The Sally Woodley Residence - Structural Plans

635 Barbecue Church Road
Sanford, NC 27332 - Harnett Co.

The Original Log Cabin Homes
P.O. Drawer 1457
Rocky Mount, NC 27802
252-451-1500

Square Footages

Heated Square Footage	
First Floor	1,144.00
Total Heated Square Footage	1,144.00
Unheated Square Footage	
Front Porch	288.00
Total Unheated Square Footage	288.00

Design Specifications

Applicable Building Codes	
2018 North Carolina Residential Code	
ASCE 7-16	
2018 National Design Specification (NDS) for Wood	
Design Loads (in PSF)	
Floor Live Load	40
Floor Dead Load (2x_ Lumber)	10
Floor Dead Load (Timber)	15
Floor Dead Load (Floor Truss)	15
Floor Dead Load (I-Joist)	12
Roof Live Load	20
Roof Dead Load (2x_ Lumber)	10
Roof Dead Load (Timber)	15
Roof Dead Load (Truss)	20
Snow Load	10
Deck Live Load	40
Balcony Live Load	60
Garage Floor Live Load	50
Garage Floor Dead Load	50
Floor Tile Dead Load	5
Assumed Soil Bearing Capacity	2000
Building Elevation (Ft)	265
Seismic Design Category	B
Spectral Response Acceleration SDS	0.153
Flood Zone	X
Base Flood Elevation (BFE) (Ft)	0
Wind Zone (MPH)	120
Exposure	B
Max Mean Roof Height (ft)	15

Component & Cladding Values (in PSF)		
	Pos.	Neg.
Zone 1	14.2	-15
Zone 2	14.2	-18
Zone 3	14.2	-18
Zone 4	15.5	-16
Zone 5	15.5	-20

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Ventilation

Roof Ventilation	
Attic Area	919.00
Vented Cathedral Ceiling Areas	225.00
Porch Ceiling Areas	288.00
Required Roof Ventilation (SF)	9.54
Crawl Space Ventilation	
Vented Crawl Space Area (SF)	1,144.00
Sealed Crawl Space Area (SF)	0.00
Required Crawl Ventilation (SF)	7.62

Ventilation Notes
1. Attic ventilation shall comply with section R806 of the state building code.
2. Attic ventilation area may be reduced by 50% if one of the exceptions listed in section R806.2 of the state building code is met.
3. Foundation ventilation shall comply with section R408.1 and R408.2 of the state building code.
4. 100% of the crawl space is to be covered with an approved class 1 6 mil ploy vapor barrier, U.N.O.
5. Foundation vents are not required if crawl space is to be sealed. Refer to Section R408.3 of the state building code.

Abbreviations

ABV	Above
ASCE	American Society of Civil Engineers
AFF	Above Finished Floor
AISC	American Institute for Steel Construction
APA	American Plywood Association
AWS	American Welding Society
CJ	Ceiling Joist
C.O.	Cased Opening
DBL	Double
DIA	Diameter
DF	Douglas Fir
DJ	Double Joist
DSP	Double Stud Pocket
DN	Down
EA	Each
EE	Each End
EOS	Edge of Slab
EW	Each Way
EWP	Eastern White Pine
GALV	Galvanized
GYP	Gypsum
HDG	Hot Dipped Galvainzed
HR	Hour
JS	Jack Stud
KS	King Stud
LF	Linear Foot
LVL	Laminated Veneer Lumber
NDS	National Design Specification for Wood
NTS	Not to Scale
OC	On Center
OSB	Oriented Strand Board
PCI	Pounds per Cubic Inch
PSF	Pounds per Square Foot
PSI	Pounds per Square Inch
PSL	Parallel Strand Lumber
PT	Pressure Treated
RO	Rough Opening
SC	Stud Column
SER	Structural Engineer of Record
SHGC	Solar Heat Gain Coefficent
SL	Side Light
SF	Square Foot
SPF	Spruce Pine Fir
SYP	Southern Yellow Pine
SST	Simpson Strong Tie
STD	Standard
TJ	Triple Joist
TOF	Top of Floor
TOS	Top of Slab
TYP	Typical
Van.	Vanity
UNO	Unless Noted Otherwise
WH	Water Heater
WWF	Welded Wire Fabric
XJ	Single Joist
W/	With

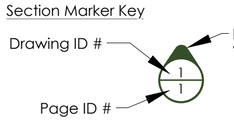
Typ. Connector Schedule

SST	USP/Mitek	Use Description
LUS24	JUS24	Face Mount Hanger for 2x4 Joists/Beams
LUS26	JUS26	Face Mount Hanger for 2x6 Joists/Beams
LUS28	JUS28	Face Mount Hanger for 2x8 Joists/Beams
LUS210	JUS210	Face Mount Hanger for 2x10 Joists/Beams
LUS212	JUS212	Face Mount Hanger for 2x12 Joists/Beams
LUS24-2	JUS24-2	Face Mount Hanger for (2)2x4Joists/Beams
LUS26-2	JUS26-2	Face Mount Hanger for (2)2x6 Joists/Beams
LUS28-2	JUS26-2	Face Mount Hanger for (2)2x8 Joists/Beams
LUS210-2	JUS210-2	Face Mount Hanger for (2)2x10 Joists/Beams
LUS212-2	JUS212-2	Face Mount Hanger for (2)2x12 Joists/Beams
LUS26-3	JUS26-3	Face Mount Hanger for (3)2x6 Joists/Beams
LUS28-3	JUS28-3	Face Mount Hanger for (3)2x8 Joists/Beams
LUS210-3	JUS210-3	Face Mount Hanger for (3)2x10 Joists/Beams
LUS212-3	JUS212-3	Face Mount Hanger for (3)2x12 Joists/Beams
CJT3	-	Concealed Joist Tie for 4x6/4x8 Beams
CJT4	-	Concealed Joist Tie for 4x10 Beams
CJT5	-	Concealed Joist Tie for 4x12 Beams
ABA/ABU44	PAU44	Post Base for 4x4 Posts
ABA/ABU46	PAU46	Post Base for 4x6 Posts
ABA/ABU66	PAU66	Post Base for 6x6 Posts
ABU88	-	Post Base for 8x8 Posts
ABU1010	-	Post Base for 10x10 Posts
BC4	C44	Post Cap for 4x4 Posts
BC46	C46	Post Cap for 4x6 Posts
BC6	C66	Post Cap for 6x6 Posts
BC8	-	Post Cap for 8x8 Posts
LCE4	PBES44	Corner Post Cap for 4x4/6x6 Posts
H2.5A	RT7A	Rafter/Joist Hurricane Tie
CS16	RS150	Coiled Strap
HTT4	HTT45	Tension Tie/Holdown
PA51	TA51	Strap Tie Holdown

Notes:

1. Plan specified connectors supersede this chart
2. All connectors use in exterior applications to be hot dipped galvanized
3. For USP/Mitek substitutions not shown, contact Arrow Design, PLLC to determine if an equivalent product is available.

Section Marker Key



Bradford A. Aycock, P.E.

Digitally signed by Bradford A. Aycock, P.E.
Date: 2024.07.22 08:28:06 -04'00'

*****These plans may only be released to 3rd parties by The Original Log Cabin Homes (client) or by the engineer with written permission from the client. All questions on structural plans from homeowner/contractor/ 3rd parties should be directed through The Original Log Cabin Homes (client).*****

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Revisions

Number	Date	Description

Plan Symbol Key

Description	Symbol
Load Bearing Wall	
Dropped Beam/ Header/Structural Ridge	
Flush Beam/Joist/ Rafter	
CMU	
Concrete	
Brick/Masonry	
Outline of Item Above or Below	
Undisturbed Earth/ Compacted Fill	
Crushed Stone	
Center Line	
Insulation	
Joist Supported Load Bearing Wall Abv. Provide Solid Blocking Below	
Rigid Insulation	

General Notes

1. No other party may revise, alter, or delete any aspects of these construction documents without written permission of Arrow Design, PLLC.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. Arrow Design, PLLC is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. Arrow Design, PLLC will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
4. Any structural elements or details not fully developed on the construction drawings or in the local building code shall be completed under the direction of a licensed professional engineer. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of Arrow Design, PLLC.
5. Verification of assumed field conditions is not the responsibility of Arrow Design, PLLC. The contractor shall verify the field conditions for accuracy and report any discrepancies to Arrow Design, PLLC before construction begins.
6. Arrow Design, PLLC is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure, structural assemblies and all construction shall conform to all applicable sections of the international residential code and any local building codes (with local codes taking precedent)
8. **CONTRACTOR SHALL REVIEW ALL NOTES, SPECIFICATION, AND DETAILS before beginning construction.** Any questions or concerns shall be brought to the attention of Arrow Design, PLLC immediately and before commencing with any construction activities. Arrow Design, PLLC is not responsible for contractor failure to read construction documents.

Log Framing Material Package

1. Framing Materials for this home will be provided as a package from Original Log Cabin Homes (OLCH).
2. Foundation materials, deck framing materials, railings, interior finishes and appliances are typically not included in this package and are the responsibility of the owner/contractor.
3. Refer to the OLCH materials contract for a complete listing of all items provided. Contract supersedes plan notes. Any item not explicitly stated in the materials contract is to be provided by the owner/contractor.
4. Arrow Design, PLLC is not responsible for OLCH errors and omissions in material contract documents.
5. Arrow Design, PLLC is not responsible for material supplier/client/contractor coordination.

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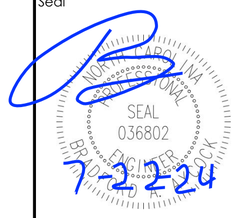

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Foundations

1. Verification of the assumed soil bearing capacity value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered a licensed professional engineer must be contacted before proceeding.
2. The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
3. Any fill shall be placed under the direction or recommendation of a licensed professional engineer. The resulting soil shall be compacted to a minimum of 95% maximum dry density.
4. Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
5. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
6. Unbalanced backfill shall not exceed 48" on unreinforced masonry walls. Refer to details for masonry walls with more than 48" of unbalanced backfill.

