RADCO
A TWINING COMPANY

RESOURCES APPLICATIONS, DESIGNS & CONTROLS, INC.

TI RADCO, LLP

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October 19, 2017

Titan Modular Systems
162 Industrial Drive
Alma, GA 31510

RE: Plan No.: TMS-3596-A/B-24'x60'-Business-FL
Building Size: 23'-4" x 60-0"
Occupancy Classification: Business
RADCO Approval Date: 10-19-2017

To Whom It May Concern:

This is to confirm that RADCO approved the above referenced plan under the Florida Manufactured Buildings Program administered by the Florida Department of Business and Professional Regulation (DBPR) (FAC Chapter 61-41). RADCO's review confirmed that the design complies with the 2014 FBC-Building 5th Edition, with 2016 supplements with the following limitations.

1. The Manufactured Buildings Program approval pertains to the factory built modular Structure only (and does not include the foundation system).
2. The foundation and anchoring system, utility connections, and items constructed and Installed on-site are subject to review, approval and inspection by the local authority having Jurisdiction.
3. See the site installed items list on the approved plans for list of items that must be Completed on-site.
4. Chapter 633 Fire Safety plan review and inspection are reserved for the local fire safety Authority having jurisdiction.
5. This plan is valid for use only in those jurisdictions where the structural design loads are Less than or equal to the design loads indicated on the approved plans.
6. This plan is **NOT approved** for the High Velocity Hurricane Zone (Miami-Dade and Broward Counties).
7. The use of the building with fewer plumbing fixtures than required by Section 403 of the Florida Plumbing Code is subject to the review and approval of the local authority having jurisdiction.

RADCO's review included a review of products for compliance with 553.8425 or FAC Chapter 61G20-3. A set of signed and sealed plans will be retained on file at RADCO, in accordance with the Manufactured Buildings Program requirements.

Sincerely,

Michael A. Frey
Michael Frey
SMP-37

APPROVED RADCO Oct 19, 2017 APPROVED

REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

Michael A. Frey
General Manager
Plan Review Services
RADCO Eastern Region

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(file: attach to-Letter-Plans FL-Com-Check -Truss)

FLORIDA
STRUCTURAL LOAD LIMITATIONS

RISK CATEGORY: II

FLOOR LIVE LOAD:
A. 50 PSF
B. 2000 LB CONCENTRATED LOAD OVER 30"X30" AREA AT ANY LOCATION

ROOF LIVE LOAD:
A. 20 PSF

WIND LOAD: ASCE 7-10
A1. 160 MPH Vult WIND SPEED
A2. 124 MPH Vasd WIND SPEED
B. Iw = 1.0 WIND IMPORTANCE FACTOR
C. C WIND EXPOSURE CATEGORY
D. GCpi= 0.18 INTERNAL PRESSURE COEFFICIENT
E. WALL ZONE 5: Pult = +/- 74.7 PSF(Pasd=+/- 44.8 PSF)
WALL ZONE 4: Pult = +/- 60.5 PSF(Pasd=+/- 36.3 PSF)
ROOF ZONE 3: Pult = - 140.7 PSF(Pasd= - 84.4 PSF)
ROOF ZONE 2: Pult = - 93.5 PSF(Pasd= - 56.1 PSF)
F. ROOF ZONE 1: Pult = - 55.8 PSF(Pasd= - 33.5 PSF)
G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT IN EXP. 'C' LOCATIONS OR 60 FEET IN HEIGHT IN EXP. 'B' LOCATIONS AND WITHIN 600 FEET OF INLAND BODY OF WATER THAT PRESENTS A FETCH OF ONE MILE OR MORE AN INLAND WATERWAY OR RIVER WITH WIDTH OF 1 MILE OR MORE.

SEISMIC LOAD: N/A

FLOOD LOAD:
THE MODULAR BUILDING UNITS ARE NOT DESIGNED TO BE SUBMERGED OR SUBJECTED TO WAVE ACTION. IF INSTALLED IN A FLOOD PLAIN, THE MODULAR BUILDING UNITS MUST BE INSTALLED ABOVE THE MINIMUM BASE FLOOD ELEVATION DERIVED FROM APPROPRIATE FLOOD ELEVATION MAPS FOR FLOOD LOADS.

CODE SUMMARY:

STATE	BUILDING	ELEC.	MECH.	PLUMB.	ACCESS.	ENERGY
FL	2014 FBC 5th EDITION ASCE 7-10 2014 FFPC 5th EDITION 2012 NFPA 101	2011 NEC	2014 FBC-M 5 th EDITION	2014 FBC-P 5 th EDITION	2014 FACBC 5 th EDITION	2014 FBC ENERGY CONSERV. CODE

DRAWING INDEX

APPROVED RADCO APPROVED
Oct 19, 2017
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REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	V(B)
OCCUPANCY	BUSINESS
FLOOR LL	50 PSF
WIND VELOCITY	160 (ULT) MPH
FIRE RATING OF EXT. WALLS	0
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	TMS
PLAN NUMBER	TMS–3596
APPROVAL DATE	Oct 19, 2017
HVHZ ZONE	NO

RADCO

JAMES ALLEN CHAPMAN LICENSE No. 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

DESTINATION: ORLANDO, FL

TITAN MODULAR
SYSTEMS, INC.
162 INDUSTRIAL DRIVE * ALMA, GA 31510
912-632-3344 (PH) * 912-632-3345 (FX)

DATE: 9-27-17	ENGINEER: JAMES ALLEN CHAPMAN, P.E.
SCALE: N-T-S	
CODES: FL	
TMS-3596 A/B - 23'-4"x60' - BUSINESS	
COVER SHEET	PAGE: 1 / 5

ACCESSIBILITY NOTES:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SIGN SHALL BE DISPLAYED AT ALL ACCESSIBLE RESTROOMS FACILITIES AND AT ACCESSIBLE BUILDING ENTRANCES UNLESS ALL ENTRANCES ARE ACCESSIBLE. INACCESSIBLE ENTRANCES SHALL HAVE DIRECTIONAL SIGNS INDICATION THE ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
2. ACCESSIBLE DRINKING FOUNTAINS SHALL HAVE A SPOUT HEIGHT NO HIGHER THAN 36 INCHES ABOVE THE FLOOR AND EDGE OF BASIN NO HIGHER THAN 34 INCHES ABOVE THE FLOOR FOR INDIVIDUALS IN WHEELCHAIRS. ADDITIONALLY DRINKING WATER PROVISIONS SHALL BE MADE FOR INDIVIDUALS WHO HAVE DIFFICULTY BENDING.
3. WHERE STORAGE FACILITIES SUCH AS CABINETS, SHELVES, CLOSETS AND DRAWERS ARE PROVIDED AT LEAST ONE TYPE PROVIDED SHALL CONTAIN STORAGE SPACE COMPLYING WITH THE FOLLOWING: DOORS ETC. TO SUCH SPACES SHALL BE ACCESSIBLE (IE TOUGH LATCHES, U-SHAPED PULLS); SPACES SHALL BE 15 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR FOR FORWARD REACH OR SIDE REACH; CLOTHES RODS OR COATS HOOKS SHALL BE A MAXIMUM OF 48 INCHES ABOVE THE FLOOR (46 INCHES MAXIMUM WHEN DISTANCE FROM WHEEL CHAIR TO ROD EXCEEDS 10 INCHES). SHELVES IN KITCHEN OR TOILET ROOMS SHALL BE 40 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE FLOOR.
4. CONTROLS, DISPENSER, RECEPTACLES AND OTHER OPERABLE EQUIPMENT SHALL BE NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. RECEPTACLES ON WALLS SHALL BE MOUNTED NO LESS THAN 15 INCHES ABOVE THE FLOOR. EXCEPTION: HEIGHT LIMITATIONS DO NOT APPLY WHERE THE USE OF SPECIAL EQUIPMENT DICTATES OTHERWISE OR WHERE ELECTRICAL RECEPTACLES ARE NOT NORMALLY INTENDED FOR USE BY BUILDING OCCUPANTS.
5. WHERE EMERGENCY WARNING SYSTEMS ARE PROVIDED, THEY SHALL INCLUDE BOTH AUDIBLE AND VISUAL ALARMS. THE VISUAL ALARMS SHALL BE LOCATED THROUGHOUT, INCLUDING RESTROOMS AND PLACED 80 INCHES ABOVE THE FLOOR OR 6 INCHES BELOW CEILING, WHICHEVER IS LOWER.
6. ALL DOORS SHALL BE OPENABLE BY A SINGLE EFFORT. DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO AN OPEN POSITION OF 12 DEGREES SHALL BE 5 SECONDS MINIMUM. THE MAXIMUM FORCE REQUIRED FOR PUSHING OR PULLING OPEN DOORS OTHER THAN FIRE DOORS SHALL NO EXCEED 5 POUNDS FOR ALL SLIDING, FOLDING AND INTERIOR HINGED DOORS.
7. FLOOR SURFACES SHALL BE STABLE, FIRM AND SLIP-RESISTANT. CHANGES IN LEVEL BETWEEN 0.25 INCH AND 0.5 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. CHANGES IN LEVEL GREATER THAN 0.5 INCH REQUIRE RAMPS. CARPET PILE THICKNESS SHALL BE 0.5 INCH MAXIMUM. GRATINGS IN FLOOR SHALL HAVE SPACES NO GREATER THAN 0.5 INCHES WIDE IN ONE DIRECTION. DOORWAY THRESHOLDS SHALL NOT EXCEED 0.5 INCH IN HEIGHT.
8. ACCESSIBLE WATER CLOSETS SHALL BE 17 INCHES TO 19 INCHES, MEASURED FROM THE FLOOR TO THE TOP OF THE SEAT. GRAB BARS SHALL BE 36 INCHES LONG MINIMUM WHEN LOCATED BEHIND WATER CLOSET AND 42 INCHES MINIMUM WHEN LOCATED ALONG SIDE OF WATER CLOSET, AND SHALL BE MOUNTED 33 INCHES TO 36 INCHES ABOVETHE FLOOR. IN ADDITION, A VERTICAL GRAB BAR 18 INCHES MINIMUM IN LENGTH SHALL BE MOUNTED ON THE SIDEWALL WITH THE BOTTOM OF THE BAR LOCATED BETWEEN 39 AND 41 INCHES AND 41 INCHES FROM THE REAR WALL.
9. ACCESSIBLE URINALS SHALL BE STALL TYPE OR WALL HUNG WITH ELONGATED RIMS AT A MAXIMUM OF 17 INCHES ABOVE THE FLOOR.
10. ACCESSIBLE LAVATORIES AND SINKS SHALL BE MOUNTED WITH THE RIM NO HIGHER THAN 34 INCHES ABOVE THE FLOOR, KNEE CLEARANCE OF AT LEAST 27 INCHES HEIGHT MUST BE PROVIDED WITH A MINIMUM DEPTH OF 8 INCHES BENEATH THE FIXTURE AND 9 INCHES HIGH MINIMUM WITH A MINIMUM DEPTH OF 11 INCHES BENEATH THE FIXTURE. THE KNEE SPACE MUST BE AT LEAST 30 INCHES WIDE.
11. HOT WATER AND DRAIN PIPES UNDER ACCESSIBLE LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. INSULATION OR PROTECTION MATERIALS MAY BE SITE INSTALLED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE ACCESSIBLE LAVATORIES AND SINKS.
12. ACCESSIBLE LAVATORIES AND SINKS SHALL HAVE ACCESSIBLE FAUCETS (IE LEVER OPERATED) PUSH TYPE OR ELECTRONICALLY CONTROLLED.
13. MIRRORS LOCATED ABOVE LAVATORIES, SINKS OR COUNTERS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE A MAXIMUM OF 40 INCHES ABOVE THE FLOOR. OTHER MIRRORS IN THE TOILET ROOMS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 35 INCHES MAXIMUM ABOVE THE FLOOR.
14. GRAB BARS HAVING A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1.25 INCHES MINIMUM AND 2.0 INCHES MAXIMUM. THE SPACE BETWEEN THE GRAB BAR AND THE WALL SHALL BE 1.5 INCHES.
15. WATER CLOSET FLUSH CONTROL SHALL BE INSTALLED A MAXIMUM OF 36 INCHES ABOVE THE FLOOR AND SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
16. DOORS TO ALL ACCESSIBLE SPACES SHALL HAVE ACCESSIBLE HARDWARE (IE LEVER OPERATED, PUSH TYPE , U SHAPED) MOUNTED WITH OPERABLE PARTS BETWEEN 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FLOOR.
17. TOILET STALL DOORS SHALL BE SELF-CLOSING TYPE.
18. A TOWEL DISPENSER SHALL BE LOCATED ADJACENT TO ALL ACCESSIBLE LAVATORIES.

