

GENERAL NOTES AND SPECIFICATIONS:

PART 1 - REQUIREMENTS AND CONTRACTOR'S RESPONSIBILITIES:

- 1. Solid fixed wall areas (e.g. kickplates and/or transom panels) shall not exceed 25% of the total wall area for the design of screened rooms (structures with solid roofs and screened walls as defined by the Florida Building Code 7th edition).
- 2. Unless otherwise noted by the contractor in writing, this design assumes that no screen walls are to be placed upon a walking surface which is more than 30" above grade or an adjacent walking surface.
- 3. Structural characteristics and limitations for the aluminum components were calculated based upon the requirements of the Guide to Aluminum Construction in High Wind Areas (AAF-20), as required by Florida Building Code 7th Edition (2020) Section 2002.4
- 4. In the absence of geotechnical information to the contrary, this foundation design is based upon an allowable soil bearing capacity of 2,000 psf.
- 5. Any and all existing structures to which the new work (new work shall be construed to mean that work which is described and specified on these construction documents) are to be attached shall be structurally sound and of adequate structural integrity & capacity to support the applied loads from the assemblies detailed in these plans & specifications. The contractor and/or owner shall be responsible for ensuring the existing building is in compliance with the requirements of chapter 14 of the Florida Building Code 7th Edition (2020)- Existing Building, including retaining an independent professional to verify same.

PART 2 - PRODUCTS AND MATERIALS (except concrete):

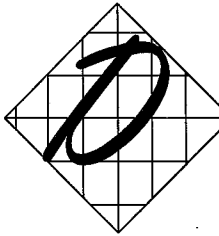
- 1. Aluminum Structural Shapes: Aluminum alloy 6061T6 or 6005T5 conforming to ASTM B 221, rolled or extruded. Shapes and thicknesses as indicated on the Drawings.
- 2. Aluminum Sheet and Plate: must conform to ASTM B 209
- 3. Dimensions, characteristics and engineering properties of de facto standard industry profiles and/or shapes have been taken from the AAF Guide To Aluminum Construction in High Wind Areas (Appendix A), 2020
- 4. The contractor shall furnish documentation (a purchase order or invoice pertaining to the new work) stating that the aluminum products conform to the specifications of this project as noted above and on the construction documents.
- 5. The contractor shall obtain and submit appropriate product approval information and documentation as required by the authority having jurisdiction for any and all solid roofs (all roofs other than screen) to be placed upon and connect to a framework which is part of the new work.
- 6. Unless specifically noted otherwise: The use of fiberglass screening with a thread diameter of 0.013" is assumed. A thread pattern of 18 by 14 threads per inch is likewise assumed in these specifications and has been incorporated in this design. Fiberglass screen cloth shall comply with ASTM D 3656 and SMA 1201.

PART 3 - FABRICATION NOTES:

- 1. All fasteners utilized for the new work in accordance with these plans and specifications shall be corrosion resistant and compatible for use with aluminum alloy materials. All such fasteners shall meet or exceed the requirements set forth in the General Requirements, Section 5d of the AAF Guide to Aluminum Construction in High Wind Areas, 2020 Edition: "Steel fasteners shall have a minimum ultimate tensile strength of 60 ksi and a maximum ultimate tensile strength of 120 ksi and shall be coated for corrosion resistance." By virtue of the Florida Building Code - Building, 7th edition 2020 Edition, Section 2002.4.1 the AAF Guide to Aluminum Construction in High Wind Areas, 2020 Edition, is a code approved prescriptive design document.
- 2. Minimum edge distance between exterior frame and the edges of supporting slabs and/or footings shall be 2" minimum. All fasteners utilized for the connection of the new work to concrete shall have a minimum edge distance of 3".
- 3. All primary members shall be connected with bolts, screws, or other positive fasteners.
- 4. Contractor shall provide all critical minimum edge & end distances as required for all fasteners, anchors etc.
- 5. Contractor is responsible for the protection of and compatibility with dissimilar metals and pressure treated lumber.
- 6. Removable Vinyl or Acrylic panels may be installed in the in-fill panels provided they conform to the requirements of Section 2002.2.3 FBC.
- 7. Screen cloth shall be fastened to the aluminum extrusions with industry standard vinyl splines. The vinyl spline is incidental to the design of the new work, except that the vinyl spline shall be continuous at each individual screen panel, that is, formed perimeter of each screened opening, typically rectangular (but not always). Diagonal braces, whether in the roof or wall surfaces need not have screen "splined" into them.

