

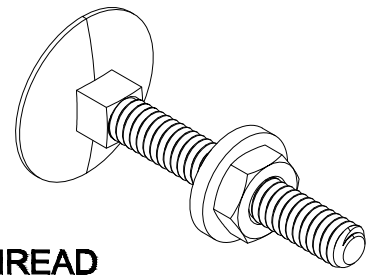
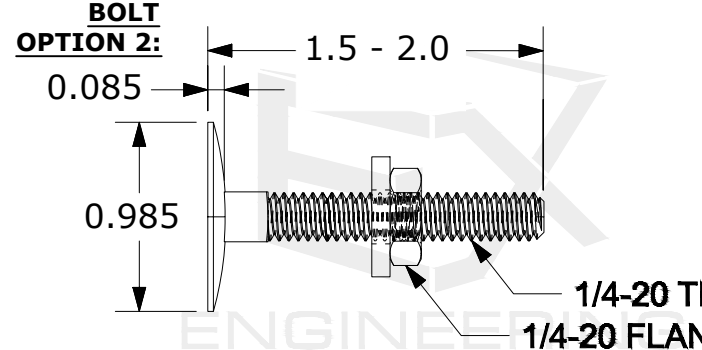
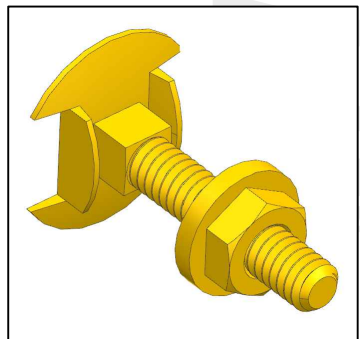
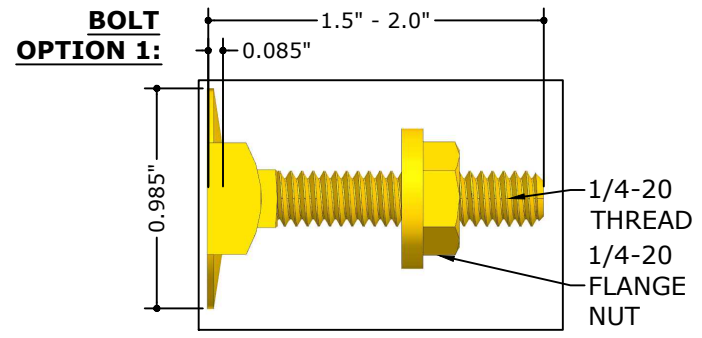
DURAPLAS PLASTIC HURRICANE PAD LID (0.200" MIN. THICK)

DURAPLAS PLASTIC HURRICANE PAD (0.200" MIN. THICK)

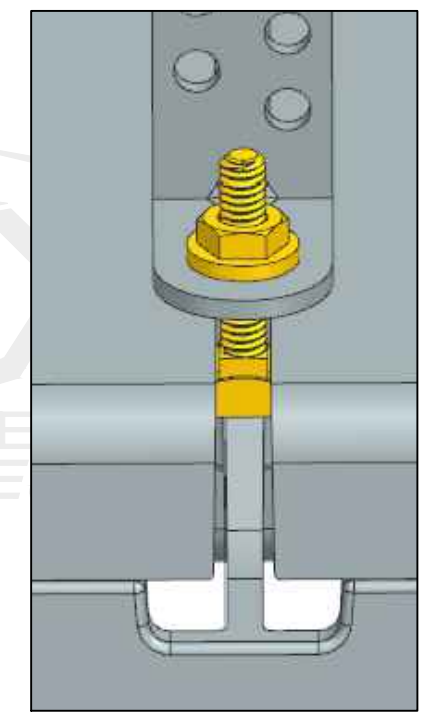
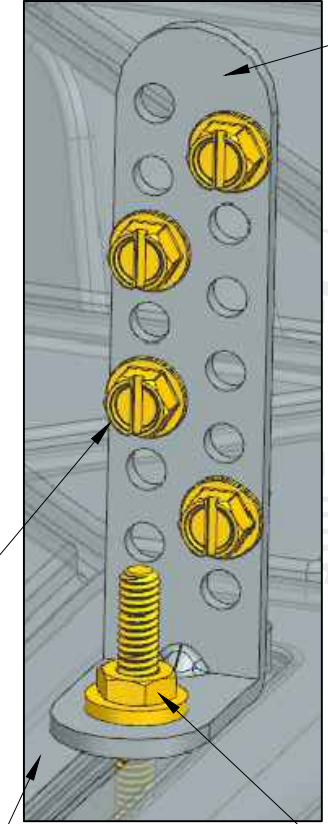
UNIT WALL PANEL OR BASE (NOT PICTURED) SHALL BE 22 GA. (0.030") MIN. THICK, YIELD STRENGTH (F<sub>ymin</sub>) = 36 ksi GALV. STEEL.