ELECTRICAL NOTES:

1. ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATED ARTICLES OF THE NATIONAL ELECTRICAL CODE (NEC).
2. WHEN LIGHT FIXTURES ARE INSTALLED IN CLOSETS THEY SHALL BE SURFACE MOUNTED OR RECESSED. INCANDESCENT FIXTURES SHALL HAVE COMPLETELY ENCLOSED LAMPS. SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A MINIMUM CLEARANCE OF 6 INCHES FROM "STORAGE AREA" AS DEFINED BY NEC 410-8(a).
3. WHEN WATER HEATERS ARE INSTALLED THEY SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE WATER HEATERS SERVED. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE THE AS THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS WITHIN SIGHT FROM THE WATER HEATER OR IS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
4. HVAC EQUIPMENT SHALL BE PROVIDED WITH READILY ACCESSIBLE DISCONNECTS ADJACENT TO THE EQUIPMENT SERVED. A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS A PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTION MEANS WHERE OTHER DISCONNECTING MEANS ARE ALSO PROVIDED BY A READILY ACCESSIBLE CIRCUIT BREAKER.
5. PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
6. THE MAIN ELECTRICAL PANEL AND FEEDERS ARE DESIGNED BY OTHERS, SITE INSTALLED AND SUBJECT TO LOCAL JURISDICTION APPROVAL.
7. ALL CIRCUITS CROSSING OVER THE MODULE MATE LINE SHALL BE SITE CONNECTED WITH APPROVED ACCESSIBLE JUNCTION BOXES OR CABLE CONNECTORS.
8. ALL RECEPTACLES INSTALLED IN WET LOCATIONS (EXTERIOR) SHALL BE IN WEATHER PROOF (WP) ENCLOSURES. THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN AN ATTACHMENT PLUG CAP IS INSERTED OR REMOVED. THE RECEPTACLE ITSELF SHALL ALSO BE LISTED FOR DAMP AND WET LOCATIONS AS PER NEC.
9. EXTERIOR LIGHTS NOT INTENDED FOR 24 HOUR USE SHALL BE CONNECTED TO A PHOTOCELL OR TIMER.

PLUMBING NOTES:

1. THIS BUILDING IS ONE BUILDING OF A GROUP OF SEVEN (TMS-3590, 3591, 3592, 3593, 3594, 3595 & 3596) WHICH ARE SUPPORTED BY A TOILET TRAILER, MODULAR BUILDING TMS-3595.
2. CUSTOMER ASSUMES ALL RESPONSIBILITY FOR REQUIRED PLUMBING FACILITIES WHEN NOT SHOWN ON THE PLANS.
3. TOILETS SHALL BE ELONGATED WITH NONABSORBENT OPEN FRONT SEATS.
4. RESTROOM WALLS SHALL BE COVERED WITH NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 48 INCHES ABOVE FINISHED FLOOR (AFF). FLOORS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE THAT EXTENDS UP ONTO THE WALLS A MINIMUM OF 6 INCHES.
5. THIS BUILDING SHALL BE CONNECTED TO A PUBLIC WATER SUPPLY AND SEWER SYSTEM IF THESE ARE AVAILABLE.
6. PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES
7. WATER HEATER SHALL HAVE SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR, T&P RELIEF VALVE WITH DRAIN TO EXTERIOR, AND A SHUT OFF VALVE WITHIN 3 FEET ON A COLD WATER SUPPLY LINE.
8. DWV SYSTEM SHALL BE EITHER ABS OR PVC - DWV.
9. WATER SUPPLY LINES SHALL BE CPVC OR COPPER, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES LIMITATION AND INSTRUCTIONS.
10. WATER CLOSETS ARE TANK TYPE AND URINALS ARE FLUSH TANK TYPE UNLESS OTHERWISE SPECIFIED.
11. BUILDING DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
12. SHOWERS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM WATER OUTLET TEMPERATURE OF 120°F (48.8°C).
13. THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLED, AND IF NOT SHOWN ON PLUMBING PLAN, IS DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL APPROVAL.
14. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION.
15. WATER, SOIL AND WASTE PIPES IN UNCONDITIONED SPACE SHALL BE INSULATED AN PROTECTED FROM FREEZING.

GENERAL NOTES:

1. ACCESS TO BUILDING FOR PERSONS IN WHEELCHAIRS IS DESIGNED BY AND FIELD BUILT BY OTHERS AND SUBJECT TO LOCAL JURISDICTION APPROVAL. THE PRIMARY ENTRANCE MUST BE ACCESSIBLE.
2. ALL DOORS SHALL BE OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY, TOOL, SPECIAL KNOWLEDGE OR EFFORT. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS SHALL NOT BE USED.
3. ALL GLAZING WITHIN A 24 INCH ARC OF DOORS, WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR, AND ALL GLAZING IN DOORS SHALL BE SAFETY, TEMPERED OR ACRYLIC PLASTIC SHEET.
4. SEE CROSS SECTION FOR ROOF TO WALL AND WALL TO FLOOR CONNECTION REQUIREMENTS.
5. PORTABLE FIRE EXTINGUISHERS PER N.F.P.A. - 10 INSTALLED BY OTHERS ON SITE, AND SUBJECT TO LOCAL JURISDICTION.
6. PROVISIONS FOR EXIT DISCHARGE LIGHTING ARE THE RESPONSIBILITY OF THE BUILDING OWNER AND SUBJECT TO LOCAL JURISDICTION APPROVAL WHEN NOT SHOWN ON THE FLOOR PLAN (INCLUDING EMERGENCY LIGHTING, WHEN REQUIRED).
7. WHEN LOW SIDES OF ROOF PROVIDE LESS THAN 6 INCHES OF OVERHANG, GUTTERS AND DOWNSPOUTS SHALL BE SITE INSTALLED, DESIGNED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
8. STRAPPING MUST BE TESTED AND / OR CERTIFIED TO VERIFY THE STRUCTURAL CAPACITY APPROPRIATE DOCUMENTATION MUST BE ON FILE AT THE MODULAR BUILDING FACTORY.
9. THESE PLANS COMPLY WITH 553.8425 AND 61G20-3 FOR FLORIDA PRODUCT APPROVAL.
10. STRUCTURAL DETAILS NOT INCLUDED IN THIS PLAN SET ARE TO BE CONSTRUCTED ACCORDING TO THE MANUFACTURER'S BUILDING SYSTEM MANUAL.
11. IN WIND-BORNE DEBRIS REGIONS, EXTERIOR GLAZING SHALL BE IMPACT RESISTANT OR PROTECTED WITH AN IMPACT RESISTANT COVERING MEETING THE REQUIREMENTS OF AN APPROVED IMPACT RESISTANT STANDARD, OR ASTM E1996. WIND-BORNE DEBRIS REGIONS ARE DESIGNATED IN SECTION 1609 OF THE FBC.
12. WINDOWS AND DOORS MUST BE CERTIFIED FOR COMPLIANCE WITH THE WIND DESIGN PRESSURE FOR COMPONENTS AND CLADDING.
13. THE RAISED SEAL SET OF PLANS ARE ON FILE IN THE THIRD PARTY AGENCY'S OFFICE AS DIRECTED BY DBPR.
14. THESE PLANS COMPLY WITH THE 2014 FBC.
15. PLAN REVIEW AND INSPECTION REQUIRED BY CHAPTER 633 F.S. TO BE COMPLETED ON SITE BY LOCAL FIRE INSPECTOR.
16. THIS STRUCTURE CAN NOT BE LOCATED ON THE SEAWARD SIDE OF THE COASTAL CONSTRUCTION CONTROL LINE.