Concrete

1. Concrete shall have a normal weight aggregate and a minimum compressive strength (f'c) at 28 days of 3000 psi, unless otherwise noted on the plan.
2. Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
3. Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
   - Footings: 5%
   - Exterior Slabs: 5%
4. No admixtures shall be added to any structural concrete without written permission of the SER
5. Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
6. The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported conditions not in accordance with the above assumptions.
7. Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted.
8. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished.
9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
10. All welded wire fabric (W.W.F.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The W.W.F. shall be securely supported during the concrete pour.

Reinforced Concrete

1. Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
2. Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
3. Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
4. Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
5. Steel Reinforcing bas shall be new billet steel conforming to ASTM A615, grade 60.
6. Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of Standard Practice for Detailing Concrete Structures"
7. Horizontal footing and wall reinforcement shall be continuous and shall have 90° bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B tension splice.
8. Lap reinforcement as required as minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
9. Where reinforcing dowels are required , they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters into the footing.
10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

Superior Walls

1. Superior walls should be installed by a Superior Walls certified installer.
2. Manufacturer wall layout shop drawing shall be submitted to the designer for verification of dimensions, openings, and point loads before construction begins. Designer is not responsible for dimensional inaccuracies on the part of the manufacturer.
3. Superior walls shall be installed in accordance with the latest edition of the Builder Guideline Booklet.
4. Do not place backfill on wall until floor system is in place and the walls are fully braced against lateral forces.
5. It is the responsibility of the contractor to verify that existing soil conditions are suitable for the placement of the Superior Wall panels prior to construction.

Structural Steel

1. Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and of the manual of Steel Construction "Load Resistance Factor Design" latest editions.
2. Structural steel shall receive one coat of shop applied rust-inhibitive paint.
3. All steel shall have a minimum yield stress (Fy) of 36 ksi unless otherwise noted.
4. Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D1.1. Electrodes for shop and field welding shall be class E70XX. All welding shall be performed by a certified welder per the above standards.

Wood Framing

1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Spruce-Pine-Fir (SPF) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
   - E = 2,000,000 psi
   - Fb = 2600 psi
   - Fv = 285 psi
   - Fc = 700 psi
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SPF#2 @16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
8. Individual studs forming a column shall be attached with one 10d nail @6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached with (3)12d nails @12" O.C.
10. Four and five ply beams shall be bolted together with (2) rows 1/2" dia. through bolts staggered @16" O.C. unless noted otherwise.

Wood Trusses

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-02), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
3. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
4. The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
5. Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

Structural Fiberboard Panels

1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. All structurally required fiberboard sheathing shall bear the mark of the AFA.
3. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
4. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

Wood Structural Panels

1. Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA standards.
2. All structurally required wood sheathing shall bear the mark of the APA.
3. Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.
4. Roof sheathing shall be APA rated sheathing exposure 1 or 2. Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
5. Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ring shank nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of T&G plywood or lumber blocking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.
6. Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

Logs

1. All logs should be graded according to the provisions set forth in ASTM D3957 and in accordance with all local building codes. It is the responsibility of the contractor and log supplier to ensure to all logs have been properly graded and that the proper documentation can be provided. Arrow Design, PLLC does not take responsibility for the failure of the contractor or log supplier to verify that log grading is in compliance with the local building codes.
2. All logs are to be kiln dried Eastern White Pine #2, unless otherwise noted.
3. Provide two courses (min) above all openings, unless otherwise noted.
4. Do not break logs over openings or within 4" of an opening edge.

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Footing Schedule

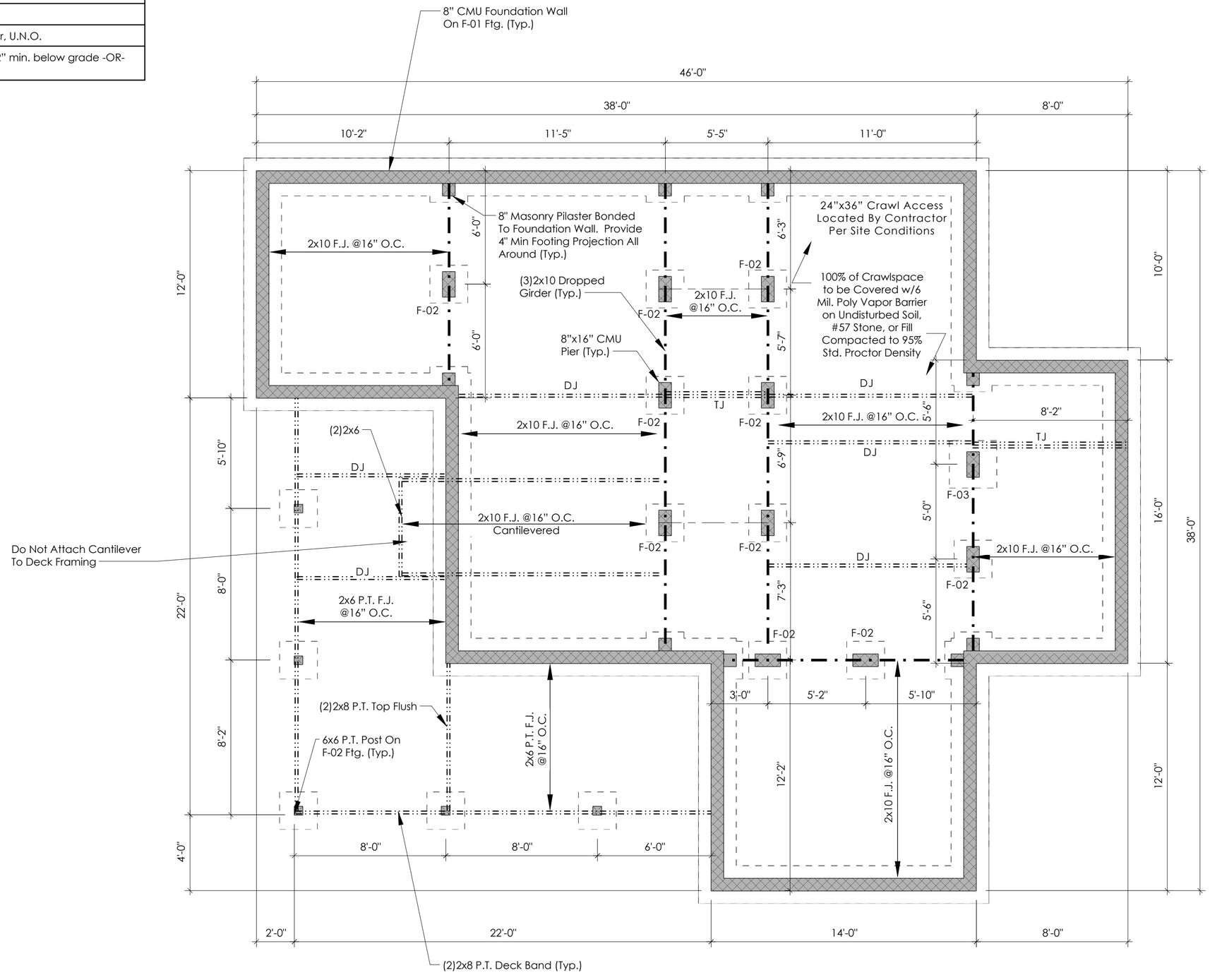
Mark	Size	Rebar
F-01	24"x12" Cont. Conc.	(2)#4 Cont.
F-02	24"x24"x10"	None
F-03	30"x30"x10"	(3)#4 or (3)#5 E.W.
F-04	36"x36"x10"	(4)#4 or (3)#5 E.W.

Notes:

1) Lap all rebar splices 30" min., U.N.O.

2) Provide 3" min. concrete cover for all rebar, U.N.O.

3) The bottom of all footings to be located 12" min. below grade -OR- below local frost depth, whichever is greater.



1/4 FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

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Header Schedule

Mark	Size	Jacks E.E.
A	(2)2x6	1
B	(2)2x8	1
C	(2)x10	2
D	(2)2x12	2
E	(2)1.75"x9.25" LVL	2
F	(2)1.75"x11.875" LVL	3