**1**  
02 ATTACHMENT BOLT THRU-BOLTED CONNECTION  
NOT TO SCALE SECTION VIEW

**2**  
02 ILLUSTRATION OF ATTACHMENT BOLT CONNECTION  
NOT TO SCALE SECTION VIEW



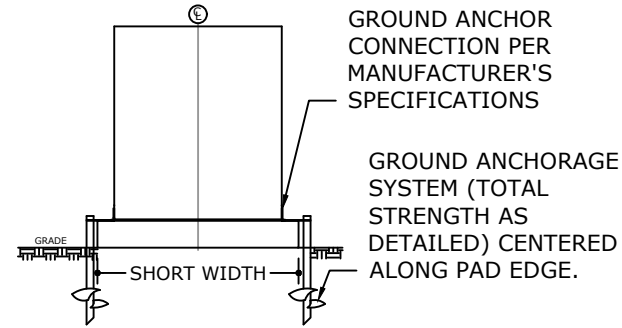
- FASTEN TIE-DOWN CLIP TO STEEL UNIT WALL PANEL OR BASE WITH (2) MIN. #10 Ø SMS AND 0.040" NOMINAL OD WASHERS, (1) WASHER PER SCREW, TYP.
- UTILIZE TIE-DOWN CLIP HOLES/SLOTS THAT HAVE FLUSH, SOLID CONTACT WITH THE UNIT, (1) SCREW PER HOLE/SLOT, TYP.
- CARE MUST BE TAKEN TO AVOID SCREW CONTACT WITH INTERNAL PIPING AND COMPONENTS. EXERCISE CAUTION WITH SCREW INSTALLATION.
- ENSURE ALL SCREWS FULLY ENGAGE WITH THE UNIT. ENSURE CLIP SITS FLUSH ON THE PAD/LID AS IS APPLICABLE AND FLUSH AGAINST THE UNIT, TYP.



**4**  
02 TIE-DOWN CLIP ATTACHMENTS, TYP.  
NOT TO SCALE ISOMETRIC VIEW

**ATTACHMENT BOLT**  
NOT TO SCALE MULTIPLE VIEWS

NOTE: DIMENSION VALUES SHOWN ARE IN INCHES. EITHER BOLT OPTION IS ACCEPTABLE FOR USE.



**3**  
02 GROUND ANCHOR ADDTL. SUPPORT DIRECTIVE  
NOT TO SCALE ELEVATION VIEW

**GROUND ANCHOR ADDITIONAL SUPPORT DIRECTIVE (IF REQUIRED):**  
FOR UNITS NOT MEETING THE WEIGHT REQUIREMENTS DETAILED IN THE DURAPLAS PAD SELECTION TABLES (SEE NEXT PAGE), ADDITIONAL GROUND ANCHORAGE MAY BE INCLUDED IN THE INSTALLATION IN PLACE OF ADDITIONAL WEIGHT. ADDING GROUND ANCHORS ON EACH SIDE OF THE SYSTEM AS SHOWN SHALL BE SUFFICIENT FOR INSTALLATION OF ANY PAD / UNIT NOT MARKED "N/A" ON PAD SELECTION TABLE (PADS MARKED "N/A" ARE NOT LARGE / WIDE ENOUGH FOR THE UNIT).

GROUND ANCHORAGE SHALL CONFORM TO AND BE INSTALLED PER THE FOLLOWING REQUIREMENTS:  
1. GROUND ANCHOR PULL TEST STRENGTH (ON EACH LONG SIDE) MUST BE 1/2 OF THE DIFFERENCE BETWEEN THE REQUIRED & ACTUAL UNIT WEIGHTS

- EX: REQUIRED UNIT WEIGHT = 1000 LB  
ACTUAL UNIT WEIGHT = 400 LB  
ANCHOR STRENGTH REQUIRED = (1000 LB - 400 LB)/2 = **300 LB** (ANCHOR STRENGTH REQUIRED ON EACH LONG SIDE)
2. ANCHOR STRENGTH SHALL BE AS PROVIDED BY PULL TEST STRENGTH RATING (BY OTHERS) FOR THE GROUND CONDITION PRESENT, AND ACCOUNTING FOR ANY SAFETY FACTORS AS RECOMMENDED BY THE MANUFACTURER. IF NO SAFETY FACTOR IS GIVEN, REDUCE THE PULL TEST STRENGTH RATING BY A SAFETY FACTOR OF 3.
  3. MULTIPLE ANCHORS MAY BE UTILIZED ALONG EACH SIDE OF THE SYSTEM SO THAT THE CUMULATIVE PULL TEST STRENGTHS SUM TO THE CALCULATED REQUIRED STRENGTH.
  4. GROUND ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS. ANCHORS MAY BE FASTENED TO THE DURAPLAS HURRICANE PAD/LID OR MECHANICAL UNIT AS REQUIRED.
  5. FOR ANCHORAGE TO EXISTING CONCRETE, ADDITIONAL SITE-SPECIFIC ENGINEERING IS REQUIRED.

FL 47568.1

**ENGINEERING EXPRESS**  
POSTAL ADDRESS:  
2234 NORTH FEDERAL HWY # 7664  
BOCA RATON, FL 33431  
ENGINEERINGEXPRESS.COM

**DURAPLAS INC.**  
16400 MIDWAY RD  
ADDISON, TX 75001  
(774) 254-2089

DURAPLAS PLASTIC HURRICANE PADS  
FLORIDA BUILDING CODE EIGHTH EDITION (2023)  
FLORIDA STATEWIDE APPROVAL (FSA FL #47568.1)

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	EPR	CCB	06/11/25
ADD HVHZ TESTING/QUAL.	EPR	CCB	01/20/26
REVS & NEW BOLT OPTION	EPR	CCB	02/09/26

COPYRIGHT ENGINEERING EXPRESS®

25-85602

SCALE: NTS UNLESS NOTED

02 OF 3

2/11/2026 1:50 AM ERICREITEI z:\shared\projects\25-85602 duraplas plastic hurricane pad\work\2023 fbc\fa drawings & cad\25-85602e - fl47568.1 - dwg.dwg

**MECHANICAL UNIT MINIMUM REQUIRED WEIGHT TABLES - FOR CORRESPONDING WIND CONDITIONS STATED:**

\*NOTE: PER THE CODES AND STANDARDS REFERENCED HEREIN, UPLIFT IS NOT REQUIRED FOR MECHANICAL EQUIPMENT AT-GRADE AND IS NOT CONSIDERED IN THE DESIGN HEREIN. IF UPLIFT AT-GRADE IS REQUIRED BY THE AHJ, CONTACT ENGINEERING EXPRESS FOR A SITE-SPECIFIC EVALUATION.

SAMPLE UNIT SIZES LISTED ARE FOR COMMON RESIDENTIAL HVAC UNITS. ANY UNIT THAT CONFORMS TO THE LISTED DIMENSIONS MAY BE USED.

COLBY BENNARD, P.E.  
PE# 95197 CA# 9885

FEBRUARY 11, 2026

FL

**36" x 36" x 5" PAD**  
**UP TO Vult = 150 mph MAX. & EXPOSURE C:**

UNIT MAX DIMENSIONS			MIN. REQUIRED UNIT WEIGHT	LOADING APPLIED	
SHORT SIDE	LONG SIDE	UNIT HEIGHT		LATERAL FORCE	OVERTURNING MOMENT
24 IN	24 IN	25 IN	NO MIN	415 LB	535 LB-FT
		33 IN	100 LB	400 LB	645 LB-FT
28 IN	28 IN	25 IN	NO MIN	435 LB	560 LB-FT
		33 IN	150 LB	425 LB	690 LB-FT
30 IN	30 IN	25 IN	25 LB	450 LB	580 LB-FT
		28 IN	75 LB	440 LB	625 LB-FT
		31 IN	135 LB	440 LB	675 LB-FT
32 IN	32 IN	28 IN	95 LB	455 LB	640 LB-FT
		36 IN	275 LB	460 LB	805 LB-FT

**36" x 36" x 5" PAD**  
**UP TO Vult = 180 mph MAX. & EXPOSURE D:**

UNIT MAX DIMENSIONS			MIN. REQUIRED UNIT WEIGHT	LOADING APPLIED	
SHORT SIDE	LONG SIDE	UNIT HEIGHT		LATERAL FORCE	OVERTURNING MOMENT
24 IN	24 IN	25 IN	290 LB	635 LB	815 LB-FT
		33 IN	505 LB	625 LB	1010 LB-FT
28 IN	28 IN	25 IN	405 LB	715 LB	920 LB-FT
		33 IN	660 LB	710 LB	1150 LB-FT
30 IN	30 IN	25 IN	470 LB	760 LB	980 LB-FT
		28 IN	560 LB	750 LB	1060 LB-FT
		31 IN	665 LB	750 LB	1155 LB-FT
32 IN	32 IN	28 IN	635 LB	795 LB	1125 LB-FT
		36 IN	950 LB	805 LB	1410 LB-FT

MECHANICAL UNIT MANUFACTURER'S SPECIFICATIONS TO BE SUBMITTED WITH THIS PLAN (SEE SCHEDULE FOR MINIMUM WEIGHT REQUIRED)

**NOTE:** TOTAL PAD WEIGHTS SHALL BE 215 lb MIN. FOR THE 36" x 36" x 5" PAD, AND 245 lb MIN. FOR THE 40" x 40" x 5" PAD.

**INSTRUCTIONS FOR HOW TO USE THE MECHANICAL UNIT MINIMUM REQUIRED WEIGHT TABLES:**

**STEP 1:** CONFIRM YOUR SITE'S REQUIRED, MAXIMUM WIND (Vult) CONDITIONS FOR USE WITH THIS PERFORMANCE EVALUATION AND USE THE CORRESPONDING TABLE AS IS PERMITTED.

**STEP 2:** DETERMINE MECHANICAL UNIT'S MAX SIZE. UNIT MAY NOT BE LARGER IN ANY DIMENSION THAN LISTED ON TABLE.

**STEP 3:** FIND NET WEIGHT OF MECHANICAL UNIT AS REPORTED BY THE MANUFACTURER.

**STEP 4:** SELECT PAD BASED ON MINIMUM ALLOWABLE WEIGHTS SHOWN IN THE TABLE (MECHANICAL UNIT INSTALLED ON PAD MUST BE **HEAVIER** THAN WEIGHT VALUE LISTED)

**STEP 5:** IF UNIT IS NOT HEAVY ENOUGH, REFER TO THE ADDITIONAL SUPPORT DIRECTIVE ON PAGE 2.

CELLS MARKED WITH "N/A" REPRESENT UNITS WHICH ARE TOO BIG FOR INSTALLATION ON THE DESIGNATED PAD. CELLS MARKED WITH "NO MIN" REPRESENT PADS WHICH ARE HEAVY ENOUGH TO SUPPORT A UNIT OF ANY WEIGHT (OF THE DESIGNATED SIZE)

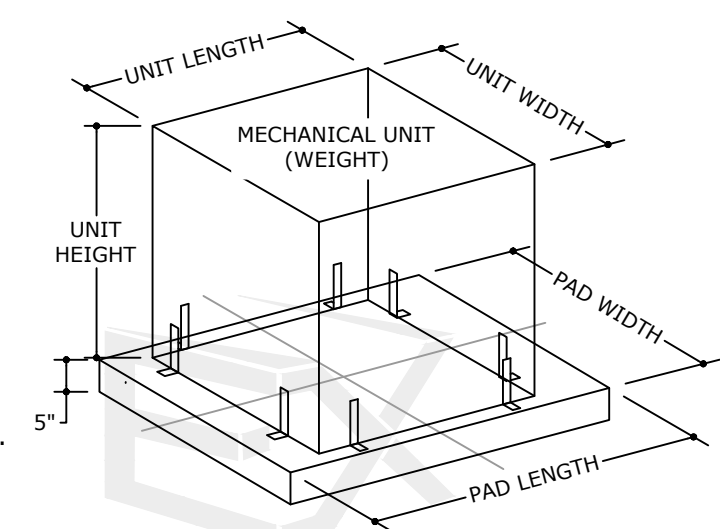
FOR CONDITIONS WHERE UNIT WEIGHT IS NOT SUFFICIENT, ADDITIONAL SUPPORT MAY BE ADDED TO THE SYSTEM BY EITHER INCREASING THE SYSTEM'S PERMANENT WEIGHT OR INCLUDING ADDITIONAL GROUND ANCHORAGE. REFER TO DIRECTIVES ON PAGE 2 FOR ADDITIONAL INFORMATION.