MECHANICAL NOTES:

1. ALL SUPPLY AIR REGISTERS SHALL BE 24 INCHES X 24 INCHES ADJUSTABLE WITH 20 INCHES X 10 INCHES (INSIDE) OVERHEAD FIBERGLASS DUCT, UNLESS OTHERWISE SPECIFIED. DUCTS IN UNCONDITIONED SPACES SHALL HAVE R-4.2 MINIMUM INSULATION. SUPPLY DUCTS EXPOSED TO VENTILATED ATTICS SHALL HAVE MINIMUM R-6 INSULATION.
2. INTERIOR DOORS SHALL BE UNDERCUT 1.5 INCHES ABOVE FINISHED FLOOR FOR AIR RETURN AND / OR AS NOTED ON FLOOR PLAN (FOR NON-FIRE RATED DOORS).
3. HVAC EQUIPMENT SHALL BE EQUIPPED WITH OUTSIDE FRESH AIR INTAKES PROVIDING 5 CFM PER PERSON AND 0.06 CFM PER SQUARE FOOT OF BUILDING AREA PER IMC .
4. VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP.
5. EXHAUST FANS SHALL PROVIDE A MINIMUM OF 75 CFM FOR EACH WATER CLOSET AND URINAL.
6. PERMISSIBLE GAS TYPE FOR APPLIANCES: NONE (ALL ELECTRIC).

SITE INSTALLED ITEMS

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIAL THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO THE LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. CABINETS, LIGHTING FIXTURES, EXHAUST FANS, SUSPENDED CEILING, INTERIOR DOORS, EXTERIOR WINDOWS AND DOORS (AS NOTED).
5. PLUMBING FIXTURES, DRINKING FOUNTAINS, BUILDING DRAINS, CLEANOUTS, AND HOOK UP TO PLUMBING SYSTEM.
6. ELECTRICAL SERVICE HOOK UP (INCLUDING FEEDERS) TO THE BUILDING.
7. GLAZED OPENING PROTECTION (SEE GENERAL NOTES)
8. GUTTERS AND DOWNSPOUTS
9. PRODUCT APPROVED STORM PROTECTION (IMPACT RESISTANT SHUTTERS) SHALL BE REQUIRED FOR GLAZED AND / OR DOOR OPENINGS AND INSTALLED ON SITE BY OTHERS.
10. THE FLOOR AND ROOF DESIGN OF THIS PLAN IS "LIGHT FRAME TRUSS-TYPE CONSTRUCTIONS: AS REFERENCED IN FAC RULE 69A-3.012(6). POSTING OF NOTICE SIGN(S) AS REQUIRED BY FAC 69A-3.012(6), SHALL BE SITE INSTALLED AND IS THE RESPONSIBILITY OF THE BUILDING OWNER.
11. ALL METAL FRAMING MEMBERS SHALL BE BONDED TO THE BUILDING ELECTRICAL SYSTEM AND IS THE RESPONSIBILITY OF THE BUILDING OWNER.
12. HANDICAP TACTILE SIGNAGE
13. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATELINES.
14. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNIT).
15. FLORIDA FIRE PREVENTION CODE PLAN REVIEW AND INSPECTION SHALL BE PERFORMED ON SITE BY OTHERS, SUBJECT TO LOCAL APPROVAL.

FOUNDATION:

IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, THESE BUILDING PLANS DO NOT CONTAIN FOUNDATION SUPPORT AND TIE DOWN SYSTEM DETAILS AND SPECIFICATIONS. THE ARCHITECT / ENGINEER OF BUILDING PLANS SHOULD BE CONTACTED TO OBTAIN APPROPRIATE FOUNDATION PLANS. IF FOUNDATION PLANS ARE DESIGNED BY OTHERS, THE ARCHITECT / ENGINEER OF THE BUILDING PLANS SHALL NOT BE HELD RESPONSIBLE OR LIABLE FOR THE FOUNDATION DESIGN AND CONSEQUENTIAL PERFORMANCE OF THE SUPERSTRUCTURE'S STRUCTURAL COMPONENTS AND SYTEMS RELATING THERETO.

SPECIAL CONDITIONS AND/OR LIMITATIONS

1. THE BUILDING DESIGN HAS BEEN APPROVED FOR USE ONLY IN THOSE AREAS WITHIN THE SCOPE OF THE STRUCTURAL LOAD LIMITATIONS AND CLIMATE DESIGN CRITERIA INDICATED BELOW.
2. SEE THE BUILDING SITE INSTALLATION REQUIREMENT NOTES FOR WORK REQUIRING ON-SITE INSPECTIONS.
3. VENTILATION OF THE RAFTER OR ATTIC SPACE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL BUILDING OFFICIAL.
4. THE BUILDING DESIGN HAS NOT BEEN EVALUATED FOR COMPLIANCE WITH THE TDI WINDSTORM INSPECTION PROGRAM REQUIREMENTS.

WINDOW AND DOOR SPECIFICATIONS

1. DOUBLE PANE / INSULATED WINDOWS ARE REQUIRED FOR ALL CLIMATE ZONES. SEE THE ENERGY CALCULATIONS FOR THE MAXIMUM ALLOWED U-FACTOR VALUE AND SOLAR HEAT GAIN COEFFICIENT (SHGC).
2. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR WINDOWS IS 0.3 CFM PER SQUARE FOOT OF WINDOW AREA.
3. THE MAXIMUM ALLOWABLE AIR LEAKAGE RATE FOR EXTERIOR DOORS IS 0.5 CFM PER SQUARE FOOT OF DOOR AREA.

BUILDING DESIGN PARAMETERS

1.	USE / OCCUPANCY:	BUSINESS
2.	CONSTRUCTION TYPE :	VB
3.	SPRINKLER SYSTEM:	N/A
4.	BUILDING AREA:	1,400 SQ FT
5.	BUILDING HEIGHT:	< 15 FEET
6.	NUMBER OF STORIES:	1
7.	NUMBER OF MODULES :	2

8. OCCUPANT LOAD (14) BASED ON [100] SQ FT PER OCCUPANT.
9. EXTERIOR WALL FIRE RATING N/A
10. THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY THE FBC / IBC TABLE 602 AND SECTION 705.3
11. ENERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS
12. MANUFACTURERS DATA PLATE, STATE LABELS AND THIRD PARTY LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

APPROVED RADCO APPROVED
Oct 19, 2017
RADCO
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REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	V(B)
OCCUPANCY	BUSINESS
FLOOR LL	50 PSF
WIND VELOCITY	160 (ULT) MPH
FIRE RATING OF EXT. WALLS	0
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	TMS
PLAN NUMBER	TMS-3596
APPROVAL DATE	Oct 19, 2017
HVHZ ZONE	NO

RADCO

JAMES ALLEN CHAPMAN LICENSE No 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

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162 INDUSTRIAL DRIVE * ALMA, GA 31510
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DATE: 9-27-17	ENGINEER: JAMES ALLEN CHAPMAN, P.E.
SCALE: N-T-S	
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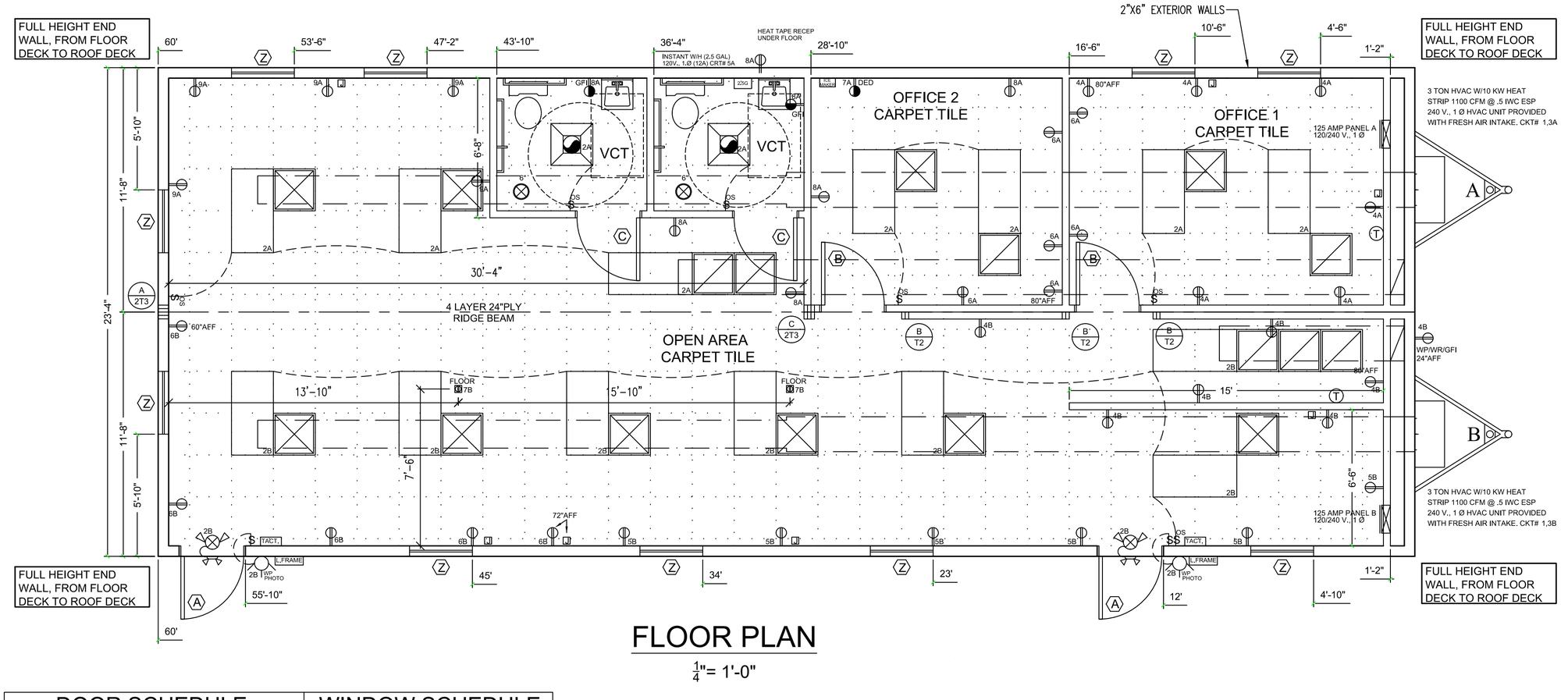
TMS-3596 A/B - 23'-4"x60' - BUSINESS	
NOTES	PAGE: 2 / 5



