ENERGY DESIGN CRITERIA:

NOTE: UNLESS OTHERWISE NOTED, ALL CODE REFERENCES BELOW ARE FROM THE 2009 IECC

CLIMATE ZONES: 4B AS SHOWN IN TABLE 301.1
FOR BUILDINGS WITH OVERALL WINDOWS AND GLAZED DOOR OPENINGS
TOTALING 10% OR LESS OF THE GROSS ABOVE-GRADE WALL AREA.

HEATING DEGREE DAYS: 5000 COOLING DEGREE DAYS: 1580

R-VALUES BETWEEN FRAMING MEMBERS ARE FROM TABLE 502.2(1)
ROOF: ALL WOOD JOIST / TRUSS: R-30
WALL: WOOD FRAMED: R-21
FLOOR: ALL WOOD JOIST / TRUSS: R-22

U-FACTOR FOR WINDOWS: DUAL PANE/ LOW-E GLASS = 0.49
SHGC FOR WINDOWS: DUAL PANE/ LOW-E GLASS = 0.25
U-FACTOR FOR DOORS: STEEL DOOR = 0.20

LIGHTING CONTROLS: BI-LEVEL SWITCHING FOR OFFICE AND / OR CLASSROOM LIGHTING.
PHOTOCELL CONTROLS FOR EXTERIOR LIGHTING.

GENERAL LIGHTING: FLUORESCENT LIGHT WITH T-8 LAMPS & ELECTRONIC BALLAST
EXTERIOR LIGHTING: WALL MOUNTED TWIN TUBE FLUORESCENT LIGHT ON PHOTOCELL

HVAC EFFICIENCY: WALL HUNG ELECTRIC HVAC UNITS: MIN. 9.2 EER

SYSTEM CONTROLS: PROGRAMMABLE THERMOSTAT WITH OCCUPANT OVERRIDE PER 503.2.4

OUTDOOR AIR VENTILATION RATE OF: 676.48 CFM PER EQUATION 4-1 AND TABLE 403.3 OF THE 2009 IMC

DUCT INSULATION: WHERE DUCTING IS USED, DUCTS SHALL BE SEPARATED FROM THE BUILDING EXTERIOR BY A MINIMUM OF R-8 INSULATION.
(NOTE: DUCTING USED BY PALOMAR HAS A MINIMUM R-VALUE OF 5.6, AND IS CONTAINED WITHIN THE BUILDING ENVELOPE.)

DUCT SEALING: DUCTS ARE TO BE SEALED IN ACCORDANCE WITH 503.2.7

NOTES:

DATA PLATE(S) TO BE INSTALLED ON THE COVER OF THE ELECTRICAL DISTRIBUTION PANEL AS NOTED ON SHEET A-2.

DECALS TO BE INSTALLED ON THE REAR END, ON THE LOWER LEFT-HAND CORNER OF MODULES WITH METAL SIDING. BUILDINGS WITH SIDINGS WHICH ARE TO BE PAINTED AS A PART OF ROUTINE MAINTENANCE, THE DECALS ARE TO BE LOCATED ON THE REAR END WALL OF THE MODULE, NEAR THE MATELINE, ABOVE THE SUSPENDED CEILING TILE.

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Cottage Grove, WI
Plans certified to comply with all applicable codes and regulations of :
Missouri
Date: 6/28/17
Signature Certification #
APPROVAL LIMITED TO FACTORY BUILT PORTION

SPECIAL CONDITIONS AND / OR LIMITATIONS:

NOTE:
MATERIALS WHICH EQUAL OR EXCEED THOSE SPECIFIED MAY BE SUBSTITUTED.

NOTE:
BUILDING IS TO BE LOCATED A MINIMUM OF 10 FT. FROM PROPERTY LINE OR ASSUMED PROPERTY LINE.

PORTABLE FIRE EXINGUISHERS TO BE PROVIDED AND INSTALLED BY OWNER

NOTE:
FIRE ALARM TO BE INSTALLED BY OTHERS.

NOTE:
ACCESSIBLE DRINKING FOUNTAIN WILL BE PROVIDED ON SITE BY OWNER.

NOTE:
SERVICE SINK TO BE PROVIDED IN ADJACENT BLDG.

NOTE:
BUILDING MUST BE LOCATED WITH IN 500 FT. OF AN EXISTING BUILDING PROVIDING TOILET FACILITIES CAPABLE OF SERVICING THE COMBINED OCCUPANT LOAD OF THE EXISTING BUILDING(S) IN ADDITION TO THIS BUILDING.

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ACCESSIBILITY REQUIREMENTS:

NOTE:
HANDICAP ACCESSIBLE RAMP TO BE INSTALLED BY OTHERS IN ACCORDANCE WITH THE A.D.A. GUIDELINES.

DESIGN CRITERIA:

CODES: 2009 IBC
2009 IPC
2009 IMC
2008 NEC

2009 IECC
ANSI A 117.1 - 2003

OCCUPANCY CLASSIFICATION: E
OCCUPANCY CATEGORY: II
CONSTRUCTION TYPE: V-B
APPLIANCE FUEL TYPE: NONE

STATE OF MISSOURI
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DESIGN LOADS:

ROOF LIVE LOAD: 20 PSF
FLOOR LIVE LOAD: 40 PSF
CONCENTRATED FLOOR LOAD: 1000 LBS

GROUND SNOW LOAD: 20 PSF
ROOF SNOW LOAD: 20 PSF
3 SECOND GUST WIND SPEED: 90 MPH
EXPOSURE: B

SEISMIC DESIGN CATEGORY: B
BUILDING AREA: 1913 S.F.
OCCUPANT LOAD: 90
OCCUPANT AGE GROUP: MIDDLE SCH. 12-14 YEARS

DRAWING INDEX:

	SHEET
COVER SHEET / SPECIFICATIONS	A-1
FLOOR PLAN	A-2
EXTERIOR ELEVATIONS	A-3
CROSS-SECTION	A-4
BLOCKING & TIE-DOWN LAYOUT	S-1
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RIDGE BEAM CONSTRUCTION	S-6
NOT USED	M-1
NOT USED	M-2
CEILING GRID / HVAC LAYOUT	M-3
LIGHTING SCHEMATIC	E-1
POWER DISTRIBUTION SCHEMATIC	E-2
ELECTRICAL LOAD CALCULATIONS	E-3
ALARM SYSTEM LAYOUT	E-4

CLASSROOM BUILDING

S/N: 1730-32

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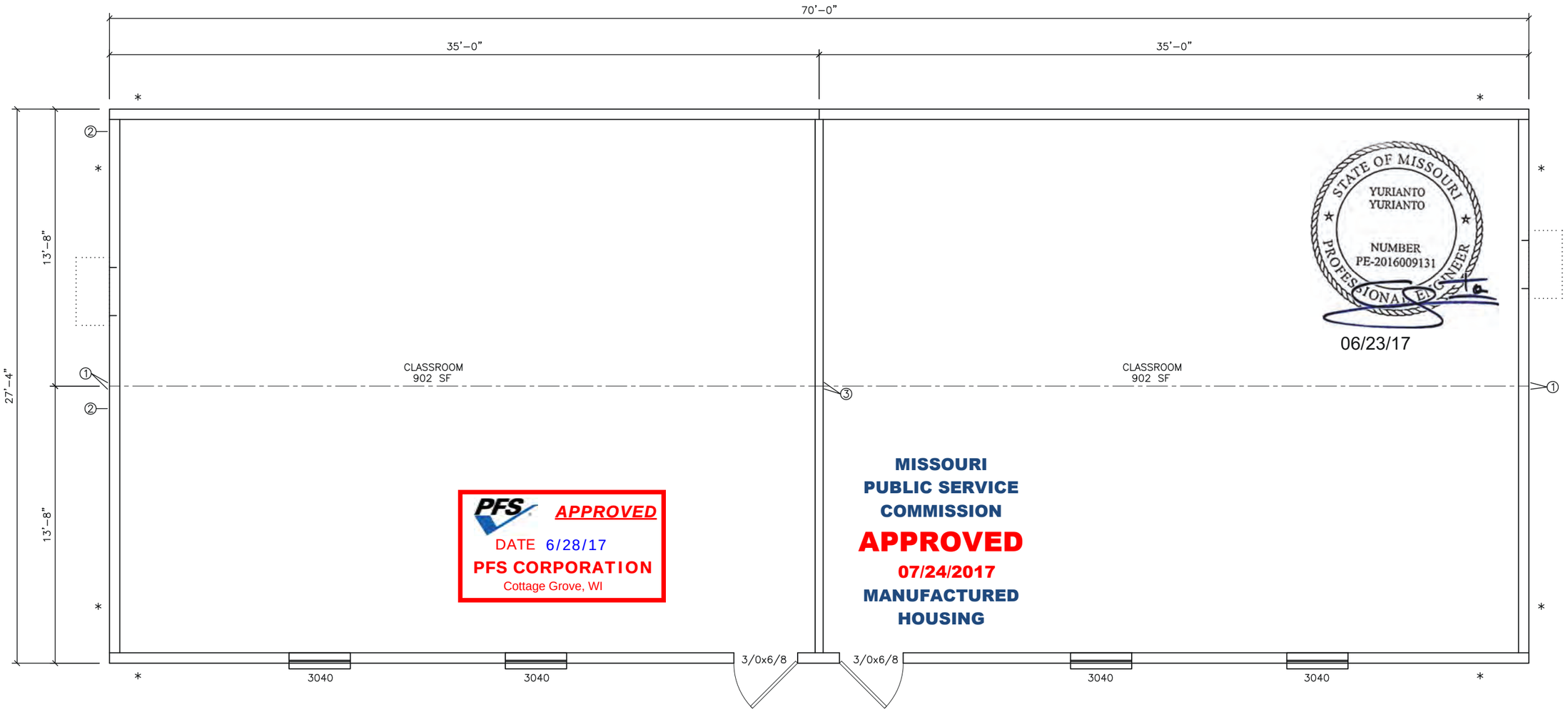
PLANO, TX. 75025-5833
TEL. (972) 896-5373

No.	DESCRIPTION	BY	Date

DATE: 6/19/17
SCALE: N.T.S.
PLOT SCALE: N.T.S.
DRAWN BY: SGD
CHECK BY:

COVER SHEET / SPECIFICATIONS
CLASSROOM BUILDING
LEES SUMMIT, MO
Dwg No. 2870 LEES SUMMIT
S/N: 1730-32

SHEET No.
A-1



DOOR LEGEND					
CALLOUT	NOMINAL SIZE	MATERIAL	HARDWARE	GLAZING	NOTES
3/0x6/8	3'-0" x 6'-8"	18ga. STEEL DOOR	LEVER / PANIC	6x27	CLOSER, WEATHERSTRIP, DRIP CAP
THRESHOLDS AT DOORS NOT TO EXCEED 1/2", AND ARE TO BE BEVELED IF IN EXCESS OF 1/4"					

WINDOW LEGEND							
CALLOUT	NOMINAL SIZE	LIGHT	VENT	MATERIAL	FINISH	STYLE	GLAZING
3040	36" x 48"	10.51	5.25	ALUMINUM	BRONZE	SINGLE HUNG	DUAL / CLEAR / LOW-E

* – DENOTES SHEAR WALL LOCATION

① – DENOTES 3 EACH 2x4s AND 1 EACH 3" WIDE x 26ga. STRAP AT MATE LINE FASTENED WITH 11 – 1 1/2" x 0.148" NAILS EACH END OF EACH STRAP

② – DENOTES TDLR LABEL LOCATION

③ – DENOTES 4 EACH 2x4s AND 1 EACH 3" WIDE x 26ga. STRAP AT MATE LINE FASTENED WITH 11 – 1 1/2" x 0.148" NAILS EACH END OF EACH STRAP

1 FLOOR PLAN
scale: 1/8" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/15/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
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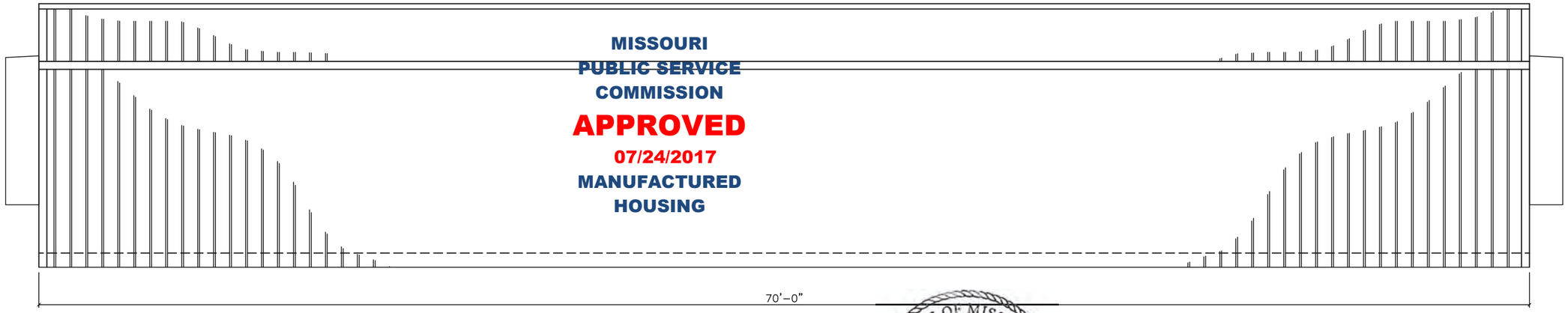
CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
FLOOR PLAN
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
A-2

P:\PALOMAR\Drawings\1730-32 - Lees Summit\2870 Lees Summit ISD.dwg, 6/22/2017 10:32:06 AM, GDavis



4 SOUTH ELEVATION
scale: 3/16" = 1'-0"

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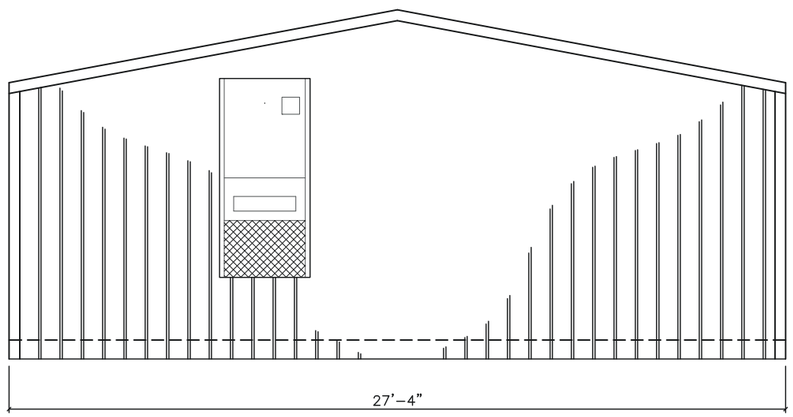
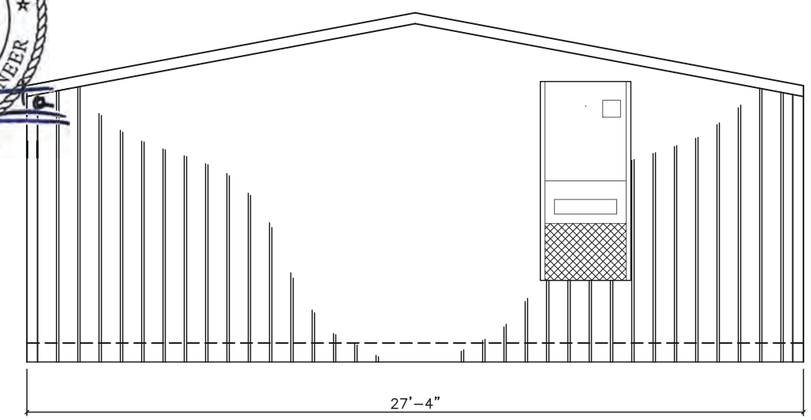
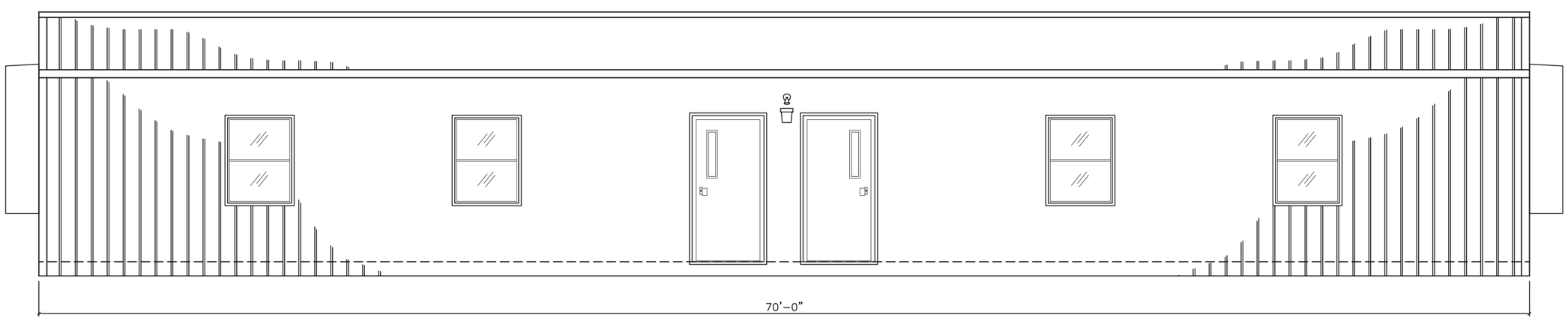


3 EAST ELEVATION
scale: 3/16" = 1'-0"

NOTES:
1) STEEL SIDING PANELS ARE MIN. 0.0150" THICK BASE METAL CONFORMING TO TABLE 1405.2 OF THE 2009 IBC.
2) GALVALUME ROOFING PANELS CONFORM TO THE REQUIREMENTS OF ASTM A 792 AZ 50 PER TABLE 1507.4.3(1) AND 1507.4.3(2) OF THE 2009 IBC. APPLY LAP SEALANT TO LAPPED SEAMS OF ROOF PANELS.



2 WEST ELEVATION
scale: 3/16" = 1'-0"



1 NORTH ELEVATION
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
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PLOT SCALE: 1:1
DRAWN BY: SGD
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CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
EXTERIOR ELEVATIONS
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

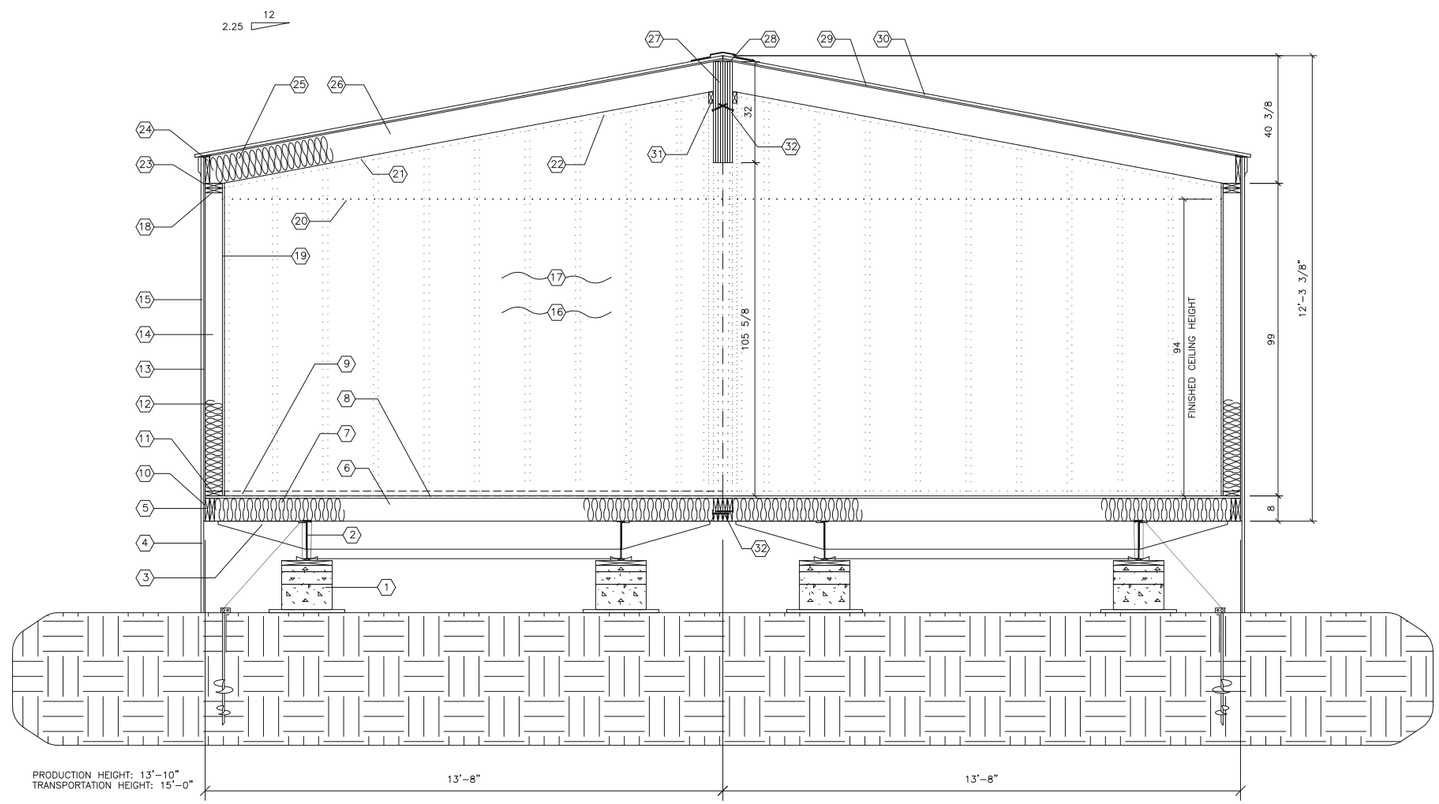
SHEET No.
A-3

P:\PALOMAR\Drawings\2870 Lees Summit ISD.dwg, 6/20/2017 3:20:28 PM, GDavis

1. STANDARD PAD ON GRADE, ABS BASE WITH CMU BLOCK
2. M12x11.8 FRAME RAILS CONFORMING TO ASTM A529-50
3. WOVEN POLYETHELYENE BOTTOM BOARD
4. SKIRTING INSTALLED ON SITE AFTER UNIT ASSEMBLY
5. 2-2x8 #3 SYP MIN. FLOOR RIM JOISTS
6. 2x8 # 2 SYP MIN. FLOOR JOISTS AT 16"o.c.
7. R-22 INSULATION IN FLOOR CAVITY
8. 3/4" T&G ADVANTECH DECKING
9. VINYL COMPOSITION FLOOR TILE
10. SIDEWALL STRAPPED TO FLOOR WITH 1 1/2" x 30ga GALV. STRAPS AT 48"o.c. FASTENED WITH 6-16ga STAPLES EACH END OF EACH STRAP
11. 2x6 #3 SYP MIN. BOTTOM PLATE
12. R-21 INSULATION IN EXTERIOR WALLS
13. 7/16" RATED SHEATHING OSB UNDER A WEATHER-RESISTIVE BARRIER CONFORMING TO 1404.2 OF THE 2009 IBC, FASTENED WITH 8d NAILS AT 6"o.c. AT EDGES AND 12"o.c. IN THE FIELD
14. 2x6 #2 SYP MIN. STUDS AT 16"o.c.
15. STEEL SIDING PANELS CONFORMING TO TABLE 1405.2 OF THE 2009 IBC
16. R-11 INSULATION IN INTERIOR WALLS
17. 2x4 #2 SYP MIN. AT 16"o.c. INTERIOR WALLS
18. 2-2x6 #3 SYP MIN. EXTERIOR WALL TOP PLATES
19. VINYL CLAD 5/8" TYPE 'X' GYPSUM WALLBOARD.
20. SUSPENDED GRID ACOUSTIC CEILING
21. POLY NETTING ON BOTTOM OF RAFTERS
22. 2-2x4 #3 SYP MIN. INTERIOR WALL TOP PLATES
23. ROOF STRAPPED TO SIDEWALL WITH 1 1/2" x 30ga GALV. STRAPS AT 48"o.c. FASTENED WITH 6-16ga STAPLES EACH END OF EACH STRAP
24. 2x10 #2 SYP MIN. ROOF RIM JOIST
25. R-30 INSULATION IN RAFTER CAVITY
26. 2x10 #2 SYP MIN RAFTERS AT 24"o.c.
27. FOUR LAYER SOLID PLYWOOD RIDGE BEAM, EACH LAYER OF 3/4", 5-LAYER, 5-PLY GROUP 1 SPECIES PLYWOOD. BEAM IS CONSTRUCTED PER THE APA "DESIGN AND FABRICATION OF ALL-PLYWOOD BEAMS" SUPPLEMENT 5
28. RAFTERS STRAPPED TO RIDGE BEAM WITH 1 1/2" x 30ga STRAP FASTENED WITH 6-16ga STAPLES EACH END OF EACH STRAP.
29. 7/16" SHEATHING RATED OSB WITH H-CLIPS, FASTENED W/ 8d NAILS AT 4"o.c. EDGES AND 8"o.c. FIELD, OVER 15# FELT PAPER
30. 29 Ga. GALVALUME ROOFING PANELS CONFORMING TO ASTM A 792 AZ50 PER TABLES 1507.4.3(1)
31. 2x4 LEDGER FASTENED TO RIDGE BEAM W/3-16d NAILS EACH RAFTER LOCATION OR SIMPSON MMLU-26 JOIST HANGER FASTENED WITH 4-1 1/2" x 8d NAILS TO BEAM AND 2-1 1/2" x 8d NAILS TO RAFTER
32. UNITS FASTENED TOGETHER AT FLOOR AND RIDGE BEAM WITH 6/8" x 6" LAG BOLTS AT 32"o.c. STAGGERED

NOTES:

1. CRAWL SPACE TO BE VENTILATED IN ACCORDANCE WITH 2009 INTERNATIONAL BUILDING CODE SECT. 1203.3.2. INSTALL SO AS TO PROVIDE CROSS-VENTILATION OF CRAWL SPACE. INSTALL MINIMUM 18" x 24" ACCESS PANEL IN SKIRTING.
2. BLOCK HEIGHTS SHOWN ARE TYPICAL. ANY BLOCK STACKS, OTHER THAN AT MATELINES, REQUIRING MORE THAN THREE 8" x 8" x 16" BLOCKS MUST BE DOUBLED. THIS DOES NOT CHANGE ANCHORING LOCATIONS OR QUANTITIES.
3. FRONT CROSS-MEMBER IS FULL DEPTH I-BEAM (SAME AS CHASSIS). HITCH / COUPLER IS VENTURE OR EQUIVALENT 30,000# MIN. RATED. TIRES ARE 8 x 14.5, 8-PLY OR BETTER, 2805# MIN LOAD RATING. FRAME PAINT IS EMULSION BASE PAINT. OUTRIGGERS AND U-CHANNEL CROSS-MEMBERS ARE 14ga MINIMUM. OUTRIGGER SIZE IS 9" x 28".
4. METAL ROOF AND WALL PANELS TO BE FASTENED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE APPROPRIATE WIND SPEED FOR THE BUILDING INSTALLATION LOCATION.



STATE OF MISSOURI
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PROFESSIONAL ENGINEER

06/23/17

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1 CROSS SECTION
scale: 1/4" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
SCALE: 1/4" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
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CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
CROSS SECTION
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
A-4

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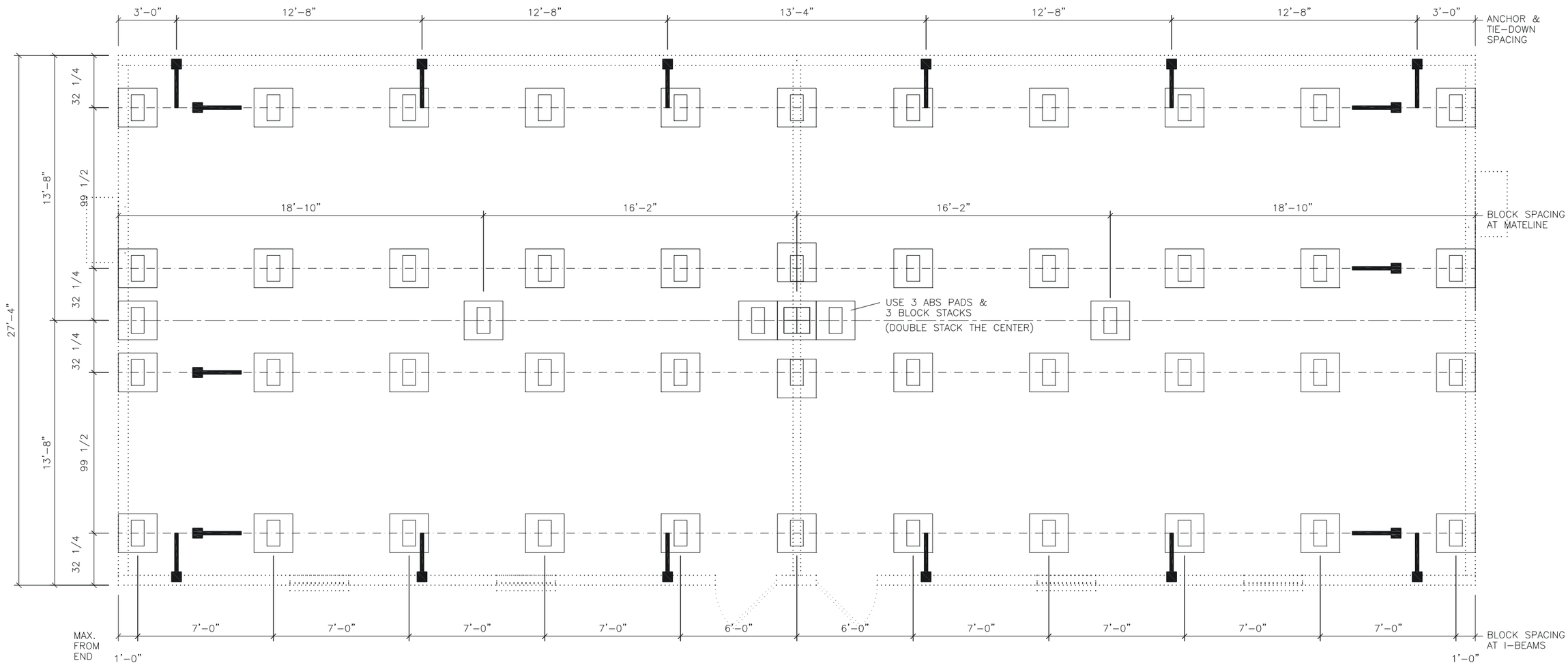

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NOTES:

1. BLOCK SPACING MAY VARY DUE TO AXLE HANGERS OR OTHER STRUCTURAL OBSTRUCTIONS.
2. BASE PADS ARE TO BE 24" x 24" ABS PADS. 16" x 18" ABS BASE PADS MAY BE USED AT EXTERIOR DOOR LOCATIONS FOR DOOR ADJUSTMENT WHERE NECESSARY.
3. SINGLE BLOCK STACKS ARE LIMITED TO THREE BLOCKS HIGH. ANY BLOCK STACK REQUIRING MORE THAN THREE 8" x 8" x 16" BLOCKS MUST BE DOUBLED AND CROSS-STACKED. THIS DOES NOT CHANGE ANCHORING LOCATIONS OR QUANTITIES.
4. ASSUMED SOIL BEARING CAPACITY IS 2000 PSF. SITE SPECIFIC SOIL CONDITIONS ARE TO BE VERIFIED BY OWNER, OR OWNER'S AGENT.

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1 BLOCKING & TIE-DOWN LAYOUT

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

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
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CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
BLOCKING & TIE-DOWN LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-1

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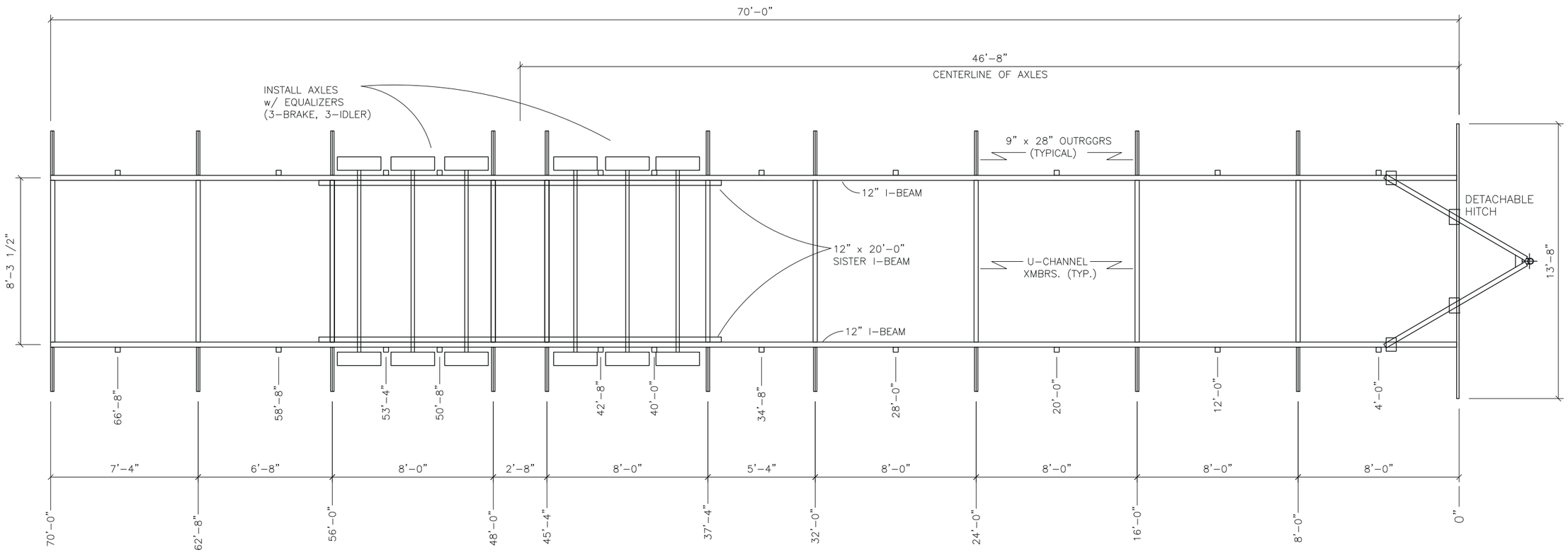

NOTES:
FRONT CROSS-MEMBER IS FULL DEPTH I-BEAM (SAME AS CHASSIS)
HITCH / COUPLER IS VENTURE OR EQUIVALENT 30,000# MIN. RATED
TIRES ARE 8 x 14.5, 8-ply, 2805# MIN LOAD RATING
FRAME PAINT IS ZINC CHROMATE OR ASHPALTIC BASE
OUTRIGGERS AND U-CHANNEL CROSS-MEMBERS ARE 14 ga. MIN.

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1 CHASSIS LAYOUT
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
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CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
CHASSIS LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-2

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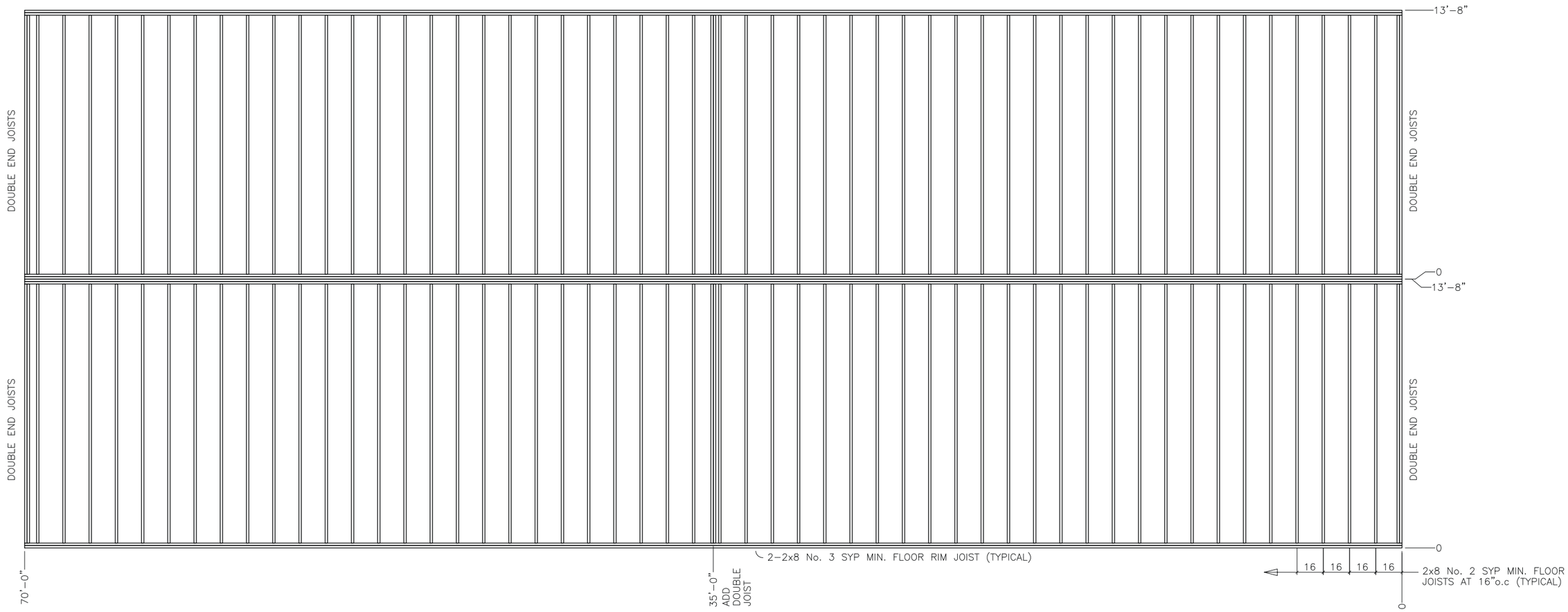

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1 FLOOR FRAMING LAYOUT
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
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PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
FLOOR FRAMING LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-3

P:\PALOMAR\Drawings\2870 Lees Summit ISD.dwg, 6/19/2017 1:47:34 PM, GDavis

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1 ROOF FRAMING LAYOUT
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
ROOF FRAMING LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-4

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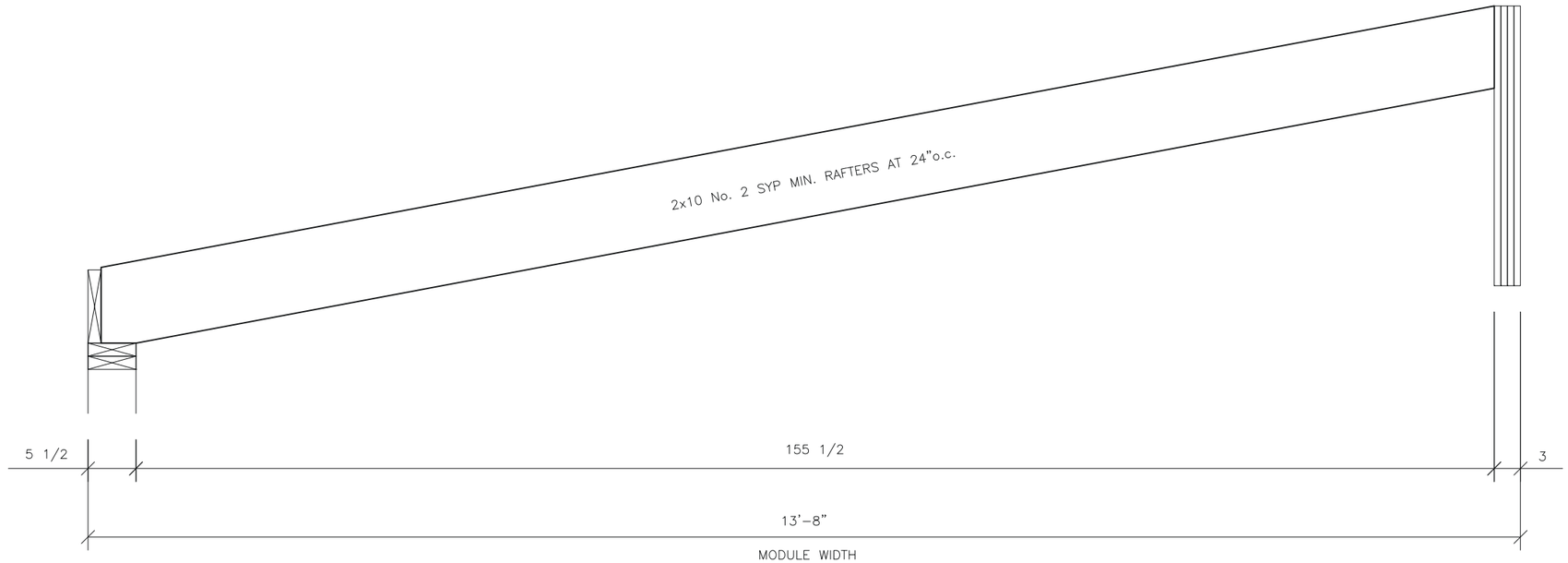


