

BUFFINGTON

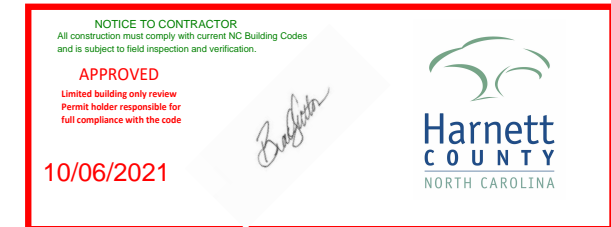
CANE MILL ESTATES
LOT 31



QUALITY | INTEGRITY | VALUE

110 VILLAGE TRAIL SUITE 215
WOODSTOCK, GA. 30188

PLAN ID: 060120.0601



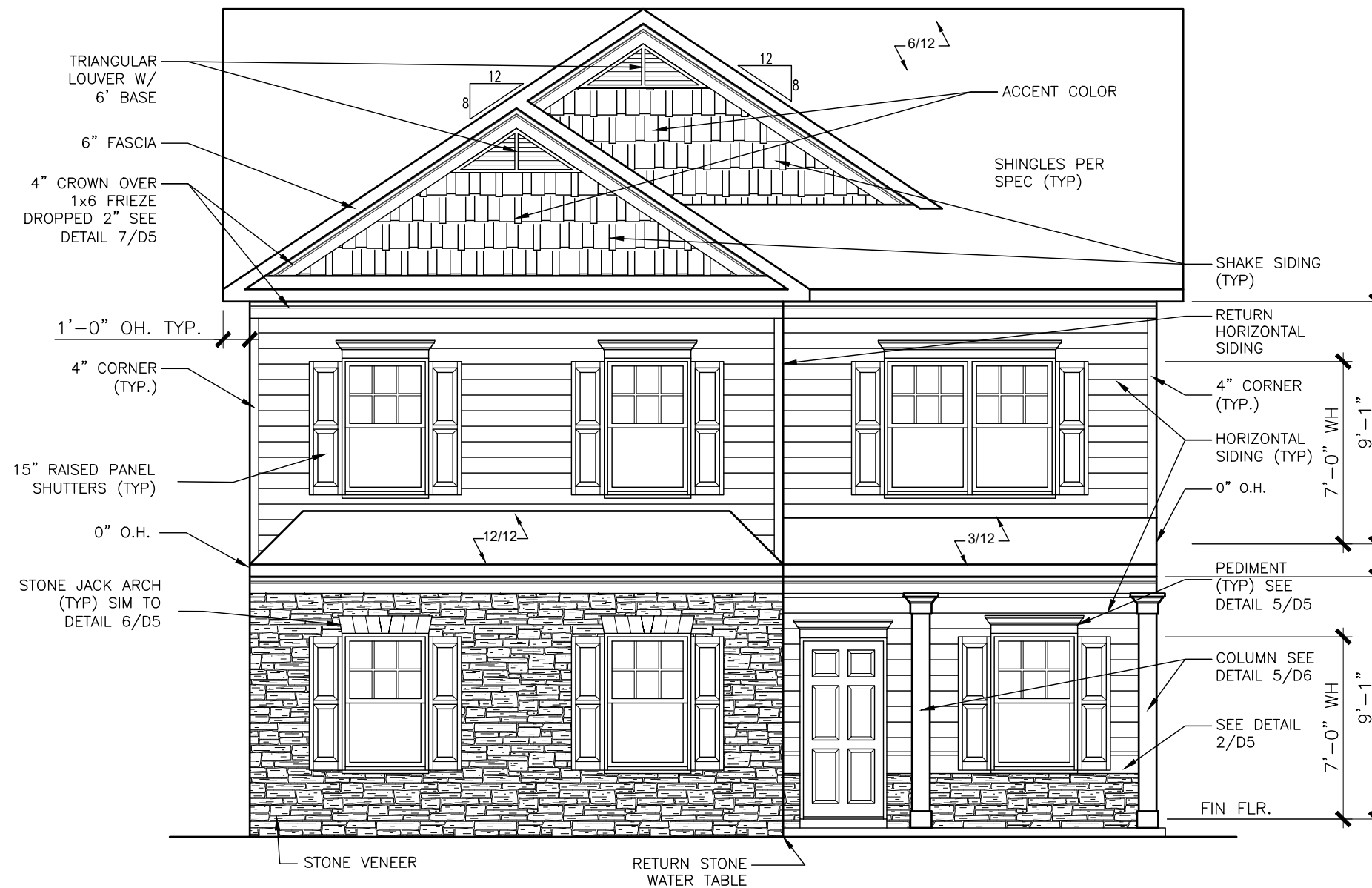
DRAWING INDEX	
A0.0	COVER SHEET
A1.1	FRONT ELEVATION
A2.1	SIDE & REAR ELEVATIONS
A3.1	SLAB FOUNDATION
A5.1	FIRST FLOOR PLAN & DETAILS
A5.2	SECOND FLOOR PLAN & DETAILS
A6.1	ROOF PLAN
A7.2-A7.3	ELECTRICAL PLANS
A8.1	TRIM LOCATION LAYOUTS

AREA TABULATION	
FIRST FLOOR	1100
SECOND FLOOR	1448
TOTAL	2548
GARAGE	400
FRONT PORCH (COVERED)	86
REAR PATIO	200

PLAN REVISIONS			
DATE	BY	REVISION	PAGE #
10/2/2019	AW	PCR #3256 showed Obath switches on door adjacent to W.I.C.	A7.3
10/2/2019	AW	PCR #3247 Added 3-way switches to Owner's Suite light when optional Laundry door is chosen	A7.3
10/8/2019	AW	PCR #3292 moved kitchen light switches over to clear backsplash bullnose on wall adjacent to stairs	A7.2
10/16/2019	AW	Revised location for tankless hot water heater	A3.1, A5.1, A7.2
11/1/2019	AW	PCR #3314 Relocated switch to attic light for the B&C roof massings	A7.2
2/26/2020	AW	PCR #3638 Added 1x10 on front elevations M & T	A1.16, A1.19
6/1/2020	MM	PCR #3765 Added note to return veneer ILO siding on second floor returns above front door.	A1.6, A1.11, A1.15, A1.17
8/11/2020	AW	Updated elevs M & T to remove cedar columns	A1.16, A1.19
10/1/2020	AW	PCR #4084 Removed opt. fireplace in corner location (for 10/1/20 release)	A3.1, A5.1, A7.2, A8.1
11/6/2020	MM	Removed overhang at front porch	A1.1-A1.19, A6.1-A6.1.2
12/1/2020	MM	Shifted upper run of stairs 2" from landing towards outside of house	A5.1, A5.2
12/1/2020	MM	PCR #4239 Changed 2x6 walls at Owner's Bath vanity & WC exterior wall to 2x4 walls	A5.2, A5.2.1
6/1/2021	MM	Changed hall bath vanity from (2) 33" vanities to (2) 30" vanities	A5.2, A7.3

GOVERNMENTAL CODES & STANDARDS
HOME TO BE BUILT TO CONFORM TO ALL APPLICABLE LOCAL CODES, PRACTICES AND STANDARDS
BUILDING CODE ANALYSIS / DESIGN CRITERIA
HOME TO BE BUILT TO MEET OR EXCEED ALL LOCAL CODES AND DESIGN CRITERIA

CANE MILL ESTATES LOT 31



FRONT ELEVATION "D"

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

ALL NON-MASONRY RETURNS TO
BE HORIZONTAL SIDING

SEE SHEET D3 OF SDH TYPICAL
DETAILS FOR SOFFIT DETAILS PER
SOFFIT MATERIAL

REV	DATE	BY	CHK



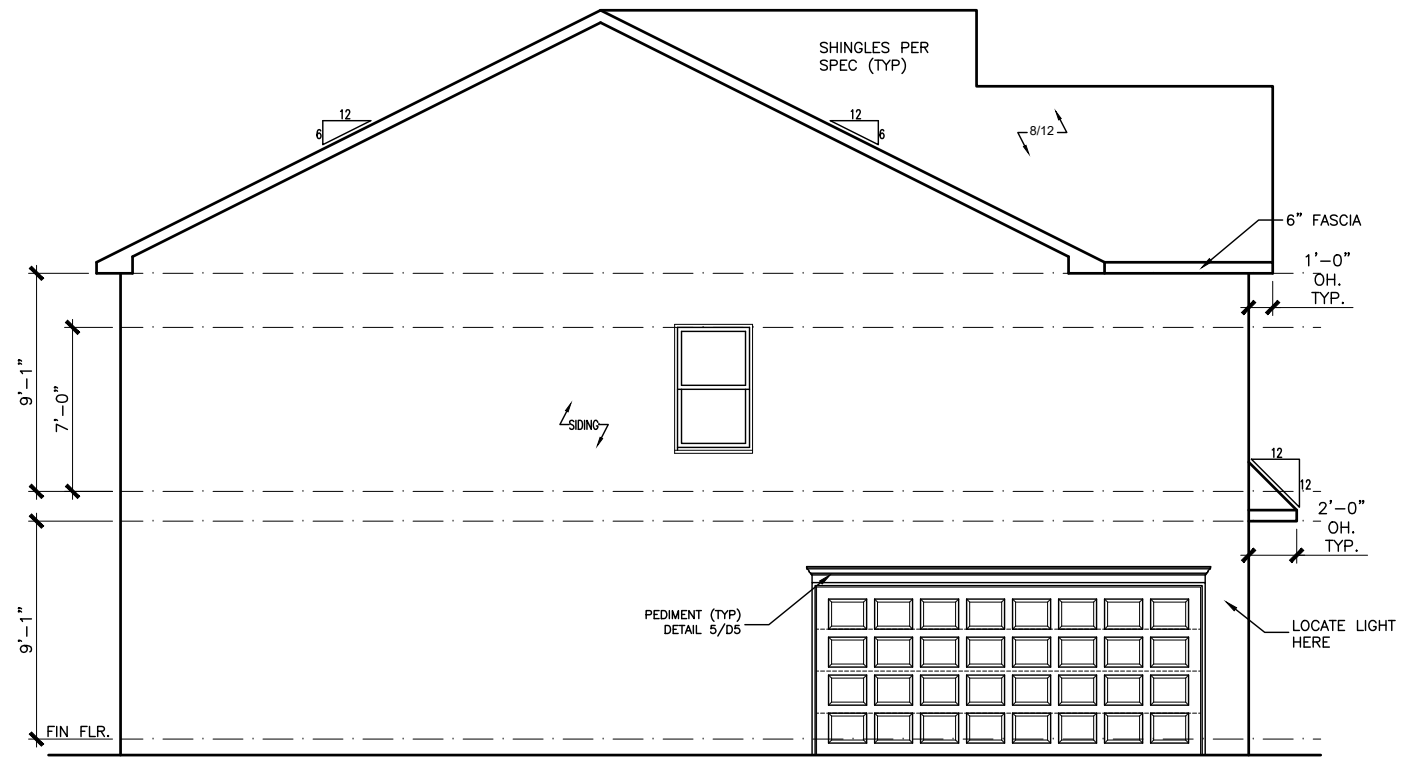
ELEVATIONS
FRONT ELEVATION
BUFFINGTON

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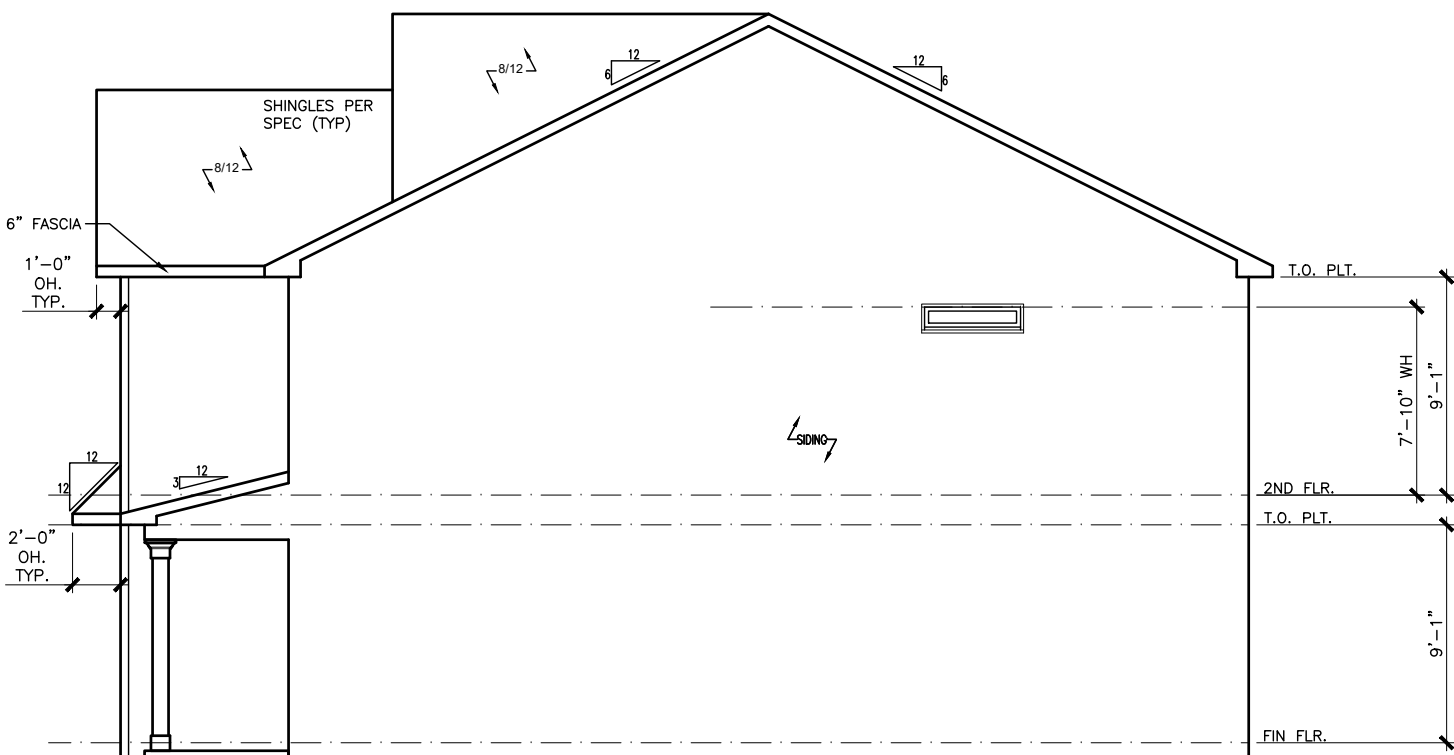
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PLAN ID:	
FND: ALL	ELEV: D
PAGE NO: A1.1	