FLOOR PLAN

$\frac{1}{4}$"= 1'-0"

SYMBOL LEGEND

- OS $ — WALL MOUNT OCCUPANCY SENSOR LIGHT SWITCH
- J — J-BOX IN WALL (NON POWERED)
- 120 V 20 AMP DUPLEX RECEPTACLE
- RECEPTACLE INSTALLED @ 42" AFF
- 120 V 20 AMP CEILING MOUNT DUPLEX RECEPTACLE
- RECESSED FLUORESCENT LIGHT FIXTURE W/ 3-32W BULBS
- COMBINATION LIGHT / 100 CFM VENT FAN CEILING FIXTURE
- 24"X24" RETURN AIR CEILING REGISTER
- 24"x24" SUPPLY AIR CEILING REGISTER
- 6" Ø SUPPLY AIR CEILING REGISTER
- FLUSH MOUNT 120 / 240 V 1 Ø ELECTRICAL PANEL
- T — WALL MT 7-DAY PROGRAMMABLE THERMOSTAT
- EXTERIOR REMOTE HEAD EMERGENCY LIGHT
- CEILING MT COMBO LIGHTED EXIT SIGN / EMERGENCY LIGHT 90 MINUTE CAPACITY
- WP — 60 W EXTERIOR PORCH LIGHT W/ PHOTO CELL, WEATHER PROOF
- 10 # ABC FIRE EXTINGUISHER
- FD — FLOOR DRAIN W/ TRAPGUARD

DOOR SCHEDULE

A	3680 - STEEL DOOR w/6"x30" SAFETY GLASS VIEW BLOCK - STEEL JAMB - CLOSURE - PANIC HARDWARE
B	3680 - SOLID CORE - FLAT PANEL DOOR IMP. OAK - TIMELY OR REDI FRAME JAMBS PAINTED STD - KEYED LEVER HARDWARE
C	3680 - SOLID CORE - FLAT PANEL DOOR IMP. OAK - TIMELY OR REDI FRAME JAMBS PAINTED STD - PRIVACY LEVER HARDWARE

WINDOW SCHEDULE

Z	3660 - VERTICAL SLIDER DP 50 INSULATED LOW-E TINTED GLASS VINYL FRAME - VINYL MINI BLINDS

ELECTRICAL SIZING	120/240V	SGL PHASE	INSTALL	125
PANEL A				AMP PANEL
ID	QTY	UNITS	KW	SUB-TOTAL
HVAC 3 TON	1	EACH	10.6	10.6
WATER HEATER	1	EACH	1.9	1.9
LIGHTS	700	SQ FT	0.0035	3.1
RECEPTACLES	24	EACH	0.18	4.3
EXHAUST FANS	2	EACH	0.4	0.8
DEDICATED CIRCUITS	1	EACH	1.9	1.9
		TOTAL =	22.6	KW
		TOTAL =	94.1	AMPS

ELECTRICAL PANEL SCHEDULE A			
CIRCUIT ID	DESCRIPTION	BREAKER	WIRE
1,3 A	HVAC 3 TON	60A (2P) HACR	6-6-10 MC
2A	LIGHTS / FANS	20A	12
4,6,8,9 A	RECEPTS	20A	12
7A	DEDICATED CKT	20A	12
5A	WATER HEATER INSTANT	20A	12

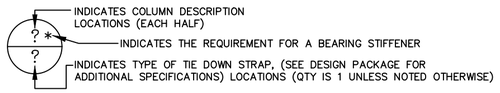
ELECTRICAL SIZING	120/240V	SGL PHASE	INSTALL	125
PANEL B				AMP PANEL
ID	QTY	UNITS	KW	SUB-TOTAL
HVAC 3 TON	1	EACH	10.6	10.6
WATER HEATER	0	EACH	1.9	0.0
LIGHTS	700	SQ FT	0.0035	3.1
RECEPTACLES	18	EACH	0.18	3.2
EXHAUST FANS	0	EACH	0.4	0.0
DEDICATED CIRCUITS	0	EACH	1.9	0.0
		TOTAL =	16.9	KW
		TOTAL =	70.4	AMPS

ELECTRICAL PANEL SCHEDULE B			
CIRCUIT ID	DESCRIPTION	BREAKER	WIRE
1,3 B	HVAC 3 TON	60A (2P) HACR	6-6-10 MC
2B	LIGHTS / FANS	20A	12
4,5,6 B	RECEPTS	20A	12

TACT. TACTILE SIGNAGE SHALL BE LOCATED ON EITHER SIDE OF DOORS AT ALL EXITS, INSTALLED ON SITE BY OTHERS.

L.FRAME THE FLOOR AND ROOF DESIGN OF THIS PLAN IS "LIGHT FRAME TRUSS-TYPE CONSTRUCTION" AS REFERENCED IN FAC RULE 69A-3.012(6). POSTING OF NOTICE SIGN(S) AS REQUIRED BY FAC 69A-3.012(6) SHALL BE INSTALLED ON SITE BY OTHERS. THE SYMBOLS MUST BE INSTALLED WITHIN 24 INCHES TO THE LEFT SIDE OF THE MAIN ENTRANCE OF THE FACILITY. IT MUST BE LOCATED BETWEEN 4 FEET AND 6 FEET ABOVE THE FINISHED FLOOR.

COLUMN STUDS AND STRAPPING



COLUMN DESCRIPTIONS

A - 2-2"x6" SYP #2 EACH HALF
B - 2-2"x4" SYP #2 1 SIDE
C - 3-2"X4" SYP #2 EACH HALF
D - 4-2"X4" SYP #2 EACH HALF

TIE DOWN STRAPPING

T1 = 20 GA x 1.5" GALV STEEL STRAP WITH (6) 0.148"ø x 1.5" NAILS EACH END. 2- 26 GA x 1.5" GALV STEEL STRAPS MAY BE SUBSTITUTED OR 1- 20 GA x 1.5" STRAP.

T2 = 26 GA X 1.5" GALV. STEEL STRAP WITH (7) 14 GA OR 15 GA x $\frac{3}{4}$" x 1" PENETRATION STAPLES EACH END.

T3 = 0.035" (20 GA) x 1.25" HOT-DIPPED GALV. STEEL STRAP (G60 OR BETTER) COMPLYING WITH ASTM D3953-91, Fy=108 KSI, 4725 LB. MINIMUM ULTIMATE CAPACITY, FASTENED TO RIDGE BEAM WITH (17) 0.148ø x 1.5" NAILS (Fyb= 90 KSI MIN.) AND EXTENDED CONTINUOUSLY BELOW FLOOR.

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	V(B)
OCCUPANCY	BUSINESS
FLOOR LL	50 PSF
WIND VELOCITY	160 (ULT) MPH
FIRE RATING OF EXT. WALLS	0
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	TMS
PLAN NUMBER	TMS-3596
APPROVAL DATE	Oct 19, 2017
HVHZ ZONE	NO

RADCO

REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

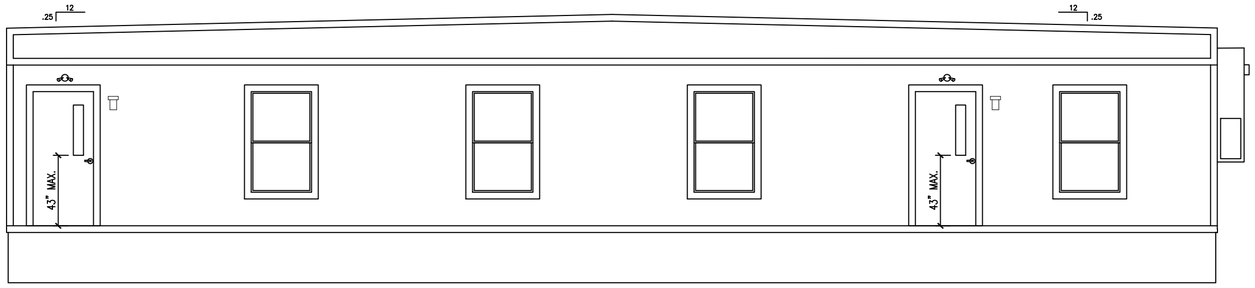
APPROVED RADCO APPROVED
Oct 19, 2017
RADCO
5801 Benjamin Center Dr.Suite 102
Tampa, FL 33634-5206
P: (813) 243-0370 F: (813) 243-1314

NOTE:
THIS BUILDING IS ONE OF A GROUP OF SEVEN (TMS-3590, 3591, 3592, 3593, 3594, 3595 & 3596) WHICH ARE SUPPORTED BY A TOILET TRAILER, MODULAR BUILDING TMS-3595. TOILET TRAILER IS LOCATED WITHIN 500 FEET OF ALL BUILDINGS WITHOUT ADEQUATE PLUMBING FACILITIES AND IS HANDICAP ACCESSIBLE.