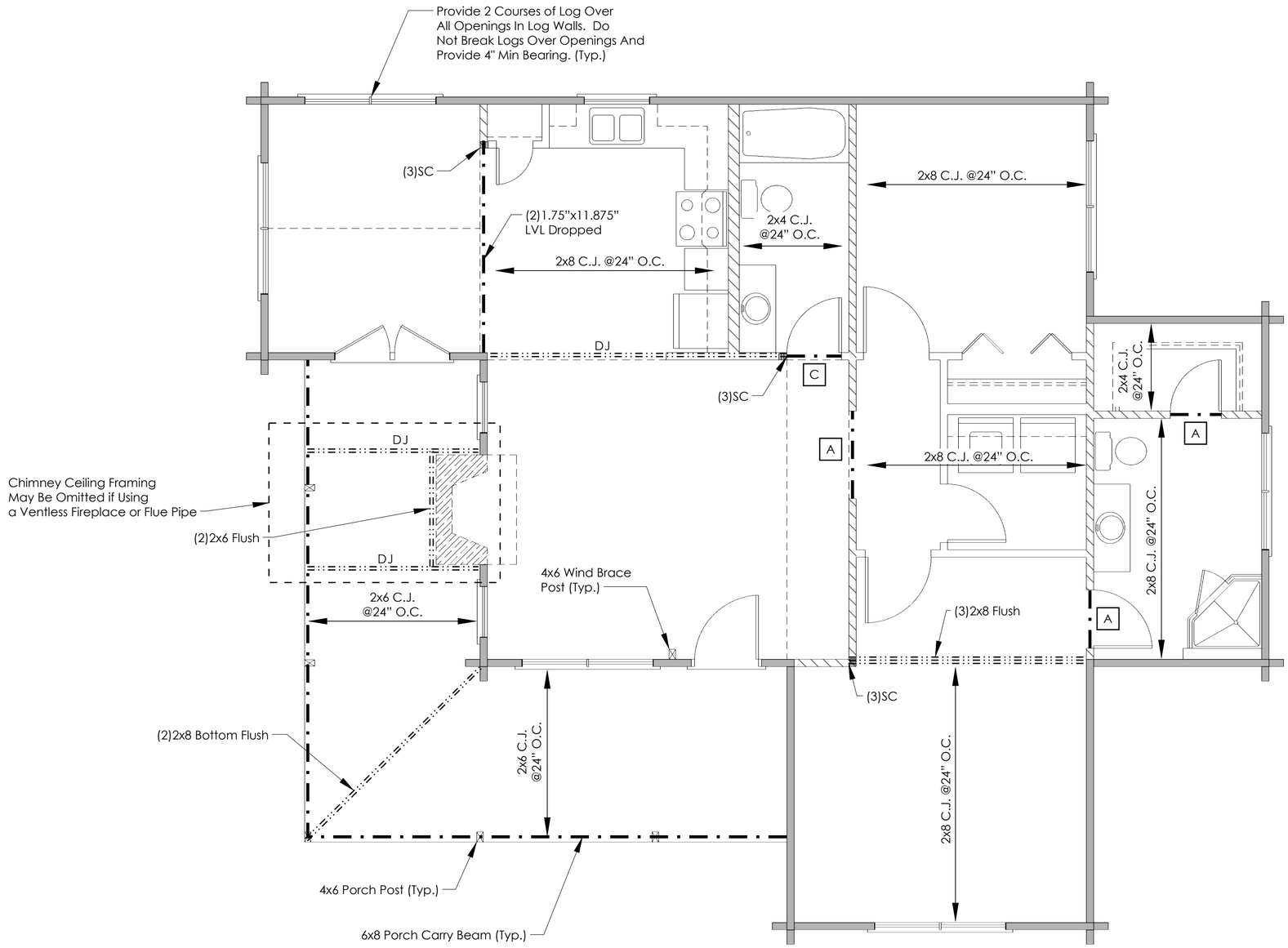
Notes:

1. Plan noted jack studs take precedence over schedule.

2. Refer to Typical Opening Detail for king stud requirements or section R607.2 of state building code.

General Framing Notes

1. All exterior framed walls to be 2x4 studs at 16" O.C. and are assumed to be load bearing
2. All interior framed walls are to be 2x4 studs @16" O.C. for load bearing walls and 24" O.C. for non-load bearing walls.
3. All exterior framed walls are considered to be load bearing AND braced wall lines.
4. No load bearing studs shall be notched more than 1/3 of its total depth.
5. Attach 7/16" (min) OSB continuous sheathing to all exterior framed walls with 8d nails @6" O.C. edge and 12" O.C. field.
6. Refer to typical connector schedule for wood connectors not explicitly called out on the plan.
7. Provide solid blocking in the floor system between posts to ensure load transfer to the foundation
8. Any wood member in contact with masonry or exposed to weather shall be pressure treated.
9. Refer to the wood framing section of the cover sheet for multi-ply beam attachments.



1/5 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

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Wall Bracing Schedule

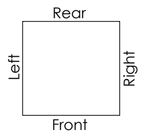
Wall Bracing Types	
Mark	**Description**
LOG	Fasten each log course with 10" log fasteners (3/16" ⌀ min.) @24" O.C. staggered.

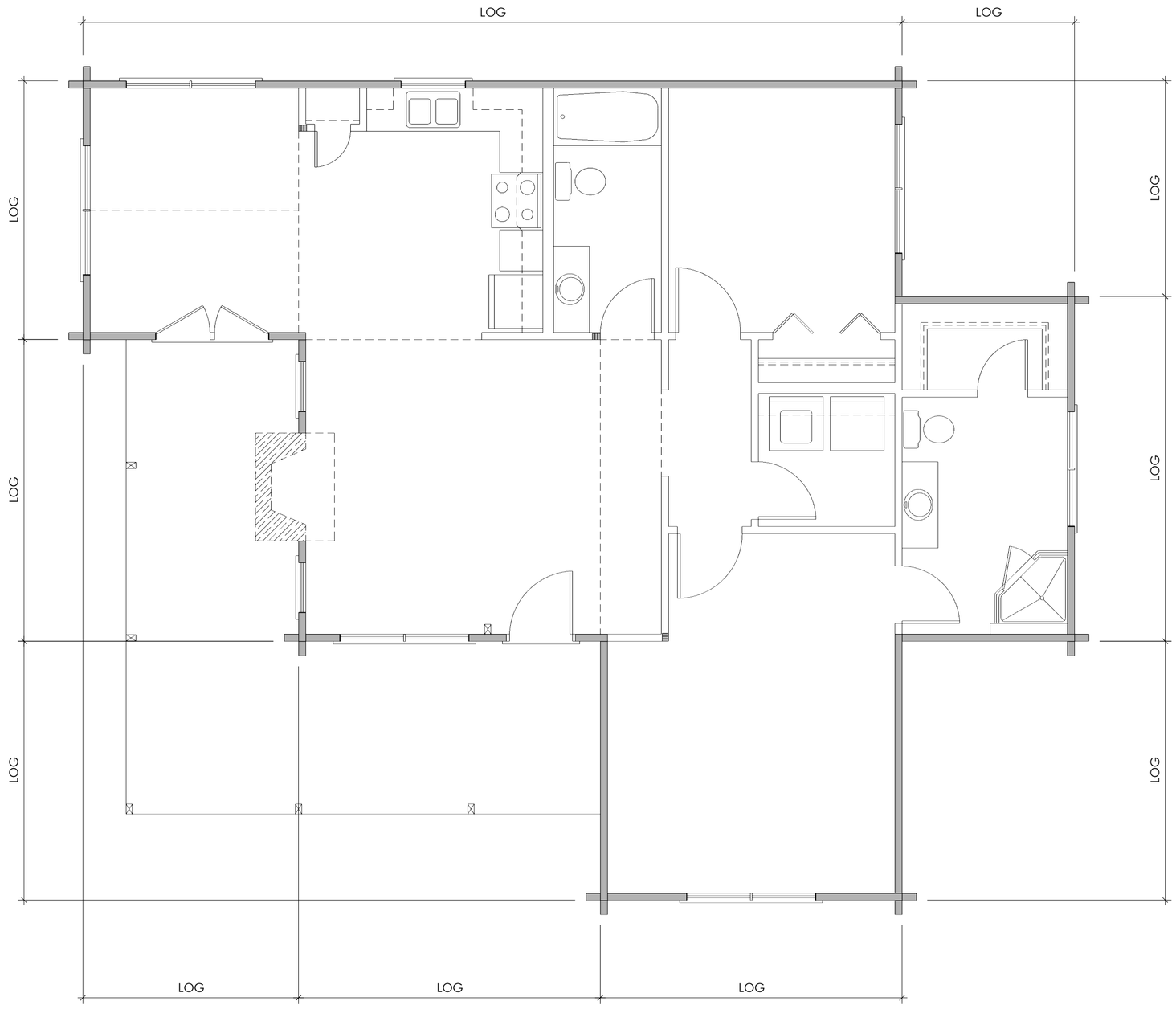
Wall Bracing Lengths		
Wall ID	**Required (ft)**	**Provided (ft)**
BW-1	N/A	N/A
BW-2	N/A	N/A
BW-3	N/A	N/A
BW-4	N/A	N/A

Connectors	
Mark	**Description**
▲	36" SST CS16 strap from bottom of stud to bottom of floor system band
△	48" SST CS16 strap from wall to plate, across header to jack stud below.

Wall Bracing Notes

1. Minimum panel width is 24" and 16" for portal frames.
2. Required length values based on the circumscribed rectangle method of the latest edition of the NCRC, section R602.10.3. If no rectangle is shown, it is assumed the entire structure has been calculated using one rectangle.
3. Panels may shift up to 36" in either direction for was of construction, however, nailing and blocking requirements still apply.
4. When a side does not meet the prescriptive requirements of the NCRC, a wall may be shown as "Eng-#". Requirements for the engineered sheer wall will be explicitly called out in an engineered wall schedule and required length/actual lengths in wall bracing chart will be listed as "N/A".
5. Schematic below indicates how sides of rectangle are to be interpreted in wall bracing chart when applied to the structure.





FIRST FLOOR PLAN
1/6 WALL BRACING
SCALE: 1/4" = 1'-0"

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NC Firm License #: P-1562

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The Sally Woodley Residence - Structural Plans

Project Address
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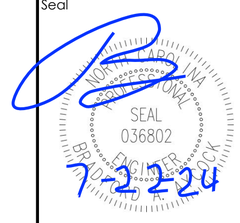
Sanford, NC 27332 - Harnett Co.