PART 4 - CONCRETE CONSTRUCTION NOTES:

- 1. Concrete work shall conform to "Building Code Requirements for Reinforced concrete" (ACI-318) and "Specifications for Structural Concrete (ACI- 301), Latest edition.
- 2. All concrete mixes shall contain a water-reducing admixture conforming to ASTM C-94. All air-entraining admixtures shall conform to ASTM C-260. Minimum concrete mix shall be as follows:
  - a. Ultimate compressive strength at 28 days = 3,000 psi;
  - b. Slump range 3" ±1";
  - c. Maximum aggregate size 1";
  - d. Entrained Air 5% to 7%;
  - e. Density of ready-mix concrete 145 lbs per cubic foot.
- 3. Reinforcing steel shall conform to ASTM A615, GRADE 40 (fy = 40 ksi). Lap continuous #5 bars (and smaller) a minimum of 30" for tension U.N.O. Provide corner bars of the same size as horizontal reinforcement. Minimum cover for concrete reinforcing steel shall be 3" unless noted otherwise in accordance with ACI-318 latest edition.
- 4. Welded wire fabric (WWF) shall conform to ASTM A-185. Lap sheets on mesh space and wire tie adjacent sheets together. Cut alternate reinforcement at control joints.
- 5. All slabs on grade shall have construction or control joints not to exceed 12'-0" spacing U.N.O.
- 6. Electrical conduit and other pipes to be embedded in structural concrete floors slabs or walls shall be placed in accordance with the requirements of ACI-318, paragraph 6.3.
- 7. For all concrete slabs on grade included in the new work, minimum slab thickness nominal 4 inches (actual thickness 3½") with 6X6 W/1.4/1.4 (a.k.a. 6X6 10/10) welded wire fabric ("WWF"); or alternatively, synthetic fiber reinforcement.
- 8. For additional foundation requirements, refer to drawings and specifications included with these project documents.



DRISCOLL ENGINEERING, INC.

CONSULTING ENGINEERS

PO BOX 357577  
GAINESVILLE, FL. 32606  
CA 8690

PH (352) 331-1513

PH (352) 505-3366

PROJECT DESCRIPTION: SCREEN ENCLOSURE

OWNER: RELYEA

LOCATION: 19492 S US HWY 441

CITY: HIGH SPRINGS, FL

ZIP

CONTRACTOR: LEGACY ALUMINUM

ADDRESS:

CITY:

ULTIMATE WIND SPEED: 130

NOMINAL WIND SPEED: 101

WIND EXPOSURE CATEGORY: B

RISK CATEGORY 11

INTERNAL PRESSURE COEFFICIENT Gcpi= +/- 0.0

DESIGN PRESSURE PER TABLE 2002.4 OF 2020 FBC 7TH EDITION

DESIGN LOAD BEARING VALUE OF SOIL (SEE  
GENERAL NOTES AND SPECIFICATIONS PART 1 NOTE 4)



DATE: 7-5-23

PROJECT NO: DA23-214

SHEET

1

TABLE OF CONTENTS

- Sheet 1: Cover Sheet.
- Sheet 2: Specifications, Loads applied to host and Design Pressures.
- Sheet 3: Plans.
- Sheet 4: Details.

Michael Driscoll P.E.  
FL REG #43922

Digitally signed  
by Michael E.  
Driscoll PE  
Date:  
2023.07.05  
15:27:08 -04'00



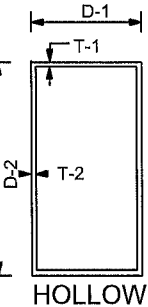
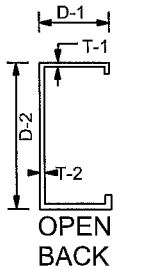
Seal

COMPONENT PROPERTIES

SELF MATING SECTIONS					MAJOR AXIS BENDING ALLOWABLE STRESS	MAJOR AXIS BENDING ALLOWABLE MOMENT	SECTION MODULUS
WIDTH	WIDTH	DEPTH	WEB	FLANGE	F <sub>bx</sub>	M <sub>F S</sub>	S <sub>x</sub>
UNITS	INCHES	INCHES	INCHES	INCHES	(ksi)	(in-kips)	
	b	d	tw	tf	F <sub>bx</sub>		S <sub>x</sub>
2"x4" SMB	2	4	0.046	0.100	9.3	9.3	1.000
2"x5" SMB	2	5	0.050	0.116	10.1	15.2	1.510
2"x6" SMB	2	6	0.050	0.120	9.1	17.6	1.944
2"x7" SMB	2	7	0.055	0.120	9.4	22.8	2.425
2"x8" SMB	2	8	0.072	0.224	16.3	72.6	4.441
2"x9" SMB (L)	2	9	0.072	0.224	15.8	76.3	4.827
2"x9" SMB (H)	2	9	0.082	0.306	18.1	110.8	6.123
2"x10" SMB	2	10	0.092	0.314	17.4	147.6	8.462

PATIO SECTIONS

2"x2"x.090	2	2	.046	.046	16.0	4.1	.245
2"x3"x.050	2	3	.050	.050	17.2	7.9	.416
2"x3"x.070	2	3	.070	.070	17.2	11.6	1.000
2"x4"x.050	2	4	.050	.050	16.3	11.6	.649
2"x5"x.050	2	5	.050	.050	15.3	15.3	1.000

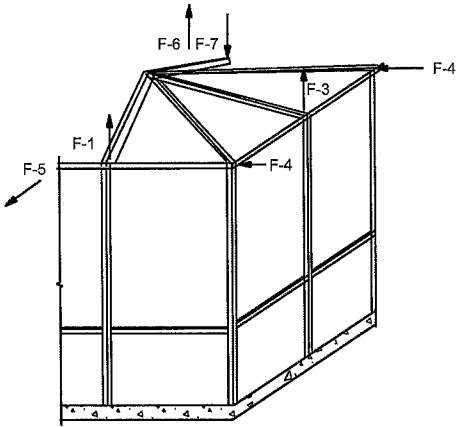


NOTES:

- A- ALL FASTENERS @ POST TO HOST CONNECTIONS SHALL BE 3/8" DIA. 1" MAX DISTANCE FROM POST. BRICK PAVERS ARE NOT CONSIDERED AS EMBEDMENT MATERIAL.  
(SEE NOTE: SHEET 1 PART 3-1)
- B- ALL FASTENERS FOR ALL OTHER CONNECTIONS TO HOST SHALL BE 1/4" DIA.  
EACH GIRT & 24" MAX SPACING 2" MIN EMBEDMENT. (SEE NOTE: SHEET 1 PART 3-1)

LOADS

F-1	UPLIFT MAIN COLUMNS	340 LBS
F-2	GRAVITY LOAD @ MAIN COLUMNS	380 LBS
F-3	UPLIFT SIDE COLUMNS	85 LBS
F-4	LATERAL LOAD MAIN WALL & HOST	1890LBS
F-5	PULL OFF FROM HOST @ BEAM	493 LBS
F-6	UPLIFT @ HOST	323 LBS
F-7	GRAVITY@ HOST	360 LBS



DRAWING L-1

PROFESSIONAL SERVICES BY DRISCOLL ENGINEERING, INC.

PLANS AND SPECIFICATIONS

The plans and specifications presented herein are applicable only for the anticipated construction at the location shown. Driscoll Engineering, Inc. (DEI) shall be immediately notified of any changes or field deviations to these plans so that the specifications and requirements can be re-evaluated. DEI shall be given the opportunity to review final plans and specifications to determine if the intent of these plans & specifications have been followed and/or if supplemental details or recommendations are required. DEI warrants that these plans & specifications and limitations as defined in these plans contained have been prepared in accordance with generally accepted professional engineering practice. No other warranties are implied or expressed.