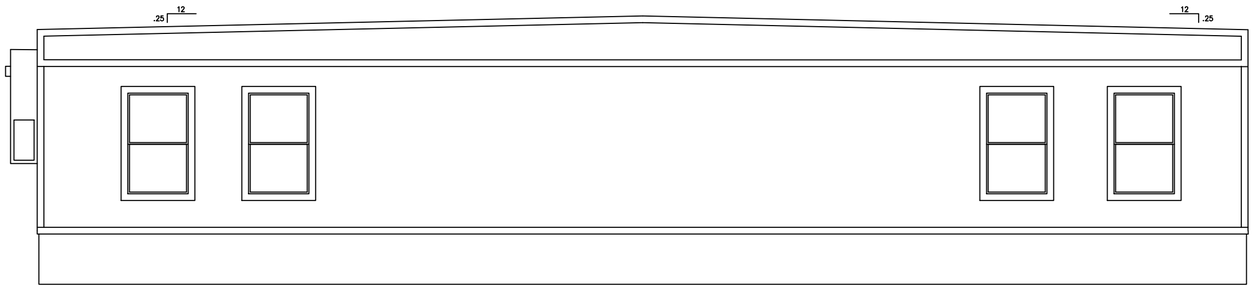
JAMES ALLEN CHAPMAN LICENSE No 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

TITAN MODULAR
SYSTEMS, INC.
162 INDUSTRIAL DRIVE * ALMA, GA 31510
912-632-3344 (PH) * 912-632-3345 (FX)

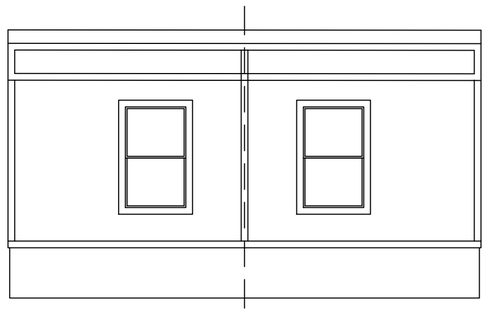
DATE: 10-16-17	ENGINEER: JAMES ALLEN CHAPMAN, P.E.
SCALE: 1/4"=1'-0"	
CODES: FL	
TMS-3596 A/B - 23'-4"x60' - BUSINESS	
FLOOR PLAN / ELEC	PAGE: 3 / 5



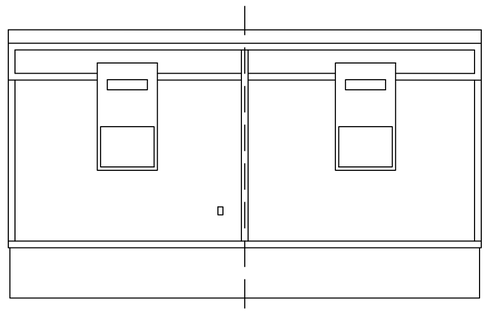
FRONT ELEVATION



REAR ELEVATION



LEFT ELEVATION



RIGHT ELEVATION

ELEVATIONS

$\frac{3}{16}$"= 1-0"

ELEVATION NOTES:

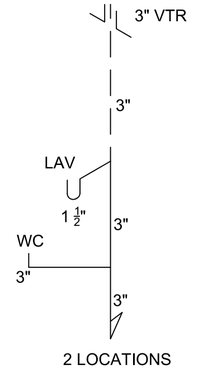
1. FOUNDATION ENCLOSURE (WHEN PROVIDED) MUST HAVE 1 SQ FT NET VENT AREA PER 1 / 150 TH OF THE FLOOR AREA, AND AN 18"x24" MINIMUM CRAWL SPACE ACCESS, INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.
2. SEE CROSS SECTION FOR METHOD OF ROOF VENTILATION.
3. ACCESSIBLE RAMP(S), STAIR(S) AND HANDRAILS ARE SITE INSTALLED , DESIGNED BY OTHERS, AND SUBJECT TO LOCAL JURISDICTION.

SUPPLY LINE NOTES:

1. SUPPLY LINE SIZING IS BASED ON AN ASSUMED AVAILABLE PRESSURE OF 60 PSI AT THE INLET LOCATION SHOWN, AFTER ANY DEDUCTIONS FOR PRESSURE LOSS DUE TO METER, TAP INTO MAIN, WATER PRESSURE REDUCING VALVES, SPECIAL EQUIPMENT SUCH AS BACKFLOW PREVENTOR, FILTER, SOFTENER, ETC. THIS AVAILABLE PRESSURE MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF A BOOSTER PUMP IS NEEDED TO ACHIEVE REQUIRED PRESSURE THEN THE BUILDING OWNER IS RESPONSIBLE FOR DESIGN AND INSTALLATION OF PUMP SYSTEM.
2. SUPPLY LINE INLET(S) SHOWN ON THESE PLANS ARE ASSUMED TO EXTEND ONLY TO EXTERIOR WALL. ALL SERVICE SUPPLY LINES UP TO THE INLET(S) ARE DESIGNED BY OTHERS AND SITE INSTALLED UNLESS OTHERWISE SPECIFIED.
3. SUPPLY LINE SIZING MUST BE REDESIGNED IF THE BUILDING DOES NOT COMPLY WITH ANY OF THE ABOVE ASSUMPTIONS.
4. UNLESS OTHERWISE SPECIFIED ALL SUPPLY LINES ARE $\frac{3}{4}$" Ø MINIMUM. UNLESS OTHERWISE SPECIFIED ALL STUB-UPS ARE $\frac{3}{4}$" Ø TO FLUSH VALVE URINALS AND $\frac{1}{2}$" Ø TO ALL OTHER FIXTURES.
5. OPERATION OF EACH URINAL FLUSHOMETER VALVE AND FIXTURE SHALL NOT REQUIRE MORE THAN 25 PSI OF PRESSURE (12 GPM).

HOT WATER LINE

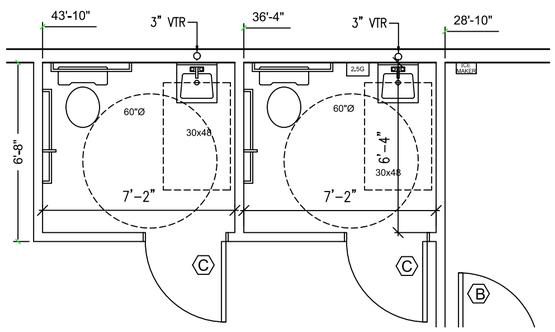
COLD WATER LINE



DWV RISER N-T-S

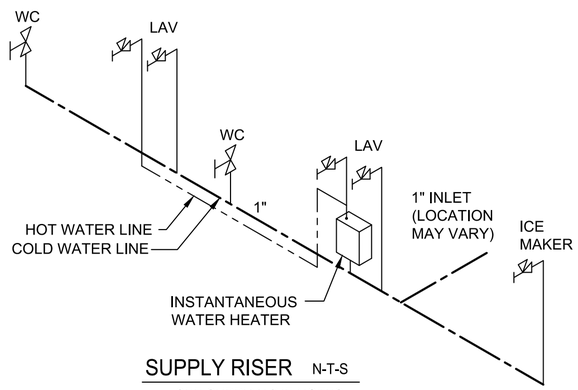
DWV RISER NOTES:

1. THE DWV RISER INDICATES ONE METHOD OF INSTALLING THE BELOW THE FLOOR PIPING. OTHER APPROVED METHODS MAY BE USED AS NEEDED TO ACCOMMODATE THE ACTUAL SITE CONDITIONS.
2. ALL BELOW FLOOR PIPING AND FITTINGS ARE TO BE SUPPLIED AND INSTALLED ON SITE BY OTHERS.
3. 1 1/2 INCH AND 2 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/4 INCH PER FOOT.
4. 3 AND 4 INCH HORIZONTAL DRAIN LINES SHALL BE INSTALLED WITH A SLOPE OF 1/8 INCH PER FOOT.
5. BELOW FLOOR HORIZONTAL DRAIN LINES ARE 3 INCH MINIMUM DIAMETER UNLESS INDICATED OTHERWISE.
6. A MAXIMUM OF 3 WATER CLOSETS MAY DISCHARGE INTO A 3 INCH LINE.
7. CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS AS INDICATED IN TABLE 706.3. VERTICAL TO HORIZONTAL AND HORIZONTAL TO HORIZONTAL CHANGES OF DIRECTION ARE TO BE MADE WITH LONG SWEEP FITTINGS.



PLUMBING PLAN

$\frac{1}{4}$"= 1-0"



SUPPLY RISER N-T-S

SEE SUPPLY LINE NOTES.

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	V(B)
OCCUPANCY	BUSINESS
FLOOR LL	50 PSF
WIND VELOCITY	160 (ULT) MPH
FIRE RATING OF EXT. WALLS	0
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	TMS
PLAN NUMBER	TMS-3596
APPROVAL DATE	Oct 19, 2017
HVHZ ZONE	NO

RADCO

REVIEWED BY:

MICHAEL A. FREY

Michael A. Frey

FLORIDA MODULAR PLANS EXAMINER

NO. SMP 37

APPROVED RADCO APPROVED

Oct 19, 2017

RADCO
5801 Benjamin Center Dr.Suite 102
Tampa, FL 33634-5206
P: (813) 243-0370 F: (813) 243-1314

