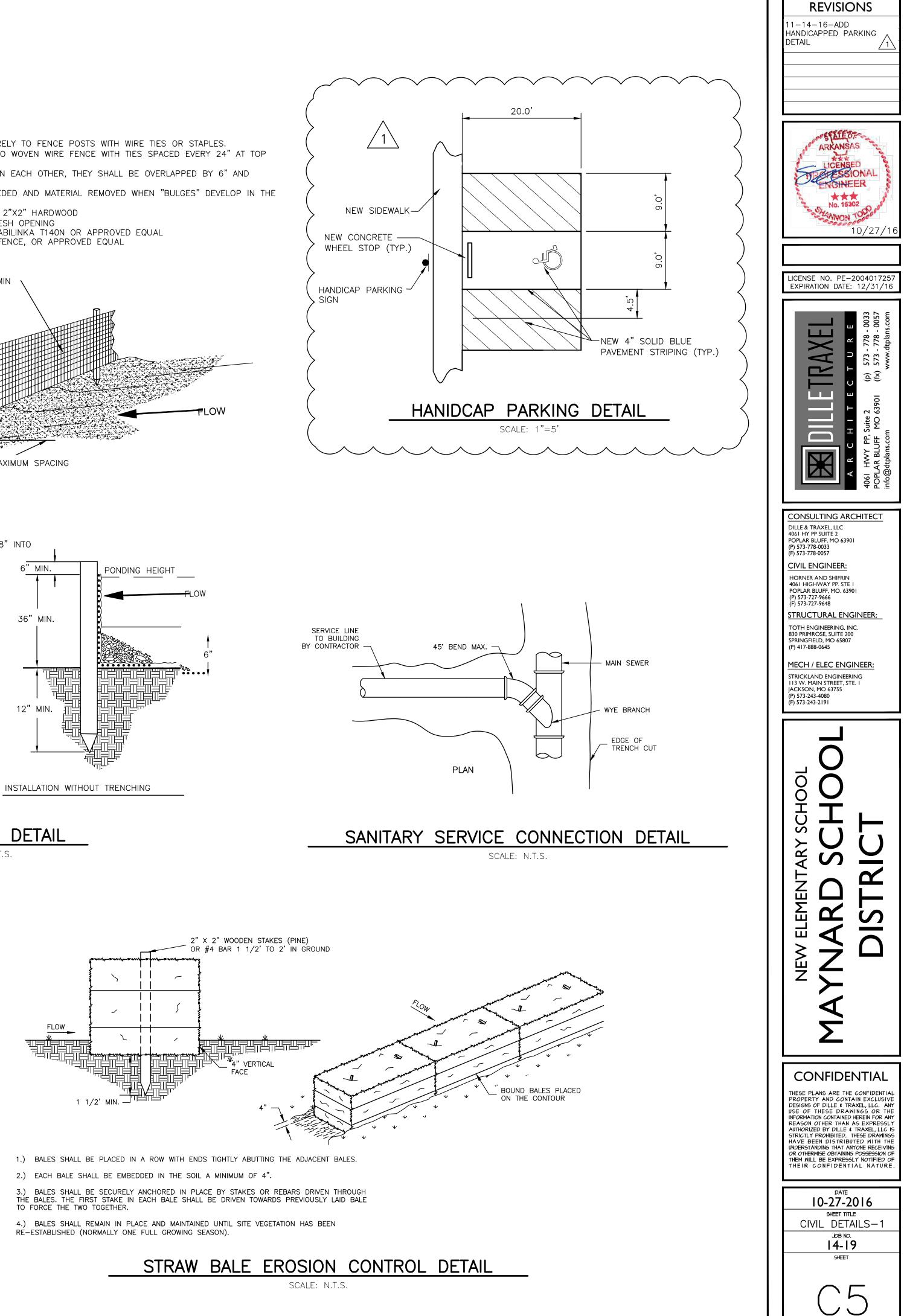
<u>NOTES</u> 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION 3. WHEN TWO SECTION OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

5. POSTS: STEEL EITHER T OR U TYPE OR 2"X2" HARDWOOD

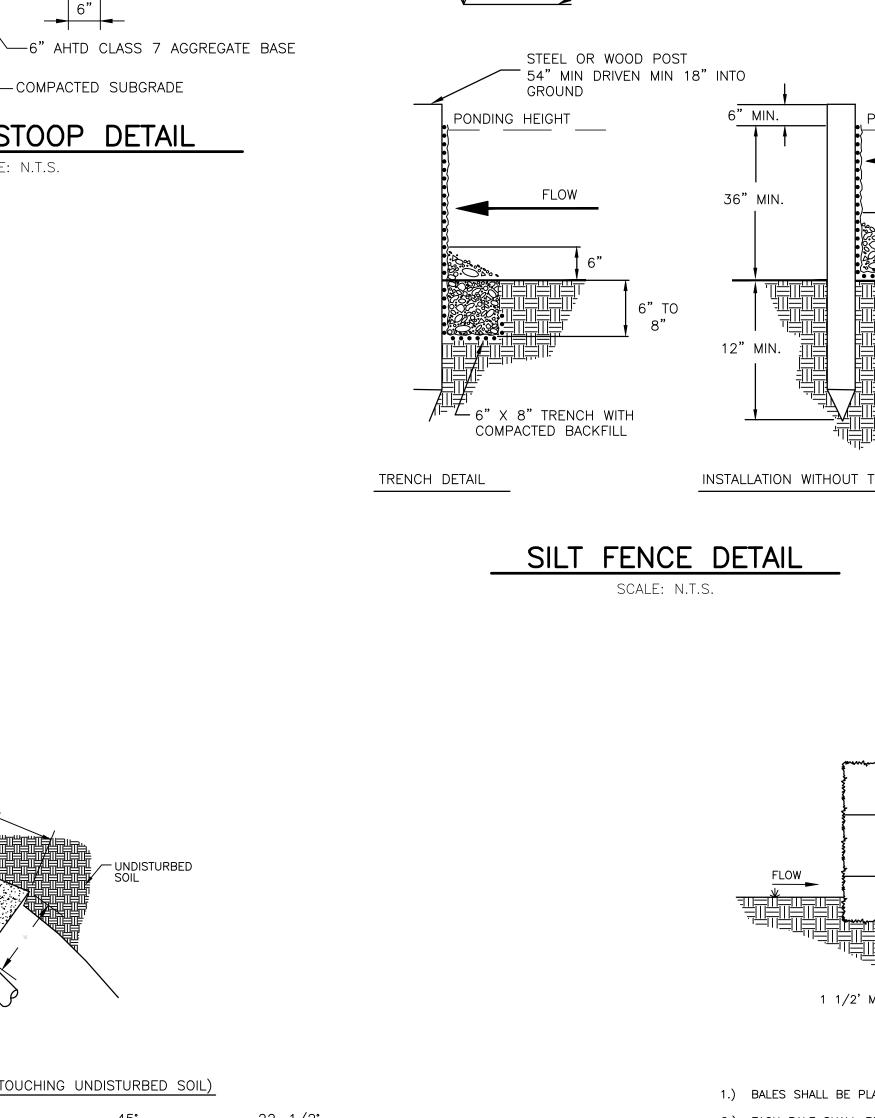
FENCE: WOVEN WIRE, 14 GA. 6" MAX MESH OPENING FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL





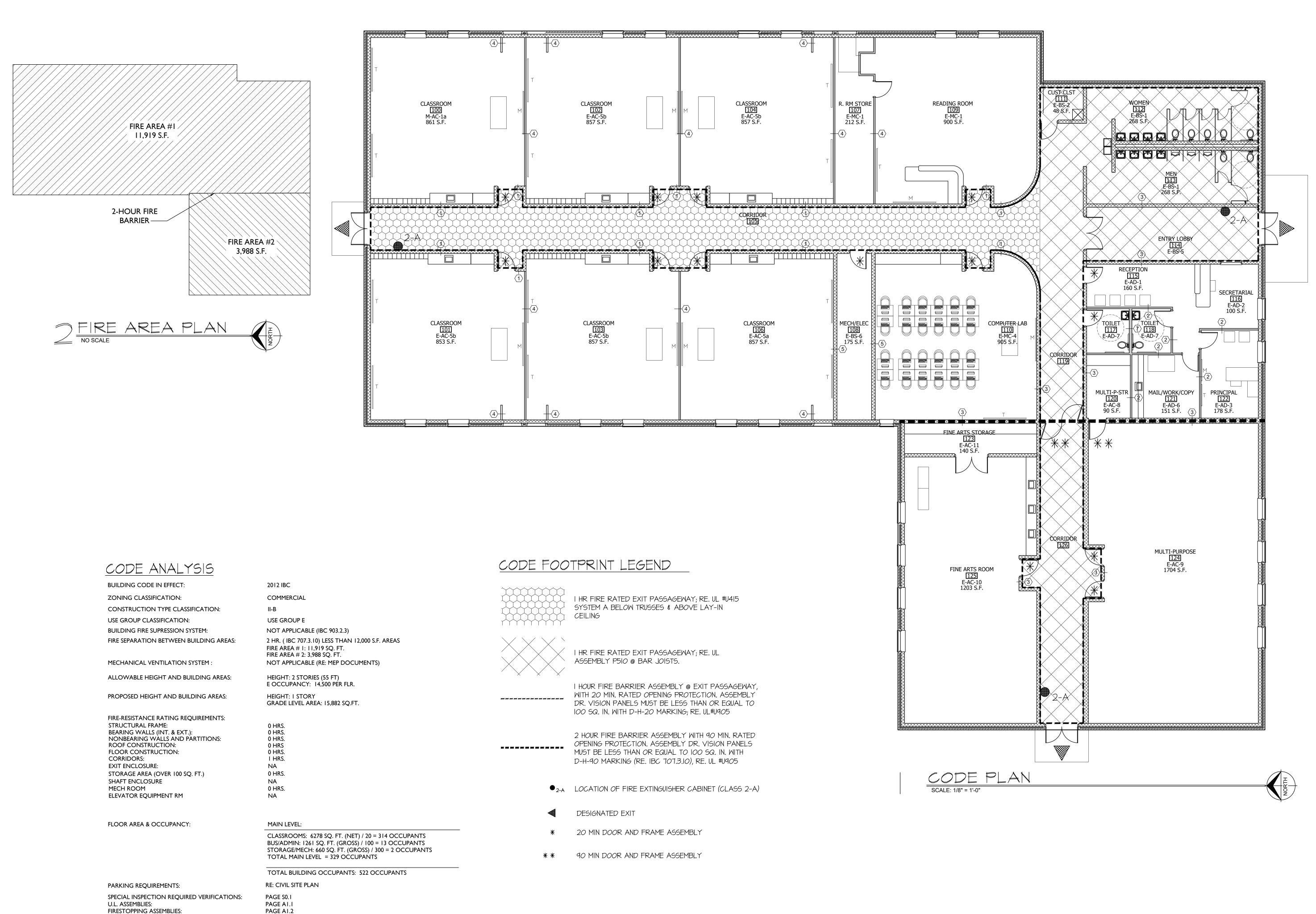


2.) EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4". TO FORCE THE TWO TOGETHER.

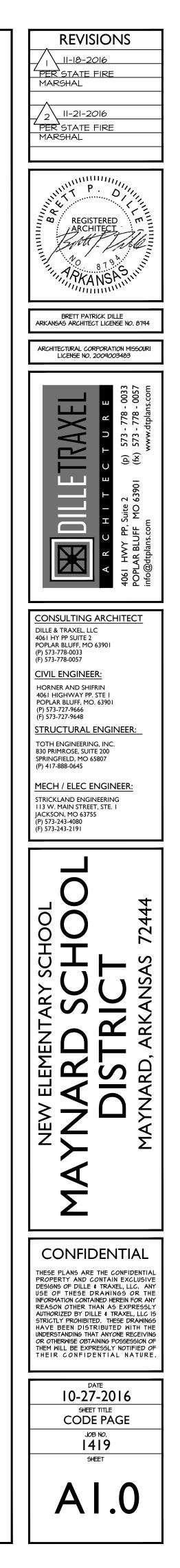


_	45°		22-1	<u>/2</u> °
1.00 C.F.)	1 S.F. (±	1.00 C.F.)	1 S.F. (±	1.00 C.F.)
1.75 C.F.)	2 S.F. (±	1.75 C.F.)	1 S.F. (±	1.00 C.F.)
2.00 C.F.)	2 S.F. (±	1.75 C.F.)	1 S.F. (±	1.00 C.F.)
.00 C.F.)	3 S.F. (±	2.00 C.F.)	2.5 S.F. (±	1.85 C.F.)

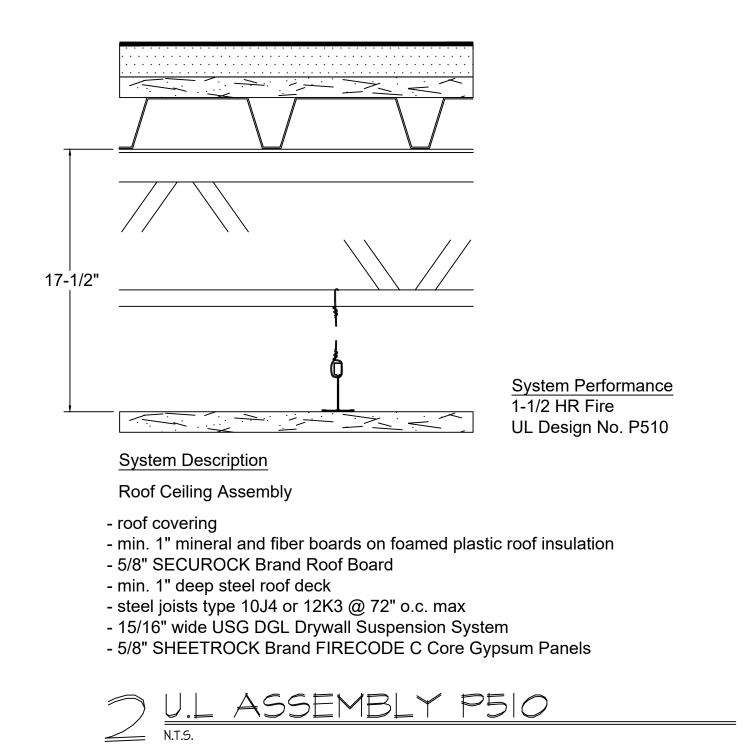
- 6" THICK CONCRETE



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UL U415 System A Shaft Wall -Steel Stud (Non-load-bearing) Fire Rating 1 hour System Thickness 3-1/8" Assembly Options Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically · USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR) · USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR) · USG Sheetrock® Brand Glass-Mat Tile Backerboard - 5/8" (UL Type SCX) · USG Sheetrock® Brand Glass-Mat Tile Backerboard - 5/8" (UL Type FRX-G) · USG Sheetrock® Brand Agua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G) · USG Sheetrock® Brand Agua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G) · USG Sheetrock® Brand Agua-Tough® AR Firecode® X - 5/8" (UL Type AR) · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type AR) · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type AR) · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type IP-X2) · USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X2) · USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X1) · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX) · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX) · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX) · USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Glass-Mat Panels Firecode® X - 5/8" (UL Type SGX) · USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels friction fit · USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels friction fit · USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels Ti" (UL Type S				
Shaft Wall -Steel Stud (Non-load-bearing)         Fire Rating       1 hour         System Thickness       3-1/8"         Assembly Options       Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically         * USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)         * USG Durock™ Brand Glass-Mat Tile Backerboard - 5/8" (UL Type FRX-G)         * USG Fiberock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Alua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Alua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Alua-Tough™ AR Firecode® X Panels - 5/8" (UL Type AR)         * USG Sheetrock® Brand Aluat Tough® AR Firecode® X - 5/8" (UL Type IP-X2)         * USG Sheetrock® Brand Aluat Tough® AR Firecode® X - 5/8" (UL Type IP-X2)         * USG Sheetrock® Brand Gypsum Base Imperial® Firecode® X - 5/8" (UL Type IP-X2)         * USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X1)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)         * USG Sheetroc				
Fire Rating       1 hOUr         System Thickness       3-1/8"         Assembly Options       Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically         * USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)         * USG Durock™ Brand Glass-Mat Tile Backerboard - 5/8" (UL Type GX)         * USG Sheetrock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Ald Tough® AR Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand All Ar Interior Panels - 5/8" (UL Type FRX-G)         * USG Sheetrock® Brand Glass-Mat Panels Mold Tough® VHI Firecode® X - 5/8" (UL Type AR)         * USG Sheetrock® Brand Gypsum Base Imperial® Firecode® C - 5/8" (UL Type IP-X2)         * USG Sheetrock® Brand Gypsum Base Imperial® Firecode® X - 5/8" (UL Type IP-X1)         * USG Sheetrock® Brand Mold Tough® Firecode® C - 25/8" (UL Type IP-X1)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX)         * USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX)         * USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type SCX)         * USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type SCX)         * USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type SCX)				
System Thickness       3-1/8"         Assembly Options.       Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically.         · USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR)       ·         · USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)         · USG Durock™ Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)         · USG Fiberock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type FRX-G)         · USG Fiberock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)         · USG Sheetrock® Brand An Interior Panels - 5/8" (UL Type FRX-G)         · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type AR)         · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type IP-X2)         · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type IP-X2)         · USG Sheetrock® Brand Mold Tough® AR Firecode® X - 5/8" (UL Type IP-X2)         · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type IP-X2)         · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type C)         · USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type SCX)         · USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type SCX)         · USG Sheetrock® Brand Mold Tough® YHI Erecode® X - 5/8" (UL Type SGX)         · USG Sheetrock® Brand Glass-Mat Panels Mold Tough® - 5/8" (UL Type SGX)         · USG Sheetrock® Brand Mold Toug				
Assembly Options Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically <sup>●</sup> USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR) <sup>●</sup> USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR) <sup>●</sup> USG Durock™ Brand Glass-Mat Tile Backerboard - 5/8" (UL Type SQX) <sup>●</sup> USG Fiberock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type FRX-G) <sup>●</sup> USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type FRX-G) <sup>●</sup> USG Sheetrock® Brand Alua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G) <sup>●</sup> USG Sheetrock® Brand AR Interior Panels - 5/8" (UL Type FRX-G) <sup>●</sup> USG Sheetrock® Brand Mold Tough® AR Firecode® X Panels - 5/8" (UL Type AR) <sup>●</sup> USG Sheetrock® Brand Gypsum Base Imperial® Firecode® C - 5/8" (UL Type IP-X2) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X2) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X1) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type IP-X1) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Firecode® X - 5/8" (UL Type C) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR) <sup>●</sup> USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR) <sup>●</sup> USG Sheetrock® Brand Firecode® X Panels - 5/8" (UL Type SCX) <sup>●</sup> USG Sheetrock® Brand Glass-Mat Panels Mold Tough® - 5/8" (UL Type SGX) <sup>●</sup> USG Sheetrock® Brand Glass-Mat Panels Sirecode® X - 5/8" (UL Type SGX) <sup>●</sup> USG Sheetrock® Brand UltraLight Panels Firecode® X - 5/8" (UL Type ULX) Steel Studs - Min, 2-1/2 in. USG C-H studs, 25 ga. spaced 24 in. OG Gypsum Board - 1 in. thick by nom. 2 ft. wide gypsum liner panels friction fit <sup>●</sup> USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels - 1" (UL Type SLX)				
Gypsum Board - 5/8 in. thick gypsum board applied horizontally or vertically <ul> <li>USG Sheetrock® Brand Gypsum Panels AR Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)</li> <li>USG Durock™ Brand Glass-Mat Panels Mold Tough® AR Firecode® X - 5/8" (UL Type AR)</li> <li>USG Fiberock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)</li> <li>USG Sheetrock® Brand Aqua-Tough™ AR Interior Panels - 5/8" (UL Type FRX-G)</li> <li>USG Sheetrock® Brand An Interior Panels - 5/8" (UL Type FRX-G)</li> <li>USG Sheetrock® Brand AR Interior Panels - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® AR Firecode® X Panels - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Gypsum Base Imperial® Firecode® C - 5/8" (UL Type IP-X2)</li> <li>USG Sheetrock® Brand Gypsum Base Imperial® Firecode® X - 5/8" (UL Type IP-X1)</li> <li>USG Sheetrock® Brand Mold Tough® Firecode® C Panels - 5/8" (UL Type IP-X1)</li> <li>USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type RX)</li> <li>USG Sheetrock® Brand Mold Tough® Panels Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Mold Tough® VHI Firecode® X - 5/8" (UL Type AR)</li> <li>USG Sheetrock® Brand Glass-Mat Panels Mold Tough® - 5/8" (UL Type SCX)</li> <li>USG Sheetrock® Brand Glass-Mat Panels Mold Tough® - 5/8" (UL Type SGX)</li> <li>USG Sheetrock® Brand UltraLight Panels Firecode® X - 5/8" (UL Type ULX)</li> </ul> Steel Studs - Min. 2-1/2 in. USG C-H studs, 25 ga. spaced 24 in. OC Gypsum Board - 1 in. thick by nom. 2 ft. wide gypsum liner panels friction fit <ul> <li>USG Sheetrock® Brand Mold Tough® Gypsum Liner Panels - 1" (UL Type SLX)</li></ul>		System Thickness	3-1/8	
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applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).

4. Loose Masonry Fill — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.

5. Foamed Plastic\* — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1).

ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation" and "EnergyShield Pro 2 Wall Insulation"

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ Sheath

**FIRESTONE BUILDING PRODUCTS CO L L C** — "Enverge<sup>™</sup> CI Foil Exterior Wall Insulation" and "Enverge<sup>™</sup> CI Glass Exterior Wall Insulation"

HUNTER PANELS — Types Xci-Class A, Xci 286

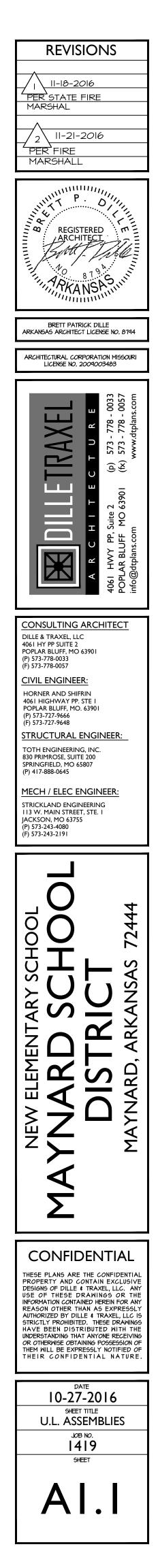
RMAX OPERATING L L C — "TSX-8500", "TSX-8510", "Thermasheath-XP", "ECOMAXci", "Thermasheath-3", "Durasheath-3"

**THE DOW CHEMICAL CO** — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP) and TUFF-R<sup>™</sup> ci Insulation

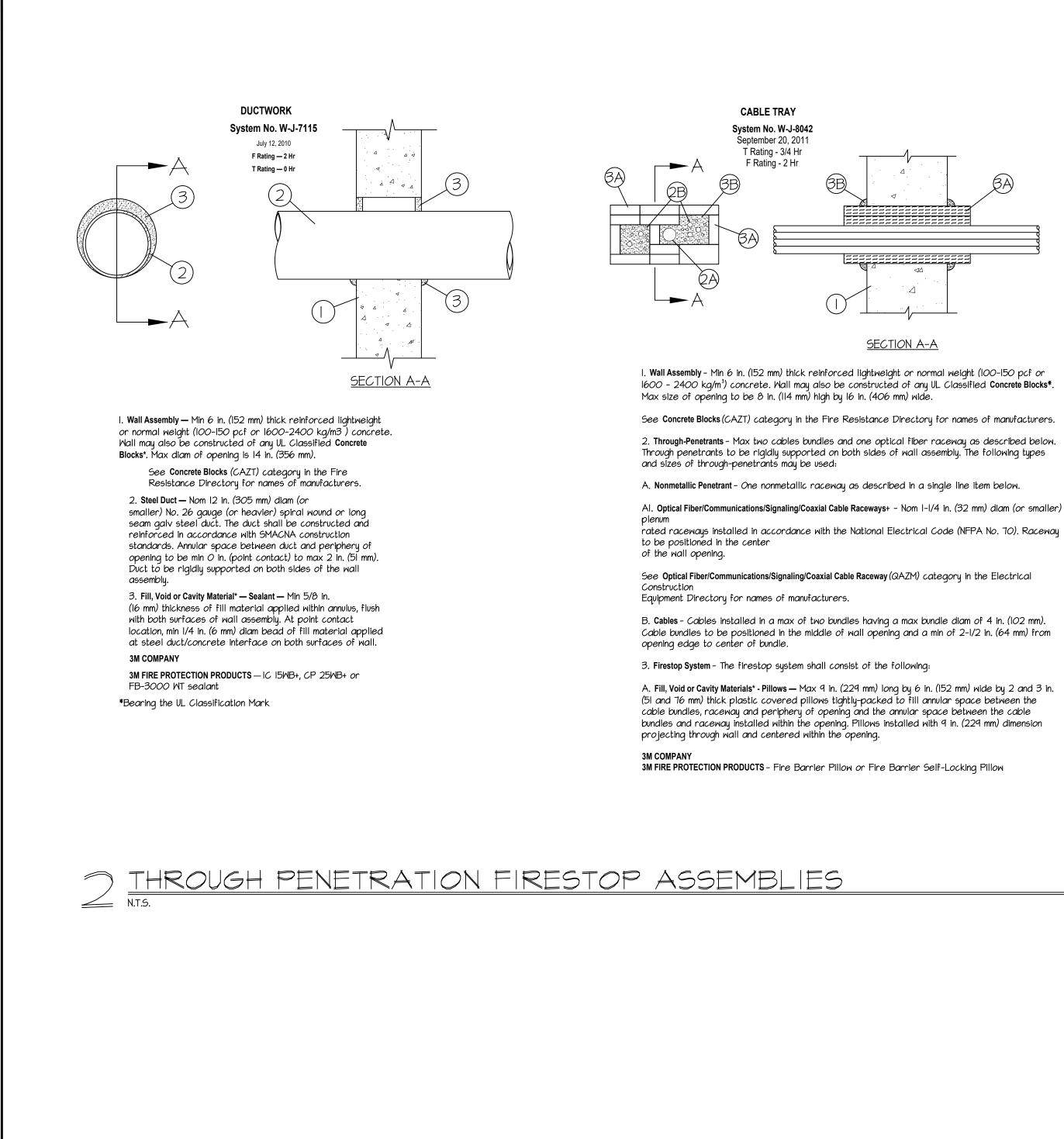
5A. **Building Units** — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

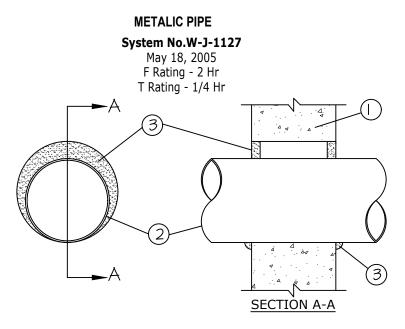
**RMAX OPERATING L L C** — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI"

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



Last Updated on 2016-03-11





1. Wall Assembly - Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 10-1/2 in. (267 mm).

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One metallic pipe, conduit, tubing or flexible metal pipe installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening to be min O in. (point contact) to max 1-7/8 in. (O mm to max 48 mm) Penetrant to be rigidly supported on both sides of wall. The following types and sizes of penetrants may be used.

- A. Steel Pipe Nom 8 in. (203 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
- **B. Iron Pipe** Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe. C. Conduit - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. (152 mm) riqid steel conduit.
- D. Copper Tubing Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
- E. Copper Pipe Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe. F. Through Penetrating Product\* - Flexible Metal Piping - The following types of steel flexible metal

I. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal qas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

### OMEGA FLEX INC.

qas pipinq may be used:

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITEFLEX CORP, A BUNDY CO.

3. Nom I in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

### WARD MFG INC.

3. Fill, Void or Cavity Material\* - Caulk or Sealant - Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to penetrant/wall interface at point contact location on both sides of wall.

3M COMPANY - CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant.

\*Bearing the UL Classification Marking

2. Through Penetrants - One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe or conduit and periphery of opening shall be min of 1/4 in. to max 7/8 in. (6 mm to max 22 mm). Pipe or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

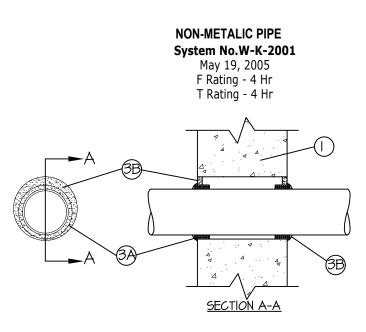
D. Acrylonitrile Butadiene Styrene (ABS) Pipe - Nom I-I/2 in. (38 mm) diam (or smaller). Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. E. Fire Retardant Polypropylene (FRPP) Pipe - Nom I-1/2 in. (38 mm) diam (or smaller). Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

A. Fill, Void or Cavity Materials\* - Wrap Strip - Nom 1/8 in. (3.2 mm) thick intumescent material supplied in 2 in. (51 mm) wide strips. Two continuous layers of wrap strip tightly wrapped around nonmetallic pipe and held in place with 2 in. (51 mm) wide minimum 3 mil foil tape. Wrap strip to be slid into annular space on both sides of wall such that a 1/4 in. (6 mm) of wrap strip extends beyond both surfaces of

the wall.

B. Fill, Void or Cavity Materials\* - Caulk or Sealant - Min thickness of 5/8 in. (16 mm) of caulk applied within annulus between wrap strip and periphery of the opening, flush with both surfaces of wall assembly. An additional 1/4 in. (6 mm) diam bead of caulk applied at the wrap strip/wall interface on both sides of wall.

3M COMPANY - CP 25BW+, IC 15WB+ caulk or FB-3000 WT sealant



1. Wall Assembly - Min 8-5/8 in. (219 mm) thick wall assembly constructed of any UL Classified Concrete Blocks\* or common bricks, laid up with mortar. Max diam of opening is 3 in. (76 mm).

See Concrete Blocks (CATZ) category in the Fire Resistance Directory for names of manufacturers.

A. Polyvinyl Chloride (PVC) Pipe - Nom I-1/2 in. (38 mm) diam (or smaller). Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom I-I/2 in. (38 mm) diam (or smaller) SDRI3.5 CPVC pipe for use in closed (process

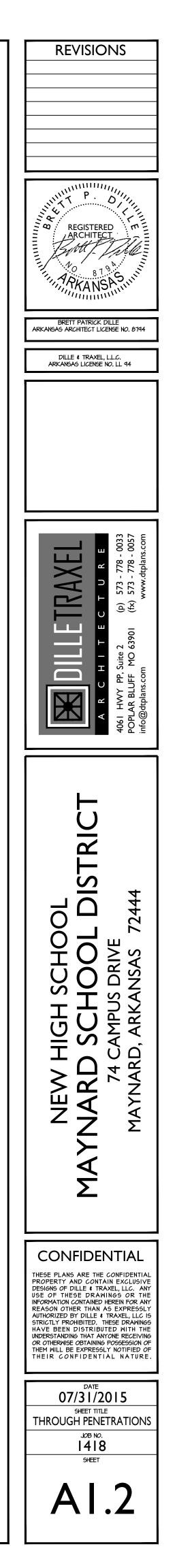
or supply) piping systems. C. Rigid Nonmetallic Conduit+ - Nom I-1/2 in. (38 mm) diam (or smaller). Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

3. Firestop System - The firestop system shall consist of the following:

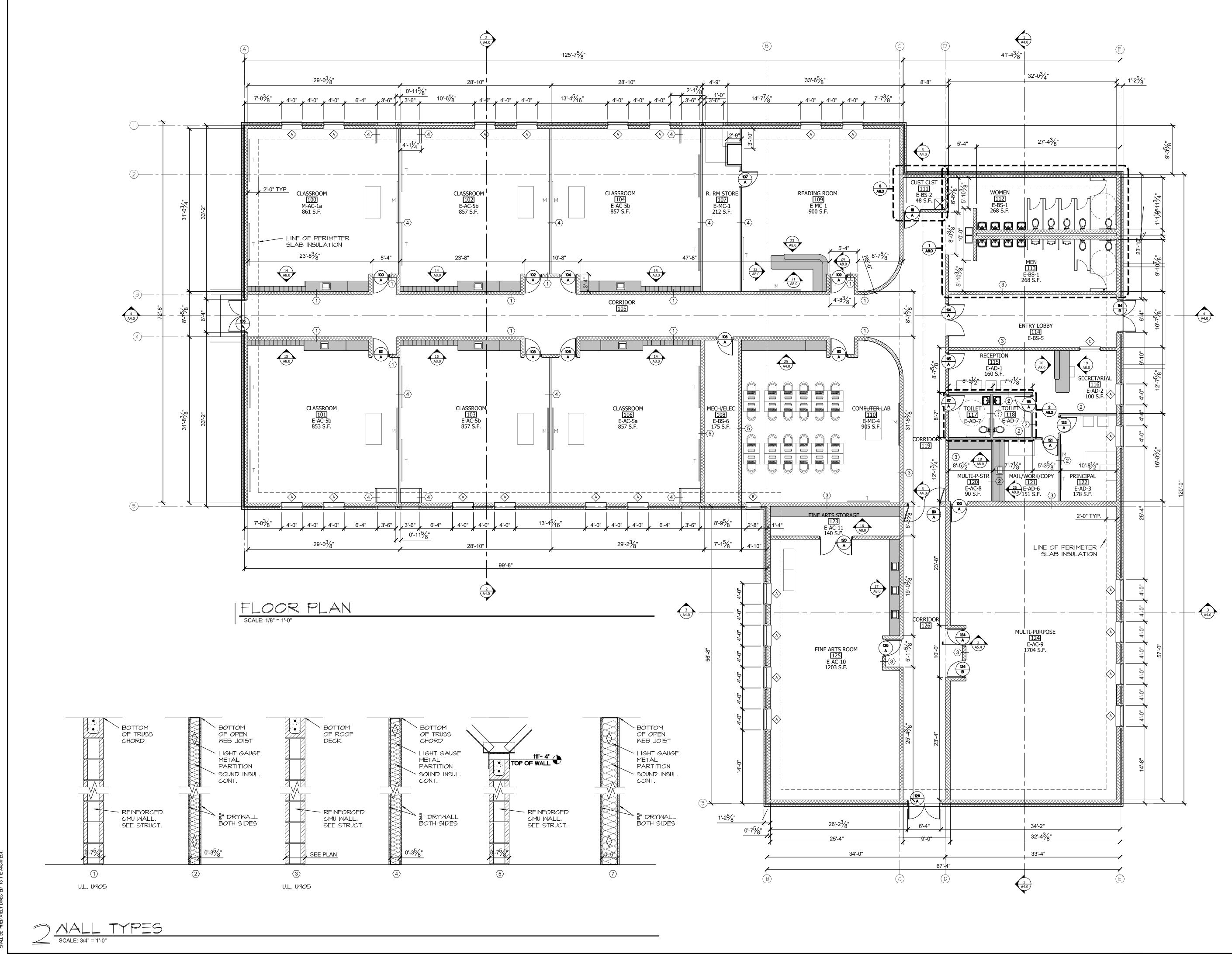
**3M COMPANY** - Ultra GS

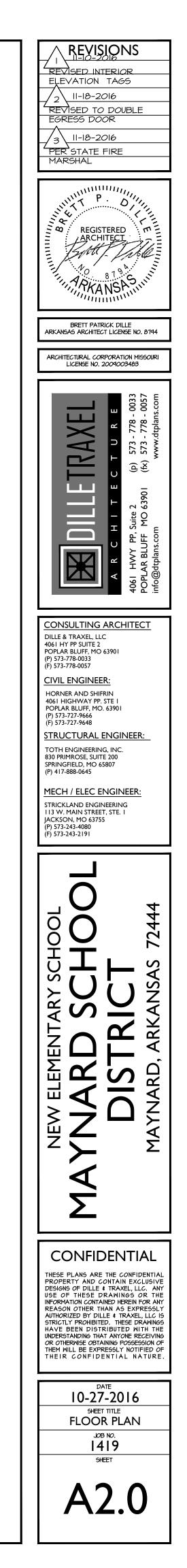
(Note: CP 25WB+ not suitable for use with CPVC pipes.)

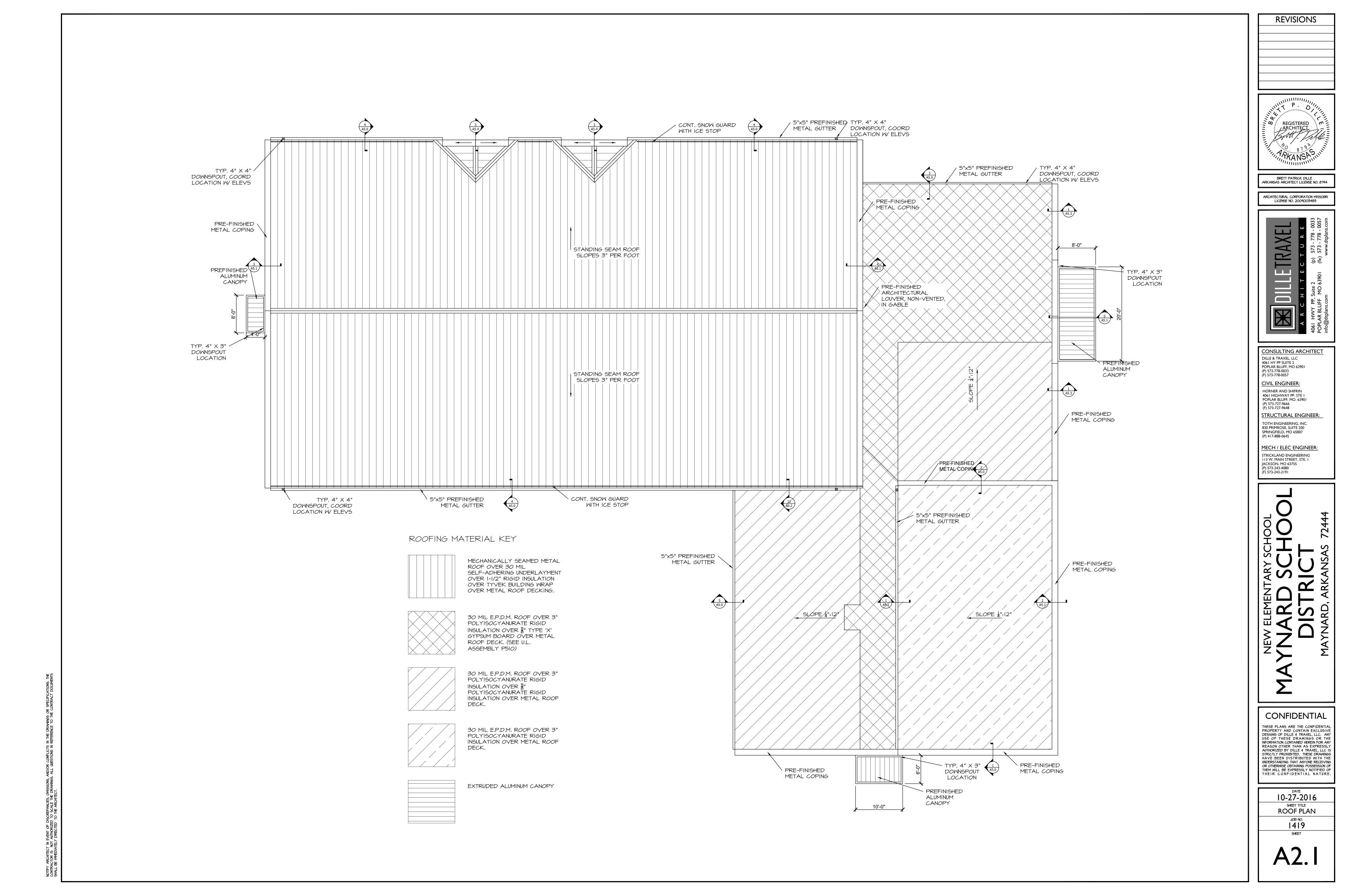
\*Bearing the UL Classification Mark ++Bearing the UL Listing Mark

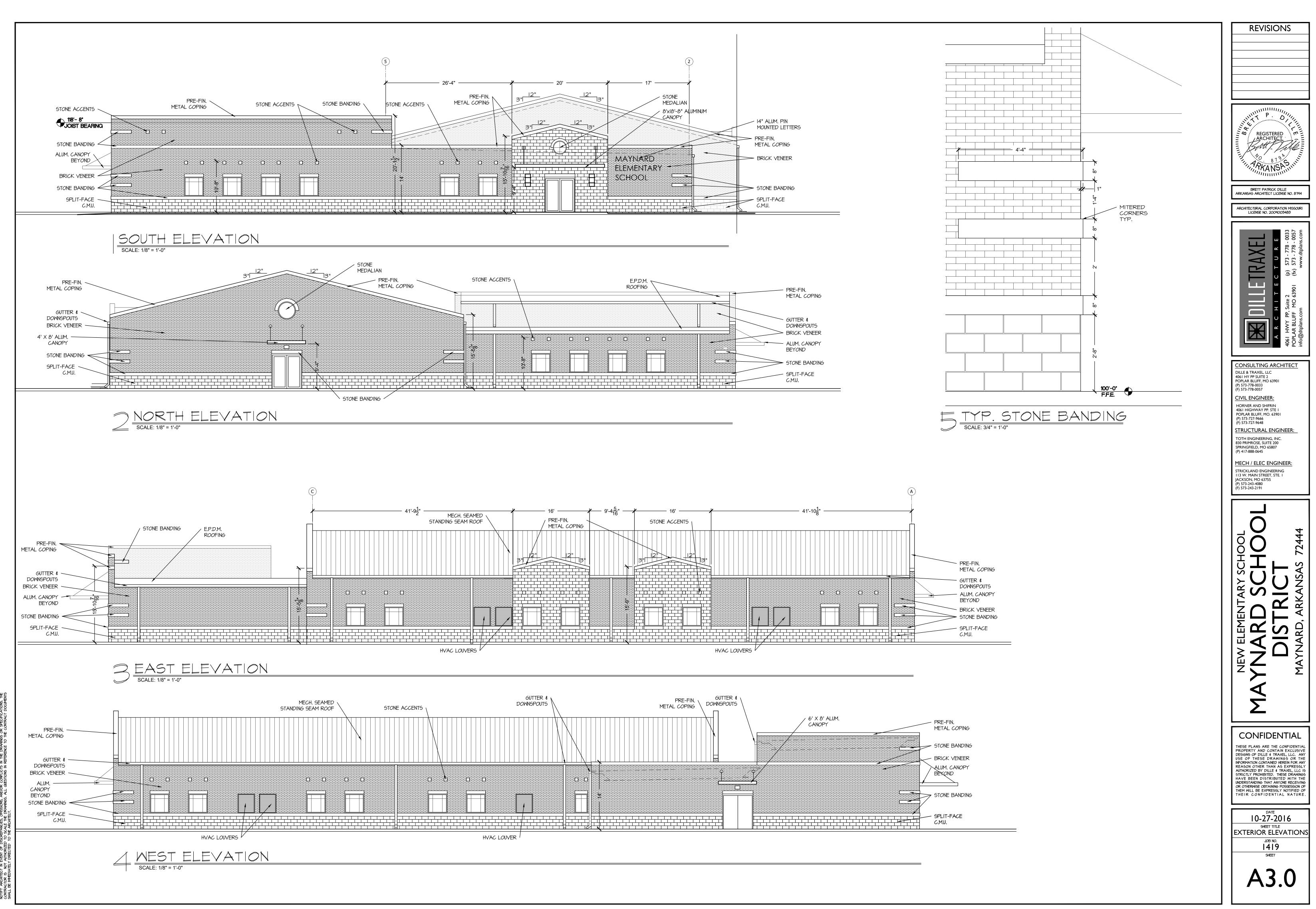


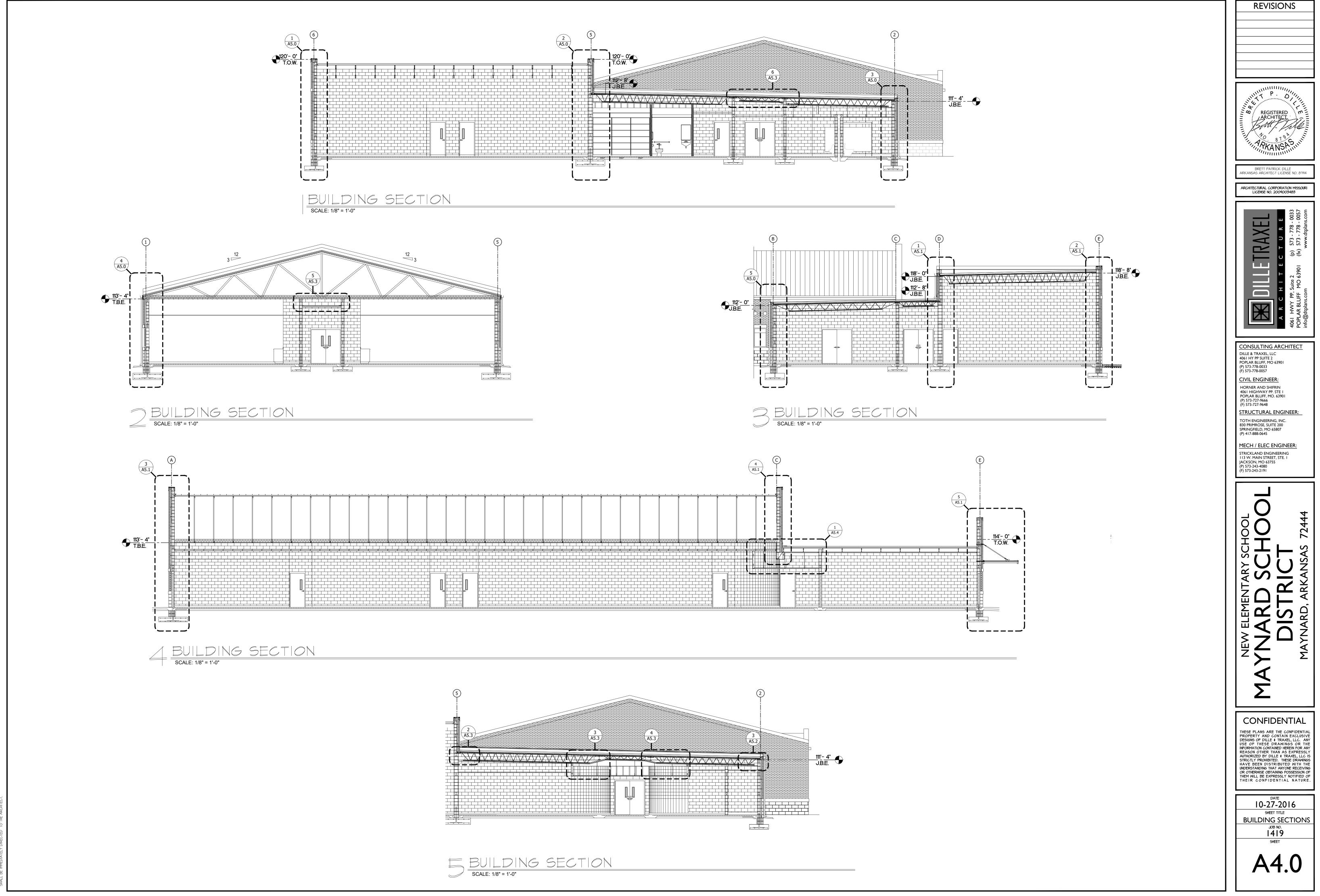
chitect in event of discrepancies, omissions, and/or conflicts in the drawings or specifications. The "Or is not authorized to scale the drawings. All questions in reference to the contract documents impediately directed to the architect."

