DESIGN CRITERIA AND LOADS

Building Code
8th Edition (2023) Florida Building - Residential, Existing

Code for Design Loads
ASCE / SEI 7-22

Construction Type
REPAIR (< 20% of AREA)

ROOF LOADING

TOP CHORD LIVE LOAD *	20 psf
TOP CHORD DEAD LOAD	10 psf
BOTTOM CHORD LIVE LOAD *	10 psf
BOTTOM CHORD DEAD LOAD	5 psf
BOTTOM CHORD LIVE LOAD (STORAGE)**	20 psf

* CONCURRENTLY LOADED LIVE LOADS MAY BE REDUCED PER FBC 1605.3.1.1
** WHERE 2 OR MORE ADJACENT TRUSSES ARE CAPABLE OF ACCOMODATING 24"x42" BOX WITHIN PLANE OF TRUSS.

WIND LOADING (Cd= 1.60)

ASCE 7-22, 3 SEC. GUST	
ULTIMATE DESIGN WIND SPEED, V_{ult}	129 mph
NOMINAL DESIGN WIND SPEED, V_{asd}	101 mph
EXPOSURE CATEGORY	B
RISK CATEGORY	II
ENCLOSURE CLASSIFICATION	ENCLOSED
INTERNAL PRESSURE COEFF	0.18
C&C DESIGN PRESSURES	SEE TABLE(s) BELOW
MEAN ROOF HEIGHT	25'
ROOF ANGLE, Θ	23° (5:12)

*** VALUES SHOWN IN TABLE(s) BELOW INCLUDE THE 0.6 LOAD REDUCTION FACTOR FOR ALLOWABLE STRESS DESIGN (ASD) IN ACCORDANCE WITH THE 8th EDITION (2023) FBC R301.2.1.6. NO FURTHER REDUCTIONS ARE PERMITTED.

FEMA FLOOD INFORMATION PER FBC 1603.1.7

FIRM MAP ITEM ID	12023C0401C
EFFECTIVE DATE	02/04/2009
FLOOD ZONE	X

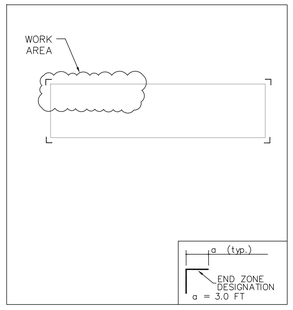

TABLE 1 COMPONENT AND CLADDING DESIGN PRESSURES (ROOF)

Zone Designation / Effective Wind Area	1 (psf)		2e (psf)		2r (psf)		3 (psf)	
0 - 10 sq. ft.	+27.4	-29.94	+27.4	-55.3	+27.4	-55.3	+27.4	-57.3
11 - 20 sq. ft.	+26.63	-28.41	+26.63	-53.78	+20	-53.78	+20	-55.78
21 - 50 sq. ft.	+25.33	-26.39	+25.33	-51.76	+25.33	-51.76	+25.33	-51.76
51 - 100 sq. ft.	+24.86	-24.86	+24.86	-50.23	+24.86	-50.23	+24.86	-50.23

TABLE 2 COMPONENT AND CLADDING DESIGN PRESSURES (ROOF OVERHANG)

Zone Designation / Effective Wind Area	1 (psf)	2e (psf)	2r (psf)	3 (psf)
0 - 10 sq. ft.	-53	-61	-76	-85
11 - 20 sq. ft.	-48	-53	-66	-69
21 - 50 sq. ft.	-42	-38	-44	-42
51 - 100 sq. ft.	-39	-37	-42	-42

LEGEND AND FRAMING NOTES:

(UNO)	UNLESS NOTED OTHERWISE ON PLAN OR DETAIL
EOR	ENGINEER OF RECORD

NAILS

- INSTALL COMMON NAILS UNLESS OTHERWISE SPECIFIED
- COMMON WIRE NAILS AND THREADED HARDENED STEEL NAILS SHALL CONFORM TO THE NOMINAL SIZES SPECIFIED IN ASTM F1667. NOMINAL DIAMETER SIZES APPLY TO FASTENERS BEFORE APPLICATION OF PROTECTIVE COATING.
- WHEN A BORED HOLE IS REQUIRED TO PREVENT SPLITTING OF A WOOD DUE TO FASTENER PENETRATION, THE BORED HOLE SHALL NOT EXCEED 75% OF THE NAIL OR SPIKE DIAMETER
- THE NOMINAL DIAMETER AND LENGTH OF TYPICAL FASTENERS SPECIFIED FOR THIS PROJECT ARE AS LISTED IN TABLE 2 BELOW