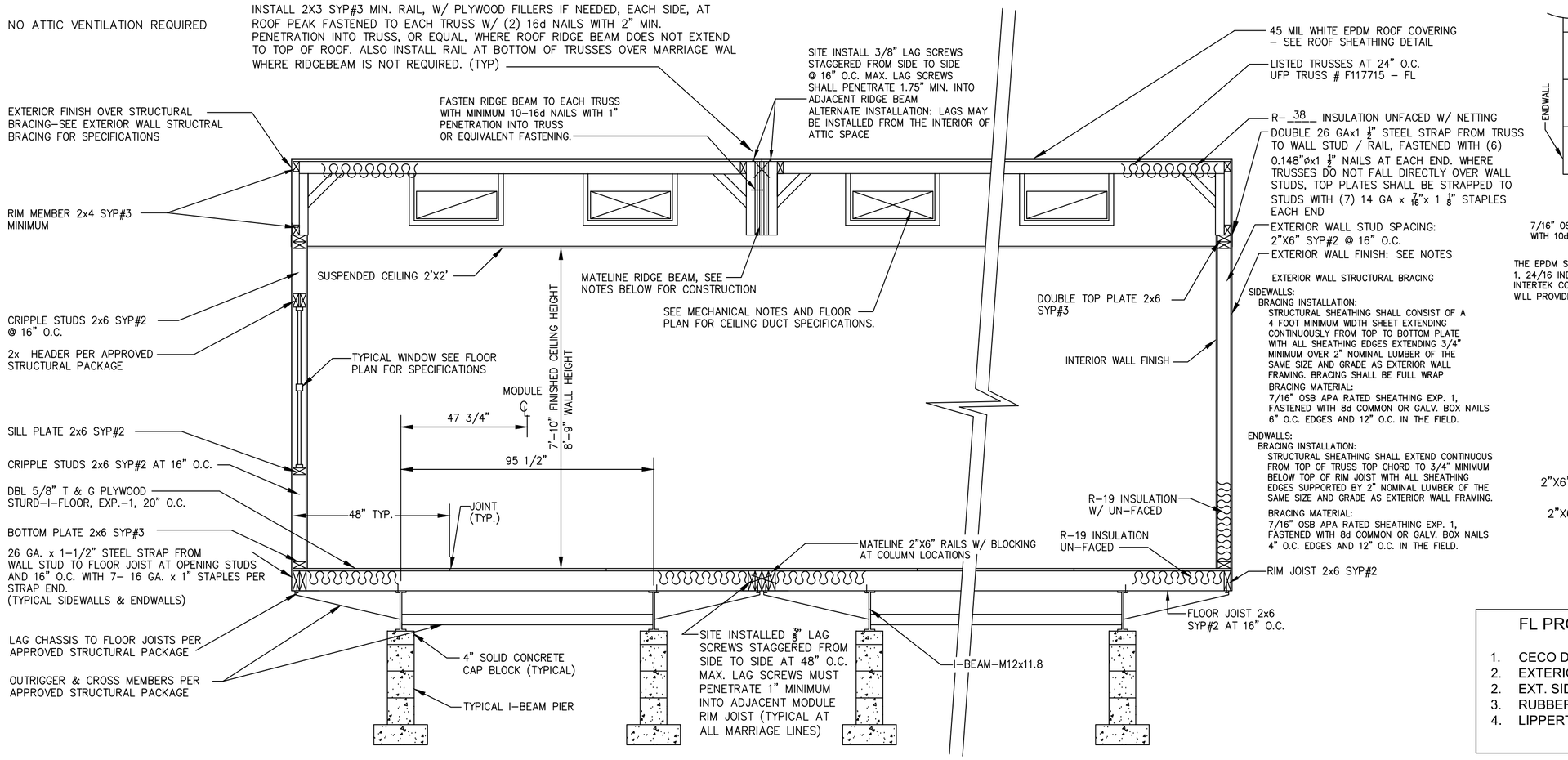
JAMES ALLEN CHAPMAN LICENSE No. 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER

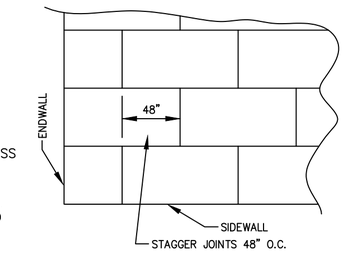
10-16-17

TITAN MODULAR

SYSTEMS, INC.
162 INDUSTRIAL DRIVE * ALMA, GA 31510
912-632-3344 (PH) * 912-632-3345 (FX)

DATE: 9-27-17	ENGINEER: JAMES ALLEN CHAPMAN, P.E.
SCALE: AS NOTED	
CODES: FL	
TMS-3596 A/B - 23'-4"x60' - BUSINESS	
ELEVATION / PLUMB	PAGE: 4 / 5

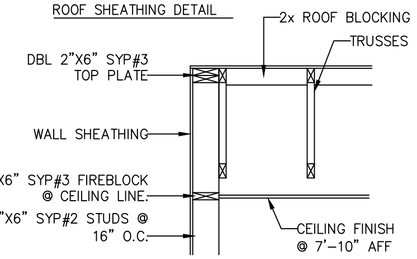




7/16" OSB SHEATHING EXP 1, 24/16 TO BE FASTENED TO JOISTS/ TRUSSES WITH 10d RING SHANK NAILS AT 6" O.C. ON EDGES AND 12" O.C. IN FIELD.

THE EPDM SHALL BE ADHERED TO STANDARD 7/16" OSB RATED SHEATHING, EXP. 1, 24/16 INDEX USING MULE-HIDE FR ADHESIVE, INSTALLED IN ACCORDANCE WITH INTERTEK CODE COMPLIANCE RESEARCH REPORT CCRR-1078. THIS ASSEMBLY WILL PROVIDE A CLASS 'C' FIRE CLASSIFICATION.

ROOF SHEATHING DETAIL



END WALL FRAMING AT ROOF
N-T-S

FL PRODUCT APPROVAL INFORMATION:

1. CECO DOOR PRODUCTS - FL10723-R5
2. EXTERIOR WINDOWS - SHWINCO FL 8153.4
2. EXT. SIDING - NICHIHA EXTERIOR SIDING - FL12875-R2
3. RUBBER ROOF - MULEHIDE EPDM - 10703-R6
4. LIPPERT STRAPS - RADCO LISTING # 1235

GENERAL CROSS SECTION NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL STEEL SHALL COMPLY WITH ASTM A36, YIELD STRENGTH 36 KSI
2. ALL LAG SCREWS SHALL COMPLY WITH ANSI/ASME B18.2.1. Fyb = 60 KSI MINIMUM
3. SEE FOUNDATION (WHEN PROVIDED) PLAN FOR PIER AND THE TIE DOWN ANCHORAGE LOCATIONS, ORIENTATIONS AND SPECIFICATIONS.
4. WHERE 1" STAPLES ARE SPECIFIED THIS SHALL MEAN 1" PENETRATION INTO THE HOLDING MEMBER
5. FOR TIE DOWN STRAP FASTENERS PROVIDE 3/4" MINIMUM SPACE BETWEEN ALL STAPLES AND 1" MINIMUM SPACE BETWEEN ALL NAILS UNLESS OTHERWISE PERMITTED BY STRAP MANUFACTURER'S LISTING. ALL FASTENERS SHALL BE INSTALLED IN CENTER 1/3 RD OF THE STRAP WIDTH. DO NOT INSTALL SIDE BY SIDE, IN NO CASE SHALL SPLITTING OF WOOD BE PERMITTED.
6. WHERE KRAFTBACK OR OTHER VAPOR RETARDERS ARE SPECIFIED THEY SHALL BE INSTALLED ON THE INTERIOR SIDE OF THE ASSEMBLY UNLESS OTHERWISE SPECIFIED.
7. ALL VAPOR RETARDERS ON THE EXPOSED INSULATION SHALL BE FOIL FACE TYPE VAPOR RETARDERS WITH A FLAMESPREAD RATING <25 AND SMOKE DEVELOPMENT RATING < 450.
8. SEE GENERAL NOTES ON COVER SHEET FOR INTERIOR FINISH MATERIAL RATING CLASSIFICATIONS.

INTERIOR FINISH MATERIALS:

CEILING: CLASS 'A' 2'X2' SUSPENDED CEILING INSTALLED PER MANUFACTURER'S SPECIFICATIONS

WALL: 5/8" TYPE-X VINYL CLAD GYPSUM BOARD

INTERIOR FINISHES SHALL BE CLASS 'A' FOR EXITS & OTHER THAN EXITS SHALL BE 'A' OR 'B'.

FLOOR: VCT PER FLOOR PLAN

FLOOR FINISHES SHALL BE NO LESS THAN CLASS II LISTED PRODUCT

EXTERIOR FINISH MATERIALS:

ROOF: MULEHIDE 45 MIL (WHITE) EPDM FULLY ADHERED OVER 7/16" OSB DECKING W/ MULEHIDE FR ADHESIVE

WALL: 5/16" NICHIHA PANEL SIDING OVER HOUSE WRAP OVER 7/16" OSB SHEATHING

RIDGE BEAM CONSTRUCTION

RIDGE BEAM CONSTRUCTION:
4 LAYERS 3/4" x 24" PLYWOOD, RATED SHEATHING, EXP.-1, 48/24 INDEX, (STRUCT.1 – 5 PLY / 5LAYER) EACH SIDE OF EACH MARRIAGE LINE CONTINUOUS OVER SPANS.

NOTES:

1. PLYWOOD FACE GRAIN MUST BE PARALLEL TO THE RIDGE BEAM SPAN.
2. ALL PLYWOOD BUTT JOINTS MUST BE STAGGERED 24" MINIMUM.
3. ALL RIDGE BEAM PLYWOOD LAMINATIONS MUST BE THE SAME DEPTH, THICKNESS, AND GRADE OF PLYWOOD . NO LUMBER OR PLYWOOD FLANGES ARE PERMITTED.
4. PLYWOOD MUST BE MANUFACTURED IN ACCORDANCE WITH PSI 83.
5. PLYWOOD LAMINATIONS IN EACH HALF OF THE UNITS MUST BE GLUE NAILED TO ADJACENT LAYERS IN ACCORDANCE WITH PDS SUPPLEMENT #5, WITH AN ADHESIVE COMPLYING WITH ASTM D2559, CA25-4, OR ASTM D3024.
6. PLYWOOD MUST NOT BE TREATED WITH A FIRE RETARDANT PROCESS.
7. MOISTURE CONTENT MUST BE LESS THAN 16%.
8. BEAMS SUPPORTED BY ENDWALL COLUMNS MUST EXTEND CONTINUOUS OVER COLUMNS TO EXTERIOR FACE OF ENDWALL.
9. INSTALL (2x4) x 20" SPF #3 RIDGE BEAM BEARING STIFFENER OVER SUPPORT COLUMNS WHEN SPECIFIED ON FLOOR PLAN; FASTEN THE FACE OF THE STIFFENER TO THE RIDGE BEAM WITH 100% GLUE COVERAGE AND 6- 16 GA. x 2-1/2" STAPLES.

LISTING AGENCY APPROVAL

THESE PRINTS COMPLY WITH THE FLORIDA MANUFACTURED BUILDING ACT OF 1979 CONSTRUCTION CODE AND ADHERE TO THE FOLLOWING CRITERIA.