CORPORATE PROTECTION

It is understood and agreed that DEI's Basic Services do not include project observation or review of the Contractor's performance or any other construction phase services, and that such services will be provided by the Client. The Client assumes all responsibility for interpretation of these plans & specifications and for construction observation and supervision and waives any claims against the DEI that may be in any way connected thereto.

In addition, the Client agrees, to the fullest extent permitted by law, to indemnify and hold DEI harmless from any loss, claim or cost, including reasonable attorney's fees and costs of defense, arising or resulting from the performance of such services by other person or entities and from any and all claims arising from modifications, clarifications, interpretations, adjustments or changes made to these plans & specifications to reflect changed field or other conditions, except for claims arising from the sole negligence or willful misconduct by DEI.

OWNERSHIP OF INSTRUMENTS OF SERVICE

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by DEI as instruments of service shall remain the property of DEI. DEI shall retain all common law, statutory and other reserved rights, including the copyright thereto.

DEFECTS IN SERVICE

The Client shall promptly notify DEI of any defects or suspected defects in DEI's work or services of which the Client becomes aware, so that DEI may take measures to minimize the consequences of such a defect. The Client warrants that he or she will impose a similar notification requirement on all contractors in his or her Client/Contractor contract and shall require all subcontractors at any level to contain a like requirement. Failure by the Client, and the Client's contractors or subcontractors to notify DEI, shall relieve DEI of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given.

VERIFICATION OF EXISTING CONDITIONS

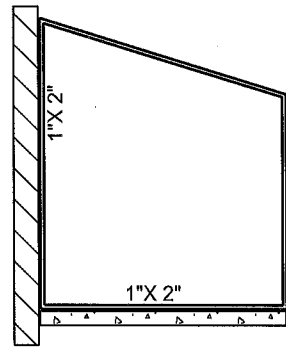
Inasmuch as the remodeling and/or rehabilitation of an existing building requires that certain assumptions be made regarding existing conditions, and because some of these assumptions may not be verifiable without expending additional sums of money or destroying otherwise adequate or serviceable portions of the building, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the DEI harmless from any claim, liability or cost (including reasonable attorney's fees and costs of defense) for injury or economic loss arising or allegedly arising out of the professional services provided by these plans & specifications, excepting only those damages, liabilities, or costs attributable to the sole negligence or willful misconduct of DEI.

SHEET

2

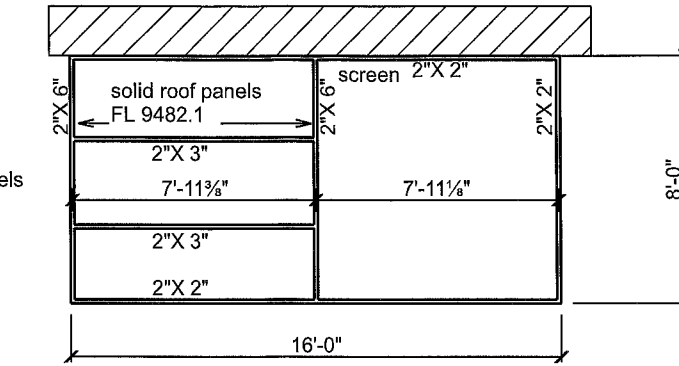
MICHAEL E. DRISCOLL P.E.  
FL REG. #43922