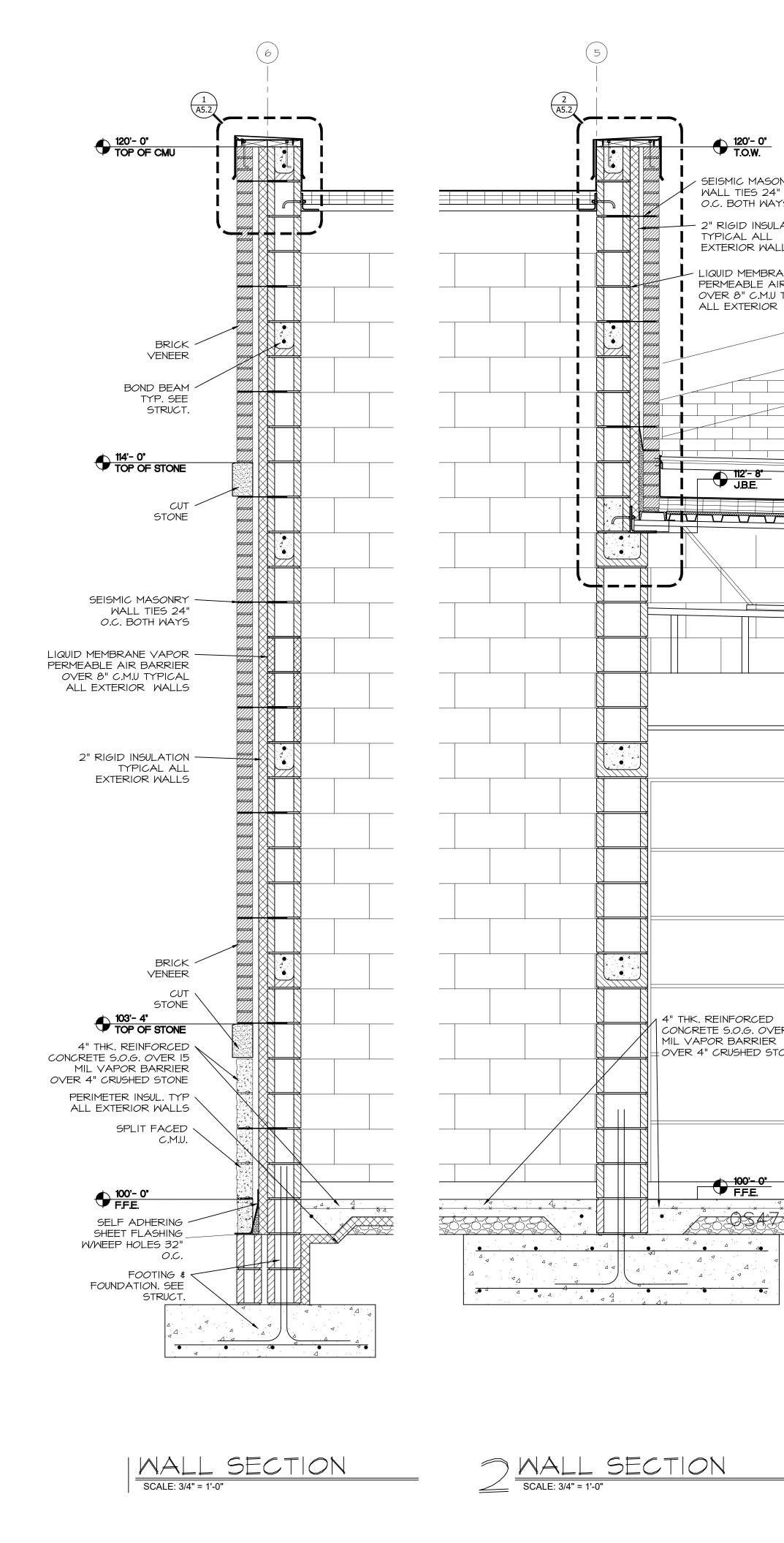






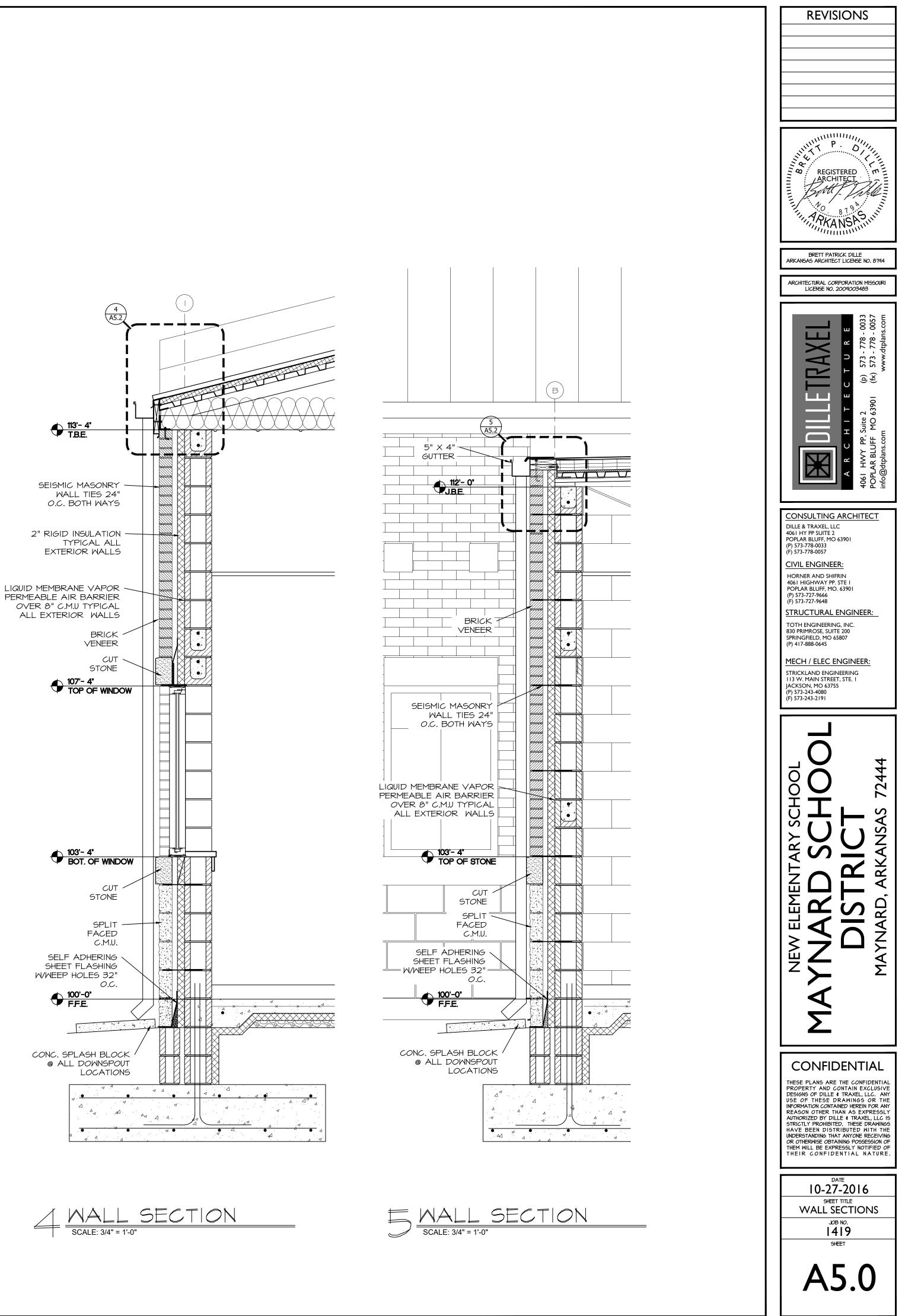






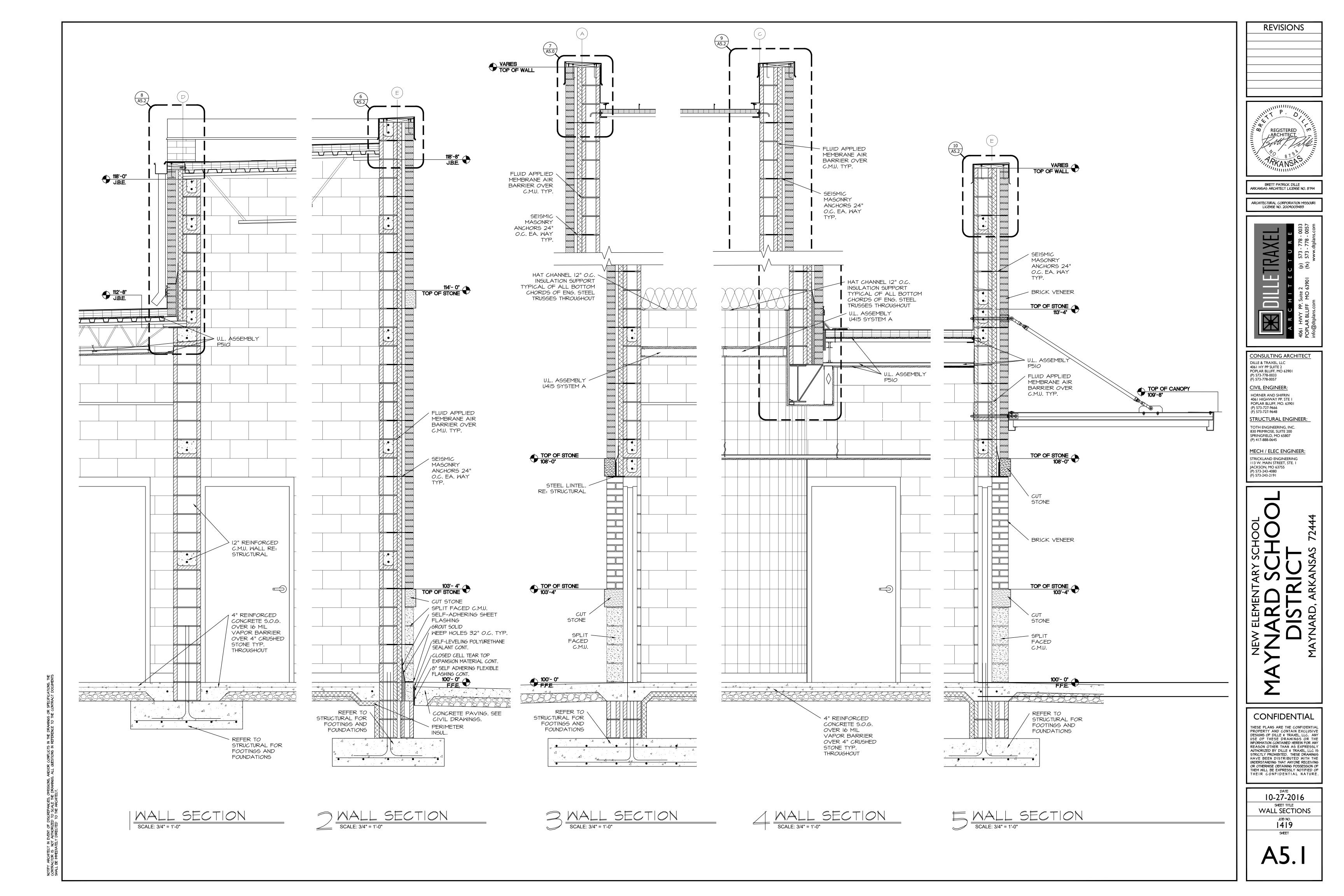
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VAYS	

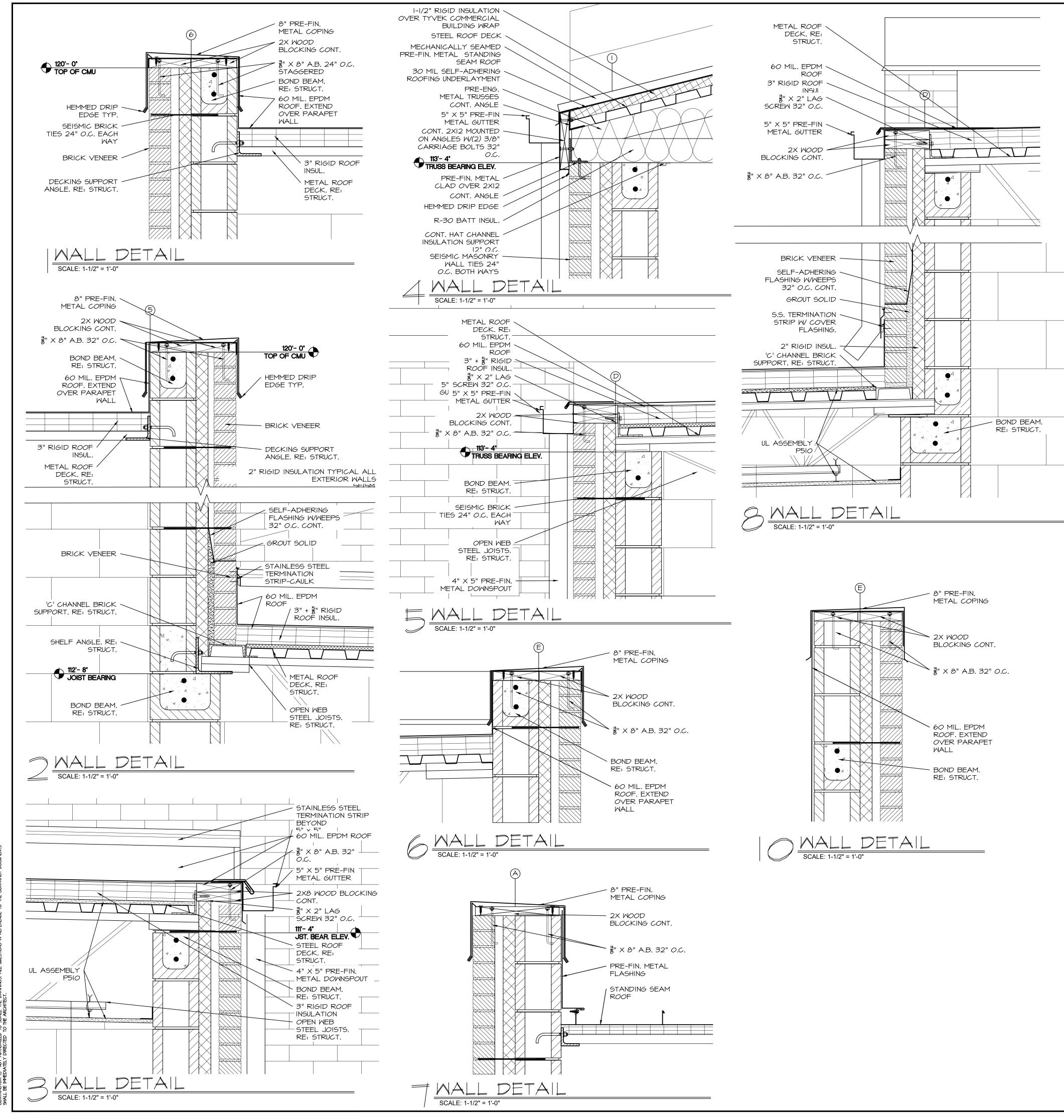
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	OVER 8" C.M.U TYPICAL - ALL EXTERIOR WALLS -
	SEISMIC MASONRY
5	<b>T.O.S</b> .
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	STONE
	FACED C.M.U.
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	SHEET FLASHING W/WEEP HOLES 32"
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9-5-9-5-9	CONC. SPLASH BLOCK @ ALL DOWNSPOUT



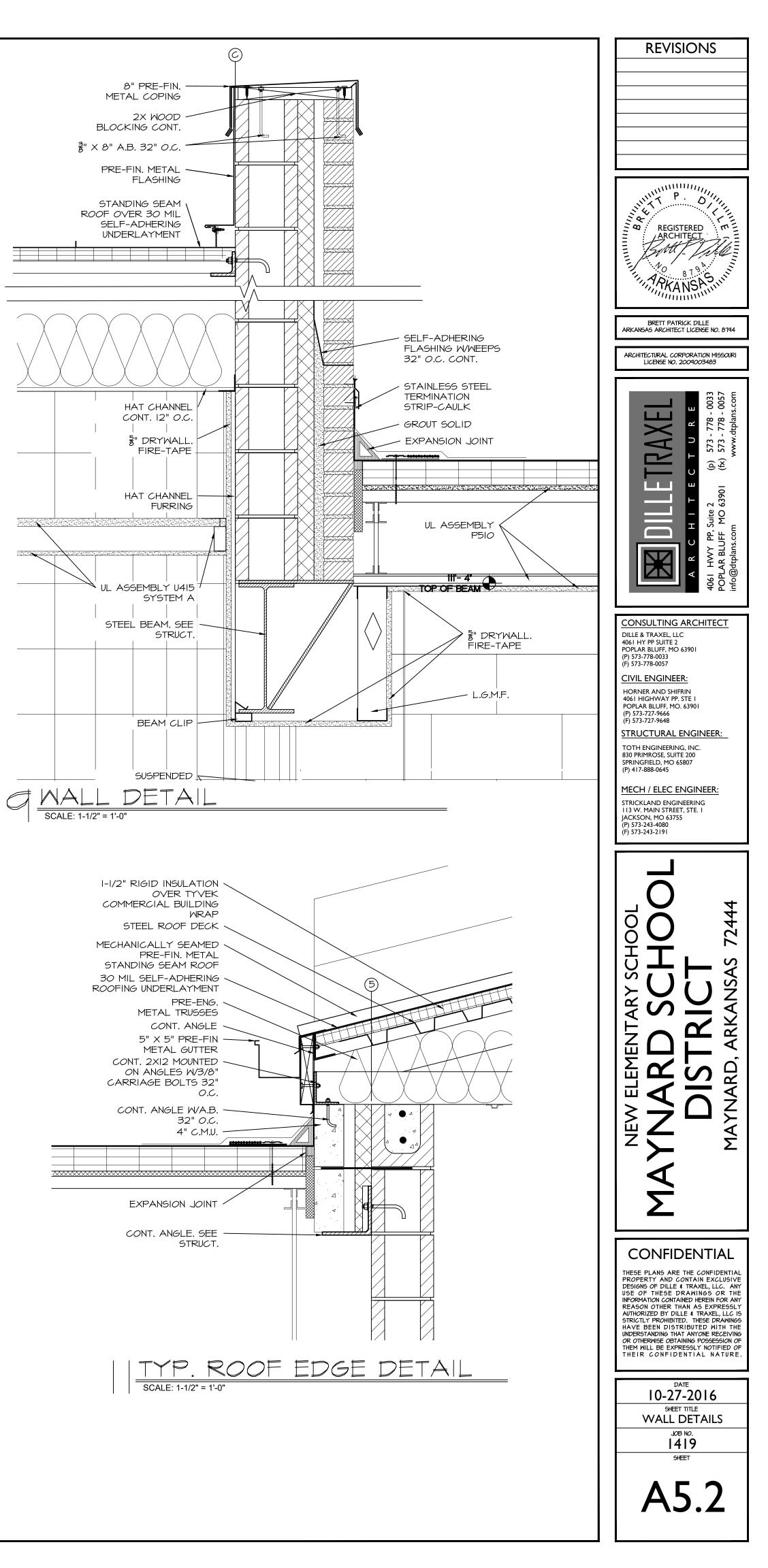
 $\frac{\text{MALL SECTION}}{\text{SCALE: 3/4" = 1'-0"}}$ 

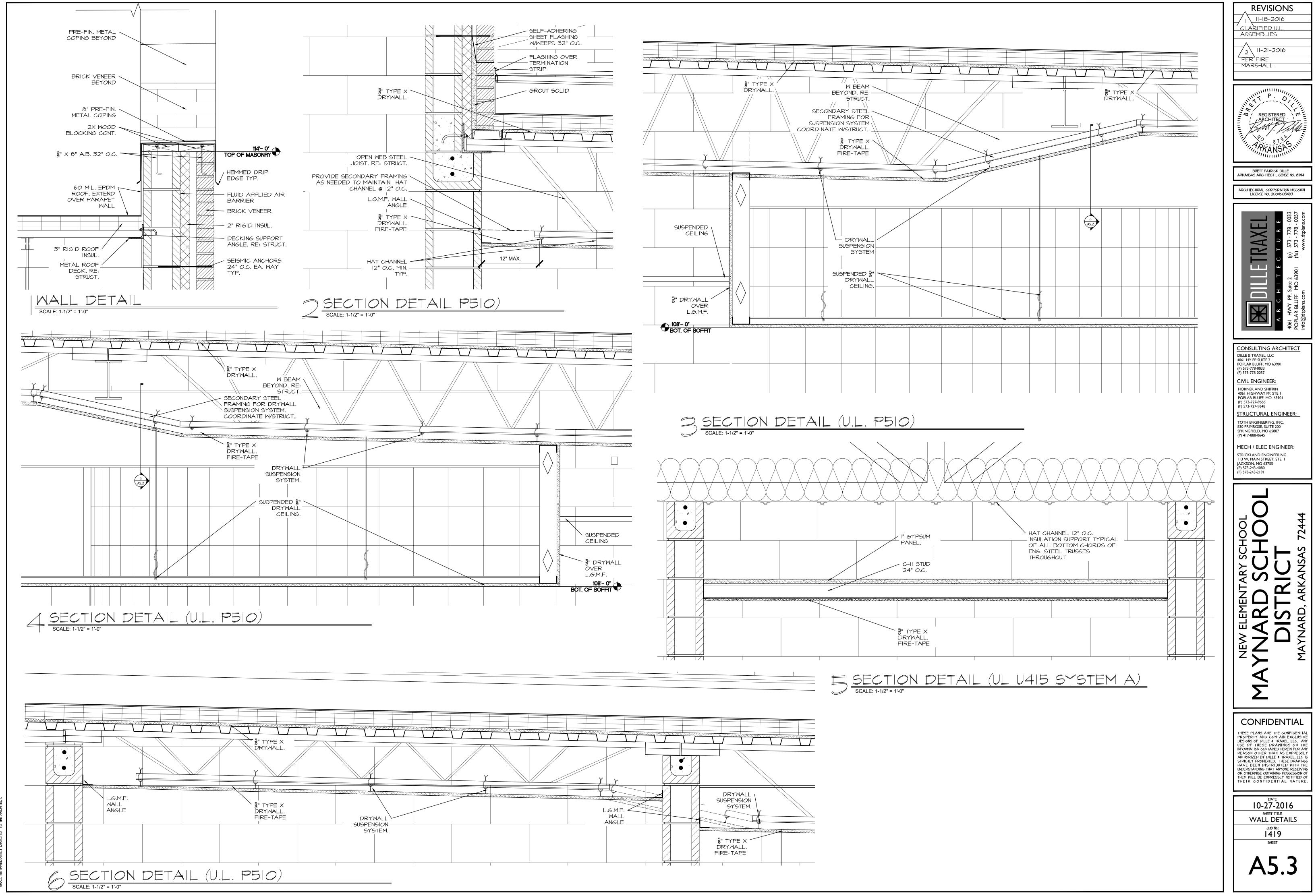


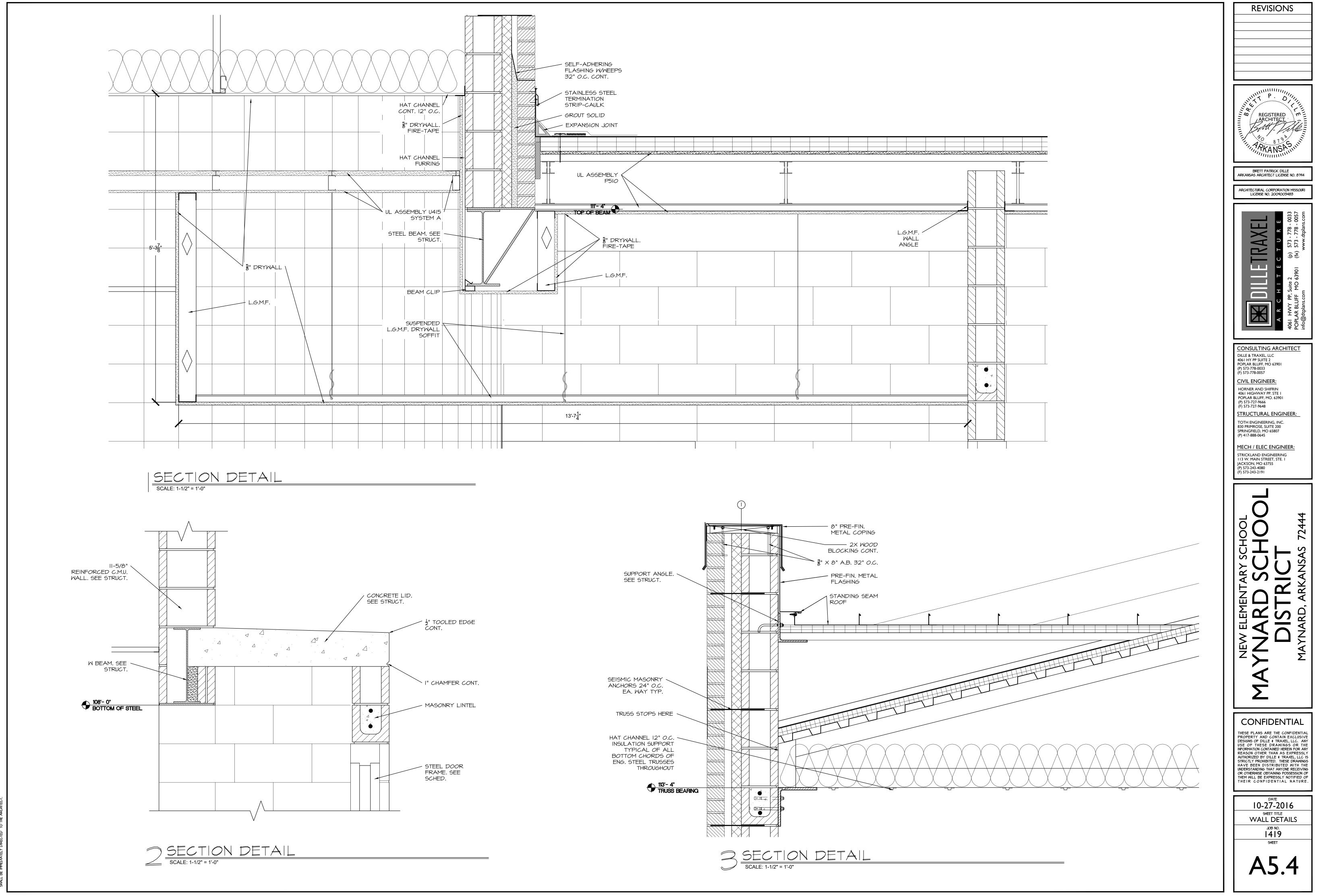




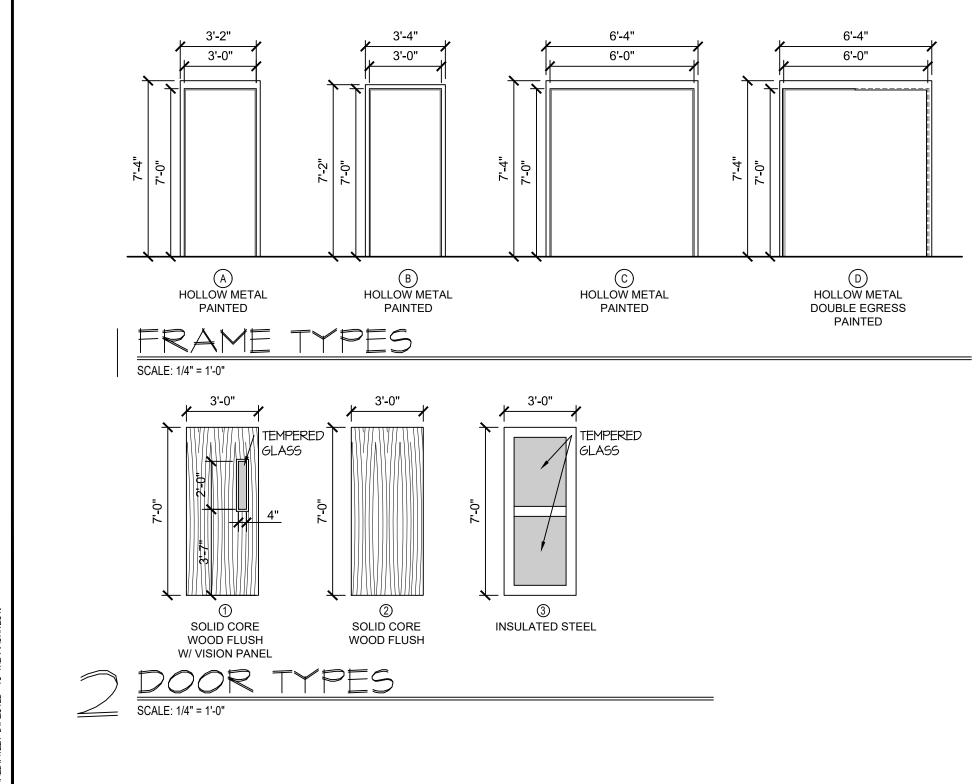
schittett in event of discrepancies, omissions, and/or conflicts in the dramings or specifications. Tor 15 Not Authorized to scale the dramings, all questions in reference to the contract docum immediately discred to the architect



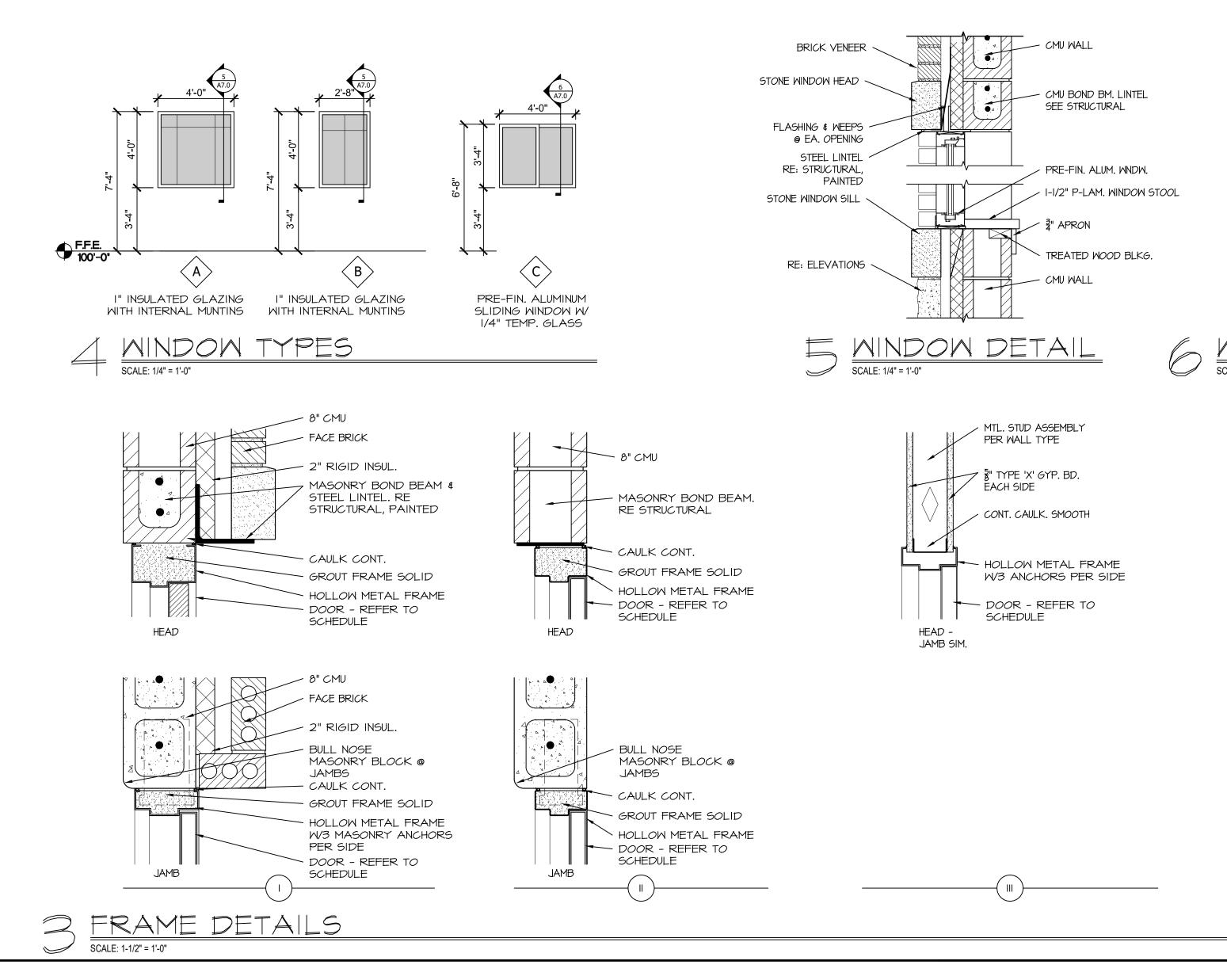


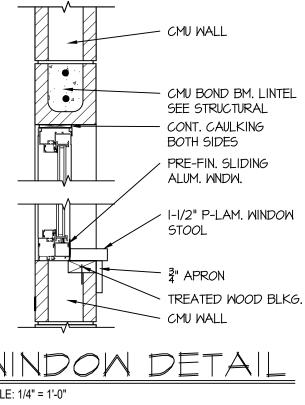


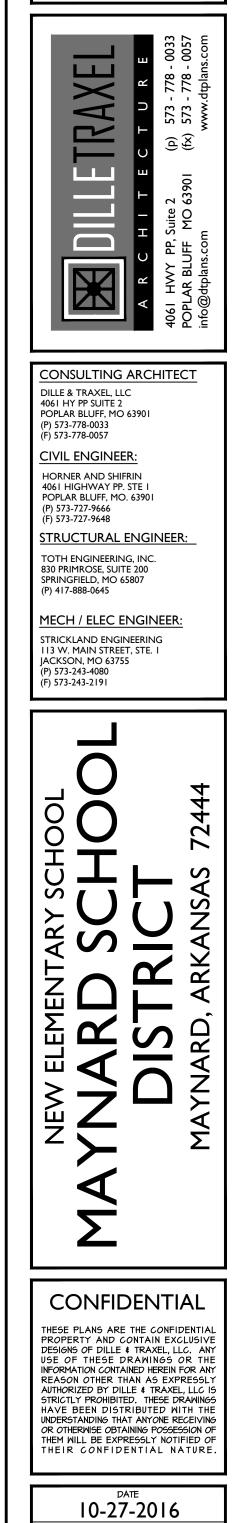
LOCATION			FRAM	ſΕ			DOC	2R					HDWR #	NOTES
NO.	ROOM	FIRE	TYPE	DETAIL	MTRL	FINISH	M. H	HT.	TYPE	MTRL	THK.	FIN.	NO.	
1 <i>00-</i> A	CLASSROOM	20 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	l	WOOD	3/4"	STAIN	3.0	
1 <i>0</i> 1-A	CLASSROOM	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
102-A	CLASSROOM	20 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
103-A	CLASSROOM	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
104-A	CLASSROOM	20 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
105-A	CORRIDOR		C	I	HM	PAINT	PR. 3'-0" 7	1'-0"	З	STL	3/4"	PAINT	1.0	
106-A	CLASSROOM	20 MIN.	A	II	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
107-A	READING RM. STORAGE		A	II	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
108-A	MECH/ELEC.	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	5.0	
109-A	READING ROOM	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	1	WOOD	3/4"	STAIN	3.0	
11 <i>0-</i> A	COMPUTER LAB	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
III-A	CUSTODIAN CLOSET	20 MIN.	F		HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	5.0	
114-A	ENTRY LOBBY		С	II	HM	PAINT	PR. 3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	9.0	BUZZ THROUGH ACCESS, MAGNETIC HO
114-B	ENTRY LOBBY		С	I	HM	PAINT	PR. 3'-0" 7	1'-0"	З	STL	3/4"	PAINT	1.0	
115-A	RECEPTION	20 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	3.0	
117-A	TOILET	20 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	2.0	
118-A	TOILET		В		HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	2.0	
119-A	CORRIDOR	90 MIN.	C	П	HM	PAINT	PR. 3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	8.0	DOUBLE EGRESS MAGNETIC HOLD-OF
120-A	MULTI-P STORAGE	90 MIN.	A	П	HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	5.0	
121-A	MAIL/WORK/COPY		В		HM	PAINT	3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	7.0	
122-A	PRINCIPAL		В		HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	7.0	
123-A	FINE ARTS STORAGE		C		HM	PAINT	PR. 3'-0" 7	1'-0"	2	WOOD	3/4"	STAIN	4.0	
124-A	MULTI-PURPOSE	20 MIN.	A	11	HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	6.0	
l24-B	MULTI-PURPOSE	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"	I	WOOD	3/4"	STAIN	6.0	
125-A	FINE ARTS ROOM	20 MIN.	A		HM	PAINT	3'-0" 7	1'-0"		WOOD	3/4"	STAIN	6.0	
126-A	CORRIDOR		D	l	HM	PAINT	PR. 3'-0" 7	1'-0"	3	STL	3/4"	PAINT	1.0	