Client Name
The Original Log Cabin Homes

Client Address
P.O. Box 1457
Rocky Mount, NC 27802
252-451-1500

Seal



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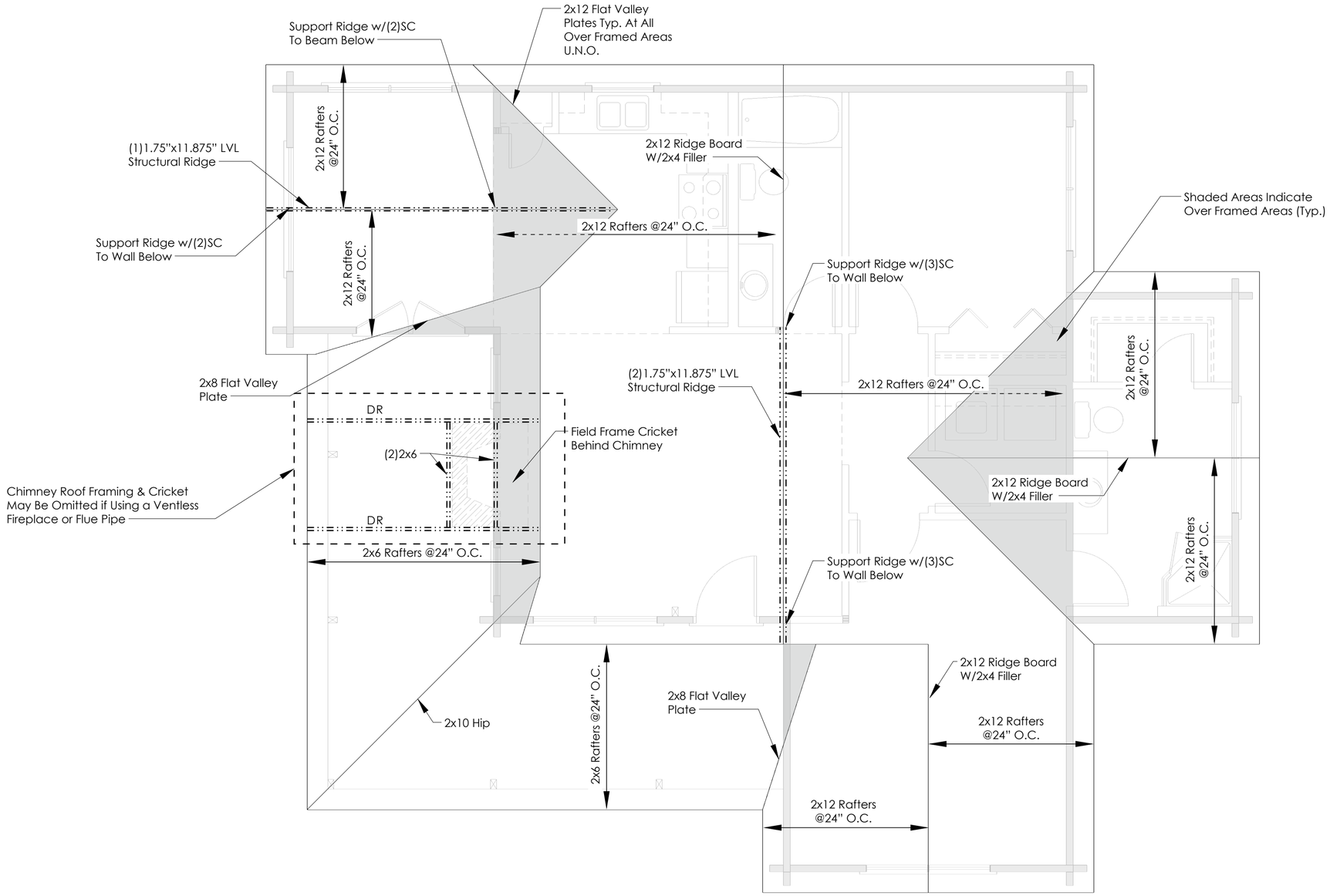
General Roof Plan Notes

1. All roof framing to be SPF#2 or greater.
2. 2x6 Collar ties to be installed on every other rafter in upper third of all roof areas NOT containing a structural ridge.
3. SST H2.5A rafter tie to be installed at the base of each rafter. For 4x8 rafters or larger, refer to wall section detail pages for connection requirements.
4. Roof sheathing to be 1/2" (min) OSB or plywood rated for 24" O.C. spacing. Use 5/8" sheathing when using a metal roof.
1. Truss manufacturer layouts and truss profile drawings take precedent over this plan and should be used in the construction of the roof.
2. All trusses and girder trusses are considered end-end bearing with no intermediate support unless explicitly specified.
3. Do not break rafters on knee walls, unless wall is noted as load bearing.



1/7 ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

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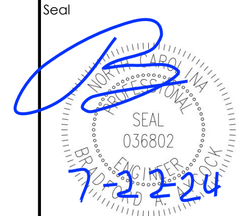

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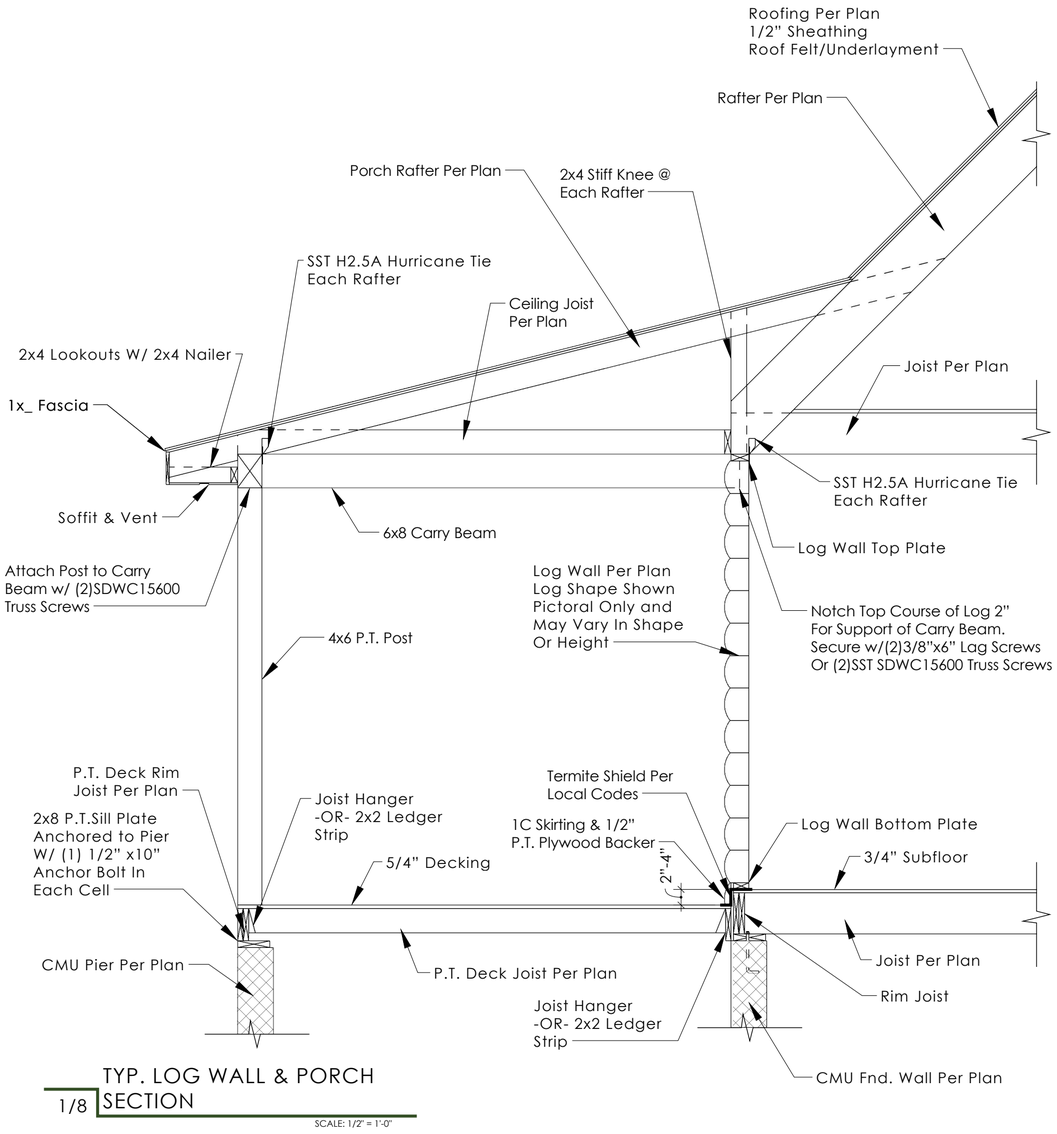
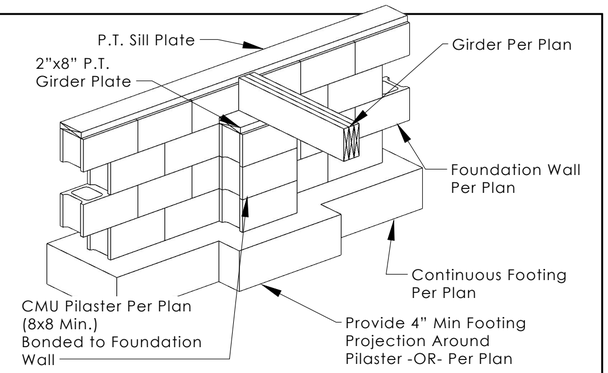


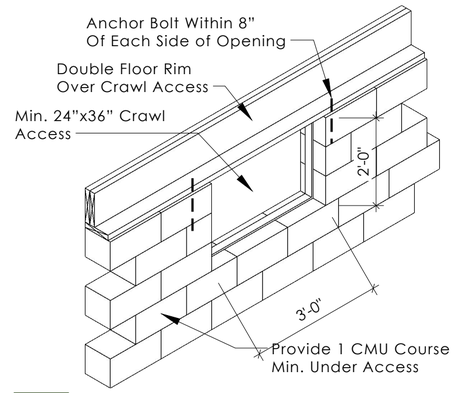
1/8 TYP. LOG WALL & PORCH SECTION

SCALE: 1/2" = 1'-0"



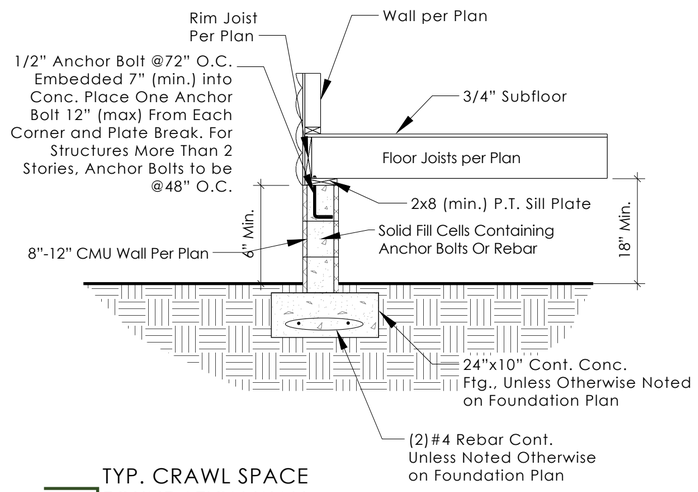
2/8 TYP. MASONRY PILASTER

SCALE: 1/2" = 1'-0"



