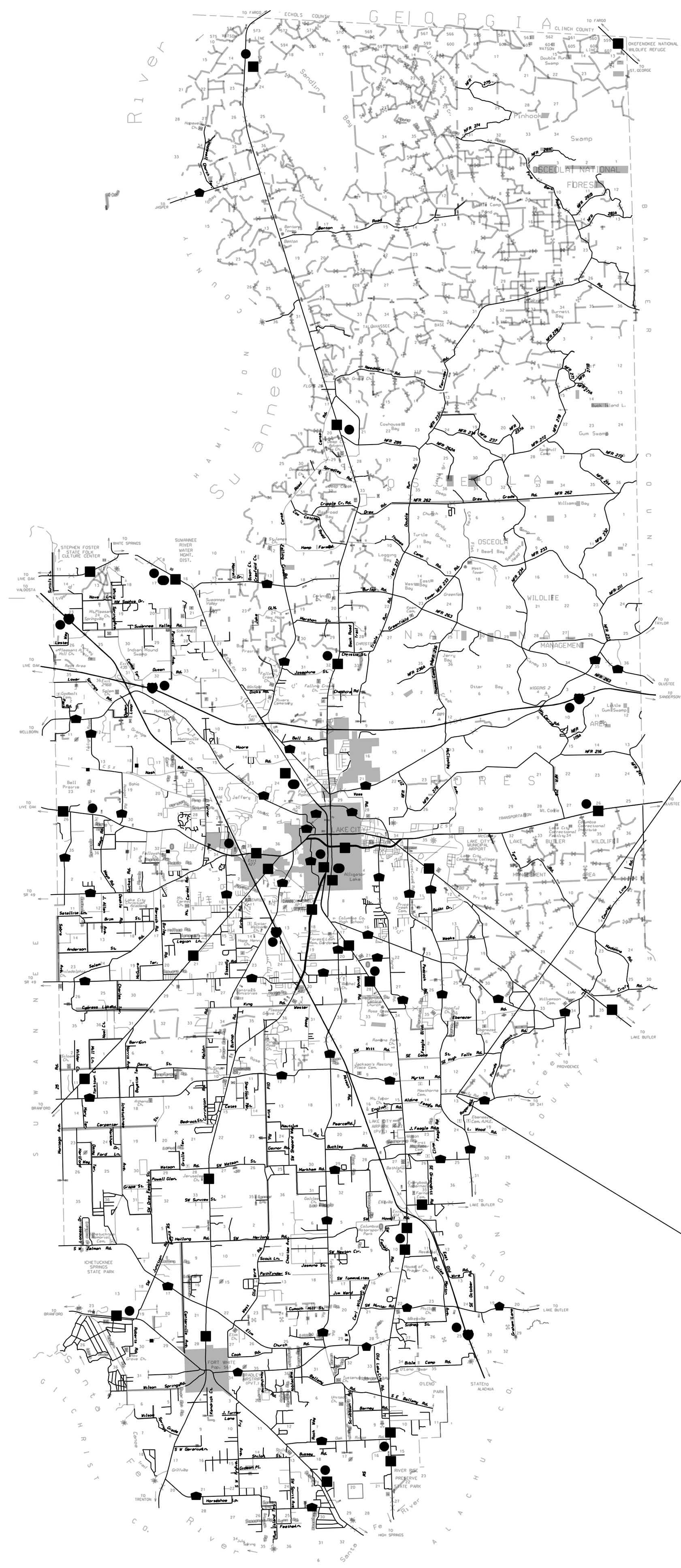
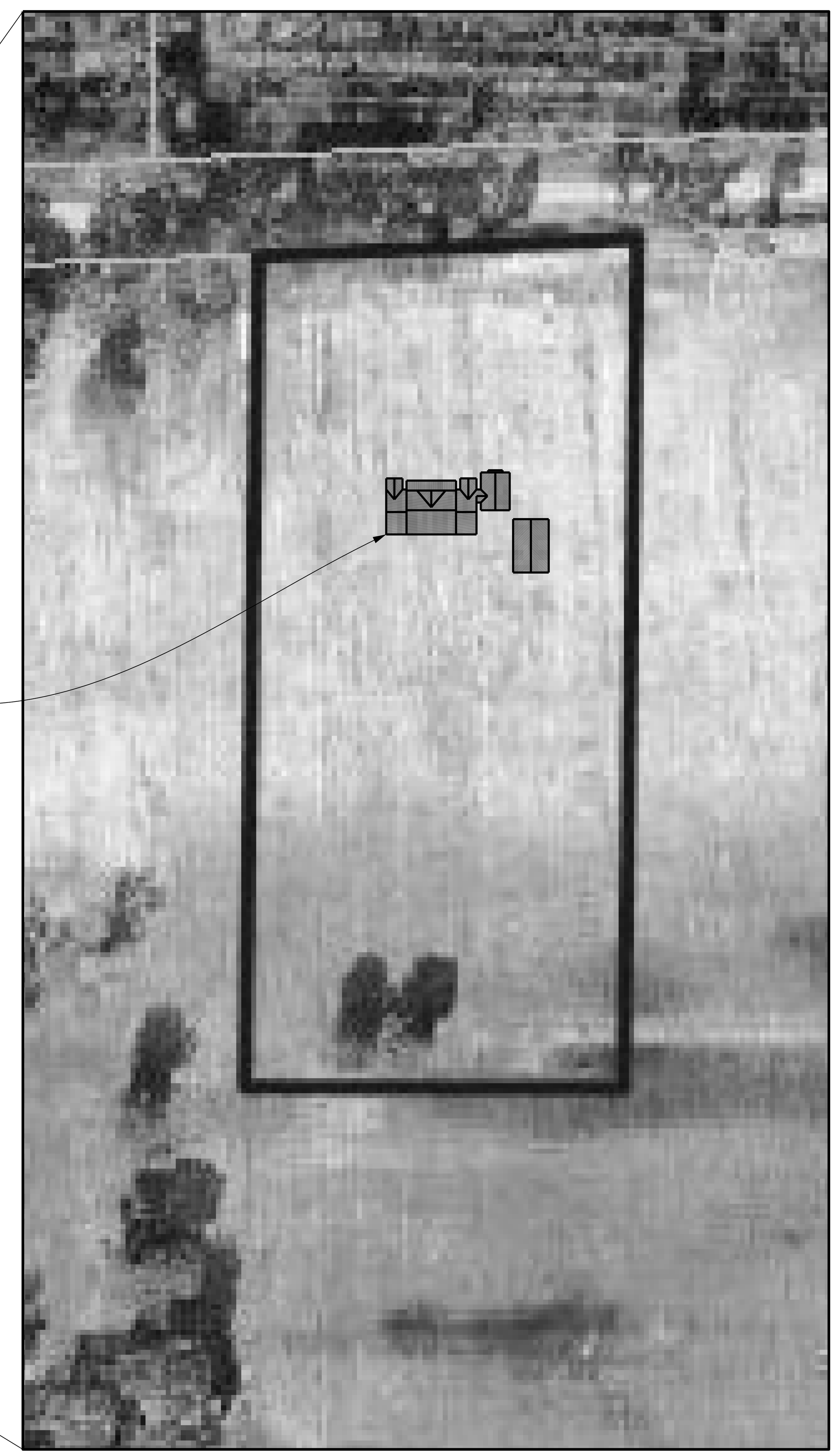
DICKS RESIDENCE

CR 240 (Family Road)

COLUMBIA COUNTY, FL 32024



PROPOSED STRUCTURE



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PLAN SHEET INDEX

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

Christopher Q Dicks

Digitally signed by Christopher Q Dicks
DN: CN=Christopher Q Dicks, dnQualifier=A01410D0000017F04A4C76A001156B7, O=Florida, C=US
Reason: I am the author of this document
Date: 2022.03.24 14:14:51-04'00'