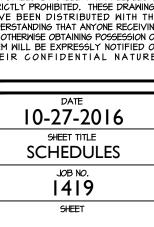


IO. IOO IOI IO2 IO3	ROOM NAME CLASSROOM		DYED CONCRETE	5 FLOORING & BASE	4" VINYL BASE	A BASE DUS BASE	- PAINT LATEX	EPOXY	<u>+</u> 	MAINI X 7 I AY-IN	4 LAY-IN		G	
100 101 102	NAME CLASSROOM	CARPET	ЯÜ	S FLOORING &			- PAINT			Σ́ ×	K 4 LAY-IN	¥		
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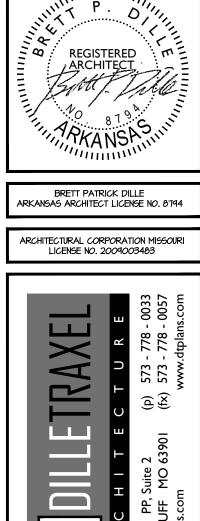




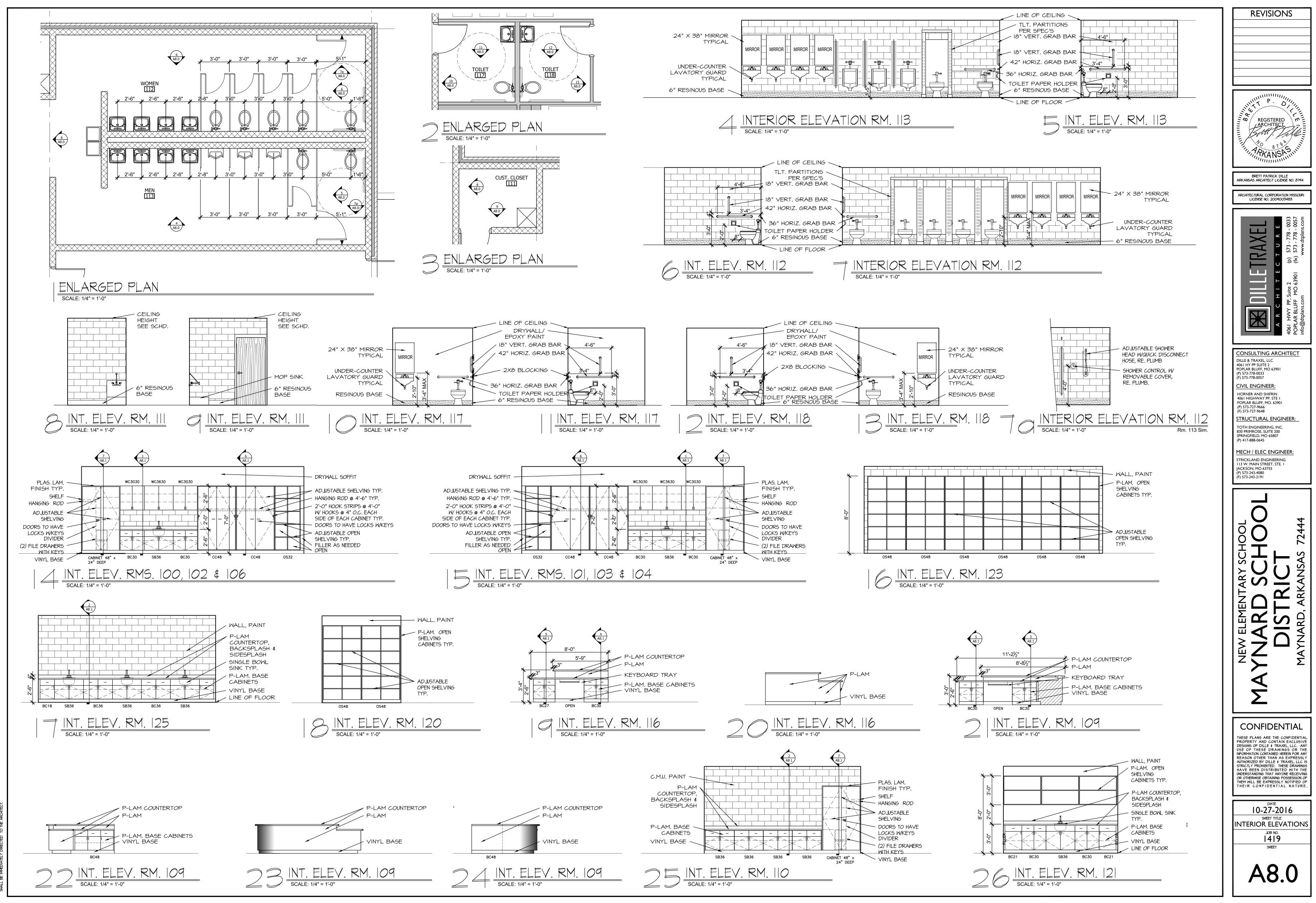


 $\int \frac{\text{MINDOW DETAIL}}{\text{SCALE: 1/4" = 1'-0"}}$ 

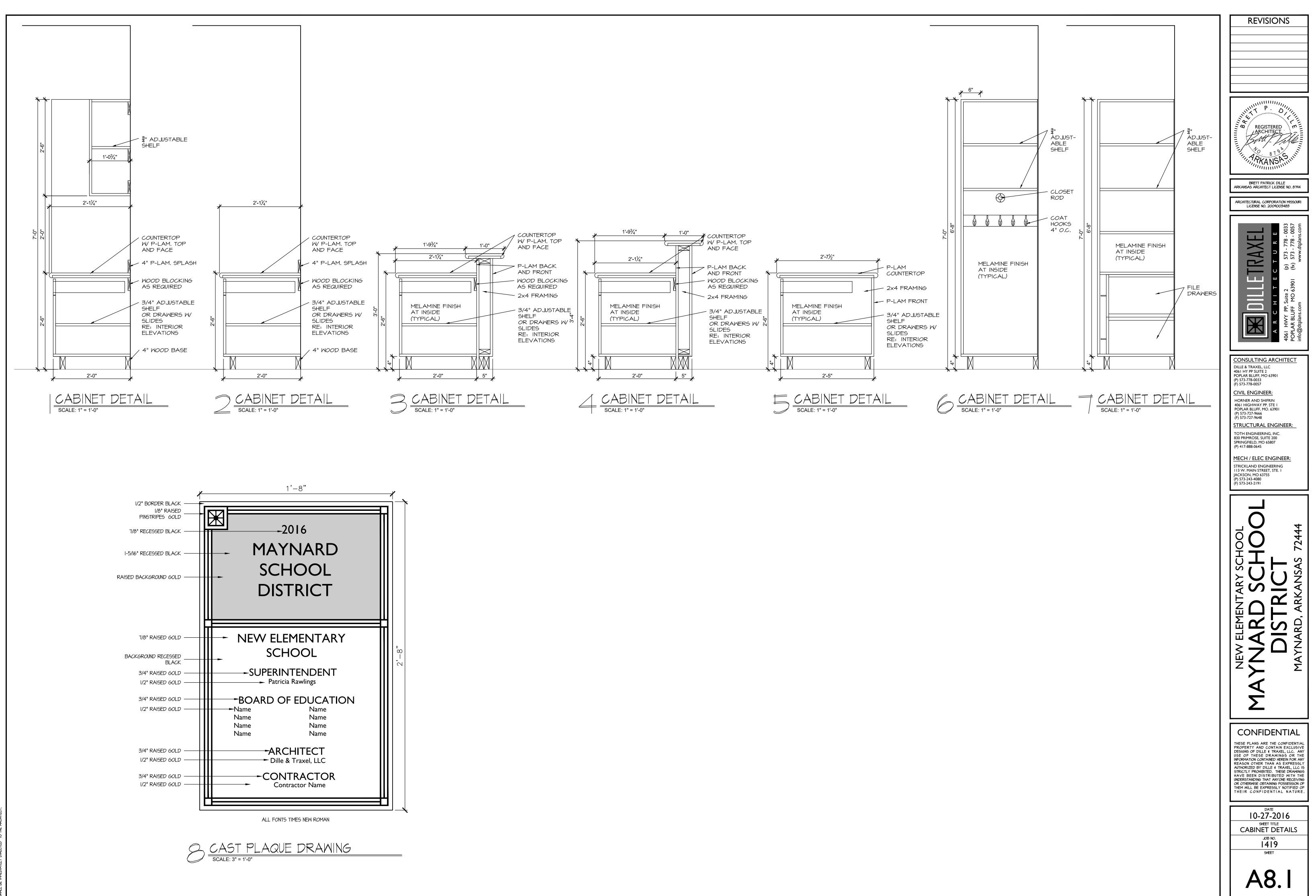
- 1-1/2" P-LAM. WINDOW



REVISIONS



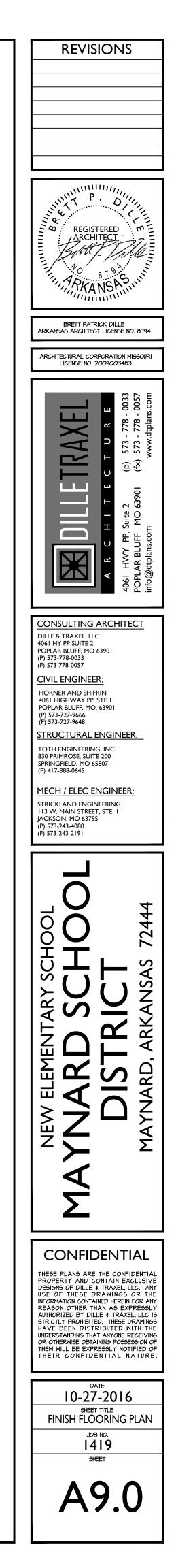
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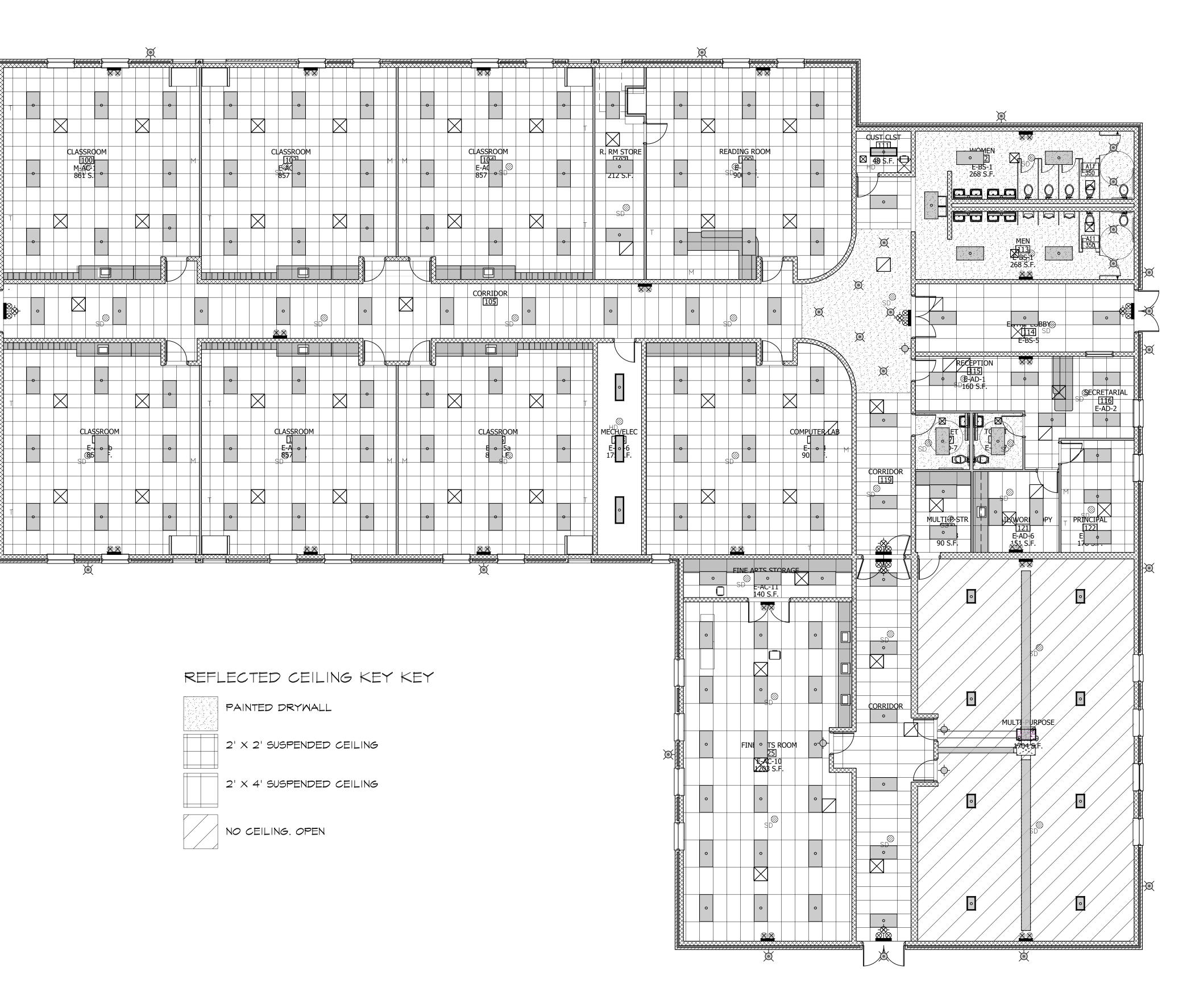


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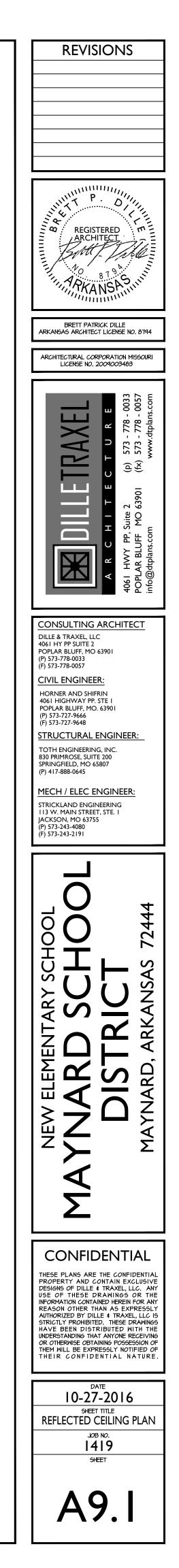












COLD FORMED STEEL FRAMING NOTES

### CONCRETE NOTES

MAY ALSO BE USED.

ADDITIONAL INFORMATION.

STANDARD PRACTICE "

STRENGTH.

SPECIFICATIONS.

- 1. DESIGN OF COLD-FORMED STEEL STRUCTURAL LOAD BEARING AND NON-LOAD BEARING AND NON-STRUCTURAL MEMBERS AND THEIR CONNECTIONS SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. SUBMIT SHOP DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT STATE REVIEW OF SHOP DRAWINGS SHALL BE FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS REGARDING ARRANGEMENT AND SIZES OF MEMBERS AND THE CONTRACTOR'S INTERPRETATION OF THE DESIGN LOADS AND CONTRACT DOCUMENT DETAILS. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE DESIGN OF THE COLD-FORMED STEEL STRUCTURAL MEMBERS AND THEIR CONNECTIONS
- COLD-FORMED STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH AISI "SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" OR "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR COLD-FORMED STEEL STRUCTURAL MEMBERS"
- WELDING OF COLD-FORMED STEEL SHALL BE IN ACCORDANCE WITH THE STANDARD CODE OF ARC AND GAS WELDING IN BUILDING CONSTRUCTION. 4. SPLICES IN AXIALLY LOADED STUDS AND FLOOR OR ROOF JOISTS SHALL NOT BE PFRMITTED
- 5. COLD-FORMED STEEL STRUCTURAL MEMBERS MAY BE ATTACHED BY EITHER WELDS OR SCREWS SIZED BY THE MANUFACTURER FOR THE SPECIFIED DESIGN LOADS. SEE THE SPECIFICATIONS. 6 CONTRACTOR SHALL FURNISH COMPLETE FABRICATION AND ERECTION
- DRAWINGS FOR REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO THE COMMENCEMENT OF FABRICATION. INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE SUPPLEMENTAL STRAPPING. BRACING. SPLICES. BRIDGING, ACCESSORIES AND DETAILS REQUIRED FOR PROPER INSTALLATION.
- AXIALLY LOADED BEARING STUDS SHALL BE POSITIONED SUCH THAT THE STUD LOCATION IS DIRECTLY UNDER THE JOIST BEARING POINT UNLESS NOTED OTHERWISE IN THE STRUCTURAL DOCUMENTS. 8. AT A MINIMUM FULL HEIGHT DOUBLE STUDS SHALL BE PROVIDED AT THE ENDS OF PARTITIONS, AT WALL OPENINGS, BENEATH BAR JOISTS OR STEEL BEAMS
- BEARING ON THE WALL, AND AT OTHER LOCATIONS AS INDICATED ON THE DRAWINGS. PROVIDE A MINIMUM OF ONE JACK STUD AT ALL OPENINGS IN ADDITION TO FULL HEIGHT STUDS 9. PROVIDE MINIMUM 14 GAGE TRACK AT THE TOP AND BOTTOM OF STUD WALLS,
- AND AS HEADERS FOR STUD WALLS. 10. PROVIDE DEFLECTION TRACK OR DEFLECTION CLIPS AT ALL INTERIOR FLOOR OR ROOF FRAMING OR STEEL DECK TO ALLOW FOR DEFLECTION OF FLOORS AND

### SLAB ON GRADE GENERAL NOTES:

- 1. REINFORCE SLAB ON GRADE WITH WWR 6X6 W2.9XW2.9 (IN SHEETS). LOCATE WWR IN TOP THIRD OF SLAB PROVIDE BOLSTERS CHAIRS OR OTHER MEANS APPROVED IN WRITING BY THE ENGINEER TO PROPERLY LOCATE REINFORCING. CHAIR SPACING SHALL NOT EXCEED 2' - 0" OC 2. SLAB ON GRADE INSIDE THE BUILDING STRUCTURE SHALL BE SUPPORTED ON A 6"
- DRAINAGE COURSE. DRAINAGE COURSE SHALL BE AS FOLLOWS: COURSE OF CLEAN WASHED GRANULAR MATERIAL PLACED TO CUT OFF UPWARD CAPILLARY FLOW OF GROUND WATER, OR TO PROVIDE A STABLE BASE FOR PIPES OR OTHER STRUCTURES. MATERIAL SHALL BE WASHED, EVENLY GRADED MIXTURE OF CLEAN CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL, ASTM D 448,
- COARSE AGGREGATE GRADING SIZE 57, WITH 100 PERCENT PASSING A 1-1/2 INCH SIEVE AND NOT MORE THAN 5 PERCENT PASSING A NO. 8 SIEVE PROVIDE MINIMUM 15 MIL VAPOR BARRIER TO BE LOCATED BELOW THE SLAB AND ABOVE THE DRAINAGE COURSE AND SHALL BE INSTALLED PER MANUFACTURER'S
- RECOMMENDATIONS AND THE PROJECT SPECIFICATIONS 4. ALL CONCRETE SLABS SHALL BE SAW CUT AS SOON AS THE CONCRETE WILL SUPPORT THE SAWING EQUIPMENT AND DOES NOT RAVEL DURING THE SAWING OPERATION. ALL SAW CUTTING SHALL BE DONE THE SAME DAY THE CONCRETE IS
- PLACED. REFERENCE CONCRETE SLAB JOINT DETAIL FOR ADDITIONAL INFORMATION 5. ALL CONCRETE FLAT WORK SHALL BE COVERED IMMEDIATELY FOLLOWING SAW CUTTING AND MAINTAINED CONTINUOUSLY WET FOR A MINIMUM OF SEVEN DAYS AFTER PLACING. CURING SHEETS SHALL BE USED AND ARE TO REMAIN IN PLACE
- DURING THIS PERIOD. ALTERNATE CURING METHODS MAY BE USED AS DEFINED IN THE PROJECT SPECIFICATIONS. 6. CONSTRUCTION JOINTS ARE TO BE LOCATED AT A MAXIMUM OF 150'-0" ON CENTER. EVERY ATTEMPT SHALL BE MADE TO TERMINATE CONSTRUCTION JOINTS AT CONCRETE ISOLATION BLOCKOUTS. CONSTRUCTION JOINTS SHALL BE LOCATED SUCH THAT THEY ARE A MINIMUM OF 5'-0" FROM ANY PARALLEL
- CONTRACTION JOINT CONTRACTION JOINTS ARE TO BE LOCATED AT A MAXIMUM OF 12'-0" ON CENTER. AND SHALL FORM NEARLY SQUARE SHAPES. EVERY ATTEMPT SHALL BE MADE TO LOCATE CONTRACTION JOINTS SUCH THAT THE TERMINATE AT CONCRETE ISOLATION BLOCKOUTS. JOINTS SHALL ALSO BE PLACED AT EDGES OF ALL
- HICKENED SLAB FOOTINGS. 8. CONTRACTOR SHALL SUBMIT LAYOUT OF ALL CONCRETE SLAB JOINTS TO
- ARCHITECT FOR REVIEW A MINIMUM OF THREE WEEKS PRIOR TO SLAB PI ACEMENT PROVIDE JOINT FILLER AT THE INTERFACE OF ALL WALL AND SLAB JOINTS.
- ). REFERENCE SLAB OPENING REINFORCING DETAIL AND REENTRANT CORNER REINFORCING DETAILS FOR SLAB REINFORCING REQUIREMENTS AT OPENINGS AND REENTRANT CORNERS.

### RE-ENGINEERED LIGHT GAGE TRUSS NOTES

- 1. GENERAL TRUSS LAYOUTS HAVE BEEN PROVIDED ON THE ROOF FRAMING PLANS FOR THE STRUCTURE. THE LAYOUTS HAVE BEEN PROVIDED TO SHOW THE DESIGNERS INTENT FOR LOAD TRANSFER INTO THE SUPPORTING STRUCTURE BELOW THE ROOF LINE ANY MODIFICATIONS TO THE TRUSS LAYOUT SHALL BE APPROVED BY THE ENGINEER OF RECORD. ANY MODIFICATIONS OF THE LAYOUT MAY RESULT IN SUPPORT STRUCTURE MODIFICATIONS INCLUDING BUT NOT LIMITED TO CONNECTIONS, WALL FRAMING AND BUILT-UP COLUMNS.
- TRUSS MANUFACTURER SHALL ADJUST SPACING OR PROVIDE ADDITIONAL BLOCKING FOR HIP ROOF SECTIONS TO MAINTAIN A 48" +/-6" MAX SPAN FOR ROOF 3. MAXIMUM LIVE LOAD DEFLECTION SHALL NOT EXCEED L/360. MAXIMUM TOTAL
- LOAD DEFLECTION SHALL NOT EXCEED L/240 4. CEILINGS WERE NOT DESIGNED TO BRACE TRUSS BOTTOM CHORDS. TRUSS
- MANUFACTURER SHALL DESIGN PERMANENT BOTTOM CHORD BRIDGING. REQUIRED BRACING, BLOCKING, BRIDGING, WEB STIFFENERS FOR TRUSSES IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE INCLUDED IN THE SHOP DRAWINGS, AND SHALL BE IN PLACE PRIOR TO DECK INSTALLATION. 6. PROVIDE HURRICANE OR SEISMIC TIES AT TRUSS ENDS ADEQUATE TO TRANSFER
- UPLIFT LOADS TO THE SUPPORTING MEMBERS. GIRDER TRUSS CONNECTIONS SHALL BE PROVIDED WITH METAL CONNECTIONS CAPABLE OF TRANSFERRING LOAD TO SUPPORTING MEMBERS 7. TRUSS DESIGNER SHALL DESIGN AND DETAIL ALL TRUSS TO TRUSS CONNECTIONS
- AND TRUSS TO SUPPORTING MEMBER. GENERAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION, LOADS, AND SPACE REQUIREMENTS OF ALL TRUSS MOUNTED EQUIPMENT. TRUSS MANUFACTURER SHALL DESIGN, MANUFACTURE, AND IDENTIFY TRUSSES TO
- CARRY SAID LOADS. 9. SHOP DRAWINGS AND CALCULATIONS FOR TRUSSES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED 10. TRUSS LOADING SHALL BE AS DEFINED IN THE CODE STUDY FOR THE DESIGN OF THE ROOF TRUSS SYSTEM AND IS THE MINIMUM REQUIRED LOADING. TRUSS MANUFACTURER IS RESPONSIBLE FOR PROVIDING A COMPLETE SYSTEM MEETING

ALL THE LOADING REQUIREMENTS OF THE LATEST VERSION OF THE

INTERNATIONAL BUILDING CODE.

### FOUNDATION NOTES

- MINIMUM BEARING DEPTH IS 30" BELOW ADJACENT FINISHED GRADE. THICKENED
- FOUNDATIONS FROM FROST.
- BARS AT ALL CORNERS AND INTERSECTIONS UNO. REFER TO CORNER BAR DFTAII WALL IS PERMANENTLY BRACED.
- FOR ACCEPTABLE FILL MATERIAL AND COMPACTION REQUIREMENTS
- THE CONTRACTOR
- PLANE BEFORE PLACING CONCRETE.
  - CONDITIONS ARE VERIFIED BY TESTING.

SHOP DRAWINGS SHALL BE SUBMITTED INDICATING COMPLETE INFORMATION REQUIRED FOR CONSTRUCTION OF THE REINFORCED CONCRETE ELEMENTS. SHOP DRAWINGS SHALL INCLUDE LAYOUT AND DIMENSIONS OF REINFORCING INCLUDING ANY OPENINGS, CONVENTIONAL REINFORCEMENT DETAILS, CONNECTION DETAILS. PROCEDURES AND SEQUENCES ETC. REINFORCING BAR DETAILING, FABRICATING, AND PLACING SHALL CONFORM TO

THE "ACI STANDARD: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315) AND THE "MANUAL OF ENGINEERING AND PLACING DRAWINGS FOR REINFORCED CONCRETE STRUCTURES" (ACI 315R) BY THE AMERICAN CONCRETE INSTITUTE. THE MOST CURRENT EDITIONS OF CONCRETE REINFORCING STEEL INSTITUTE'S "REINFORCING BAR DETAILING" AND "PLACING REINFORCING BARS" REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615.

REINFORCING SHALL BE GRADE 60 (FY=60 KSI) DEFORMED BARS FOR ALL BARS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ALL REINFORCING TO BE WELDED SHALL BE ASTM A706. GRADE 60 LOW ALLOY WELDABLE STEEL WELDING OF REINFORCING BARS. METAL INSERTS, AND CONNECTIONS SHALL CONFORM TO AMERICAN WELDING SOCIETY'S AWS D1.4 - STRUCTURAL WELDING CODE, AND SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE STRAIGHTENED AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS

SPECIFICALLY NOTED OTHERWISE. REINFORCING BAR SPACING SHOWN ON PLANS ARE AT MAXIMUM ON CENTERS ALL BARS SHALL BE DETAILED AND PLACED PER CONCRETE REINFORCING STEEL INSTITUTE (CRSI) SPECIFICATIONS AND HANDBOOK. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE

WELDED WIRE REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A185. LAPS IN WELDED WIRE REINFORCING SHALL BE MADE SUCH THAT THE OVERLAP, MEASURED BETWEEN OUTERMOST CROSS WIRE OF EACH SHEET, IS NOT LESS THAN THE SPACING OF CROSS WIRES PLUS 2 INCHES. ALL CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED IN THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE ENGINEER. ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON SHOP DRAWINGS FOR REVIEW BY THE ENGINEER OF RECORD. REFER TO SLAB ON GRADE GENERAL NOTES FOR

MECHANICAL SPLICE COUPLERS, FLANGE COUPLERS, THREADED COUPLERS, ETC. SHALL HAVE CURRENT ICBO APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE STRENGTH OF THE BAR. 10. PROVIDE BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING SUPPORTING AND FASTENING REINFORCING BARS AND WEI DED WIRE REINFORCEMENT IN PLACE MANUFACTURE BAR SUPPORTS FROM STEEL WIRE, PLASTIC, OR PRECAST CONCRETE ACCORDING TO CRSI'S "MANUAL OF

11. PROVIDE TEMPORARY SHORING AND BRACING OF ALL STRUCTURAL AND MISCELLANEOUS ELEMENTS UNTIL CONCRETE HAS OBTAINED 80% OF DESIGN

PROVIDE CONTROL JOINTS IN RETAINING WALLS AT 20 FEET TO 25 FEET ON CENTER OR AS INDICATED ON DRAWINGS. ALL BELOW GRADE CONSTRUCTION JOINTS SHALL HAVE A CONTINUOUS PVC BARBELL WATERSTOP CAST INTEGRALLY INTO THE JOINT. REFER TO

WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER, OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING UNO. PROVIDE MINIMUM 3" COVER FOR ANCHOR BOI TS AND LOCATE HORIZONTAL REINFORCEMENT TO THE OUTSIDE FOR ANCHOR BOI T CONTAINMENT UNO WHERE DOWELS. BOLTS. OR INSERTS ARE CALLED TO BE ANCHORED TO CAST IN PLACE OR PRE-CAST CONCRETE ELEMENTS USING EPOXY ADHESIVES, USE "HILTI" HIT RE 500 INJECTION ADHESIVE. (ALTERNATE ANCHORAGE SYSTEMS MAY BE USED WITH ENGINEER'S PRIOR APPROVAL). FOLLOW ALL MANUFACTURER'S

INSTALLATION RECOMMENDATIONS. 17. TESTING OF FRESH CONCRETE SHALL BE DONE BY A QUALIFIED TESTING LABORATORY. TESTS SHALL INCLUDE SLUMP, AIR CONTENT, CONCRETE TEMP AND 28 DAY COMPRESSIVE STRENGTH. TESTS SHALL BE PERFORMED FOR EACH SET OF COMPRESSIVE STRENGTH CYLINDERS CAST. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

FLY ASH MAY BE USED AS A ONE TO ONE REPLACEMENT UP TO 20% FOR THE TOTAL CEMENT CONTENT AS LONG AS THE AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT. FLY ASH SHALL BE CLASS C CONFORMING TO ASTM C 618. 19. ALL CONCRETE EXPOSED TO FREEZING SHALL BE AIR ENTRAINED. AIR CONTENT OF FRESH CONCRETE SHALL BE 5-7%.

20. NO LIME SAND FINE AGGREGATE MAY BE USED IN CONCRETE EXPOSED TO WEATHER VIEW OR IN HORIZONTAL APPLICATIONS 21. IF ADDITIONAL FLOWABILITY IS REQUIRED FOR PLACEMENT OF ANY CONCRETE MIX. A WATER-REDUCING ADDITIVE CONFORMING TO ASTM C494, TYPE A. D. E. OR F SHALL BE USED. NO ADDITIONAL WATER MAY BE ADDED TO THE MIX AT THE SITE. SLUMP FOR CONCRETE CONTAINING WATER-REDUCING OR HIGH-RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 8" AFTER ADMIXTURE IS INCORPORATED INTO CONCRETE WITH A 2"-4" SLUMP 22. DO NOT AIR ENTRAIN CONCRETE TO BE USED FOR FLOORS WITH A TROWELED FINISH. AT SUCH LOCATIONS ENTRAPPED AIR CONTENT SHALL NOT EXCEED 3%.

23. WHEN PLACING CONCRETE IN HOT WEATHER, REFER TO ACI 305R. WHEN PLACING CONCRETE IN COLD WEATHER, REFER TO ACI 306.1. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION. 24. LEAN CONCRETE: MIN 2 1/2 SACKS PORTLAND CEMENT PER CUBIC YARD. 25. REFERENCE TABLE BELOW FOR CONCRETE DESIGN PROPERTIES.

CONCRETE DESIGN PROPERTIES						
USE	28-DAY f'c	SLUMP	MAX W/C	AIR		
FOOTING FOUNDATION WALLS INTERIOR SOG EXTERIOR SOG	4000 PSI 4000 PSI 4000 PSI 4000 PSI	4"+/-1" 4"+/-1" 4"+/-1" 4"+/-1"	0.45 0.45 0.45 0.45	1-3% 5-7% 1-3% 5-7%		

THIS PROJECT CONSISTS OF ADDITIONS AND MODIFICATIONS TO EXISTING FACILITIES. INFORMATION DEPICTED ON THE DRAWINGS WAS TAKEN FROM ORIGINAL DESIGN DRAWINGS. WHICH WERE ASSUMED TO BE "AS-BUILT" DRAWINGS. SINCE EXISTING CONDITIONS WERE NOT ACCESSIBLE AND FIELD OBSERVATION OF EXISTING CONDITIONS IS BEYOND THE ENGINEER'S SCOPE OF WORK DURING DESIGN OF THE PROJECT. THE ACCURACY OF THIS INFORMATION HAS NOT BEEN VERIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING DIMENSIONS AND THE LOCATION OF ALL FRAMING MEMBERS AND OTHER OBSTRUCTIONS THAT MAY AFFECT HIS WORK. AS PART OF HIS WORK. THE CONTRACTOR SHALL PREPARE AN ACCURATE FIELD SURVEY OF THE LOCATION OF ALL STRUCTURAL MEMBERS AND OTHER OBSTRUCTIONS IN THE WORK AREA PRIOR TO BEGINNING SHOP DRAWINGS AND CONSTRUCTION ACTIVITIES. THE SURVEY SHALL BE SUBMITTED TO THE ARCHITECT WITH ANY VARIANCES NOTED. CLAIMS FOR ADDITIONAL TIME OR COST DUE TO OBSTRUCTIONS AND VARIANCES IN THE LOCATION OF THE STRUCTURAL MEMBERS WILL NOT BE HONORED AFTER WORK HAS BEGUN.

REFERENCE THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY TERRACON, INC DATED OCTOBER 21, 2014 FOR ADDITIONAL SITE DEVELOPMENT REQUIREMENTS NOT INCLUDED IN THESE NOTES. THE REPORT SHALL BE CONSIDERED A PART OF THE CONTRACT DOCUMENTS ALL FOOTINGS SHALL BEAR ON AND BE FORMED BY CLEAN. UNDISTURBED, VIRGIN. NON-ORGANIC SOIL OR CONTROLLED ENGINEERED FILL WITH A MINIMUM NET BEARING CAPACITY OF 2000 PSF. EXISTING FILL AND UNSUITABLE SOILS SHALL BE REMOVED DOWN TO NATURAL SOIL UNDERNEATH AND AT LEAST 5 FEET BEYOND THE BUILDING FOOTPRINT AND REPLACED OR RECOMPACTED IF SUITABLE. 3. EXTERIOR FOOTINGS SHALL BEAR AT OR BELOW MINIMUM BEARING DEPTH.

SLAB EDGES FOR STOOPS, CANOPIES, ETC. SHALL BE 24 INCHES DEEP, UNO. STANDARD PROCEDURES OF FROST PROTECTION FOR FOUNDATIONS AND EXCAVATIONS SHALL BE EMPLOYED FOR WINTER CONSTRUCTION. BACKFILLING OF EXCAVATIONS SHALL BE DONE AS SOON AS POSSIBLE TO PROTECT ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE. HORIZONTAL BARS IN FOUNDATIONS SHALL BE CONTINUOUS. PROVIDE CORNER

FOUNDATION WALLS SHALL HAVE TEMPORARY BRACING BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL

FOUNDATION PENETRATIONS SHALL BE SUBJECT TO APPROVAL BY THE ARCHITECT/ENGINEER. PENETRATIONS SHALL BE THROUGH THE FOUNDATION STEMWALL OR WITH A MINIMUM OF 6" COVER BELOW FOOTING. IN THE AREA OF THE BUILDING, EXISTING ORGANIC MATERIAL, UNSUITABLE SOIL, ABANDONED FOOTINGS, AND ANY OTHER EXISTING UNSUITABLE MATERIALS SHALL BE REMOVED. REFERENCE THE GEOTECHNICAL ENGINEERING REPORT

10. AFTER STRIPPING SITE AND PRIOR TO PLACEMENT OF ANY FILL, NOTIFY THE OWNERS REPRESENTATIVE FOR INSPECTION OF SOIL CONDITIONS. INSPECTION SHALL INCLUDE PROOF ROLLING THE SITE WITH HEAVY EQUIPMENT PROVIDED BY 11. DRAINAGE FILL SHALL BE A FREE-DRAINING GRANULAR MATERIAL. USE #57 STONE OR APPROVED EQUAL. REFER TO ASTM D448 FOR GRADATION.

12. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL LOOSE MATERIAL BELOW FOOTINGS SHALL BE REMOVED AND THE SURFACE BROUGHT TO A REASONABLE TRUE AND LEVEL 13. TESTING OF CONTROLLED STRUCTURAL FILL SHALL BE DONE BY A QUALIFIED

TESTING LABORATORY, APPROVED BY THE OWNER 14. AFTER FOOTING EXCAVATIONS HAVE BEEN MADE TO DESIGN ELEVATIONS, THE INDEPENDENT TESTING AGENCY SHALL INSPECT AND TEST THE BEARING MATERIAL. WHEN MATERIAL OF INADEQUATE STRENGTH IS NOTED, THE CONTRACTOR SHALL FURTHER DEEPEN EXCAVATIONS UNTIL SUITABLE BEARING

15. CONTRACTOR IS RESPONSIBLE TO MAINTAIN EXCAVATIONS AND BACKFILL MATERIALS AT AN APPROPRIATE MOISTURE CONTENT FOR PROPER SOIL BEARING CAPACITY AND COMPACTION OF BACKFILL MATERIALS WITH REGARD TO THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEERING REPORT.