TABLE 2: NAIL SIZE LEGEND

	DIAMETER	LENGTH
8d COMMON	0.131"	2½"
8d RINGSHANK	0.120"	2½"
10d x 1½"	0.148"	1½"
10d COMMON	0.148"	3"
12d COMMON	0.148"	3¼"
16d SINKER	0.148"	3¼"
16d COMMON	0.162"	3½"

TABLE 3: FASTENERS IN PRESSURE TREATED LUMBER

PRESERVATIVE	
ACQ & NON-DOT BORATE	CONNECTORS MUST HAVE Z-MAX, G120 OR TRIPLE ZINC COATED FINISH. ALL FASTENERS MUST BE HOT DIPPED GALVANIZED.
SODIUM BORATE	STANDARD FINISH IS ACCEPTABLE (UNO)
ACZA	NOT RECOMMENDED. STAINLESS CONNECTORS AND FASTENERS REQUIRED.

TABLE 4: SIMPSON METAL CONNECTOR SCHEDULE

H2.5	(5) 8d COMMON IN RAFTER (5) 8d COMMON IN TOP PLATE	HTS16	10d, FILL ALL HOLES
H3	(4) 8d COMMON IN RAFTER (4) 8d COMMON IN STUD	SPH4 / SPH6	(12) 10d x 1.5" NAILS IN STUD
H8	(5) 10dx1-½" COMMON IN RAFTER (5) 10dx1-½" COMMON IN PLATE	SSP	(4) 10d COMMON IN STUD (1) 10d COMMON IN PLATE
HTT4 (NOTE 1)	(18) 16d COMMON IN STUD ⅝" Ø x 6" EMBED ANCHOR IN CONCRETE	A35	(12) 8d x 1-½" COMMON NAILS
HTT5 (NOTE 1)	(32) 16dSINKERS IN STUD ⅝" Ø x 6" EMBED ANCHOR IN CONCRETE	HUS26	(14) 16d SINKERS IN HEADER (6) 16d SINKERS IN JOIST
HDQ8-SDS3	(20) SDS ¼ x 3 SCREWS IN STUD GROUP ⅞" Ø x 12" EMBED ANCHOR IN CONCRETE	HU410	(18) 16d COMMON IN HEADER (10) 10d COMMON IN BEAM
LGT2	(14) 16d SINKER IN WALL FRAMING (16) 16d SINKER IN TRUSS	HUC410	(18) 16d COMMON IN HEADER (10) 10d COMMON IN BEAM
MGT	(22) 10d COMMON IN GIRDER	STHD14	(38) 16d SINKERS INTO STUDS (WET EMBED)
MSTA12	(10) 10d COMMON		
MSTA24	(18) 10d COMMON		
MSTA36	(26) 10d COMMON		
HTS20	(12) 10d x 1.5" COMMONS IN RAFTER (12) 10d x 1.5" COMMONS IN STUD		

NOTE 1: ANCHOR EMBED IN CMU TO BE 12-INCHES

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FL Cert. of Auth. No.: 30597

BEDENBAUGH
6484 US 441
LAKE CITY, FL 32025

SHEET NO.: S-1
Structural Summary
JOB NO.: 25_4
SUBDIVISION:
LOT NO.:
ADDRESS:
DESIGNED: AFL
REVIEWED: AFL