RELYEA  
19492 S US HWY 441  
HUGH SPRINGS, FL DA23-214

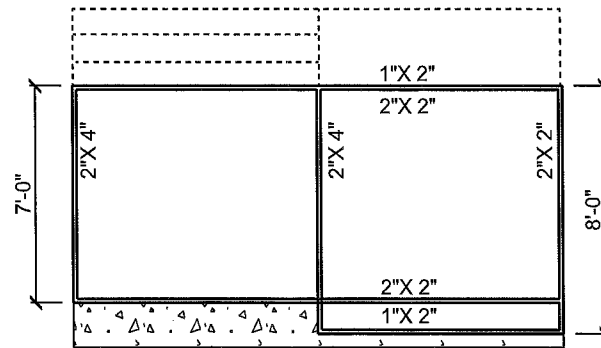


ELEVATION

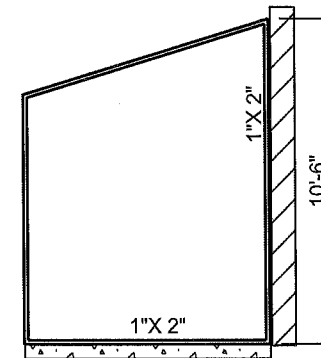
aluminum structure shall  
be protected from metal roof panels  
w/ rubber or neoprene



PLAN VIEW



ELEVATION



ELEVATION

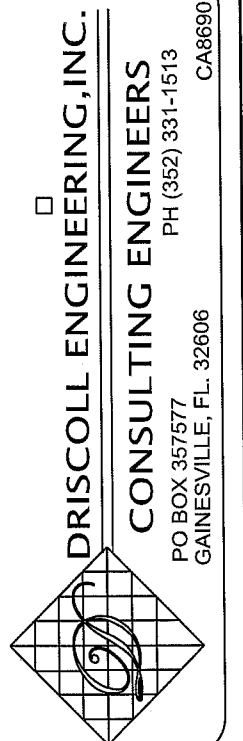
MICHAEL E. DRISCOLL P.E.  
FL REG. #43922

sheet:

3

PROJECT:

RELYEA  
19492 S US HWY 441  
HUGH SPRINGS, FL DA23-214



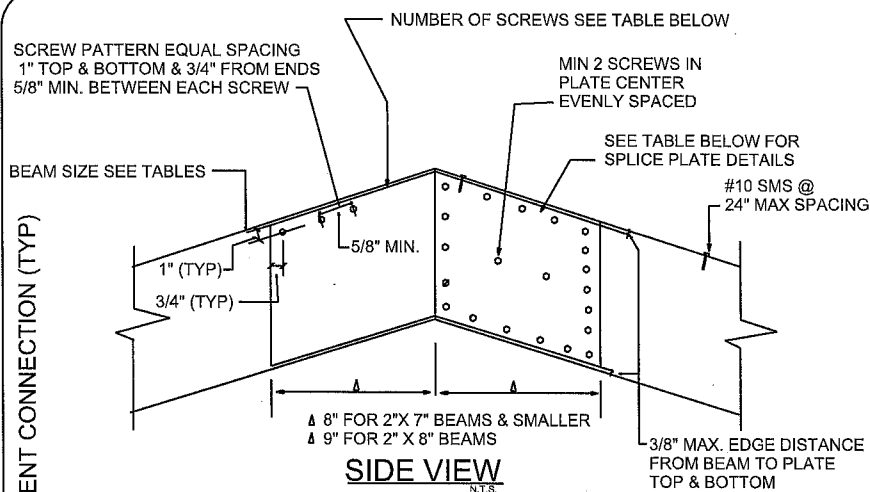
DRISCOLL ENGINEERING, INC.