STEEL JOIST NOTES

- 1. ALL STEEL JOISTS SHALL BE DESIGNED BY THE JOIST MANUFACTURER. THE MANUFACTURERS ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN, ADEQUACY AND SAFETY OF ALL STEEL JOISTS JOIST DESIGN CALCULATIONS
- SHALL BE SIGNED AND SEALED BY THE MANUFACTURERS ENGINEER. WITH THE ENGINEERS SEAL FOR THE STATE WHERE THE STRUCTURE IS LOCATED ALL STEEL JOISTS SHALL BE DESIGNED FABRICATED AND FRECTED IN ACCORDANCE WITH "THE STANDARD SPECIFICATIONS FOR OPEN STEEL JOISTS K-SERIES (LATEST EDITION)". OR THE "STANDARD SPECIFICATION FOR LONG SPAN STEEL JOISTS, LH-SERIES (LATEST EDITION)", AS APPLICABLE AND JOIST GIRDERS WITH THE STANDARD SPECIFICATIONS FOR JOIST GIRDERS (LATEST EDITION), OF THE STEEL JOIST INSTITUTE (SJI)
- EXCEPT WHERE ADDITIONAL AND/OR SPECIFIC DESIGN LOADS ARE SPECIFIED ON THE STRUCTURAL DRAWINGS, STEEL JOISTS SHALL BE DESIGNED AS SIMPLE SUPPORTED UNIFORMLY LOADED TRUSSES WITH THE TOP CHORD BRACED AGAINST LATERAL BUCKLING. THE UNIFORM DESIGN LOAD SHALL BE THE TOTAL SAFE UNIFORMLY DISTRIBUTED LOAD AS SHOWN ON SJI STANDARD LOAD TABLES. DEFLECTION LIMITS FOR FLOOR JOISTS SHALL BE L/360 FOR LIVE LOADS AND L/240
- FOR TOTAL LOAD. DEFLECTION LIMITS FOR ROOF JOISTS SHALL BE L/360 FOR LIVE LOADS AND L/240 FOR TOTAL LOAD. 6. ALL STEEL JOIST BRIDGING SHALL BE PROVIDED IN ACCORDANCE WITH THE SJI
- SPECIFICATION AND SHALL BE SPECIFIED BY THE JOIST MANUFACTURER. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE INSTALLED AND STEEL JOIST ENDS FIXED PRIOR TO THE APPLICATION OF ANY LOADS BRIDGING THAT TERMINATES. AT. OR IS INTERRUPTED BY STRUCTURAL STEEL BEAMS OR CONCRETE WALLS SHALL BE ATTACHED THERETO. THE JOIST MANUFACTURER SHALL COORDINATE BRIDGING LOCATIONS TO AVOID INTERFERENCE WITH ALL MECHANICAL,
- ELECTRICAL. AND FIRE PROTECTION EQUIPMENT THE MINIMUM BEARING LENGTH REQUIREMENTS FOR K-SERIES JOISTS SHALL BE 2-1/2" ON STRUCTURAL STEEL AND 4" ON STEEL BEARING PLATES OVER CONCRETE OR CMU UNO. K-SERIES JOISTS SHALL BE ATTACHED TO SUPPORTING STEEL MEMBERS OR
- STEEL BEARING PLATES WITH (2)-3" LONG 1/8" FILLET WELDS (ONE EACH SIDE) OR WITH (2) 1/2" DIAMETER BOLTS. . LH-SERIES JOISTS AND JOIST GIRDERS SHALL BE ATTACHED TO SUPPORTING STEEL MEMBERS OR STEEL BEARING PLATES WITH (2) 2" LONG 1/4" FILLET WELDS (ONE EACH SIDE) OR WITH (2) 3/4" DIAMETER BOLTS UNC 10. STEEL JOISTS AT COLUMN CENTER LINES SHALL BE BOLTED TO THE SUPPORTING STEEL MEMBER WITH TWO BOLTS OF THE SIZE SPECIFIED ABOVE WHERE STEEL JOISTS DO NOT SPACE TO COLUMN CENTER LINES. USE BOLTED CONNECTIONS FOR THE STEEL JOIST CLOSEST TO THE COLUMN WHERE THE DRAWINGS INDICATE THAT THE JOIST SEAT IS TO BE WELDED TO THE SUPPORTING STEEL
- THE BOLTS PROVIDED ARE FOR ERECTION ONLY AND MAY BE REMOVED AFTER WELDING IS COMPLETED. 11. STEEL JOISTS AT COLUMN CENTERLINES SHALL BE PROVIDED WITH A 6"SQx1/2" KNIFE PLATE AT THE BOTTOM CHORD WELDED TO THE COLUMN FOR STABILIZATION. JOIST CHORD SHALL NOT BE WELDED TO THE PLATE.
- 12. HOLES IN STEEL JOIST CHORDS ARE NOT PERMITTED, EXCEPT FOR THE BOLTED CONNECTIONS AT THE BEARING END OF THE STEEL JOIST, OR WHERE SPECIFIED ON THE DRAWINGS AND SPECIFICALLY DESIGNED FOR BY THE JOIST MANUFACTURER. 13. ALL ITEMS SUCH AS MECHANICAL EQUIPMENT, DUCT WORK, PIPES, CEILING
- SUPPORTS, FIXTURES, DISPLAYS, ETC, WHICH ARE TO BE SUPPORTED BY OR HUNG FROM STEEL JOISTS OR JOIST GIRDERS SHALL BE FRAMED WITH AUXILIARY FRAMING TO THE PANEL POINTS OF THE STEEL JOIST OR JOIST GIRDER WHEN THE CONCENTRATED LOAD EXCEEDS 50 LBS. METHODS OF FRAMING THAT INDUCE BENDING IN THE STEEL JOIST OR GIRDER CHORDS OR WEB MEMBERS WILL NOT BE PERMITTED 14. ADDITIONAL DESIGN LOADS FROM ARCHITECTURAL FEATURES, ROOF TOP UNITS,
- OR ANY OTHER CONCENTRATED LOADS SHOWN ON THE DRAWINGS SHALL BE CONSIDERED AS COLLATERAL LOADS. THESE LOADS SHALL BE CONSIDERED IN THE DESIGN OF THE JOISTS AND JOIST GIRDERS IN ADDITION TO THE SPECIFIED UNIFORM LOADS AND PANEL LOADS. COORDINATE LOCATIONS AND WEIGHTS WITH ARCHITECTURAL AND MEP DRAWINGS. WHERE SUCH LOADS DO NOT OCCUR AT PANEL POINTS OF THE JOIST OR JOIST GIRDERS, AUXILIARY FRAMING SHALL BE ADDED. OR THE TOP CHORD DESIGNED FOR THE EFFECTS OF THE LOAD. CONTRACTOR SHALL COORDINATE JOIST SPACING WITH PENETRATIONS FOR
- MECHANICAL EQUIPMENT OR OTHER ITEMS IN THE CONTRACT DOCUMENTS WHICH MAY CONFLICT WITH JOIST SPACING AS SHOWN. JOISTS MAY BE SHIFTED TO MISS REQUIRED PENETRATIONS – ISOLATED SPACING (NO MORE THAN 2 ADJACENT SPACES) MAY BE INCREASED OR DECREASED BY A MAXIMUM OF 6". ANY ADJUSTMENTS MUST BE SHOWN ON JOIST SHOP DRAWINGS 16. STEEL JOISTS SHALL COMPLY WITH U.L. REQUIREMENTS AS NOTED IN THE CONTRACT DOCUMENTS. INCLUDING MAXIMUM ALLOWABLE STRESSES. MINIMUM
- CHORD SIZES, BRIDGING REQUIREMENTS, COMPATIBLE FINISHES, ETC. SPECIAL JOISTS DESIGNATED AS "SP" JOISTS SHALL BE DESIGNED FOR THE LOADS AND DEFLECTIONS SHOWN IN THE SPECIAL JOIST LOAD DIAGRAMS, LOADING TABLES, AND ADDITIONAL LOADS INDICATED IN THE DRAWINGS. THE CONTRACTOR SHALL VERIFY ANY ADDITIONAL EQUIPMENT LOADINGS BEFORE SUBMITTAL OF SHOP DRAWINGS. ALL DESIGN LOADING SHALL BE SHOWN IN THE JOIST SHOP

## MASONRY GENERAL NOTES

DRAWINGS.

1. COMPRESSIVE STRENGTH OF CONCRETE MASONRY CONSTRUCTION (CMU) SHALL BE AS FOLLOWS: MASONRY STRENGTH NOT SPECIFICALLY NOTED IN PLAN SHALL MASONRY STRENGTH (f'm) = 1500 PSI = 1900 PS

= 1800 PS

- BLOCK STRENGTH MORTAR STRENGTH
- GROUT STRENGTH = 3000 PS 2. CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C90, GRADE N-II. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION UNO, WITH ALL VERTICAL CELLS IN ALIGNMENT. 3. REFER TO ARCHITECTURAL DRAWING FOR BLOCK WEIGHT REQUIREMENTS,
- BLOCK PATTERNS, AND BLOCK TYPES. IF NOT NOTED, BLOCK SHALL BE NORMAL WEIGHT BELOW GRADE AND NORMAL OR LIGHTWEIGHT ABOVE GRADE. 4. MORTAR MIX SHALL CONFORM TO REQUIREMENTS OF TYPE M OR S, TYPE M MORTAR SHALL BE USED WHERE MASONRY IS IN CONTACT WITH SOIL
- USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. ALL MASONRY BELOW FINISHED FLOOR OR GRADE SHALL BE GROUTED SOLID. REFER TO MASONRY DEVELOPMENT AND SPLICE TABLE FOR LAP LENGTHS.
- MINIMUM VERTICAL WALL REINFORCING SHALL BE AS INDICATED IN THE CMU WALL REINFORCING SCHEDULE. IF NOT INDICATED, USE (1) #5 BAR VERTICAL, FULL HEIGHT IN CENTER OF GROUTED CELL AT ALL WALL INTERSECTIONS, CORNERS WALL, ENDS, JAMBS AT WALL OPENINGS, EACH SIDE OF CONTROL JOINTS, AND AT INTERVALS NOT TO EXCEED 40 INCHES ON CENTER. PROVIDE SINGLE WIRE LOOP TIE OR EQUIVALENT BAR POSITIONER AT 8'-0" MAXIMUM VERTICAL INTERVALS. DOWEL ALL VERTICAL REINFORCING TO THE FOUNDATION WITH DOWELS TO MATCH AND LAP WITH VERTICAL WALL REINFORCING.
- 8. MINIMUM HORIZONTAL WALL REINFORCING SHALL BE AS INDICATED IN THE CMU WALL REINFORCING SCHEDULE. IF NOT INDICATED, USE A SINGLE #5 BAR IN CENTER OF AN 8 INCH DEEP CONTINUOUS GROUTED BOND BEAM AT TOP OF PARAPET OR FREE STANDING WALL AND AT 4'-0" INTERVALS. HORIZONTAL REINFORCEMENT SHALL TERMINATE AT CONTROL JOINTS EXCEPT AT FLOOR ROOF, AND TOP OF WALL LEVELS. PROVIDE BENT BARS PER TYPICAL DETAILS TO MATCH AND LAP WITH HORIZONTAL BOND BEAM REINFORCING AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN CONTINUITY OF BOND BEAM REINFORCEMENT
- MINIMUM MASONRY LINTEL SHALL BE AS INDICATED IN THE MASONRY LINTEL SCHEDULE. IF NOT INDICATED, SIZE LINTEL BASED ON OPENING WIDTH UTILIZING MASONRY LINTEL SCHEDULE. MASONRY VENEER SHALL BE ATTACHED TO SUPPORTING WALL FRAMING WITH 3/16" DIA. WALL TIES OR DOVETAIL-TYPE METAL TIES OF EQUIVALENT STIFFNESS EMBEDDED INTO HORIZONTAL MORTAR JOINTS. MAXIMUM VERTICAL SPACING OF TIES SHALL BE 16". MAX HORIZONTAL SPACING SHALL BE 16". TIES IN ALTERNATE COURSES SHALL BE STAGGERED. PROVIDE 9 GA. WIRE REINFORCING IN HORIZONTAL MORTAR JOINTS AT 16" O.C. ENGAGE 9 GA. WIRE WITH WALL ANCHOR
- TIES. CONTROL JOINTS IN MASONRY VENEER WALLS SHALL BE LOCATED PER THE ARCHITECTURAL DRAWINGS. 11. LOOSE ANGLE BRICK LINTELS SHALL BE AS DEFINED BY THE LOOSE LINTEL SCHEDULE.
- 12. RETAINING WALLS, BASEMENT WALLS, ETC., SHALL BE ADEQUATELY WATERPROOFED AND DRAINED AS SPECIFIED BY OTHERS. IF NOT SPECIFIED BY OTHERS, DRAINAGE THROUGH RETAINING WALLS SHALL BE PROVIDED BY MEANS OF 1-1/2" DIA. HOLE AT 4 FOOT INTERVALS LOCATED AT THE LOW GRADE LEVEL. PROVIDE 2 FOOT DIAMETER CONTINUOUS CLEAN GRAVEL DRAINAGE CHANNEL CONFINED WITHIN FILTER FABRIC ALONG THE LINE OF DRAINAGE HOLES.
- CONTROL JOINTS IN CONCRETE MASONRY SHALL BE LOCATED AT A MAXIMUM OF 12'-0" FROM EACH CORNER, AND AT A MAXIMUM SPACING OF 1.5\*WALL HEIGHT OR 25'-0" (WHICHEVER IS LESS) FOR THE LENGTH OF THE WALL. 14. WHERE VERTICAL REINFORCING INTERSECTS HORIZONTAL REINFORCING, BOTH SHALL BE CONTINUOUS
- 15. MAXIMUM HEIGHT FOR GROUT POUR SHALL NOT EXCEED 48" UNLESS A CLEANOUT AND INSPECTION HOLE IS PROVIDED AT THE BOTTOM OF VOID. 16. WHERE DOWELS, BOLTS, OR INSERTS ARE CALLED TO BE ANCHORED TO CMU ELEMENTS USING EPOXY ADHESIVES, USE "HILTI" HY-150 INJECTION ADHESIVE (ALTERNATE ANCHORAGE SYSTEMS MAY BE USED WITH ENGINEER'S PRIOR APPROVAL) FOLLOW ALL MANUFACTURER'S INSTALLATION RECOMMENDATIONS. SHOP DRAWINGS SHOWING ALL WALL FLEVATIONS SHALL BE SUBMITTED
- INDICATING COMPLETE INFORMATION REQUIRED FOR CONSTRUCTION OF THE REINFORCED MASONRY ELEMENTS. SHOP DRAWINGS SHALL INCLUDE LAYOUT AND DIMENSIONS OF REINFORCING INCLUDING ANY OPENINGS. CONVENTIONAL REINFORCEMENT DETAILS, CONNECTION DETAILS, PROCEDURES AND SEQUENCES ETC. SHOP DRAWINGS SHALL ALSO INDICATE LOCATIONS OF CMU CONTROL JOISTS

## GENERAL NOTES

- 1. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPON SITE CONDITIONS DURING THE COURSE OF WORK, INCLUDING PROPERTY AND PERSONS. THIS REQUIREMENT SHALL APPLY NOT JUST DURING NORMAL WORKING HOURS THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STR NOT INCLUDE CONSTRUCTION MEANS AND METHODS CONTI PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRU
- CONSTRUCTION. SUCH MEASURES SHALL INCLUDE BUT ARE BRACING, SHORING FOR CONSTRUCTION LOADS, TEMPORAR PARTIALLY COMPLETED WORK. OBSERVATION VISITS BY THE ENGINEER SHALL NOT INCLUDE OBSERVATION OF THE ABOV CONTRACT DOCUMENTS SHALL NOT BE REPRODUCED FOR US DRAWINGS.
- CONTRACTOR SHALL VERIFY ALL STRUCTURALLY SUPPORTE WEIGHTS, OPENING DIMENSIONS, AND LOCATIONS INDICATED STRUCTURAL DOCUMENTS WITH DRAWINGS FROM OTHER DI REPORT ANY DISCREPANCIES TO THE ARCHITECT. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND EL
- DRAWINGS FOR LOCATION AND SIZE OF CHASES, INSERTS, OI WASHES, DRIPS, REVEALS, DEPRESSIONS, AND OTHER PROJE THAT AFFECT STRUCTURAL WORK. COMBINE THE REQUIREM DRAWINGS AND PROVIDE STRUCTURAL FRAMING PER TYPIC/ REQUIRED AT FLOOR, ROOF, AND WALL OPENINGS WHERE ST IS NOT SPECIFICALLY SHOWN ALL OPENINGS THROUGH STRUCTURAL MEMBERS SHALL BE DRAWINGS. OPENINGS WHICH ARE NOT SHOWN ON THE STR
- ARE SUBJECT TO REVIEW AND ACCEPTANCE AND SHALL BE ( FOR REVIEW AND ACCEPTANCE ON THE SHOP DRAWINGS. THE GENERAL NOTES ON THE DRAWINGS ARE INTENDED TO GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS. WH
- THE DRAWINGS CONFLICT WITH TECHNICAL REQUIREMENTS ( SPECIFICATIONS THE MORE STRINGENT CRITERIA SHALL APF THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVA INCLUDING SHORING AND PROTECTION OF ADJACENT PROPE STREETS, AND UTILITIES IN ACCORDANCE WITH THE LOCAL B DEPARTMENT. ALL WORK OR CONSTRUCTION SHALL COMPLY
- APPLICABLE BUILDING CODES, REGULATIONS, AND SAFETY R THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION COORDINATION OF ALL DIMENSIONS. CONDITIONS AND ELEVA ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCT CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF OR OMISSIONS NOTED ON THE DRAWINGS.
- 10. OPTIONS ARE FOR CONTRACTORS CONVENIENCE. IF AN OPT CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY SHALL COORDINATE ALL DETAILS. 11. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NE SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHO
- SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETA ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR DISCREPANCIES OCCUR IN THESE DRAWINGS, NOTES AND DE SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOT DETAILS 12. NOT ALL OPENINGS ARE SHOWN IN THESE DRAWINGS. ESTAB ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHAN
- ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS, AND S PRIOR TO CONSTRUCTION. OPENINGS MAY REQUIRE ADDITION OR SUPPORTS AS SHOWN ON TYPICAL DETAILS. 13. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, LOCA OFFICIALS, OR BY THESE PLANS SHALL BE PROVIDED BY AN I INSPECTION COMPANY AND/OR THE LOCAL BUILDING DEPAR
- REQUIREMENTS STATED HEREIN ARE PARTIAL, COMPLETE INS REQUIREMENTS SHALL BE AS DIRECTED BY THE LOCAL BUILD AND AS DEFINED IN THE GENERAL CONDITIONS AND TECHNIC SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPE

## STRUCTURAL STEEL NOTES

- 1. FOR BOLTED CONNECTIONS OF BEAMS AND COLUMNS USE SIZE AS REQUIRED. ALL BOLTS FOR SLIP CRITICAL CONNEC INDICATOR BOLTS OR SHALL BE EQUIPPED WITH LOAD INDIC WHICH PROVIDE AN EASY MEANS OF VISUALLY VERIFYING PERFORM ALL WELDING WITH E70 XX ELECTRODES, UNO OR
- FOR SPECIAL CONNECTIONS. WELDING OF STRUCTURAL ME PERFORMED BY CERTIFIED WELDERS AND WELDING SHALL WITH "STRUCTURAL WELDING CODE" OF THE AWS. DETAILS OUTLINE BASIC CONNECTION TYPES. BEAM TO BEA COLUMN CONNECTIONS NOT DETAILED IN DRAWINGS SHALL
- DETAILER AS STANDARD AISC TYPE 2 BEARING CONNECTIO SUPPORTING REACTIONS DEVELOPED BY MAXIMUM UNIFOR A SIMPLE SPAN BEAM AND BEAM SPAN GIVEN 4. STEEL SHALL BE DESIGNED, DETAILED, FABRICATED, AND EF
- TO ALL APPLICABLE SECTIONS OF THE LATEST EDITION OF 5. FOUNDATION ANCHOR BOLTS SHALL BE AS CALLED OUT IN
- AND IN BASE PLATE DETAILS, WITH LEVELING NUTS. IF NOT ASTM A307 GRADE A OR ASTM A36, 3/4" DIA. - 9" EMBEDMENT ROD WITH A HEAVY HEX NUT WELDED AT THE BOTTOM.
- STRUCTURAL STEEL SHALL BE SHIPPED WITH STANDARD SI PROVIDE L5x3x1/4 (LLV) FIELD-FABRICATED FRAME BETWEEN JOISTS AT ROOF OPENINGS WITH ANY SINGLE DIMENSION GREATER THAN 10"
- 8. ALL EXPOSED WELDS AND EDGES SHALL BE GROUND SMOOT MATCH SHOP PAINT. 9. FIELD CUTTING, DRILLING, OR OTHER MODIFICATION OF STRU COMPONENTS IS NOT PERMITTED WITHOUT WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD WHERE BEAM PENETRATIONS CANNOT BE AVOIDED. OR WHERE CUTTING IS REQUIRED. CONTRACTOR SHALL SUBMIT ALL
- PERTINENT INFORMATION INCLUDING PENETRATION SHAPE, SIZE, LOCATION, AND METHOD OF CUTTING THE OPENING FOR REVIEW. 10. ALL EXPOSED STEEL, INCLUDING MASONRY SUPPORT LINTELS, AND STEEL NOTED AS GALVANIZED SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM 123. TOUCH-UP DAMAGED AREAS WITH AN INORGANIC ZINC RICH PRIMER, PROVIDING A
- MINIMUM DRY FILM THICKNESS OF 4.5 MILS. 11. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH LATEST AISC SPECIFICATIONS 12. HEAVY LOADS THAT EXCEED 75% OF ALLOWABLE LIVE LOADS SHOWN ON THE
- PLANS FOR TEMPORARY EQUIPMENT, CONSTRUCTION MATERIALS, OR OTHER LOADS NOT SHOWN IN THE CONTRACT DOCUMENTS SHALL NOT BE PLACED OR SUPPORTED FROM STRUCTURE WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. 13. STRUCTURAL STEEL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED
- INSPECTOR, INSPECTOR QUALIFICATION SHALL BE BASED ON COMPLIANCE WITH APPROPRIATE PROVISIONS OF AWS CODE D1.1. INSPECTION SHALL INCLUDE VISUAL OBSERVATION OF ALL COMPLETED STRUCTURAL WELD CONNECTIONS. THE OBSERVATION AGENCY SHALL BE NOTIFIED PRIOR TO ANY WELDING ACTIVITIES AND SHALL BE RESPONSIBLE FOR VERIFICATION OF WELDERS CERTIFICATIONS, OBSERVATION OF CONNECTIONS PRIOR TO WELDING, AND
- OBSERVATION DURING WELDING UNTIL THE INSPECTOR IS SATISFIED THAT THE WELDING PROCESS IS BEING PERFORMED PER AWS REQUIREMENTS. 14. REFERENCE TABLE BELOW FOR STEEL DESIGN PROPERTIES. STRUCTURAL STEEL DESIGN PROPERTIES

W-AND WT-SHAPES	ASTM A992 GRADE 50
ANGLES AND C-SHAPES	ASTM A36
PLATES AND BARS	ASTM A36
STEEL TUBING	ASTM A 500 GRADE B F
STEEL PIPE	ASTM A53 GRADE B Fy
HEADED STUD ANCHORS	ASTM A108

STEEL DECK NOTES

- ALL STEEL DECKING SHALL BE ATTACHED TO SUPPORTING BEAMS AND JOISTS IN ACCORDANCE WITH MANUFACTURERS LATEST RECOMMENDATIONS. LAYOUT DECK TO HAVE A MINIMUM OF THREE CONTINUOUS SPANS WHERE
- POSSIBI F
- METAL DECK SHALL BE CAPABLE OF SUPPORTING THE LOADINGS AS CALLED FOR ON THE DRAWINGS ON THE SPANS AND SPACING SHOWN FOR THE JOISTS AND STEEL FRAMING
- 4. WHERE STEEL DECK IS PART OF A RATED ASSEMBLY SUPPLY ALL DECK AND LABORATORY FOR EACH TYPE OF ASSEMBLY SPECIFIED.
- COMPONENTS WHICH COMPLY WITH REQUIREMENTS OF UNDERWRITERS PROPERTIES OF STEEL ROOF, FLOOR, AND FORM DECK SHALL BE COMPUTED USING THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE
- SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS FORM DECK SHALL BE DESIGNED, MANUFACTURED, AND INSTALLED IN ACCORDANCE WITH THE NON-COMPOSITE STEEL FLOOR DECK SPECIFICATION OF THE STEEL DECK INSTITUTE. PROPERTIES OF STEEL FLOOR DECK SHALL BE COMPUTED USING THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL
- STRUCTURAL MEMBERS. PROVIDE FILLERS AS REQUIRED TO SUPPORT FLOOR/ROOF AND FORM DECK WHERE DECK IS NOT SUPPORTED BY FRAMING. SUCH FILLERS ARE REQUIRED AT WALLS WHICH ARE PARALLEL TO JOISTS AND OTHER SIMILAR SITUATIONS.
- DO NOT SUSPEND EQUIPMENT, LIGHTS, ETC, FROM FLOOR OR ROOF DECK WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER. DO NOT SUSPEND LOADS OVER 150 LBS FROM JOISTS UNLESS EQUIPMENT IS SHOWN AND NOTED IN PLANS AND STRUCTURAL PROVISIONS HAVE BEEN MADE FOR SUPPORT. PROVIDE EDGE ANGLE AT ALL ROOF DECK EDGES AND PENETRATIONS (L4X4X1/4 AT ROOF) UNO. WHERE THE DISTANCE FROM EDGE OF FLOOR/ROOF DECK TO BEAM OR JOIST REQUIRES A LONGER HORIZONTAL LEG, OR WHERE HORIZONTAL
- AND VERTICAL LEGS OF THE DECK CLOSURE ARE NOT AT 90 DEGREES, PROVIDE A BENT PLATE DECK CLOSURE WITH A 1/4" MINIMUM THICKNESS. 10. TYPICAL ROOF DECK SHALL BE 1.5B 22 GAGE UNO. ROOF DECK SHALL BE
- DESIGNED, MANUFACTURED, AND INSTALLED IN ACCORDANCE WITH THE STEEL ROOF DECK SPECIFICATION OF THE STEEL DECK INSTITUTE.

	COD	E STUC	DY
	1.	DES	IGN CODE:
NSIBILITY FOR JOB IG SAFETY OF		000	UPANCY CAT
Y CONTINUOUSLY AND	2.	DEA	D LOADS:
RUCTURE. THEY DO		Α.	LIGHT GAG
RACTOR SHALL			LIGHT GAG
			COLLATER
E NOT LIMITED TO RY STRUCTURES, AND			
E STRUCTURAL		B.	TYPICAL BA
/E ITEMS. JSE AS SHOP			COLLATER
ED EQUIPMENT D ON THE	3.		LOADS:
ISCIPLINES AND	5.	A.	TYPICAL RO
		В.	CONCENTR
ELECTRICAL DPENINGS, SLEEVES,		C.	TYPICAL SL
JECT REQUIREMENTS	4.	ROO	F SNOW LOA
MENTS INTO THE SHOP AL DETAILS AS		A.	ROOF SNO
TRUCTURAL FRAMING		В.	GROUND S
		C.	EXPOSURE
SHOWN ON THE SHOP RUCTURAL DRAWINGS		D.	
CLEARLY INDICATED		E. F.	IMPORTAN
SUPPLEMENT THE		G.	RAIN ON SN
HEN THE NOTES ON		Η.	SNOW DRIF
OUTLINED IN THE	_		
PLY. TION PROCEDURES	5.		D LOADS: BASIC WINI
ERTY, STRUCTURES,		A. B.	IMPORTAN
BUILDING Y WITH ALL		C.	EXPOSURE
REQUIREMENTS.		D.	DIRECTION
ON AND		Ε.	TOPOGRAF
		F.	
F ANY DISCREPANCIES		G.	INTERIOR V
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CHANGES AND	-	Α.	a =
		В.	ROOF UPLI
ECESSARILY AT A IOWN, CONSTRUCTION			ZONE 1 (IN
AILS MAY ONLY SHOW			ZONE 2 (E ZONE 3 (C
CLARITY. WHERE DETAILS ON DRAWINGS		C.	WALL***
TES AND TYPICAL			ZONE 4 (IN
			ZONE 5 (C
ABLISH AND VERIFY IICAL, PLUMBING, AND	7.	<b>SEIG</b>	MIC LOADS:
SUBCONTRACTORS	1.	A.	SHORT PEF
ONAL REINFORCING		В.	LONG PERI
AL BUILDING		C.	SITE CLASS
		D.	SHORT PER
TMENT. INSPECTION		E. F.	LONG PERI SEISMIC DE
DING DEPARTMENT		г. G.	IMPORTAN
CAL SPECIFICATIONS. ECTION.		Н.	ANALYSIS
Lonion.		Ι.	SEISMIC FO
		J.	RESPONSE
		K.	SYSTEM O
A325 OR A490 BOLTS,		L. M.	DEFLECTIC SEISMIC RE
CTIONS SHALL BE LOAD CATOR WASHERS		IVI.	
PROPER BOLT TENSION.	8.	LATE	RAL EARTH
R UNLESS REQUIRED IEMBERS SHALL BE			PE
BE IN ACCORDANCE	* 54		T BE USED TO
			DUCTION NO
AM AND BEAM TO L BE SIZED BY STEEL	*** C	&C WIN	ID PRESSURE
ONS CAPABLE OF			
RM LOAD CAPACITY ON			
ERECTED ACCORDING			
THE AISC MANUAL,			
THE COLUMN TABLE			
CALLED OUT, USE			
T THREADED ANCHOR			
HOP PRIMER, UNO.			
EN JOISTS AT ROOF			

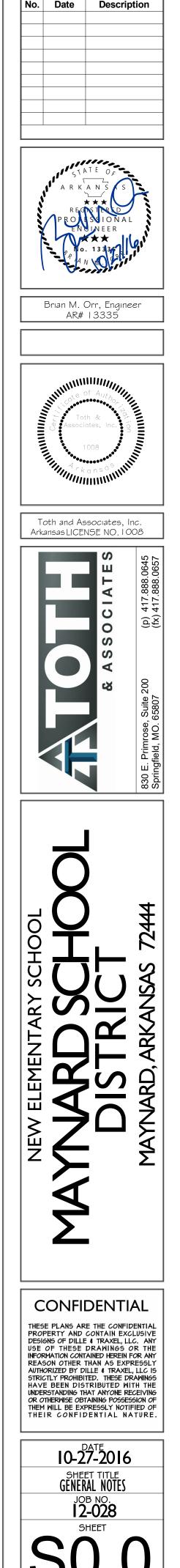
', UNO.
TH AND PAINTED TO
JCTURAL STEEL

3 Fy = 46 ksi Fy = 42 ksi

	MAYNARD ELEMENTAR	RY SCHOOL ADDITIO
DESIG	SN CODE:	IBC 201
OCCU	PANCY CATEGORY:	
	LOADS:	
I 4	LIGHT GAGE TRUSS TOP CHORD	15 PS
I 4	LIGHT GAGE TRUSS BOTTOM CHORD	5 PS
	COLLATERAL LOAD *	5 PS
	TOTAL LIGHT GAGE TRUSS ROOF DEAD LOAD	25 PS
L		
1 - · L	TYPICAL BAR JOIST ROOF DEAD LOAD	20 PS
	COLLATERAL LOAD *	5 PS
	TOTAL BAR JOIST DEAD LOAD	25 PS
	OADS:	
	TYPICAL ROOF LIVE LOAD (Lr) **	20 PS
В.	CONCENTRATED ROOF LIVE LOAD	300 PS
	TYPICAL SLAB ON GRADE	100 PS
•		
ROOF	SNOW LOADS:	
A.	ROOF SNOW LOAD (ENGINEER'S DISCRETION)	30 PS
	GROUND SNOW LOAD (pg)	15 PS
	EXPOSURE FACTOR (Ce)	1
	THERMAL FACTOR (Ct)	
	IMPORTANCE FACTOR (I)	1
	FLAT ROOF SNOW LOAD (pf)	
	RAIN ON SNOW SURCHARGE	5 PS
	SNOW DRIFT	PER COD
п.		FER GOL
WIND	LOADS:	
	BASIC WIND SPEED (V)	120 MF
	IMPORTANCE FACTOR (I)	120 101
	EXPOSURE CATEGORY	1.
	DIRECTIONALITY FACTOR (Kd)	0.8
	TOPOGRAPHIC FACTOR (Kzt)	
	INTERNAL PRESSURE COEFFICIENT (GCpi)	+- 0.1
	INTERIOR WALLS AND PARTITIONS	5 PS
О.	INTERIOR WALLS AND PARTITIONS	0 F3
COMP	ONENTS AND CLADDING WIND PRESSURES	PER ASCE 7-
	a =	6.1 6
	ROOF UPLIFT***	
	ZONE 1 (INTERIOR)	+15/ -27 PS
⊢	ZONE 2 (EDGE)	+15/ -41 PS
	ZONE 3 (CORNER)	+15/ -63 PS
	WALL***	+13/ -03 FC
	ZONE 4 (INTERIOR)	+26/ -29 PS
	ZONE 4 (INTERIOR) ZONE 5 (CORNER)	+26/ -33 PS
	ZONE 5 (CORNER)	+20/ -33 P3
SEISM	IIC LOADS:	
	SHORT PERIOD ACCELERATION (SS)	0.7
	LONG PERIOD ACCELERATION (S1)	0.7
	SITE CLASS	0.2
	SHORT PERIOD RESPONSE (SDS)	0.5
	LONG PERIOD RESPONSE (SD1)	0.2
		4
		1.:
	ANALYSIS PROCEDURE	El
	SEISMIC FORCE RESISTING SYSTEM	ŀ
	RESPONSE MODIFICATION FACTOR (R)	
	SYSTEM OVERSTRENGTH FACTOR (Ω)	2
	DEFLECTION AMPLIFICATION FACTOR (Cd)	3
L.		
L.	SEISMIC RESPONSE COEFFICIENT (CS)	0.14
L. M.	SEISMIC RESPONSE COEFFICIENT (CS)	0.14
L. M.	SEISMIC RESPONSE COEFFICIENT (CS) RAL EARTH PRESSURE	0.1
L. M.	SEISMIC RESPONSE COEFFICIENT (CS)	0.1

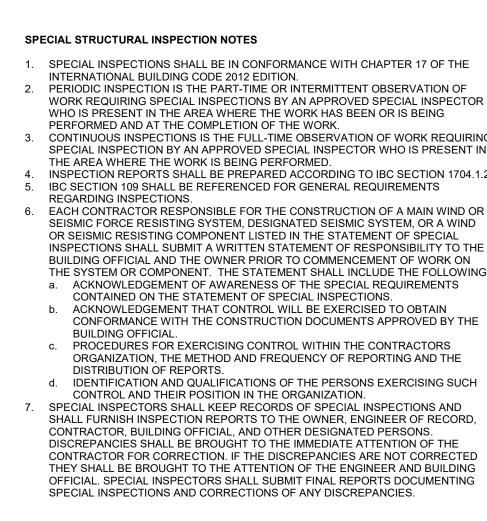
MAYNARD ELEMENTARY SCHOOL ADDITION

S ARE CALCULATED BASED ON AN ASSUMED TRIBUTARY AREA = 50 SF



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δĀ ALL QUESTIONS I THE ARCHITECT. NG5. TO TI DRAW SCALE ' E DISCREPAN TOR IS NOT DOCUMENTS CONTRACT ΞΨζ IONS. TO TI Σΰ



### 1. SPECIAL INSPECTIONS SHALL BE IN CONFORMANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE 2012 EDITION. PERIODIC INSPECTION IS THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTIONS BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING

WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
CONTINUOUS INSPECTIONS IS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN 4. INSPECTION REPORTS SHALL BE PREPARED ACCORDING TO IBC SECTION 1704.1.2.

6. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE STATEMENT SHALL INCLUDE THE FOLLOWING: a. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED ON THE STATEMENT OF SPECIAL INSPECTIONS.

 d. IDENTIFICATION AND QUALIFICATIONS OF THE PERSONS EXERCISING SUCH CONTROL AND THEIR POSITION IN THE ORGANIZATION. 7. SPECIAL INSPECTORS SHALL KEEP RECORDS OF SPECIAL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE OWNER, ENGINEER OF RECORD, CONTRACTOR, BUILDING OFFICIAL, AND OTHER DESIGNATED PERSONS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND BUILDING OFFICIAL. SPECIAL INSPECTORS SHALL SUBMIT FINAL REPORTS DOCUMENTING

		FREQUENCY	OF INSPECTION	REFERENCE FOR CRITERIA			
	INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	IBC SECTION	ACI 530/ASCE 5/TMS 402ª	ACI 530.1/ASCE 6/TMS 602ª	
1.	AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE.						
	a. PROPORTIONS OF SITE-PREPARED MORTAR.	-	х	-	-	ART. 2.6A	
	b. CONSTRUCTION OF MORTAR JOINTS.	-	>	-	-	ART. 3.3B	
	c. LOCATION OF REINFORCEMENT, CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES.	-	x	-	-	ART. 3.4, 3.6A	
	d. PRESTRESSING TECHNIQUE.	-	x	-	-	ART. 3.6B	
	e. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES.	-	x	-	-	ART. 2.4B, 2.4H	
2.	THE INSPECTION PROGRAM SHALL VERIFY:						
	a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	-	x	-	-	ART. 3.3G	
	b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION.	-	x	-	SEC. 1.2.2(e), 2.1.4, 3.1.6	-	
	c. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.	-	X	-	SEC. 1.13	ART. 2.4, 3.4	
	d. WELDING OF REINFORCING BARS	x	-	-	SEC. 2.1.10.7.2, 3.3.3.4(b)	-	
	e. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	-	x	SEC. 2104.3, 2104.4	-	ART. 1.8C, 1.8E	
	f. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	-	x	-	-	ART.3.6B	
3.	PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:						
	a. GROUT SPACE IS CLEAN.	-	х	-	-	ART. 3.2D	
	b. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES.	-	x	-	SEC. 1.13	ART. 3.4	
	c. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	-	x	-	-	ART. 2.6B	
	d. CONSTRUCTION OF MORTAR JOINTS.	-	x	-	-	ART. 3.3B	
4.	GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	x	-	-	-	ART. 3.5	
	a. GROUTING OF PRESTRESSING BONDED TENDONS.	>	-	-	-	ART. 3.6C	
5.	PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	x	-	SEC. 2105.2.2, 2105.3	-	ART. 1.4	
6.	COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	-	x	-	-	ART. 1.5	

FOR SI: °C = (°F - 32)/1.8. a. THE SPECIFIC STANDARDS REFERENCED ARE THOSE LISTED IN CHAPTER 35.

F	REQUIRED VERIFICATION AND INSPECTION OF SOILS							
	VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED					
1.	VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	Х					
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	Х					
3.	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-	Х					
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	Х	-					
5.	PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	Х					

R	EQUIRED VERIFICATION AND INSPEC	TION OF CO	ONCRETE	E CONSTRUCTION	
	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD <sup>a</sup>	IBC REFERENCE
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	-	x	ACI 318: 3.5, 7.1-7.7	1913.4
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5b.	-	-	AWS D1.4 ACI 318: 3.5.2	-
3.	INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	x	-	-	1911.5
4.	VERIFYING USE OF REQUIRED DESIGN MIX.	-	x	ACI 318: CH. 4, 5.2-5.4	1904.2.2, 1913.2, 1913.3
5.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	x	-	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.10
6.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	x	-	ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8
7.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	x	ACI 318: 5.11-5.13	1913.9
8.	<ul> <li>INSPECTION OF PRESTRESSED CONCRETE:</li> <li>a. APPLICATION OF PRESTRESSING FORCES.</li> <li>b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE- RESISTING SYSTEM.</li> </ul>	x x	-	ACI 318: 18.20 ACI 318: 18.18.4	-
9.	ERECTION OF PRECAST CONCRETE MEMBERS.	-	х	ACI 318: CH. 16	-
10.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	x	ACI 318: 6.2	-
11.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	х	ACI 318: 6.1.1	-

FOR SI: 1 INCH = 25.4 MM a. WHERE APPLICABLE, SEE ALSO SECTION 1707.1, SPECIAL INSPECTION FOR SEISMIC RESISTANCE.

R	EQ	UIRED VERIFICATION AND INSPECT	TION OF ST		NSTRUCTION	
		VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD <sup>a</sup>	IBC REFERENCE
1.		SPECTION OF REINFORCING STEEL, INCLUDING ESTRESSING TENDONS, AND PLACEMENT.				
	a.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	х	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360, SECTION A3.3	-
	b.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	х	-	-
2.	INS	PECTION OF HIGH-STRENGTH BOLTING:				
	a.	BEARING-TYPE CONNECTIONS.	-	Х	AISC 360, SECTION M2.5	1704.3.3
	b.	SLIP-CRITICAL CONNECTIONS.	Х	Х	AISC 300, SECTION MZ.5	1704.3.3
3.	MA	TERIAL VERIFICATION OF STRUCTURAL STEEL:				
	a.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	-	ASTM A 6 OR ASTM A 568	1708.4
	b.	MANUFACTURER'S CERTIFIED MILL TEST REPORTS.	-	-	ASTM A 6 OR ASTM A 568	
4.	MA	TERIAL VERIFICATION OF WELD FILLER MATERIALS:				
	a.	IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATIONS IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	-	AISC 360, SECTION A3.5	-
	b.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	-	-	-
5.	INS a.	SPECTION OF WELDING: STRUCTURAL STEEL:	-	-		
		1. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	Х	-		
		2. MULTIPASS FILLET WELDS.	Х	-	AWS D1.1	1704.3.1
		3. SINGLE-PASS FILLET WELDS > 5/16"	Х	-		
		4. SINGLE-PASS FILLET WELDS ≤ 5/16"	-	>		
		5. FLOOR AND ROOF DECK WELDS.	-	>	AWS D1.1	-
	b.	REINFORCING STEEL:	-	-		
		1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	-	>		
		2. REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	x	-	AWS D1.4 ACI 318: 3.5.2	-
		3. SHEAR REINFORCEMENT.	Х	-		
		4. OTHER REINFORCING STEEL.	-	>		
6.	CO	SPECTION OF STEEL FRAME JOINT DETAILS FOR MPLIANCE WITH APPROVED CONSTRUCTION CUMENTS:		>		
	a. b.	DETAILS SUCH AS BRACING AND STIFFENING. MEMBER LOCATIONS. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	- -	-	-	1704.3.2

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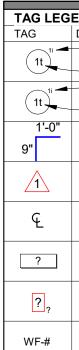
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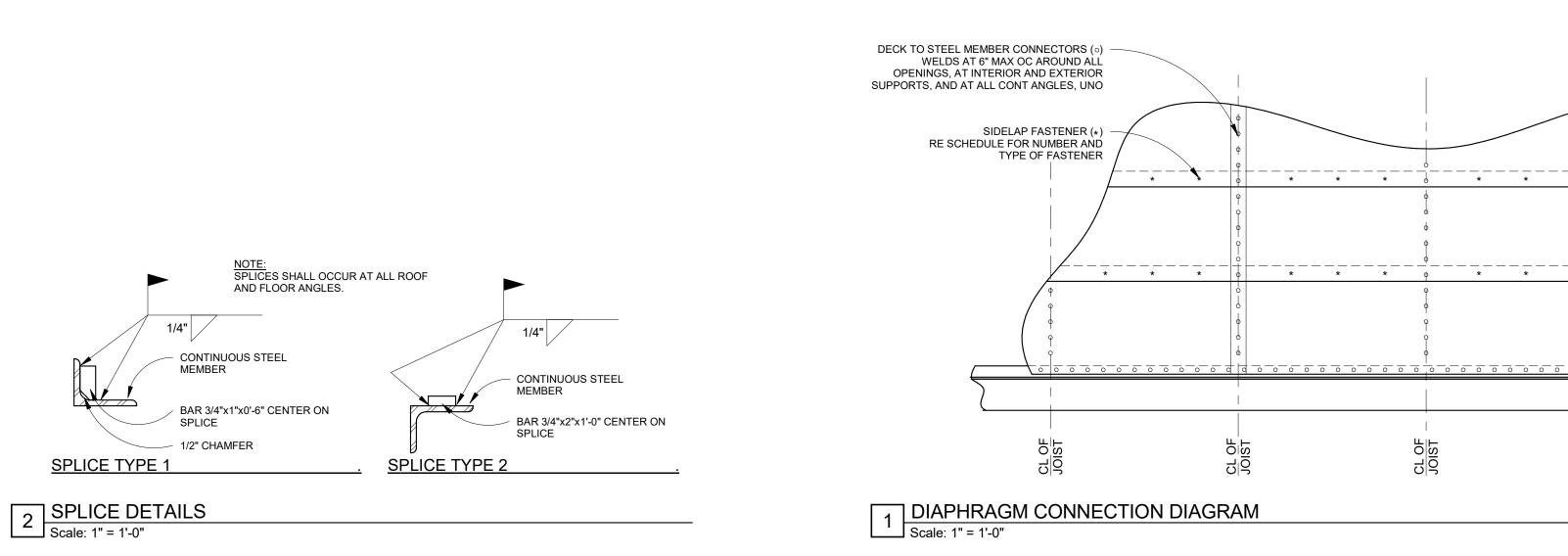
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	ABBREVIATION LEGEND
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BO	BOTTOM OF
BOA	BACK OF ANGLE
BOF	BOTTOM OF FOOTING ELEVATION
BOS	BOTTOM OF STEEL ELEVATION
вот	BOTTOM
BRG	BEARING
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
DВ	DECK BEARING ELEVATION
DIA	DIAMETER
EF	EACH FACE
EL	ELEVATION
EQ	EQUAL
ΞŴ	EACH WAY
FDN	FOUNDATION
F	FINISHED FLOOR
- S	FAR SIDE
FTG	FOOTING
FV	FIELD VERIFY
GA	GAGE
GC	GENERAL CONTRACTOR
HAS	HEADED ANCHOR STUD
	HORIZONTAL
NFO	INFORMATION
JB	JOIST BEARING ELEVATION
JST	JOIST
(SI	KIPS PER SQUARE INCH
-	LENGTH
- .B	POUNDS
_GMF	LIGHT GAGE METAL FRAMING
LH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
	LONGITUDINAL
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
ЛL	MASONRY LINTEL
//TL	METAL
	NOT IN CONTRACT
NS	NEAR SIDE
NS NTS	NOT TO SCALE
OC	ON CENTER
DC DD	OUTSIDE DIAMETER
PAF	POWDER ACTUATED FASTENER
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
re Reinf	
REQ	
RTU	
SDI	STEEL DECK INSTITUTE
SIM	
SJI	STEEL JOIST INSTITUTE
SL	STRUCTURE LINE
SOG	SLAB ON GRADE
SPEC	SPECIFICATIONS
T	THICKNESS
T&B	TOP AND BOTTOM
TO	
TOC	TOP OF CONCRETE ELEVATION
TOF	TOP OF FOOTING ELEVATION
TOP	TOP OF PEDESTAL ELEVATION
TOS	TOP OF STEEL ELEVATION
TOSW	TOP OF STEMWALL ELEVATION
TOW	TOP OF WALL ELEVATION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
	VERTICAL LEG DOWN
W	WIDTH
VLD W WP WWR	WIDTH WORK POINT WELDED WIRE REINFORCING







ì	END
	DESCRIPTION
+	- BASEPLATE MARK
-	- COLUMN MARK
_	- PEDESTAL MARK
	- FOOTING MARK
	REINFORCING BAR
	REVISION TAG
	CENTER LINE
	KEYNOTE TAG
	CMU WALL REINFORCING TAG
	CONTINUOUS WALL FOOTING TAG

CONC	RETE	E DEVI	ELOI	PMEN	T AN	D SPL	ICE	
LAP SPLICE LENGTHS (INCHES)								
	TENSIC	ON (CLASS	6 B SPI	LICE)			COMPRESSION	
BAR	f'c=300	)0 psi	f'c=4000 psi f'c=		f'c=50	00 psi	3000, 4000 & 5000 psi	
SIZE	TOP	OTHER	TOP	OTHER	TOP	OTHER		
3	28	22	24	19	22	17	12	
4	37	29	32	25	29	22	15	
5	47	36	40	31	36	28	19	
6	56	43	48	37	43	33	23	
7	81	63	70	54	63	49	27	
8	93	72	80	62	72	55	30	
	·				•			
DEVEL	OPMEN	T LENG	THS (I	INCHES)	)			
	STRAIG	SHT DOWN	EL DEV	/ELOPME	NT LEN	IGTHS	COMPRESSION	
BAR	f'c=300	)0 psi	f'c=40	)00 psi	f'c=50	00 psi	3000, 4000 & 5000 psi	
SIZE	TOP	OTHER	TOP	OTHER	TOP	OTHER		
3	22	17	19	15	17	13	9	
4	29	22	25	19	22	17	11	
5	36	28	31	24	28	22	14	
6	43	33	37	29	33	26	17	
7	63	48	54	42	49	37	20	
	1	1						

22

8 72 55 62 47 55 42

LESS THAN 4 BAR DIAMETERS.