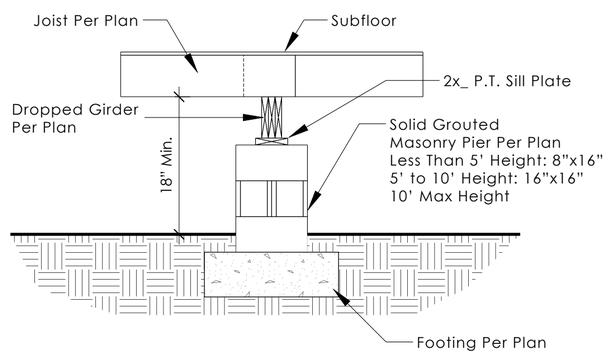
3/8 TYP. CRAWL SPACE ACCESS

SCALE: 1/2" = 1'-0"



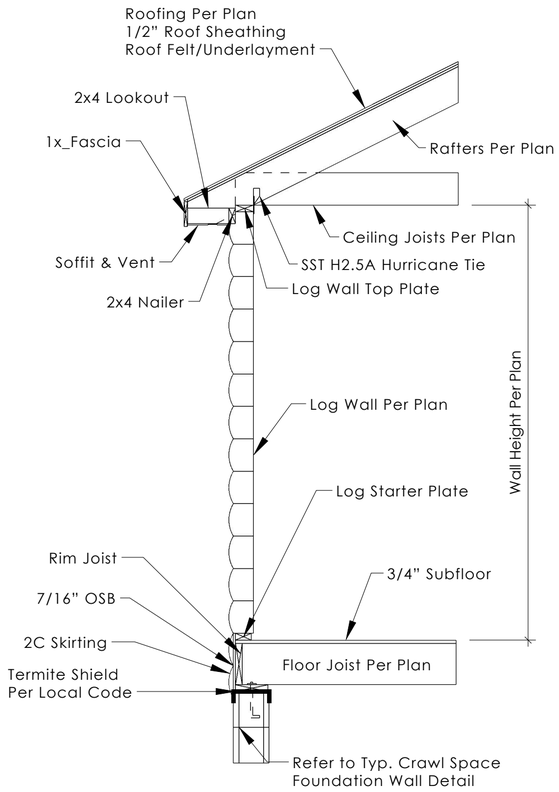
4/8 TYP. CRAWL SPACE FOUNDATION WALL

SCALE: 1/2" = 1'-0"



5/8 TYP. MASONRY PIER

SCALE: 1/2" = 1'-0"



6/8 TYP. LOG WALL SECTION

SCALE: 1/2" = 1'-0"

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Seal

NORTH CAROLINA PROFESSIONAL SEAL 036802 ENGINEER BRANDON A. KNOCK

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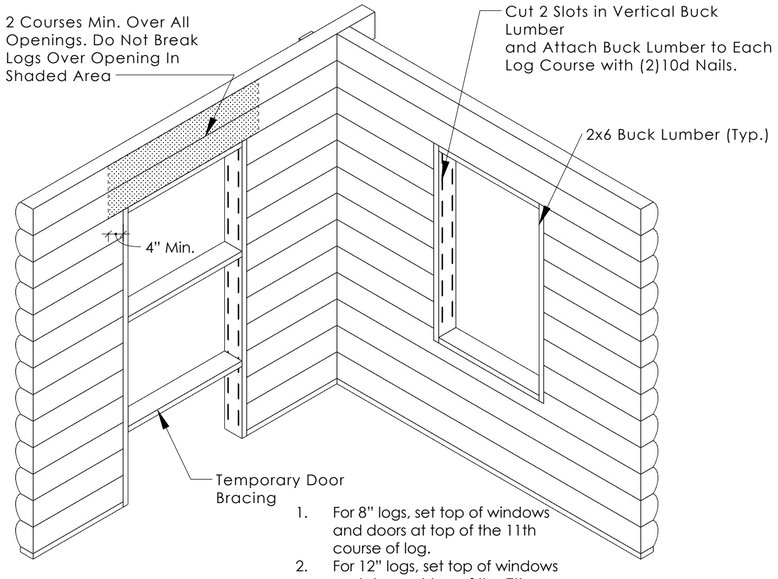
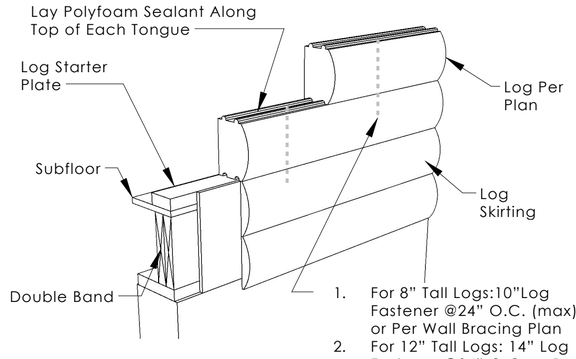


1. For 8" logs, set top of windows and doors at top of the 11th course of log.
2. For 12" logs, set top of windows and doors at top of the 7th course of log.
3. Refer to heights given on elevation plans.

1/9 LOG DOOR & WINDOW OPENINGS

SCALE: 1/2"=1'-0"

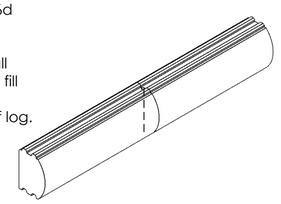


1. For 8" Tall Logs:10"Log Fastener @24" O.C. (max) or Per Wall Bracing Plan
2. For 12" Tall Logs: 14" Log Fastener @24" O.C. or Per Wall Bracing Plan
3. Pre-drill 5/16" Hole in Top of Log and Countersink 1/4".

2/9 TYP. LOG WALL ASSEMBLY AT FLOOR SYSTEM BAND

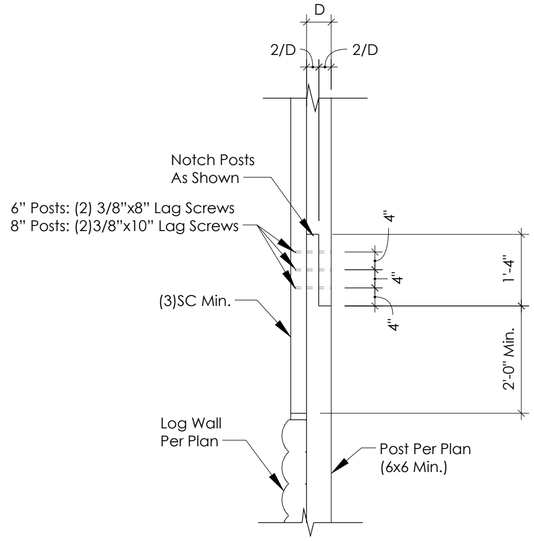
SCALE: Perspective

1. Clean ends of log to assure a tight fit.
2. Butt logs together and toenail with 16d nails to hold logs in line until they are spiked in place.
3. Drill 1 1/8" dia. hole, 9" deep for 8" tall logs and 13" for 12" tall logs. Partially fill with caulk.
4. Drive 9" or 13" dowel flush with top of log.



3/9 TYP. IN-LINE LOG JOINT

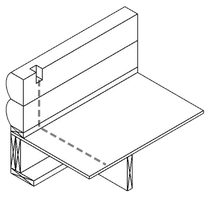
SCALE: 3/4" = 1'-0"



6/9 WIND BRACE POST SPLICE

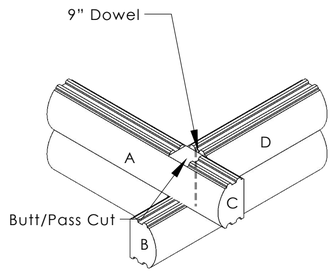
SCALE: 1/2" = 1'-0"

1. Electrical Outlets are cut into the top of the second course of log (except over cabinets when it is cut into the top of the sixth course).
2. After laying the second course of log, locate the position of all electrical outlets and drill 3/4" hole through bolt logs and subfloor as shown.
3. Using a duplex box as a template, trace outline of the box onto the log.
4. Using a 7 1/4" circular saw, kerf cut (As much as possible) the log away between the lines.
5. Using a wood chisel and mallet, remove the remaining wood from the cavity.



4/9 ELECTRICAL OUTLET IN LOG WALL

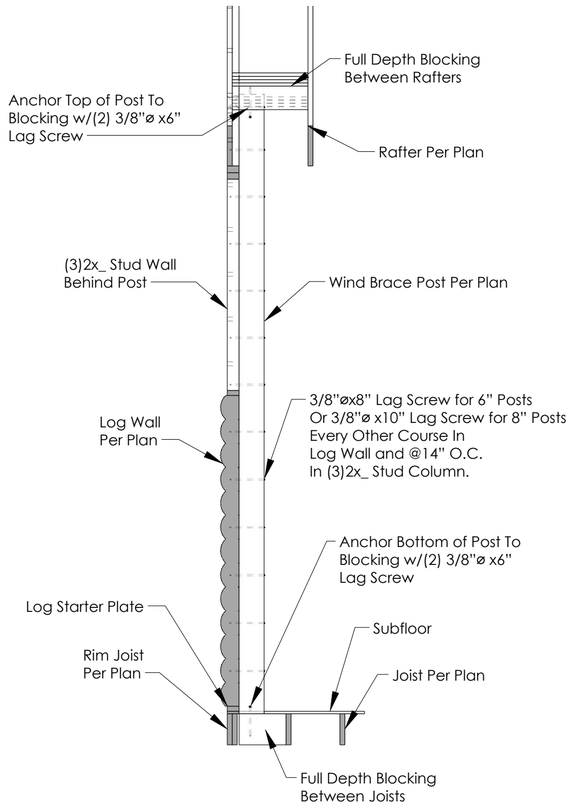
SCALE: 1/2" = 1'-0"



1. Prepare butt cut on log A & D.
2. Prepare pass cut Lon log B & C.
3. Butt log A into log B. Be sure tongue of log B has been. removed to allow log C to pass over lob B.
4. Toenail log A into log B.
5. Lag both logs in place.
6. Drill 1 /18" hole, 9" deep at center of the intersection.
7. Partially fill hole with caulk and drive in 9" dowel flush.
8. Repeat the process on each successive course of log.