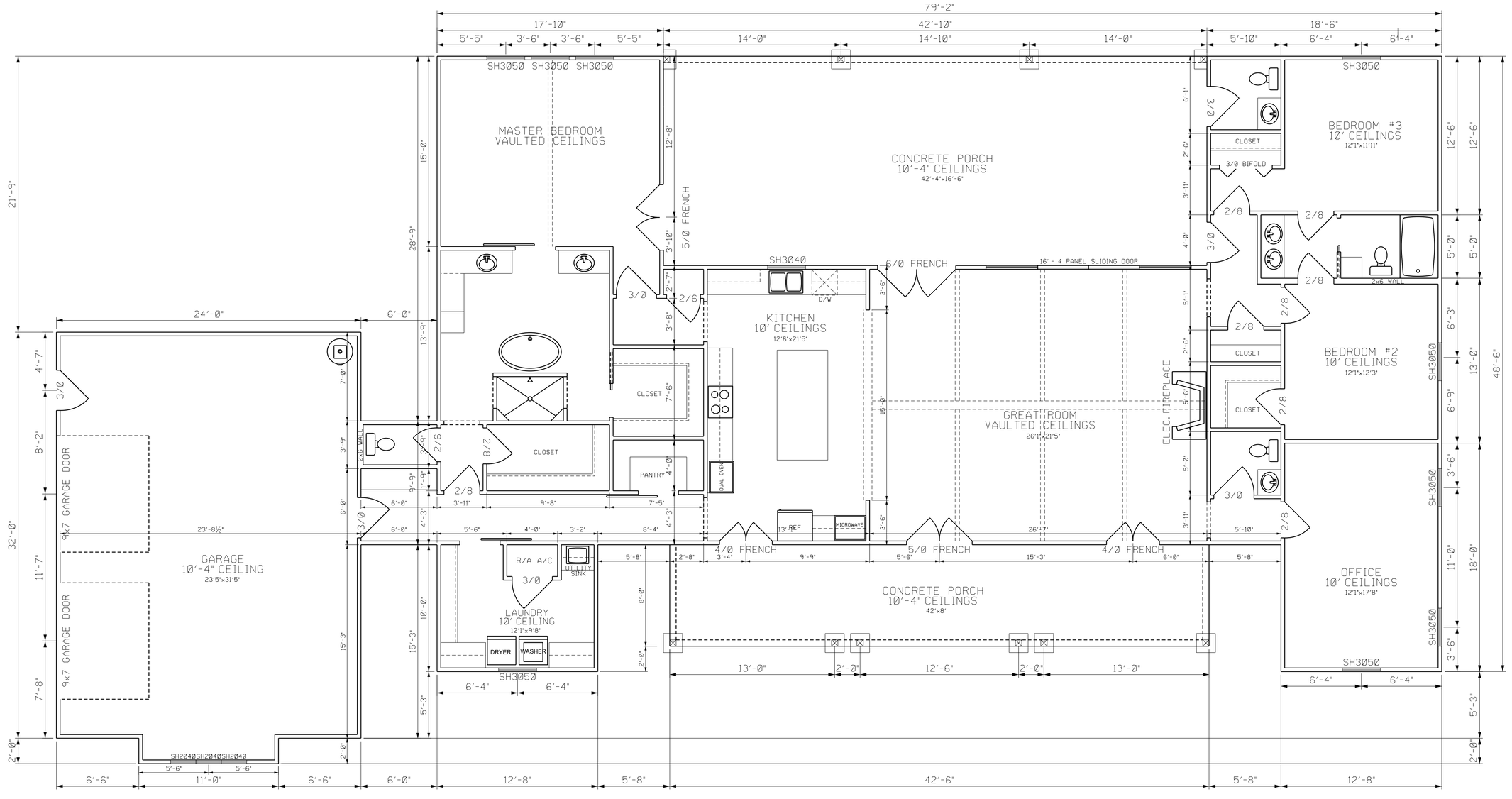
ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

CHRISTOPHER Q. DICKS
LICENSE
No. 64766
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

PLANS PREPARED BY:
CHRISTOPHER Q. DICKS, P.E. 64766
4037 SE CR 252, LAKE CITY, FL 32025

DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA



SQUARE FOOTAGE	
LIVING AREA	2653 SF
PORCHES	1047 SF
GARAGE	790 SF
CARPORT	1380 SF
TOTAL	5870 SF

NOTES:
1. WALLS ARE DRAWN AS 3 1/2" WIDE.
2. DOOR OPENINGS ARE DRAWN AS WIDTH + 2".
3. STEP LOCATIONS AND SIZE TO BE DETERMINED BY HOMEOWNER.

0 4' 8'
scale

FLOOR PLAN

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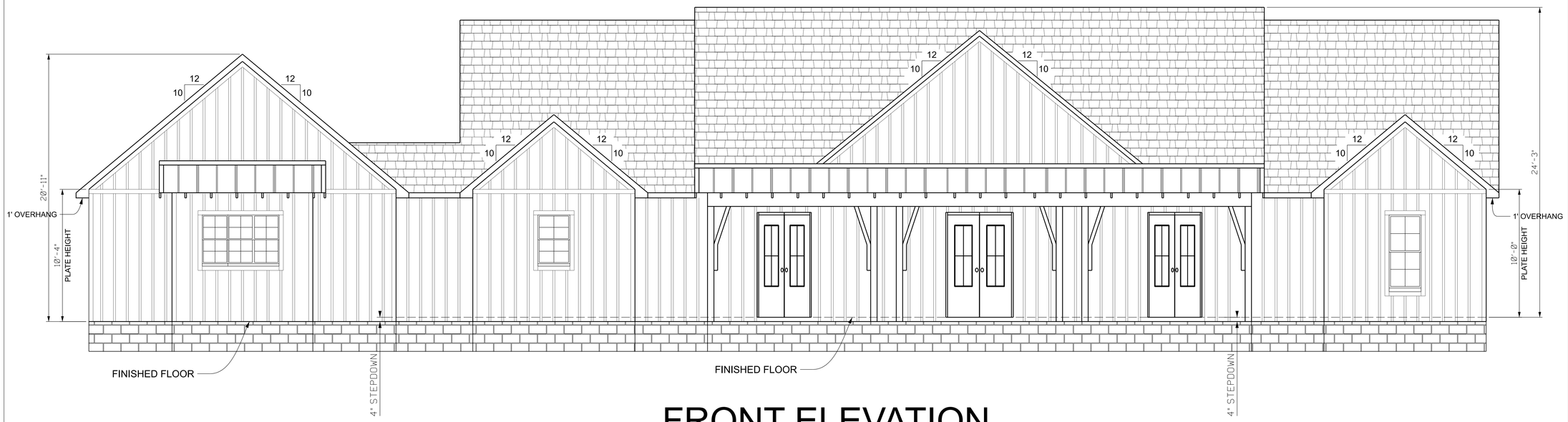
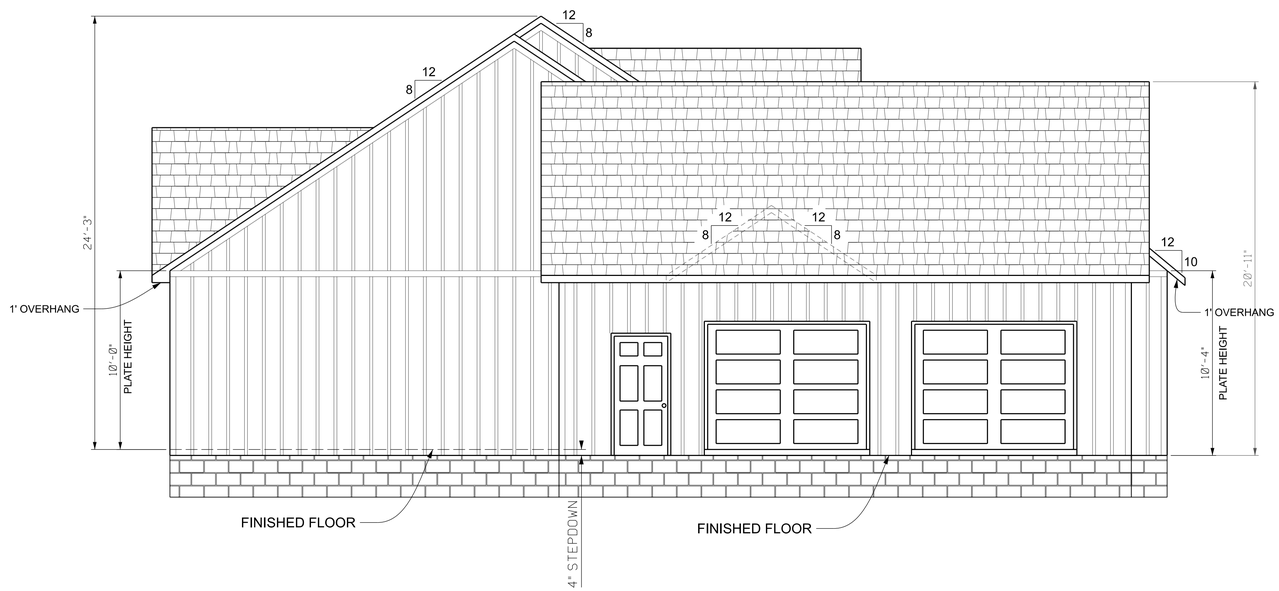
DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