NOTES:

STRUCTURAL STEEL

TYPICAL BOLTED CONNECTION TABLE TYPICAL BOLT PATTERN AND PLATE LENGTH (USE 3/4" DIAMETER A325/A325N BOLTS UNO). REFERENCE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.

			ONAL INFORMATION.
NOMINAL MEMBER DEP	TH BOLT ROWS	MIN. PLATE LENGTH *	PLATE THICKNESS
8"	2	6"	3/8"
10"	3	9"	3/8"
12"	3	9"	3/8"
14"	3	9"	3/8"
16"	4	12"	3/8"
18"	5	15"	3/8"
21"	6	18"	1/2"
24"	7	21"	1/2"
27"	7	21"	1/2"
30"	8	24"	1/2"

\* LENGTH ALSO APPLIES TO CONNECTIONS USING WT OR ANGLES

MASONRY	PROFESSION OF THE PROFESSION O	ЭE

TENSION / C	COMPRESSION	LAP
8"	12"	8" or 12"
24	24	27
24	24	36
26	26	45
43	40	54
60	46	63
92	61	72
	8" 24 24 26 43 60	24         24           24         24           24         24           26         26           43         40           60         46

MAX CLEAR OPE	ENING PLATE SIZE		MINIMUM BEARING (INCHES)
3'-0"	3 1/2 X 5/16		0'-4"
4'-0"	4 X 5/16		0'-4"
6'-0"	5 X 3/8		0'-4"
8'-0"	6 X 3/8		0'-8"
			RE ARCH
MASONRY LINTEL OR /F OPENING HEADER RE PLAN		CONTINU LINTEL S 5/16" 5/16" 3/8" THIO COORDI	

1. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE REINFORCEMENT. LAP SPLICE LENGTHS ARE BASED ON BARS SPACED AT 4 BAR DIAMETERS OR MORE ON CENTER. NOTIFY ENGINEER IF SPACING IS

 PROVIDE LOOSE LINTEL FOR SUPPORT TO BRICK MASONRY AND OTHER VENEERS AT LOCATIONS WHERE MASONRY LINTELS ARE NOT PROVIDED. AT LOCATIONS WITH STEEL LINTELS BRICK SHALL BE SUPPORTED BY MINIMUM 3/8" STEEL PLATE ATTACHED TO THE BOTTOM OF STEEL LINTEL. COORDINATE PLATE WIDTH W/ ARCH 2. ALL LINTELS SHALL BE HOT DIPPED GALVANIZED

HOOKED DOWEL DEVELOPMENT LENGTHS IN TENSION (INCHES)							
		EMBEDMENT			EXTENSION		
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	90 DEG HOOK <sup>1</sup>	80 DEG HOC	KINIMUM DIA OF BEND "D" (IN)	
#3	6	6	6	4.5	2.5	2.25	
#4	8	7	7	6.0	2.5	3.00	
#5	10	8	8	7.5	2.5	3.75	
#6	12	10	10	9.0	3.0	4.50	
#7	13	12	10	10.5	3.5	5.25	
#8	15	13	12	12.0	4.0	6.00	
#9	17	15	13	13.5	4.5	9.02	
#10	19	17	15	15.2	5.1	10.16	
#11	22	19	16	16.9	5.6	11.28	
NOTES: 1. DEVELOPMENT LENGTH IS BASED ON 2 1/2" MINIMUM SIDE COVER AND 2" MINIMUM END COVER BEMBEDMENT							
	/			<u> </u>			
	- 43	EXTENSION		۲ ۲ ۲			

90 DEG HOOK

WALL FOOTING SCHEDULE

TRANSVERSE

REINFORCING

#5's @ 12" OC BTM #5's @ 12" OC BTM #5'S @ 12" OC T & B

NOTES

LONGITUDINAL REINFORCING

\_\_\_\_\_

 WF2
 2'-0" x 1'-0"
 (3) #5's BTM

 WF4
 4'-0" x 1'-0"
 (5)#5's BTM

 WF6
 6'-0" x 1'-6"
 (6) #5's T & B

180 DEG HOOK

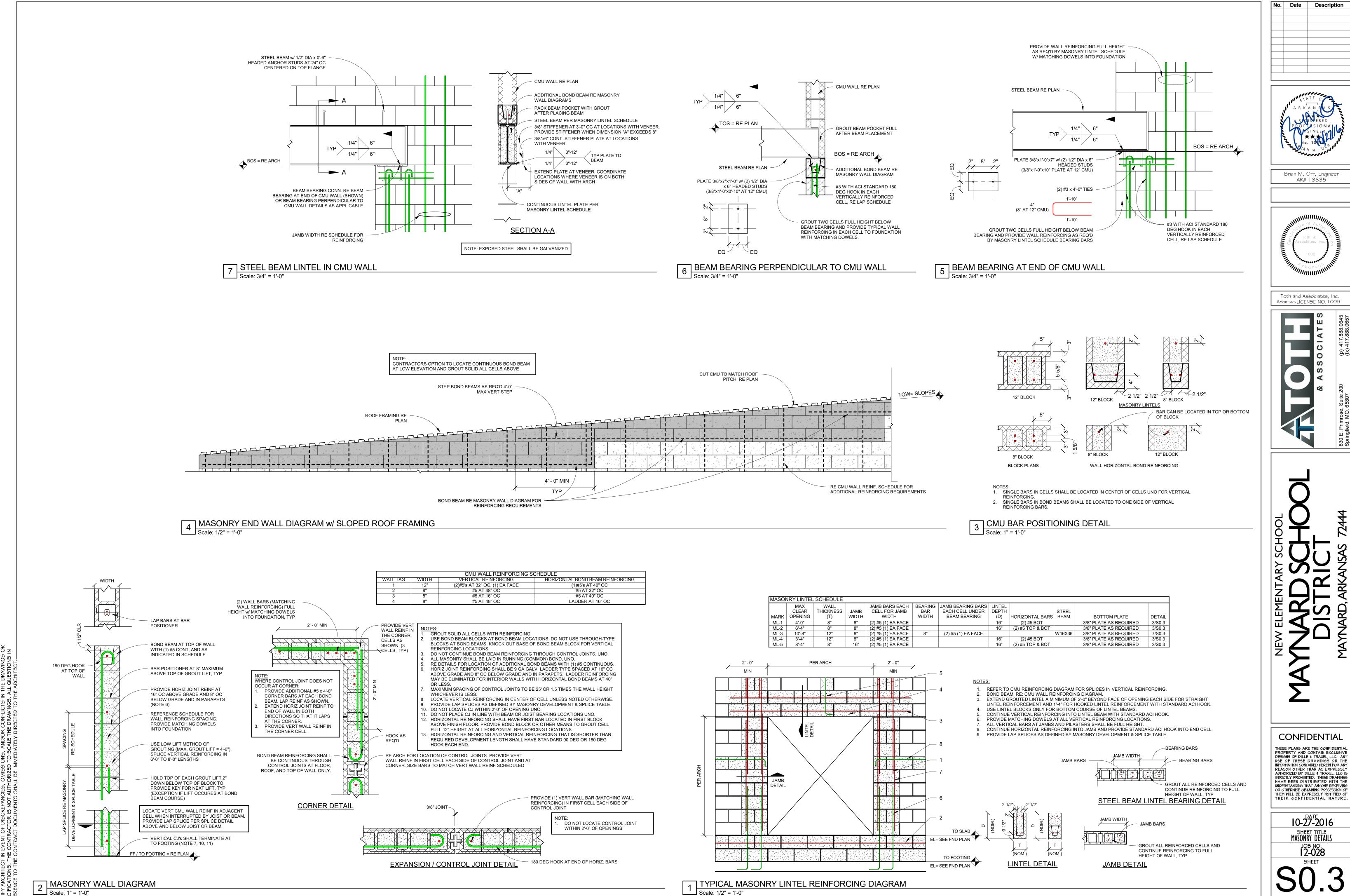
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	SIDELAP FASTENER	RSCHEDULE	
  0  0	DECK TYPE	(°) DECK TO STEEL MEMBER CONNECTOR TYP	(*) NUMBER OF SIDELAP CONNECTORS (#10 TEK SCREWS, UNO)
	1.5 B DECK CONNECTOR PATTERN 36/7	5/8" DIA PUDDLE WELDS #12 TEK SCREWS	4 CONNECTORS AT 5 EQUAL SPACES 8 CONNECTORS AT 9 EQUAL SPACES
0  0  0	1.5 C DECK CONNECTOR PATTERN 36/4	5/8" DIA PUDDLE WELDS #12 TEK SCREWS	1 CONNECTORS AT 2 EQUAL SPACES 4 CONNECTORS AT 5 EQUAL SPACES
		3' - 0"	
<u> </u>		CONNECTOR PATTERN DIAGRAM (36/7) 3' - 0"	
		CONNECTOR PATTERN DIAGRAM (36/4)	1

No. Date Descript	ion
A R K A N S S REALTERED ROFESSIONAL ENGINEER 8 NS 13019 8 NM 13019	Munna -
Brian M. Orr, Enginee AR# 13335	er
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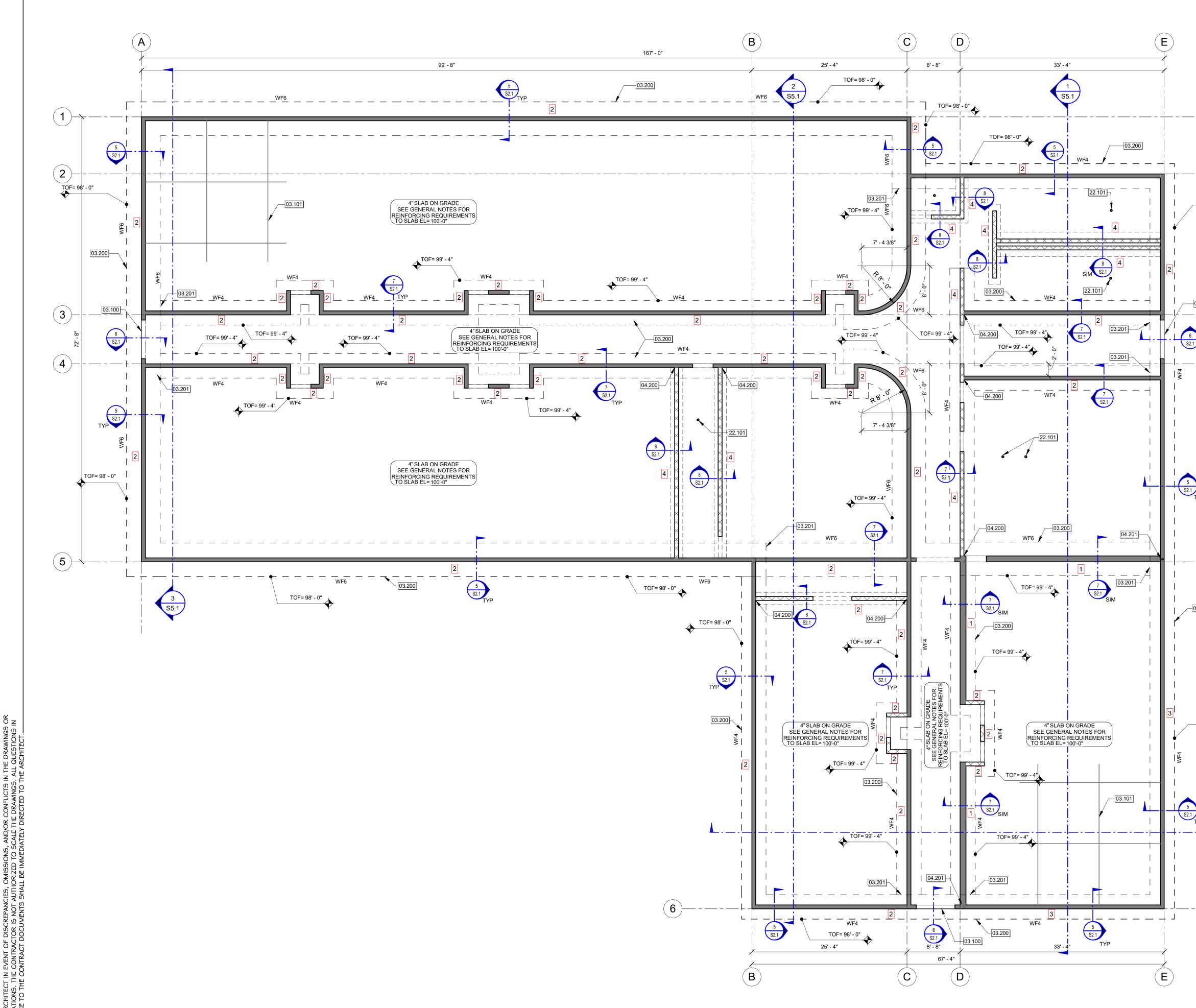
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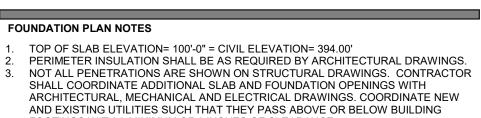
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1 FOUNDATION PLAN **Scale**: 1/8" = 1'-0"

	FOUNDATION KEYNOTES
KEYNOTE	DESCRIPTION
03.100	DARK LINE INDICATES SLAB EDGE.
03.101	LINE INDICATES SLAB CONTROL JOINTS. REFER TO CONCRETE SLAB JOINTS DETAIL FOR REQUIREMENTS. SHOWN IN ONE BAY ONLY FOR CLARITY.
03.200	DASHED LINE INDICATES FOUNDATION BELOW.
03.201	FOOTING STEP, RE TYPICAL FOOTING STEP DETAIL. CONTRACTOR SHALL COORDINATE ACTUAL LOCATION WITH FINISH GRADE.
04.200	WHERE NON-LOAD BEARING WALLS INTERSECT LOAD BEARING WALLS DOWEL NON-LOAD BEARING WALLS INTO LOAD BEARING WALLS AT BOND BEAM LOCATIONS.
04.201	PROVIDE #5 CORNER BARS WITH MINIMUM 24" LONG LEGS AT EVERY COURSE BETWEEN 12" AND 8" CMU WALLS. ALTERNATE DIRECTION OF LEG IN 12" WALL.
22.101	FLOOR DRAIN, REFER TO PLUMBING DRAWING FOR EXACT SIZE AND LOCATION. SLOPE SLAB TO DRAIN AS REQUIRED.



- FOOTINGS WITH A MINIMUM OF 6 INCHES OF CLEARANCE. SLAB FINISH REQUIREMENTS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
- COORDINATE ALL ELEVATIONS WITH CIVIL AND ARCH. DRAWINGS, REPORT ANY DISCREPANCIES TO ARCH. ALL UNCONTROLLED FILL SHALL BE REMOVED UNDER THE BUILDING FOOTPRINT. REPLACE SOIL UNDER BUILDING FOUNDATIONS WITH APPROVED BACKFILL MATERIAL AS DEFINED BY GEOTECHNICAL ENGINEERING REPORT. AREAS WITH REMOVED UNCONTROLLED FILL UNDER NEW BUILDING SLAB SHALL BE BACKFILLED WITH MATERIAL MEETING THE REQUIREMENTS OF THE LVCL AS SPECIFIED IN THE GEOTECHNICAL ENGINEERING REPORT. THE TOP 6" OF MATERIAL UNDER ENTIRE SLAB SHALL MEET THE FREE DRAINING GRANULAR MATERIAL REQUIREMENTS AS SPECIFIED IN THE SLAB ON GRADE GENERAL
- NOTES PROVIDE 2'-0" LOW VOLUME CHANGE LAYER UNDER ENTIRE BUILDING FOOTPRINT, REFERENCE GENERAL NOTES AND GEOTECHNICAL ENGINEERING REPORT FOR
- REQUIREMENTS. REFERENCE FRONT END SPECIFICATIONS FOR ALLOWANCES AND UNIT PRICES. THE ESTIMATED ALLOWANCES DO NOT INCLUDE WHAT IS REQUIRED TO CONSTRUCT THE BUILDING PAD AND LOW VOLUME CHANGE LAYER, THIS SHALL BE INCLUDED AS PART OF THE BASE BID.
- REFERENCE TYPICAL SLAB REINFORCING DETAIL FOR SUPPLEMENTAL REINFORCING AT RE-ENTRANT CORNERS, SLAB OPENINGS, AND DOOR OPENINGS. 10. REINFORCING SHALL BE CONTINUOUS IN ALL CONCRETE CONSTRUCTION, REFERENCE CORNER BAR REINFORCING DETAIL. THIS INCLUDES WALL REINFORCING WHERE PEDESTALS ARE INTEGRAL WITH THE WALL.

MASONRY PLAN NOTES

WALL LEGEND

5

\_\_\_\_\_

TOF= 98' - 0"

S5.1

\_\_\_03.200

7

8.

TOF= 98' - 0"

-03.100

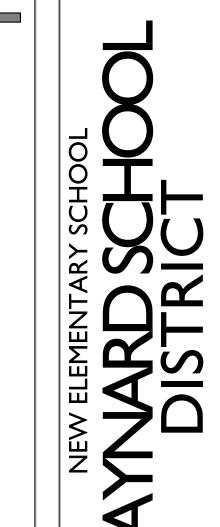
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- REFER TO ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZE OF CHASES, INSERTS, OPENINGS, SLEEVES, WASHES, DRIPS, REVEALS, AND OTHER PROJECT REQUIREMENTS THAT AFFECT MASONRY WORK. COMBINE THE REQUIREMENTS INTO THE SHOP DRAWINGS AND PROVIDE STRUCTURAL FRAMING CONSISTENT WITH TYPICAL DETAILS AS REQUIRED AT WALL OPENINGS WHERE STRUCTURAL FRAMING IS NOT
- SPECIFICALLY SHOWN. ALL OPENINGS THROUGH MASONRY SHALL BE SHOWN ON THE SHOP DRAWINGS. OPENINGS WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS ARE SUBJECT TO REVIEW AND ACCEPTANCE AND SHALL BE CLEARLY INDICATED FOR REVIEW AND ACCEPTANCE ON THE SHOP DRAWINGS. 3. ALL UN TAGGED NON-LOAD BEARING WALLS SHALL BE WALL TAG 4, REFER TO
- MASONRY WALL DIAGRAM SCHEDULE. 4. ALL OPENINGS IN MASONRY SHALL HAVE A LINTEL AS DEFINED BY THE MASONRY LINTEL SCHEDULE BASED ON WIDTH OF OPENING. ALL HEAD AND SILL HEIGHTS SHALL BE COORDINATED WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- 5. ALL LINTELS MAY NOT BE INDICATED ON PLANS. CONTRACTOR SHALL SIZE LINTELS DEFINED BY MASONRY LINTEL SCHEDULE FOR NON-LOAD BEARING WALLS

REPRESENTS CMU BEARING WALL. RE PLAN FOR WALL TYPE.

REPRESENTS 8" CMU NON BEARING WALL, U.N.O.



No. Date Description

Brian M. Orr, Engineer

Toth and Associates, Inc.

Arkansas LICENSE NO. 1008

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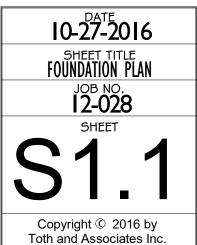
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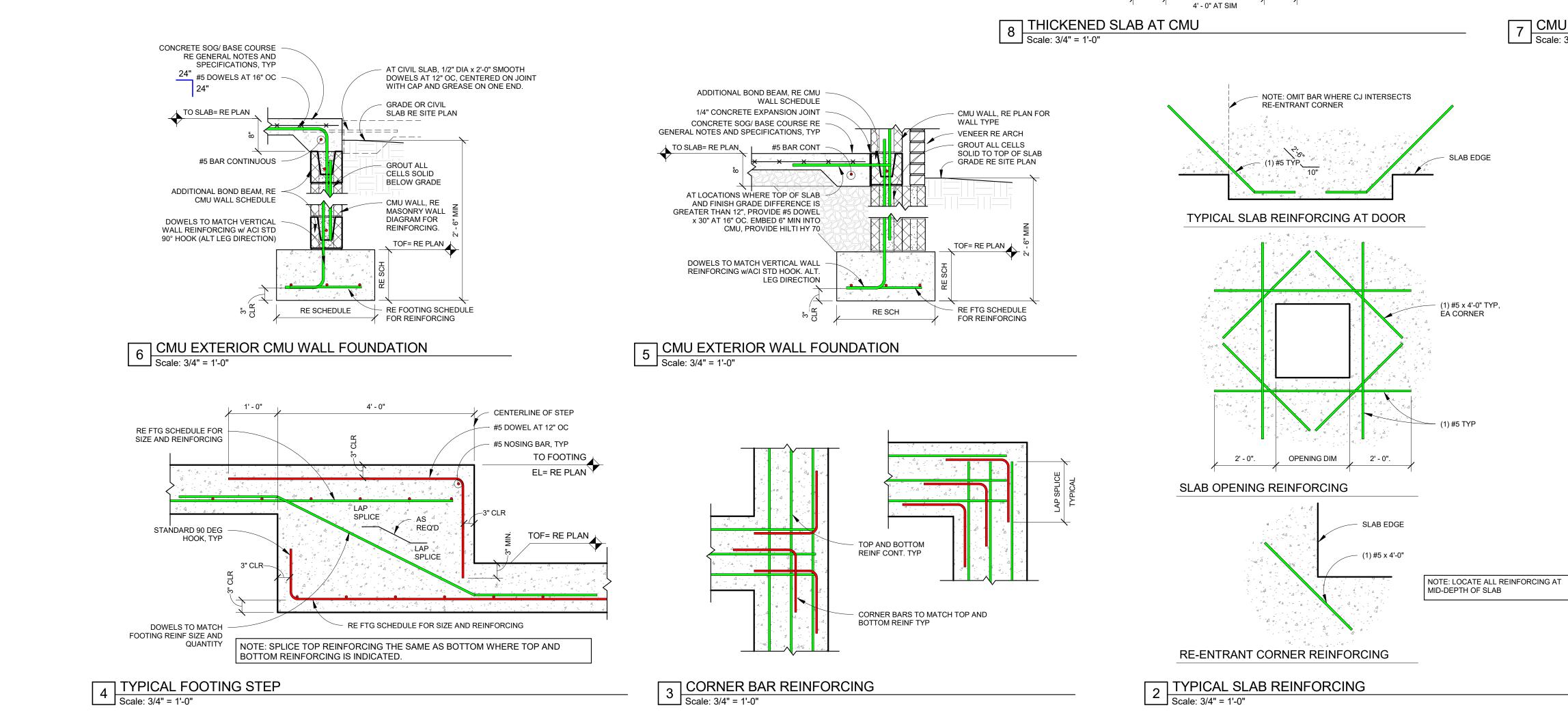


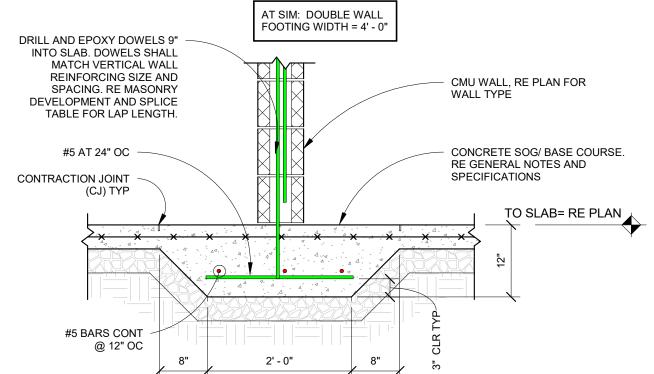


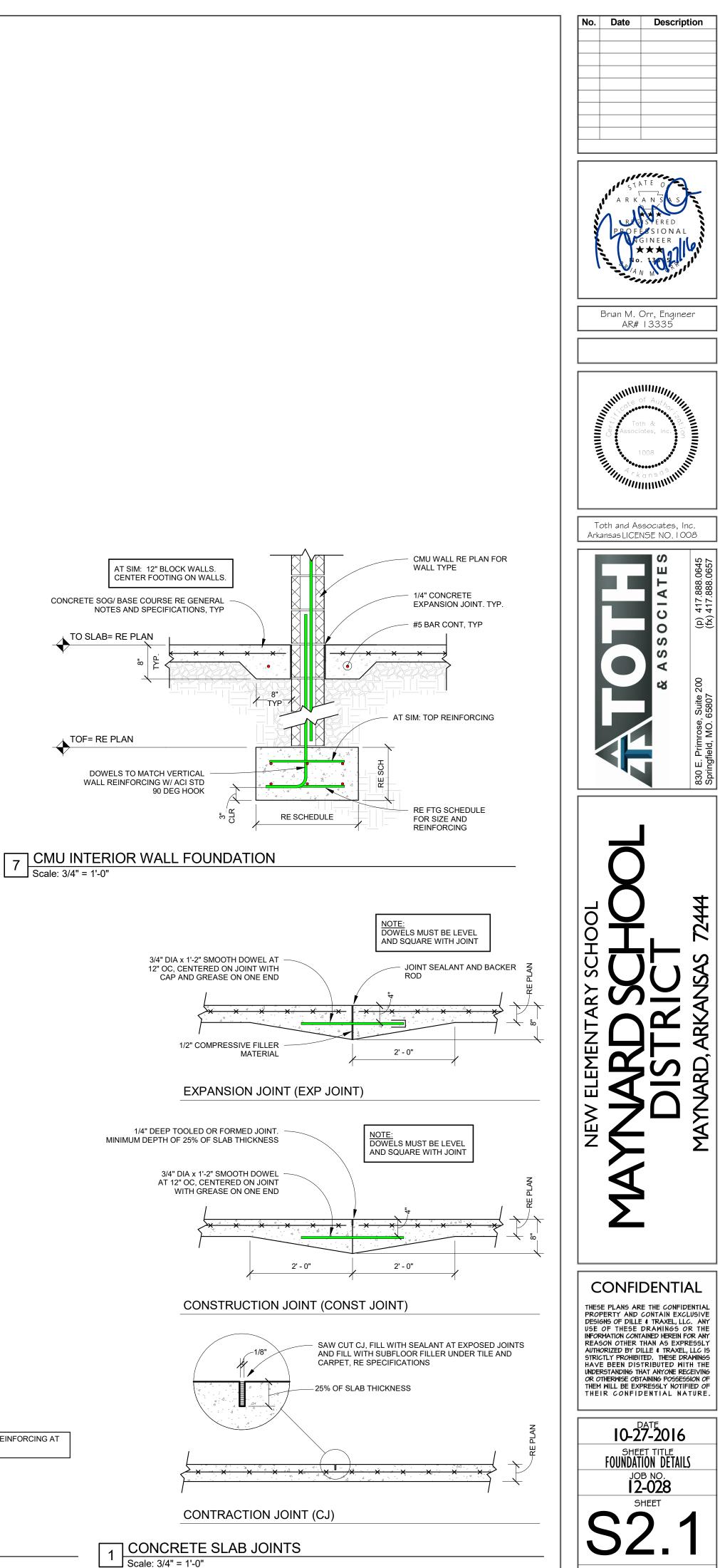
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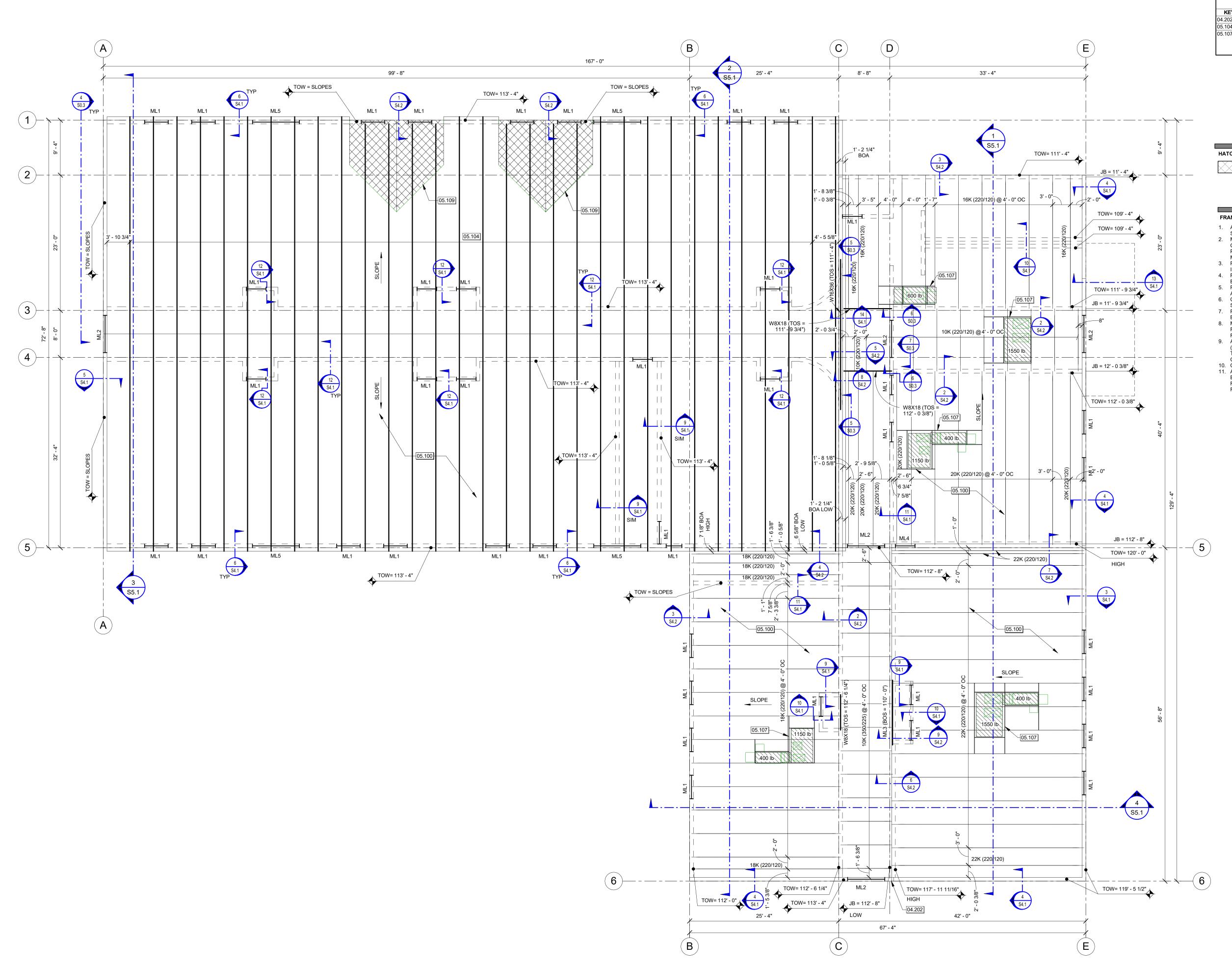






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HATCH LEGEND

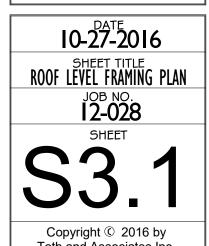
- REPRESENTS PRE-ENGINEERED LIGHT GAGE TRUSS OVERBUILD BY LIGHT GAGE TRUSS SUPPLIER. METAL DECK SHALL BE CONTINUOUSLY SUPPORTED AT 4'-0" OC MAX.

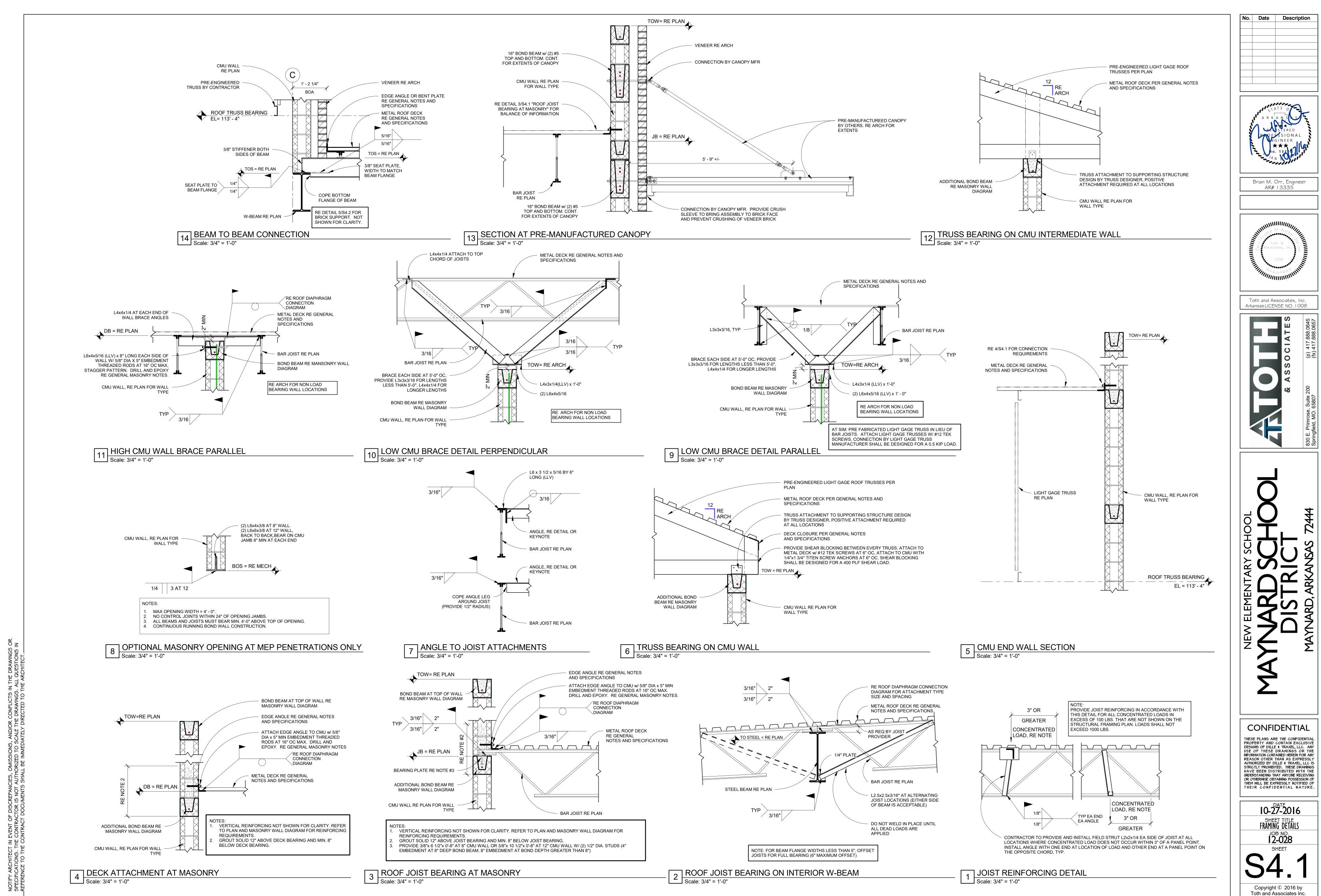
FRAMING PLAN NOTES

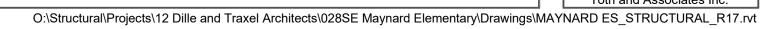
- ALL ELEVATIONS, DOOR LOCATIONS, OPENING WIDTHS, HEAD AND SILL HEIGHTS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
   MECHANICAL EQUIPMENT WEIGHTS AND LOCATIONS ARE ESTIMATES ONLY. GC COORDINATE EXACT WEIGHT AND LOCATIONS WITH EQUIPMENT PROVIDER. JOIST
- PROVIDER TO DESIGN ASSOCIATED JOISTS FOR ADDITIONAL LOADS DUE TO MECHANICAL EQUIPMENT.3. PROVIDE ANGLE SUPPORT FRAME FOR ALL DECK OPENINGS GREATER THAN 10
- PROVIDE ANGLE SUPPORT FRAME FOR ALL DECK OPENINGS GREATER THAN TO INCHES SQUARE, THIS INCLUDES ROOF DRAIN PENETRATIONS.
   REFER TO ARCHITECTURAL DRAWINGS FOR TOP OF PARTITION WALL ELEVATIONS,
- BRACE TOPS OF WALLS IN ACCORDANCE WITH TYPICAL DETAILS.
  5. PROVIDE A STEEL LINTEL IN ACCORDANCE WITH THE LOOSE LINTEL SCHEDULE AT
- ALL OPENINGS IN MASONRY VENEER.
   COORDINATE FIREPROOFING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND
- COORDINATE FIREPROOFING REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
   PROVIDE JOIST BRIDGING AS REQUIRED BY THE JOIST PROVIDER. GC COORDINATE BRIDGING LOCATIONS WITH OTHER TRADES.
   MECHANICAL HANGERS AND OTHER ITEMS SUPPORTED FROM FLOOR OR ROOF
- MECHANICAL HANGERS AND OTHER TRADES.
   MECHANICAL HANGERS AND OTHER ITEMS SUPPORTED FROM FLOOR OR ROOF FRAMING ARE TO BE SUPPORTED FROM JOIST PANEL POINTS ONLY, REFER TO JOIST REINFORCING DETAIL FOR ADDITIONAL INFORMATION.
   AT ALL LIGHT GAGE TRUSS RIDGES, VALLEYS, AND HIPS AN 1/8" x 8" CONT. PLATE
- (BENT TO MATCH ROOF PROFILE) SHALL BE PROVIDED. ATTACH PLATE TO EACH TRUSS w/ (4) - #12 TEK SCREWS TYP. ATTACH DECK TO PLATE PER ROOF DIAPHRAGM CONNECTION DIAGRAM.
   10. COORDINATE ALL ROOF OVERHANG DIMENSIONS WITH ARCH.
- 11. ALL ROOF DECK BEARING CONDITIONS SHALL HAVE 1 1/2" MIN BEARING WIDTH AT EXTERIOR SUPPORTS AND 3" AT INTERIOR SUPPORTS IN ACCORDANCE WITH SDI REQUIREMENTS. TRUSS SUPPLIER SHALL PROVIDE ADDITIONAL MEMBERS, PLATES, FILLERS ETC AS REQUIRED.

