

16.0 PSF MAX

-16.0 PSF MIN.

a: 10% of least horizontal dim. or 0.4h, whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft. h: mean roof height, in feet.

COMPONENTS AND CLADDING

# STRUCTURAL DESIGN CRITERIA

FLORIDA BUILDING CODE, 2010 EDITION WITH SUPPLEMENTS CODES:

BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05) SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS (ACI 301-05) BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-05)

NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2012 EDITION APA PLYWOOD DESIGN SPECIFICATION

LIVE LOADS:

WIND LOADS:

CONCRETE

MASONRY

16' WIDE O/H DR.:

20 PSF (REDUCIBLE) RESIDENTIAL FLOOR, UNLESS OTHERWISE INDICATED 40 PSF 40 PSF BALCONIES

40 PSF

20 PSF

2500 PSI

ASTM A185

ASTM A615-40 40,000 PSI

ASTM A615-40 40,000 PSI

3000 PSI

STAIRS LIGHT PARTITIONS (DEAD LOAD), U.N.O.

WIND LOADS BASED ON FBC, SECTION 1609 WIND VELOCITY: 120 M.P.H., USE FACTOR: 1.0

(F.B.C.)

ALL CONCRETE UNLESS OTHERWISE INDICATED CONCRETE PEA GRAVEL CONCRETE FOR MASONRY CELLS ONLY STRENGTH (DO NOT USE FOR CONCRETE COLUMNS OR TIE BEAMS) @ 28 DAYS

WELDED WIRE FABRIC SHALL CONFORM TO REINFORCING: ALL REINFORCING BARS

ALL STIRRUPS AND TIES ASTM C90-99b, STANDARD WEIGHT UNITS, fm=1500 PSI MORTAR TYPE "S" 1800 PSI

UNITS: CONCRETE GROUT 3000 PSI CONTINUOUS MASONRY INSPECTION IS REQUIRED DURING CONSTRUCTION ALL STRUCTURAL AND MISCELLANEOUS STEEL A36 36,000 PSI, U.N.O. STRUCTURAL

SHOP AND FIELD WELDS: E70XX ELECTRODES STEEL: ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307

BEAMS, RAFTERS, JOIST, PLATES, ETC. U.N.O. WOOD FRAMING: NO. 2 SOUTHERN YELLOW PINE (19% M.C.) ROOF DECK: PLYWOOD C-C/C-D, EXTERIOR, or OSB FLOOR SHEATHING: T&G A-C GROUP 1 APA RATED (48/24) WALL SHEATHING: PLYWOOD C-C/C-D, EXTERIOR OR OSB

VERSA LAM BEAM Fb = 2900 PSI (2.0E) WOOD COLS. PARALLAM 2.0E U.N.O.

**DESIGN LOADS: WOOD ROOF** TOP CHORD LIVE AND DEAD LOAD: 25 PSF TRUSSES: BOTTOM CHORD DEAD LOAD: 15 PSF 40 PSF

> SEE DRAWINGS FOR SPECIAL CONCENTRATED LOADS. DESIGN FOR NEW WIND UPLIFT AS PER SPECIFIED CODES, DEDUCTING A MAXIMUM OF 5 P.S.F. DEAD LOAD, BUT NOT EXCEEDING ACTUAL

DEAD LOAD.

SOIL BEARING

VALUE:

ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION: 1,500 PISF SEE SOILS REPORT AND SPECIFICATIONS FOR COMPACTION REQUIREMENTS IF SOIL CONDITIONS IN THE PROJECT DO NOT MEET OR EXCEED THE CAPACITY THE GENERAL CONTRACTOR SHALL CONTACT THE ENGINEER PRIOR TO FOUNDATION POUR FOR VERIFICATION OF FOUNDATION DESIGN.

PROJECT

LOCATION-

# CAST IN PLACE CONCRETE

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 2500 PSI, A SLUMP OF 6" PLUS OR MINUS 1", AND HAVE 2 TO 5% AIR ENTRAINMENT AND A MAXIMUM WATER/CEMENT RATIO OF 0.63

2. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC **DEFORMED BILLET STEEL CONFORMING TO ASTM A-615** GRADE 40.

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE WITHIN THE 6".