CONST. TYPE	V(B)
OCCUPANCY	BUSINESS
FLOOR LL	50 PSF
WIND VELOCITY	160 (ULT) MPH
FIRE RATING OF EXT. WALLS	0
ALLOWABLE NO. OF FLOORS	1
MANUFACTURER	TMS
PLAN NUMBER	TMS-3596
APPROVAL DATE	Oct 19, 2017
HVHZ ZONE	NO

RADCO

REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

APPROVED RADCO APPROVED
Oct 19. 2017
RADCO
5801 Benjamin Center Dr.Suite 102
Tampa, FL 33634-5206
P: (813) 243-0370 F: (813) 243-1314

JAMES ALLEN CHAPMAN LICENSE No. 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

TITAN MODULAR SYSTEMS, INC. 162 INDUSTRIAL DRIVE * ALMA, GA 31510 912-632-3344 (PH) * 912-632-3345 (FX)	
DATE: 9-27-17	ENGINEER: JAMES ALLEN CHAPMAN, P.E.
SCALE: N-T-S	
CODES: FL	
TMS-3596 A/B - 23'-4"x60' - BUSINESS	
CROSS SECTION	PAGE: 5 / 5

COMcheck Software Version 4.0.6.1

Envelope Compliance Certificate

APPROVED RADCO APPROVED
Oct 19, 2017
RADCO
5801 Benjamin Center Dr.Suite 102
Tampa, FL 33634-5206
P: (813) 243-0370 F: (813) 243-1314

REVIEWED BY:
MICHAEL A. FREY
Michael A. Frey
FLORIDA MODULAR PLANS EXAMINER
NO. SMP 37

Project Information

Energy Code:	2014 Florida Building Code, Energy Conservation
Project Title:	TMS-3596 AB
Location:	Jacksonville, Florida
Climate Zone:	2a
Project Type:	New Construction
Vertical Glazing / Wall Area:	10%

Construction Site:

Owner/Agent:
MBSI

Designer/Contractor:
James Allen Chapman, P.E.
Ellaville, GA 31806

Building Area	Floor Area
1-Office : Nonresidential	1400

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 1 - Office]	1400	38.0	0.0	0.027	0.027
Floor 1: Wood-Framed, [Bldg. Use 1 - Office]	1400	19.0	0.0	0.051	0.052
NORTH					
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	525	19.0	0.0	0.067	0.064
Window 1: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID TMS-001, SHGC 0.24, VT 0.90, [Bldg. Use 1 - Office] (b)	60	---	---	0.450	0.650
EAST					
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	204	19.0	0.0	0.067	0.064
SOUTH					
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	525	19.0	0.0	0.067	0.064
Window 1 copy 1: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID TMS-001, SHGC 0.24, VT 0.90, [Bldg. Use 1 - Office] (b)	60	---	---	0.450	0.650
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	40	---	---	0.450	0.610
WEST					
Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 1 - Office]	204	19.0	0.0	0.067	0.064
Window 1 copy 2: Vinyl/Fiberglass Frame:Operable, Perf. Specs.: Product ID TMS-001, SHGC 0.24, VT 0.90, [Bldg. Use 1 - Office] (b)	30	---	---	0.450	0.650

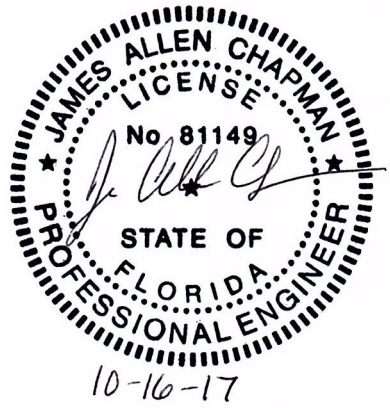
(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES: Design 14% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2014 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.0.6.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title



Date

COMcheck Software Version 4.0.6.1

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2014 Florida Building Code, Energy Conservation
Project Title:	TMS-3596 AB
Project Type:	New Construction

Construction Site:	Owner/Agent:	Designer/Contractor:
	MBSI	James Allen Chapman, P.E. Ellaville, GA 31806

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Office	1400	0.85	1190
		Total Allowed Watts =	1190

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Office				
Linear Fluorescent 1: 48" T8 32W (Super T8): Electronic:	3	14	81	1134
Incandescent 1: Incandescent 20W:	1	2	20	40
			Total Proposed Watts =	1174

Interior Lighting PASSES: Design 1% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2014 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.0.6.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

JAMES ALLEN CHAPMAN LICENSE No. 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER

10-16-17

Date

COMcheck Software Version 4.0.6.1

Exterior Lighting Compliance Certificate

Project Information

Energy Code:	2014 Florida Building Code, Energy Conservation
Project Title:	TMS-3596 AB
Project Type:	New Construction
Exterior Lighting Zone	2 (Neighborhood business district)

Construction Site:

Owner/Agent:
MBSI

Designer/Contractor:
James Allen Chapman, P.E.
Ellaville, GA 31806

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Main entry	3 ft of door	20	Yes	60
Other door (not main entry)	3 ft of door	20	Yes	60
			Total Tradable Watts (a) =	120
			Total Allowed Watts =	120
			Total Allowed Supplemental Watts (b) =	600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Main entry (3 ft of door width): Tradable Wattage				
Incandescent 1: Incandescent 60W:	1	1	60	60
Other door (not main entry) (3 ft of door width): Tradable Wattage				
Incandescent 1 copy 1: Incandescent 60W:	1	1	60	60
			Total Tradable Proposed Watts =	120

Exterior Lighting PASSES: Design 83% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2014 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.0.6.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

JAMES ALLEN CHAPMAN LICENSE No 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

Date

COM*check* Software Version 4.0.6.1

Mechanical Compliance Certificate

APPROVED RADCO Oct 19, 2017 APPROVED

Project Information

Energy Code:	2014 Florida Building Code, Energy Conservation
Project Title:	TMS-3596 AB
Location:	Jacksonville, Florida
Climate Zone:	2a
Project Type:	New Construction

Construction Site:

Owner/Agent:
MBSI

Designer/Contractor:
James Allen Chapman, P.E.
Ellaville, GA 31806

Additional Efficiency Package

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Mechanical Systems List

Quantity **System Type & Description**

2 HVAC System 1 (Single Zone):
Heating: 1 each - Other, Electric, Capacity = 34 kBtu/h
No minimum efficiency requirement applies
Cooling: 1 each - Single Package Vertical AC Unit, Capacity = 36 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 9.00 EER, Required Efficiency: 9.00 EER
Fan System: FAN SYSTEM 1 | 700 -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 1100 CFM, 0.3 motor nameplate hp

1 Water Heater 1:
Electric Instantaneous Water Heater, Capacity: 2 gallons w/ Heat Trace Tape Installed
No minimum efficiency requirement applies

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2014 Florida Building Code, Energy Conservation requirements in COM*check* Version 4.0.6.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Date