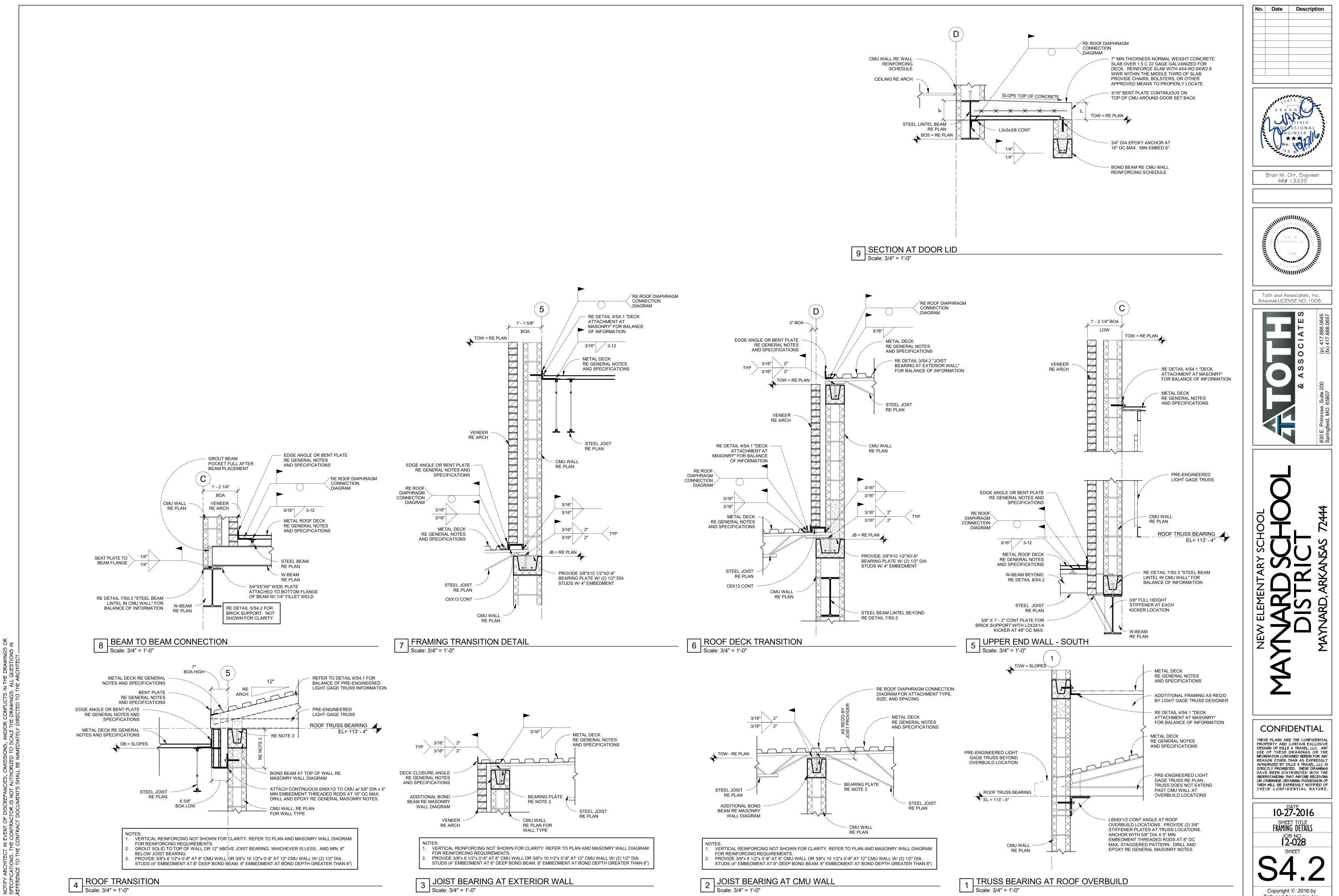


No. Date Description



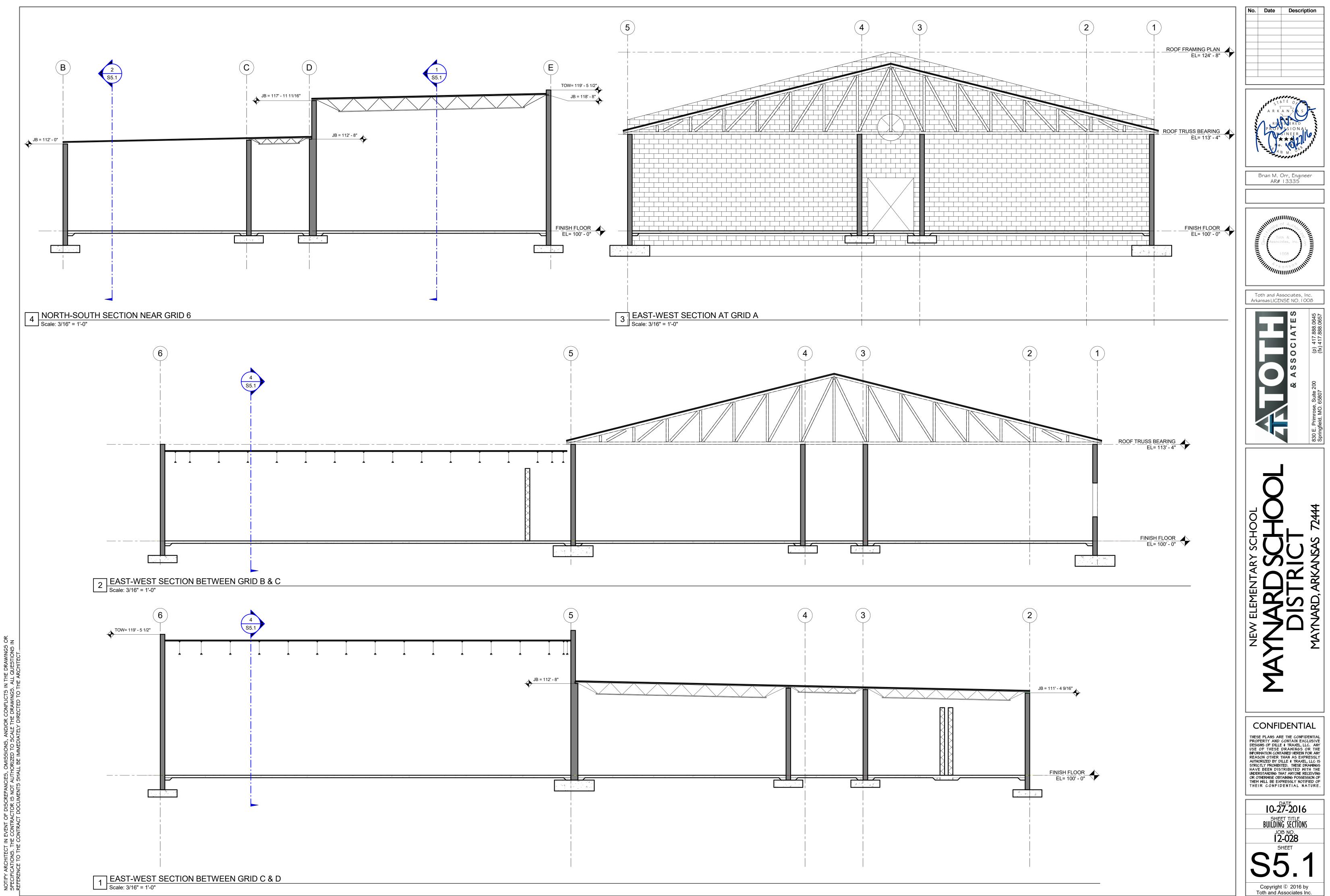




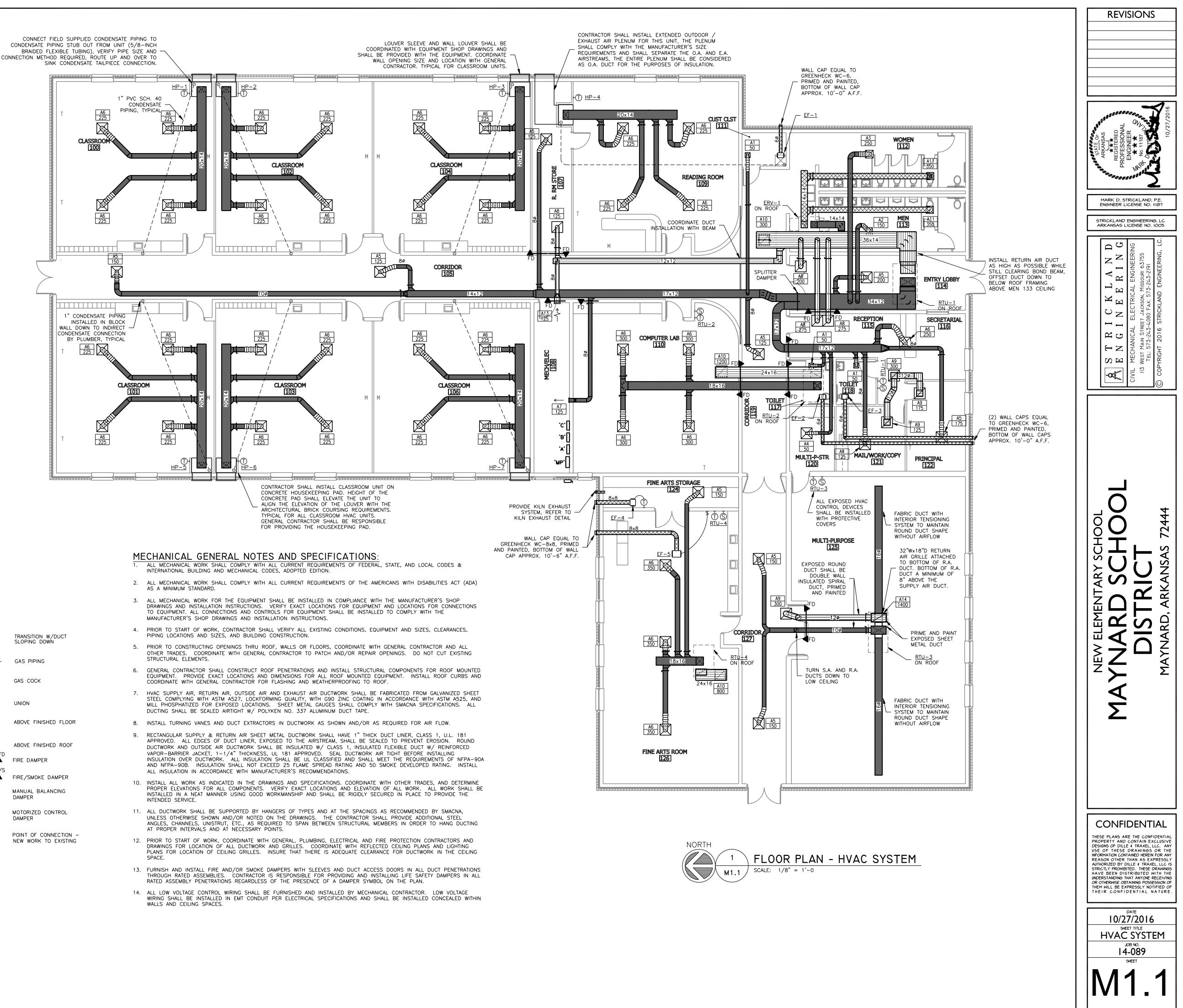




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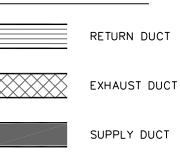


BRANCH DUCT SCHEDULE						
CFM RANGE	DUCT SIZE					
50 - 125	6"ø					
126 - 200	8"ø					
201 - 350	10 <b>"</b> ø					
351 - 500	12 <b>"</b> ø					
501 - 750	14 <b>"</b> ø					
751 – 850	16 <b>"</b> ø					
851 - 1100	18"ø					
1101 – 1500	20"ø					

BRANCH DUCTING TO AIR DEVICE SHALL BE ROUND DUCT AND SHALL BE SIZED PER BRANCH DUCT SCHEDULE, UNLESS OTHERWISE NOTED. DUCTWORK GENERAL NOTES:

- ALL DUCTWORK DIMENSIONS SHOWN ARE SHEETMETAL DIMENSIONS. CONTRACTOR DOES NOT NEED TO INCREASE OR DECREASE DUCT SIZE SHOWN ON PLANS FOR INSULATION.
- RECTANGULAR SUPPLY AND RETURN DUCTWORK SHALL BE INTERNALLY INSULATED, UNLESS OTHERWISE NOTED.
- RECTANGULAR FRESH AIR AND EXHAUST DUCTWORK SHALL BE EXTERNALLY INSULATED, UNLESS OTHERWISE NOTED.
- . ROUND BRANCH DUCTWORK SHALL BE EXTERNALLY INSULATED WITH INSULATED FLEXIBLE DUCT AS SPECIFIED IN MECHANICAL NOTES

### HVAC SYMBOLS



SUPPLY DUCT RISER

RFTURN

DUCT RISER

TZHAUST DUCT RISER

CEILING SUPPLY GRILLE

CEILING RETURN GRILLE

 $\square$ CEILING EXHAUST GRILLE

		DUCT WITH TURNING VANES
		DUCT TAKE-OFF AIR SCOOP OR E
		DUCT TAKE-OFF WITH DAMPER
Ð	£.	THERMOSTAT WIT SYSTEM CONTROL 54" A.F.F. TYPICA 48" A.F.F. FRONT
Ð	ىلە ك	HUMIDISTAT WITH SYSTEM CONTROL 54" A.F.F. TYPICA 48" A.F.F. FRONT
Ś	LL ا	TEMPERATURE SE SYSTEM CONTROL 54" A.F.F. TYPICA 48" A.F.F. FRONT
<b>0</b>		AIR DEVICE NO. CFM

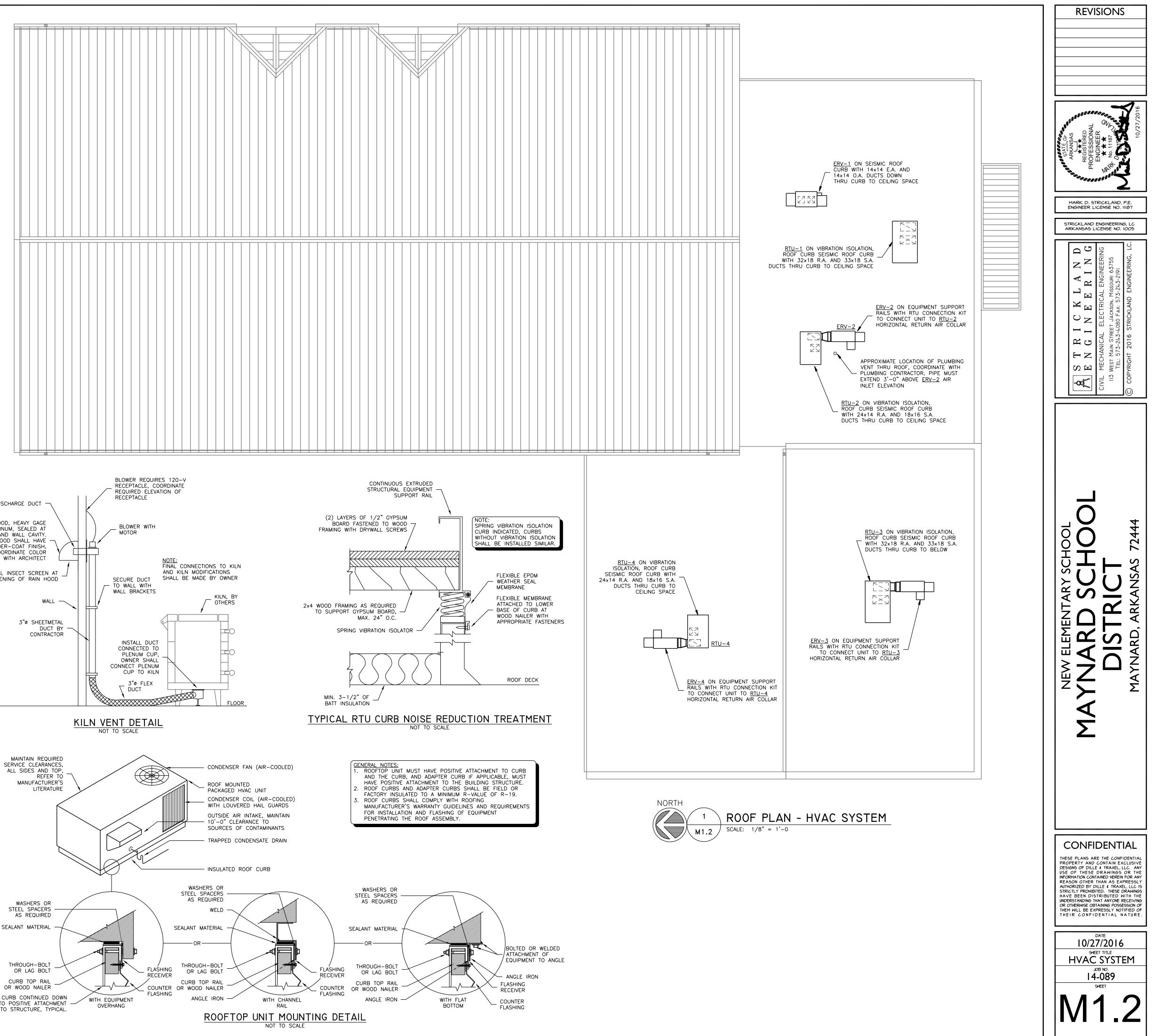
DUCT TAKE-OFF WITH AIR SCOOP OR EXTRACTOR
DUCT TAKE-OFF WITH DAMPER
THERMOSTAT WITH SYSTEM CONTROL MARKED 54" A.F.F. TYPICAL 48" A.F.F. FRONT ACCESS ADA
HUMIDISTAT WITH SYSTEM CONTROL MARKED 54" A.F.F. TYPICAL 48" A.F.F. EPONT ACCESS ADA

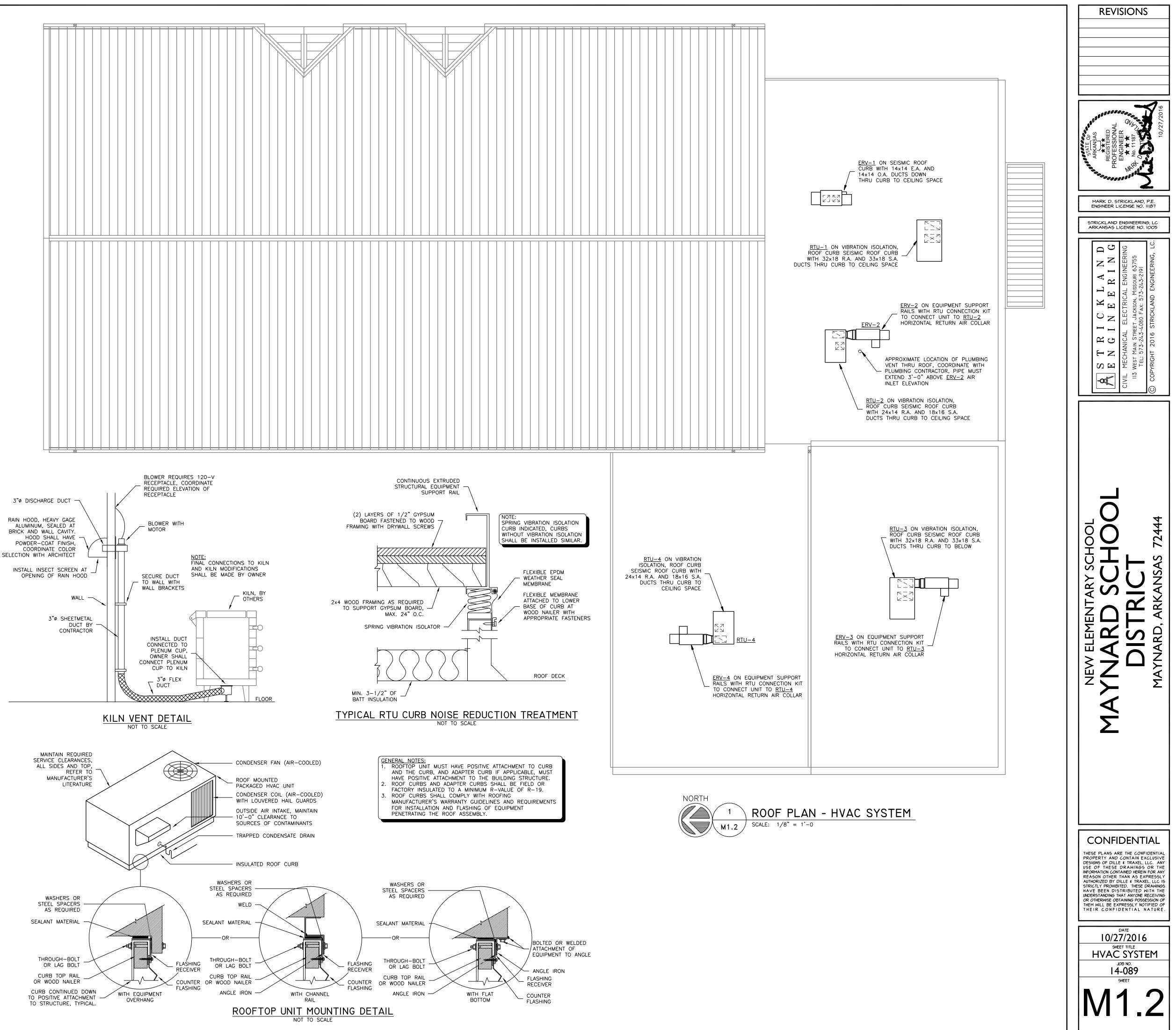
FRONT ACCESS ADA TURE SENSOR WITH CONTROL MARKED TYPICAL

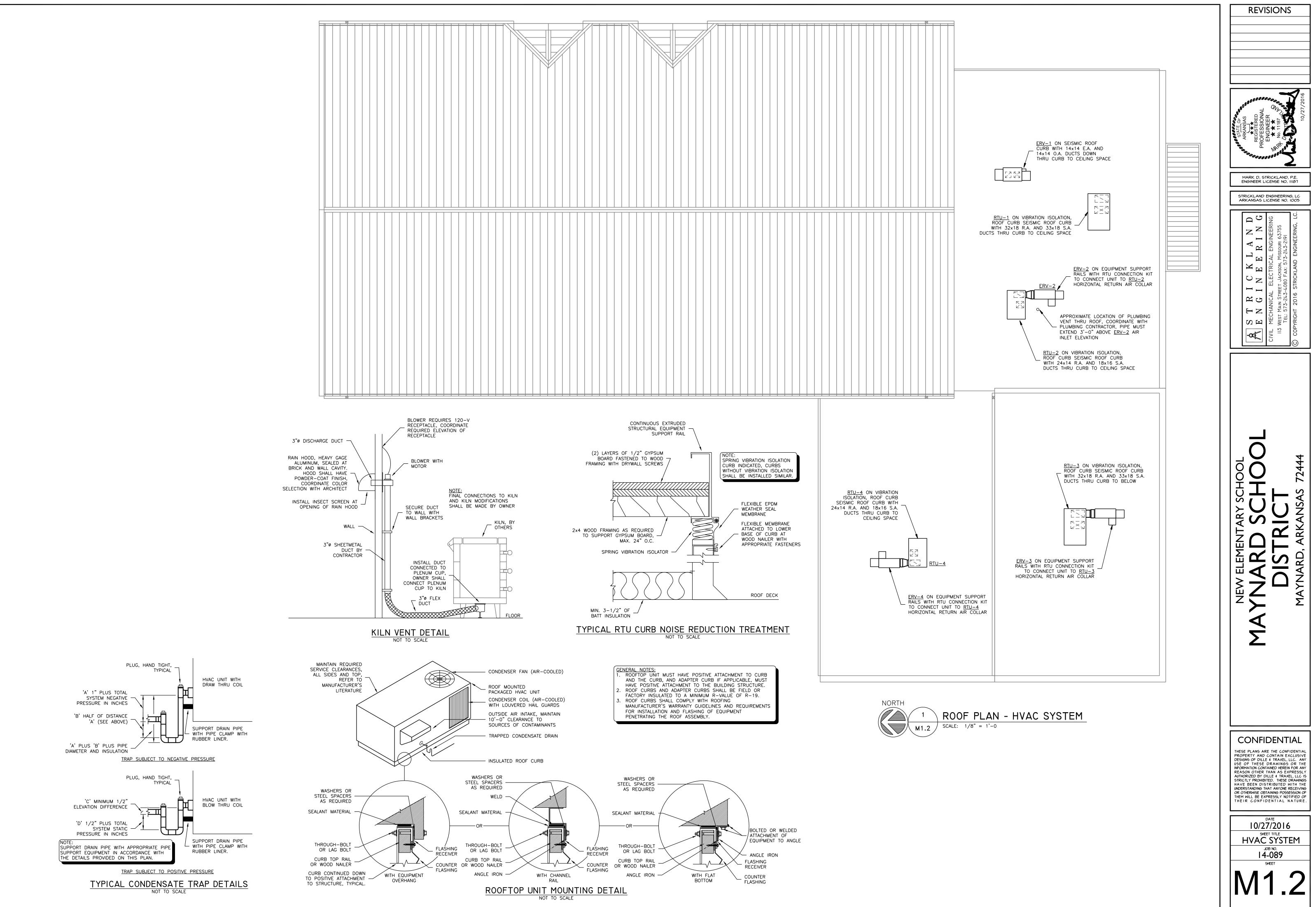
FRONT ACCESS ADA CE NO.

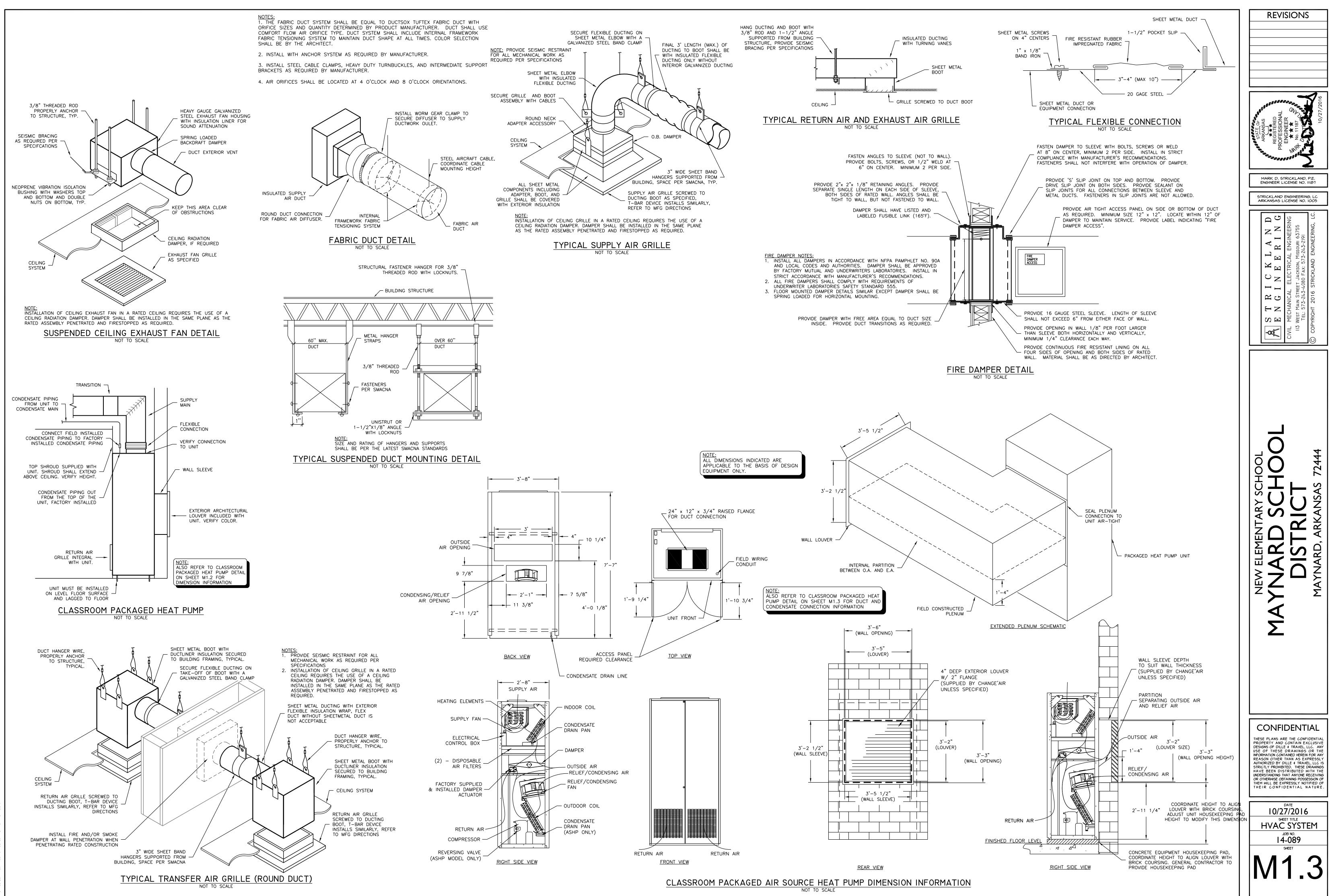
TRANSITION W/DUCT SLOPING UP

D	TRANSITION W/DUC SLOPING DOWN
— G —	GAS PIPING
	GAS COCK
<b> </b>	UNION
4.F.F.	ABOVE FINISHED FL
A.F.R.	ABOVE FINISHED R
FD	FIRE DAMPER
F/S	FIRE/SMOKE DAMPE
	MANUAL BALANCINO DAMPER
	MOTORIZED CONTRO DAMPER
M	









			HVAC	CEQUIPMENT SCHED	DULE		
MARK RTU-1	ITEM ROOFTOP AIR	MANUFACTURER TRANE	MODEL NO. THC060E	SPECIFICATIONS 15 SEER	REMARKS NOTES:	OPERATING CONDITIONS SUMMER AMBIENT DB / WB (F)	95 / 76
-	CONDITIONER WITH				1, 2, 3, 4, 5, 6, 10, 11, 12, 13	WINTER AMBIENT DB (F)	8.0
	HOT GAS REHEAT AND ELECTRIC HEAT		5-TON NOMINAL			SUPPLY AIR CFM OUTSIDE AIR CFM	2000.0 700.0
	SUPPLY FAN			2000 CFM @ 0.60" ESP 2 HP, 880 RPM,			1300.0
				0.96 BHP		CLG COIL TOTAL CAPACITY (MBH) CLG COIL SENS. CAPACITY (MBH)	63.5 47.3
	COMPRESSOR			(1) SINGLE-STAGE SCROLL COMPRESSOR		HTG COIL CAPACITY TOTAL (MBH) HGRH COIL CAPACITY (MBH)	59.0 38.2
	ELECTRIC HEAT		BAYHTRE323	18-KW ELECTRIC HEAT (23 KW HEAT KIT)			
	ELECTRICAL DATA			208 VOLT, 3-PHASE, 66.3 MCA, 70 MOCP		-	
	OPTIONS INCLUDED			YSTEM, TWO-STAGE HEAT, HOT GAS REHEA RED HAIL GUARDS, FACTORY INSTALLED EL		-	
	INCLUDED			FIELD WIRED GFCI CONVENIENCE RECEPTAG			
	CONTROLS	TRANE		BACNET COMPATIBLE WITH		-	
				PROGRAMMABLE THERMOSTAT INTERFACE		TOTAL UNIT WEIGHT (LBS)	1025.0
RTU-3		TRANE	THC060E	15 SEER	NOTES:	SUMMER AMBIENT DB / WB (F)	95 / 76
	CONDITIONER WITH HOT GAS REHEAT		5-TON NOMINAL		1, 2, 3, 4, 5, 6, 10, 11, 12, 13	WINTER AMBIENT DB (F) SUPPLY AIR CFM	8.0 2000.0
	AND ELECTRIC HEAT			2000 CFM @ 0.60" ESP			600.0
	SUPPLY FAN			2 HP, 880 RPM,		RETURN AIR CFM CLG COIL TOTAL CAPACITY (MBH)	1400.0 63.5
	COMPRESSOR					CLG COIL SENS. CAPACITY (MBH)	47.3 59.0
	COMPRESSOR			(1) SINGLE-STAGE SCROLL COMPRESSOR		HTG COIL CAPACITY TOTAL (MBH) HGRH COIL CAPACITY (MBH)	59.0 38.2
	ELECTRIC HEAT		BAYHTRE323	18-KW ELECTRIC HEAT (23 KW HEAT KIT)			
	ELECTRICAL DATA			208 VOLT, 3-PHASE, 66.3 MCA, 70 MOCP			
	OPTIONS INCLUDED	STAINLESS STEEL C	ONDENSATE PAN, LOUVE	YSTEM, TWO-STAGE HEAT, HOT GAS REHEA RED HAIL GUARDS, FACTORY INSTALLED EL IELD WIRED GFCI CONVENIENCE RECEPTAC	ECTRICAL DISCONNECT, PHASE		
					L	_	
	CONTROLS	TRANE		BACNET COMPATIBLE WITH PROGRAMMABLE THERMOSTAT			1005 -
RTU-2, 4	ROOFTOP AIR	TRANE	THC036E	INTERFACE 15 SEER	NOTES:	TOTAL UNIT WEIGHT (LBS) SUMMER AMBIENT DB / WB (F)	1025.0 95 / 76
					1, 2, 3, 4, 5, 6, 10, 11, 12, 13		8.0
	HOT GAS REHEAT AND ELECTRIC HEAT		3-TON NOMINAL			SUPPLY AIR CFM OUTSIDE AIR CFM	1200.0 325.0
	SUPPLY FAN			1200 CFM @ 0.60" ESP 3/4 HP, 943 RPM,		RETURN AIR CFM CLG COIL TOTAL CAPACITY (MBH)	875.0 38.5
				0.54 BHP		CLG COIL SENS. CAPACITY (MBH)	27.9
	COMPRESSOR			(1) SINGLE-STAGE SCROLL COMPRESSOR		HTG COIL CAPACITY TOTAL (MBH) HGRH COIL CAPACITY (MBH)	44.7 22.7
	ELECTRIC HEAT		BAYHTRE318	13-KW ELECTRIC HEAT			
ELEC	ELECTRICAL DATA			(18 KW HEAT KIT) 208 VOLT, 3-PHASE, 51.6 MCA, 60 MOCP		-	
	OPTIONS INCLUDED	STAINLESS STEEL C	ONDENSATE PAN, LOUVE	YSTEM, TWO-STAGE HEAT, HOT GAS REHEA RED HAIL GUARDS, FACTORY INSTALLED EL	ECTRICAL DISCONNECT, PHASE		
		MONITOR, H	NGED ACCESS DOORS, F	FIELD WIRED GFCI CONVENIENCE RECEPTAC	CLE, 2" MERV 8 FILTER(S)		
	CONTROLS	TRANE		BACNET COMPATIBLE WITH PROGRAMMABLE THERMOSTAT			
HP-1	VERTICAL AIR	CHANGE'AIR	EAHP 36 900 O B	INTERFACE 3.0-TON NOMINAL	NOTES:	TOTAL UNIT WEIGHT (LBS) SUMMER AMBIENT DB / WB (°F)	773.0 96.0 / 78.0
THRU	SOURCE HEAT				1, 2, 3, 4, 5, 6, 10, 19	WINTER AMBIENT DB (°F)	10.0
HP-7	PUMP CLASSROOM VENTILATOR					SUPPLY AIR CFM OUTSIDE AIR CFM	900 325
	SUPPLY FAN			900 CFM @ 0.25" ESP		RETURN AIR CFM	575
				(1) 1/2 HP EC MOTORS		CLG COIL EAT DB / WB (°F) CLG COIL LAT DB (°F)	81.0 / 67.2 55.0
	ENERGY RECOVERY			325 CFM		CLG COIL TOTAL CAPACITY (MBH)	33.8
	WHEEL EXHAUST			(1) 2/3 HP EC MOTORS		CLG COIL SENS. CAPACITY (MBH) HTG COIL CAPACITY TOTAL (MBH)	23.1 22.3
	COMPRESSOR			(1) TWO-STAGE SCROLL COMPRESSOR		CLG ERW TOTAL CAPACITY (MBH) HTG ERW TOTAL CAPACITY (MBH)	10.6 18.5
	ELECTRICAL DATA			208 VOLT, 3-PHASE, 46.7 MCA, 60 MOCP		ELECTRIC HEAT CAPACITY (MBH)	34.13
	OPTIONS INCLUDED	TWO-STAGE COO	DLING, ENERGY RECOVER	TEM, TWO-STAGE HEAT, 10-KW ELECTRIC BA RY WHEEL, CLOSED CELL FOAM INSULATION ELECTRICAL DISCONNECT, PHASE MONITO	LINER, FACTORY INSTALLED		
			RV 8 FILTER(S), WALL LO	UVER SIZED FOR UNIT WALL OPENING BY MA	· · · · ·		
	CONTROLS		CHANGE'AIR	BACNET COMPATIBLE WITH PROGRAMMABLE THERMOSTAT INTERFACE		TOTAL UNIT WEIGHT (LBS)	650.0
ERV-1	STATIC CORE ENERGY RECOVERY	RENEWAIRE			NOTES: 7, 8, 9, 10, 11, 12, 14, 15	SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB (F)	96.0 / 78.0
	SYSTEM:				, _, _, ., <b>, , , , , , , , , , , , , , , , , </b>	SUPPLY AIR CFM	700.0
	STATIC PLATE ENERGY RECOVERY	RENEWAIRE	HE1.5XRT ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT		EXHAUST AIR CFM SUMMER EAT DB / WB (F)	700.0 75.0 / 62.
	CORE SUPPLY AIR FAN	RENEWAIRE		ENERGY RECOVERY 700 CFM @ 0.1" E.S.P.		WINTER EAT DB / WB (F)	70.0 / 58. 80.1 / 69.
				ELECTRICALLY COMMUTATED MOTOR		SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F)	55.5 / 47.
	EXHAUST AIR FAN	RENEWAIRE		700 CFM @ 0.25" E.S.P. ELECTRICALLY COMMUTATED MOTOR		WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	71.0 62.0
	ELECTRICAL DATA			208 VOLT, 1-PHASE, 14.0 MCA, 15 MOCP			
		NON-FUSED D	ISCONNECT, TRANSFOR	MER/RELAY PACKAGE, MOTORIZED ISOLATIC	ON DAMPERS, ROOF CURB		
				CONTACTOR PACKAGE		UNIT WEIGHT (LBS.)	500.0
	INCLUDED CONTROLS			CONTACTORTACIAGE		SUMMER AMBIENT DB / WB (F)	96.0 / 78. 10.0 / 7.7
RV-2, 4	INCLUDED CONTROLS STATIC CORE	RENEWAIRE			NOTES: 7, 8, 9, 10, 14, 15		
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM:				NOTES: 7, 8, 9, 10, 14, 15	WINTER AMBIENT DB (F) SUPPLY AIR CFM	325.0
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY	RENEWAIRE	HE1XRTC ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT			325.0
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE	RENEWAIRE	HE1XRTC ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY		SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58.
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY		HE1XRTC ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR		SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69.
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE	RENEWAIRE	HE1XRTC ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P.		SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT,	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN	RENEWAIRE	HE1XRTC ECM	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE,		SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48.
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN	RENEWAIRE	INECT, TRANSFORMER/F	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAU	7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0
RV-2, 4	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED	RENEWAIRE	INECT, TRANSFORMER/F	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION	7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS	RENEWAIRE	INECT, TRANSFORMER/F	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAU	7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY	RENEWAIRE RENEWAIRE RENEWAIRE NON-FUSED DISCOM	INECT, TRANSFORMER/F	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION	7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7
ERV-2, 4 ERV-3	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE	RENEWAIRE RENEWAIRE RENEWAIRE NON-FUSED DISCOM	INECT, TRANSFORMER/F	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78.
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY	RENEWAIRE RENEWAIRE RENEWAIRE NON-FUSED DISCON RENEWAIRE	NNECT, TRANSFORMER/R HOR	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION CONTACTOR PACKAGE (1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7 600.0 600.0 75.0 / 62.
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE	RENEWAIRE RENEWAIRE RENEWAIRE NON-FUSED DISCON RENEWAIRE	NNECT, TRANSFORMER/R HOR	<ul> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP</li> <li>ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION</li> <li>CONTACTOR PACKAGE</li> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY</li> <li>600 CFM @ 0.1" E.S.P.</li> </ul>	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB / WB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7 600.0 600.0 75.0 / 62. 70.0 / 58. 80.6 / 69.
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE	RENEWAIRE RENEWAIRE NON-FUSED DISCON RENEWAIRE RENEWAIRE RENEWAIRE RENEWAIRE	NNECT, TRANSFORMER/R HOR	(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P. ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION CONTACTOR PACKAGE (1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7 600.0 600.0 75.0 / 62. 70.0 / 58. 80.6 / 69.
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN	RENEWAIRE RENEWAIRE RENEWAIRE NON-FUSED DISCOM	NNECT, TRANSFORMER/R HOR	<ul> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP</li> <li>ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION</li> <li>CONTACTOR PACKAGE</li> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> </ul>	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB / WB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F)	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7 600.0 600.0 75.0 / 62. 70.0 / 58. 80.6 / 69. 53.9 / 45.
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN EXHAUST AIR FAN	RENEWAIRE	NECT, TRANSFORMER/R HOR HE1XRTC ECM	<ul> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP</li> <li>ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION</li> <li>CONTACTOR PACKAGE</li> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP</li> </ul>	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU NOTES: 7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62. 70.0 / 58. 79.7 / 69. 56.5 / 48. 73.0 64.0 250.0 96.0 / 78. 10.0 / 7.7 600.0 75.0 / 62. 70.0 / 58. 80.6 / 69. 53.9 / 45. 68.0
	INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN ELECTRICAL DATA OPTIONS INCLUDED CONTROLS STATIC CORE ENERGY RECOVERY SYSTEM: STATIC PLATE ENERGY RECOVERY CORE SUPPLY AIR FAN EXHAUST AIR FAN	RENEWAIRE	NECT, TRANSFORMER/R HOR HE1XRTC ECM	<ul> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 325 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR 208 VOLT, 1-PHASE, 11.5 MCA, 15 MOCP</li> <li>ELAY PACKAGE, MOTORIZED ISOLATION DAI ZONTAL RETURN AIR CONNECTION</li> <li>CONTACTOR PACKAGE</li> <li>(1) STATIC PLATE ENERGY RECOVERY CORE FOR SENSIBLE AND LATENT ENERGY RECOVERY</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>600 CFM @ 0.1" E.S.P.</li> <li>ELECTRICALLY COMMUTATED MOTOR</li> <li>208 VOLT, 1-PHASE,</li> </ul>	7, 8, 9, 10, 14, 15 MPERS, TRANSITION KIT TO RTU NOTES: 7, 8, 9, 10, 14, 15	SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) SUMMER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT. UNIT WEIGHT (LBS.) SUMMER AMBIENT DB / WB (F) WINTER AMBIENT DB (F) SUPPLY AIR CFM EXHAUST AIR CFM SUMMER EAT DB / WB (F) WINTER EAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TEMPERED LAT DB / WB (F) WINTER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT, SUMMER TOTAL RECOVERY EFFECT.	325.0 75.0 / 62 70.0 / 58 79.7 / 69 56.5 / 48 73.0 64.0 250.0 96.0 / 78 10.0 / 7. 600.0 75.0 / 62 70.0 / 58 80.6 / 69 53.9 / 45 68.0

EF-1	CEILING MOUNTED	GREENHECK	SP-A90	75 CFM @ .125" SP,	NOTES:	CONTROL-CONSTANT OPERATION	
	EXHAUST FAN			29 WATTS, 832 RPM,	14, 15, 16, 17		
				0.4 SONES, 115V, 1PH		UNIT WEIGHT (LBS.)	14.0
EF-2,3	CEILING MOUNTED	GREENHECK	SP-A90	75 CFM @ .125" SP,	NOTES:	CONTROL-OCCUPANCY SENSOR (FACTOR)	Y)
	EXHAUST FAN			29 WATTS, 832 RPM,	14, 15, 16, 17, 18		
				0.4 SONES, 115V, 1PH		UNIT WEIGHT (LBS.)	14.0
EF-4	CEILING MOUNTED	GREENHECK	SP-A250	250 CFM @ .125" SP,	NOTES:	CONTROL-THERMOSTAT (COOL FUNCTION	I)
	EXHAUST FAN			83 WATTS, 936 RPM,	14, 15, 16, 17		
				2.0 SONES, 115V, 1PH		UNIT WEIGHT (LBS.)	14.0
EF-5	CEILING MOUNTED	GREENHECK	SP-A510	400 CFM @ .25" SP,	NOTES:	CONTROL-WALL SWITCH	
	EXHAUST FAN			224 WATTS, 1003 RPM,	14, 15, 16, 17		
				3.5 SONES, 115V, 1PH		UNIT WEIGHT (LBS.)	14.0

HVAC EQUIPMENT NOTES:

REFRIGERANT	PIPING	SHALL	BE	TYPE	"L"	СОР	PER	WITH	BRA	ZED	JOINTS.	I
THESE MATER	RIALS SH	HALL BE	FL	JRNISH	ED	AND	INST	ALLED	ΒY	THE	MECHA	NIC

WITHIN WALLS AND CEILING SPACE.

