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NON-INVASIVE ALTERNATIVE TO THE 1500 LBS DECK TO HOUSE CONNECTION
ELIMINATES GOING INSIDE THE HOME FOR CONNECTION*

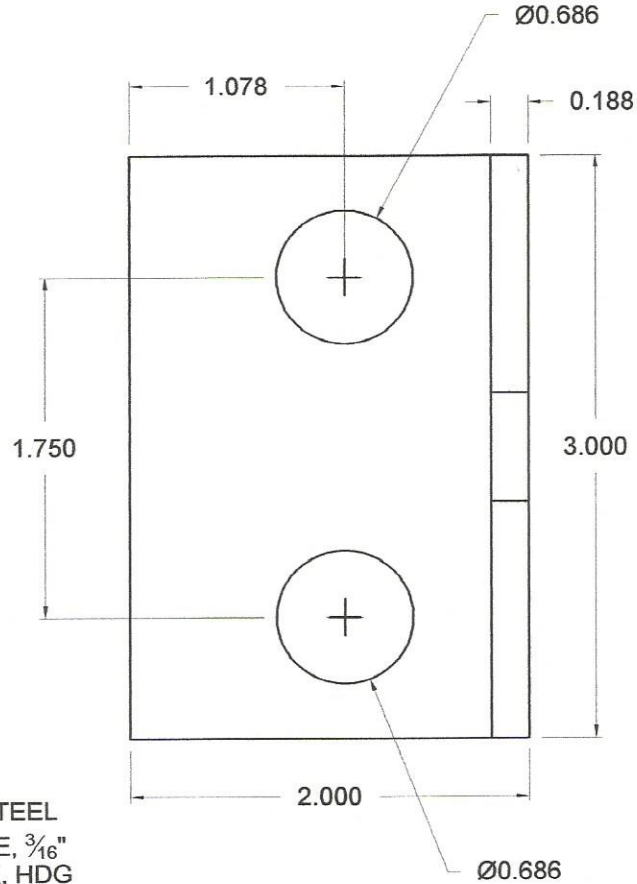
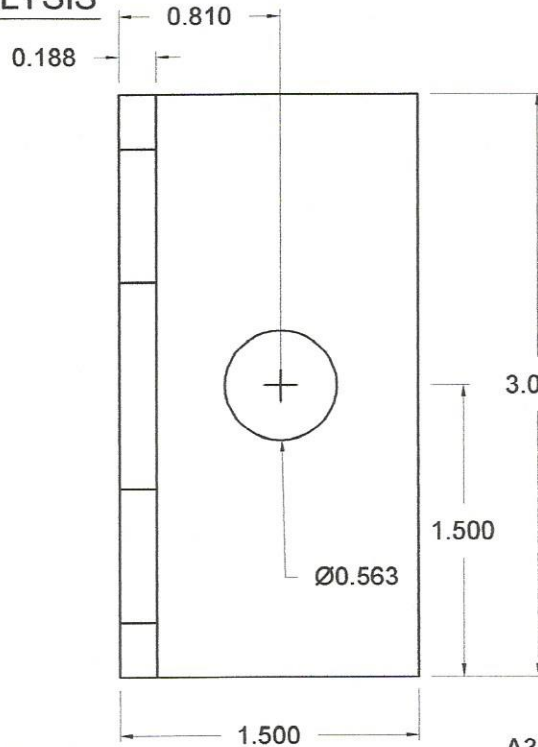
PATENT PENDING

* W/ DIMENSIONAL LUMBER AND HOUSE FLOOR
JOISTS PARALLEL TO DECK JOISTS

ANGLE ANALYSIS

ENGINEERING ANALYSIS

2009 IRC R301.1.1,
R301.1.3, R502.2.2.3
2012 IRC R301.1.1,
R301.1.3, R507.2.3



$\Omega = 1.67$
 $Z =$ BOLT LATERAL LOAD, LBS
 $C_m =$ WET SERVICE FACTOR, $C_m = 0.7$
 $C_d =$ LOAD DURATION FACTOR, $C_d = 1.6$
 $Z' = Z * C_m * C_d$, LBS
 $R_n =$ NOMINAL STRENGTH, KIPS
 $t_f =$ THICKNESS OF LOADED FLANGE, IN
 $F_y =$ SPECIFIED MIN. YIELD STRENGTH OF FLANGE, KSI

A36 STEEL
 ANGLE, $\frac{3}{16}$ "
 THICK, HDG
 ASTM 123

ENGINEERING CALCULATIONS

$R_n / \Omega = (6.25 * (0.188^2) * 36 * 0.5) / 1.67$
 $R_n / \Omega = 2.38$ KIPS < 1.5 KIPS
 $Z' = 2 * 730 * 0.7 * 1.6 = 1635$ LBS

GEOMETRY

EDGE DISTANCE = $1.5 * D = 1.5 * 0.625 = 0.9375$, IN
 END DISTANCE = $7 * D = 7 * 0.625 = 4.375$, IN
 SPACING = $(5 * L + 10 * D) / 8 = (5 * 1.5 + 10 * 0.625) / 8 = 1.719 < 1.75$, IN

DRILLING

HOLE - $5/8" + 1/16" = 11/16"$ DRILL THRU

DESIGN REFERENCE

*AISC 13TH ED., SECT. J10.1, EQ. (J10-1)

*2012 NDS, TABLE 11B, TABLE 10.3.1, TABLE 10.3.3

*2012 NDS, TABLE 11.5.1C

*2012 NDS, TABLE 11.5.1A

*2012 NDS, TABLE 11.5.1D

*2012 NDS, PART 11.1.3.2