PERTrane US, Inc. OT V

DESIGN NOTES

TIE-DOWN TO A/C STAND, WALL BRACKET, OR CONCRETE

THIS SYSTEM HAS BEEN DESIGNED TO MEET THE MAXIMUM ASD DESIGN WIND PRESSURES AS

ROOFTOP & WALL MOUNTS: ± 100 PSF LATERAL, 79 PSF UPLIF

SITE-SPECIFIC PRESSURES SHALL BE LESS THAN OR EQUAL TO THE MAXIMUM ALLOWABLE ASD

UPLIFT IS NOT REQUIRED FOR MECHANICAL EQUIPMENT AT-GRADE. IF UPLIFT AT-GRADE IS

THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE

REQUIRED BY THE AHJ, CONTACT ENGINEERING EXPRESS FOR A SITE-SPECIFIC EVALUATION

REQUIREMENTS OF THE FLORIDA BUILDING CODE 7TH EDITION (2020). ALSO APPLICABLE FOR

CODE ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS ARE LISTED THEN MOST STRINGENT APPLIES. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL

DESIGN METHOD USING ASCE 7-16 OR ASCE 7-10 CODES FOR SITE-SPECIFIC APPLICATIONS AS

THE HOST STRUCTURE IS ASSUMED TO BE ADEQUATE TO WITHSTAND THE LOADS IMPOSED BY

SEE UNIT MODEL SCHEDULE FOR APPROVED UNIT MODELS (UNIT INTEGRITY BY OTHERS). UNIT

THIS DESIGN. THE PERMITTING CONTRACTOR/BUILDING OFFICIAL SHALL VERIFY THAT THE

BUILDING CODE AMENDMENTS WHICH MAY APPLY AND GOVERN, DESIGN SHALL UTILIZE ASD

THE 2012, 2015, & 2018 INTERNATIONAL BUILDING & RESIDENTIAL CODES AS WELL AS THE CURRENT VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE.

DESIGN WIND PRESSURES LISTED ABOVE, PER THE CODES AND STANDARDS REFERENCED HEREIN

ASD DESIGN WIND PRESSURES ARE TO BE CALCULATED ON A SITE-SPECIFIC BASIS IN

AT-GRADE MOUNT: ± 60 PSF LATERAL, 0 PSF UPLIFT

LISTED BELOW. SEE ACCOMPANYING LIMITATIONS AND CONDITIONS:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

ORIGINAL SIGNED & SEALED PLANS REQUIRED FOR PERMIT. PHOTOCOPIES NOT TO BE USED FOR PERMIT OR CONSTRUCTION.

Richard Neet, P.E.

GENERAL NOTES

- ENGINEER SEAL AFFIXED HERETO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF
- THIS DOCUMENT IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT SITE. ENGINEERING EXPRESS SHALL NOT BE HELD RESPONSIBLE OR LIABLE IN ANY WAY FOR ERRONEOUS OR INACCURATE DATA OR MEASUREMENTS
- DIMENSIONS ARE SHOWN TO ILLUSTRATE DESIGN FORCES AND OTHER DESIGN CRITERIA. THEY MAY VARY SLIGHTLY, BUT MUST REMAIN WITHIN THE LIMITATIONS SPECIFIED HEREII WORK SHALL BE FIELD VERIFIED BY OTHERS.
- ENGINEERING EXPRESS SHALL BE NOTIFIED AND GIVEN AN OPPORTUNITY TO REEVALUATE OUR WORK UPON DISCOVERY OF ANY INACCURATE INFORMATION PRIOR TO MODIFICATION OF EXISTING FIELD CONDITIONS AND FABRICATION AND INSTALLATION OF MATERIALS
- ALTERATIONS OR ADDITIONS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION
- THIS SYSTEM HAS NOT BEEN DESIGNED FOR MISSILE IMPACT LOADS UNDER ANY
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

SCOPE OF WORK

PROVIDE STRUCTURAL CERTIFICATION OF THE MECHANICAL UNIT TIE-DOWN TO EXISTING HOST A/C STAND, WALL BRACKETS, OR CONCRETE PAD BY OTHERS AS OUTLINED HEREIN FOR WIND AND DEAD LOADS ONLY, (MISSILE IMPACT NOT PART OF THIS CERTIFICATION, SEE HEREIN FOR DESIGN. LIMITATIONS). STRUCTURAL INTEGRITY OF THE UNIT ITSELF AND OF THE HOST STRUCTURE SHALL BE BY OTHERS.

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& MORE INFORMATION ABOUT THIS DOCUMENT VISIT ENGINEERINGEXPRESS.COM/STORE

FOR ADDITIONAL PLANS, REPORTS & RESOURCES



FOR ENGINEER CERTIFIED ORIGINALS

MODELS SHALL CONFORM TO THE SPECIFICATIONS STATED HEREIN 5. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THIS DESIGN

- ALL FASTENERS TO BE #12 X 3/4" UNLESS NOTED OTHERWISE. ALL FASTENERS SHALL BE SERIES 300 NON-MAGNETIC STAINLESS STEEL, OR CADMIUM PLATED OR OTHERWISE CORROSION
- UNLESS NOTED OTHERWISE, ALL SCREW TO METAL ATTACHMENTS SHALL PROVIDE (3) PITCHES MINIMUM PAST THE THREAD PLANE AND A MINIMUM EDGE DISTANCE EQUAL TO EITHER 3X (STEEL) OR 2X (ALUMINUM) THE FASTENER DIAMETER.

- ALL STEEL MEMBERS SHALL CONFORM TO ASTM A36 AND CURRENT EDITION OF AISC WITH MINIMUM YIELD STRENGTH = 36 ksi, UNLESS NOTED OTHERWISE. ALL STEEL MEMBERS SHALL BE GALVANIZED OR OTHERWISE CORROSION-RESISTANT (BY OTHERS).
- ALL EXTRUDED ALUMINUM MEMBERS SHALL BE ALUMINUM ALLOY TYPE 6063-T6 OR BETTER UNLESS NOTED OTHEWISE AND SHALL BE .090" MIN. THICK UNLESS NOTED OTHERWISE
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO
- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS.
- ALL CONCRETE AND EPOXY TO REACH A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi IN 7 DAYS. ALL CONCRETE SHALL BE UNCRACKED ONLY AND SHALL BE MINIMUM 1.5X THICKER THAN ANY MEMBER EMBEDMENT. ALL EPOXY AND GROUT SHALL MEET OR EXCEED COMPRESSIVE STRENGTH OF THE CONCRETE AND SHALL BE IRON-FREE, NON-SHRINK AND NON-REACTIVE.

CONSTRUCTI

OR CONSTRUCTION

OR CONSTRUCT

JANUARY 5, 2023

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