CONSULTING ENGINEERS

PO BOX 357577  
GAINESVILLE, FL. 32606

PH (352) 331-1513

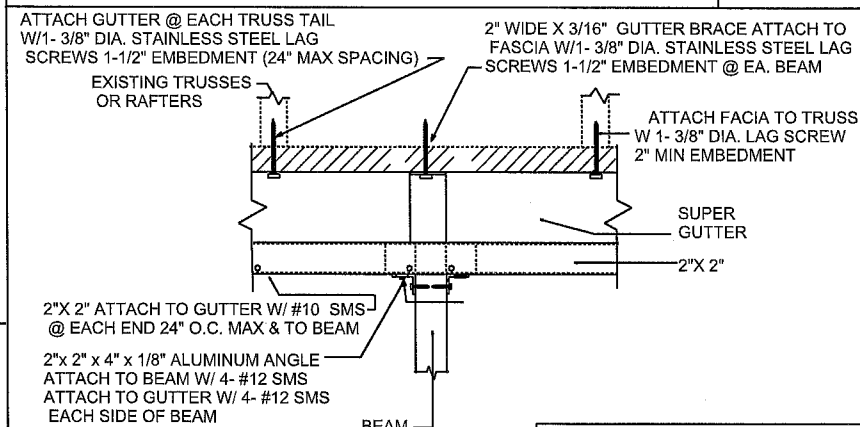
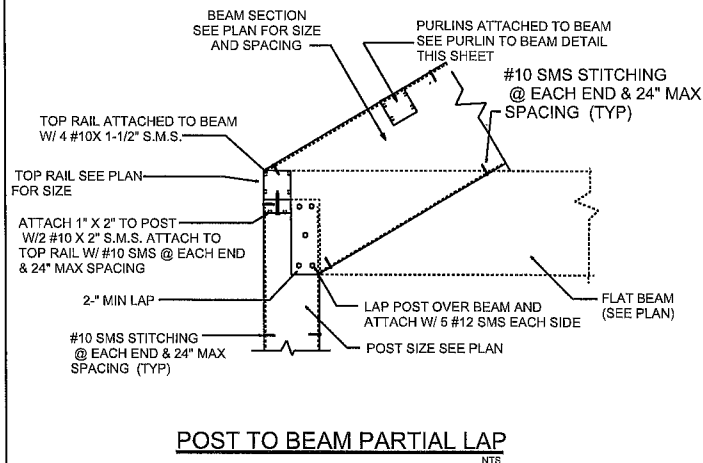
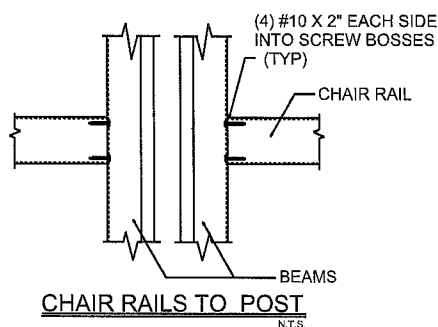
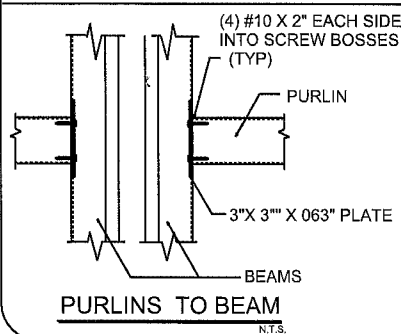
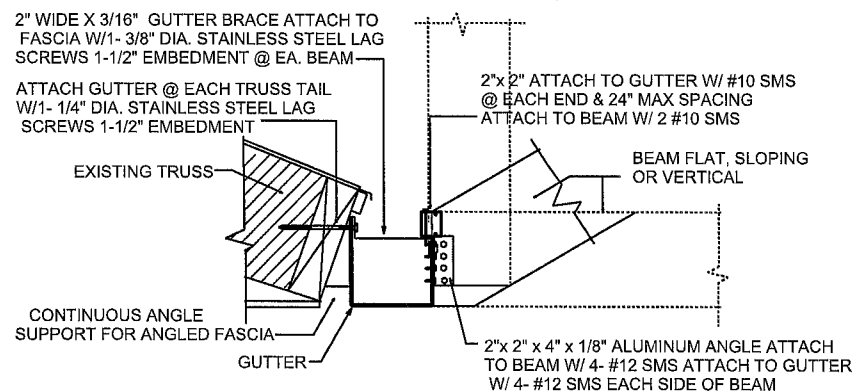
CA8690



