

MD - 2018 IBC - STRUCTURAL LOAD LIMITATIONS

FLOOR LIVE LOAD:
 A. DEAD LOAD = 12 PSF (AVERAGE).
 B. UNIFORM LIVE LOAD = 100 PSF.
 C. CONCENTRATED LOAD (ALTERNATE) = 2,000 LB, OVER 30"x30" AREA AT ANY LOCATION.
 ROOF LIVE LOAD:
 A. DEAD LOAD = 15 PSF (AVERAGE).
 B. LIVE LOAD = 30 PSF.
 ROOF SNOW LOAD:
 A. GROUND SNOW LOAD: $P_g = 30$ PSF
 B. FLAT-ROOF SNOW LOAD $P_f = 30$ PSF
 C. SNOW EXPOSURE FACTOR $C_e = 1.0$
 D. SNOW IMPORTANCE FACTOR $I_s = 1.0$
 E. SNOW THERMAL FACTOR $C_t = 1.1$
 F. ROOF SLOPE FACTOR $C_s = 1.0$
 G. SLOPED ROOF SNOW LOAD $P_s = 20$ PSF $P_s = P_f \times C_s$
 H. $P_m = 20$ PSF LOW-SLOPE SNOW LOAD $P_m = P_g \times I_s$
 I. DESIGN IS BASED ON FULL OR PARTIALLY EXPOSED ROOF PER ASCE 7-16.
 WIND LOAD: ASCE 7-16
 A. BASIC WIND SPEED (3 SEC GUST) 130 MPH
 B. ASD WIND SPEED (3 SEC GUST) 101 MPH
 C. RISK CATEGORY II
 D. WIND EXPOSURE CATEGORY C
 E. INTERNAL PRESSURE COEFFICIENT $G_{Cpi} = 0.18$
 F. COMPONENT & CLADDING BASIC DESIGN PRESSURES, ASD DESIGN PRESSURE FOR ROOF 0 TO 7 DEGREES.
 WALL ZONE 5: $P = +/- 49.2$ psf ($P_{asd} = +/- 29.5$ PSF)
 WALL ZONE 4: $P = +/- 39.9$ psf ($P_{asd} = +/- 24.0$ PSF)
 ROOF ZONE 3: $P = -105.4$ psf ($P_{asd} = -63.2$ PSF)
 ROOF ZONE 2: $P = -77.3$ psf ($P_{asd} = -46.4$ PSF)
 ROOF ZONE 1: $P = -58.6$ psf ($P_{asd} = -35.1$ PSF)
 ROOF ZONE 1': $P = -33.6$ psf ($P_{asd} = -20.2$ PSF)
 G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.
 H. BUILDING DESIGN IS BASED ON "ENCLOSED" CLASSIFICATION.
 I. BUILDING MEAN ROOF HEIGHT SHALL NOT EXCEED 15 FEET.
 SEISMIC LOAD:
 A. RISK CATEGORY II
 B. SEISMIC IMPORTANCE FACTOR $I_e = 1.0$
 C. SITE CLASS D
 D. SPECTRAL RESPONSE COEFFICIENTS:
 $S_s = < 0.173$ $S_1 = < 0.046$ $S_{ds} = < 0.184$ $S_{d1} = < 0.073$
 SEISMIC DESIGN CATEGORY C
 F. SEISMIC FORCE RESISTING SYSTEM A13
 G. SIMPLIFIED SEISMIC ANALYSIS PROCEDURE HAS BEEN USED.
 H. RESPONSE MODIFICATION FACTOR $R = 6.5$
 I. SEISMIC RESPONSE COEFFICIENT $C_s = N/A$
 J. DESIGN BASE SHEAR $V = 4,854$ LB
 FLOOD LOAD:
 THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.
 ROOF RAIN LOAD:
 A. RAIN INTENSITY: $i = 3.06$ INCHES / HOUR.

NC/VA - STRUCTURAL LOAD LIMITATIONS

FLOOR LIVE LOAD:
 A. 100 PSF IN CORRIDOR, 50 PSF REMAINDER
 B. 2000 LB CONCENTRATED LOAD OVER 30"x30" AREA AT ANY LOCATION
 ROOF LIVE LOAD:
 A. 30 PSF
 ROOF SNOW LOAD:
 A. $P_g = 30$ PSF GROUND SNOW LOAD
 B. $P_f = 30$ PSF FLAT ROOF SNOW LOAD
 C. $C_e = 1.0$ SNOW EXPOSURE FACTOR
 D. $I_s = 1.0$ SNOW IMPORTANCE FACTOR
 E. $C_t = 1.1$ SNOW THERMAL FACTOR
 F. $C_s = 1.0$ ROOF SLOPE FACTOR
 G. $P_s = 20$ PSF SLOPED ROOF SNOW LOAD
 H. $P_m = 20$ PSF LOW-SLOPE SNOW LOAD
 I. DESIGN IS BASED ON FULL OR PARTIALLY EXPOSED ROOF PER ASCE 7-10.
 WIND LOAD: ASCE 7-10
 A. 130 MPH V_{ult} ULTIMATE WIND SPEED
 B. 100 MPH V_{asd} NOMINAL WIND SPEED
 C. II RISK CATEGORY
 D. C WIND EXPOSURE CATEGORY
 E. $G_{Cpi} = 0.18$ INTERNAL PRESSURE COEFFICIENT
 F. COMPONENT & CLADDING PRESSURES (ROOF < 7°)
 WALL ZONE 5: $P_{ult} = +/- 49.2$ psf ($P_{asd} = +/- 29.5$ PSF)
 WALL ZONE 4: $P_{ult} = +/- 39.9$ psf ($P_{asd} = +/- 24.0$ PSF)
 ROOF ZONE 3: $P_{ult} = -92.9$ psf ($P_{asd} = -55.8$ PSF)
 ROOF ZONE 2: $P_{ult} = -61.7$ psf ($P_{asd} = -37.0$ PSF)
 ROOF ZONE 1: $P_{ult} = -36.8$ psf ($P_{asd} = -22.1$ PSF)
 G. THIS BUILDING IS NOT DESIGNED FOR PLACEMENT ON THE UPPER HALF OF A HILL OR ESCARPMENT EXCEEDING 15 FEET IN HEIGHT.
 H. BUILDING DESIGN IS BASED ON "ENCLOSED" CLASSIFICATION.
 I. BUILDING MEAN ROOF HEIGHT SHALL NOT EXCEED 15 FEET.
 SEISMIC LOAD:
 A. II RISK CATEGORY
 B. $I_e = 1.0$ SEISMIC IMPORTANCE FACTOR
 C. D SITE CLASS
 D. SPECTRAL RESPONSE COEFFICIENTS:
 $S_s = < 0.178$ $S_1 = < 0.057$ $S_{ds} = < 0.19$ $S_{d1} = < 0.091$
 E. C SEISMIC DESIGN CATEGORY
 F. A13 SEISMIC FORCE RESISTING SYSTEM
 G. SIMPLIFIED SEISMIC ANALYSIS PROCEDURE HAS BEEN USED.
 H. $R = 6.5$ RESPONSE MODIFICATION FACTOR
 I. $C_s = N/A$ SEISMIC RESPONSE COEFFICIENT
 J. $V = 5,013$ LB DESIGN BASE SHEAR
 FLOOD LOAD:
 THIS BUILDING IS NOT DESIGNED TO BE LOCATED IN A FLOOD HAZARD AREA.

CODE SUMMARY:						
STATE	BUILDING	ELEC.	MECH.	PLUMB.	ACCESS.	ENERGY
MD	2018 IBC W/ MD AMEND. 2018 NFPA 101 LSC W/ MD AMEND.	2017 NEC W/ MD AMEND.	2018 IMC	2018 IPC W/ MD AMEND.	2012 M.A.C. 2010 ADA	2018 IECC W/ MD AMEND.
NC	NCBC 2018 2018 NCFC	2017 NC ELECTRIC CODE	2018 NCMC	2018 NCPCC	NCBC 2012 CHPT.11 & ICC/ANSI A117.1-2009	2018 NC ENERGY CODE
VA	2015 VA UNIFORM STATEWIDE BLDG CODE, 2015 IBC, 2015 IFC	2014 NEC	2015 IMC W/ VA AMEND.	2015 IPC W/ VA AMEND.	ICC/ANSI A117.1-2009	2015 IECC

BUILDING DESIGN PARAMETERS

- USE / OCCUPANCY: OFFICE / BUSINESS
- CONSTRUCTION TYPE: VB
- SPRINKLER SYSTEM: N/A
- BUILDING AREA: 4,900 SQ FT
- BUILDING HEIGHT: < 15 FEET
- NUMBER OF STORIES: 1
- NUMBER OF MODULES: 7
- OCCUPANT LOAD (49) BASED ON [100] SQ FT PER OCCUPANT - 2015 IBC
- OCCUPANT LOAD (33) BASED ON [150] SQ FT PER OCCUPANT . - 2018 IBC
- EXTERIOR WALL FIRE RATING N/A
- THIS BUILDING MUST BE INSTALLED WITH THE FIRE SEPARATION DISTANCES REQUIRED BY THE IBC TABLE 602 AND SECTION 705.3
- ENERGY CODE COMPLIANCE: SEE ATTACHED ENERGY CALCULATIONS
- MANUFACTURERS DATA PLATE, STATE LABELS AND THIRD PARTY LABELS ARE TO BE LOCATED ADJACENT TO ELECTRICAL PANEL.

NORTH CAROLINA NOTES:

- THIS BUILDING HAS NOT BEEN DESIGNED FOR COASTAL HAZARD AREAS, OCEAN HAZARD OR REGULATORY FLOOD PLAIN AREAS.
- THE CLIMATE ZONE IS 3 OR 4.
- ALL OPAQUE EXTERIOR DOORS SHALL HAVE A U-VALUE OF 0.292 OR LESS.
- ALL EXTERIOR GLAZING SHALL HAVE A U-VALUE OF 0.45 OR LESS AND A SHGC OF 0.24 OR LESS.

DRAWING INDEX

- 1 OF 8 STRUCT. / CODES
- 2 OF 8 NOTES
- 3 OF 8 FLOOR PLAN
- 4 OF 8 ELECTRICAL
- 5 OF 8 MECHANICAL
- 6 OF 8 REFLECTED CEILING
- 7 OF 8 ELEVATIONS
- 8 OF 8 CROSS SECTION
- 1 OF 1 FOUNDATION

MARYLAND PLAN NO.: TMS5886-A MD, TMS5886-B MD, TMS5886-C MD, TMS5886-D MD, TMS5886-E MD, TMS5886-F MD, TMS5886-G MD, TMS5886-H MD, TMS5886-I MD, TMS5886-J MD
 MARYLAND SERIAL NO.: 5886A, 5886B, 5886C, 5886D, 5886E, 5886F, 5886G

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FEB 03 2021

TOWN OF ELKTON
 BUILDING & PLANNING

RADCO APPROVED

Jan 08, 2021
 RESOURCES, APPLICATIONS, DESIGN & CONTROLS, INC.
 EASTERN NATIONAL REGION
 5801 BENJAMIN CENTER DRIVE, SUITE 102
 TAMPA, FL 33634
 (813) 243-0370 • O I (813) 243-1314 - F
 www.radcoinc.com



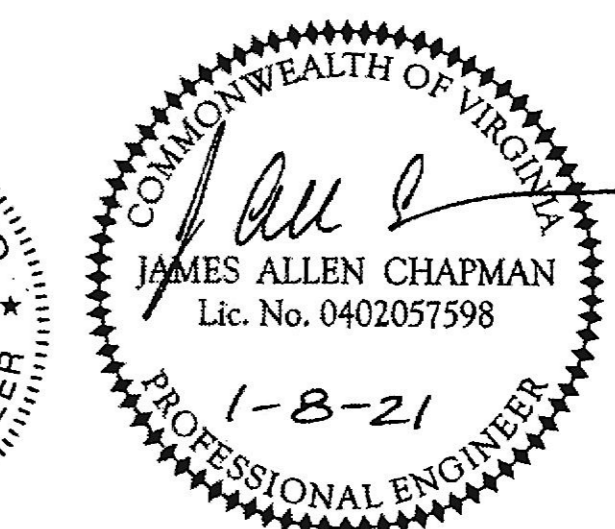
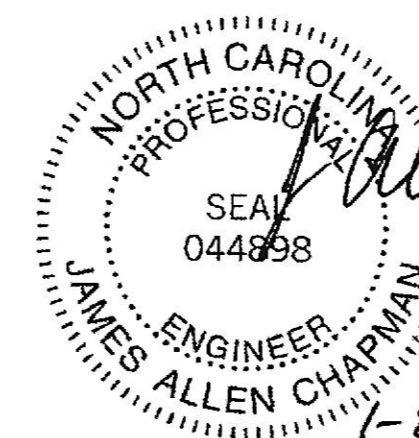
THIRD PARTY DESIGN APPROVAL & INSPECTION AGENCY

DESTINATION: ELKTOWN, MD

TITAN MODULAR SYSTEMS, INC.

162 INDUSTRIAL DRIVE • ALMA, GA 31510
 912-632-3344 (PH) • 912-632-3345 (FX)

DATE: 12-31-20	ENGINEERS: JAMES ALLEN CHAPMAN, P.E.
SCALE: N-T-S	AMERICUS, GA 31719
CODES: MD, NC, VA	
TMS-5886 A-G - 84'x60' - BUSINESS	
COVER SHEET	PAGE: 1 / 8



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 50207, EXPIRATION DATE: 11-30-2022.