JAMES ALLEN CHAPMAN LICENSE No. 81149 STATE OF FLORIDA PROFESSIONAL ENGINEER
10-16-17

COMcheck Software Version 4.0.6.1

Inspection Checklist

Energy Code: 2014 Florida Building Code, Energy Conservation

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1][1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 [PR3][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [PR17][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Provisions are made for metering individual tenant units. Feeder connectors sized in accordance with approved plans with maximum drop of 2% and branch circuits sized for maximum drop of 3%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3.1 [PR10][1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3.1 [PR11][1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3.2 [PR14][1]	In enclosed spaces > 10,000 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3.2.2 [PR15][1]	Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store, and distribution/sorting area have a measured haze value > 90 percent unless designed to exclude direct sunlight.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C402.4.9 [PR16][1]	Ceilings with vented dropped ceiling cavities over conditioned spaces have a continuous air barrier between the conditioned space and the vented unconditioned space and are sealed to the air barrier of the walls. Unvented dropped ceiling cavities over conditioned spaces without air barrier between the conditioned and unconditioned space are sealed from the exterior environment and adjacent spaces by a continuous air barrier and is sealed to the air barrier of the walls. Unconditioned spaces above separate tenancies contain dividing partitions between the tenancies to form a continuous air barrier that is sealed at the ceiling and roof. Building cavities designed to be air distribution system components are sealed according to the criteria for air ducts, plenums, etc. in Section C403.2.7.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C408.2.8, C404.5 [FO6][1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.5 [FO9][3]	Freeze protection and snow/ice melting system sensors for future connection to controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.8 [FO12][3]	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C402.4.3, C402.4.4 [FR18][3]	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.3.3, C402.3.4 [FR8][1]	Vertical fenestration U-Factor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.3.3 [FR10][1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C303.1.3 [FR12][2]	Fenestration products rated in accordance with NFRC.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.1.3 [FR13][1]	Fenestration products are certified as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.7 [FR14][2]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.4 [PL3][1]	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
C402.4.5.1 [ME3][3]	Stair and elevator shaft vents have motorized dampers that automatically close.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.5.1 [ME59][1]	Demand control ventilation provided for spaces >500 sq.ft. and >25 people/1000 sq.ft. occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.1 [ME60][2]	HVAC ducts and plenums insulated and sealed according to Florida Section C403.2.7, Table C403.2.7.1, Table C403.2.7.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.2 [ME79][2]	All ducts, air handlers, filter boxes, building cavities, mechanical closets and enclosed support platforms that form the primary air containment passageways for air distribution systems are constructed and erected in accordance with Table C403.2.7.2 and with Chapter 6 of the Florida Building Code, Mechanical. Ducts are be constructed, braced, reinforced and installed to provide structural strength and durability. All transverse joints, longitudinal seams and fitting connections are securely fastened in accordance with the applicable standards of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.1.2 [ME80][2]	Duct insulation is protected from damage but not limited to the following: 1. Insulation exposed to weather is suitable for outdoor service. Cellular foam insulation is protected or painted with a coating that is water retardant and provides shielding from solar radiation. 2. Insulation covering cooling ducts located outside the conditioned space is vapor retardant located outside the insulation, all penetrations and joints of which shall be sealed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.1.3 [ME81][2]	Additional insulation with vapor barrier is provided where the minimum duct insulation requirements of Section C403.2.7.1.1 are determined to be insufficient to prevent condensation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.8.1 [ME7][3]	Piping Insulation exposed to weather is protected from damage (due to sun, moisture, wind, etc.).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.8 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.3 [ME10][2]	Ducts, air handlers, filter boxes, building cavities, mechanical closets and enclosed support platforms that form the primary air containment passageways for air distribution systems are sealed in accordance with the applicable criteria of this section and Table C403.2.7.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.5 [ME76][2]	Air distribution systems are sized and designed in accordance with recognized engineering standards. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.6 [ME77][2]	Air-handling units not installed in attics of commercial buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.4 [ME78][2]	Cavities in framed spaces are not used to deliver air from or return air to the conditioning system unless they contain an air duct insert which is insulated in accordance with Section C403.2.7.1 and constructed and sealed in accordance with the requirements of Section C403.2.7.2 appropriate for the duct materials used.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.7.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.3.1, C403.3.1.1 [ME62][1]	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.2.1 [ME53][3]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.4.2 [ME66][2]	VAV fan motors >=7.5 hp to be driven by variable speed drive, have a vane-axial fan with variable pitch blades, or have controls to limit fan motor demand.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.4.2 [ME66][2]	VAV fan motors >=7.5 hp to be driven by variable speed drive, have a vane-axial fan with variable pitch blades, or have controls to limit fan motor demand.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.6 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.2.6	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.11 [ME71][2]	Unenclosed spaces that are heated use only radiant heat.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.1 [EL22][2]	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.1 [EL23][2]	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.2 [EL15][1]	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.3 [EL16][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3 [EL17][3]	Sleeping units have at least one master switch at the main entry door that controls wired luminaires and switched receptacles.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.2 [EL18][1]	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.3 [EL20][1]	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.3 [EL21][1]	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL25][2]	Automatic lighting controls for exterior lighting installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3 [EL4][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.3 [EL19][3]	Fluorescent luminaires with odd numbered lamp configurations that are within 10 feet center to center (if recess mounted) or are within 1 foot edge to edge (if pendant or surface mounted) shall be tandem wired.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.4 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL24][1]	Exterior grounds lighting over 100 W provides >60 lm/W unless on motion sensor or fixture is exempt from scope of code or from external LPD.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3 [EL8][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C402.4.1.1 [IN1][1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.2.1 [IN2][1]	Roof R-value. For some ceiling systems, verification may need to occur during Framing Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C303.2, C407.2.1 [IN3][1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12. Roof/ceiling insulated to an R-value of at least R-10. Multiple-family residential roofs/ceilings insulated to an R-value of at least R-19. Where cavities beneath a roof deck are ventilated, the ceiling is considered the envelope component.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.1.1 [IN5][3]	High-albedo roofs satisfy one of the following: 3-year-aged solar reflectance >= 0.55 and thermal emittance >= 0.75, 3-year-aged solar reflectance index >= 64.0, initial year solar reflectance >= 0.70 and thermal emittance >= 0.75, or initial year solar reflectance index >= 82.0.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2 [IN7][1]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.5 [IN8][2]	Floor insulation R-value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C303.2 [IN9][2]	Floor insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.1 [IN10][2]	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.2.1 [IN14][2]	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.2.1 [IN17][3]	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.4.6 [FI37][1]	Weatherseals installed on all loading dock cargo doors.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.3.4 [FI51][3]	Minimum one humidity control device per installed humidification/dehumidification system. Controls prevent simultaneous operation of humidification and dehumidification equipment.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.2 [FI38][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.2 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.3 [FI39][3]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.3 [FI40][3]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.4.3.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.1 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C303.3, C408.2.5.3 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.3 [FI43][1]	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.2 [FI10][1]	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C404.8.2 [FI53][3]	Public lavatory facilities equipped with outlet devices which limit the flow of hot water to a maximum of 0.5 gpm or are equipped with self-closing valves that limit delivery to a per cycle maximum of 0.25 gallons of hot water for recirculating systems and to a maximum of 0.50 gallons for non-recirculating systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.8.2 [FI11][3]	Public lavatory water temperature <=110°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.8.1 [FI52][3]	Showers used for non-safety reasons equipped with flow control devices to limit the water discharge to a maximum of 2.5 gpm per shower head. Flow restricting inserts used as a component part of a showerhead are mechanically retained at the point of manufacture	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.2 [FI54][3]	An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000 ft2 of conditioned area. Refer to section for full details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.5 [FI45][2]	First 8 ft of outlet piping is insulated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C404.5 [FI46][2]	All heat traced or externally heated piping insulated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.8 [FI26][3]	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.1 [FI50][3]	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or 183 or ACCA Manual N and shall be attached to the code compliance form submitted to the building department when the building is permitted or, in the event the mechanical permit is obtained at a later time, the sizing calculation shall be submitted with the application for the mechanical permit.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C403.2.2 [FI27][3]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.1 [FI16][3]	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.5.2 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C405.6.2 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C408.2.1 [FI28][1]	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.4 [FI29][1]	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.4 [FI30][1]	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.1 [FI31][1]	HVAC equipment has been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.3.3 [FI32][1]	Economizers have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI48][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Job	Truss	Truss Type	Qty	Ply	S.E. Modular 216 FL
63591	F117715	FLAT	1	1	216-45-1 Ref. #2161949

Universal Forest Products Inc., Grand Rapids, MI 49525, Weston Gorby

7.330 e Feb 17 2012 MiTek Industries, Inc. Fri Aug 24 07:23:32 2012 Page 1 of 1
- This replaces the drawing issued on 5/16/12 -

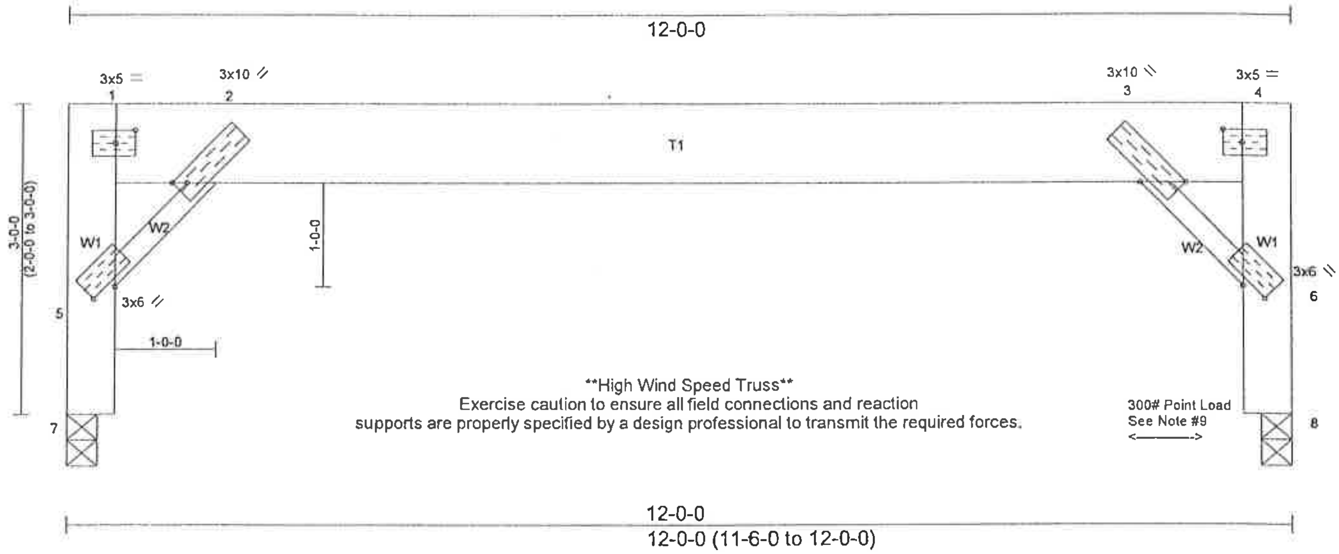


Plate Offsets (X,Y): [1:0-2-4,0-1-8], [2:0-1-4,Edge], [3:0-3-12,Edge], [4:0-2-4,0-1-8], [5:0-2-12,0-0-12], [6:0-2-12,0-0-12]

SPACING: 2-0-0	SPACING: 1-4-0	SPACING 2-0-0	CSI	DEFL in (loc) l/defl L/d	PLATES GRIP
LOADING (psf)	LOADING (psf)	Plates Increase 1.25	TC 0.85	Vert(LL) 0.53 2-3 >262 240	MT20 197/144
TCLL 20.0	TCLL 30.0	Lumber Increase 1.25	BC 0.00	Vert(TL) 0.48 2-3 >290 180	
TCDL 15.0	TCDL 22.5	Rep Stress Incr YES	WB 0.50	Horz(TL) -0.88 8 n/a n/a	
BCLL 0.0 *	BCLL 0.0 *	Code FBC2010/TPI2007	(Matrix)		Weight: 46 lb
BCDL 10.0	BCDL 15.0				FT = 0%

LUMBER
TOP CHORD 2x10 SPF No.2
WEBS 2x6 SPF No.2 *Except*
W2: 2x3 SPF Stud

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 7=346/0-3-8 (min. 0-1-8), 8=346/0-3-8 (min. 0-1-8)
Max Horz 7=-227(LC 5)
Max Uplift7=-491(LC 5), 8=-491(LC 6)
Max Grav 7=404(LC 2), 8=404(LC 2)

APPROVED RADCO Oct 19, 2017 APPROVED

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 5-7=-404/574, 1-5=-419/1452, 1-2=-247/284, 2-3=-521/525, 3-4=-247/284, 6-8=-404/574, 4-6=-419/1452
WEBS 2-5=-1214/1163, 3-6=-1214/1163

NOTES
1) This truss has been checked for uniform roof live load only, except as noted.
2) Wind: ASCE 7-10; Vult=170mph (3-second gust) Vasd=132mph @24in o.c.; TCDL=6.0psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=9.0psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) C-C wind load user defined.
4) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 7, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 491 lb uplift at joint 7 and 491 lb uplift at joint 8.
9) This truss was checked for a horizontal point load as shown.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
11) When adjusting the variable span dimension, adjust the post placement dimensions proportional to the change in span.
12) Based on: F117713
13) Revision: Reduced variable length.

E-signed by Kevin Freeman

8/24/2012

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.

WARNING - ***Verify design parameters and READ NOTES***

Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525

This building component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe