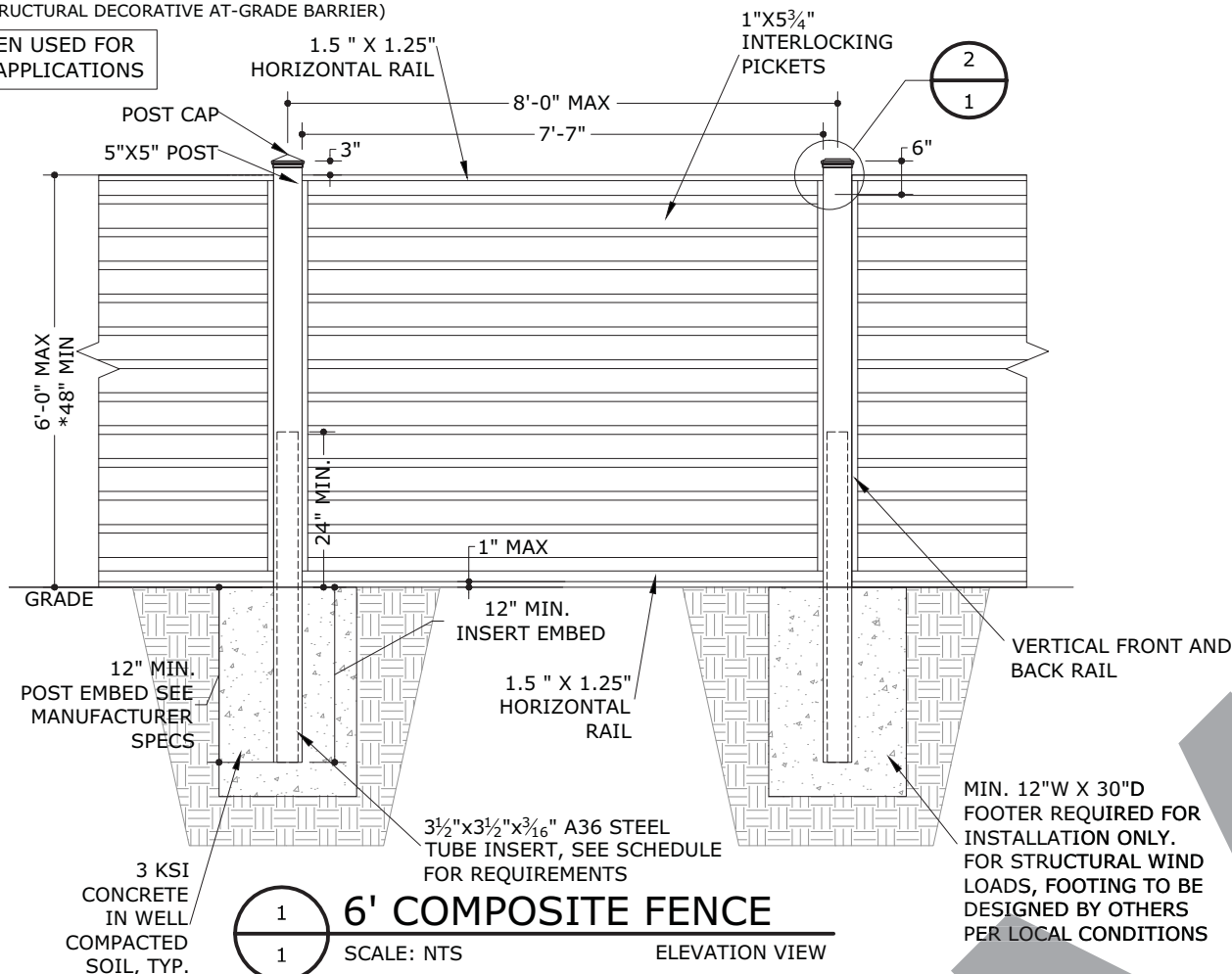


# 6' TREX HORIZONS COMPOSITE FENCE AT GRADE MPS

(NON-STRUCTURAL DECORATIVE AT-GRADE BARRIER)