SHEET
2
OF
13

0 4' 8'
scale



FRONT ELEVATION



LEFT ELEVATION

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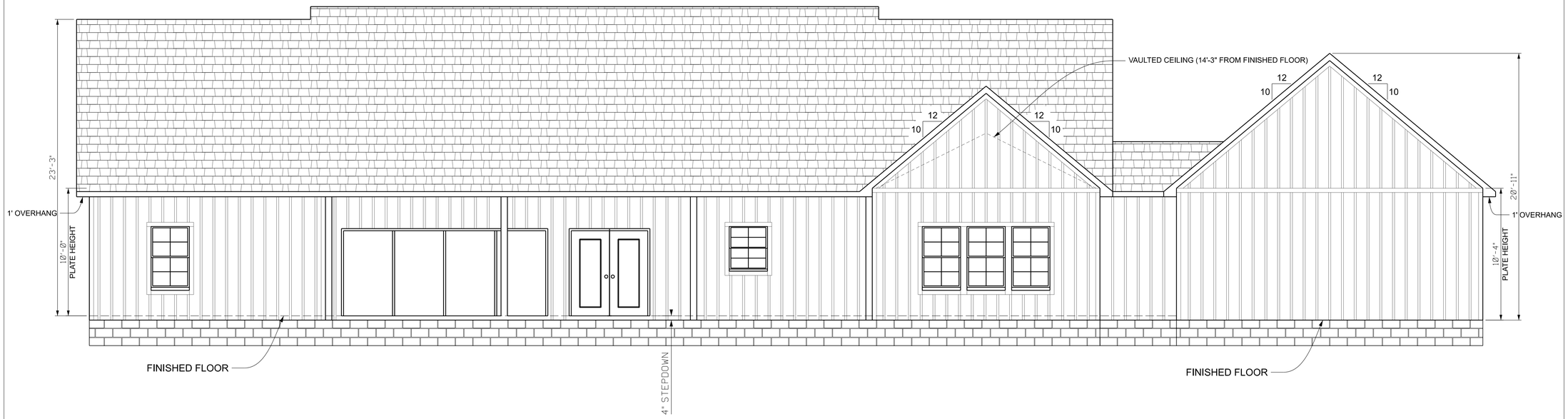
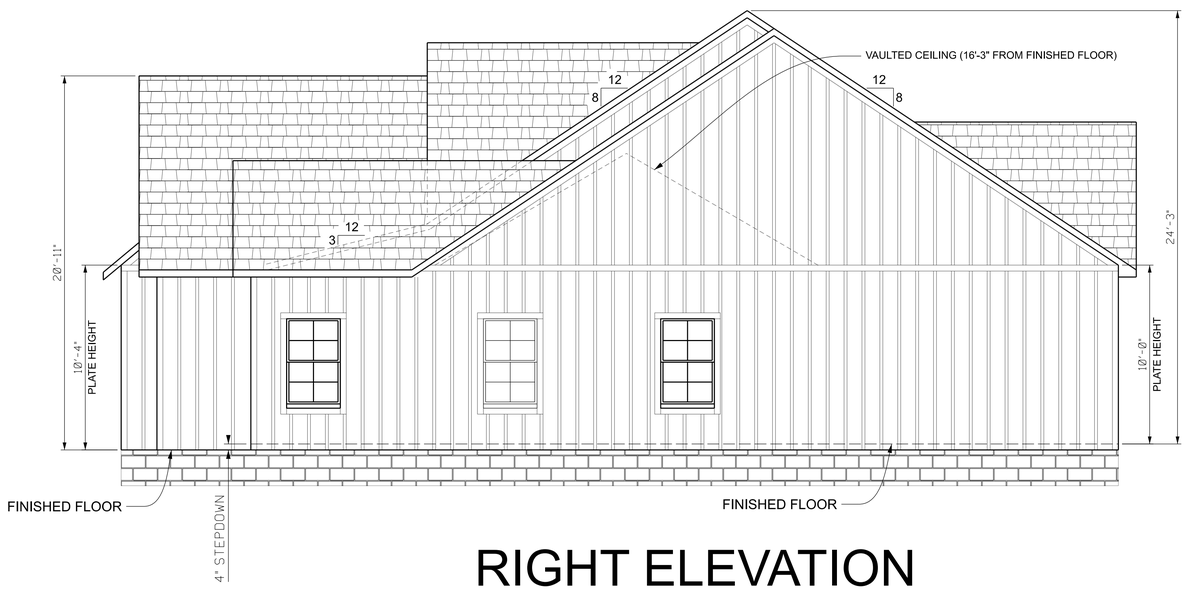
COLUMBIA COUNTY, FLORIDA

SHEET
3
OF
13

0 4' 8'
scale



REAR ELEVATION



RIGHT ELEVATION

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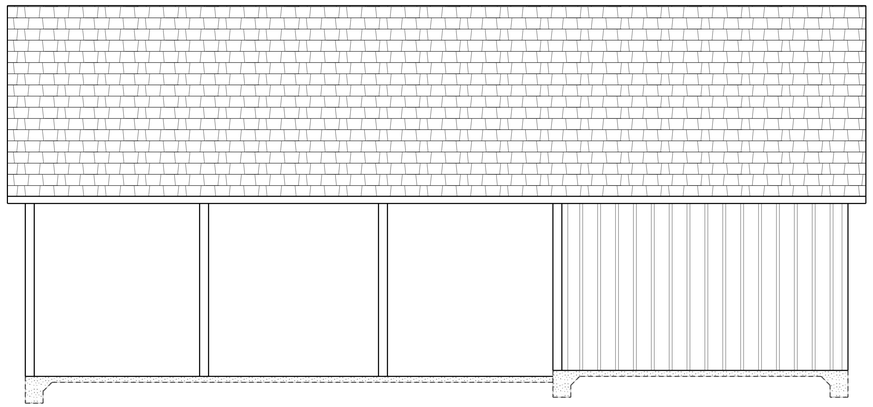
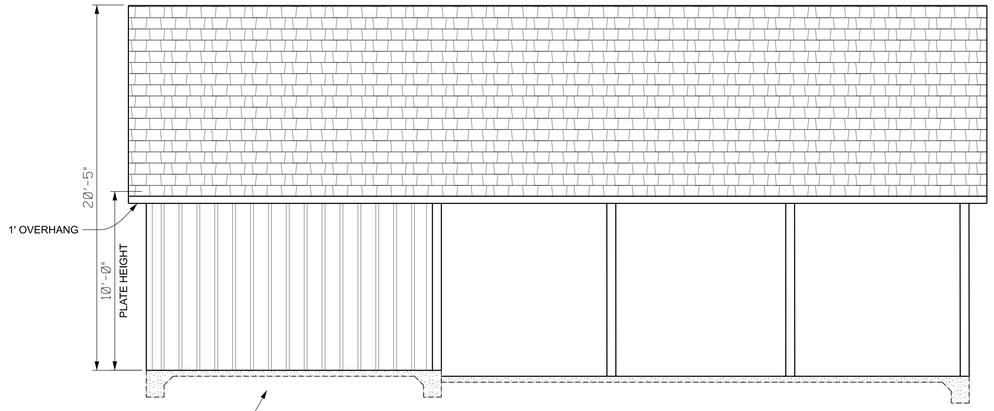


RIGHT ELEVATION



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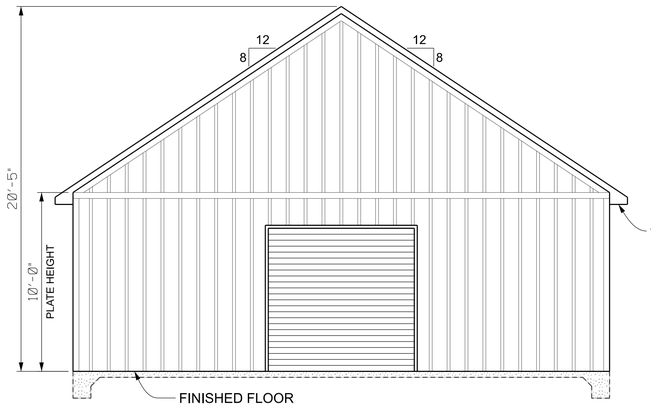