REVISIONS	DATE

ANDRES F. LOPERA LICENSE No. 70791 STATE OF FLORIDA PROFESSIONAL ENGINEER

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PE # 70791
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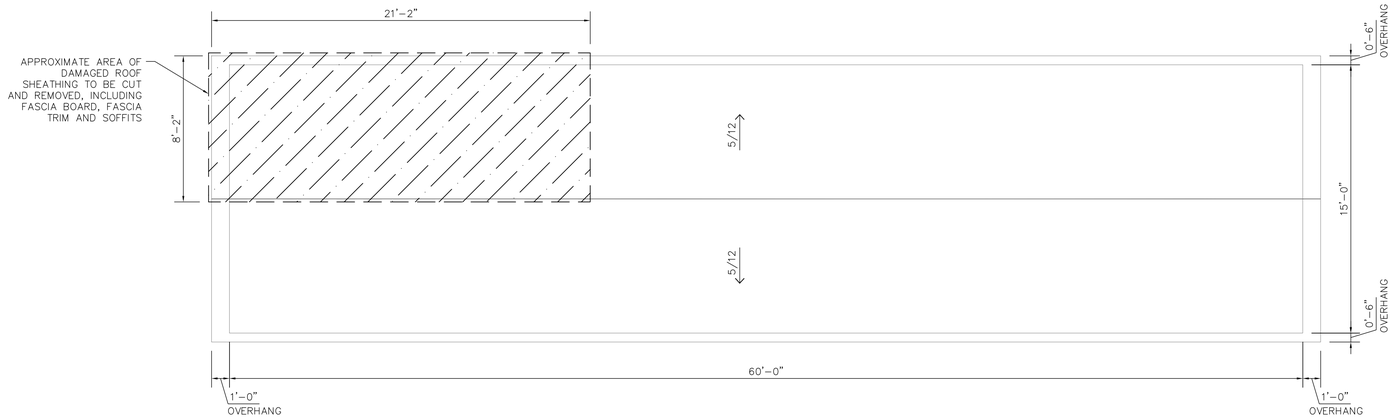
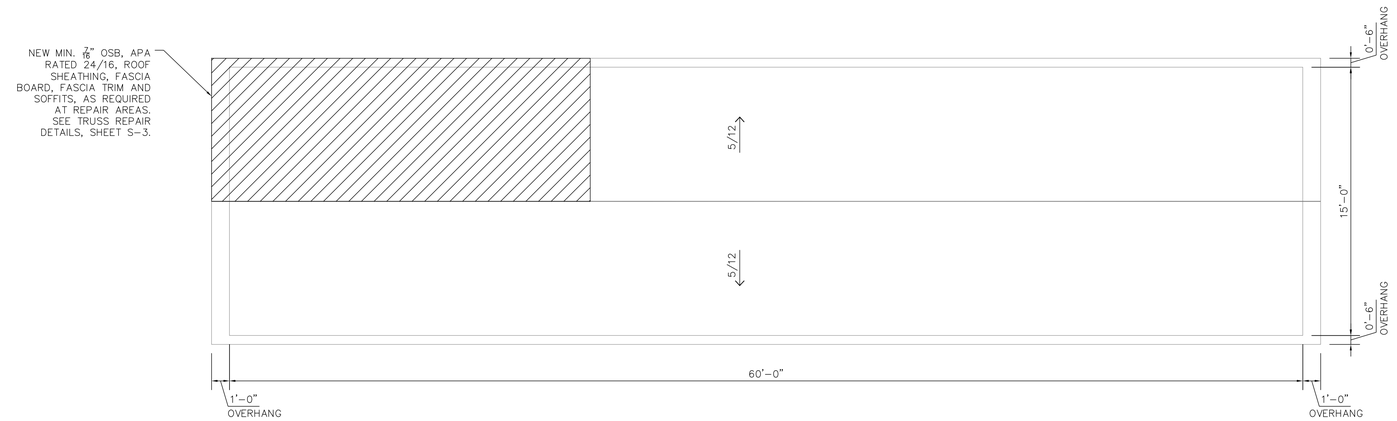
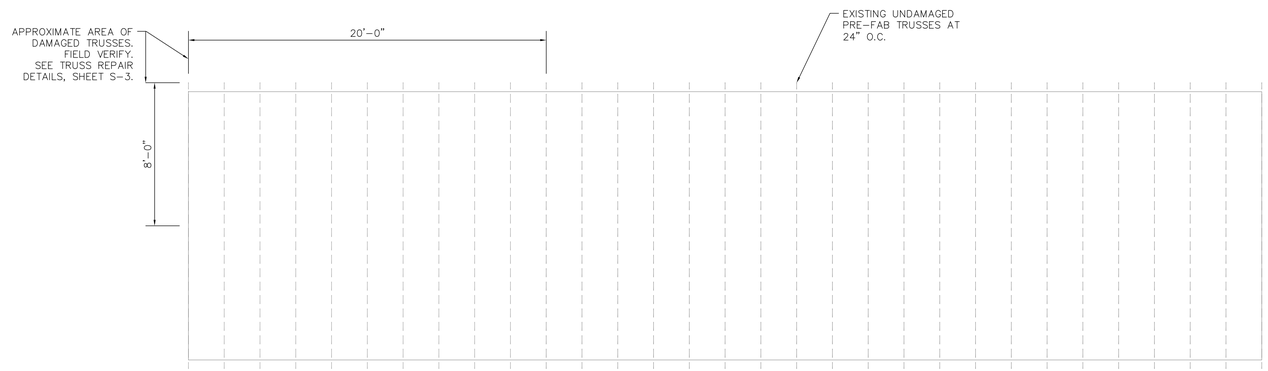