CANE MILL ESTATES LOT 31



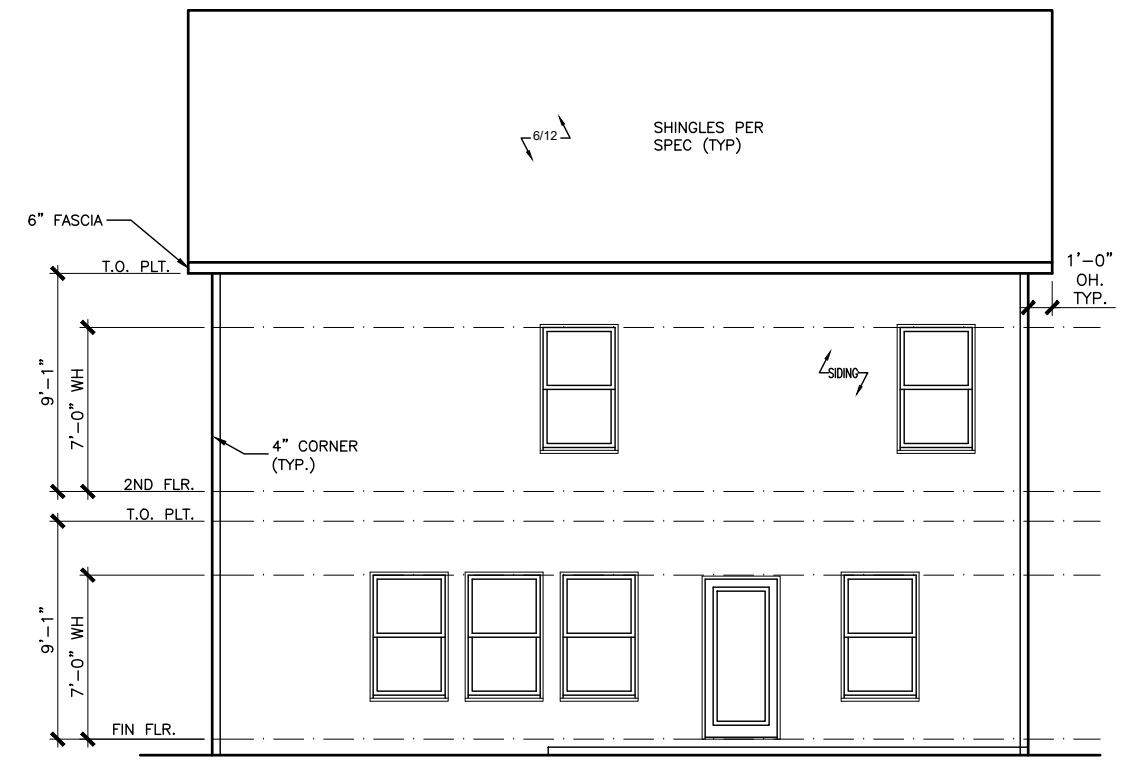
LEFT ELEVATION "D"

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



RIGHT ELEVATION "D"

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



REAR ELEVATION "D"

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

REV	DATE	BY	REVISION

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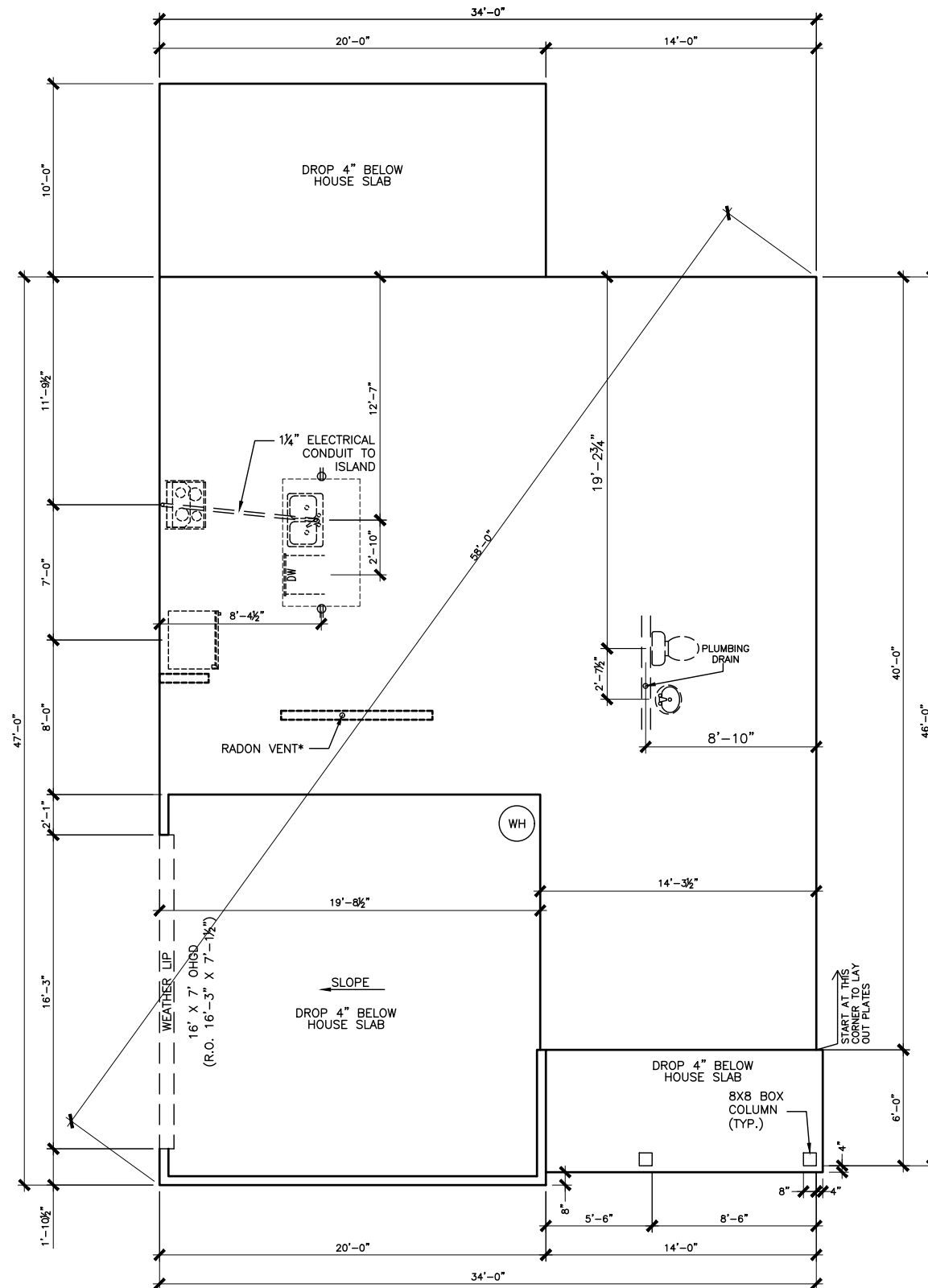
ELEVATIONS
SIDES AND REAR
BUFFINGTON

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PAGE NO: A2.1	

CANE MILL ESTATES LOT 31



SLAB PLAN

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

*RADON VENT PROVIDED
PER LOCAL CODE

REFER TO DETAIL 3/D1
FOR BRICK LEDGE
DETAIL WHEN BRICK
VENEER IS CHOSEN

DATE	REVISION	BY
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#
#	#	#



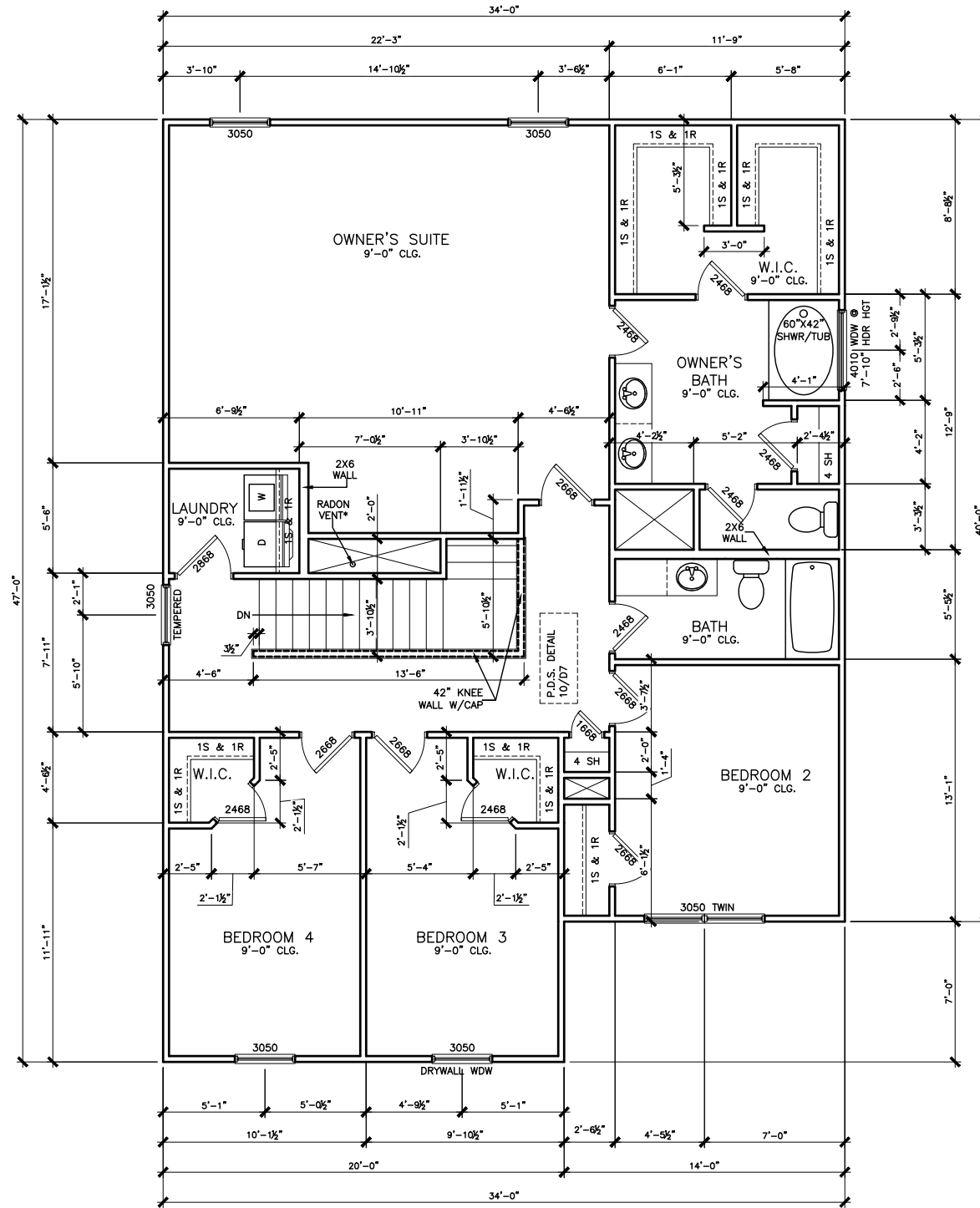
FOUNDATION PLAN
SLAB PLAN
BUFFINGTON

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CANE MILL ESTATES LOT 31



SECOND FLOOR PLAN

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

*RADON VENT PROVIDED
PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS.
FOR DRAIN LOCATIONS ON DETAIL
SHEETS D12, D12.1, D12.2 & D12.3

BY	REVISION	DATE
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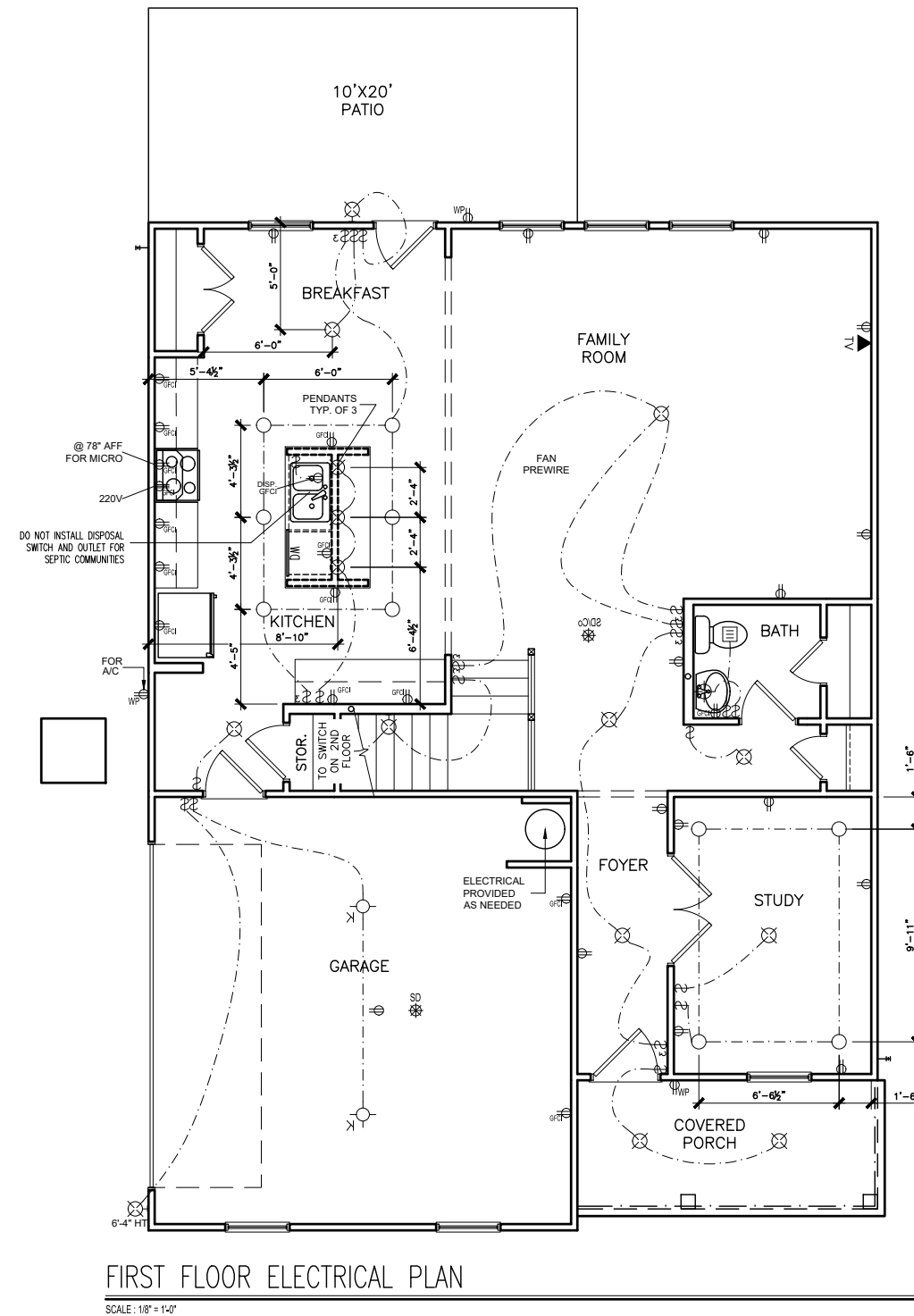
FLOOR PLANS
SECOND FLOOR
BUFFINGTON