3. UNIT SHALL BE EQUIPPED FOR LOW AMBIENT TEMPERATURE OPERATION.

4. UNIT SHALL INCLUDE FACTORY-INSTALLED CONTROLS AND WIRING TO PROVIDE MONITORING AND PROTECTION OF EQUIPMENT FROM: (1) VOLTAGE UNBALANCE; (2) OVER/UNDER VOLTAGE; (3) PHASE LOSS, REVERSAL, INCORRECT PHASE SEQUENCING; (4) RAPID SYSTEM RECYCLING; (5) FIRE ALARM SHUT-DOWN RELAY. 5. UNIT SHALL INCLUDE A ONE (1) YEAR PARTS AND LABOR WARRANTY FOR THE UNIT. THE COMPRESSOR SHALL INCLUDE A WARRANTY FOR NOT LESS THAN

FIVE (5) YEARS.

 UNIT SHALL BE PROVIDED WITH TWO SETS OF MERV-8, 2" PLEATED FILTERS.
 UNIT CONTROL VOLTAGE SHALL BE 24-VAC. CONTROLS FOR THE UNIT SHALL INCLUDE REQUIRED RELAYS AND CONTACTORS FOR AUTOMATIC CONTROL OF UNIT ON-OFF OPERATION.

 UNIT SHALL INCLUDE ELECTRONIC COMMUTATION MOTOR OPTION.
 UNIT SHALL INCLUDE ELECTRONIC COMMUTATION MOTOR OPTION.
 POWER SUPPLY SHALL BE AS SHOWN IN SCHEDULE WITH 24 VOLT LOW VOLTAGE CONTROL. POWER FEEDER SHALL BE SINGLE POINT CONNECTION. UNIT SHALL INCLUDE STEPDOWN TRANSFORMER TO POWER ALL 24V CONTROLS FOR THIS UNIT.
 ROOFTOP UNIT AND CURB SHALL INCLUDE PROVISIONS FOR INSTALLING POWER WIRING, RECEPTACLE WIRING, CONTROL WIRING IN CONDUIT FROM BUILDING CONTROL STATUS CONTROL OF THE DUPON OF THE PROVISIONS FOR INSTALLING POWER WIRING, RECEPTACLE WIRING, CONTROL WIRING IN CONDUIT FROM BUILDING CONTROL STATUS CONTROL OF THE DUPON OF THE PROVISIONS FOR INSTALLING POWER WIRING, RECEPTACLE WIRING, CONTROL WIRING IN CONDUIT FROM BUILDING CONTROL STATUS CONTROL OF THE DUPON OF THE PROVISIONS FOR INSTALLING POWER WIRING, RECEPTACLE WIRING, CONTROL WIRING IN CONDUIT FROM BUILDING CONTROL STATUS CONTROL OF THE DUPON OF THE PROVIDED FOR THE PR CEILING SPACE CONCEALED UP THROUGH CURBS TO ROOFTOP CONNECTION POINTS. MECHANICAL CONTRACTOR SHALL INSTALL CONTROL CONDUIT AND WIRING. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND WIRING FOR RTU POWER CIRCUITS. FLASH & SEAL CURB WATERTIGHT. CURB SHALL

COMPLY WITH ROOFING MANUFACTURER'S SPECIFICATIONS.

NOISE REDUCTION CURB COMPONENTS. 12. UNIT SHALL INCLUDE THE FOLLOWING OPTIONS:

12.1. NON-POWERED 115-V GFCI CONVENIENCE OUTLET (FACTORY MOUNTED, FIELD WIRED BY ELECTRICIAN) 12.2. NON-FUSED ELECTRICAL DISCONNECT (FACTORY)

12.3. TWO-STAGE ELECTRIC HEAT (FACTORY)

12.4. HINGED ACCESS PANELS (FACTORY) 12.5. 2" PLEATED FILTERS, MERV-8 (FACTORY)

12.6. THROUGH BASE ELECTRICAL CONNECTIONS (FACTORY) 12.7. DEHUMIDIFICATION OPTION (HOT GAS REHEAT) (FACTORY)

12.8. FROSTAT AND CRANKCASE HEATER (FACTORY) 12.9. RETURN AIR SMOKE DETECTOR

12.10. CLOGGED FILTER, FAN FAIL SWITCH (FACTORY) 12.11. CONDENSER COIL HAIL GUARDS (FACTORY)

12.12. FACTORY INSTALLED CONTROLS WITH BACNET CAPABILITY AND THERMOSTAT INTERFACE. CONTROLS SHALL INCLUDE INTEGRAL OCCUPANCY SENSOR OR 12.12. PACTORY INSTALLED CONTROLS WITH BACKET CAPABILITY AND THERMOSTAT INTERFACE. CONTROLS SHALL INCLUDE INTEGRAL OCC ABILITY TO CONNECT WITH EXTERNAL OCCUPANCY SENSOR FOR VENTILATION CONTROL. CONTROLS SHALL INCLUDE HUMIDISTAT.
 13. UNIT SHALL BE U.L. LISTED WITH THERMAL OVERLOAD AND A FACTORY INSTALLED DISCONNECT SWITCH.
 14. MOTOR SHALL INCLUDE PERMANENTLY LUBRICATED, SEALED BALL BEARINGS. 15. UNIT SHALL INCLUDE ROUND DUCT ADAPTER, BACKDRAFT DAMPER, ISOLATION KIT, ALUMINUM FAN WHEEL, AND FAN SPEED CONTROLLER. 16. UNIT SHALL INCLUDE INSULATED HOUSING. 17. UNIT SHALL BE CONTROLLED BY FACTORY INSTALLED AND WIRED GRILLE MOUNTED OCCUPANCY SENSOR. FAN RUN TIME DELAY SHALL BE FIELD ADJUSTABLE. UNIT SHALL HAVE GRILLE AS REQUIRED FOR FACTORY MOUNTED OCCUPANCY SENSOR OPTION. 18. CLASSROOM PACKAGED HEAT PUMP UNIT SHALL INCLUDE THE FOLLOWING OPTIONS:

18.1. UNIT SHALL INCLUDE FACTORY MOUNTED NON-FUSED ELECTRICAL DISCONNECT. 18.2. UNIT SHALL INCLUDE ENERGY RECOVERY WHEEL. 18.3. UNIT SHALL INCLUDE HINGED ACCESS PANELS, WALL SLEEVE, AND WALL LOUVER. ARCHITECT TO SELECT LOUVER FINISH COLOR. 18.4. UNIT SHALL INCLUDE HOT GAS REHEAT.

18.5. UNIT SHALL INCLUDE TWO-STAGE COMPRESSOR OPERATION. 18.6. UNIT SHALL INCLUDE COMPRESSOR SHROUD FOR SOUND DAMPENING.

18.7. UNIT SHALL INCLUDE A FACTORY INSTALLED, FACTORY-WIRED, FACTORY-PIPED CONDENSATE PUMP INSTALLED IN THE UNIT CABINET TO COLLECT AND DISCHARGE ALL CONDENSATE PRODUCED BY THE UNIT. 18.8. FACTORY INSTALLED CONTROLS WITH BACNET CAPABILITY AND THERMOSTAT INTERFACE. CONTROLS SHALL INCLUDE INTEGRAL OCCUPANCY SENSOR OR ABILITY TO CONNECT WITH EXTERNAL OCCUPANCY SENSOR FOR VENTILATION CONTROL. CONTROLS SHALL INCLUDE HUMIDISTAT.

/ARK	DESCRIPTION	MANUFACTURER	MODEL	FACE SIZE	NECK SIZE	FINISH	REMARKS
A1	SURFACE MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-1-S4-D5A	11 x 11	6x6, 6Ø	WHITE	NOTES: 1, 2
A2	SURFACE MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-1-S4-D5A	14 x 14	9x9, 8Ø	WHITE	NOTES: 1, 2
A3	SURFACE MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-1-S4-D5A	17 x 17	12x12, 10Ø	WHITE	NOTES: 1, 2
A4	GRID MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-6-S4-D5A	24 x 24	6x6, 6Ø	WHITE	NOTES: 1, 2
A5	GRID MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-6-S4-D5A	24 x 24	9x9, 8Ø	WHITE	NOTES: 1, 2
A6	GRID MOUNTED ALUMINUM FOUR-WAY SUPPLY DIFFUSER WITH ROUND NECK ADAPTER AND ALUMINUM DAMPER	METALAIRE	5500-6-S4-D5A	24 x 24	12x12, 10Ø	WHITE	NOTES: 1, 2
A7	SURFACE MOUNTED EXTRUDED ALUMINUM DOUBLE DEFLECTION SUPPLY GRILLE WITH ALUMINUM DAMPER	METALAIRE	V4004-1-OBDA	10W x 8H	8W x 6H	WHITE	NOTES: 1, 2
A8	GRID MOUNTED ALUMINUM GRID CORE (1/2"x1/2"x1/2") RETURN GRILLE WITH ALUM DAMPER	METALAIRE	CC5-6-OBDA	24 x 24	10 x 10	WHITE	NOTES: 1, 2
A9	GRID MOUNTED ALUMINUM GRID CORE (1/2"x1/2"x1/2") RETURN GRILLE WITH ALUM DAMPER	METALAIRE	CC5-6-OBDA	24 x 24	14 x 14	WHITE	NOTES: 1, 2
A10	GRID MOUNTED ALUMINUM GRID CORE (1/2"x1/2"x1/2") RETURN GRILLE WITH ALUM DAMPER	METALAIRE	CC5-6-OBDA	24 x 24	22 x 22	WHITE	NOTES: 1, 2
A11	SURFACE MOUNTED ALUMINUM GRID CORE (1/2"x1/2"x1/2") EXHAUST GRILLE WITH ALUM DAMPER	METALAIRE	CC5-1-OBDA	16 x 16	14 x 14	WHITE	NOTES: 1, 2
A12	SURFACE MOUNTED EXTRUDED ALUMINUM RETURN GRILLE	METALAIRE	RHE-1-OBDA	14 x 8	12 x 6	WHITE	NOTES: 1, 2
A13	SURFACE MOUNTED EXTRUDED ALUMINUM RETURN GRILLE	METALAIRE	RHE-1-OBDA	34 x 20	32 x 18	WHITE	NOTES: 1, 2
A14	GALVANIZED STEEL MANUAL BALANCING DAMPER WITH LOCKING MANUAL QUADRANT	GREENHECK	MBD SERIES	AS REQUIRED	AS REQUIRED	GALVANIZED	NOTE: 3
A15	GALVANIZED STEEL DUCT ACCESS DOOR, CAM STYLE	GREENHECK	CAD SERIES	UP TO 12x12	AS REQUIRED	GALVANIZED	NOTE: 4
A16	GALVANIZED STEEL DUCT ACCESS DOOR, HINGED STYLE	GREENHECK	HAD SERIES	ABOVE 12x12	AS REQUIRED	GALVANIZED	NOTE: 4
A17	GALVANIZED STEEL DYNAMIC RATED FIRE DAMPER FOR USE IN WALL AND PARTITIONS RATED 3 HRS. OR LESS	GREENHECK	DFD SERIES	AS REQUIRED	AS REQUIRED	GALVANIZED	NOTE: 5

GRILLE SHALL BE FACTORY FINISHED WITH A WASHABLE ENAMEL PAINT. FIELD SPRAY ALL GALVANIZED SHEET METAL AND DAMPERS BEHIND GRILLE WHICH ARE EXPOSED TO SIGHT WITH FLAT BLACK ENAMEL PAINT.

2 GRILLE SHALL INCLUDE AN ALUMINUM OPPOSED BLADE DAMPER. THE O.B. DAMPER SHALL BE FINISHED THE SAME AS GRILLE.

4 ACCESS DOORS SHALL BE INSTALLED IN DUCTING TO PROVIDE ACCESS TO ALL FIRE DAMPERS, SMOKE DETECTORS, DUCT TEMPERATURE SENSORS, AND ANY OTHER ITEM INSTALLED INSIDE THE DUCTING. SIZE DOOR TO PROVIDE REQUIRED ACCESS. USE 'CAD' SERIES FOR SIZES UP TO 12"x12" AND 'HAD' SERIES FOR LARGER THEN 12"x12" ACCESS OPENINGS.

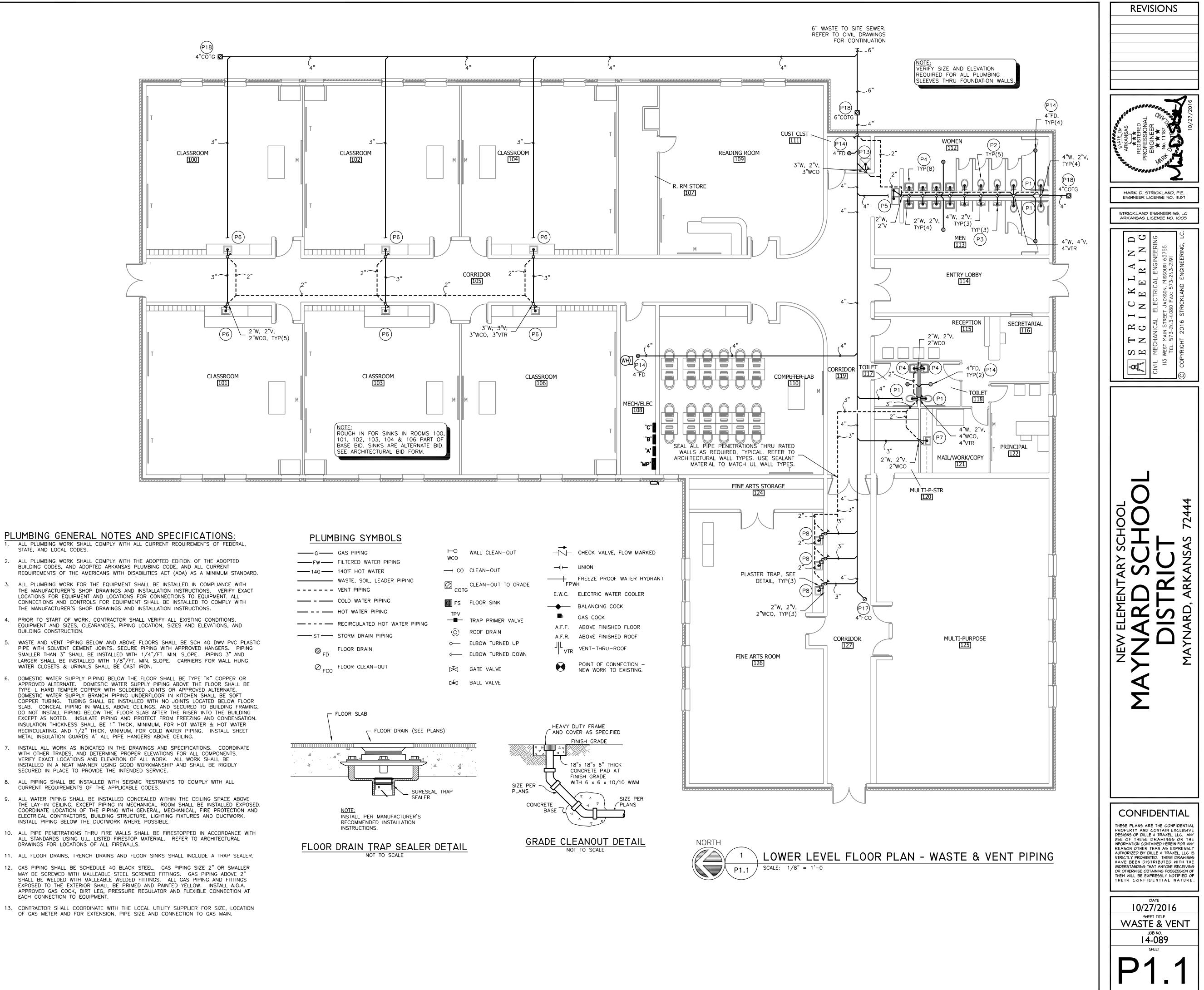
FIRE DAMPER SHALL HAVE AN U.L. APPROVED 212° F. FUSIBLE LINK. SELECT FRAME WIDTH AND ACCESSORIES (FRAMES, SLEEVES, 5 ETC.) AS REQUIRED FOR THE FIRE RATED ASSEMBLY BEING PENETRATED. SHALL HAVE OUT OF AIRSTREAM BLADE CONFIGURATION WHENEVER POSSIBLE.

INSULATE PIPING WITH UV RATED 1/2" THICK RUBBER CLOSED CELL INSULATION. NICAL CONTRACTOR. 2. CONTROL SYSTEM SHALL BE INSTALLED W/ SHIELDED CABLE INSTALLED IN EMT CONDUIT PER ELECTRICAL SPECIFICATIONS AND SHALL BE RUN CONCEALED

11. UNIT SHALL INCLUDE 16-INCH HIGH, INSULATED SEISMIC RATED ROOF CURB. CURB TOP SHALL BE LEVEL. SECURE NEW CURB BOTTOM TO BUILDING STRUCTURE. FLASH & SEAL CURB WATERTIGHT. PROPERLY FASTEN THE CURB TO THE BUILDING STRUCTURE FOR SEISMIC RESTRAINT. CONTRACTOR SHALL PROVIDE SUBMITTALS FOR CURBS INDICATING SEISMIC COMPLIANCE. ROOF CURBS FOR UNITS WITH COMPRESSORS SHALL INCLUDE VIBRATION ISOLATION AND

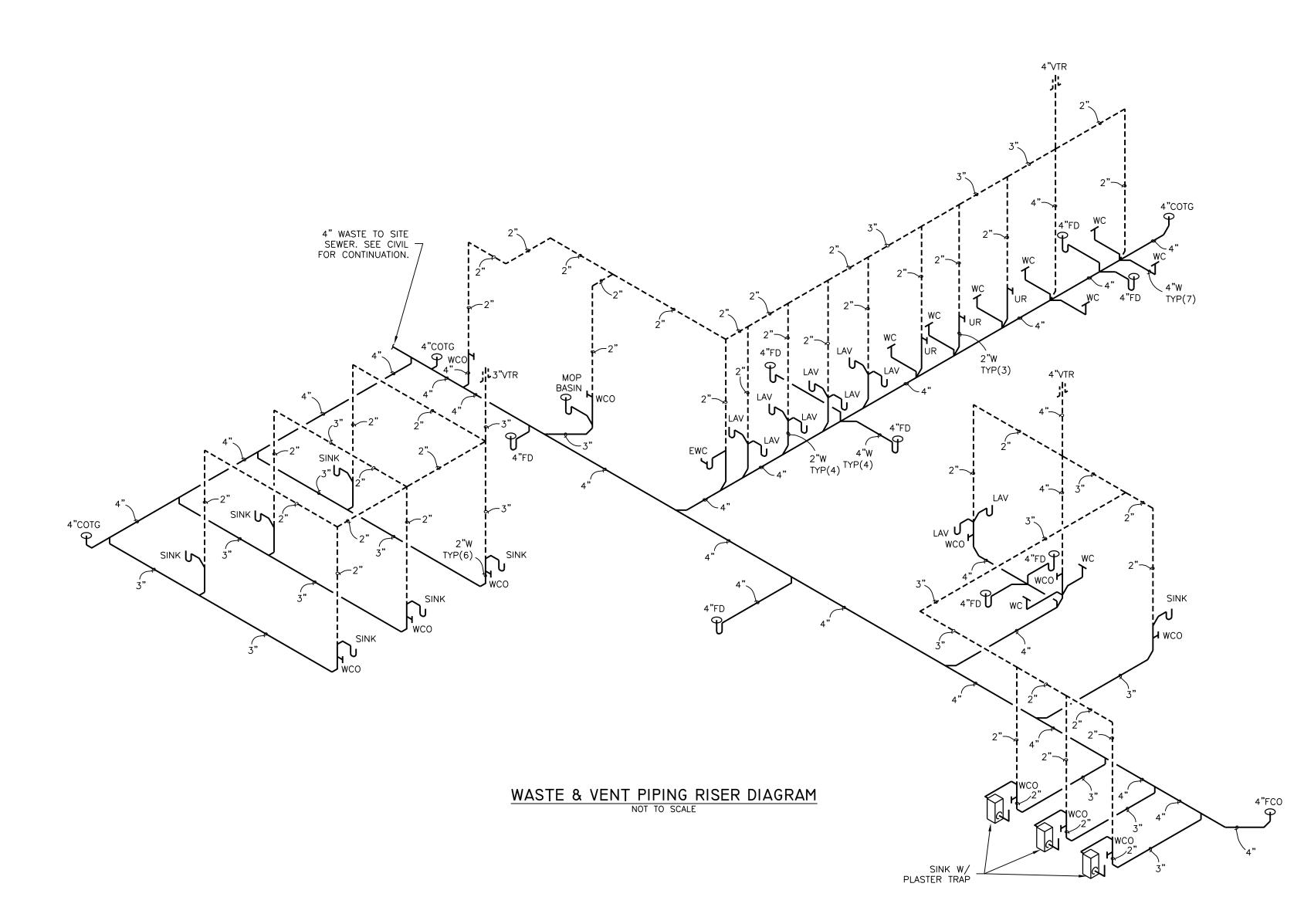
3 BALANCING DAMPER SHALL INCLUDE A MANUAL ADJUSTMENT LEVER WITH WING NUT LOCK.

REVISIONS
STATE OF STATE OF STATE OF ARKANSAS FEGISTERED PROFESSIONAL ENGINEER No. 11187 A A A No. 11187 A A A No. 11187 A A A No. 11187 A A A No. 11187 A A A A No. 11187 A A A A A A A A A A A A A A A A A A A
MARK D. STRICKLAND, P.E. ENGINEER LICENSE NO. 11187 STRICKLAND ENGINEERING, LC
<ul> <li>S T R I C K L A N D</li> <li>E N G I N E E R I N (</li> <li>CIVIL MECHANICAL ELECTRICAL ENGINEERING</li> <li>II3 WEST MAIN STREET JACKSON, MISSOURI 63755</li> <li>TEL: 573-243-4080 FAX: 573-243-2191</li> <li>COPYRIGHT 2016 STRICKLAND ENGINEERING, I</li> </ul>
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DATE 10/27/2016 SHEET TITLE HVAC SYSTEM JOB NO. 14-089 SHEET M11.4

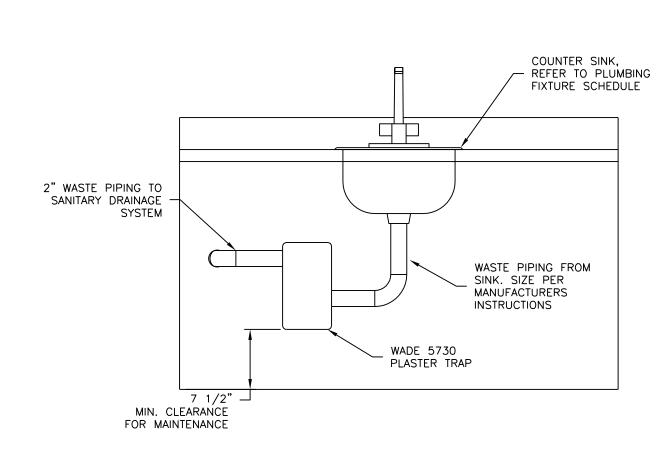


### PLUMBING GENERAL NOTES AND SPECIFICATIONS: ALL PLUMBING WORK SHALL COMPLY WITH ALL CURRENT REQUIREMENTS OF FEDERAL, STATE, AND LOCAL CODES.

- 2. ALL PLUMBING WORK SHALL COMPLY WITH THE ADOPTED EDITION OF THE ADOPTED BUILDING CODES, AND ADOPTED ARKANSAS PLUMBING CODE, AND ALL CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AS A MINIMUM STANDARD.
- 3. ALL PLUMBING WORK FOR THE EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUFACTURER'S SHOP DRAWINGS AND INSTALLATION INSTRUCTIONS. VERIFY EXACT LOCATIONS FOR EQUIPMENT AND LOCATIONS FOR CONNECTIONS TO EQUIPMENT. ALL CONNECTIONS AND CONTROLS FOR EQUIPMENT SHALL BE INSTALLED TO COMPLY WITH THE MANUFACTURER'S SHOP DRAWINGS AND INSTALLATION INSTRUCTIONS.
- 4. PRIOR TO START OF WORK, CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, EQUIPMENT AND SIZES, CLEARANCES, PIPING LOCATION, SIZES AND ELEVATIONS, AND BUILDING CONSTRUCTION.
- 5. WASTE AND VENT PIPING BELOW AND ABOVE FLOORS SHALL BE SCH 40 DWV PVC PLASTIC PIPE WITH SOLVENT CEMENT JOINTS. SECURE PIPING WITH APPROVED HANGERS. PIPING SMALLER THAN 3" SHALL BE INSTALLED WITH 1/4"/FT. MIN. SLOPE. PIPING 3" AND LARGER SHALL BE INSTALLED WITH 1/8"/FT. MIN. SLOPE. CARRIERS FOR WALL HUNG WATER CLOSETS & URINALS SHALL BE CAST IRON.
- 6. DOMESTIC WATER SUPPLY PIPING BELOW THE FLOOR SHALL BE TYPE "K" COPPER OR APPROVED ALTERNATE. DOMESTIC WATER SUPPLY PIPING ABOVE THE FLOOR SHALL BE TYPE-L HARD TEMPER COPPER WITH SOLDERED JOINTS OR APPROVED ALTERNATE. DOMESTIC WATER SUPPLY BRANCH PIPING UNDERFLOOR IN KITCHEN SHALL BE SOFT COPPER TUBING. TUBING SHALL BE INSTALLED WITH NO JOINTS LOCATED BELOW FLOOR SLAB. CONCEAL PIPING IN WALLS, ABOVE CEILINGS, AND SECURED TO BUILDING FRAMING. DO NOT INSTALL PIPING BELOW THE FLOOR SLAB AFTER THE RISER INTO THE BUILDING EXCEPT AS NOTED. INSULATE PIPING AND PROTECT FROM FREEZING AND CONDENSATION. INSULATION THICKNESS SHALL BE 1" THICK, MINIMUM, FOR HOT WATER & HOT WATER RECIRCULATING, AND 1/2" THICK, MINIMUM, FOR COLD WATER PIPING. INSTALL SHEET METAL INSULATION GUARDS AT ALL PIPE HANGERS ABOVE CEILING.
- 7. INSTALL ALL WORK AS INDICATED IN THE DRAWINGS AND SPECIFICATIONS. COORDINATE WITH OTHER TRADES, AND DETERMINE PROPER ELEVATIONS FOR ALL COMPONENTS. VERIFY EXACT LOCATIONS AND ELEVATION OF ALL WORK. ALL WORK SHALL BE INSTALLED IN A NEAT MANNER USING GOOD WORKMANSHIP AND SHALL BE RIGIDLY SECURED IN PLACE TO PROVIDE THE INTENDED SERVICE.
- 8. ALL PIPING SHALL BE INSTALLED WITH SEISMIC RESTRAINTS TO COMPLY WITH ALL CURRENT REQUIREMENTS OF THE APPLICABLE CODES.
- 9. ALL WATER PIPING SHALL BE INSTALLED CONCEALED WITHIN THE CEILING SPACE ABOVE THE LAY-IN CEILING, EXCEPT PIPING IN MECHANICAL ROOM SHALL BE INSTALLED EXPOSED. COORDINATE LOCATION OF THE PIPING WITH GENERAL, MECHANICAL, FIRE PROTECTION AND ELECTRICAL CONTRACTORS, BUILDING STRUCTURE, LIGHTING FIXTURES AND DUCTWORK. INSTALL PIPING BELOW THE DUCTWORK WHERE POSSIBLE.
- 10. ALL PIPE PENETRATIONS THRU FIRE WALLS SHALL BE FIRESTOPPED IN ACCORDANCE WITH ALL STANDARDS USING U.L. LISTED FIRESTOP MATERIAL. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL FIREWALLS.
- 12. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL. GAS PIPING SIZE 2" OR SMALLER MAY BE SCREWED WITH MALLEABLE STEEL SCREWED FITTINGS. GAS PIPING ABOVE 2" SHALL BE WELDED WITH MALLEABLE WELDED FITTINGS. ALL GAS PIPING AND FITTINGS EXPOSED TO THE EXTERIOR SHALL BE PRIMED AND PAINTED YELLOW. INSTALL A.G.A. APPROVED GAS COCK, DIRT LEG, PRESSURE REGULATOR AND FLEXIBLE CONNECTION AT EACH CONNECTION TO EQUIPMENT.
- 13. CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY SUPPLIER FOR SIZE, LOCATION OF GAS METER AND FOR EXTENSION, PIPE SIZE AND CONNECTION TO GAS MAIN.







## UNDER COUNTER PLASTER TRAP DETAIL

		<u>PLUMBIN</u>	<u>IG FIXTUR</u>	E SCHEDULE	
		MANUFACTURER	MODEL NO.	FITTINGS / ACCESSORIES	
P1	MADERA FLOOR MTD., FLUSH VALVE, ADA TOILET	AMERICAN STANDARD	3043.712 1.6 GAL/FLUSH WHITE	TOTO TET1GNC-32 FLUSH VALVE CHURCH 295CT SEAT	1.6 GPF INFRARED FLUSH VALVE, VALVE SUPPORT SELF-GENERATING,
P2	MADERA FLOOR MTD.,	AMERICAN	3461.712	TOTO TET1GNC-32	17" RIM HEIGHT 1.6 GPF INFRARED FLUSH
FZ	FLUSH VALVE,	STANDARD	1.6 GAL/FLUSH	FLUSH VALVE	VALVE, VALVE SUPPORT
	TOILET	01/11/0/11/0	WHITE	CHURCH 295CT SEAT	SELF-GENERATING,
					15" RIM HEIGHT
P3	WALL MOUNTED	AMERICAN	6501.010	TOTO TEU1GNC-12	1.0 GPF INFRARED
	URINAL,	STANDARD	1.0 GAL/FLUSH	3/4" TOP SPUD FLUSH	VALVE, VALVE SUPPORT
	ADA		WHITE	VALVE W/ PIPE SUPPORT, WADE 400 CARRIER	SELF-GENERATING, NOTE 4
P4	WALL MOUNTED	AMERICAN	356.015	TOTO TEL105-D10E FAUCET	INSTALL WITH TRUEBRO
· ·	LAVATORY	STANDARD	20"x18"	KIT W/SPOUT & CONTROLLER	WHITE LAV-SHIELD,
	ADA		WALL HUNG,	FLAT GRID STRAINER,	INFRARED FAUCET, SELF
			WHITE CHINA,	DEARBORN FLEX. SUPPLIES	GENERATING, SINGLE
			THREE HOLE,	W/ ANGLE STOPS, DEARBORN	SPOUT, 10 SECOND,
			FLOOR MOUNTED	507 P-TRAP, OFFSET DRAIN	SEE DRAWING DETAIL.
			CARRIER	AND TRAP.	NOTE 4
P5	ELECTRIC WATER	ELKAY	VRCHDTL8SC	DUAL HEIGHT, STAINLESS	INSTALL PER ADA
	COOLER		WATER COOLER	STEEL, FRONT PUSH BUTTON,	REQUIREMENTS
				8 GPH, 120 V, 1-PH VANDAL RESISTANT	
P6	COUNTER SINK	JUST	CRB-2022-ADA-	JUST JGN-750 GOOSENECK	18 GAUGE, TYPE 304
	W/BUBBLER	0001	A-GR, SINK,	FAUCET, J-35 DRAIN,	STAINLESS STEEL,
			20"x22", 16"x14"	P-TRAP, SUPPLIES W/ STOPS,	SELF RIMMING,
			BOWL,	SELF-CLOSING BUBBLER,	SINGLE COMPARTMENT
			JSB-10-FLX	FLEXIBLE MOUTHGUARD	
			BUBBLER		
P7	COUNTER SINK	JUST	SLN-17519-AGR,	JUST JTR-50 SWINGSPOUT	18 GAUGE, TYPE 304
			17.5"x19"x7.5"D,	FAUCET W/ 4" WRIST BLADE	STAINLESS STEEL,
			3-HOLE,	HANDLES, J-35 DRAIN,	SINGLE COMPARTMENT
		шот	SELF-RIMMING SLN-17519-AGR,	SUPPLIES W/ STOPS	18 GAUGE, TYPE 304
P8	COUNTER SINK W/ PLASTER	JUST	5LN-17519-AGR, 17.5"x19"x7.5"D,	JUST JTR-50 SWINGSPOUT FAUCET W/ 4" WRIST BLADE	STAINLESS STEEL.
	TRAP		3-HOLE,	HANDLES, J-35 DRAIN,	SINGLE COMPARTMENT,W
	IKAF		SELF-RIMMING	SUPPLIES W/ STOPS	WADE 5730 PLASTER
					TRAP, NOTE 5
P9	COLD WATER	GUY GRAY	MIB	COLD WATER SUPPLY WITH	WITH MOUNTING SCREWS
210	SUPPLY WALL HYDRANT	WOODFORD	67	QUARTER TURN SHUTOFF STANDARD W/ VACUUM BREAK	LOOSE KEY OPERATOR,
10	WALL IT DRANT	WOODFORD	07 VERIFY LENGTH	BACKFLOW PREVENTER	FREEZELESS
P11	HOSE BIBB IN	WOODFORD	B75	STANDARD W/ VACUUM	RECESSED BOX W/
	WALL BOX		W/ 34HF-BR	BREAKER AND BOX	LOCKING COVER, LOOSE
					KEY OPERATOR
P12	ELECTRIC WATER	A.O. SMITH	DRE-120-45	5000 W ELEMENTS,	120 GALLON CAPACITY,
	HEATER		45 KW	208V, 3PH	SET FOR 140°F,
10		EIAT.		830-AA FAUCET, VAC. BKR,	P & T RELIEF VALVE.
P13	MOP BASIN	FIAT	MSB-2424		
		PRODUCTS		832-AA HOSE & BRACKET QDC-3XH QUICK DRAIN	AND SILICONE CAULK ALL CRACKS AT
				E-77-AA VINYL	WALL AND FLOOR
				BUMPERGUARDS MSG-2424	INSTALL WALL GUARDS
				STAINLESS STEEL	
				WALL GUARDS	
P14	FLOOR DRAIN	ZURN	Z415B	6" N. BRONZE STRAINER	SET TO FLOOR FINISH,
			CAST IRON	TY-SEAL CONNECTION	SIZE TO PIPING,
15		711011	74004		NOTE 1, 2, 3 SET TO FLOOR FINISH.
°15	FLOOR SINK	ZURN	Z1901 CAST IRON,	12"x12"x8", ALUM. DOME STRAINER, HALF-GRATE,	SET TO FLOOR FINISH, SIZE TO PIPING,
			HALF-GRATE	TRAINER, HALF-GRATE,	SIZE TO PIPING, NOTE 2
P16	WALL CLEANOUT	ZURN	Z1469	STAINLESS STEEL	SIZE TO
-				COVER	PIPING
P17	FLOOR CLEANOUT	ZURN	Z1400-ZN	NICKEL BRONZE TOP	SET TO FLOOR FINISH,
			SV HUB OUTLET	TY-SEAL CONNECTION	SIZE TO PIPING
				CF - CARPET AREAS	NOTE 1
				TS - TILE AREAS	077 70 70000
P18	GRADE CLEANOUT	ZURN			SET TO FINISH GRADE
P19		BRADLEY	SV HUB OUTLET	TY-SEAL CONNECTION EQUA FLO PRESSURE	18 GA, TYPE 304
19	ADA SHOWER	DRAULET	1WCA-ADA EF/SHV	BALANCED MIXING VALVE,	STAINLESS STEEL W/
				STAINLESS STEEL HOSE	VERTICAL SHROUD
				SUPPLY INLETS, AND	INSTALL PER
				HANDHELD HOSE	REQUIREMENTS FOR ADA
				SHOWER SPRAY	

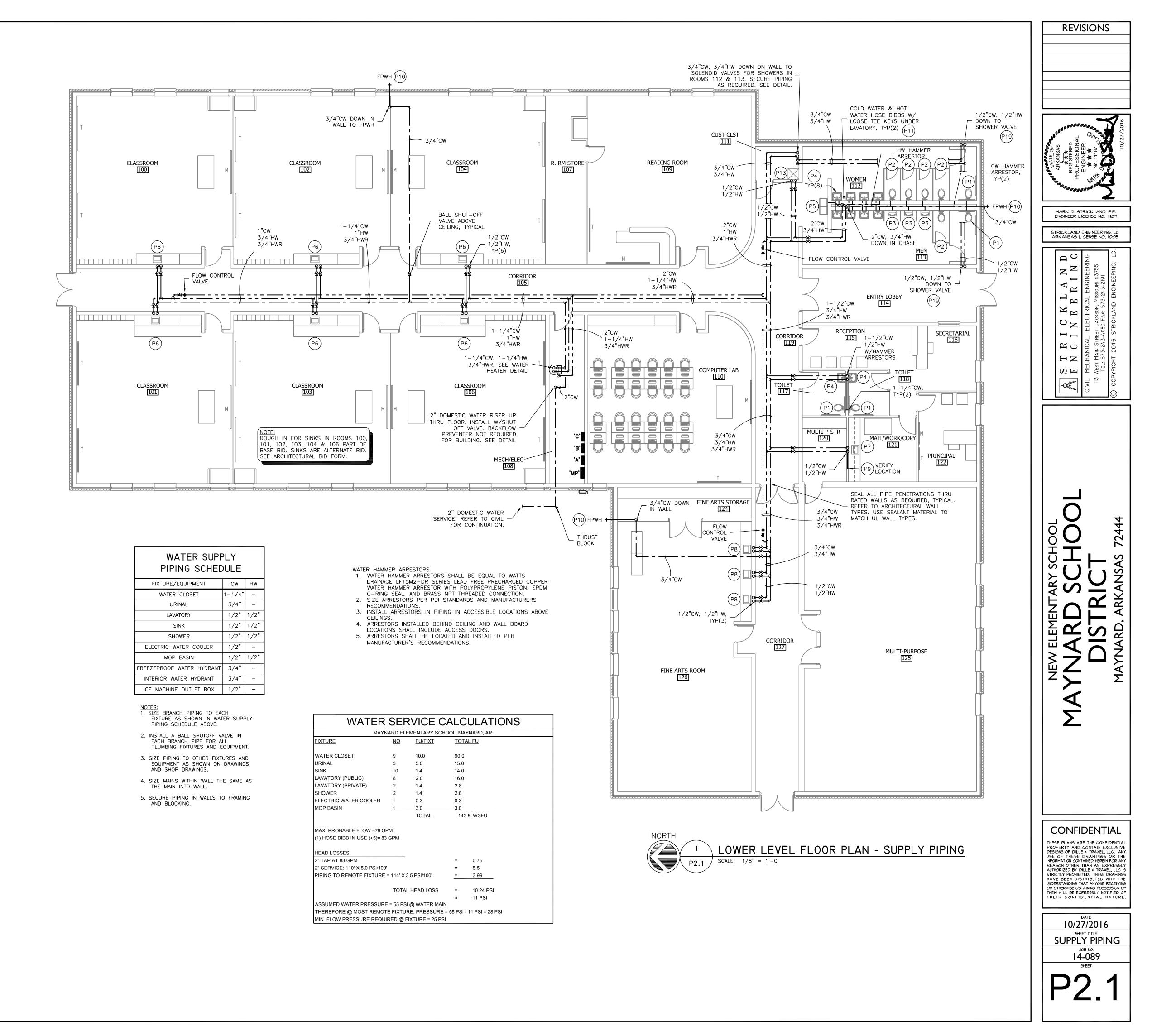
1 MATCH TOP TO FLOOR FINISH. PROVIDE ROUND STRAINER FOR TOP. VERIFY FLOOR TYPES. ALL FLOOR DRAINS AND FLOOR SINKS SHALL INCLUDE A TRAP SEALER EQUAL TO SURESEAL 2

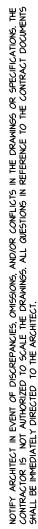
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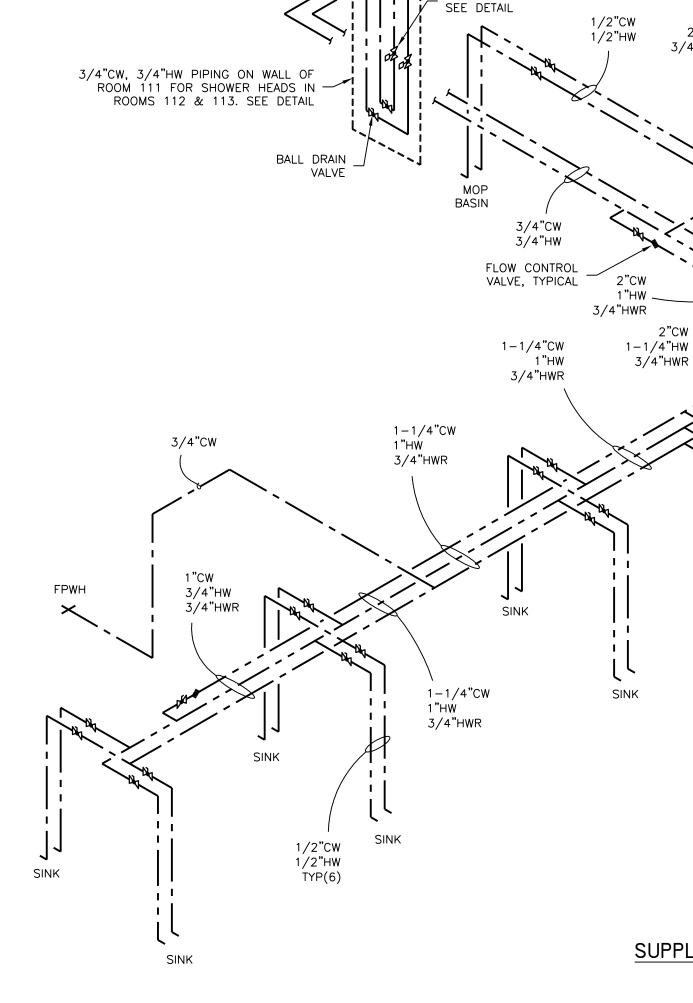
4 SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS OF PLUMBING FIXTURES. 5 PLUMBING CONTRACTOR SHALL PROVIDE PLASTER TRAP FOR INSTALLATION UNDER SINK. PLUMBER SHALL VERIFY ALL COMPONENTS FOR COMPLETE INSTALLATION.