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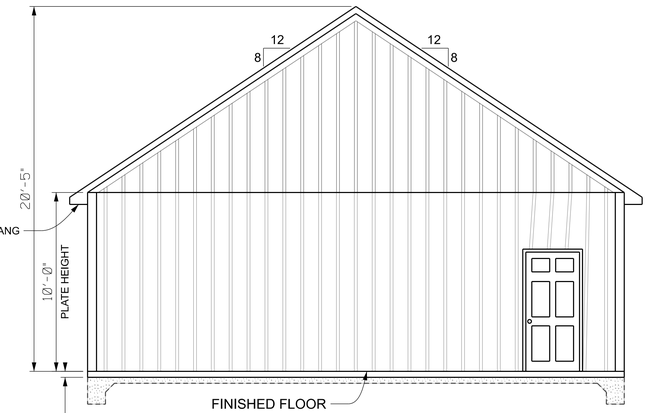
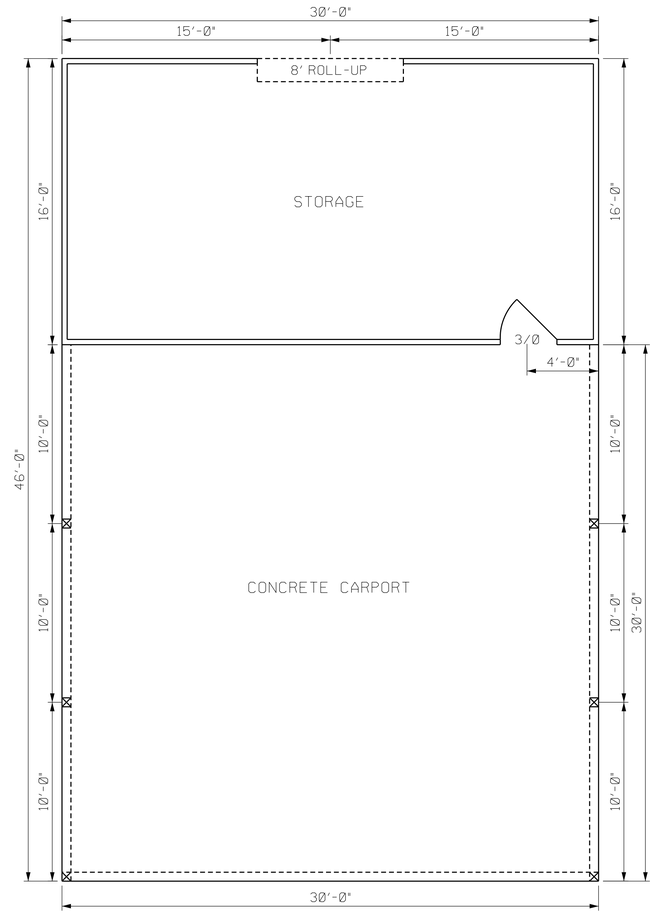


FRONT ELEVATION

0 4' 8'

scale



CARPORT FLOOR PLAN

PLANS PREPARED BY:
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DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

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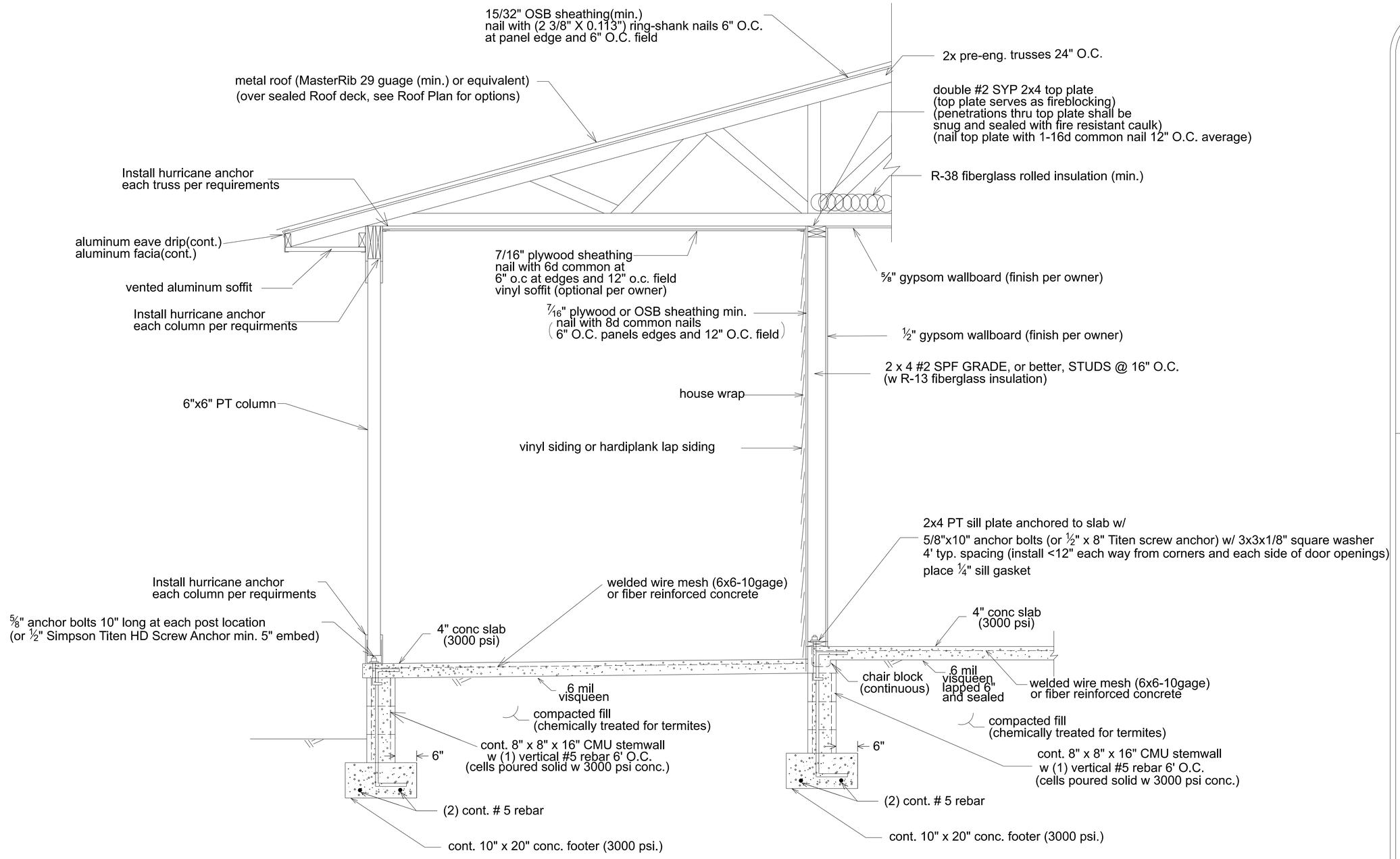

TYPICAL WALL SECTION N.T.S.

PLANS PREPARED BY:
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4037 SE CR 252, LAKE CITY, FL 32025

DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

DESIGN CRITERIA

1. DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 7TH EDITION (2020).

   CODE REFERENCES:
   BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14)
   SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS (ACI 301-16)
   BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-13)
   NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2015 EDITION
   APA PLYWOOD DESIGN SPECIFICATION
   NATIONAL ELECTRICAL CODE, 2017

3. ALL COMPONENTS, SYSTEMS AND EQUIPMENT NOT SPECIFICALLY COVERED BY THESE PLANS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE CODE(S).

4. PROJECT INFORMATION

OCCUPANCY GROUP:	R-3
MEAN ROOF HEIGHT:	17'
ROOF CROSS SLOPE:	8:12, 10:12 (see elevations)
WALL HEIGHT:	10' above slab
ROOF SNOW LOAD:	ZERO psf
SEISMIC DESIGN CATEGORY:	A
FLOOD DESIGN DATA:	ZONE X

5. WIND LOADS IN ACCORDANCE WITH ASCE MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7)

   FLOOR AND ROOF LIVE LOADS

UNINHABITABLE ATTICS:	20 psf
HABITABLE ATTICS:	30 psf
ALL OTHER ROOMS:	40 psf
ROOFS:	20 psf

   WIND DESIGN DATA

ULTIMATE DESIGN WIND SPEED, Vult, (3-SECOND GUST):	120 mph
NOMINAL DESIGN WIND SPEED, Vasd	93 mph
EXPOSURE CATERGORY:	B
IMPORTANCE FACTOR:	1.0
RISK CATEGORY:	II
ENCLOSURE CLASSIFICATION:	ENCLOSED
INTERNAL PRESSURE COEFFICIENT:	+/- 0.18

   COMPONENT AND CLADDING DESIGN PRESSURES (psf)

ROOF ZONE 1,2e:	9.6	-12.49
ROOF ZONE 2r:	9.6	-12.49
ROOF ZONE 2n:	10.29	-21.11
ROOF ZONE 3e:	12.73	-31.45
ROOF ZONE 3r:	12.73	-25.79
WALL ZONE 4:	11.22	-12.49
WALL ZONE 5:	13.69	-17.43

6. STRUCTURAL DESIGN CRITERIA

   LIVE LOADS

ROOF:	20 psf
RESIDENTIAL FLOOR:	40 psf

   WIND LOADS (BASED ON ASCE 7-16)

VELOCITY:	120 mph, USE FACTOR 1.0

   CONCRETE STRENGTH @ 28 DAYS: 3000 psi

   REINFORCING:

WELDED WIRE FABRIC SHALL CONFORM TO	ASTM A185
ALL REINFORCING BARS	ASTM A615-40 40,000PSI
ALL STIRRUPS AND TIES	ASTM A615-40 40,000PSI

   CONCRETE MASONRY UNITS:
   ASTM C90-99b, STANDARD WEIGHT UNITS, fm=1500 psi
   MORTOR TYPE "S" 1800 psi
   CONCRETE GROUT 3000 psi

   STRUCTURAL STEEL:
   ALL STRUCTURAL AND MISCELLANEOUS STEEL A36 36,000 psi, U.N.O.
   ALL BOLTS CAST IN CONCRETE: ASTM A36 OR ASTM A-307

   WOOD FRAMING:
   BEAMS, RAFTERS, JOIST, PLATES, ETC. U.N.O.
   NO. 2 SOUTHERN YELLOW PINE (19% M.C.)
   ROOF DECK: PLYWOOD C-C/C-D, EXTERIOR OR OSB
   WALL SHEATING: PLYWOOD C-C/C-D, EXTERIOR OR OSB

   WOOD ROOF TRUSSES (DESIGN LOADS):

TOP CHORD LIVE AND DEAD LOAD	30 psf
BOTTOM CHORD DEAD LOAD	10 psf
TOTAL	40 psf

   SOIL BEARING VALUE:
   ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION: 2000 psf

TRUSS ANCHORS:

Install the following Simpson anchor(s) at each truss to exterior wall/beam location(house, porches and garage).