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PAGE NO: A5.2	

CANE MILL ESTATES LOT 31



FIRST FLOOR ELECTRICAL PLAN

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

ELECTRICAL LEGEND

\$	SWITCH	TV	TV
\$3	3 WAY SWITCH	⊕	120V RECEPTACLE
\$4	4 WAY SWITCH	⊕	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	⊕	220V RECEPTACLE
⊕	KEYLESS	⊕	GFCI OUTLET
⊗	WALL MOUNT FIXTURE	⊕	ARCH FAULT CIRCUIT INTERRUPTER
○	CEILING FIXTURE	†	GAS LINE
●	FLEX CONDUIT	†	WATER LINE
CH	CHIMES	⊥	HOSE BIBB
PH	TELEPHONE	⊕	FLOOD LIGHT
SD/Cd	SMOKE DETECTOR & CARBON MONOXIDE	⊕	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	⊕	CEILING FAN
□	GARAGE DOOR OPENER	—	ELECTRICAL WIRING
⊕	EXHAUST FAN	⊕	CEILING FIXTURE
⊕	FAN/LIGHT		

ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES

APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)

BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR
KITCHEN PENDANT LIGHTS	33" ABOVE COUNTER TOP
TWO STORY FOYER FIXTURE	96" ABOVE FINISHED FLOOR
CEILING FAN	96" ABOVE FINISHED FLOOR

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER

BY	#	#	#	#	#
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DATE					



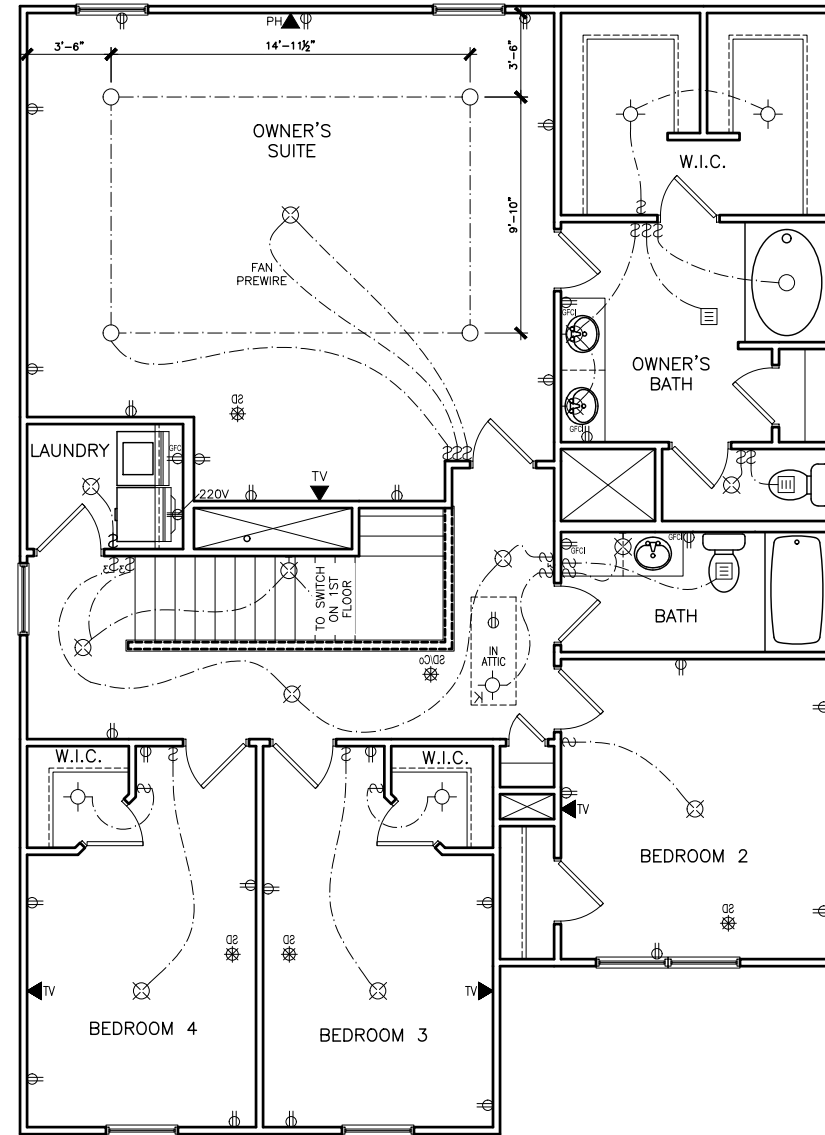
ELECTRICAL PLAN
FIRST FLOOR
BUFFINGTON

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PAGE NO:	A7.2		

CANE MILL ESTATES LOT 31



SECOND FLOOR ELECTRICAL PLAN

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

ELECTRICAL LEGEND			
S	SWITCH	TV	TV
S3	3 WAY SWITCH	⊕	120V RECEPTACLE
S4	4 WAY SWITCH	⊕	120V SWITCHED RECEPTACLE
⊗	CEILING FIXTURE	⊕	220V RECEPTACLE
⊕ _K	KEYLESS	⊕ _{GFCI}	GFCI OUTLET
⊗	WALL MOUNT FIXTURE	⊕ _{AFCI}	ARCH FAULT CIRCUIT INTERRUPTER
○	CEILING FIXTURE	† _{GL}	GAS LINE
●	FLEX CONDUIT	† _{WL}	WATER LINE
CH	CHIMES	⊥	HOSE BIBB
PH	TELEPHONE	⊕	FLOOD LIGHT
SD/CO	SMOKE DETECTOR & CARBON MONOXIDE	▭	1x4 LUMINOUS FIXTURE
SO	SECURITY OUTLET	⊗	CEILING FAN
□	GARAGE DOOR OPENER	—	ELECTRICAL WIRING
⊕	EXHAUST FAN	⊕	CEILING FIXTURE
⊕	FAN/LIGHT		

ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES

APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)

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CEILING FAN	96" ABOVE FINISHED FLOOR

NOTE: FINAL PLACEMENT OF PHONE/CABLE T.B.D. ON SITE BY THE BUILDER

BY	#	REVISION	DATE



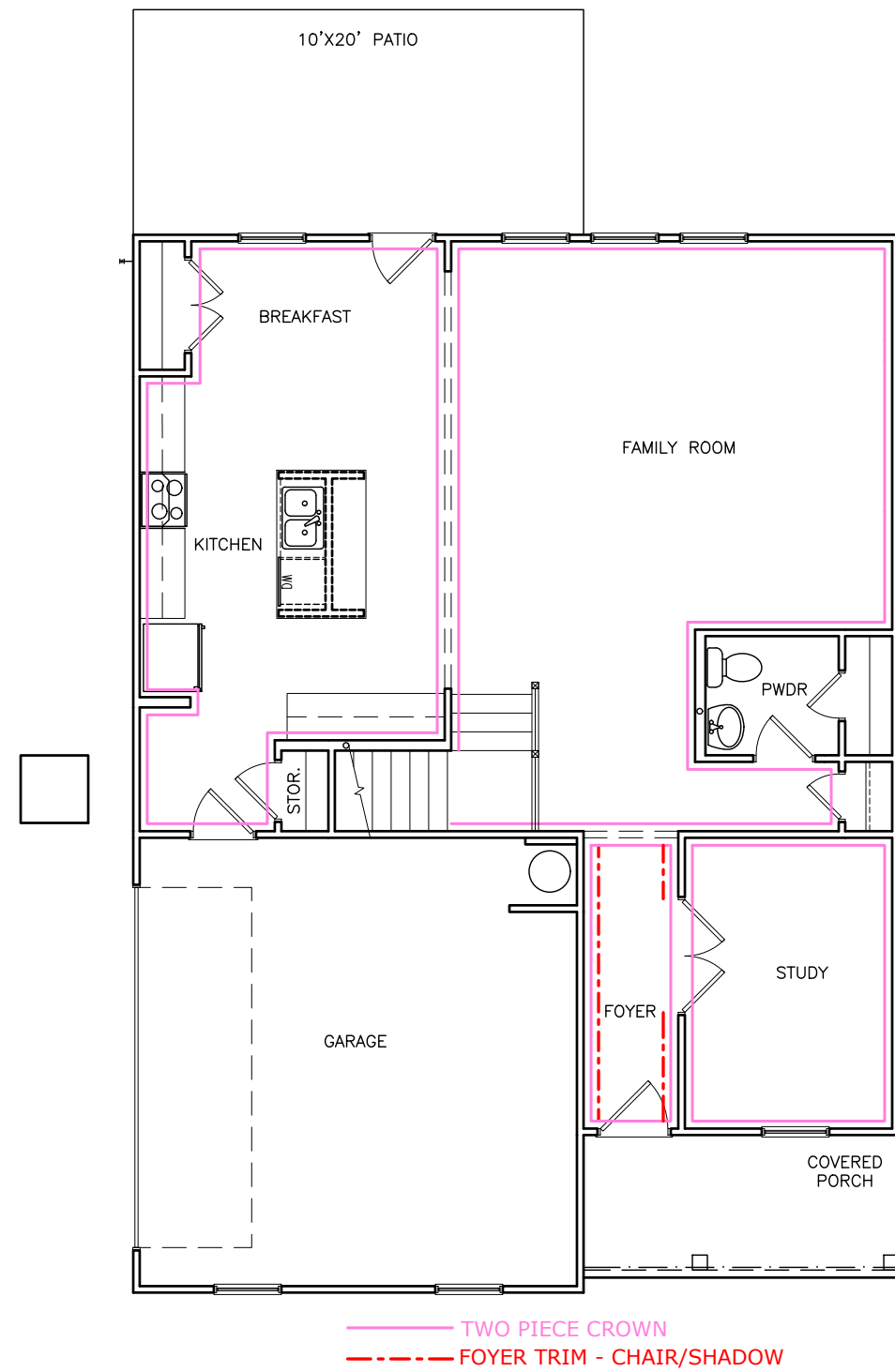
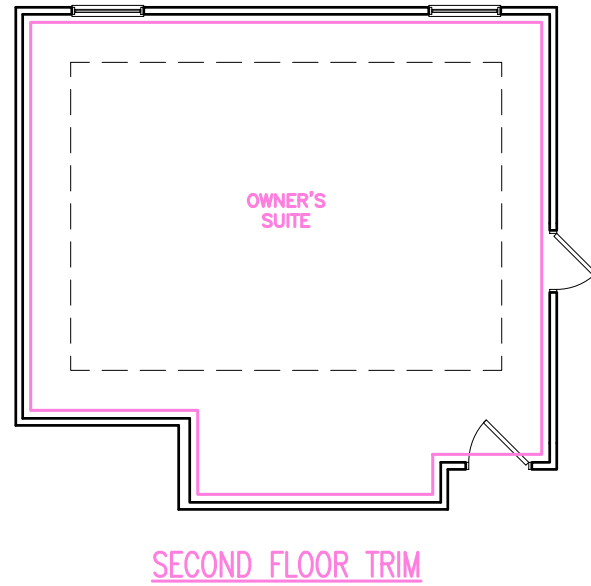
ELECTRICAL PLAN
SECOND FLOOR
BUFFINGTON

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PAGE NO: A7.3	

CANE MILL ESTATES LOT 31



TRIM LAYOUT FIRST FLOOR PLAN

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

DATE	REVISION	BY
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FLOOR PLAN
TRIM LAYOUT
BUFFINGTON

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FND: ALL	ELEV: D
PAGE NO: A8.1	

CANE MILL ESTATES LOT 31

Lot Definition

Project: Cane Mill Estates		Community: Cane Mill Estates	
Building: 000		Builder: Thomas Kenneth Barlow	
Unit: 0031		Status: Sold	
Plan: Buffington D Side Entry		RTeam: Raleigh West	
Orientation: Garage Left	Sq. Ft: 2,548	Slot: 1520	
Bedrooms: 4	Bathrooms: 2.5	Permit:	
Address: 12 Planters Lane		Notes:	
Coats NC 27521			

Sales Data	Dates
Contract: 93201	Validated: 08/23/2021
Buyer: Michelle Akyempong	Original Start: 10/01/2021
Sales Agent: Sam Fulmer	Start: 10/01/2021
	Scheduled Complete: 02/01/2022

Option	Description	Quantity
1 Ceiling Fixture Light Wet or Dry	Add One Low Profile Flush Mount LED Light on One Single Switch. This Option can be used in a Wet or Dry Location. Locations to be noted on exhibit for Electrician. NOTE: Option cannot be used to replace light fixtures at a specific location.	1
2-Piece Crown in Main Living Area	Two-Piece Crown per Trim Plan Diagram locations.	1
2-Piece Crown in Owner Bedroom	Two-Piece Crown at Walls of Owner Bedroom. Does not include tray Crown.	1
42" Cabinet (I) Standard	Note: Bath cabinets to match	1
Additional Cable Outlet		3
Chrome Interior Finish Color Package	Includes chrome kitchen faucet, bath faucets, & fixtures, brushed nickel door hardware (handles, knobs, levers, deadbolts), Pkg 1 (br) lighting fixtures, & pewter oval mirror. Separate options also affected: shower door, bath hardware (towel bars, to holder), shower grab bar, cabinet hardware (to be chrome)	1
FlPkg 5AA-Floorte Pro, StdCpt (FlPkg1)	Flooring Package 5AA - Floorte Pro, Standard Carpet (from Package 1), SPC (solid polymer core) 0.8 mm vinyl top layer plank	1
FlPkg Opt-Powder Floorte Pro	Flooring Package - Option Powder Room LVP SPC (solid polymer core) 0.5 mm vinyl top layer plank	1
Foyer - Chair Rail/Shadow Box		1
Kitchen Ceiling Fixture Lights ILO Std	Kitchen Lights - Low Profile Flush Mount LED Lights per Plan ILO Standard Light	1
Kitchen Sink Soap Dispenser (S)		1

User Name: Victoria Wicker 1 of 3 09/01/2021
Database: SmithDouglasCommunities 09:01:19 AM

Lot Definition

Level 9 - Package Electric (from E1)	Frigidaire Gallery BL SS 24" Built-In Dishwasher Frigidaire Gallery BL SS 1.7 CU. Ft. Microwave Frigidaire Gallery BL SS 30" Electric Range	1
Living Room Ceiling Fixture Lights (4)	Living Room Lights - 4 Low Profile Flush Mount LED Lights.	1
Open Rail 1st Floor - Iron		1
Owner Bath Marble 1 Double Ilo LamSgl	***Includes Vanity Double Bowl Option Do Not Select Both***	1
Owner's Bedroom Ceiling Fixture Lights	Owner's Bedroom Lights - 4 Low Profile Flush Mount LED Lights.	1
Paint Wall/Ceiling Color Upgrade	Upgrade Interior Paint Color on Walls and Ceilings for the whole house in lieu of base color	1
Patio Extension - per sf	Enter the quantity as the additional square feet needed. Site Condition Exclusions may apply. On-site builder must approve in writing the availability of this option on a per-lot basis.	200
Pendant Lights per Plan	Pendant Lights above Island/Bar Top per plan electrical diagram. To match lighting package selected. NOTE: Choose this option only once.	1
Prefab G-TubShwr Combo 60x42 OBATHC	Prefab Garden TubShower Combo in Lieu of PF Large Shower (obathc)	1
Screen Per Optional 3050 Window	Note: If the optional window is a 3050 twin, it needs two screens.	1
Screens Base House Single Family	Add window screens to all operable standard windows on single family home. NOTE: Does not include screens for windows for optional 2nd-floors, side entry garage, or windows added or changed from structural options, optional windows, or basement windows. See additional options to complete screens.	1
Screens Side Entry Garage Adder	Add Screens on Windows added at front for Side Entry Garage option	1
Solid Surface-Kitchen Countertops (I)	Kitchen Solid Surface Countertops from Laminate	1
Solid Surface-Kitchen Sink Level 1	Level 1 Undermount rectangular stainless steel sink upgrade for kitchen solid surface.	1
Stone 19 B ExtCoPkg(I)		1
Study ILO Living Room		1
Window in Hallway	Optional Window in Hallway. Does not include Blind or screen.	1

User Name: Victoria Wicker 2 of 3 09/01/2021
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Lot Definition

Activity	Description	Selection Description
Del&Install AppliancePkg	Appliance Package Select - All	Appliance Package Selected
Install Cabinets Complet	Cabinet Finish - Standard Aris	Standard-Sinclair Birch- Saddle
Install Cabinets Complet	Secondary Bath Vanity Tops-All	5010K-07 Drama Marble
Install Carpet	Carpet - Standard ALL	Smith Grove III Weathered Wood 710
Install Floorte Pro (LP)	Floorte Pro 1stUpgr ALL	Simonton Plus - 604 Burmese Teak
Install Marble Tops	RDU Marble Vanity Top Lvl 1	Matte-#190 White w/Parchment w/oval bowl
Install SolidSurfaceTops	Rectangular SS sink LVL 1	Single Bowl Sink
Install SolidSurfaceTops	Solid Surface LVL1-Raleigh	Dallie Quartz- Chipped Ice-NQ91
Paint Interior Complete	Interior Paint (Trim)	SW 7006 Extra White
Paint Interior Complete	Interior Paint (Walls) - Upgrd	SW 7028 Agreeable Gray
PM Install Vinyl Floor	VinylPkg-Owner Bath	River Chase II Sparfa 565
PM Install Vinyl Floor	VinylPkg-Std 2nd Baths/Laundry	River Chase II Sparfa 565
Stain Handrails	Hand Rail Stain - All	MW-Country Pine [LVP-604 Burmese Teak]

User Name: Victoria Wicker 3 of 3 09/01/2021
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REVISION	BY	#	#	#	#	#	#
DATE							



DETAILS
LOT DEFINITION
BUFFINGTON

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FND: ALL	ELEV: D
PAGE NO: A9.1	

DESIGN SPECIFICATIONS:

Construction Type: Commercial Residential

Applicable Building Codes:

- 2018 North Carolina Residential Building Code
- ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

Design Loads:

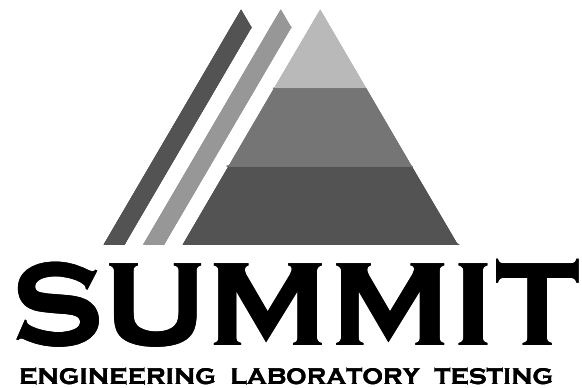
- Roof
 - 1.1 Live..... 20 PSF
 - 1.2 Dead..... 10 PSF
 - 1.3 Snow..... 15 PSF
 - 1.3.1 Importance Factor..... 1.0
- Floor Live Loads
 - 2.1 Typ. Dwelling..... 40 PSF
 - 2.2 Sleeping Areas..... 30 PSF
 - 2.3 Balconies (exterior) and Decks..... 40 PSF
 - 2.4 Garage Parking..... 50 PSF
- Floor Dead Loads
 - 3.1 Conventional 2x..... 10 PSF
 - 3.2 I-Joist..... 15 PSF
 - 3.3 Floor Truss..... 15 PSF
- Ultimate Wind Speed (3 sec. gust)..... 130 MPH
 - 4.1 Exposure..... B
 - 4.2 Importance Factor..... 1.0
 - 4.3 Wind Base Shear
 - 4.3.1 Vx =
 - 4.3.2 Vy =
- Component and Cladding (in PSF)

MEAN ROOF HT.	UP TO 30'	30'1"-35'	35'1"-40'	40'1"-45'
ZONE 1	16.7-18.0	17.5-18.9	18.2-19.6	18.7-20.2
ZONE 2	16.7-21.0	17.5-22.1	18.2-22.9	18.7-23.5
ZONE 3	16.7-21.0	17.5-22.1	18.2-22.9	18.7-23.5
ZONE 4	18.2-19.0	19.2-20.0	19.9-20.7	20.4-21.3
ZONE 5	18.2-24.0	19.2-25.2	19.9-26.1	20.4-26.9

6. Seismic

- 6.1 Site Class.....D
- 6.2 Design Category.....C
- 6.3 Importance Factor.....1.0
- 6.4 Seismic Use Group.....1
- 6.5 Spectral Response Acceleration
 - 6.5.1 Sms = %g
 - 6.5.2 Sm1 = %g
- 6.6 Seismic Base Shear
 - 6.6.1 Vx =
 - 6.6.2 Vy =
- 6.7 Basic Structural System (check one)
 - Bearing Wall
 - Building Frame
 - Moment Frame
 - Dual w/ Special Moment Frame
 - Dual w/ Intermediate R/C or Special Steel
 - Inverted Pendulum
- 6.8 Arch/Mech Components Anchored?.....No
- 6.9 Lateral Design Control: Seismic Wind

7. Assumed Soil Bearing Capacity.....2000psf



STRUCTURAL PLANS PREPARED FOR:

BUFFINGTON

PROJECT ADDRESS:

TBD

OWNER:

Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

ARCHITECT/DESIGNER:

Smith Douglas Homes
110 Village Trail, Suite 215
Woodstock, GA 30188

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	Anchor Bolt	OC	On Center
ACI	American Concrete Institute	PCF	Pounds per Cubic Foot
ASCE	American Society of Civil Engineers	PCI	Pounds per Cubic Inch
AFA	American Fiberboard Association	PSF	Pounds per Square Foot
AFF	Above Finished Floor	PSI	Pounds per Square Inch
AISC	American Institute for Steel Construction	PT	Pressure Treated
APA	American Plywood Association	SC	Stud Column
AWS	American Welding Society	SER	Structural Engineer of Record
CJ	Ceiling Joist	SJ	Single Joist
CLR	Clear	SPF	Spruce Pine Fir
DBL	Double	SST	Simpson Strong Tie
DJ	Double Joist	ST	Single Truss
DSP	Double Stud Pocket	STD	Standard
EA	Each	TJ	Triple Joist
EE	Each End	TOF	Top of Footing
EOS	Edge of Slab	TSP	Triple Stud Pocket
EW	Each Way	TYP	Typical
HDG	Hot Dipped Galvanized	UNO	Unless Noted Otherwise
NDS	Nation Design Spec. for Wood	WWF	Welded Wire Fabric
NTS	Not to Scale		

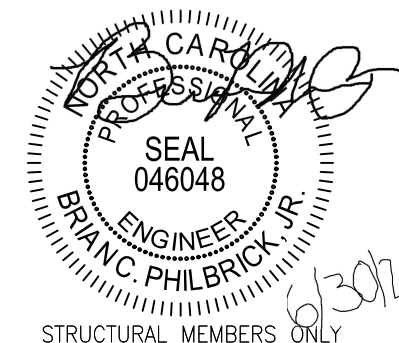
SHEET LIST:

Sheet No.	Description
CS1	Cover Sheet, Specifications, Revisions
CS2	Specifications Continued
S1.0m	Monolithic Slab Foundation
S1.0s	Stem Wall Foundation
S1.0c	Crawl Space Foundation
S1.0b	Basement Foundation
S2.0	Basement Framing Plan
S3.0	First Floor Framing Plan
S4.0	Second Floor Framing Plan
S5.0	Roof Framing Plan
S6.0	Basement Bracing Plan
S7.0	First Floor Bracing Plan
S8.0	Second Floor Bracing Plan

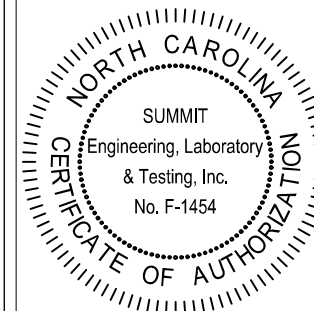
REVISION LIST:

Revision No.	Date	Project No.	Description
1	1/29/19	3832.202	Revised per 2018 NCRC
2	2/13/19	3832.202R	Revised kitchen/family beam
3	6.29.21		Added LBI Bracing Option

Cane Mill Lot 31



STRUCTURAL MEMBERS ONLY



PROJECT
Buffington - LH
Coversheet
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING

DATE: 6/29/2021

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

PROJECT #: 3832.202R

DRAWN BY: JV

CHECKED BY: BCP

ORIGINAL DRAWING

DATE PROJECT#
12/11/15 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

CS1

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
- Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
- Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
- This structure and all construction shall conform to all applicable sections of the international residential code.
- This structure and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCRC) and any local codes or restrictions

FOUNDATIONS:

- Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Building Code (Special consideration shall be given to Chapter 45 in wind zones above 130mph)
- Footing sizes based on a presumptive soil bearing capacity of 2000 PSF. Contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction
- Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC
- The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.
- 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.
- 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.
- 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.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
- Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bearing in the middle third of the piers. Pilasters to be bonded to perimeter foundation wall
- Crawl spaced to be graded level and clear of all debris
- Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
- Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC

CONCRETE:

- 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.
- 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".
- 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%
- No admixtures shall be added to any structural concrete without written permission of the SER
- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
- 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.
- 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.
- Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
- Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
- 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. Fibermesh may be used in lieu of W.W.F.

CONCRETE REINFORCEMENT:

- 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.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
- Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
- Steel Reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- 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"
- 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.
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
- 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.
- Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

- 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.
- LVL or PSL engineered wood shall have the following minimum design values:
 - E = 1,900,000 psi
 - Fb = 2600 psi
 - Fv = 285 psi
 - Fc = 700 psi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWWA standard C-15. All other moisture exposed wood shall be treated in accordance with AWWA standard C-2
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- 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.
- 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 fully blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3)10d nails @ 24" O.C.
- Flitch beams and four and five ply beams shall be bolted together with (2) rows of 1/2" dia. through bolts staggered @24" O.C. w/ 2" edge distance and (2) bolts located at 6" from each end, unless noted otherwise.

WOOD TRUSSES:

- 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.
- 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 7-10), 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.
- 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."
- 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.
- 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.

WOOD STRUCTURAL PANELS:

- 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.
- All structurally required wood sheathing shall bear the mark of the APA.
- 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.
- 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.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank 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.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
- 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.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the AFA.

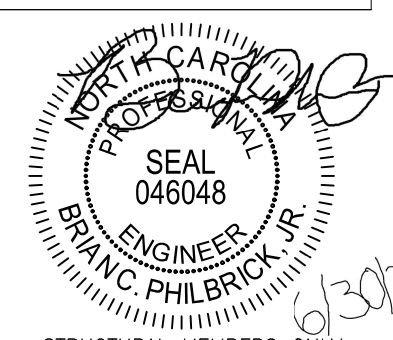
EXTERIOR WOOD FRAMED DECKS:

- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

STRUCTURAL STEEL:

- 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.
- All steel shall have a minimum yield stress (Fy) of 36 ksi unless otherwise noted.
- 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.

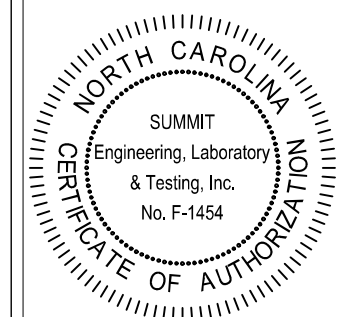
Cane Mill Lot 31



STRUCTURAL MEMBERS ONLY



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 RALEIGH, NC 27603
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 FAX: 919.380.9993
 WWW.SUMMIT-COMPANIES.COM



PROJECT: Buffington - LH
 Coversheet
 CLIENT: Smith Douglas Homes - Raleigh
 2520 Reliance Ave.
 Apex, NC 27539

CURRENT DRAWING
 DATE: 6/29/2021
 SCALE: 1/8"=1'-0"
 PROJECT #: 3832.202R
 DRAWN BY: JV
 CHECKED BY: BCP

ORIGINAL DRAWING
 DATE: 12/11/15
 PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
 CS2

FOUNDATION NOTES:

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE $F_c = 3000$ PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
- FOOTINGS TO BE PLACED ON UNDISTURBED EARTH BEARING A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
- FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION.
- FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- FILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
- PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- GRAVEL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- ABBREVIATIONS:

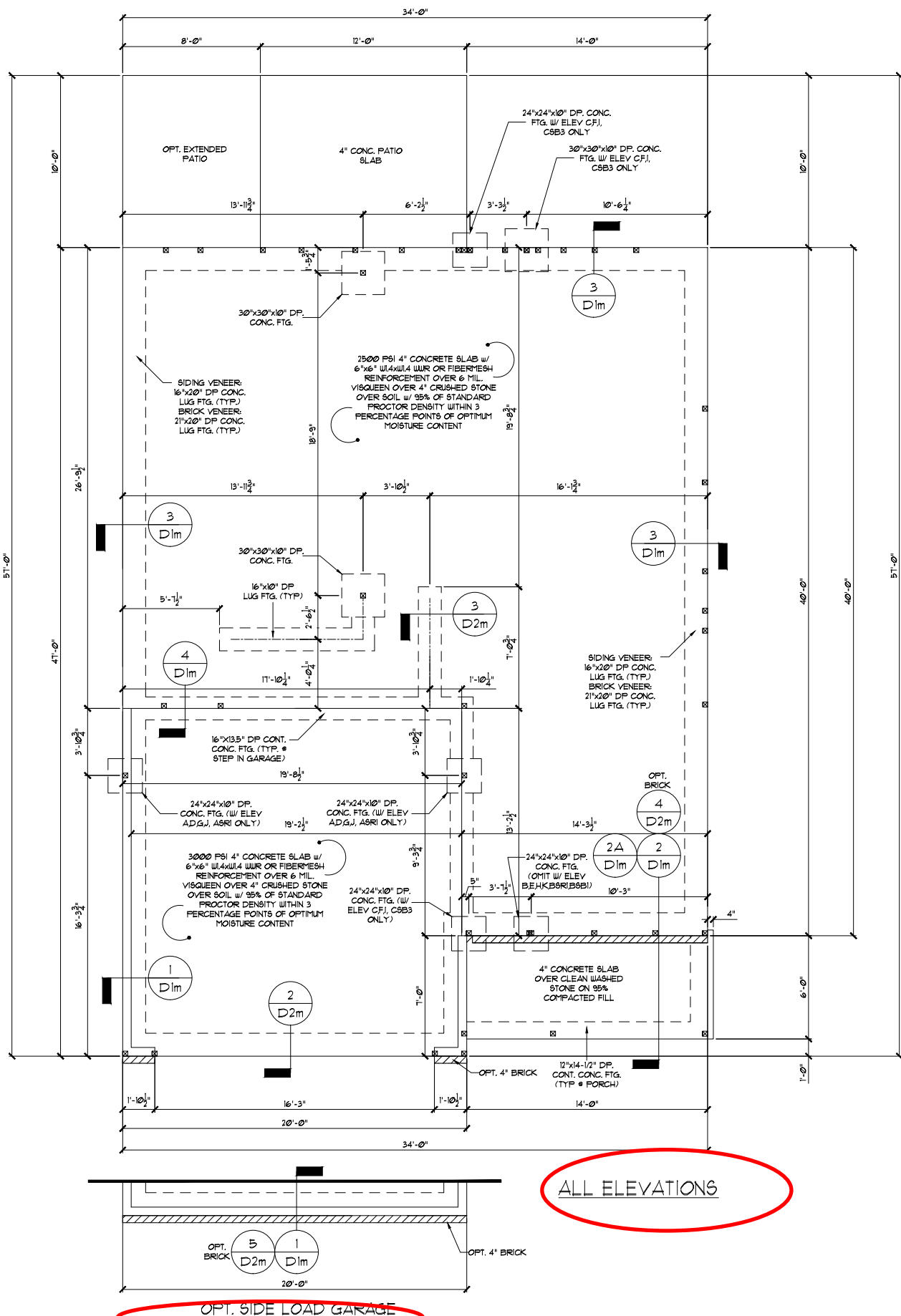
DJ = DOUBLE JOIST	SJ = SINGLE JOIST
GT = GIRDER TRUSS	FT = FLOOR TRUSS
SC = STUD COLUMN	DR = DOUBLE RAFTER
EE = EACH END	TR = TRIPLE RAFTER
TJ = TRIPLE JOIST	OC = ON CENTER
CL = CENTER LINE	PL = POINT LOAD
- ALL PIERS TO BE 16"x16" MASONRY AND ALL FILASTERS TO BE 8"x16" MASONRY, TYPICAL (IND).
- WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
- A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION, SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLDINGS. ADDITIONAL INFO PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, UNO

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 5/1/17. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1 PER TABLE R405.1



STRUCTURAL MEMBERS ONLY
 ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.
MONOLITHIC SLAB FOUNDATION
 SCALE: 1/8"=1'

ALL ELEVATIONS

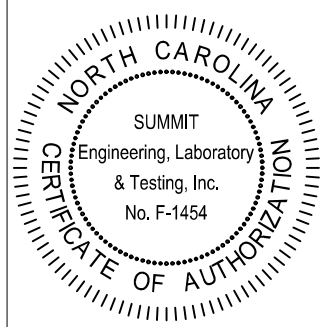
OPT. SIDE LOAD GARAGE

Cane Mill Lot 31



STRUCTURAL MEMBERS ONLY

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 3070 HAMMOND BUSINESS PLACE, SUITE 171
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 WWW.SUMMIT-COMPANIES.COM



PROJECT: Buffington - LH
Monolithic Slab Fnd.
 CLIENT: Smith Douglas Homes - Raleigh
 2520 Reliance Ave.
 Apex, NC 27539

CURRENT DRAWING
 DATE: 6/29/2021
 SCALE: 1/8"=1'-0"
 PROJECT #: 3832.202R
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ORIGINAL DRAWING
 DATE: 12/11/15
 PROJECT #: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
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GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
- PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
MICROLAM (LVL): $F_b = 2600$ PSI, $F_v = 285$ PSI, $E = 1.9 \times 10^6$ PSI
PARALLAM (PSL): $F_b = 2300$ PSI, $F_v = 230$ PSI, $E = 1.25 \times 10^6$ PSI
- ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
- ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
- FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 10" DIA BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- CONTRACTOR TO PROVIDE LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- FLITCH BEAMS, 4-PLY LVL6 AND 3-PLY SIDE LOADED LVL6 SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1031. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2, DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

DJ = DOUBLE JOIST
GT = GIRDER TRUSS
SC = STUD COLUMN
EE = EACH END
TJ = TRIPLE JOIST
CL = CENTER LINE

SJ = SINGLE JOIST
FT = FLOOR TRUSS
DR = DOUBLE RAFTER
TR = TRIPLE RAFTER
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PL = POINT LOAD

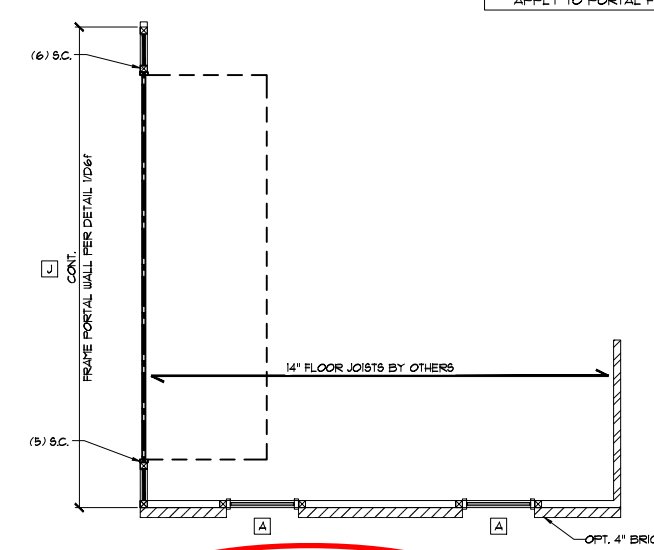
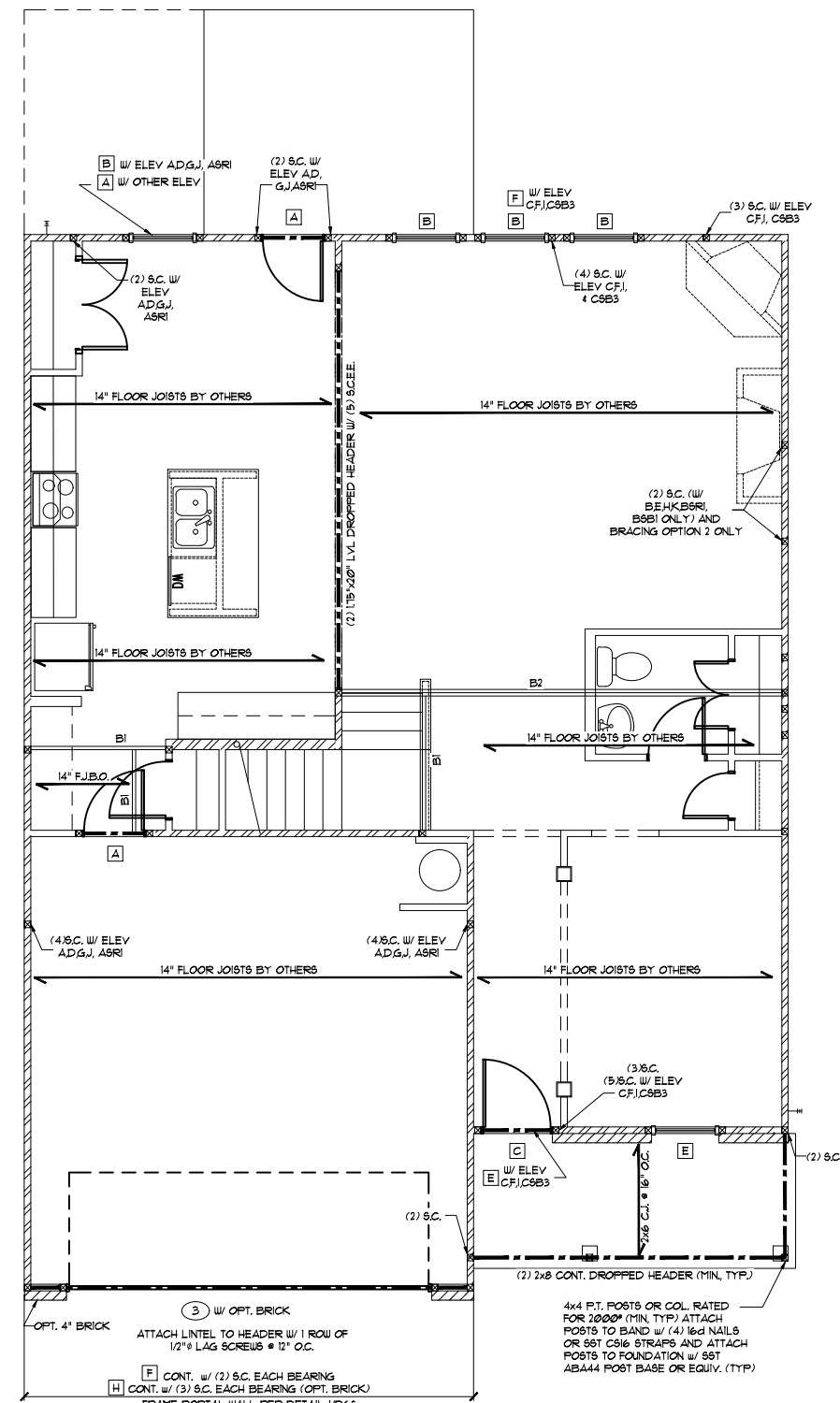
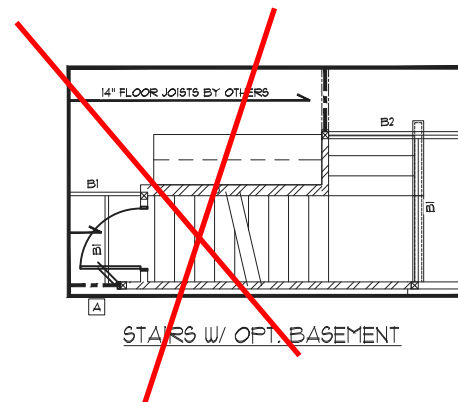
NOTE: --- DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

NOTE: SHADED WALLS INDICATE LOAD BEARING WALLS.

JOIST & BEAM SIZES SHOWN ARE MINIMUMS. BUILDER MAY INCREASE DEPTH FOR EASE OF CONSTRUCTION.

NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

STUD COLUMN (S.C.) CALLOUTS ON PLAN OVERRIDE JACK STUD COUNT SHOWN IN BEAM/HEADER SCHEDULE. KING STUDS TO BE INSTALLED PER APPLICABLE BUILDING CODE.



HEADER/BEAM SCHEDULE			
HEADER TAG	BEAM TAG	SIZE	JACKS (EACH END)
-	B1	(1) 14\" FLOOR JOIST	(2)
-	B2	(2) 14\" FLOOR JOIST	(2)
A	B3	(2) 2x6	(1)
B	B4	(2) 2x8	(2)
C	B5	(2) 2x10	(2)
D	B6	(2) 2x12	(2)
E	B7	(2) 3-1/4\" LVL	(3)
F	B8	(2) 1-1/8\" LVL	(3)
G	B9	(2) 1-1/8\" LVL	(3)
H	B10	(2) 1-1/8\" LVL	(3)
I	B11	(2) 1-1/8\" LVL	(3)
J	B12	(2) 3-1/4\" LVL	(4)
K	B13	(3) 3-1/4\" LVL	(3)
L	B14	(3) 1-1/8\" LVL	(3)
M	B15	(3) 1-1/8\" LVL	(3)
N	B16	(3) 1-1/8\" LVL	(3)
O	B17	(3) 1-1/8\" LVL	(3)
P	B18	(3) 3-1/4\" LVL	(4)

HEADER/BEAM SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER/BEAM SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. ALL BEAMS TO BE FLUSH UNLESS NOTED OTHERWISE.

LINTEL SCHEDULE		
TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L5x3x1/4"	6'-0" TO 10'-0"
③	L5x3-1/2"x5/16"	GREATER THAN 10'-0"
④	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)

ALL HEADERS WITH BRICK ABOVE: ① (UNO)

WALL STUD SCHEDULE	
1ST & 2ND FLOOR LOAD BEARING STUDS:	2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C.
1ST FLOOR LOAD BEARING STUDS w/ WALK-UP ATTIC:	2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
BASEMENT LOAD BEARING STUDS:	2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
NON-LOAD BEARING STUDS (ALL FLOORS):	2x4 STUDS @ 24" O.C.
TWO STORY WALLS:	2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY

KING STUD REQUIREMENTS	
OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-0"	(1)
3'-0" TO 4'-0"	(2)
4'-0" TO 8'-0"	(3)
8'-0" TO 12'-0"	(5)
12'-0" TO 16'-0"	(6)

KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 9/11/15. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN
SCALE: 1/8"=1'

ALL ELEVATIONS

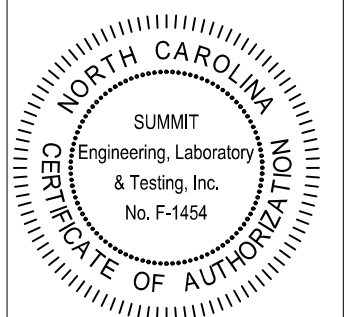
OPT. SIDE ENTRY GARAGE

Cane Mill Lot 31



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PROJECT
Buffington - LH

First Floor Framing

CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING
DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING
DATE PROJECT#
12/11/15 3832.09

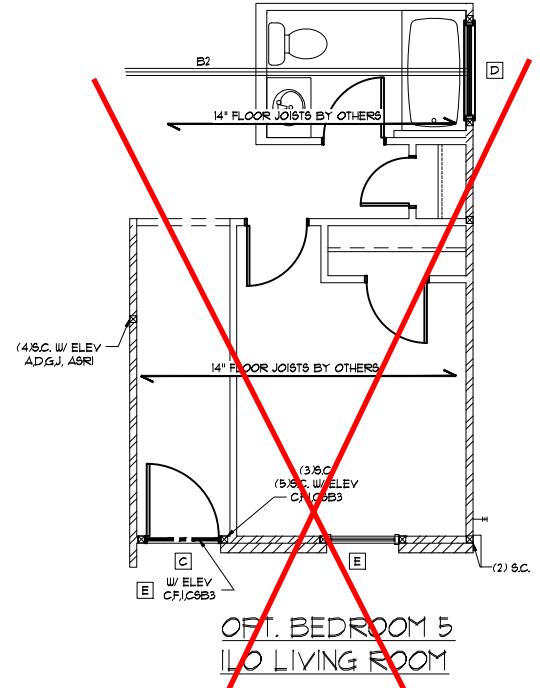
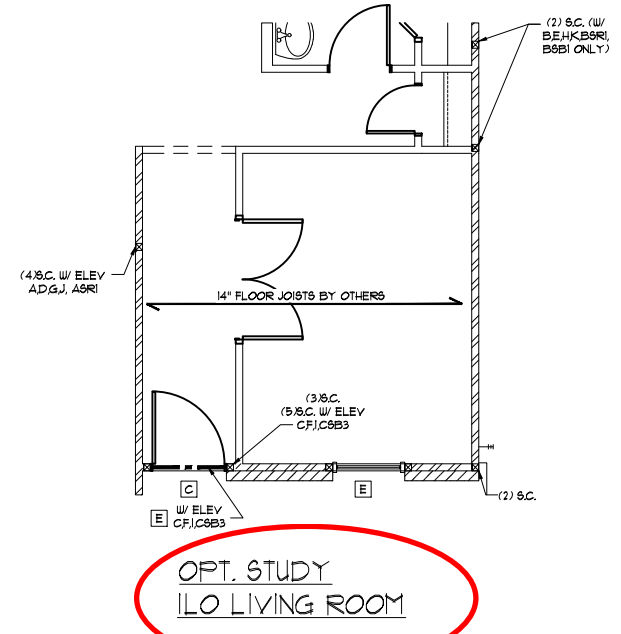
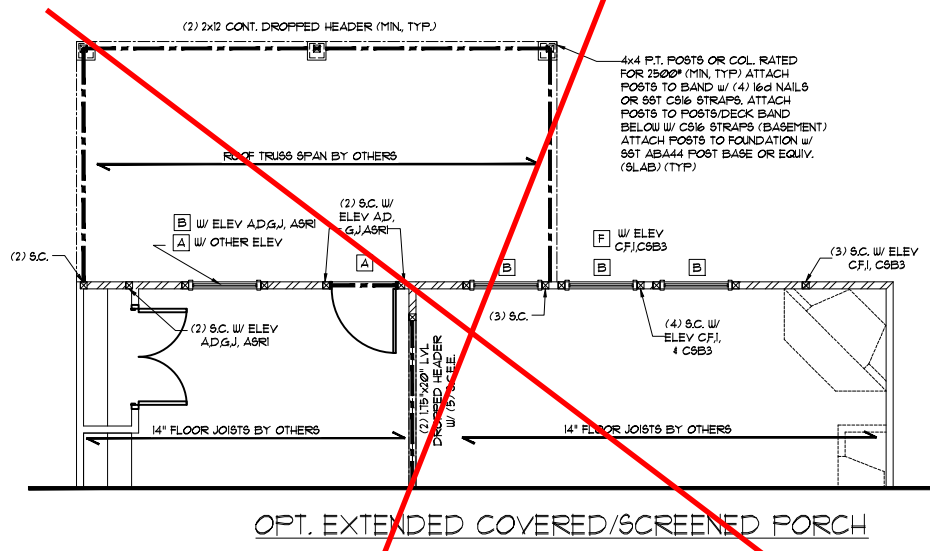
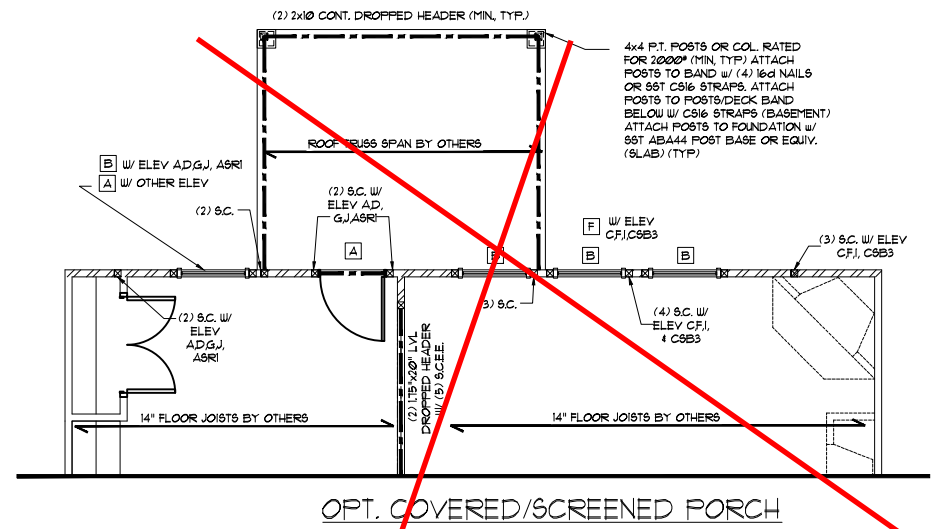
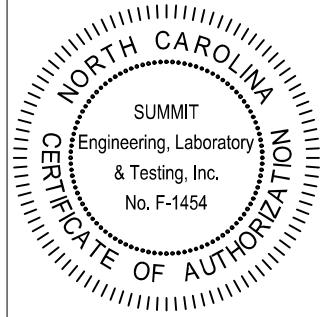
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S3.0

STUD COLUMN (S.C.) CALLOUTS ON PLAN
OVERRIDE JACK STUD COUNT SHOWN IN
BEAM/HEADER SCHEDULE. KING STUDS TO BE
INSTALLED PER APPLICABLE BUILDING CODE.

SEE SHEET S3.0 FOR NOTES
AND MORE INFORMATION

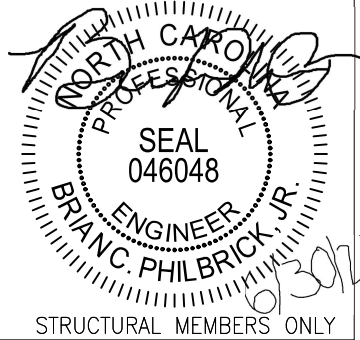
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.
FIRST FLOOR FRAMING PLAN
SCALE: 1/8"=1'

Cane Mill Lot 31



PROJECT
Burlington - LH
First Floor Framing
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING
DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING
DATE: 12/11/15 PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S3.1

HEADER TAG	BEAM TAG	SIZE	JACKS (EACH END)
-	B1	(1) 14" FLOOR JOIST	(2)
-	B2	(2) 14" FLOOR JOIST	(2)
A	B3	(2) 2x6	(1)
B	B4	(2) 2x8	(2)
C	B5	(2) 2x10	(2)
D	B6	(2) 2x12	(2)
E	B7	(2) 9-1/4" LVL	(3)
F	B8	(2) 11-7/8" LVL	(3)
G	B9	(2) 14" LVL	(3)
H	B10	(2) 16" LVL	(3)
I	B11	(2) 18" LVL	(3)
J	B12	(2) 24" LVL	(4)
K	B13	(3) 9-1/4" LVL	(3)
L	B14	(3) 11-7/8" LVL	(3)
M	B16	(3) 14" LVL	(3)
N	B17	(3) 16" LVL	(3)
O	B18	(3) 18" LVL	(3)
P	B19	(3) 24" LVL	(4)

HEADER/BEAM SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER/BEAM SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. ALL BEAMS TO BE FLUSH UNLESS NOTED OTHERWISE.

STUD COLUMN (S.C.) CALLOUTS ON PLAN OVERRIDE JACK STUD COUNT SHOWN IN BEAM/HEADER SCHEDULE. KING STUDS TO BE INSTALLED PER APPLICABLE BUILDING CODE.

TAG	SIZE	OPENING SIZE
①	L3x3x1/4"	LESS THAN 6'-0"
②	L5x3x1/4"	6'-0" TO 10'-0"
③	L5x3-1/2"x5/16"	GREATER THAN 10'-0"
④	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR ③)

ALL HEADERS WITH BRICK ABOVE: ① (UNO)

WALL STUD SCHEDULE
1ST & 2ND FLOOR LOAD BEARING STUDS: 2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C.
1ST FLOOR LOAD BEARING STUDS w/ WALK-UP ATTIC: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
BASEMENT LOAD BEARING STUDS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
NON-LOAD BEARING STUDS (ALL FLOORS): 2x4 STUDS @ 24" O.C.
TWO STORY WALLS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY

OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-0"	(1)
3'-0" TO 4'-0"	(2)
4'-0" TO 8'-0"	(3)
8'-0" TO 12'-0"	(5)
12'-0" TO 16'-0"	(6)

KING STUD REQUIREMENTS ABOVE DO NOT APPLY TO PORTAL FRAMED OPENINGS

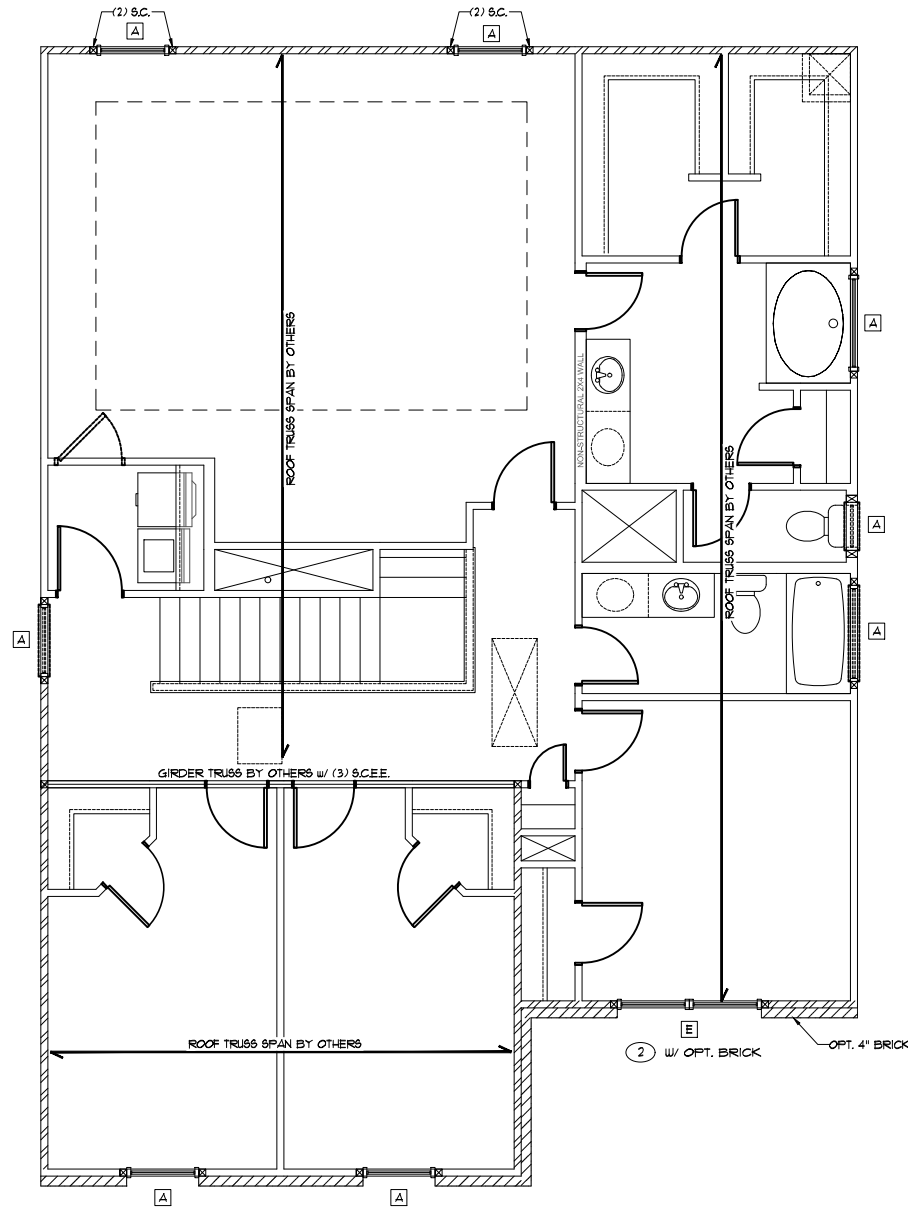
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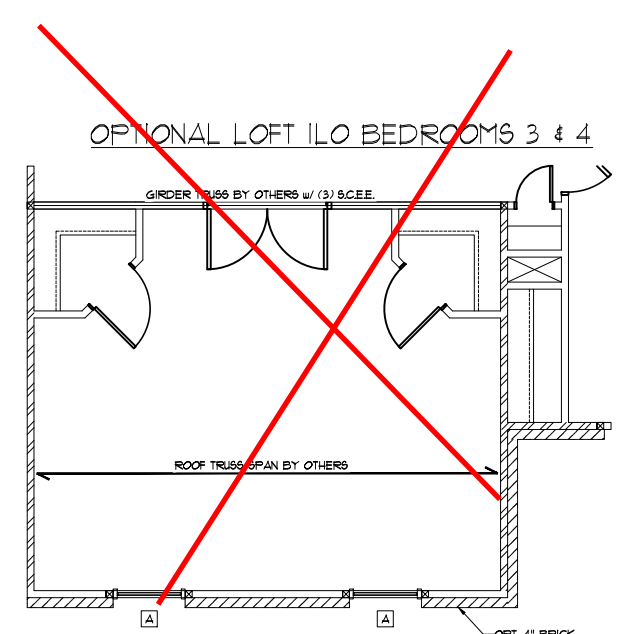
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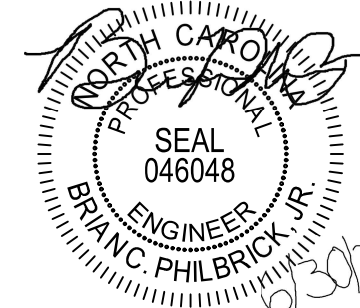
SECOND FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0"



ELEVATIONS AD.G.J, AS.R.I



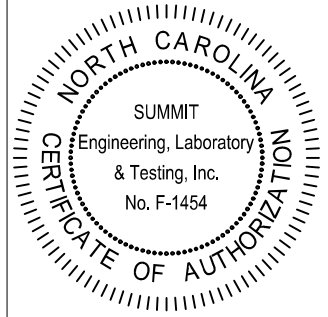
Cane Mill Lot 31



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PROJECT: Buffington - LH

Second Floor Framing

CLIENT: Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING
DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING
DATE: 12/11/15 PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

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TRUSS UPLIFT CONNECTOR SCHEDULE

MODEL *	MAX. UPLIFT (LBS)
H1	585
H2A	915
H2.5A	600
H6	950
H10A	1340
H14	1465

USE BELOW ONLY FOR 2-FLY OR GREATER GIRDER TRUSSES THAT EXCEED THE UPLIFT REQUIREMENTS ABOVE.

MODEL *	MAX. UPLIFT (LBS)	FLY *
LGT2*	2050	2
LGT3-SD2.5*	3605	3
LGT4-SD3*	4060	4
HGT-2*	10950	2
HGT-3*	10550	3
HGT-4*	9250	4

1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE EQUIV. PRODUCTS MAY BE USED PER MANUF. SPECIFICATIONS. 2. VALUES LISTED ARE FOR A SINGLE ANCHOR. DOUBLE ANCHORS MAY BE USED TO DOUBLE THE UPLIFT CAPACITIES SHOWN ABOVE, PROVIDED A MINIMUM 2-1/2" MEMBER THICKNESS. ITEMS DENOTED WITH "*" MAY NOT BE DOUBLED TO INCREASE LOAD CAPACITY. 3. UPLIFT VALUES SHOWN ABOVE ARE FOR SYP #2 GRADE OR BETTER MEMBERS. PLEASE CONTACT EOR OR TRUSS MANUF. IF SPECIES OR GRADE VARIES. 4. TRUSS TO TRUSS CONNECTIONS ARE TO BE SPECIFIED AND SUPPLIED BY THE TRUSS MANUF. THE EOR IS NOT RESPONSIBLE FOR THESE CONNECTIONS.

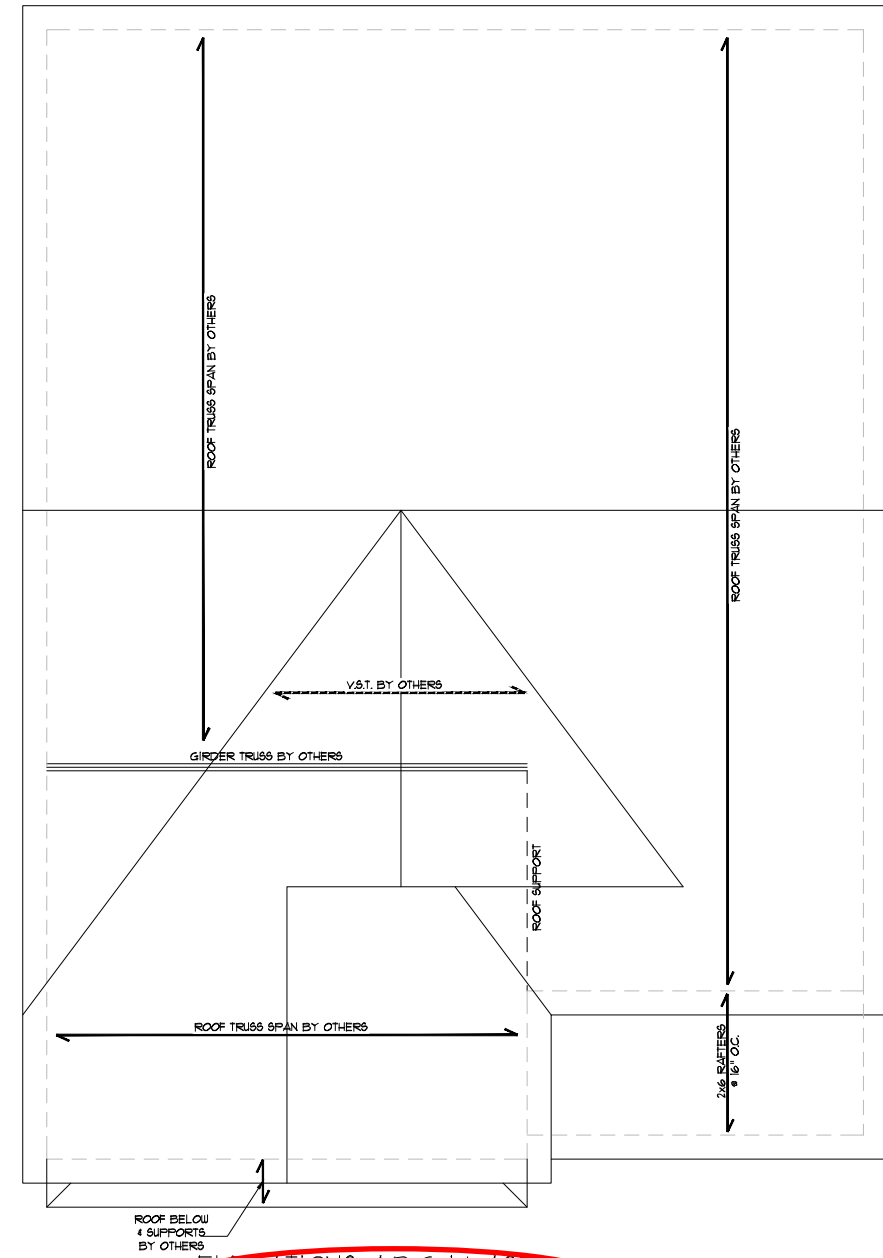
NOTE: 1ST FLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (TYP. UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED DORMER WALLS (TYP. UNO)

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REFER TO TRUSS LAYOUT PER MANUFACTURER FOR UPLIFT CONNECTIONS FROM TRUSS TO TOP PLATE (TYP. UNO)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R602.3.11.1 WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.



ELEVATIONS AD, G, J, & ASRI

STRUCTURAL MEMBERS ONLY

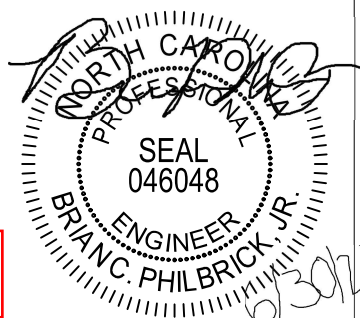
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/8"=1'

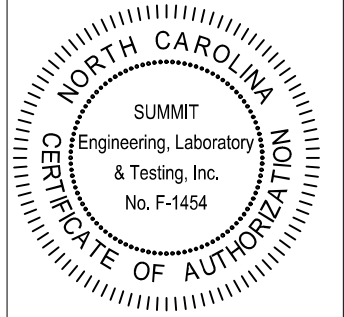
Cane Mill Lot 31



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RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM



PROJECT
Buffington - LH
Roof Framing Plan
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING
DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING
DATE PROJECT#
12/11/15 3832.09

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SHEET
S5.0

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			• PANEL EDGES	• INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSONUM BOARD	1/2"	5d COOLER NAILS** @ 1" O.C.	5d COOLER NAILS** @ 1" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
FF	WOOD STRUCTURAL PANEL	1/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1

**OR EQUIVALENT PER TABLE R102.3.5

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSONUM BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING IN-fill AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 NCRC.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO).
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

GB - GYPSONUM BOARD WSP - WOOD STRUCTURAL PANEL
 CS-XXX - CONT. SHEATHED ENG - ENGINEERED SOLUTION
 FF - PORTAL FRAME FF-ENG - ENG. PORTAL FRAME

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INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3.4.1 OF THE 2018 NCRC.

FIRST FLOOR BRACING (FT)			
CONTINUOUS SHEATHING METHOD			
	REQUIRED	PROVIDED	
FRONT SIDE	14.8	20.6	
RIGHT SIDE	11	41.0	
REAR SIDE	14.8	11.2	
LEFT SIDE	11	41.0	

FIRST FLOOR BRACING - SIDE LOAD GARAGE (FT)			
CONTINUOUS SHEATHING METHOD			
	REQUIRED	PROVIDED	
FRONT SIDE	14.8	21.5	
RIGHT SIDE	11	41.0	
REAR SIDE	14.8	11.2	
LEFT SIDE	11	33.0	

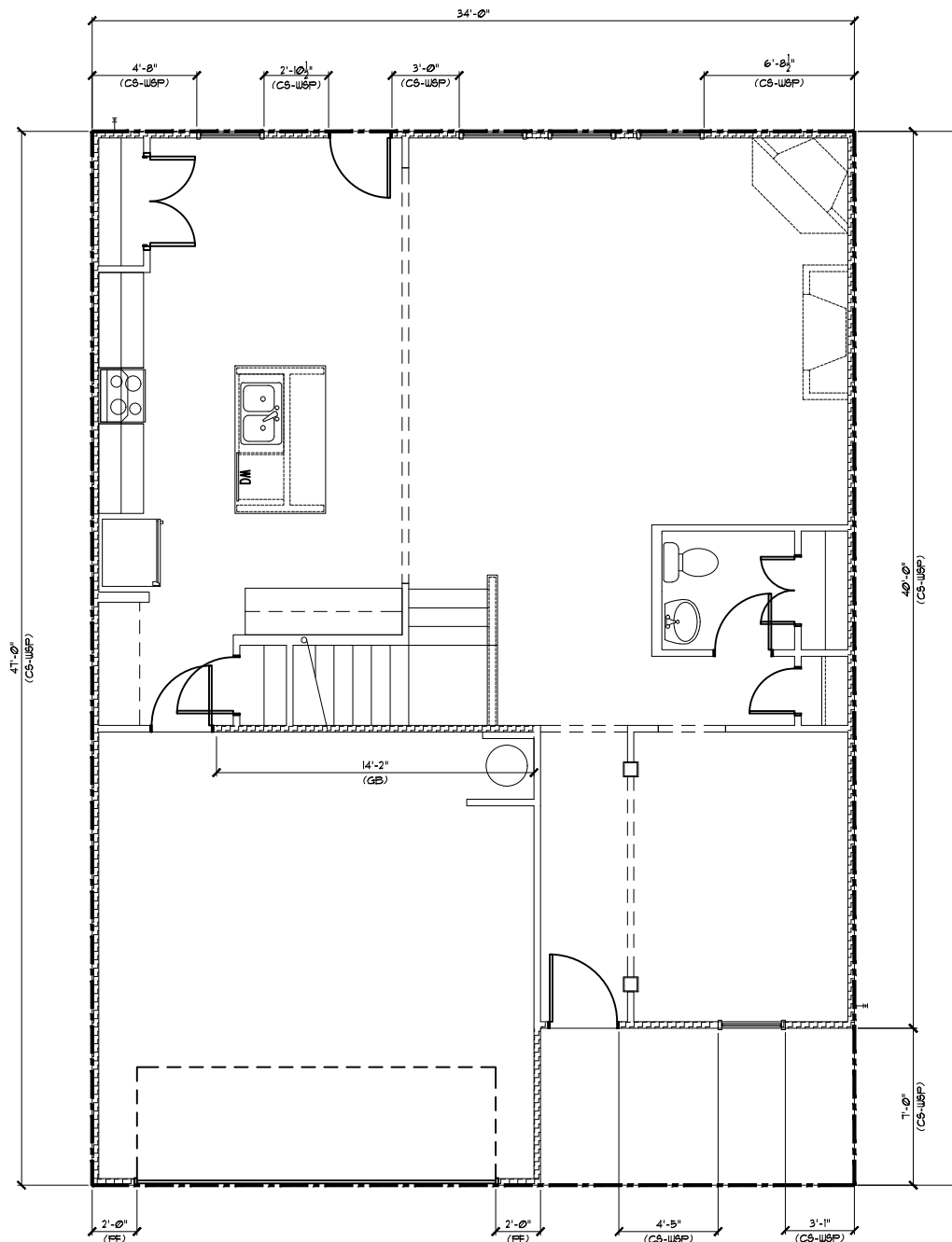
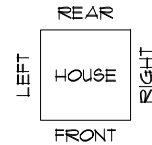
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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

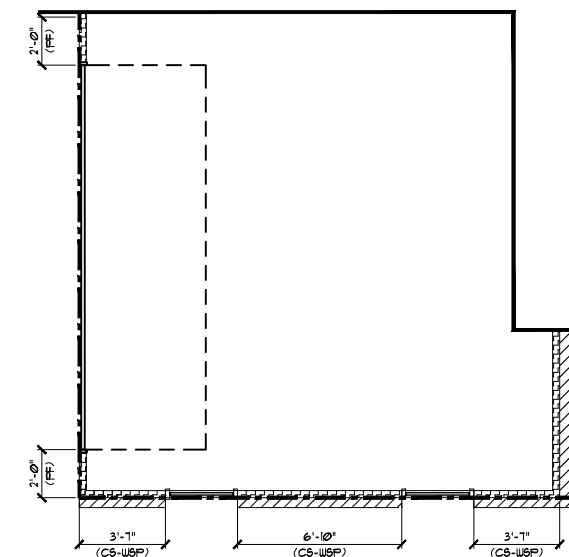
FIRST FLOOR BRACING PLAN

SCALE: 1/8"=1'