MANUFACTURING INLINE FLOOR DRAIN TRAP SEALER. FLOOR DRAIN STRAINERS TO RECEIVE CONDENSATE AND/OR WATER HEATER DRAINAGE SHALL INCLUDE A FUNNEL.

]	REVISIONS
	AS AN
	STATE OF STATE OF ARKANSAS ARK
	MARK D. STRICKLAND, P.E. ENGINEER LICENSE NO. 11187
	STRICKLAND ENGINEERING, LC ARKANSAS LICENSE NO. 1005
	S       T       R       I       C       K       L       A       N       D         E       N       G       I       N       E       R       I       N       G         CIVIL       MECHANICAL       ELECTRICAL       ENGINEERING         II3       WEST MAIN STREET JACKSON, MISSOURI 63755         TEL:       573-243-4080       FAX:       573-2443-2191         C       COPYRIGHT       2016       STRICKLAND       ENGINEERING, LC
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	DATE 10/27/2016 SHEET TITLE WASTE & VENT JOB NO. 14-089 SHEET
	P1.2

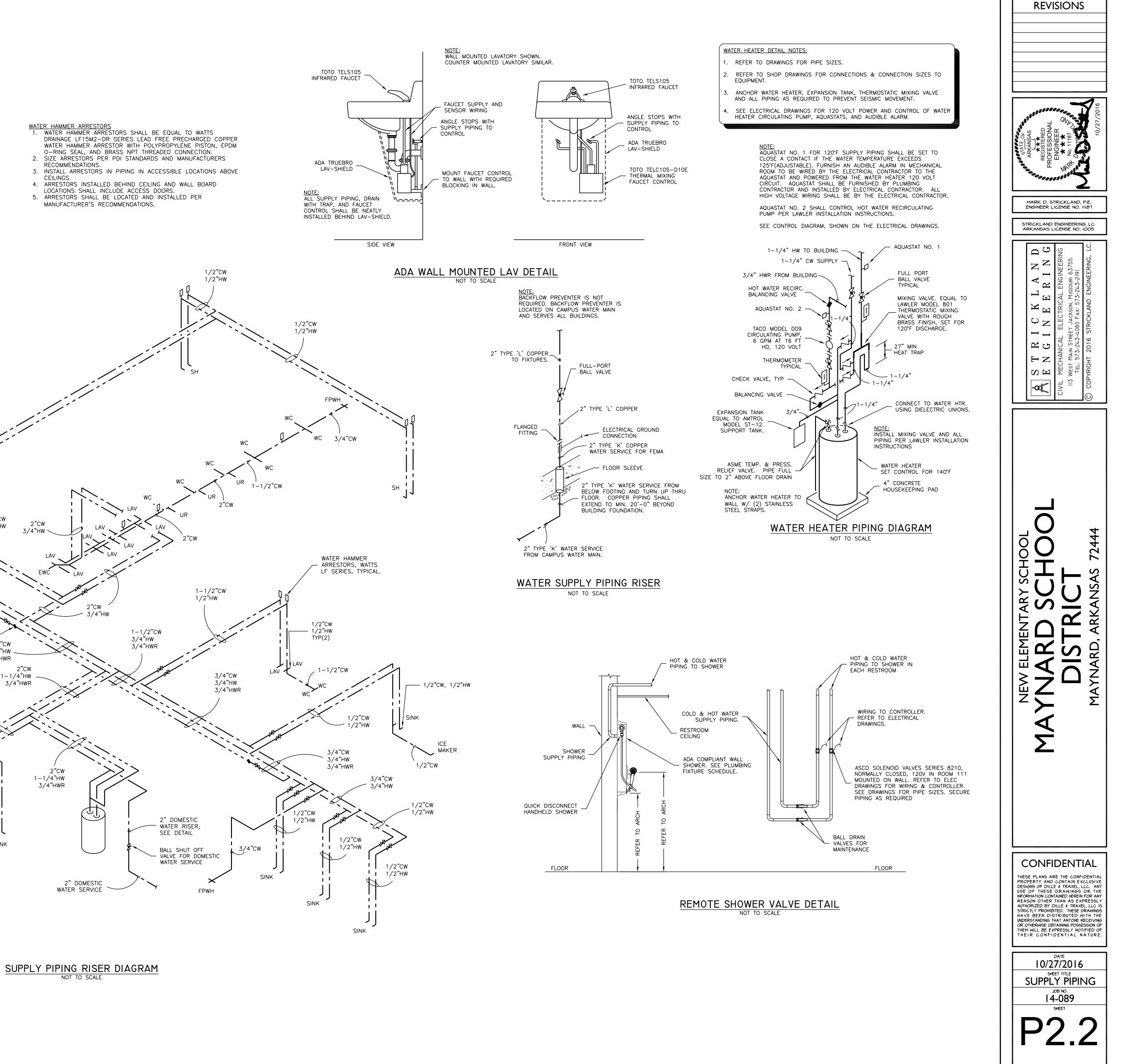


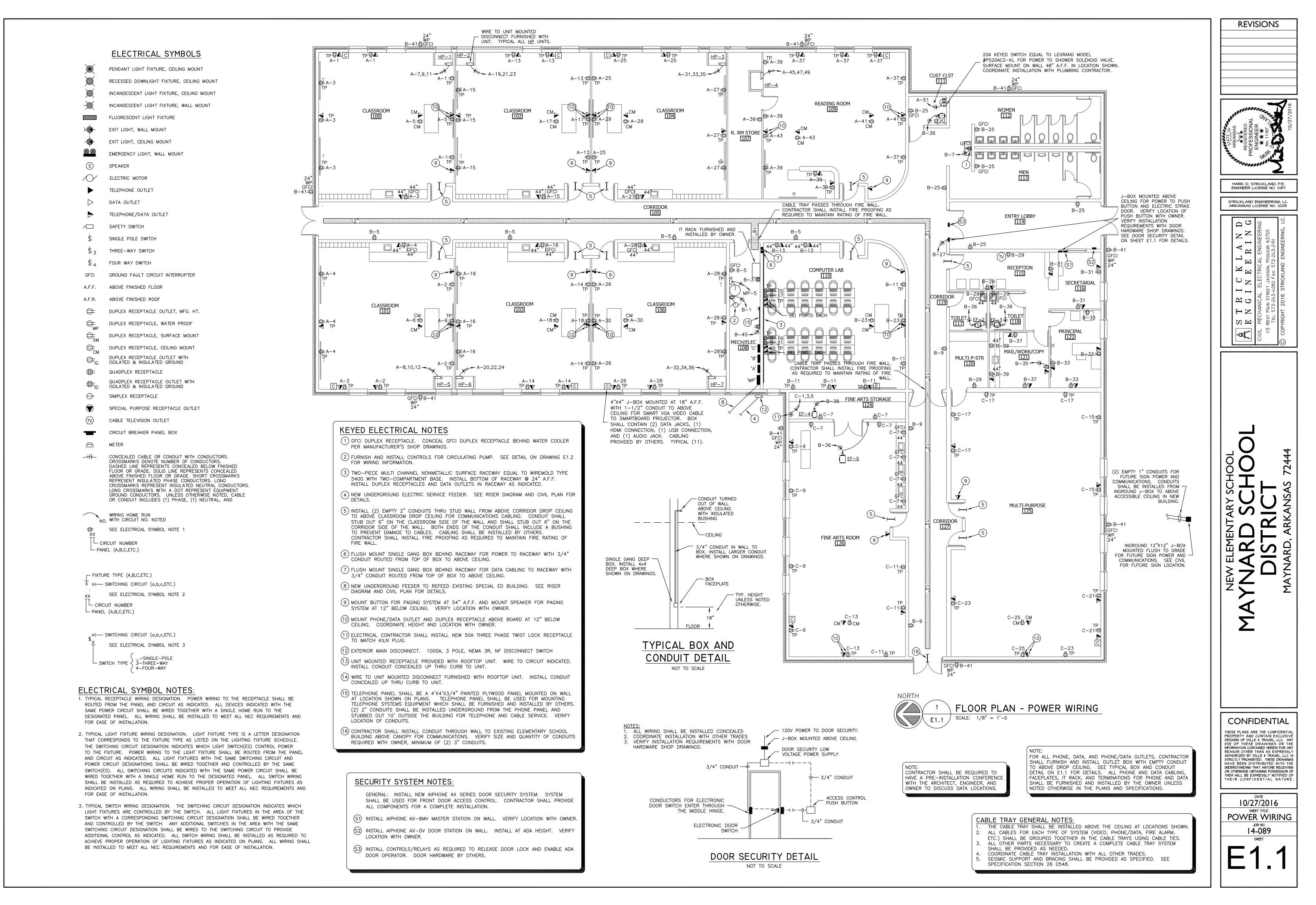


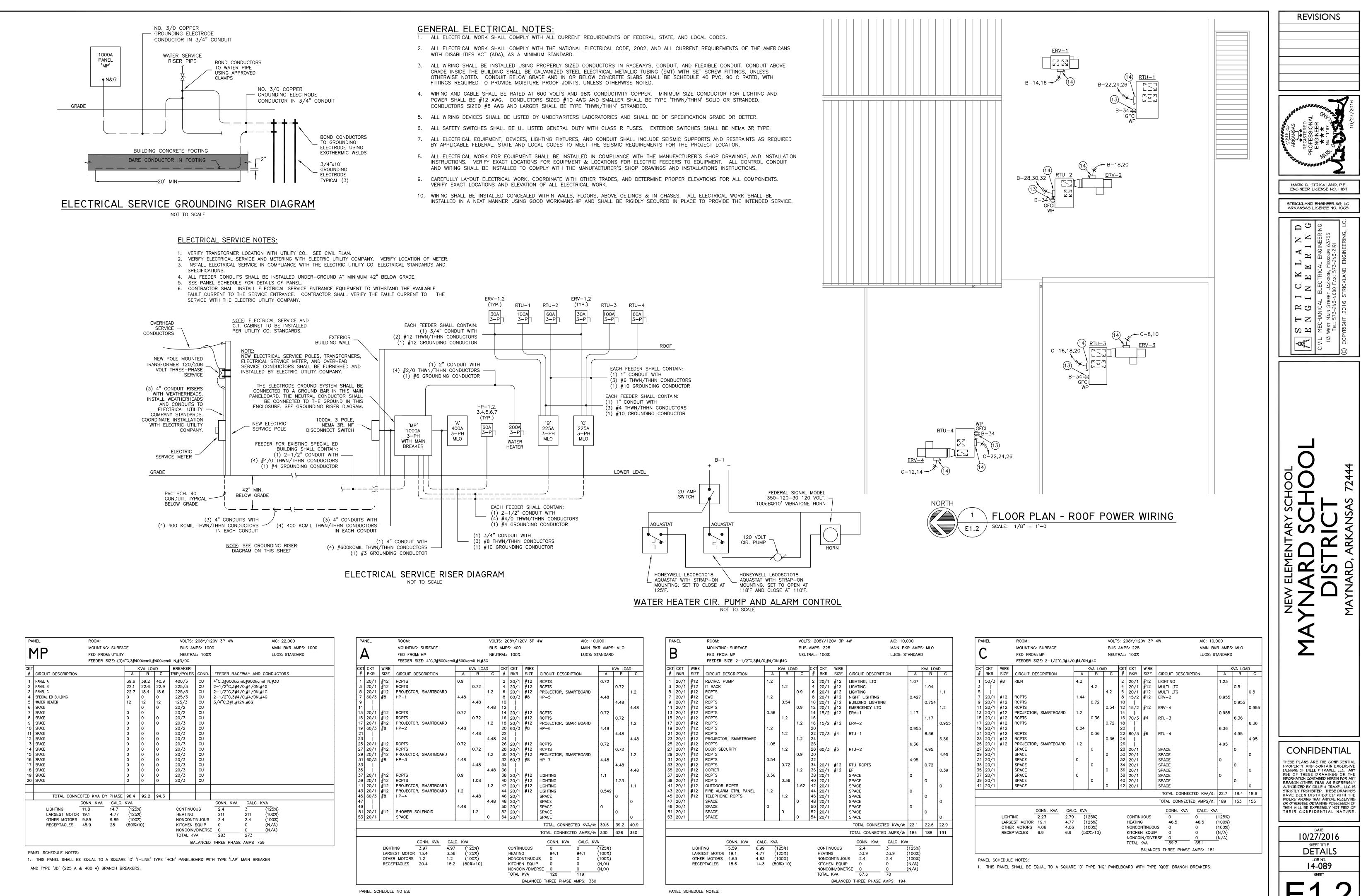


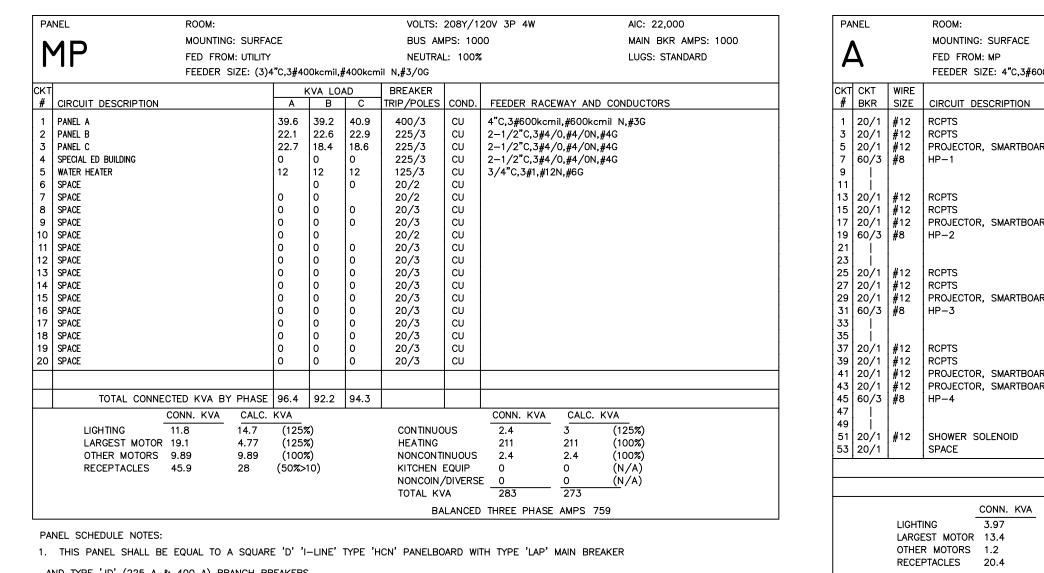
3/4"CW 3/4"HW

SOLENOID VALVES,

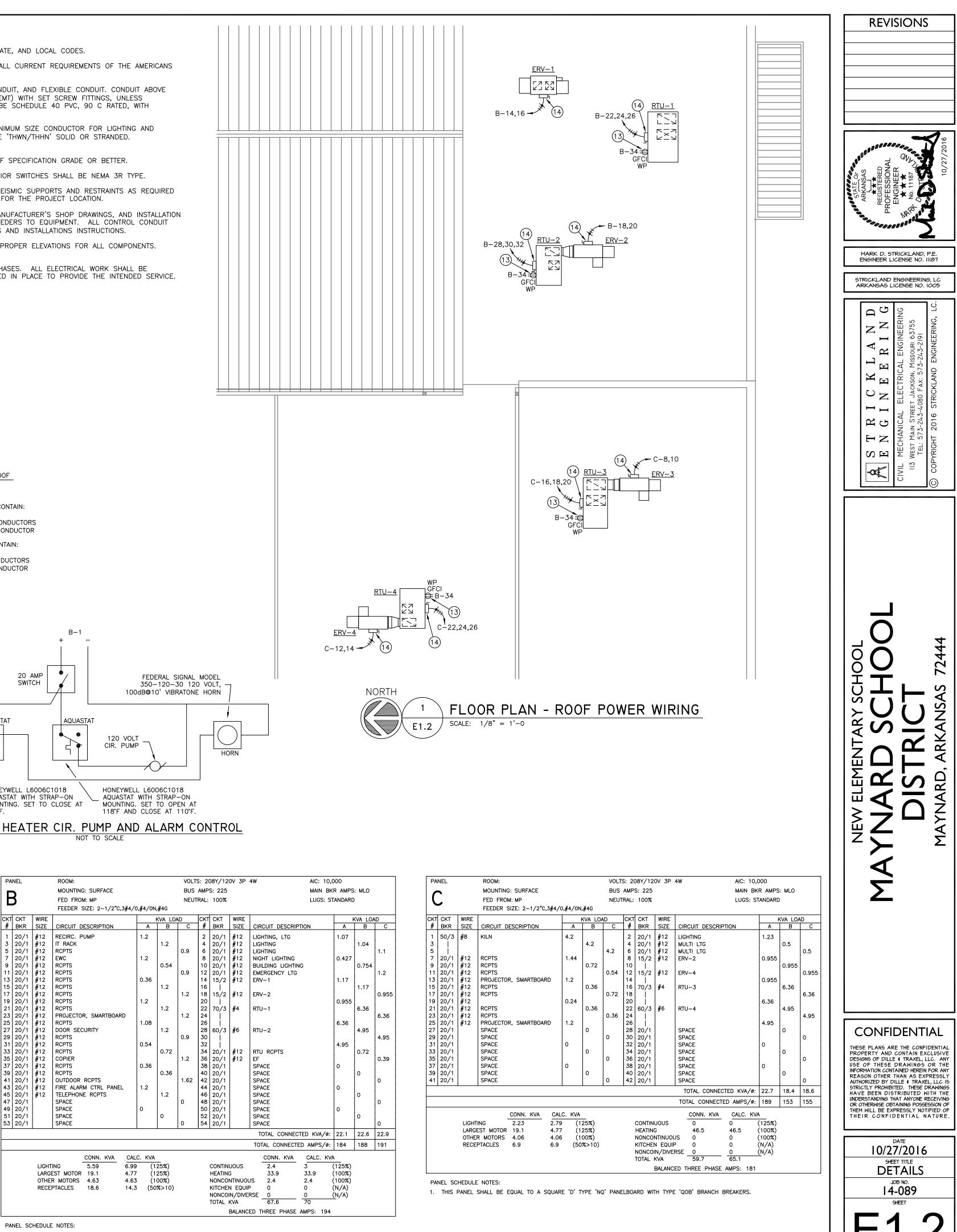








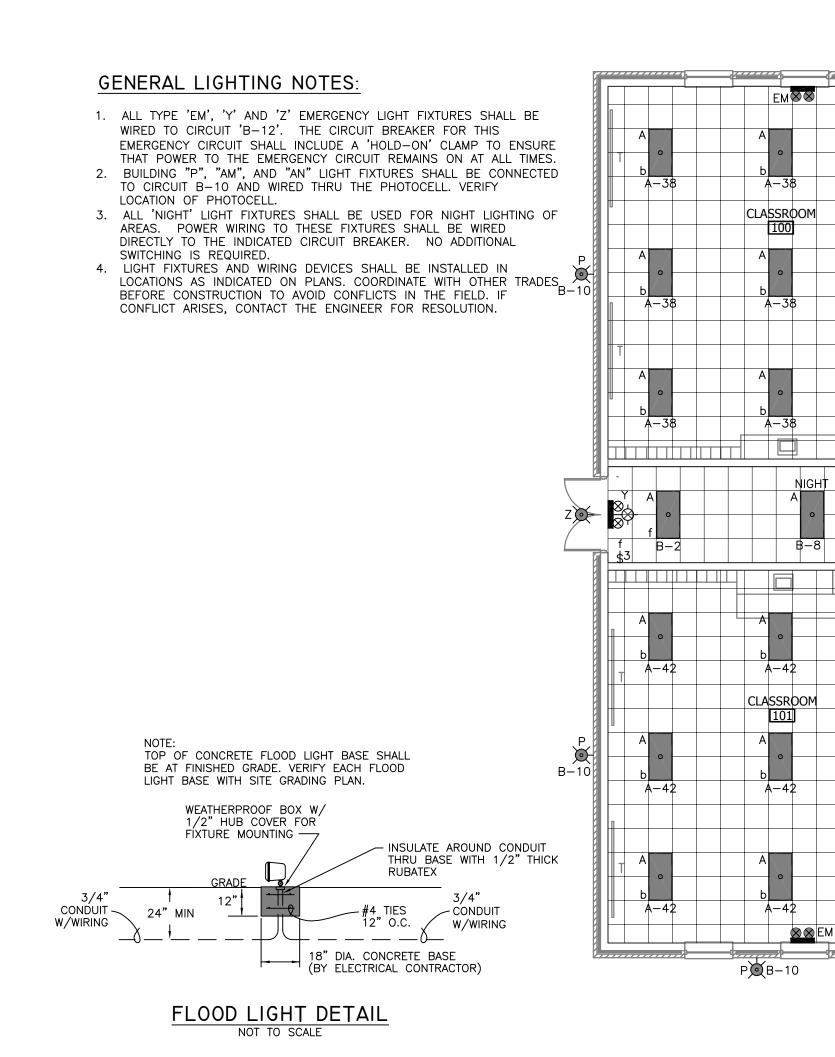
			VOLTS	5: 20	08Y/12	0V 3P	4W AIC: 10,0	000		
BUS AMPS: 400				AMP	S: 400		MAIN BKR AMPS: MLO			
NEUTRAL: 100%				RAL:	100%		LUGS: STANDARD			
0kcmil	,#600kci	mil N,#3	G							
	ł	VA LOAD CKT CKT		WIRE		KVA LOAD				
	A	В	С	#	BKR	SIZE	CIRCUIT DESCRIPTION	A	В	С
۶D	0.9	0.72	1.2	2 4 6	20/1 20/1 20/1	#12 #12 #12	RCPTS RCPTS PROJECTOR, SMARTBOARD	0.72	0.72	1.2
	4.48	4.48		8 10	60/3	#8 #8	HP-5	4.48	4.48	
	0.72	0.72	4.48	12 14 16	20/1 20/1	#12 #12	RCPTS RCPTS	0.72	0.72	4.48
RD.	4.48	4.48	1.2	18 20 22	20/1 60/3	#12 #8	PROJECTOR, SMARTBOARD HP-6	4.48	4.48	1.2
	0.72	0.72	4.48	24 26 28	20/1 20/1	#12 #12	RCPTS RCPTS	0.72	0.72	4.48
RD	4.48		1.2	30 32	20/1 60/3	#12 #8	PROJECTOR, SMARTBOARD HP-7	4.48		1.2
	0.9	4.48	4.48	34 36 38 40	20/1	#12 #12	LIGHTING	1.1	4.48	4.48
RD RD	1.2	1.08	1.2	42 44	20/1 20/1 20/1	#12 #12 #12	LIGHTING LIGHTING LIGHTING	0.549		1.1
	4.48	4.48	4.48	46 48 50	20/1 20/1 20/1		SPACE SPACE SPACE	0	0	0
		1.2	0	52 54	20/1 20/1		SPACE SPACE		0	0
TOTAL CONNECTED KVA/Ø:						39.6	39.2	40.9		
							TOTAL CONNECTED AMPS/ø:	330	326	340
CALC.         KVA         CONN.         KVA         CALC.         KVA           4.97         (125%)         CONTINUOUS         0         0         (125%)           3.36         (125%)         HEATING         94.1         94.1         (100%)           1.2         (100%)         NONCONTINUOUS         0         0         (100%)           15.2         (50%>10)         KITCHEN EQUIP         0         0         (N/A)           NONCOIN/DIVERSE         0         0         (N/A)           TOTAL         KVA         120         119           BALANCED THREE PHASE AMPS:         330										



1. THIS PANEL SHALL BE EQUAL TO A SQUARE 'D' TYPE 'NQ' PANELBOARD WITH TYPE 'QOB' BRANCH BREAKERS.

1. THIS PANEL SHALL BE EQUAL TO A SQUARE 'D' TYPE 'NQ' PANELBOARD WITH TYPE 'QOB' BRANCH BREAKERS.

2. CIRCUIT B-12 SHALL INCLUDE A 'HOLD-ON' CLAMP TO ENSURE THAT POWER TO THESE EMERGENCY CIRCUITS REMAINS ON AT ALL TIMES.



CALLOUT	SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	LAMP	BALLAST	VOLTS	COLOR	MOUNTING
A	0	DAY-BRITE	2AVE-G-49L-835-4-ACR- UNV	2'X4' LED DIRECT/INDIRECT TROFFER	44W LED		120V 1P 2W	WHITE	RECESSED
AC	<u> </u>	COOPER	SLD606-830-WH	FLUSH MOUNT LED DOWNLIGHT FIXTURE W/ ACRYLIC DIFFUSER	12.2W LED		120V 1P 2W	WHITE	SURFACE
AF	0	DAY-BRITE	2AVE-G-49L-835-4-ACR- UNV-FMA24	2'X4' LED DIRECT/INDIRECT TROFFER	44W LED		120V 1P 2W	WHITE	RECESSED
АМ	Ø	LITHONIA	DSXF1-LED-1-A530/40K- MSP-MVOLT-THK-DDBXD	LED FLOOD LIGHT W/ MEDIUM SPOT DISTRIBUTION	21W LED		120V 1P 2W	BLACK	MOUNT 4' FROM FLAGPOLE. SEE FLOODLIGHT DETAIL AND CIVIL PLAN.
AN	ø	LITHONIA	DSXF1-LED-1-A530/40K- HMF-MVOLT-THK-DDBXD	LED FLOOD LIGHT W/ HORIZONTAL FLOOD DISTRIBUTION	21W LED		120V 1P 2W	BLACK	MOUNT 7' FROM FRONT OF SIGN. SEE FLOODLIGHT DETAIL AND CIVIL PLAN.
В	0	DAY-BRITE	OWL-440L-835-UNIV-DIM	4' LED WRAP	37W LED		120V 1P 2W	WHITE	SURFACE
С	o	DAY-BRITE	CSW-48-47-35-U-LAG-VB	4' LED VANITY	52W LED		120V 1P 2W	WHITE	WALL MOUNT 7'-6" A.F.F. CENTERED ABOVE MIRROR IN LOCATIONS SHOWN.
ЕМ	$\otimes \otimes$	CHLORIDE	VU6L	LED DUAL HEAD EMERGENCY	5W LED		120V 1P 2W	WHITE	WALL MOUNT 8'-0" A.F.F. IN LOCATIONS SHOWN.
F	0	LITHONIA	IBL-15L-WD-SD125-LP835- WGX	125W HIGH BAY LED	125W LED		120V 1P 2W	WHITE	SURFACE MOUNT TO STRUCTURE. COORDINATE W/ ARCHITECT
Н	À	SHAPER	673-25-WP-L4/840-120V- ALP-2HTB/2VTB	OUTDOOR LED WALL SCONCE	29W LED		120V 1P 2W	ALUMINUM	WALL MOUNT CENTE OF FIXTURE 6'-0" A.F.F.
М	Q	HALO	H750ICAT-ML5612935- 692H	6" RECESSED LED CAN	17.5W LED		120V 1P 2W	WHITE	RECESSED
Ρ	Þ	INVUE	ENT-B02-LED-E1-BL3- BZ	LED ARCHITECTURAL WALL PACK	(2) 25.5W 21 LED LIGHTBARS	ELECTRONIC LED DRIVER	120V 1P 2W	BRONZE	WALL MOUNT 10' TO BOTTOM OF FIXTURE AT LOCATIONS SHOWN
P4	•	FOCAL POINT	FSDL-44-FLXP-9000L-35K- 1C-UNV-LD1-U-WH	4' ROUND LED RECESSED MOUNT FIXTURE	94W LED		120V 1P 2W	SATIN WHITE	RECESSED
X		SURE-LITES	LPX7	POLYCARBONATE LED EXIT, UNIVERSAL MOUNT	(1) RED LED		120V 1P 2W	WHITE	WALL MOUNT AT 8'-0" A.F.F.
Y		CHLORIDE	S25L-1RW-IC-H12-2	LED EXIT EMERGENCY COMBO	12W LED		120V 1P 2W	WHITE	WALL MOUNT 7'-6" A.F.F. IN LOCATIONS SHOWN ON DRAWINGS.
Z	Þ	DUAL LITE	PG-Z-HTR	WALL MOUNT EMERGENCY LED FIXTURE	15W LED		120V 1P 2W	DARK BRONZE	WALL MOUNT BOTTOM OF FIXTURE 8'-0" A.F.F. IN LOCATIONS SHOWN

P**⊙**B−10

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LIGHT FIXTURE SCHEDULE NOTES: ALL FIXTURES SHALL INCLUDE SHIELDING AND GASKETING TO PREVENT LIGHT LEAKS. ALL LEDS SHALL HAVE A COLOR TEMPERATURE OF 3500K UNLESS OTHERWISE NOTED. 3. ALL INCANDESCENT LAMPS SHALL BE RATED 130 VOLT.



EM®®

P)**⊙**B−10

EM

C-2

FINE ARTS ROOM

C-2

MARK

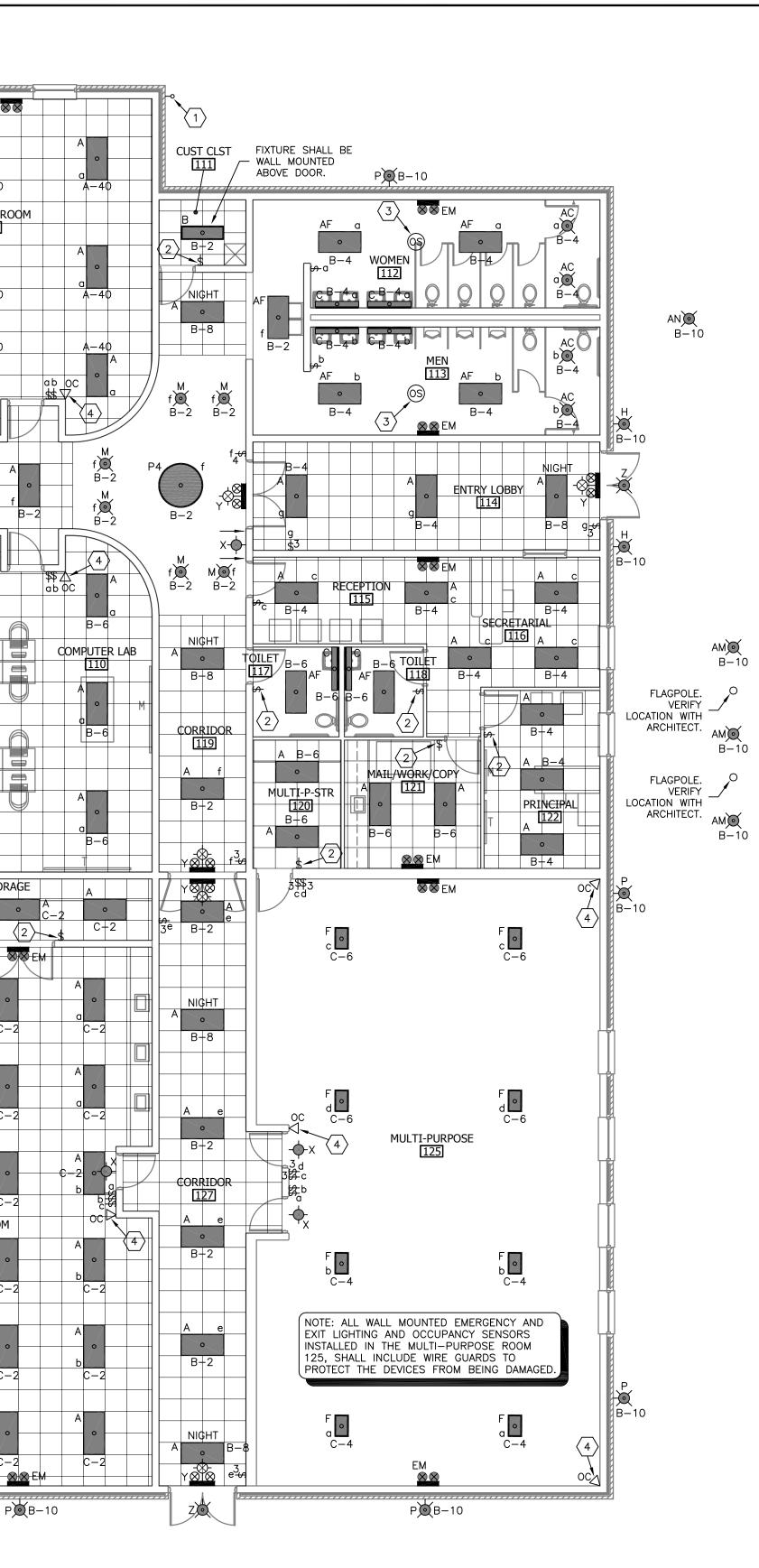
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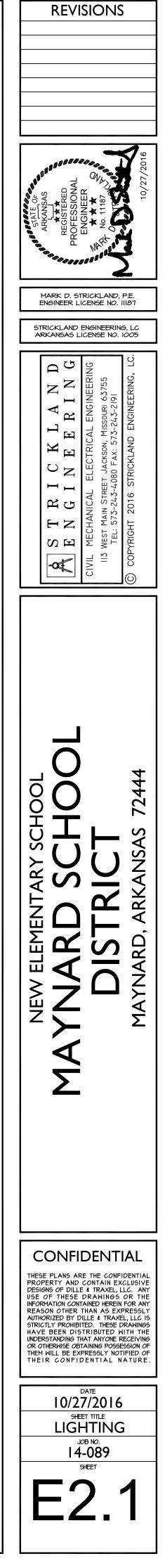
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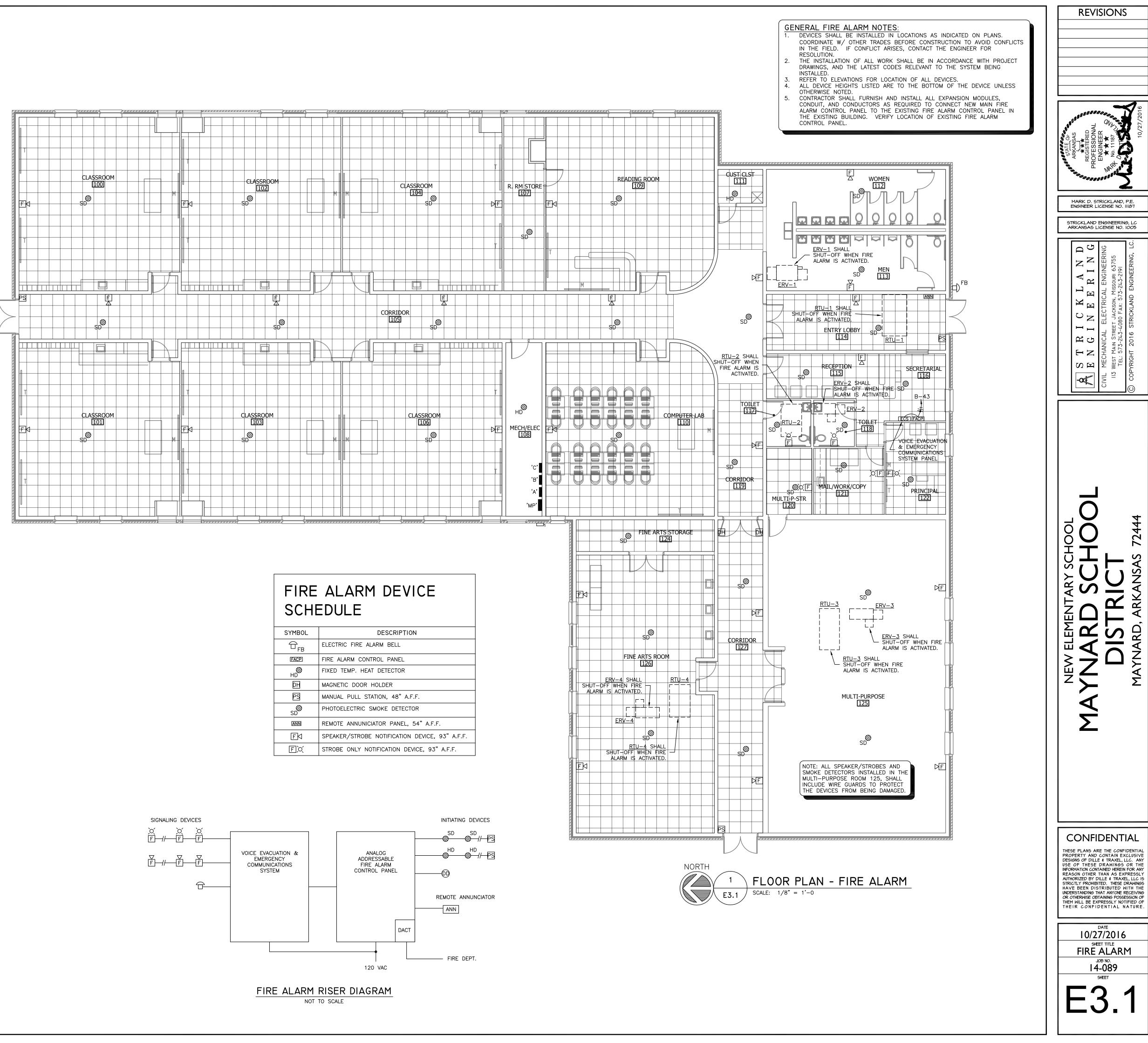
B-10



## ELECTRICAL ACCESSORIES SCHEDULE

ITEM	MANUFACTURER & MODEL	SPECIFICATIONS & REMARKS
PHOTOCONTROL	TORK 2107	15A, 120–277 VOLT, SPST, UL RATED MOUNT ON EXTERIOR WALL OF BUILDING AT LOCATION SHOWN NEAR ROOF LINE. SHEILD AS REQ'D.
WALL MOUNT OCCUPANCY SENSOR	LEGRAND RWU600UWCC4	PIR SENSING W/ ADJUSTABLE TIME DELAY AND AUTO-ON OR MANUAL-ON OPERATION. WALL MOUNT AT LOCATIONS SHOWN ON DRAWINGS.
ULTRASONIC CEILING OCCUPANCY SENSOR W/ POWER PACK	WATT-STOPPER DT-305 W/ BZ-50	12SEC30 MIN. DELAY W/ 120V RATED POWER PACK SURFACE MOUNT ON CEILING AT LOCATIONS SHOWN W/ POWER PACK MOUNTED TO SENSOR BACKBOX.
ULTRASONIC WALL OCCUPANCY SENSOR W/ POWER PACK	WATT-STOPPER DT-205 W/ BZ-50	12SEC30 MIN. DELAY W/ 120V RATED POWER PACK SURFACE MOUNT ON WALL JUST BELOW CEILING IN LOCATIONS SHOWN ON DRAWINGS.





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SYMBOL	DESCRIPTION
	ELECTRIC FIRE ALARM BELL
FACP	FIRE ALARM CONTROL PANEL
MD HD	FIXED TEMP. HEAT DETECTOR
DT	MAGNETIC DOOR HOLDER
PS	MANUAL PULL STATION, 48" A.F.F.
SD	PHOTOELECTRIC SMOKE DETECTOR
ANN	REMOTE ANNUNICIATOR PANEL, 54" A.F.F.
F⊲	SPEAKER/STROBE NOTIFICATION DEVICE, 93" A.F.F.
FX	STROBE ONLY NOTIFICATION DEVICE, 93" A.F.F.