EXISTING ROOF SHEATHING PLAN 1/4"= 1'-0"



NEW ROOF SHEATHING PLAN 1/4"= 1'-0"



TRUSS PLAN – REPAIR 1/4"= 1'-0"

GENERAL PLAN NOTES:

1. FOR GENERAL NOTES AND KEYNOTE SPECIFICATIONS, SEE SHEET S-1.
2. FASTEN ALL MULTI-PLY STUD COLUMNS W./ (2) ROWS 10d COMMON @ 8" O.C. STAGGERED.
3. ALL LUMBER SPECIFIED ON DRAWINGS IS INTENDED FOR DRY USE ONLY, UNO. ALL WATERPROOFING AND FIRE SAFETY SYSTEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHERS.
4. ALL METAL CONNECTORS SPECIFIED ON PLAN ARE IN ADDITION TO FRAMING FASTENER REQUIREMENTS LISTED IN FLORIDA BUILDING CODE TABLE 2304.9.1 FASTENING SCHEDULE.
5. ALL WATERPROOFING AND FLASHING DETAILS TO BE DESIGNED AND DETAILED BY OTHERS.
6. ALL DIMENSIONS SHOWN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

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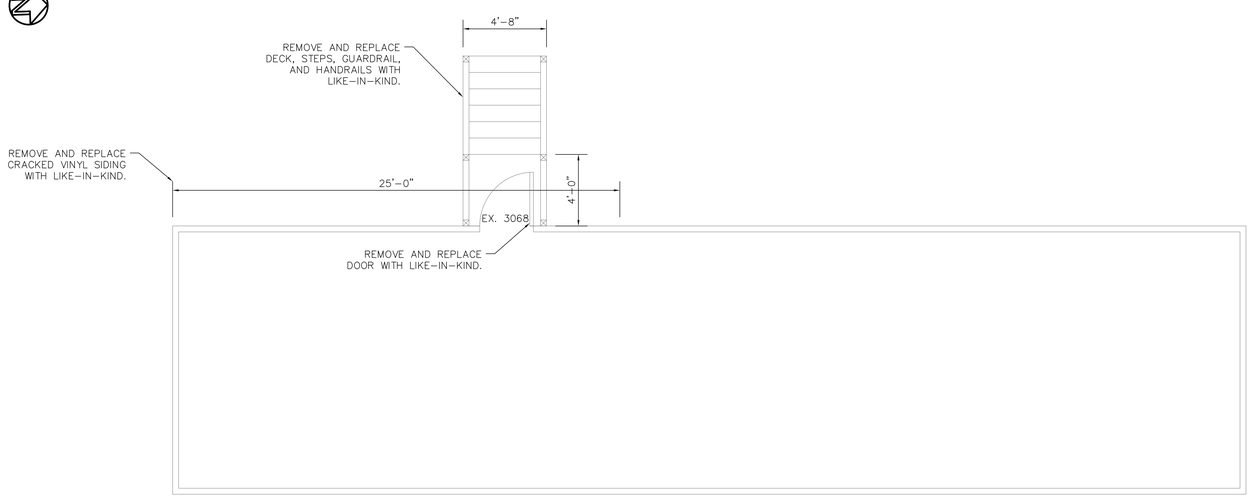

EXISTING FLOOR PLAN 1/4"= 1'-0"

NOTE: ALTHOUGH THE ITEMS FOR REPAIR ON THIS PLAN MAY BE OUTSIDE THE SCOPE OF WORK FOR THE ROOF REPAIRS, THESE WILL REQUIRE REPLACEMENT TO PROTECT THE STRUCTURAL INTEGRITY OF THE WALL SYSTEM AND FOR SAFE EGRESS FOR THE REAR ENTRANCE TO THE PROPERTY. REPAIR OF THESE ITEMS SHALL NOT PREVENT THE CLOSE-OUT OF THE ROOFING PERMIT.