Single ply trusses - install Simpson H10A
Single ply trusses to porch beam - install simpson H2.5

WALL STRAP TIES:

Install Simpson model SP4
One in each wall corner(both ways) and 4' o.c. along wall
For windows <= 4' install one each side
for windows and doors 4' <= 6' install two each side

For windows and doors >6' install 5/8" threaded rod, embedded 10" into slab with Simpson epoxy or coupled with 5/8" Simpson Titen HD Screw Anchor, up thru double top plate with 3" square plate washer.

(5/8" threaded rod may be substituted for single and double SPs)

SHEATHING:

Wall sheathing shall be installed with long dimension vertical on exterior walls and full-depth blocking shall be required at horizontal joints in sheathing.

FRONT PORCH COLUMNS AND BEAMS:

Columns shall be 4"x4" PT.
Load Bearing Beam(s): 2 - 1.75 x 9.25 LVL (1.9 x10^6 E min.)
Install Simpson ABU44 for column connections to slab and for column top Install Simpson CCQ46SDS2.5 for column connections to beam. (ECCQ46SDS2.5 at end columns).
Install Simpson HUCQ410-SDS at beam to exterior wall locations.

REAR PORCH COLUMNS AND BEAMS:

Columns shall be 6"x6" PT.
Load Bearing Beam(s): 3 - 1.75 x 9.25 LVL (1.9 x10^6 E min.)
Install Simpson ABU66 for column connections to slab and for column top Install Simpson CCQ66SDS2.5 for column connections to beam. (ECCQ66SDS2.5 at end columns).

CARPORT COLUMNS AND BEAMS:

Columns shall be 6"x6" PT.
Load Bearing Beam(s): 2 - 1.75 x 9.25 LVL (1.9 x10^6 E min.)
Gable beam(s): 2x4 (#2 SPF) (gable trusses shall be structurally end bearing)
Install Simpson CCQ46SDS2.5 for column connections to beam. (ECCQ46SDS2.5 at end columns).
Install Simpson HUCQ410-SDS at beam to exterior wall locations.

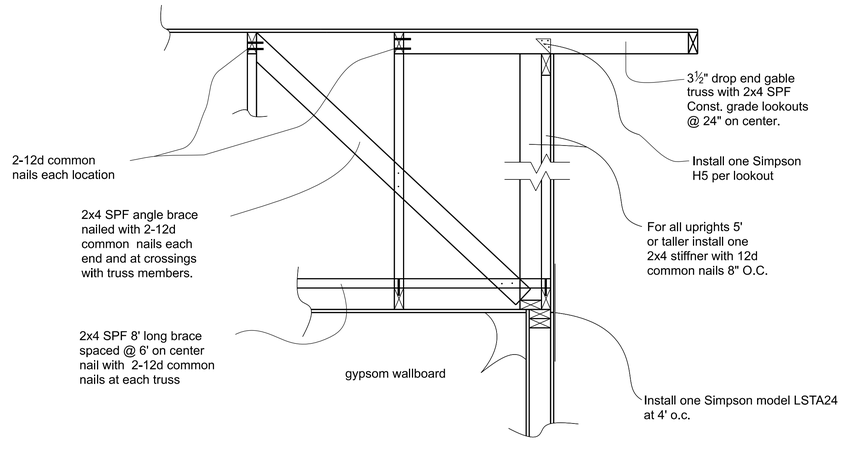
HEADER SCHEDULE:

LOCATION	HEADER	KING STUDS / JACK STUDS
DOORS AND WINDOWS (0' to < 4')	2 - 2"x12" SYP w/ 7/16" PLYWOOD BETWEEN	1/1
DOORS AND WINDOWS (4' to <= 6')	2 - 2"x12" SYP w/ 7/16" PLYWOOD BETWEEN	2/2
GARAGE DOORS	2 - 1.75" x 9.25" LVL (1.9 x10^6 E min.)	4/3
16' BACK PORCH DOOR	2 - 1.75" x 16" LVL (1.9 x10^6 E min.)	6/4

GABLE ENDS:

At gable ends install one Simpson model H5 anchor where lookouts connect to end gable truss.

BRACING: At each gable end install one 2x4 SPF 8' stud spaced 6' on center horizontal along top of bottom chord of trusses, nail with 2-12d nails at each truss including end truss. In addition, install a 2x4 brace extending from this stud at the gable end truss 45 degrees to truss at roof sheathing, nail with 2-12d nails where it crosses truss members and at ends. Gable end truss shall be built to recieve sheathing with vertical members 2' on center(see Detail).



GABLE END BRACING
DETAIL (N.T.S.)

NOTE: Gable end trusses shall be dropped 3½" for construction of lookouts & overhang.

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DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

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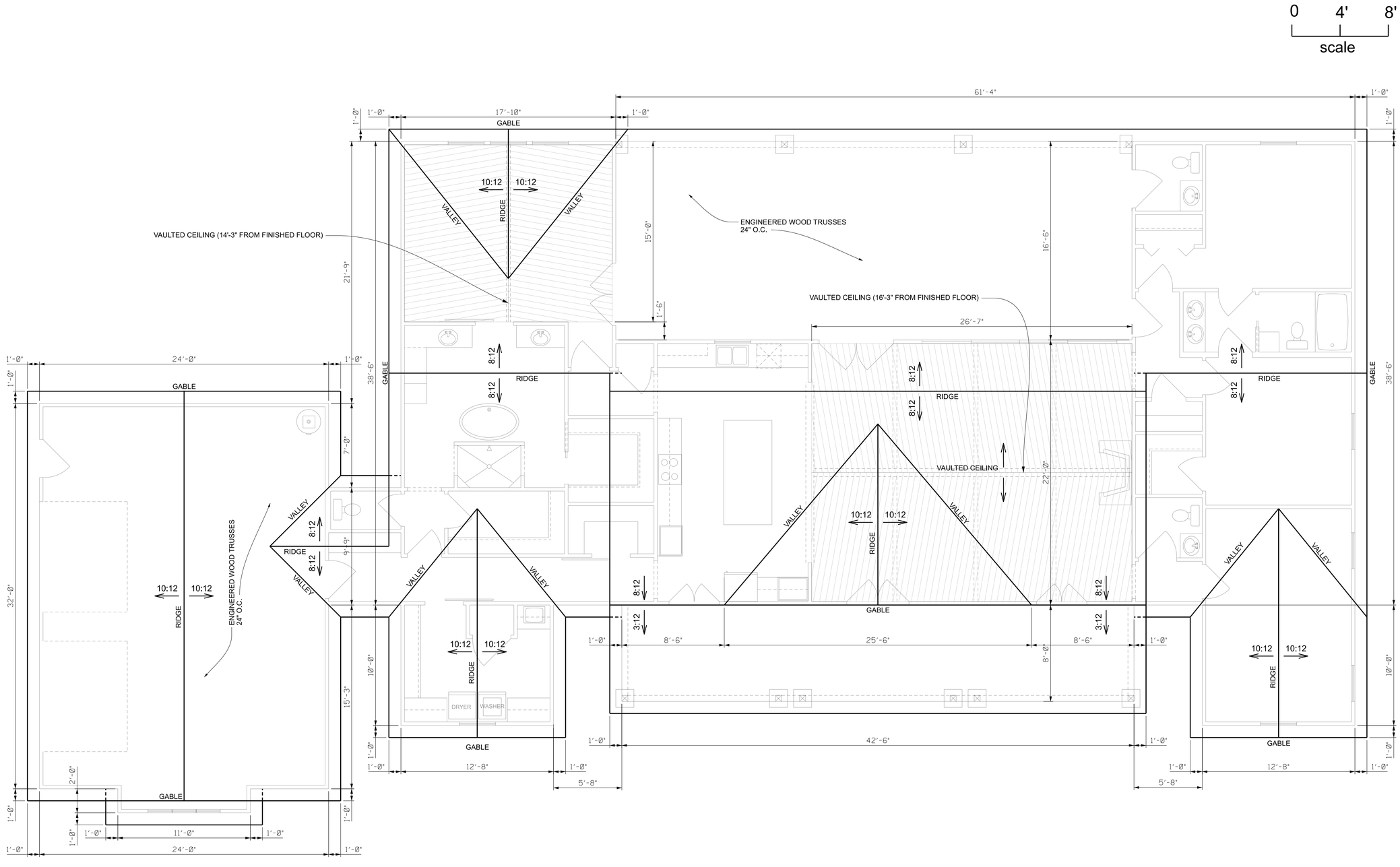
DESIGN CRITERIA / STRAPPING AND ANCHOR REQUIREMENTS



ROOF PLAN

PLANS PREPARED BY:
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COLUMBIA COUNTY, FLORIDA

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SEALED ROOF PLAN OPTIONS:

OPTION I

A layer of self-adhering polymer-modified bitumen underlayment complying with ASTM D1970 applied over the entire roof.