MODULE WIDTH

RAFTER IN ELEVATION

STATE OF MISSOURI
YURIANTO YURIANTO
NUMBER PE-2016009131
PROFESSIONAL ENGINEER

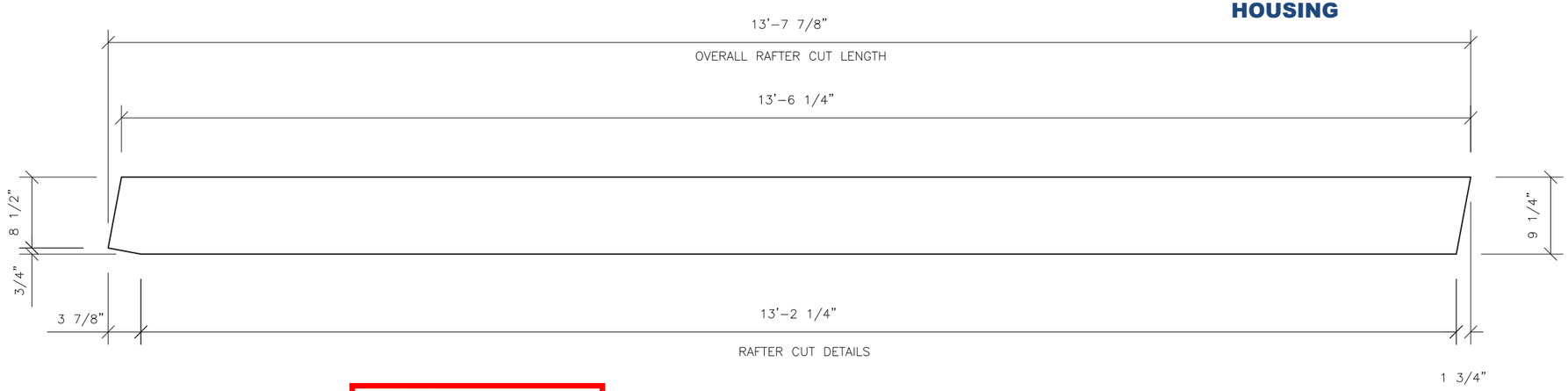
06/23/17

MISSOURI PUBLIC SERVICE COMMISSION

APPROVED

07/24/2017

MANUFACTURED HOUSING



RAFTER CUT DETAILS

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DATE 6/28/17
PFS CORPORATION
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1 RAFTER DETAILS
scale: 3/4" = 1'-0"

MODULAR STRUCTURAL CONSULTANTS LLC
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PLANO, TEXAS 75025-5833
PHONE: 972-896-5373
TX. REGISTRATION # F-15892

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
SCALE: 3/4" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
RAFTER DETAILS
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-5

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NOTES:

1. RIDGE BEAM CONSTRUCTION IS SAME FOR BOTH HALVES (MIRRORED)
2. RIDGE BEAM CONSTRUCTION SHALL BE IN ACCORDANCE WITH APA PLYWOOD DESIGN SPECIFICATION, SUPPLEMENT 5, AND SECTION 9 OF THE DESIGN MANUAL.
3. RIDGE BEAM IS CONSTRUCTED WITH 3/4", 5-PLY, 5-LAYER GROUP 1 SPECIES PLYWOOD.

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1 RIDGE BEAM CONSTRUCTION
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/16/2017
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PLOT SCALE: 1:1
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CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
RIDGE BEAM CONSTRUCTION
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
S-6

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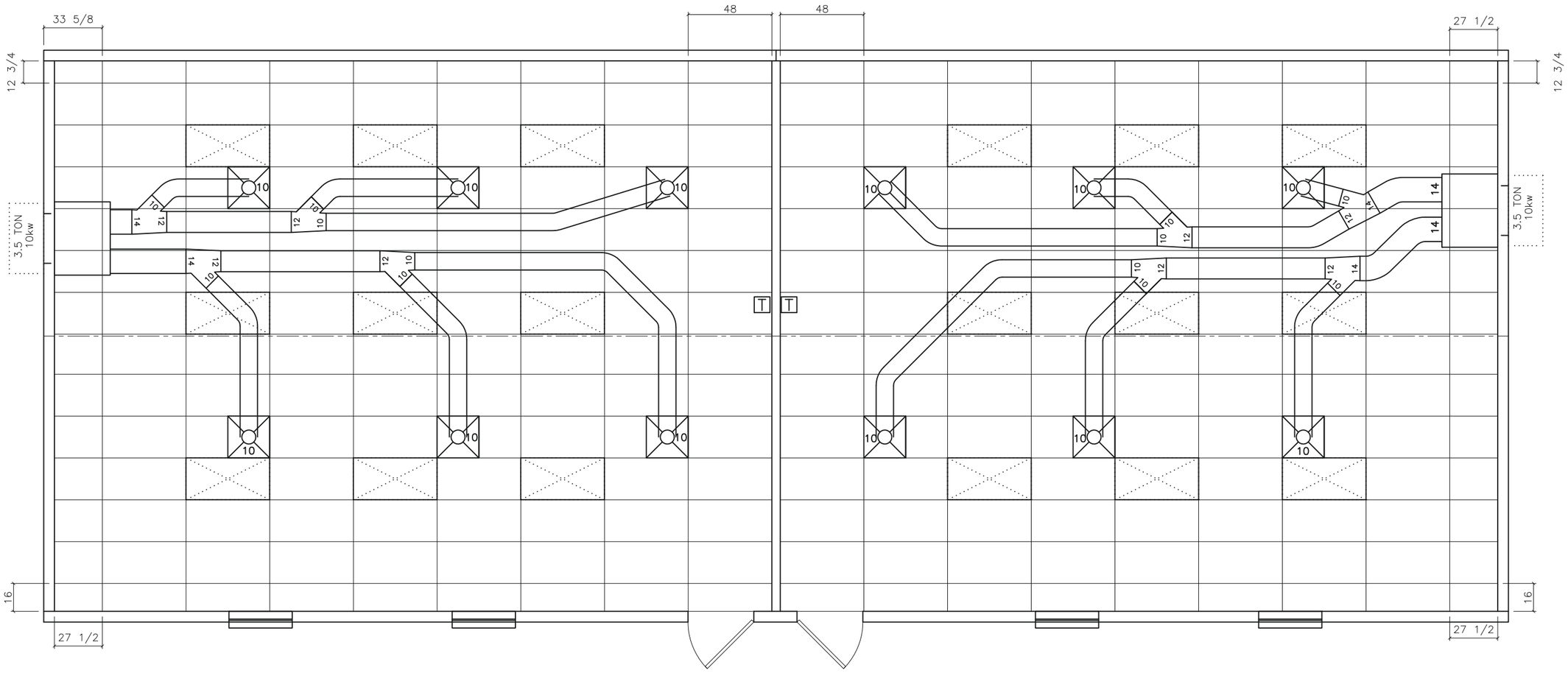

SYMBOL LEGEND	
	2' x 4' FLUORESCENT LIGHT WITH 4 x 32 WATT LAMPS & ELECTONIC BALLAST (112 WATTS)
	24"x 24" SUPPLY DIFFUSER
T	PROGAMMABLE THERMOSTAT

NOTE: DUCTING IS CLASS 1, U.L. 181 LISTED FLEXIBLE FIBERGLASS DUCTING.

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1 CEILING GRID / HVAC LAYOUT
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/19/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
CEILING GRID / HVAC LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
M-3

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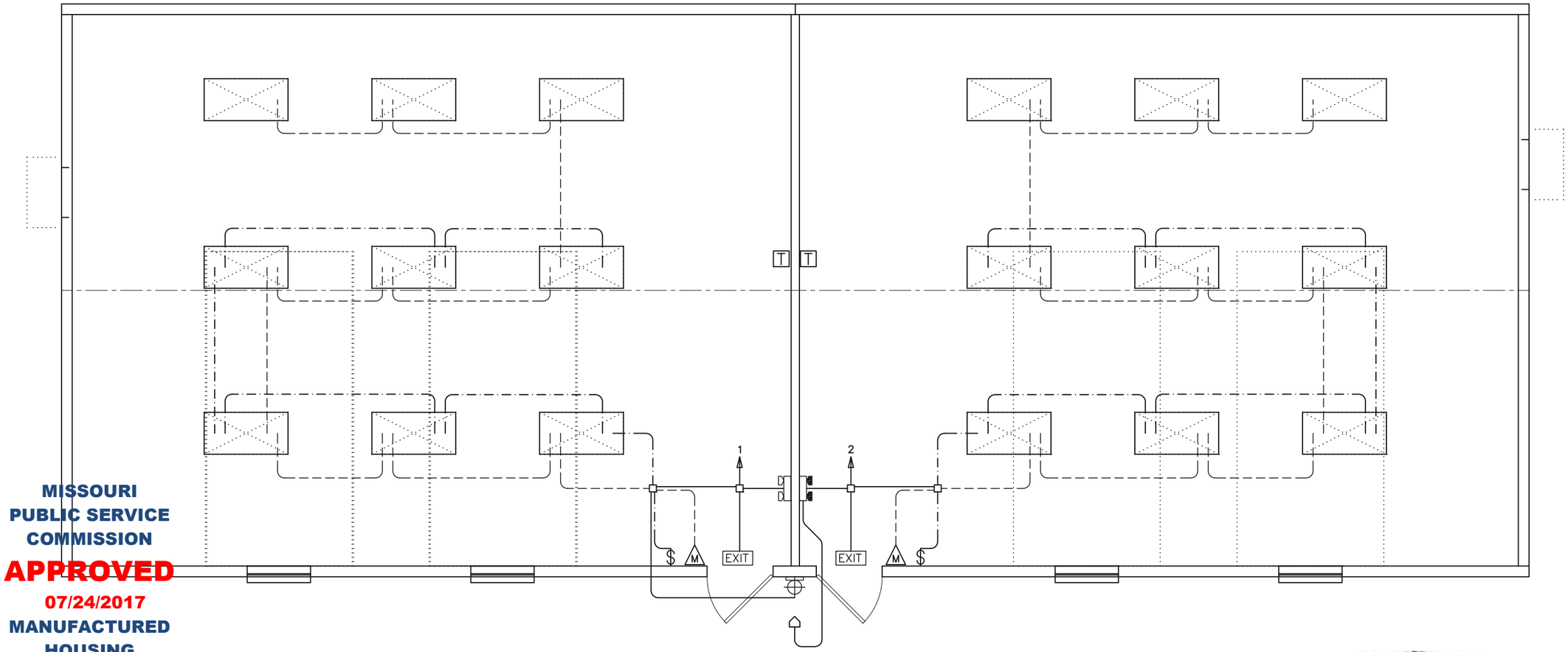

MISSOURI PUBLIC SERVICE COMMISSION

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07/24/2017

MANUFACTURED HOUSING

ELECTRICAL SYMBOL LEGEND

48" x 24" FLUORESENT LIGHT w/ T-8 LAMPS & ELECTRONIC BALLAST (112w)	RECEPTACLE	ELECTRICAL DIST. PANEL	DENOTES DAYLIGHTING ZONE. LIGHTS WITHIN THE DAYLIGHTING ZONE TO BE INDEPENDENTLY CONTROLLED SEPARATE FROM NORMAL CLASSROOM LIGHTS
VANDAL-PROOF EXTERIOR COMPACT FLUORESCENT LIGHT ON PHOTOCELL (26w)	WP GFI — WEATHER-PROOF GFI RECEPTACLE	EXIT — LED EXIT LIGHT w/ BATTERY BACK-UP	
$ — SWITCH	PHONE / DATA STUB-IN	EMERGENCY LIGHT w/ BATTERY BACK-UP & REMOTE HEAD	GENERAL NOTES: BUILDING IS: 120/240v 3-WIRE SINGLE PHASE ELECTRICAL CONDUIT: ELECTRICAL NON-METALLIC TUBING ELECTRICAL WIRING: MIN. #12 THHN COPPER WITH GROUND GROUNDING ON SITE: PER 2011 NEC ARTICLE 250-50
M — OCCUPANCY SENSOR	T — 7-DAY PROGRAMMABLE THERMOSTAT w/ OCCUPANT OVERRIDE	EMERGENCY LIGHT w/ BATTERY BACK-UP	
	JUNCTION BOX	EMERGENCY LIGHT REMOTE HEAD	

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STATE OF MISSOURI
YURIANTO YURIANTO
NUMBER PE-2016009131
PROFESSIONAL ENGINEER

06/23/17

(Structural Aspects Only)

1 LIGHTING SCHEMATIC

scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/19/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
LIGHTING SCHEMATIC
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
E-1

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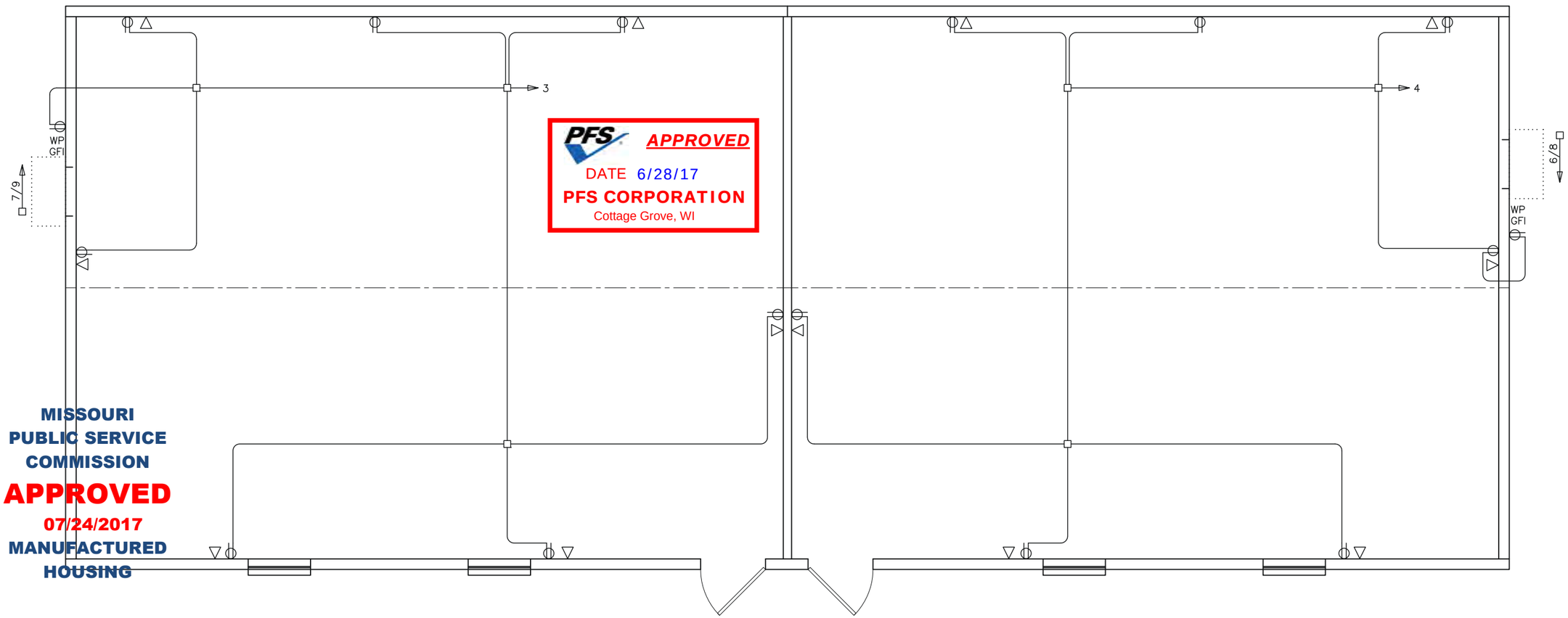

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HOUSING

ELECTRICAL SYMBOL LEGEND

48" x 24" FLUORESENT LIGHT w/ T-8 LAMPS & ELECTRONIC BALLAST (112w)	RECEPTACLE	ELECTRICAL DIST. PANEL	DENOTES DAYLIGHTING ZONE. LIGHTS WITHIN THE DAYLIGHTING ZONE TO BE INDEPENDENTLY CONTROLLED SEPARATE FROM NORMAL CLASSROOM LIGHTS
VANDAL-PROOF EXTERIOR COMPACT FLUORESCENT LIGHT ON PHOTOCELL (26w)	WP GFI WEATHER-PROOF GFI RECEPTACLE	EXIT LED EXIT LIGHT w/ BATTERY BACK-UP	
$ SWITCH	PHONE / DATA STUB-IN	EMERGENCY LIGHT w/ BATTERY BACK-UP & REMOTE HEAD	
M OCCUPANCY SENSOR	T 7-DAY PROGRAMMABLE THERMOSTAT w/ OCCUPANT OVERRIDE	EMERGENCY LIGHT w/ BATTERY BACK-UP	GENERAL NOTES: BUILDING IS: 120/240v 3-WIRE SINGLE PHASE ELECTRICAL CONDUIT: ELECTRICAL NON-METALLIC TUBING ELECTRICAL WIRING: MIN. #12 THHN COPPER WITH GROUND GROUNDING ON SITE: PER 2011 NEC ARTICLE 250-50
	JUNCTION BOX	EMERGENCY LIGHT REMOTE HEAD	

STATE OF MISSOURI
YURIANTO YURIANTO
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PROFESSIONAL ENGINEER

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(Structural Aspects Only)

1 POWER DISTRIBUTION SCHEMATIC
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/19/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
POWER DISTRIBUTION SCHEMATIC
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
E-2

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STATE OF MISSOURI
YURIANTO YURIANTO
NUMBER PE-2016009131
PROFESSIONAL ENGINEER

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(Structural Aspects Only)

MIN WIRE SIZE		200 AMP 240v SINGLE PHASE MAIN BREAKER				PANEL 'A'	MIN WIRE SIZE
12	LIGHTS: LEFT CLASSROOM	20	1	2	20	LIGHTS: RIGHT CLASSROOM	12
12	RECEPTS: LEFT CLASSROOM	20	3	4	20	RECEPTS: RIGHT CLASSROOM	12
6	HVAC UNIT: LEFT CLASSROOM	60	5	6	60	HVAC UNIT: RIGHT CLASSROOM	6
	3.5 TON / 10kw	2P	7	8	2P	3.5 ton / 10kw	
			9	10			
			11	12			
			13	14			
			15	16			
			17	18			
			19	20			
			21	22			
			23	24			

GROUND BAR

NEUTRAL

WIRE SIZE OF:

Service Conductors: 3/0
Service Ground: 4

TOTAL PANEL LOAD:

Total Watts: 33861 watts
Voltage: 240 v
Total Amps: 141.09 amps

240 v

LOAD CALC: 200 AMP

QTY	ITEM		WATTS	TOTAL
18	Fluoresent T-8's	x	112	2520 watts
	Compact Fluorescent	x	26	0 watts
	Fluorescent 17w 2 Lamp	x	31	0 watts
1	Ext. CFL Light	x	84	105 watts
	Exhaust Fan 80 cfm	x	84	0 watts
	Appliance circuit	x	1920	0 watts
16	Recept Duplex	x	180	2880 watts
	Recept Dedicated	x	1920	0 watts
	Water Heater (240v)	x	6000	0 watts
	Water Cooler	x	410	0 watts
	Res. Refrigerator	x	840	0 watts
	Duct Detector	x	1	0 watts
2	Emergency Light	x	14.4	29 watts
2	Exit Sign	x	2.8	7 watts
2	Bard 3.5Ton / 10kw (240v)	x	14160	28320 watts
0	Air Handler 3 Ton / 10kw (240v)	x	12420	0 watts

Total Watts: 33861
Total Amps: **141.09**

Service Conduit Size

IMC	2
PVC	2
RMC	2

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BUILDING TOTAL LOAD:

Panel "A" Load:	33861 watts
Total:	33861 watts
Voltage:	240 v
Total Amps:	**141.08667 Amps**

YURI YURIANTO
MODULAR STRUCTURAL CONSULTANTS LLC
TX. REG. #: F-15892
9720 COIT RD. STE. 220-150
PLANO, TX. 75025-5833

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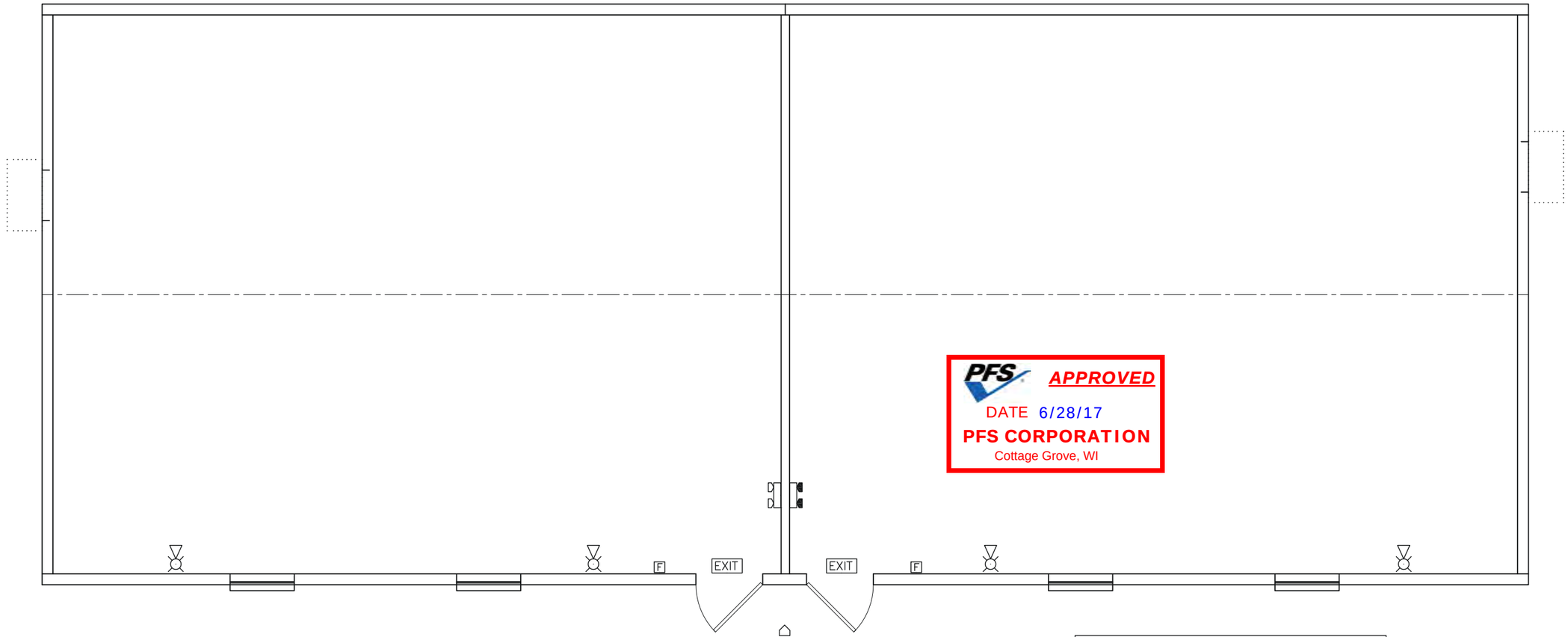
No.	DESCRIPTION	BY	Date

DATE: 6/17/2005
SCALE: N.T.S.
PLOT SCALE: N.T.S.
DRAWN BY: SGD
CHECK BY:

ELECTRICAL CALCULATIONS
JAMES McHUGH CONST. CO.
ODESSA, TEXAS
Dwg. No. 1244JMCC-UPRR
S/N:

SHEET No.
E-3



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DATE 6/28/17
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HOUSING

STATE OF MISSOURI
YURIANTO YURIANTO
NUMBER PE-2016009131
PROFESSIONAL ENGINEER

06/23/17

(Structural Aspects Only)

SYMBOL LEGEND	
EXIT	LIGHTED EXIT SIGN WITH BATTERY BACK–UP
	EMERGENCY LIGHT WITH BATTERY BACK–UP
	EMERGENCY LIGHT WITH BATTERY BACK–UP REMOTE HEAD
	EMERGENCY LIGHT REMOTE HEAD
F	ALARM PULL STATION AT 48" AFF
	ALARM HORN/STROBE AT 86" AFF

NOTE: DEVICES SHOWN HERE ARE PROVIDED WITH BOX AND CONDUIT AT THESE LOCATIONS ONLY TO FACILITATE THE INSTALLATION OF THE FIRE ALARM SYSTEM WHICH IS TO BE INSTALLED BY A LICENSED ALARM SYSTEM INSTALLER ON SITE

1 ALARM SYSTEM LAYOUT
scale: 3/16" = 1'-0"

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No.	DESCRIPTION	BY	DATE

DATE: 06/19/2017
SCALE: 3/16" = 1'-0"
PLOT SCALE: 1:1
DRAWN BY: SGD
CHECKED BY:

CLASSROOM BUILDING
LEE'S SUMMIT, MISSOURI
ALARM SYSTEM LAYOUT
FILE: 2870 Lees Summit ISD
SERIAL #: 1730-32

SHEET No.
E-4

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