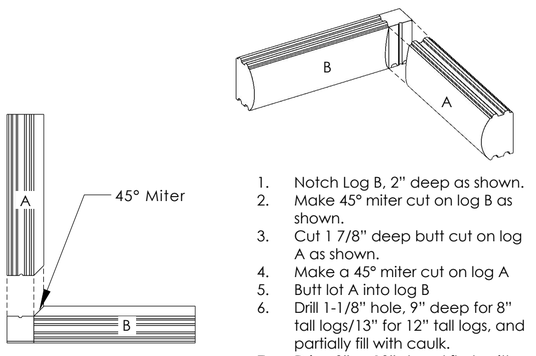
5/9 BUTT & PASS CORNER

SCALE: 3/4"=1'-0"



9/9 WIND BRACE POST DETAIL

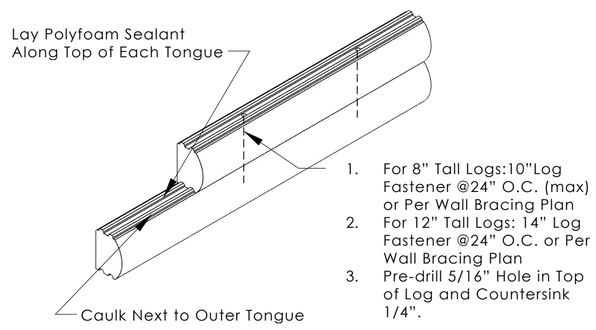
SCALE: 3/8" = 1'-0"



1. Notch Log B, 2" deep as shown.
2. Make 45° miter cut on log B as shown.
3. Cut 1 7/8" deep butt cut on log A as shown.
4. Make a 45° miter cut on log A
5. Butt lot A into log B
6. Drill 1-1/8" hole, 9" deep for 8" tall logs/13" for 12" tall logs, and partially fill with caulk.
7. Drive 9" or 13" dowel flush with top of log.

7/9 MITERED INSIDE LOG CORNER

SCALE: Not to scale



1. For 8" Tall Logs:10"Log Fastener @24" O.C. (max) or Per Wall Bracing Plan
2. For 12" Tall Logs: 14" Log Fastener @24" O.C. or Per Wall Bracing Plan
3. Pre-drill 5/16" Hole in Top of Log and Countersink 1/4".

8/9 TYP. LOG WALL ASSEMBLY

SCALE: 3/4" = 1'-0"

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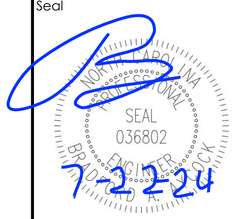

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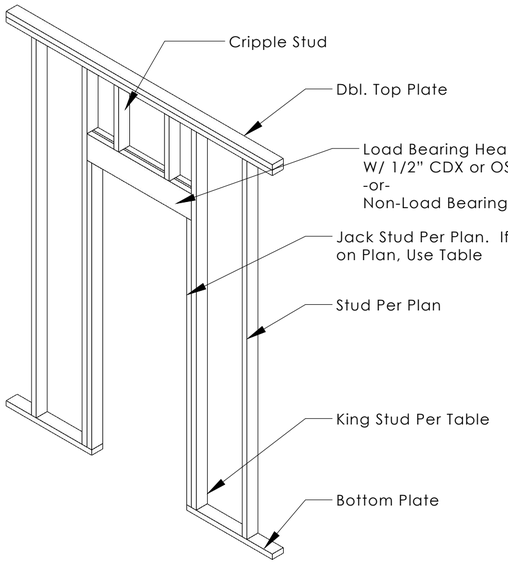
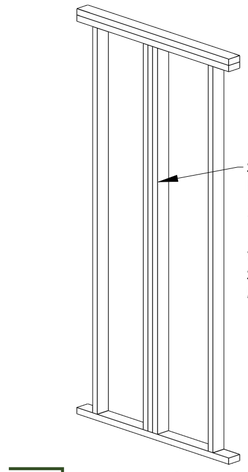
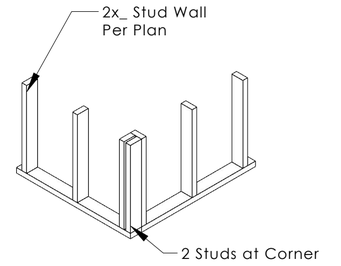


Required King & Jack Studs at End of an Opening				
	24" O.C. Spacing		16" O.C. Spacing	
Opening Width	No. of Jacks	No. of Kings	No. of Jacks	No. of Kings
Up to 3'-6"	1	1	1	1
>3'-6" to 5'-0"	1	2	1	2
>5'-0" to 5'-6"	1	2	2	2
>5'-6" to 8'-0"	1	2	2	2
>8'-0" to 10'-6"	2	2	2	3
>10'-6" to 12'-0"	2	2	3	3
>12'-0" to 13'-0"	2	3	3	3
>13'-0" to 14'-0"	2	3	3	4
>14'-0" to 16'-0"	2	3	3	4
>16'-0" to 18'-0"	3	3	4	4
Notes				
1) Jack and king stud notes on the plan supercede this table if present				

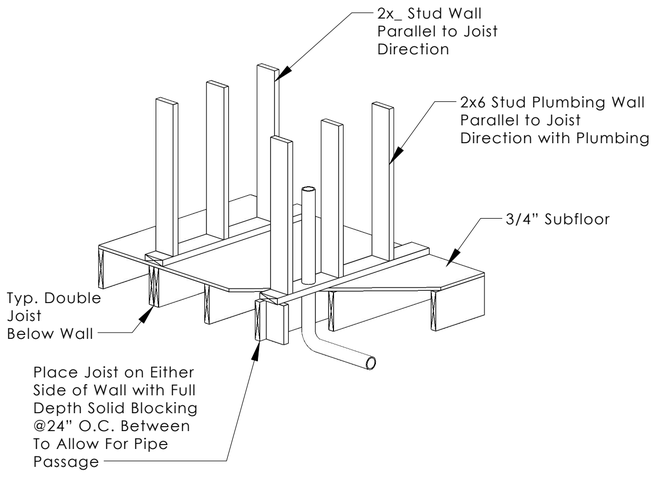
1/10 TYP. FRAMED OPENINGS
SCALE: 1/2" = 1'-0"



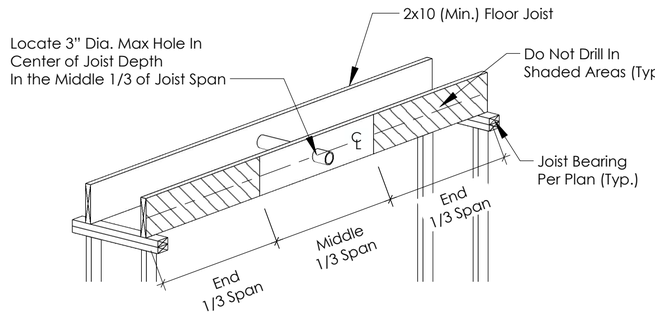
2/10 TYP. STUD COLUMN
SCALE: 1/2" = 1'-0"



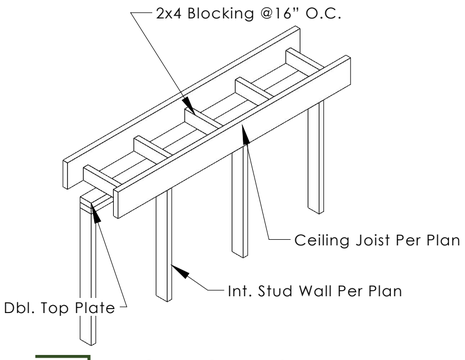
3/10 TYP. INTERIOR WALL CORNER
SCALE: 1/2" = 1'-0"



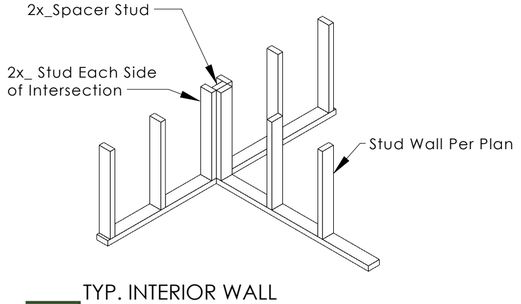
TYP. DOUBLE JOISTS BELOW
4/10 2x6 PLUMBING WALLS
SCALE: 1/2"=1'-0"



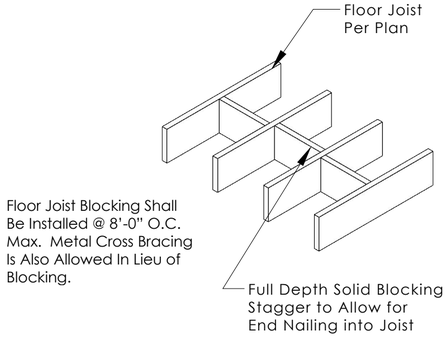
TYP. FLOOR JOIST
5/10 ALLOWABLE PENETRATION
SCALE: 1/2" = 1'-0"



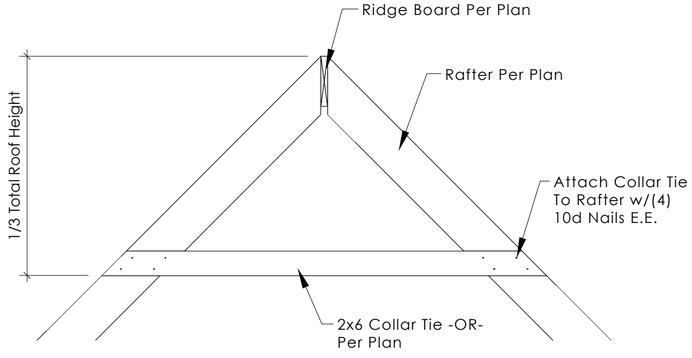
6/10 TYP. CEILING TIE-DOWN
SCALE: 1/2" = 1'-0"