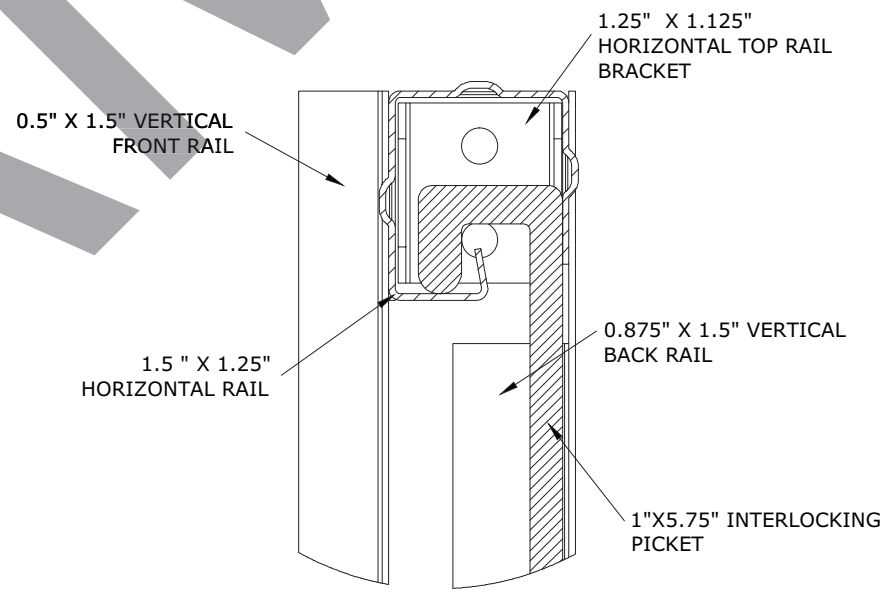
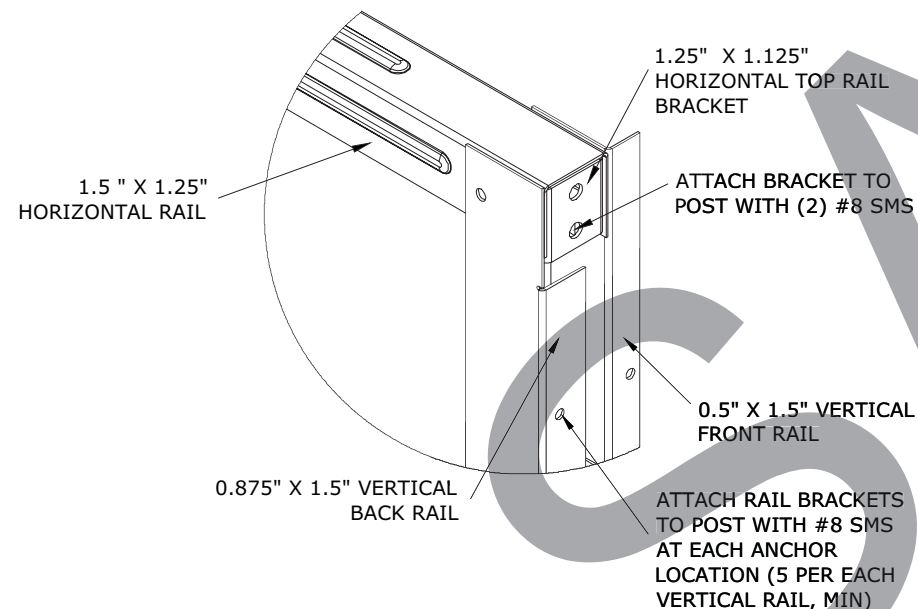
\* WHEN USED FOR POOL APPLICATIONS