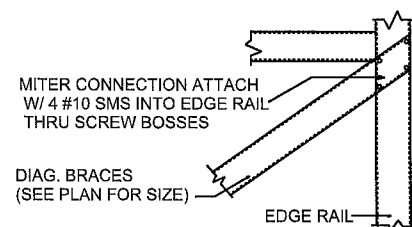
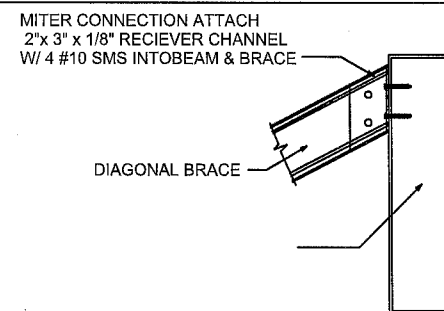
BEAM SIZE	PLATE THICKNESS	#14 SCREWS PER END	# 14 SCREWS PER SIDE
2"X 5"X 0.050X 0.116 SMB	1/4"	12	24
2"X 6"X 0.050X 0.120 SMB	3/16"	14	28
2"X 7"X 0.050X 0.120 SMB	3/16"	14	28
2"X 8"X 0.072X 0.224 SMB	3/16"	16	32
2"X 9"X 0.082X 0.306 SMB	3/16"	16	32

ALL MITERED BEAM SPLICES SHALL BE MOMENT CONNECTIONS  
**MITERED BEAM SPLICE DETAIL SEE PLAN FOR SIZE**  
N.T.S.

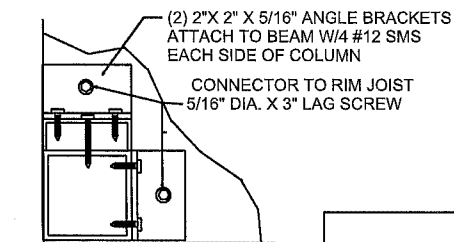
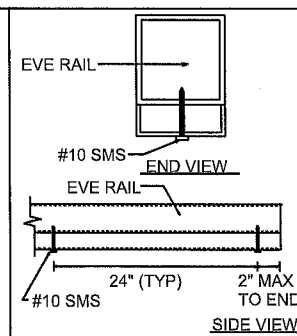
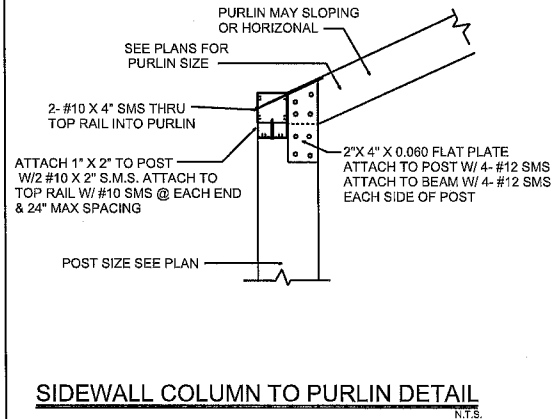
ALL SPLICE PLATE MATERIAL  
TO BE 6061 T6 OR 5052H32  
CONNECTION MAY BE ROTATED FOR MANSARD GABLE OR HIP CONNECTIONS