**40" x 40" x 5" PAD**  
**UP TO Vult = 150 mph MAX. & EXPOSURE C:**

UNIT MAX DIMENSIONS			MIN. REQUIRED UNIT WEIGHT	LOADING APPLIED	
SHORT SIDE	LONG SIDE	UNIT HEIGHT		LATERAL FORCE	OVERTURNING MOMENT
24 IN	24 IN	25 IN	NO MIN	445 LB	570 LB-FT
		33 IN	40 LB	425 LB	685 LB-FT
28 IN	28 IN	25 IN	NO MIN	465 LB	600 LB-FT
		33 IN	85 LB	450 LB	730 LB-FT
30 IN	30 IN	25 IN	NO MIN	480 LB	615 LB-FT
		28 IN	NO MIN	470 LB	660 LB-FT
		31 IN	70 LB	465 LB	715 LB-FT
32 IN	32 IN	28 IN	35 LB	480 LB	680 LB-FT
		36 IN	200 LB	485 LB	845 LB-FT
34 IN	34 IN	26 IN	NO MIN	495 LB	660 LB-FT
		28 IN	50 LB	495 LB	695 LB-FT
		32 IN	135 LB	495 LB	780 LB-FT
		36 IN	225 LB	500 LB	870 LB-FT
		39 IN	300 LB	505 LB	945 LB-FT
36 IN	36 IN	27 IN	50 LB	510 LB	695 LB-FT
		32 IN	155 LB	510 LB	800 LB-FT
		40 IN	360 LB	525 LB	1005 LB-FT
		46 IN	540 LB	550 LB	1185 LB-FT
37 IN	37 IN	46 IN	565 LB	560 LB	1210 LB-FT
		52 IN	775 LB	590 LB	1420 LB-FT

**40" x 40" x 5" PAD**  
**UP TO Vult = 180 mph MAX. & EXPOSURE D:**

UNIT MAX DIMENSIONS			MIN. REQUIRED UNIT WEIGHT	LOADING APPLIED	
SHORT SIDE	LONG SIDE	UNIT HEIGHT		LATERAL FORCE	OVERTURNING MOMENT
24 IN	24 IN	25 IN	225 LB	675 LB	870 LB-FT
		33 IN	420 LB	660 LB	1065 LB-FT
28 IN	28 IN	25 IN	340 LB	765 LB	985 LB-FT
		33 IN	565 LB	745 LB	1210 LB-FT
30 IN	30 IN	25 IN	400 LB	810 LB	1045 LB-FT
		28 IN	480 LB	795 LB	1125 LB-FT
		31 IN	575 LB	795 LB	1220 LB-FT
32 IN	32 IN	28 IN	550 LB	845 LB	1195 LB-FT
		36 IN	835 LB	850 LB	1480 LB-FT
34 IN	34 IN	26 IN	555 LB	900 LB	1200 LB-FT
		28 IN	620 LB	895 LB	1265 LB-FT
		32 IN	760 LB	890 LB	1405 LB-FT
		36 IN	920 LB	895 LB	1565 LB-FT
		39 IN	1055 LB	910 LB	1700 LB-FT
36 IN	36 IN	27 IN	655 LB	950 LB	1300 LB-FT
		32 IN	845 LB	945 LB	1490 LB-FT
		46 IN	1515 LB	1000 LB	2160 LB-FT
		52 IN	1870 LB	1045 LB	2515 LB-FT
37 IN	37 IN	46 IN	1575 LB	1025 LB	2220 LB-FT
		52 IN	1940 LB	1070 LB	2585 LB-FT



**PAD & UNIT ISOMETRIC VIEW**

SCALE: NOT TO SCALE  
DETAIL IS FOR ILLUSTRATIVE PURPOSES;  
UNIT & PAD APPEARANCE MAY VARY.  
CENTER UNIT ON PAD, TYP.  
SEE TABLES HEREIN FOR PERMITTED UNIT AND PAD SIZES.