6' TREX HORIZONS	MATERIAL NEEDED FOR 8' SECTION
	5 X 5 POST CAP PYRAMID, FLAT OR CROWN
	5" X 5" POST
	1.5" X 1.25" HORIZONTAL RAIL
	1"X5.75" INTERLOCKING PICKET
	0.875" X 1.5" VERTICAL BACK RAIL
	0.5" X 1.5" VERTICAL FRONT RAIL
	1.25" X 1.125" HORIZONTAL TOP RAIL BRACKET

DESIGN PRESSURE & REQUIRED FOOTER MOMENT					
POST HEIGHT (FT)	POST SPACING (FT)	VULT (MPH)	DP (PSF)	INSERT REQUIRED?	REQ MOMENT (LB-FT)
6	8	110	16.3	NO INSERT	2347.2
6	8	115**	19	NO INSERT	2736
6	8	130	22.8	NO INSERT	3283.2
6	8	145	28.4	NO INSERT	4089.6
6	8	165	36.8	INSERT	5299.2
6	8	180	43.8	INSERT	6307.2

\*\*REQUIRED WINDSPEED IF WITHIN HVHZ



## GENERAL NOTES

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017). DESIGN BASED ON ASCE 7-10 USING  $V_{ult} = 110-180$  MPH (3 SEC GUST), EXPOSURE 'C', RISK CATEGORY I, USING THE SOLID SIGN METHOD, 0% OPEN USED IN CALCULATIONS.
- THIS FENCE DESIGN TO BE USED AT GROUND SURFACE ONLY, WITH USE LIMITED TO DECORATIVE BARRIER PURPOSES ONLY. THIS FENCE IS NOT INTENDED TO MEET CODES GOVERNING ELEVATED BALCONIES OR STRUCTURAL RAILINGS.
- COMPOSITE WOOD MATERIAL INFORMATION:** ALL COMPOSITE WOOD MATERIAL TO HAVE A FLEX STR. OF 4000PSI MIN.
- ALL CONCRETE AND EPOXY TO REACH A MIN. COMPRESSIVE STRENGTH OF 3000 PSI IN 7 DAYS. CONCRETE FOOTERS SHALL CONTAIN MINIMUM 0.1% FIBERMESH CONTENT PER CUBIC YARD.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- SURROUNDING SOIL TO BE COMPACTED TO 98% OPTIMUM DENSITY, 2500 PSF MIN AND SHALL BE CLASSIFIED OR VERIFIED BY OTHERS PRIOR TO CONSTRUCTION PER FBC 1806.2 AND SHALL BE SANDY GRAVEL CLASS ONLY. PER FBC 454.2.17.1.8: POOL ACCESS GATES WHEN PROVIDED SHALL COMPLY WITH FBC 454.2 AND MUST BE AT LEAST 48" ABOVE GRADE & EQUIPPED WITH A SELF CLOSING, SELF LATCHING LOCKING DEVICE NOT LESS THAN 54" FROM BOT OF GATE. GATE MUST OPEN OUTWARD AWAY FROM POOL & MUST HAVE NO OPENING >1/2" WITHIN 18" OF RELEASE MECHANISM.
- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS.
- 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 PLAN.
- THIS DOCUMENT IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT SITE. INFORMATION CONTAINED HEREIN IS BASED ON CONTRACTOR-SUPPLIED DATA AND MEASUREMENTS. 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 HEREIN. WORK SHALL BE FIELD VERIFIED BY OTHERS PRIOR TO CONSTRUCTION. 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.
- ANYTHING LESS THAN THE HEIGHT AND POST SPACING SHOWN HEREIN MAY BE AS PER MANUFACTURER PLANS FOR DIMENSIONAL CONFORMITY, PROVIDED COMPONENTS AND EXTRUSIONS ARE PER THIS DESIGN AND THERE ARE NO INCREASED TRIBUTARIES.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

FRANK L. BENNARDO, P.E.  
PE# 0046549

03/13/2018

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REMARKS	DATE	DRWN	CHKD
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SCALE: NTS UNLESS NOTED

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