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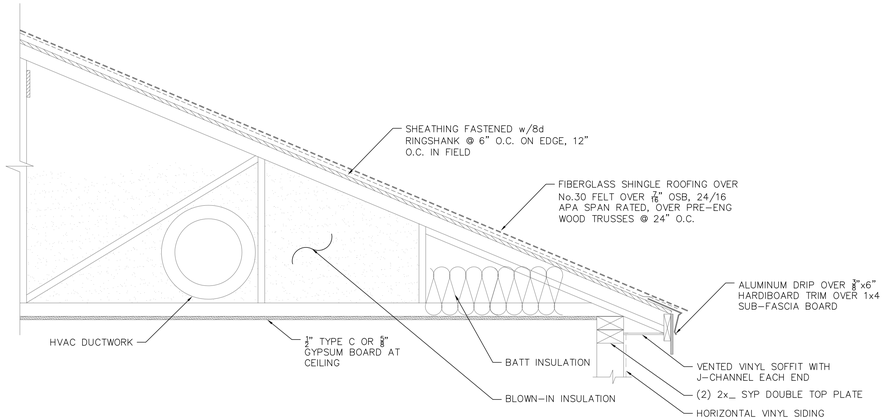
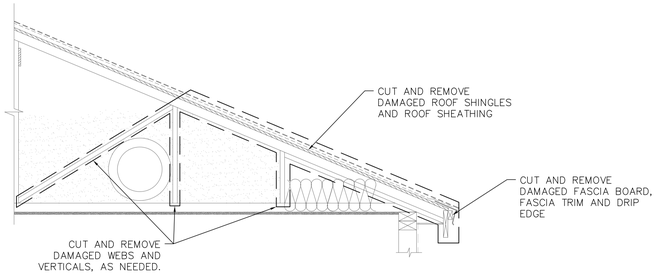
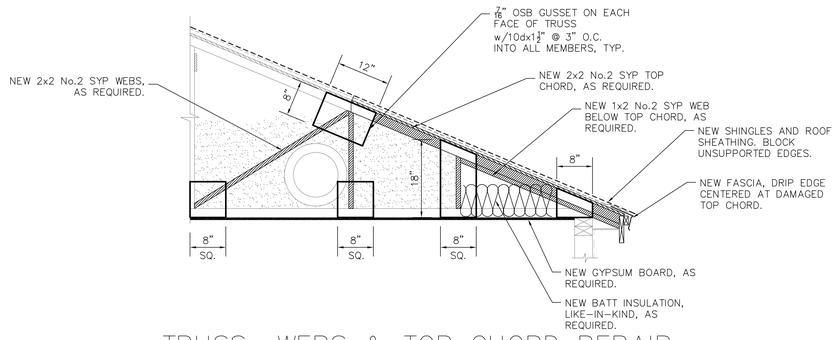


TYPICAL TRUSS SECTION



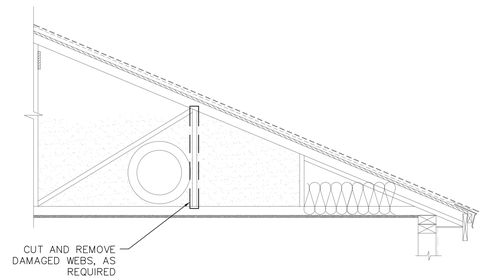
TRUSS: WEBS & TOP CHORD DEMO

1. CUT, REMOVE AND REPLACE DAMAGED ROOF SHEATHING, FASCIA BOARD, FASCIA TRIM AND SOFFITS
2. CUT, REMOVE AND REPLACE DISCOLORED AND MOISTURE DAMAGED BLOWN-IN INSULATION AND BATT INSULATION
3. CUT, REMOVE AND REPLACE DAMAGED HVAC DUCTS



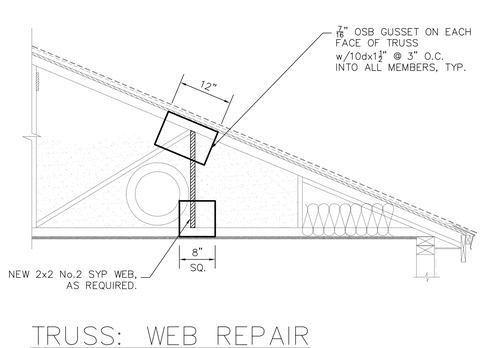
TRUSS: WEBS & TOP CHORD REPAIR

CAUTION: TRUSS MEMBERS ARE 2x2 AND 1x2 AND MAY SPLIT DURING THE INSTALLATION OF THE WOOD GUSSET PLATES. IF THIS OCCURS, DRILL PILOT HOLES PRIOR TO INSTALLATION OF NAILS INTO EXISTING TRUSS MEMBERS.



TRUSS: WEB DEMO

1. CUT AND REMOVE DAMAGED ROOF SHEATHING, FASCIA BOARD, FASCIA TRIM AND SOFFITS
2. REMOVE MOISTURE DAMAGED BLOWN-IN INSULATION AND BATT INSULATION
3. CUT AND REMOVE DAMAGED HVAC DUCTS



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