OPTION II

Either
(A min. 4-inch wide strip of self-adhering polymer-modified bitumen complying with ASTM D1970
or
A min. 3 3/4 - inch wide strip of self adhering flexible flashing tape complying with AAMA 711)
applied over all joints in the roofing deck.
with

One layer of 30# felt underlayment complying with
ASTM D226 Type II, ASTM D4869 Type III or IV, or ASTM D6757,
or a synthethic underlayment complying with
ASTM D226 Type II (min. tear strength 15 lbf ASTM D4533,
min. tensile strength 20 lbf/in ASTM D5035)

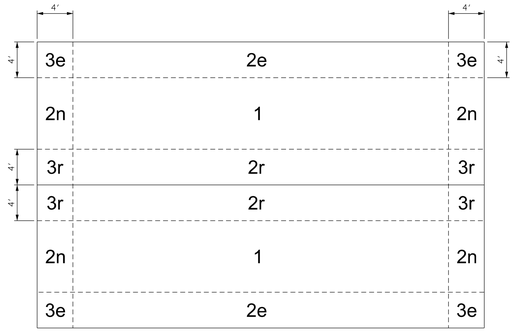
See installation below:

OPTION III

Two layers of 30# felt underlayment complying with
ASTM D226 Type II, ASTM D4869 Type III or IV, or ASTM D6757,
or a synthethic underlayment complying with
ASTM D226 Type II (min. tear strength 15 lbf ASTM D4533,
min. tensile strength 20 lbf/in ASTM D5035)

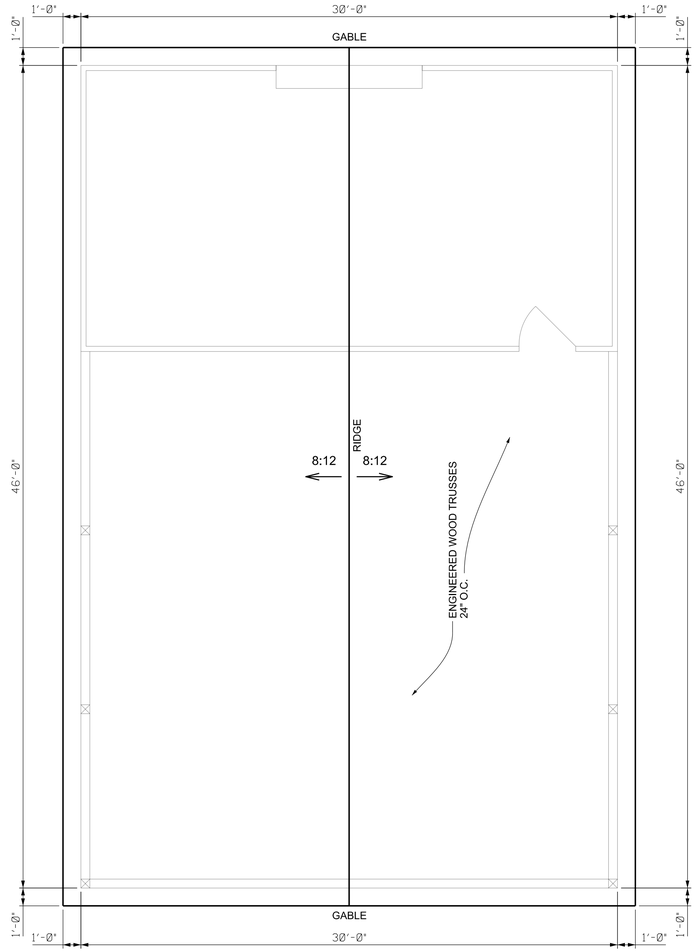
See Installation below:

Installation:
Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves, fastened sufficiently to hold in place. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches;
end laps shall be 6 inches and shall be offset by 6 feet.
The underlayment shall be attached to a nailable deck with corrosion-resistant fasteners with one row centered in the field of the sheet with a maximum fastener spacing of 12 inches o.c., and one row at the end and side laps fastened 6 inches o.c.
Underlayment shall be attached using annular ring or deformed shank nails with metal or plastic caps with a nominal cap diameter of not less than 1 inch.
Metal caps shall have a thickness of not less than 32-gage sheet metal. Powerdriven metal caps shall have a minimum thickness of 0.010 inch. The minimum thickness of the outside edge of plastic caps shall be 0.035 inch. The cap nail shank shall be not less than 0.083 inch for ring shank cap nails. The cap nail shank shall have a length sufficient to penetrate through the roof sheathing or not less than 3/4 inch into the roof sheathing.



ROOF COMPONENT AND CLADDING PRESSURE ZONES
(GABLE ROOF) (7 TO <= 45 DEGREES)

ROOF SHEATHING FASTNERS			
PRESSURE ZONE	SHEATHING TYPE	FASTNER	SPACING
ALL ZONES	15/32" OSB	(2 3/8" x 0.113") RING SHANK NAILS	6" O.C. EDGE 6" O.C. FIELD



0 4' 8'
scale

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DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

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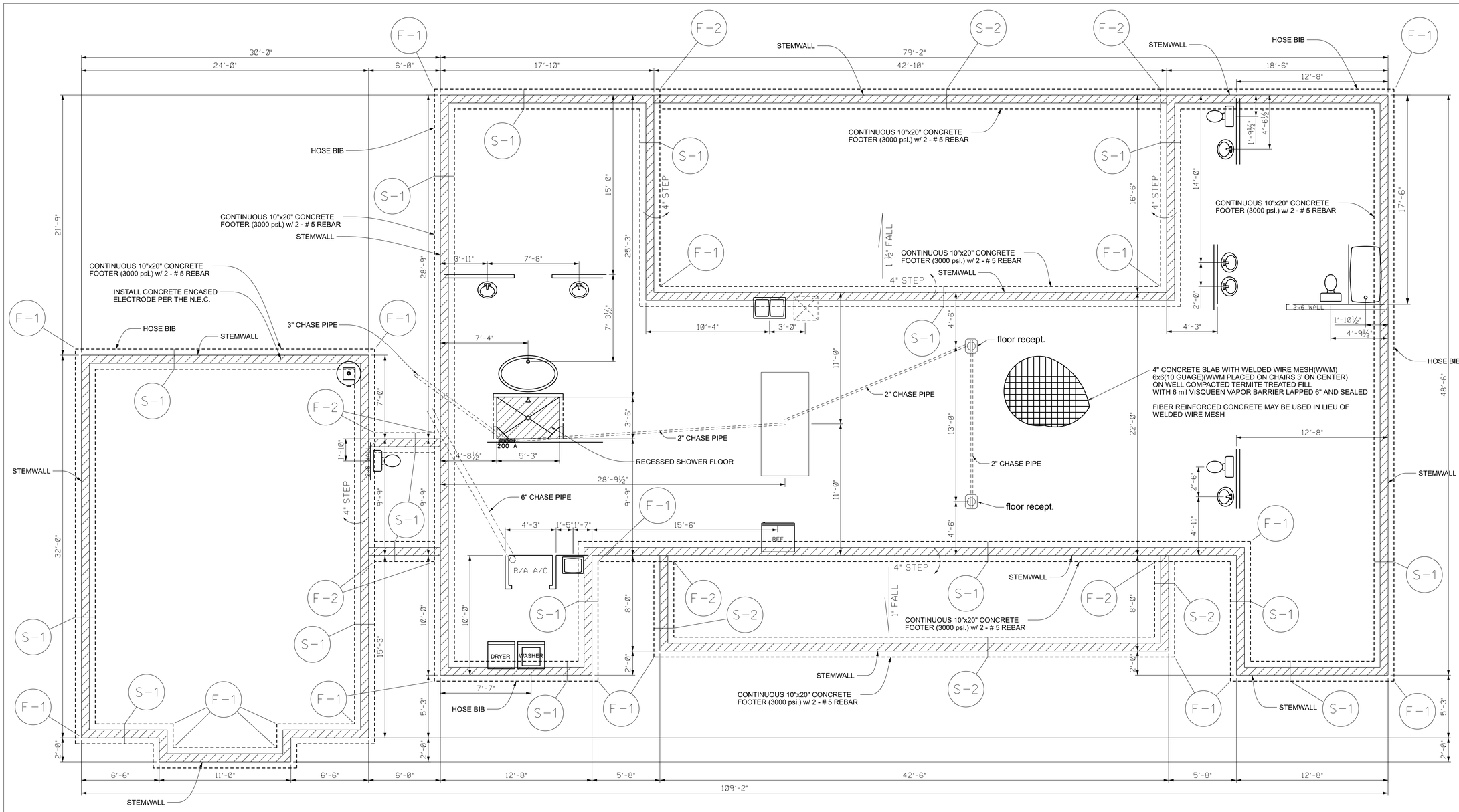
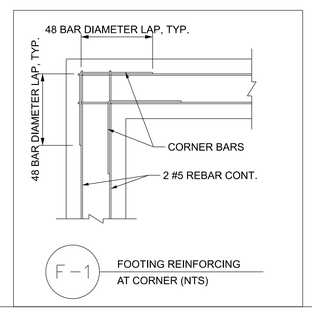
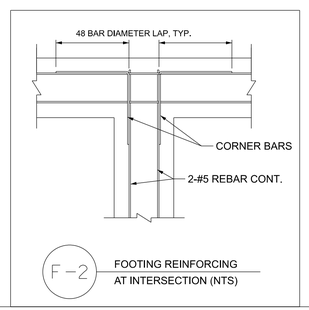
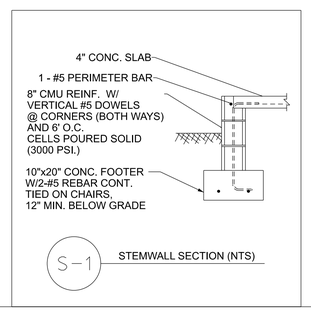
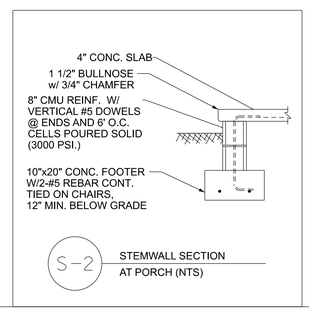
ROOF PLAN (CONT.)











FOUNDATION AND PLUMBING PLAN

Note: Confirm location of electrical, plumbing and HVAC pipes and conduits, with homeowner and contractor before pouring slab.

0 4' 8'
scale

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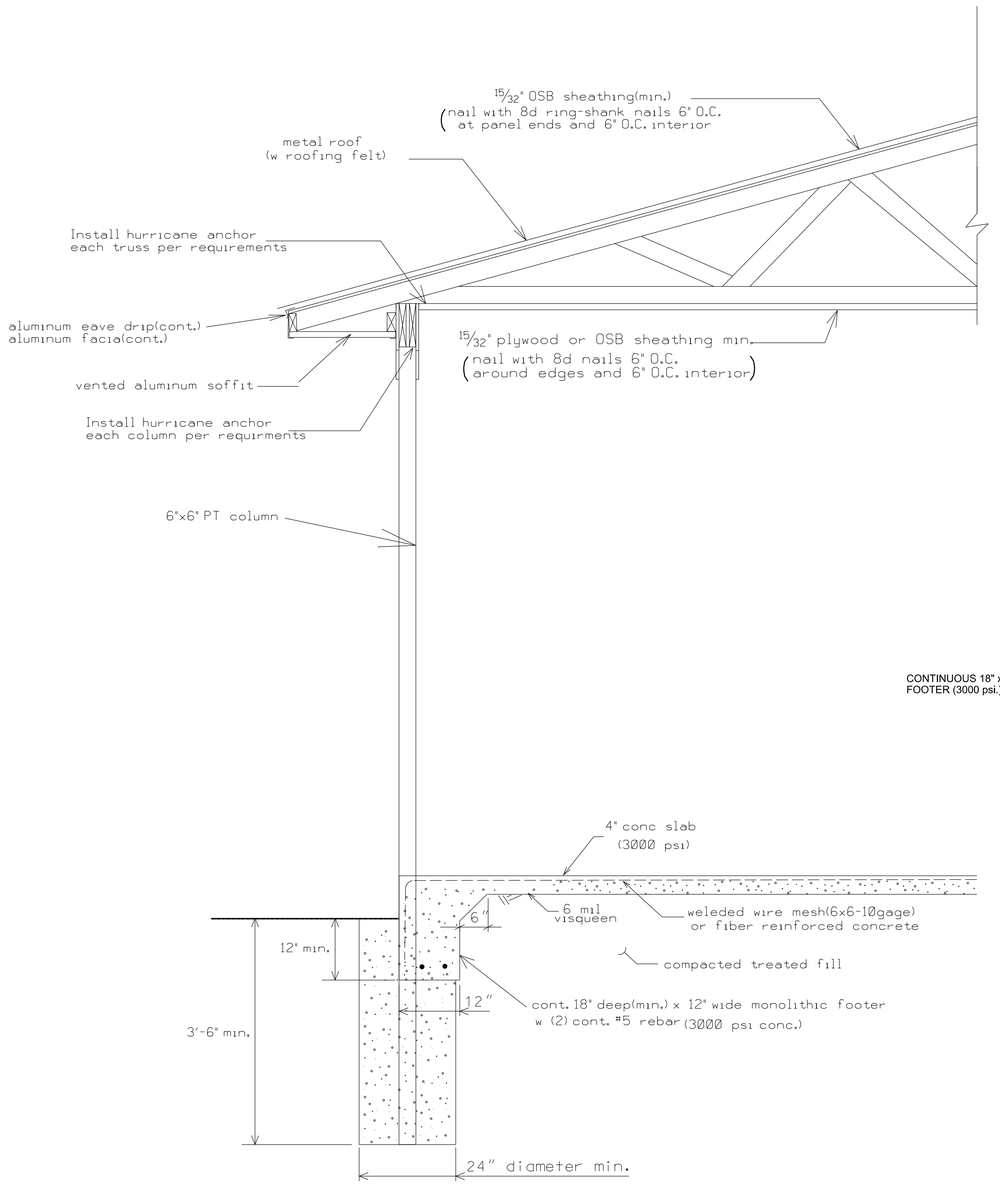
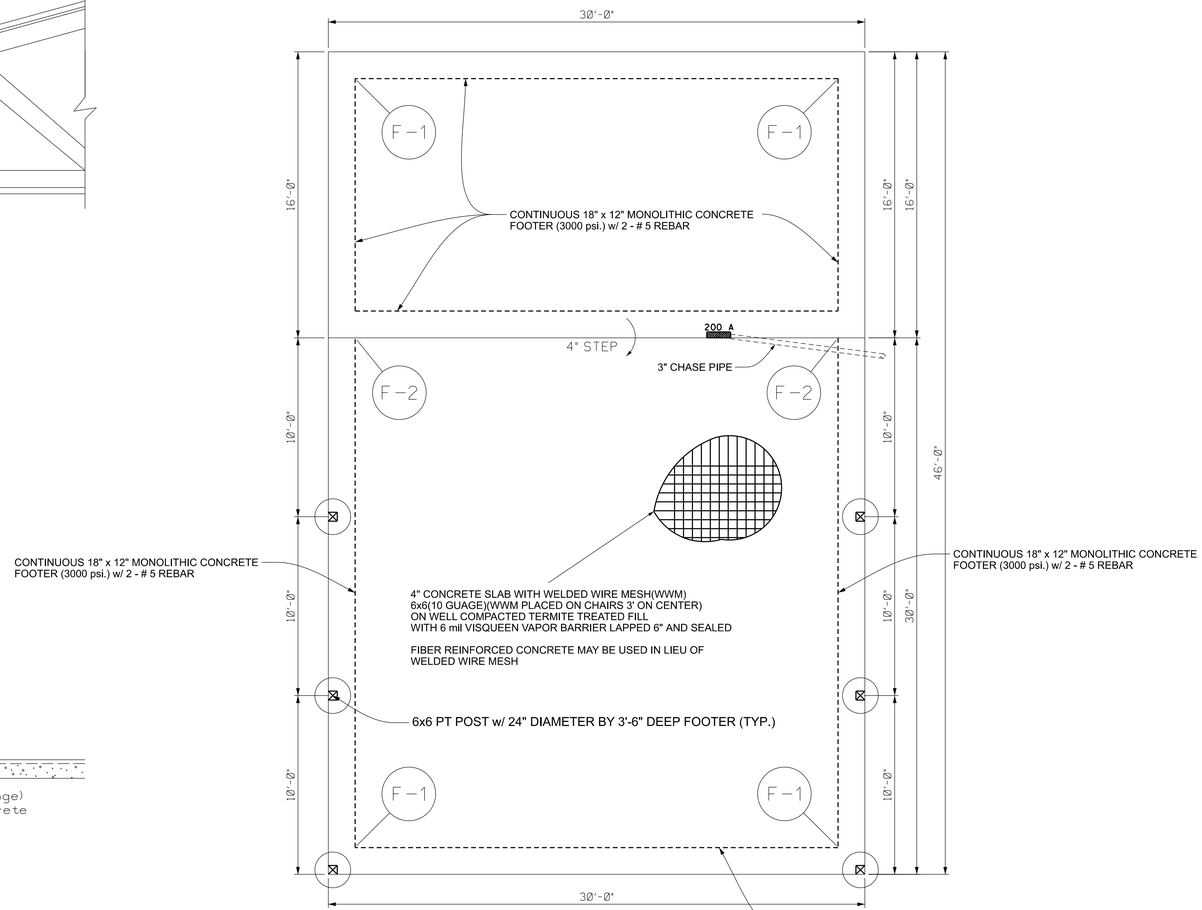
SHEET 10 OF 13



CARPORT POST TYPICAL



CARPORT

FOUNDATION AND PLUMBING PLAN

0 4' 8'
scale

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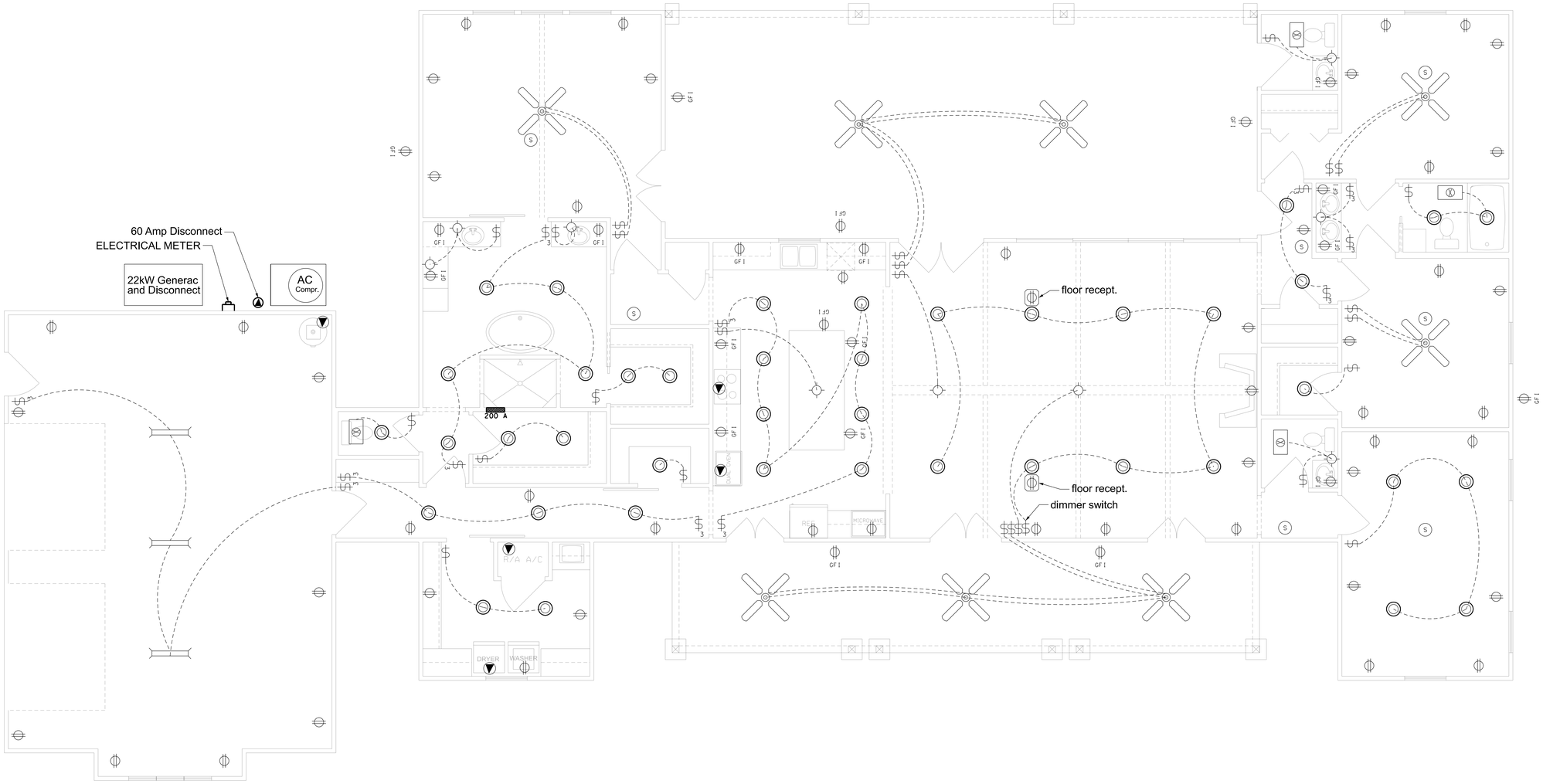

ELECTRICAL PLAN

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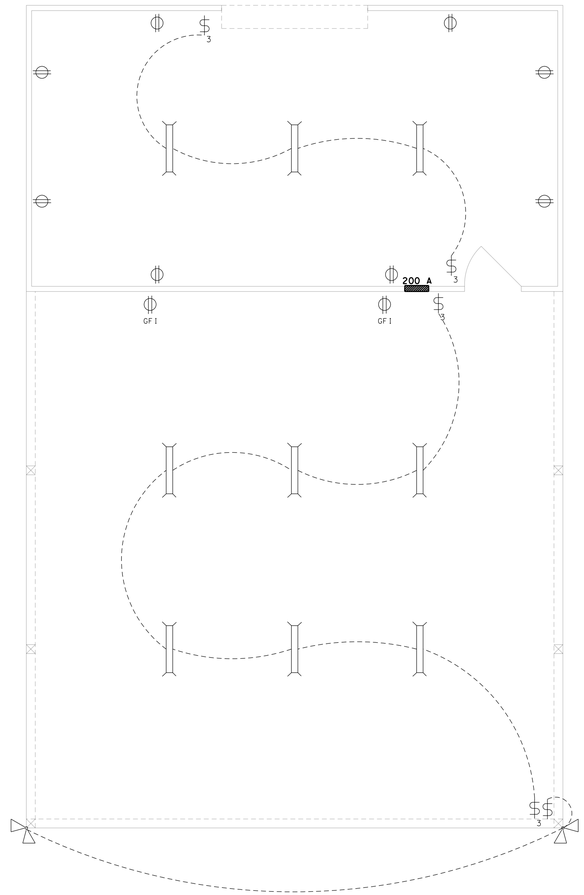
4037 SE CR 252, LAKE CITY, FL 32025

DICKS RESIDENCE
COLUMBIA COUNTY, FLORIDA

ELECTRICAL LEGEND

- CEILING FAN w LIGHTS
- LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- FLOURESCENT LIGHT FIXTURE
- SINGLE POLE SWITCH
- THREE-WAY SWITCH
- RECEPT.
- GFI RECEPT OR PART OF A GFI CIRCUIT.
- SECURITY LIGHT
- EXHAUST (minimum 50 cfm)
- 220 V.
- SMOKE DETECTOR (AC/DC and interconnected)

0 4' 8'
scale



NOTES:

1. ALL ELECTRICAL COMPONENTS, EQUIPMENT AND SYSTEMS SHALL COMPLY WITH THE PROVISIONS OF NFPA 70, NATIONAL ELECTRICAL CODE (LATEST EDITION) AND THE FLORIDA BUILDING CODE (LATEST EDITION).
2. INSTALL A CONCRETE ENCASED ELECTRODE WITHIN THE FOUNDATION (see Foundation Plan) PER THE N.E.C.
3. ALL EXTERIOR RECEPTACLES SHALL BE WEATHERPROOF.
4. ALL BEDROOM RECEPTACLES SHALL BE PART OF AN AFCI CIRCUIT. EACH BEDROOM SHALL BE ON AN INDIVIDUAL AFC CIRCUIT.
5. ALL RECEPTACLES SHALL BE CHILD RESISTANT.
6. CONSULT THE OWNER FOR THE LOCATION OF TELEPHONE AND CABLE LINE(S) TO BE INSTALLED.
7. ALL SMOKE DETECTORS SHALL BE 120V W/BATTERY BACKUP OF THE PHOTOELECTRIC TYPE, AND SHALL BE INTERCONNECTED.

ELECTRICAL PLAN (CARPORT)

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