**ASCE 7 ULTIMATE WIND VELOCITY TO ASD DESIGN PRESSURE AT GRADE CONVERSION CHART - HVHZ OR NON HVHZ**

EXAMPLE COUNTY	RISK I			RISK II			RISK III, IV		
	C	D	D	C	D	C	D	D	
FORT MYERS	145 MPH	29.4 PSF	35.6 PSF	160 MPH	35.8 PSF	43.4 PSF	175 MPH	42.8 PSF	51.9 PSF
PALM BEACH	150 MPH	31.5 PSF	38.1 PSF	170 MPH	40.4 PSF	49.0 PSF	180 MPH	45.3 PSF	54.9 PSF
BROWARD	156 MPH	34.0 PSF	41.2 PSF	170 MPH	40.4 PSF	49.0 PSF	180 MPH	45.3 PSF	54.9 PSF
MIAMI-DADE	165 MPH	38.1 PSF	46.1 PSF	175 MPH	42.8 PSF	51.9 PSF	186 MPH	48.4 PSF	58.6 PSF
MONROE	175 MPH	42.8 PSF	51.9 PSF	180 MPH	45.3 PSF	54.9 PSF	200 MPH	55.9 PSF	67.8 PSF
Kz (Exp C/D) (Table 26.10-1) =		0.85	1.03	Kd (Table 26.6-1) =		0.9	G (Section 26.11) =		0.85
Kzt (Section 26.8.2) =		1.0		Ke (Section 26.9) =		1	Cf (Table 29.4-1) =		1.4

**NOTE:** "UP TO EXPOSURE C" INCLUDES EXPOSURE CATEGORIES B AND C. "UP TO EXPOSURE D" INCLUDES ALL EXPOSURE CATEGORIES (B, C, AND D).  
ULT WIND VELOCITY TABLE INCLUDES A QUICK REFERENCE OF COMMON FLORIDA CONDITIONS (AT ULTIMATE DESIGN WIND VELOCITIES) & CORRESPONDING ALLOWABLE STRESS DESIGN (ASD) LATERAL WIND PRESSURES. FOR SITE-SPECIFIC CONDITIONS, CONSULT LOCAL BUILDING MUNICIPALITY. MAXIMUM ASD LATERAL DESIGN WIND PRESSURES AT GRADE PER SPECIFIED EXPOSURE REMAIN CONSTANT FOR ANY MAX WIND VELOCITY. FOR SITE-SPECIFIC WIND VELOCITY AND PRESSURE CONVERSIONS, SEE QR LINK PROVIDED ON PAGE 1.

FL 47568.1

**ENGINEERING EXPRESS**

POSTAL ADDRESS:  
2234 NORTH FEDERAL HWY # 7664  
BOCA RATON, FL 33431  
ENGINEERINGEXPRESS.COM

**DURAPLAS INC.**  
16400 MIDWAY RD  
ADDISON, TX 75001  
(774) 254-2089

DURAPLAS PLASTIC HURRICANE PADS  
FLORIDA BUILDING CODE EIGHTH EDITION (2023)  
FLORIDA STATEWIDE APPROVAL (FSA FL#47568.1)

DRWN	CHKD	DATE
EPR	CCB	06/11/25
EPR	CCB	01/20/26
EPR	CCB	02/09/26

REMARKS:  
INIT ISSUE  
ADD HVHZ TESTING/QUAL.  
REVS & NEW BOLT OPTION

25-85602

SCALE: NTS UNLESS NOTED

03

2/11/2026 1:50 AM ERICREITEI z:\shared\projects\25-125-85602 duraplas plastic hurricane pad\work\2023 fbc\fa drawings & cad\25-85602e - fl47568.1 - dwg.dwg