TYP. INTERIOR WALL
7/10 "T" INTERSECTION
SCALE: 1/2" = 1'-0"



8/10 TYP. FLOOR JOIST BLOCKING
SCALE: 1/2" = 1'-0"



9/10 TYP. COLLAR TIE DETAIL
SCALE: 1/2" = 1'-0"

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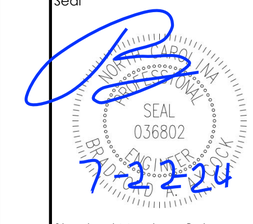

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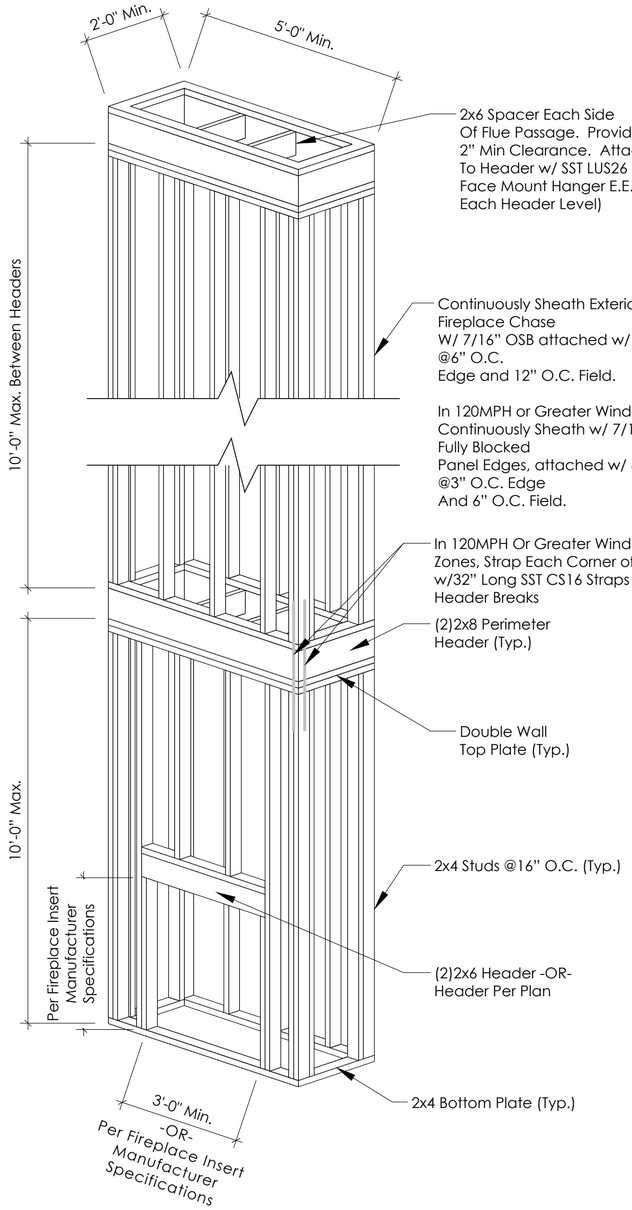
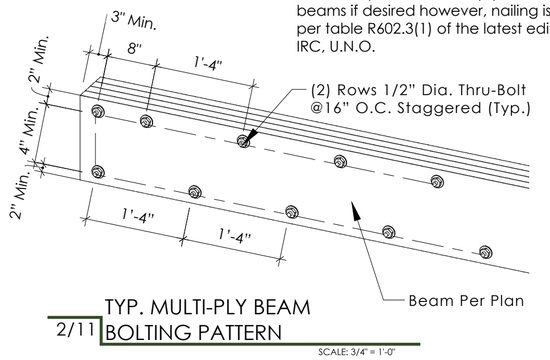


1/11 FIREPLACE INSERT WOOD CHASE DETAIL

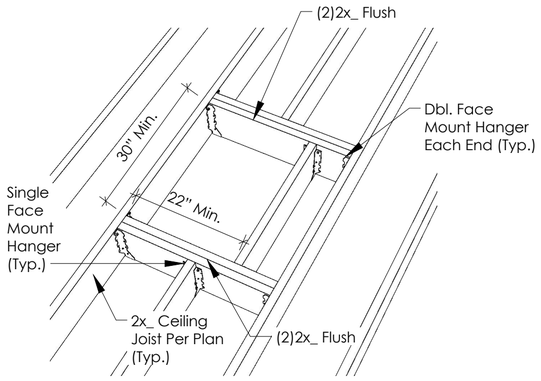
SCALE: nts

Notes:
1. Use for all beams 4-ply and greater, U.N.O.
2. Detail may be used for 2-ply and 3-ply beams if desired however, nailing is sufficient per table R602.3(1) of the latest edition of the IRC, U.N.O.



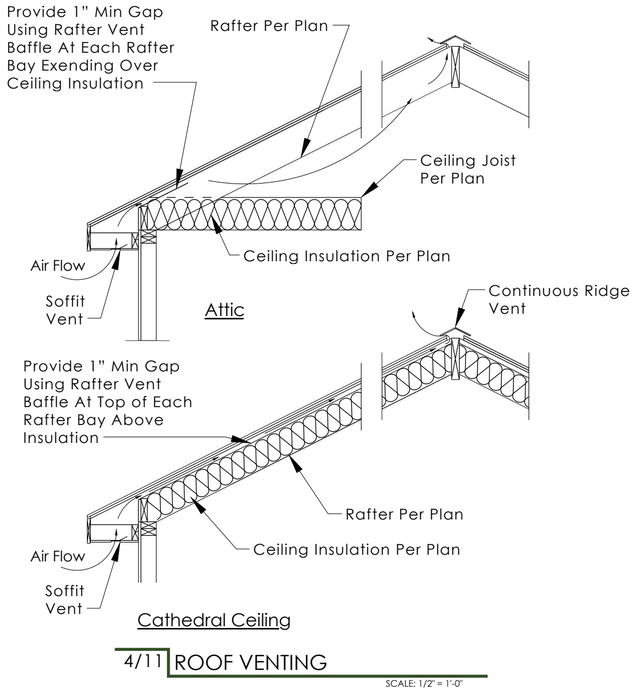
2/11 TYP. MULTI-PLY BEAM BOLTING PATTERN

SCALE: 3/4" = 1'-0"



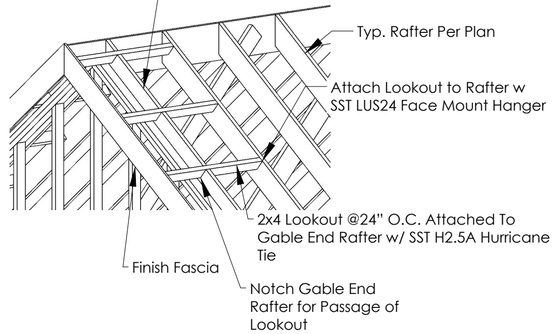
3/11 TYP. ATTIC ACCESS FRAMING

SCALE: Perspective



4/11 ROOF VENTING

SCALE: 1/2" = 1'-0"



5/11 TYP. GABLE LOOKOUT FRAMING

SCALE: NTS

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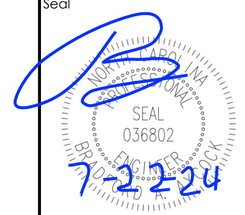

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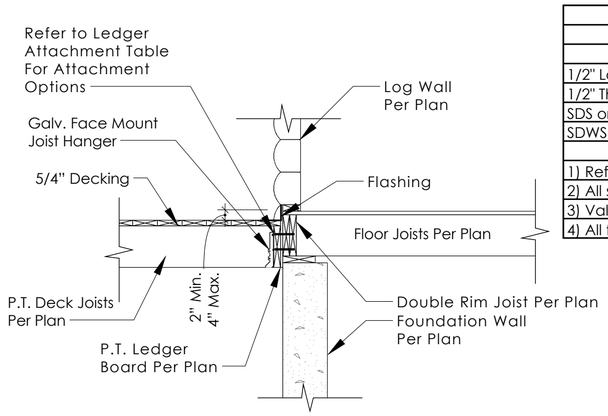
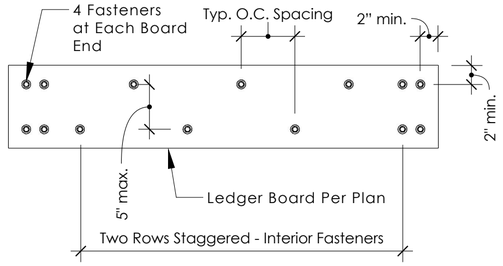
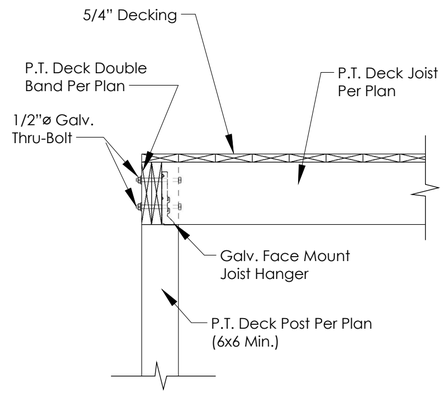
Ledger Attachment Options - Inches on Center							
	Joist Span less than or equal to:						
Fastener Option	6 ft	8 ft	10 ft	12 ft	14 ft	16 ft	18 ft
1/2" Lag Screw	30	23	18	15	13	11	10
1/2" Through Bolt	36	36	34	29	24	21	19
SDS or LedgerLOK Wood Screw	13	10	8	6	5	5	4
SDWS Wood Screw	22	16	13	11	9	8	7
Notes:							
1) Refer to ledger board spacing figure below for placement of fasteners							
2) All spacings based on two staggered rows of connectors							
3) Values are for penetration into double 2x_ floor joist band ONLY							
4) All fasteners to be hot dipped galvanized							





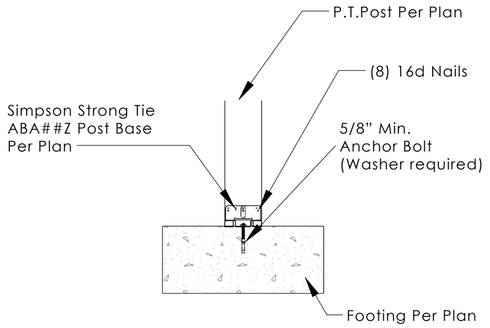
1/12 TYP. DECK ATTACHMENT AT LOG WALL

SCALE: 1/2" = 1'-0"



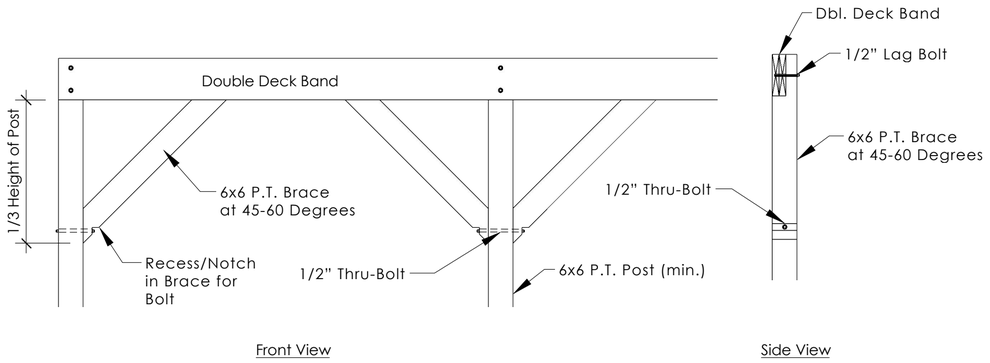
2/12 TYP 2-PLY FLUSH DECK BAND ATTACHMENT

SCALE: 3/4" = 1'-0"



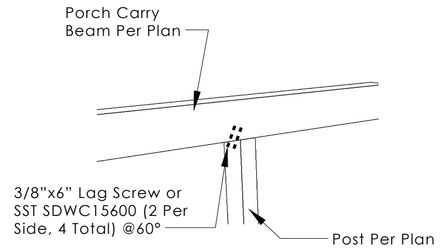
3/12 TYP. DECK POST ANCHORAGE

SCALE: 3/4" = 1'-0"



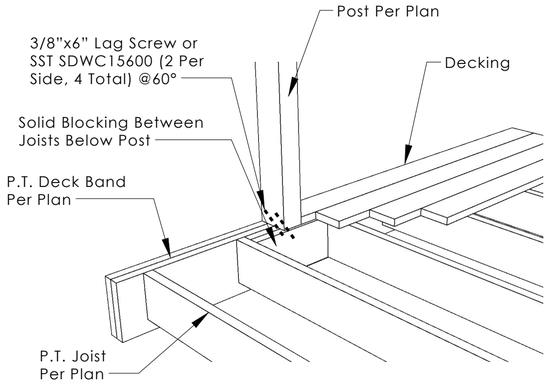
4/12 TYP. DECK POST "Y" BRACING

SCALE: <Scale>



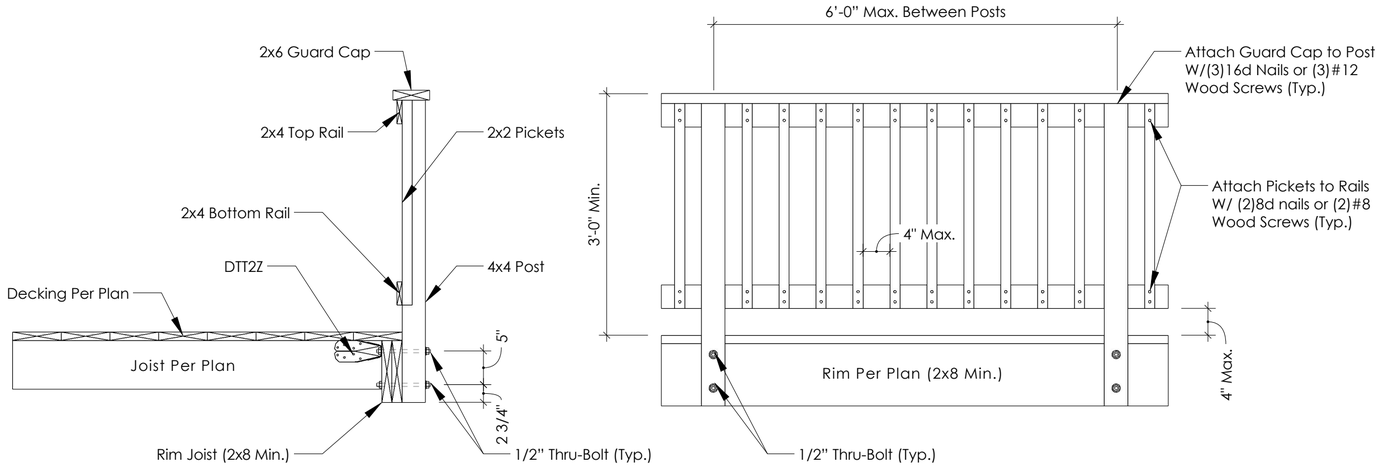
5/12 TYP. PORCH POST TO CARRY BEAM ATTACHMENT

SCALE: Perspective



6/12 TYP. PORCH POST TO DECK ANCHORAGE

SCALE: Perspective



7/12 TYP. WOOD DECK RAILING

SCALE: 3/4" = 1'-0"

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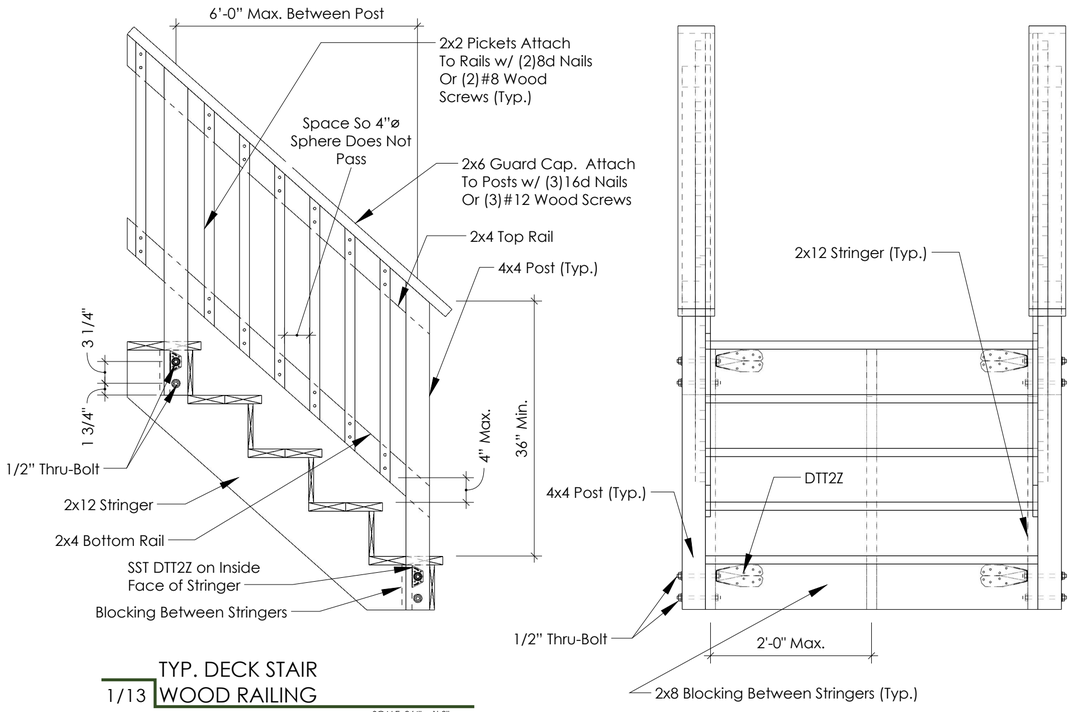
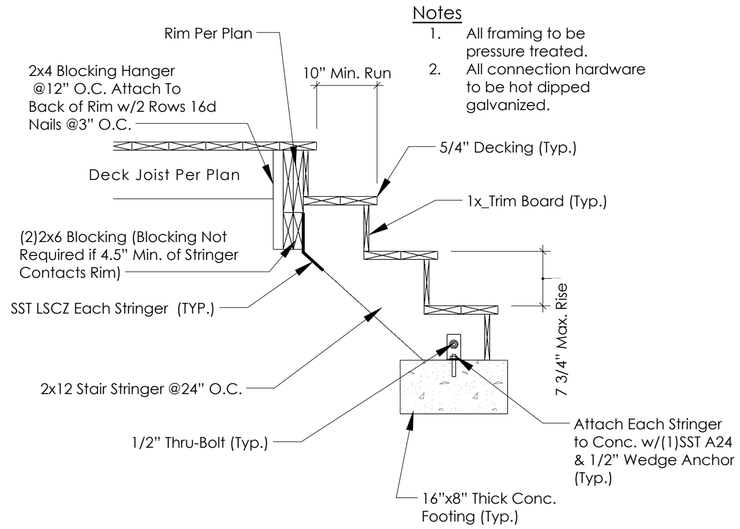


1/13 TYP. DECK STAIR WOOD RAILING

SCALE: 3/4" = 1'-0"



2/13 TYP. DECK STAIRS

SCALE: 3/4" = 1'-0"

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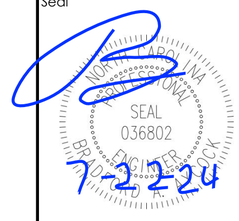

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