**BEAM CONNECTION TO SUPER GUTTER**  
PLAN VIEW 5" GUTTER ONLY

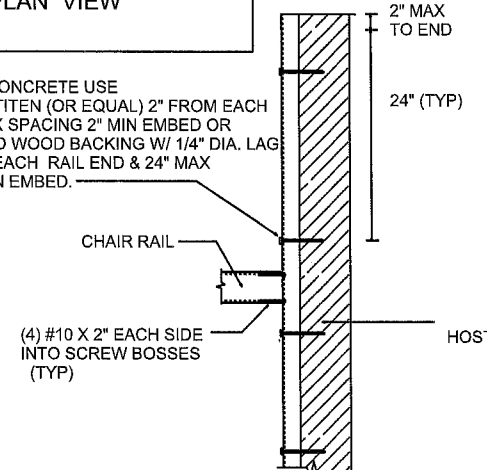


**DIAGONAL ROOF BRACE DETAIL**  
PLAN VIEW

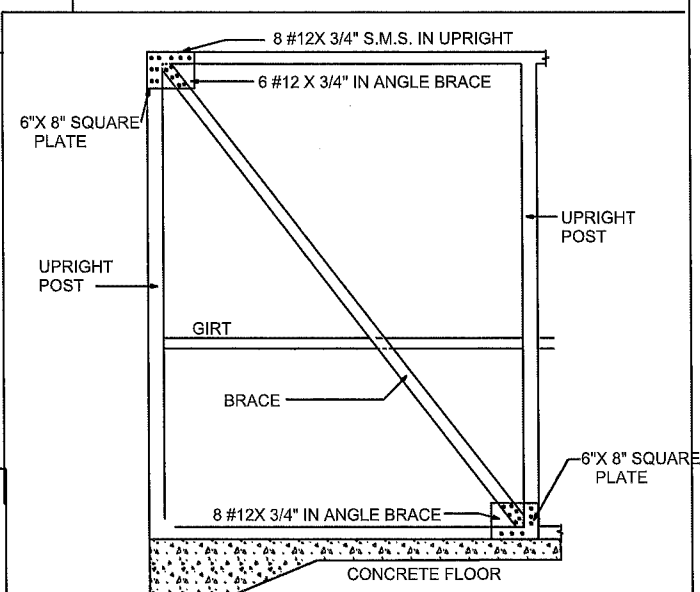
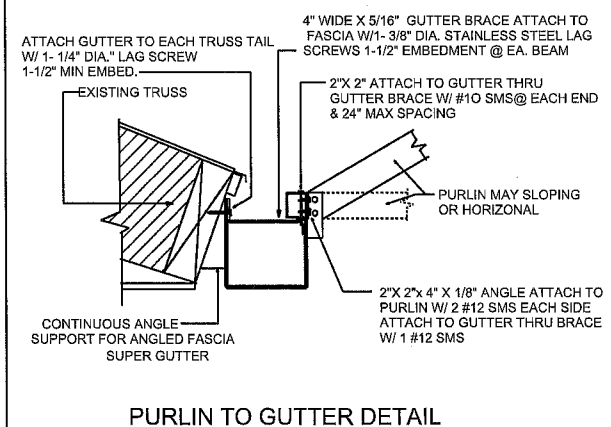


**CORNER POST DETAIL**  
PLAN VIEW

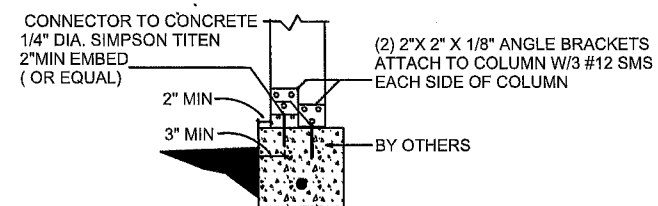
CONNECTOR TO CONCRETE USE  
1/4" DIA. SIMPSON TITEN (OR EQUAL) 2" FROM EACH  
RAIL END & 24" MAX SPACING 2" MIN EMBED OR  
CONNECT TO SOLID WOOD BACKING W/ 1/4" DIA. LAG  
SCREWS 2" FROM EACH RAIL END & 24" MAX  
SPACING 1-1/2" MIN EMBED.



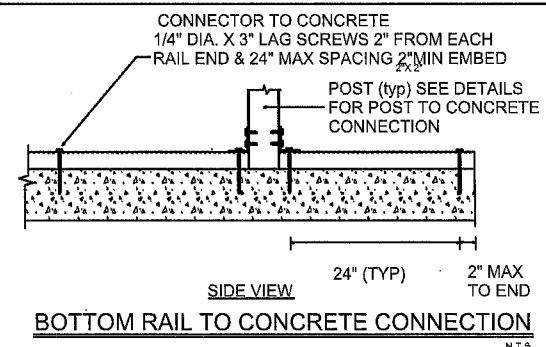
**RAIL TO HOST @ CHAIR RAIL CONNECTION**  
WOOD OR MASONRY HOST CHOOSE CONNECTOR THAT IS APPLICABLE  
N.T.S.



K BRACES SHALL BE INSTALLED OUTSIDE FLUSH W/ EDGE OF STUDS



**POST TO FOOTING CONNECTION DETAIL**  
SIDE VIEW N.T.S.



Sheet

4

RELYEA  
19492 S US HWY 441  
HUGH SPRINGS, FL DA23-214

DRISCOLL ENGINEERING, INC.  
CONSULTING ENGINEERS  
PO BOX 357577  
GAINESVILLE, FL. 32606  
CA8690