4. HOOKS SHALL BE PROVIDED AT DISCONTINUOUS ENDS OF ALL TOP BARS OF BEAMS.

5. HORIZONTAL FOOTING BARS SHALL BE BENT 1'-0" AROUND CORNERS OR CORNER BARS WITH A 2'-0" LAP PROVIDED 6. MINIMUM LAP SPLICES ON ALL REINFORCING BAR

SPLICES SHALL BE 40 BAR DIAMETERS TYP. 7. CONCRETE COVER MIN. 3" WHEN EXPOSED TO EARTH OR 1 1/2" TO FORM

# MASONRY WALL CONST.

1. HOLLOW LOAD BEARING UNITS SHALL BE NORMAL WEIGHT, GRADE N, TYPE 2, CONFORMING TO ASTM C90, WITH A MINIMUM NET COMPRESSIVE STRENGTH OF 1900 PSI (fm = 1350 PSI)

2. MORTAR SHALL BE TYPE "M" OR "S", CONFORMING TO ASTM C270.

3. COARSE GROUT SHALL CONFORM TO ASTM C476 WITH A MAXIMUM AGGREGATE SIZE OF 3/8" AND A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI SLUMP 8" TO 11".

4. VERTICAL REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS WITH THE CELLS FILLED WITH COARSE GROUT 5. VERTICAL REINFORCEMENT SHALL BE HELD IN POSITION

AT THE TOP AND BOTTOM AND AT A MAXIMUM SPACING OF 192 BAR DIAMETERS. REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MASONRY CELL TYPICAL UNLESS OTHERWISE NOTED. 6. REINFORCING STEEL SHALL BE LAPPED A MINIMUM OF 40 BAR

DIAMETERS, UNLESS OTHERWISE NOTED ON THE DRAWINGS 7. GROUT STOPS SHALL BE PROVIDED BELOW BOND BEAM. PLASTIC SCREEN METAL LATH STRIP OR CAVITY CAPS MAY BE USED TO PREVENT THE FLOW OF GROUT INTO CELLS THE USE OF FELT PAPER AS A STOP IS PROHIBITED.

MARKER! TO VERIFY REQUIRED SETBACKS.

ASTM - 11557 (MODIFIED AROCTOR)

FOUNDATION INSPECTIONS A FOUNDATION SURVEY SHALL BE PERFORMED AND A COPY OF THE SURVEYSHALL BE ON SITE FOR THE BUILDING INSPECTIORS USE, ORALL PROPERTY MARKERS SHALL BE

EXPOSEID AND A STRING STRECHED FROM MARKER TO

# WOOD CONSTRUCTION

1. WOOD) CONSTRUCTION SHALL CONFORM TO THE NEPA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", LATEST EDITION.

2. ALL EXTERIOR WOOD STUD WALLS, BEARING WALLS, SHEAR WALLS AND MISC. STRUCTURAL WOOD FRAMING MEMBERS. (I.E. BLOCKING OR CABLE END BRACING ) SHALL BE EITHER SOUTHERN PINE, OR S.P.F. NUMBER 2 GRADE SHALL BE USED IREGARDLESS OF SPECIES.

3. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IIN THE CENTER OF THE STUD UP TO 1" DIA. SHALL HAVE STUD PROTECTION SHIELDS FOR ALL HOLES OVER 1" IN DIA. FOR PLUMBING LINES ETC. SHALL BE REPAIRED WITH SIMPSO)N HSS2 STUDSHOES, TYP., U.N.O.

### WOOD) FRAMING INSPECTION

ALL PL.UMBING, ELECTRICAL, AND MECHANICAL ROUGH-INS MUST BE COMPLETE, INSPECTED AND APPROVED BEFORE REQUESTING FRAMING

### UPLIFT CONNECTORS

UPLIFIT CONNECTORSSUCH AS HURRICANE CLIPS, TRUSS ANCHORS AND ANCHOR BOLTS ARE ONLY REQUIRED ON MEMBIERS IN WALLS THAT ARE EXPOSED TO UPLIFT FORCES. INTERIOR LOAD BEARING WALLS ARE NOT ALWAYS EXPOSED TO UPILIFT FORCES. THE MEMBERS OF THESE WALLS WOULD NOT NIEED TO HAVE CONNECTORS APPLIED. PLEASE CONSULT THE TRUSS ENGINEERING FOR THE LOCATION OF THESE WALLS.

### PREFABRICATED WOOD TRUSSES

1. ALL PREFABRICATED WOOD TRUSSES SHALL BE SECURELY FASTENED TO THEIR SUPPORTING WALLS OR BEAMS WITH

HURRICANE CLIPS OR ANCHORS. 2. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER ANID ITS FASTENERS" AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

3. TRUSS MEMBERS AND CONNECTIONS SHALL BE PROPOR-TIONED ( WITH A MAXIMUM ALLOWABLE STRESS INCREASE FOR LOAD DURATION OF 25%) TO WITHSTAND THE LIVE LOADS GIVEN IN THE NOTES AND TOTAL DEAD LOAD.

4. BRIDGING FOR PRE-ENGINEERED TRUSSES SHALL BE AS REQUIRED BY THE TRUSS MANUFACTURER UNLESS NOTED ON THE PLANS.

5. TRUSS ELEVATIONS AND SECTIONS ARE FOR GENERAL CONFIGURATION OF TRUSSES ONLY. WEB MEMBERS ARE NOT SHOWN, BUT SHALL BE DESIGNED BY THE TRUSS MANUFACTURER IN ACCORDANCE WITH THE FOLLOWING DESIGN LOADS:

6. DESIGN SPECIFICATIONS FOR LIGHT WEIGHT METAL PLATE CONNECTED WOOD TRUSSES PER THE TRUSS PLATE INSTITUTE TPI LATEST EDITION.

7. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH SPECIFIED LOADS AND GOVERNING CODES . SUBMITTALS SHALL INCLUDE TRUSS FRAMING PLANS AND DETAILS SHOWING MEMBER SIZES. BRACING, ANCHORAGE, CONNECTIONS, TRUSS LOCATIONS, AND AND PERMANENT BRACING AND/OR BRIDGING AS REQUIRED FOR ERECTION AND FOR THE PERMANENT STRUCTURE. EACH SUBMITTAL SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED STRUCTURAL ENGINEER. SUBMIT 3 COPIES FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

8. THE TRUSS MANUFACTURER SHALL DETERMINE ALL SPANIS WORKING POINTS, BEARING POINTS, AND SIMILAR CONDITIONS. TRUSS SHOP DRAWINGS SHALL SHOW ALL TRUSSES, ALL BRACING MEMBERS, AND ALL TRUSS TO TRUSS HANGERS...



#### **ABBREVIATIONS**

	7,00	INL VIATIONS		
A.B. Anchor Bolt Abv. Above A/C Air-Conditioner Adj. Adjustable A.F.F. Above Finished Floor A.H.U. Air Handler Unit ALT. Alternate B.C. Base Cabinet B.F. Bifold Door Bk Sh Book Shelf Bm. Beam BOT. Bottom B.P. Bypass door Brg. Bearing Cir. Circle Clg. Ceiling Col. Column Comp. A/C Compressor C.T. Ceramic Tile D Dryer Dec. Decorative Ded. Dedicated Outlet Dbl. Double Dia. Diameter Disp. Disposal Dist. Distance D.S. Drawer Stack D.V. Dryer Vent D.W. Dishwasher Ea. Each E.W. Each Way Elec. Electrical Elev. Elevation Ext. Exterior Exp. Expansion F.B.C. Florida Bldg. Code Fin. Flr. Finished Floor F.G. Fixed Glass	Flr. Fdn. Flr. Sys. F.Pl. Ft. Ftg. FX Galv. G.C. G.F.I. Hdr. Hgt. HB Int. K/Wall K.S. Laun. Lav. L.F. L.T. Mas. Max M.C. Micro. Mir. Mono N.T.S. Opn'g. Opt. Pc. Ped. P.L.	Floor Foundation	Plt. Ht. Plt Sh. PSF P.T. Pwd. Ref. Req'd. Rm. R/SH SD. S.F. Sh. S.P.F. S.Y.P. Temp. T.O.B. T.O.P. Trans. Typ. UCL U.N.O. VB Vert. VTR W W/C W.A. Wd WP	Plate Height Plant Shelf Pounds per square foot Pressure Treated Powder Room Radius Refrigerator Required Room Round Rod and Shelf Smoke Detector Square Ft. Shelves Sheet Side Lights Spruce Pine Fir Square Southern Yellow Pine Tempered Thicken Top of Block Top of Masonry Top of Plate Transom Window Typical Under Cabinet Lighting Unless Noted Otherwise Vanity Base Vertical Versalam Vent through Roof Washer With Water Closet Wedge Anchor Wood Water Proof

## GENERAL PLAN NOTES

#### CONSTRUCTION DOCUMENTS

THE CUSTOMER IS RESPONSIBLE FOR DELIVERING THE REQUIRED SETS OF CONSTRUCTION DOCUMENTS TO THE PERMIT ISSUING AUTHORITIES, FOR THE ISSUANCE OF CONSTRUCTION PERMITS. THE CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS AND VERIFY ALL DIMENSIONS. ANY DIS-CREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY WORK OR FABRACATION OF ANY MATERIALS.

DO NOT SCALE OFF THESE PLANS

AMPLE DIMENSIONS ARE SHOWN ON THE PLANS TO LOCATE ALL ITEMS. SIMPLE ARITHMETIC MAY BE USED TO DETERMINE THE LOCATIONS OF THOSE ITEMS NOT DIMENSIONED.

# CHANGES TO FINAL PLAN SETS

PLEASE DO NOT MAKE ANY STRUCTURAL CHANGES TO THESE PLANS WITHOUT CONSULTING WITH THE ARCHITECT. THE OWNER SHALL ASSUME ANY AND ALL LIABILITY FOR STRUCTURAL DAMAGE RESULTING FROM CHANGES MADE TO THE PLANS OR BY SUBSTITUTION OF MATERIALS DIFFERENT FROM SPECIFICATION ON THE PLANS.

INORGANIC ARSENICAL PRESSURE TREATED WOOD

SOME FRAMING MATERIALS SPECIFIED FOR THE CONSTRUCTION OF YOUR PROJECT SUCH AS SILLS OR EXTERIOR FRAMING ARE PRESSURE TREATED. EACH PIECE IS CLEARLY MARKED FOR EASY IDENTIFICATION AND IS USUALLY GREENISH IN COLOR.

THIS WOOD HAS BEEN PRESERVED BY PRESSURE-TREATMENT WITH AN EPA-REGISTERED PESTICIDE CONTAINING INORGANIC ARSENIC TO PROTECT IT FROM INSECT ATTACK AND DECAY. EXPOSURE TO TREATED WOOD MAY PRESENT CERTAIN HAZARDS, THEREFORE, PRECAUTIONS SHOULD BE TAKEN BOTH WHEN HANDLING THE TREATED WOOD AND IN DETERMINING WHERE TO USE OR DISPOSE OF THE TREATED WOOD.

FOR FURTHER INFORMATION ON THE USE OF AND DISPOSAL OF INORGANIC ARSENIC PRESSURE TREATED WOOD, PLEASE REFER TO THE EPA MATERIAL SAFETY SHEET DEALING WITH THIS PRODUCT.

# **INDEX OF SHEETS**

SHEET NUMBER

**DESCRIPTION** 

A-1 A-2

A-3

PROPOSED ROOF PLAN SECTIONS AND FRAMING DETAILS STRUCTURAL DETAILS

REVISIONS DATE BY DESCRIPTION DATE BY DESCRIPTION



CERTIFICATE OF AUTHORIZATION NO. 28022

> P.O. BOX 970 LAKE CITY, FL 32056 PHONE: 386.754.4085



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APPROVED BY:

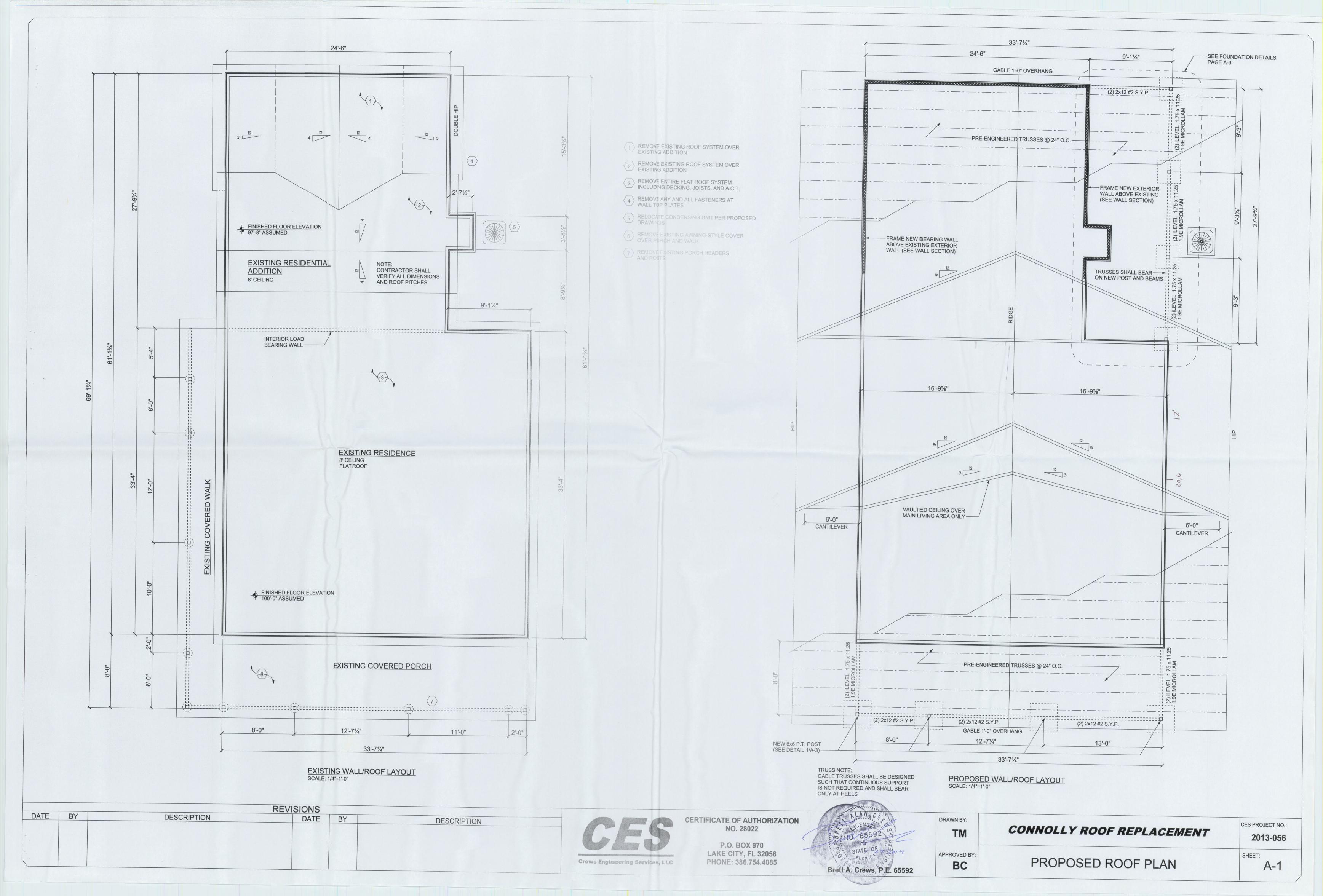
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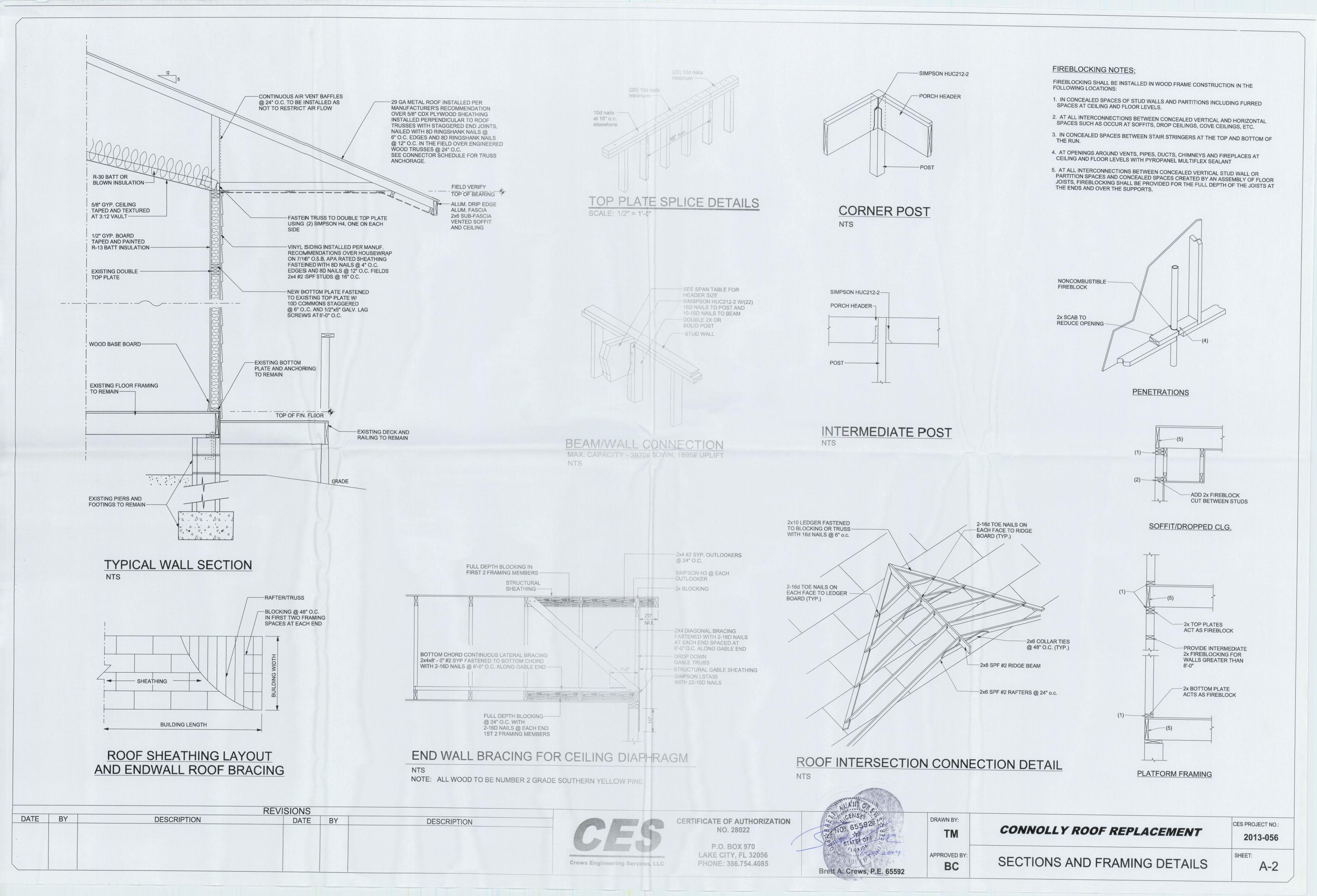
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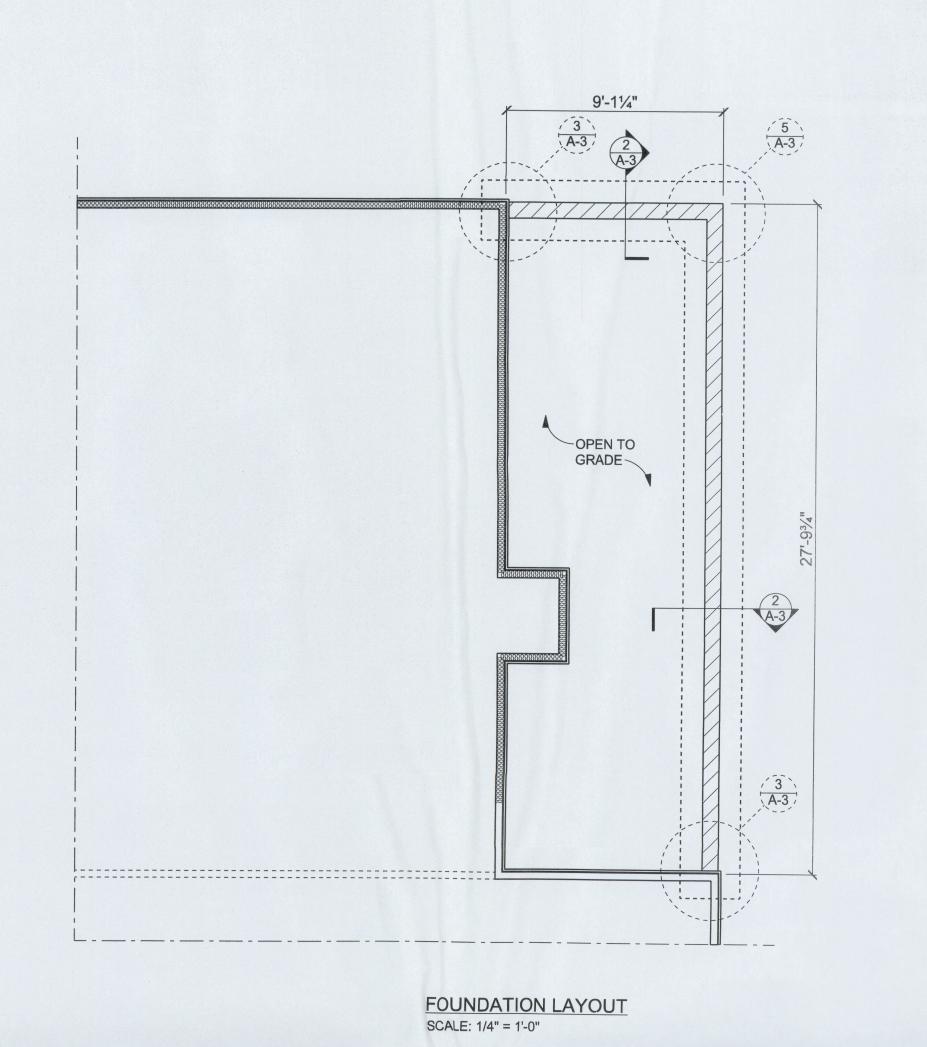
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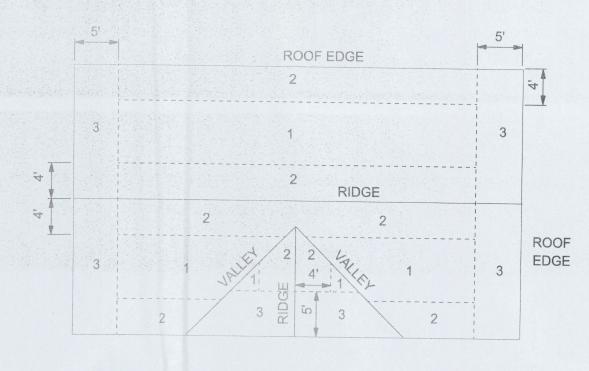
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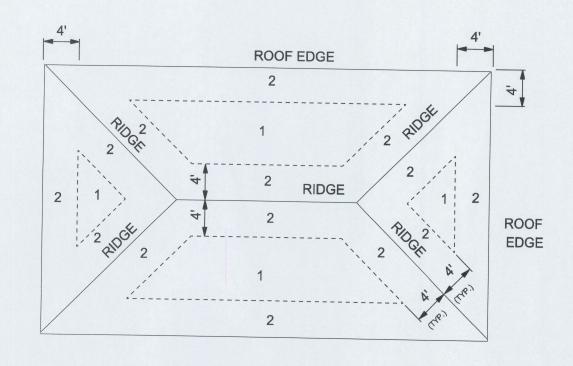








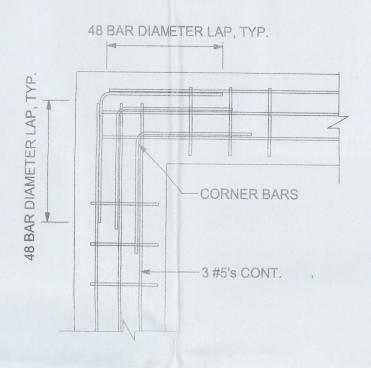
ROOF SHEATHING NAILING ZONES (GABLE)



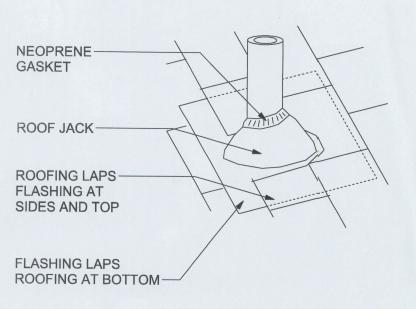
**ROOF SHEATHING** NAILING ZONES (HIP)

ROOF SHEATHING FASTENERS					
NAILING ZONE	SHEATHING TYPE	FASTENER	SPACING		
1			6" O.C. EDGE 12" O.C. FIELD		
2	5/8" CDX	8D GALV. RING SHANK NAILS	6" O.C. EDGE 6" O.C. FIELD		
3			4" O.C. @ GABLE 6" O.C. EDGE 6" O.C. FIELD		

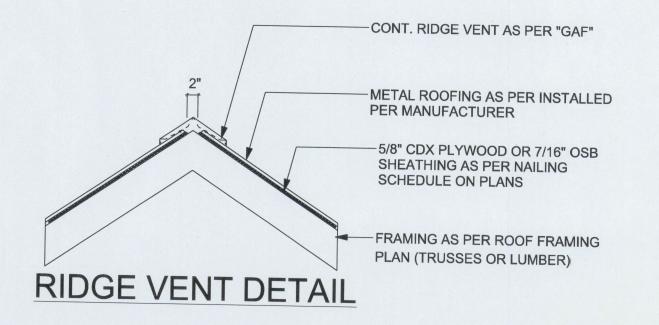
**ROOF SHEATHING FASTENING** 



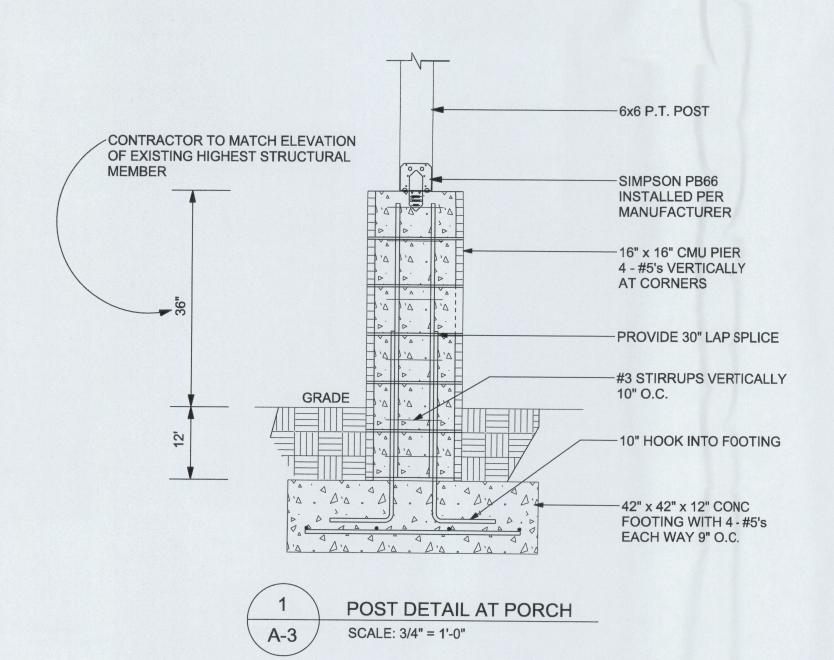


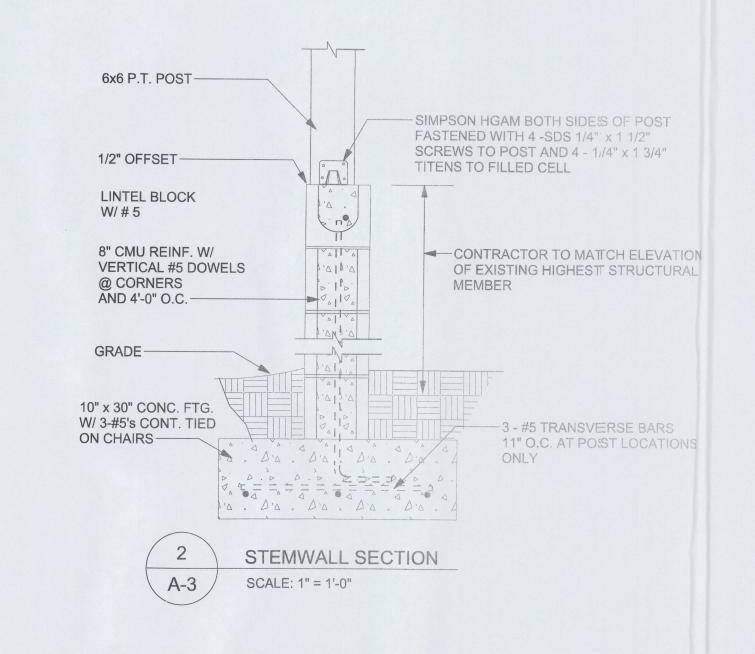


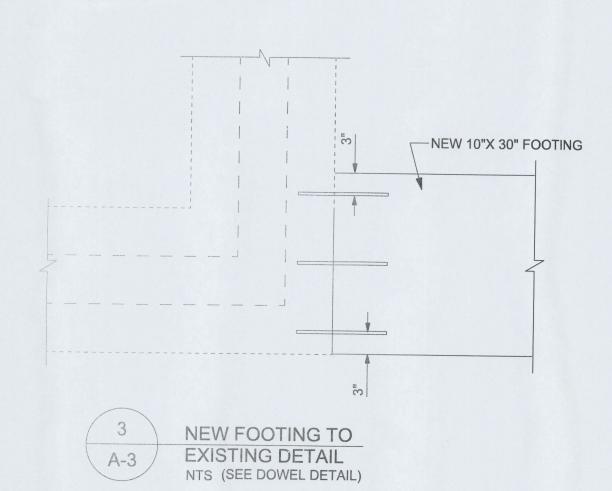
**ROOF JACKS AND VENTS** 

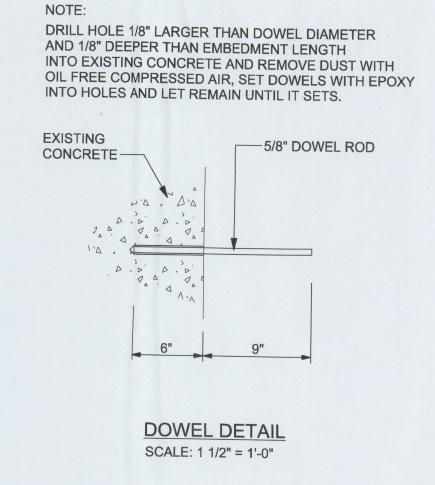


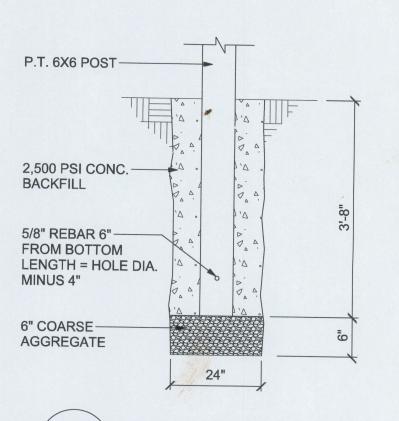
NOTE:
VENTILATION SHALL BE PROVIDED TO FURNISH CROSS VENTILATION OF EACH SEPARATE ATTIC SPACE WITH WEATHER PROTECTED VENTS. ALL VENTS SHALL DE CORPENIED TO PROTECT THE INTERIOR FROM INTERIOR OF PURPOSE THE PARTY. BE SCREENED TO PROTECT THE INTERIOR FROM INTRUSION OF BIRDS. THE RATIO OF TOTAL NET FREE VENTILATION AREA TO THE AREA OF CEILING SHALL NOT BE LESS THAN 1/150.











POST DETAIL AT PORCH NTS (OPTIONAL)

REVISIONS						
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	
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**CERTIFICATE OF AUTHORIZATION** NO. 28022

> P.O. BOX 970 LAKE CITY, FL 32056 PHONE: 386.754.4085



DRAWN BY:
TM
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APPROVED BY:

BC

CONNOLLY ROOF REPLACEMENT

2013-056

CES PROJECT NO.:

STRUCTURAL DETAILS

A-3