ALL ELEVATIONS

OPTION 1 BRACING



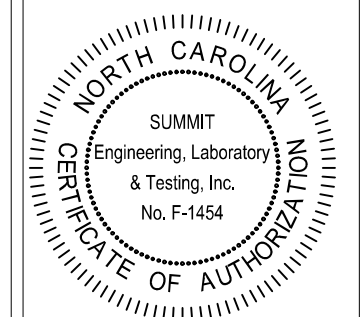
OPT. SIDE LOAD GARAGE

Cane Mill Lot 31



STRUCTURAL MEMBERS ONLY

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 ENGINEERING LABORATORY TESTING
 3070 HAMMOND BUSINESS PLACE, SUITE 171
 RALEIGH, NC 27603
 OFFICE: 919.380.9991
 FAX: 919.380.9993
 WWW.SUMMIT-COMPANIES.COM



PROJECT: Buffington - LH
First Floor Bracing
 CLIENT: Smith Douglas Homes - Raleigh
 2520 Reliance Ave.
 Apex, NC 27539

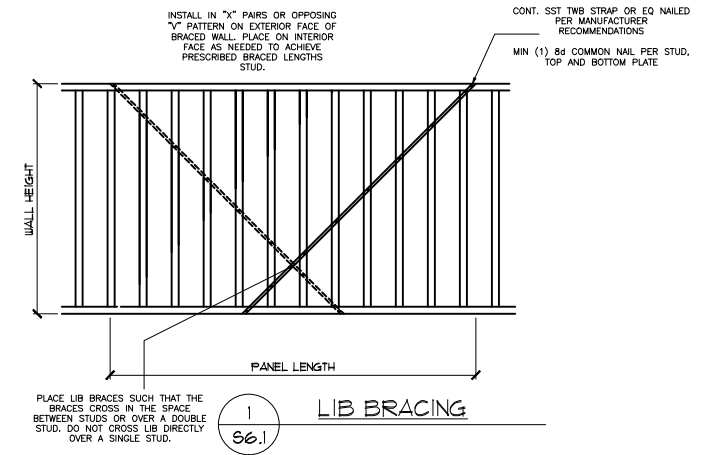
CURRENT DRAWING
 DATE: 6/29/2021
 SCALE: 1/8"=1'-0"
 PROJECT #: 3832.202R
 DRAWN BY: JV
 CHECKED BY: BCP

ORIGINAL DRAWING
 DATE: 12/11/15 PROJECT#: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S7.0

SEE SHEET S7.0 FOR NOTES AND MORE INFORMATION



1 LIB BRACING
96.1

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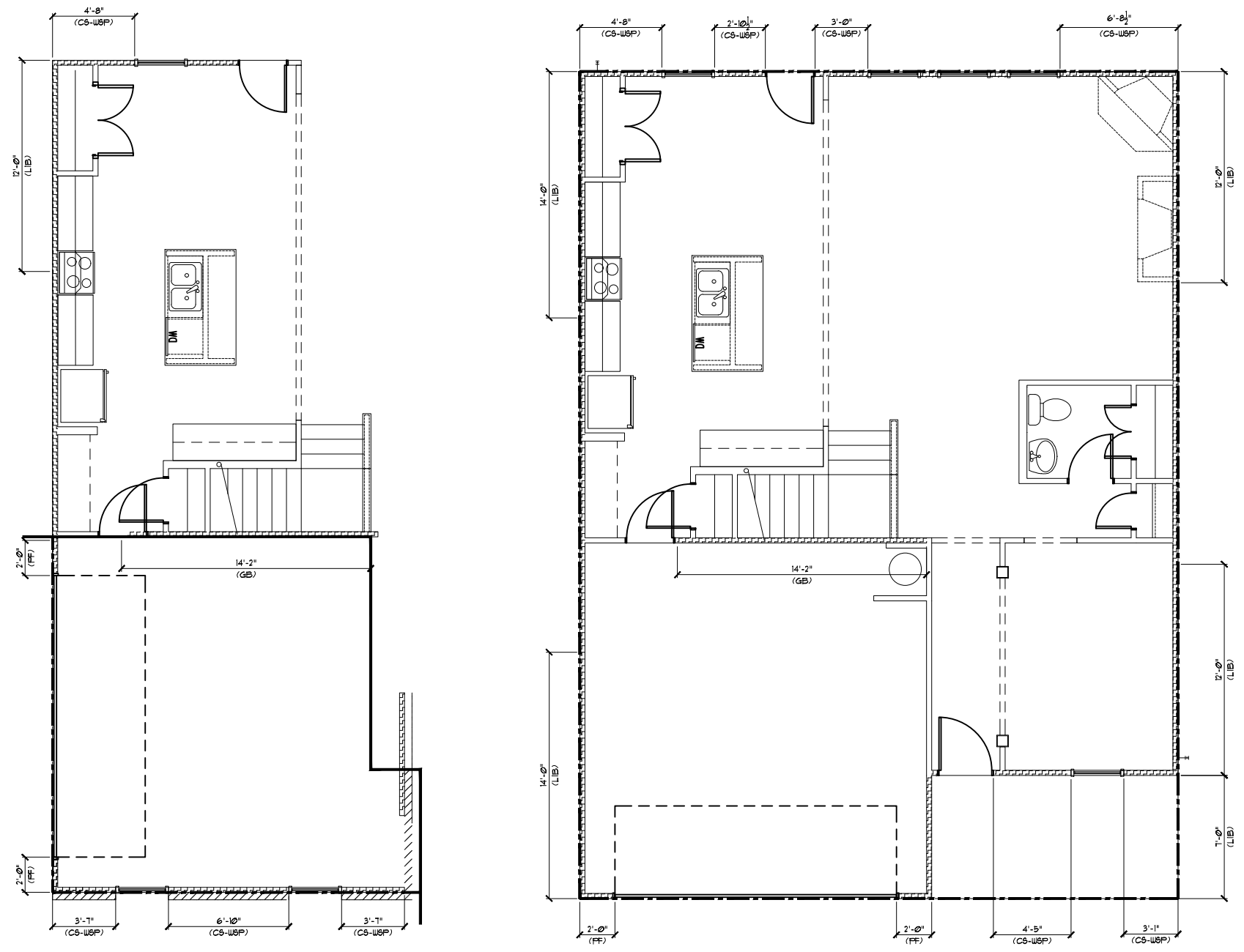
FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	14.8	20.6
RIGHT SIDE	11	15.5
REAR SIDE	14.8	11.2
LEFT SIDE	11	14.0

FIRST FLOOR BRACING - SIDE LOAD GARAGE (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	14.8	21.5
RIGHT SIDE	11	41.0
REAR SIDE	14.8	11.2
LEFT SIDE	11	12.0

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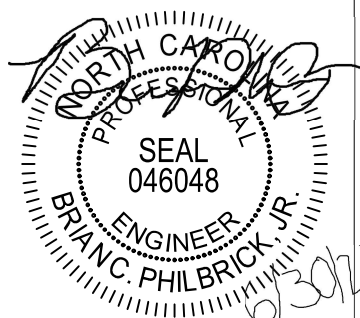
FIRST FLOOR BRACING PLAN
SCALE: 1/8"=1'



OPT. SIDE LOAD GARAGE

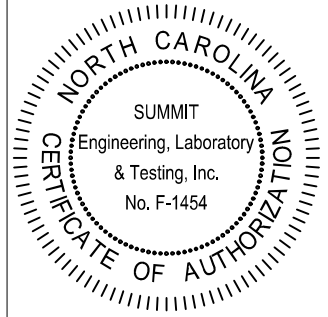
ALL ELEVATIONS
OPTION 2 BRACING

Cane Mill
Lot 31



STRUCTURAL MEMBERS ONLY

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3070 HAMMOND BUSINESS PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM



PROJECT: Buffington - LH
Client: Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING
DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING
DATE: 12/11/15
PROJECT #: 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S7.1

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			• PANEL EDGES	• INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS • 6" O.C.	6d COMMON NAILS • 12" O.C.
GB	GYPSON BOARD	1/2"	5d COOLER NAILS** • 1" O.C.	5d COOLER NAILS** • 1" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS • 6" O.C.	6d COMMON NAILS • 12" O.C.
FF	WOOD STRUCTURAL PANEL	1/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1

**OR EQUIVALENT PER TABLE R102.3.5

BRACED WALL NOTES:

- WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
- WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
- BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
- ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
- THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSON BOARD (UNO).
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF EACH END OF A BRACED WALL LINE.
- THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
- MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3 OF THE 2018 NCR.
- BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5.
- CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6.
- PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO).
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- ABBREVIATIONS:

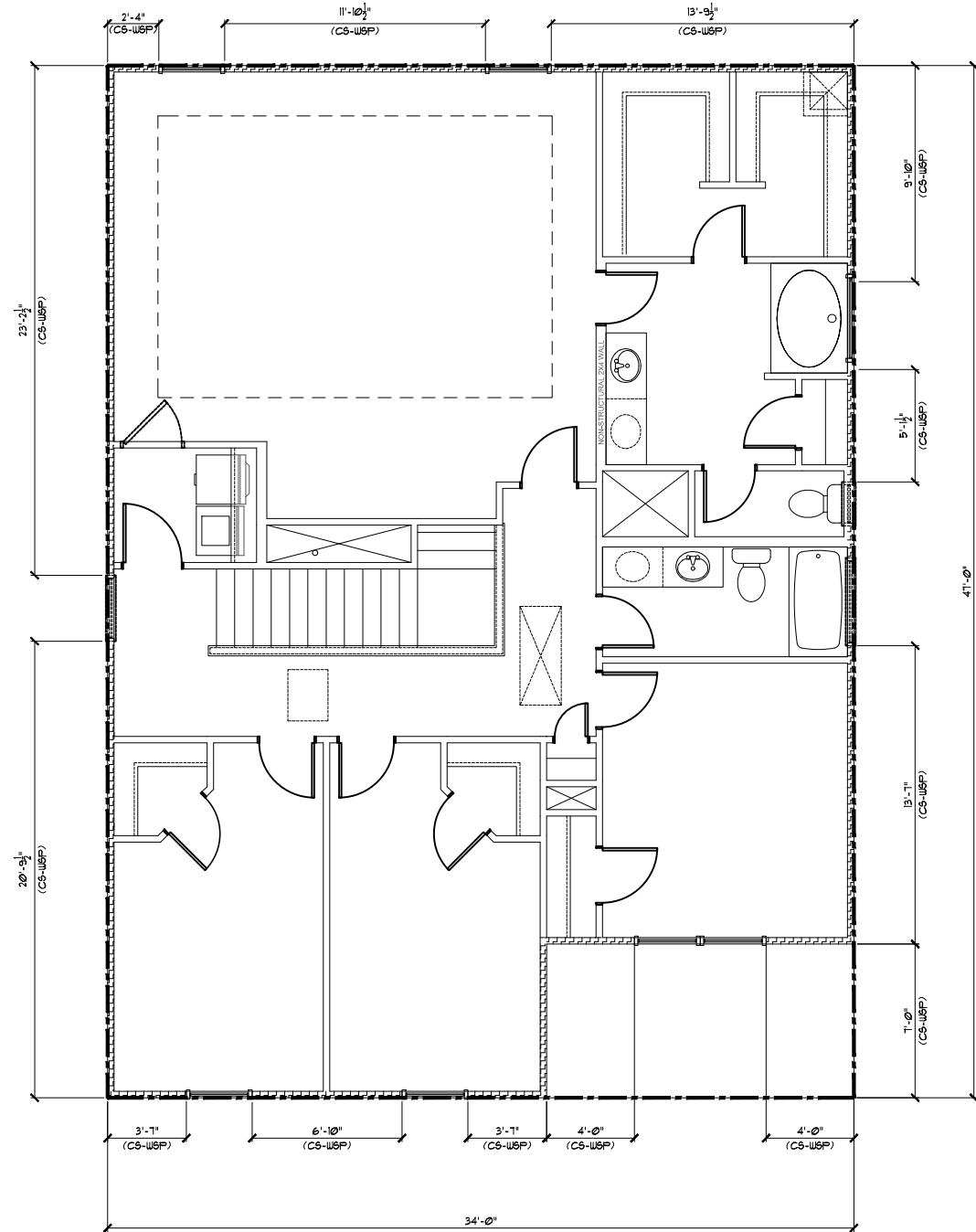
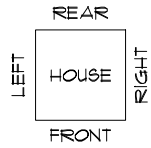
GB = GYPSON BOARD WSP = WOOD STRUCTURAL PANEL
CS-XXX = CONT. SHEATHED ENG = ENGINEERED SOLUTION
FF = PORTAL FRAME FF-ENG = ENG. PORTAL FRAME

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 9/11/21. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

SECOND FLOOR BRACING (FT)

	CONTINUOUS SHEATHING METHOD	
	REQUIRED	PROVIDED
FRONT SIDE	6.3	22.0
RIGHT SIDE	5.1	35.5
REAR SIDE	6.3	28.0
LEFT SIDE	5.1	44.0

INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3.4 OF THE 2018 NCR.



ALL ELEVATIONS

OPTION 1 BRACING

STRUCTURAL MEMBERS ONLY

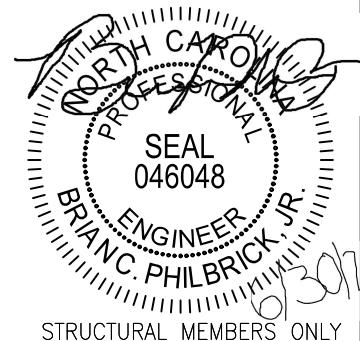
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCR.

SECOND FLOOR BRACING PLAN

SCALE: 1/8"=1'

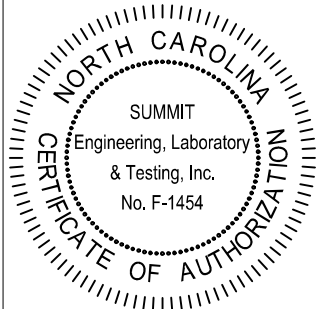
Cane Mill
Lot 31



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RALEIGH, NC 27603
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PROJECT
Buffington - LH
Second Floor Bracing
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave.
Apex, NC 27539

CURRENT DRAWING

DATE: 6/29/2021
SCALE: 1/8"=1'-0"
PROJECT #: 3832.202R
DRAWN BY: JV
CHECKED BY: BCP

ORIGINAL DRAWING

DATE PROJECT#
12/11/15 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S8.0

SEE SHEET S8.0 FOR NOTES AND MORE INFORMATION

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SECOND FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT SIDE	6.9	22.0
RIGHT SIDE	5.1	39.5
REAR SIDE	6.9	28.0
LEFT SIDE	5.1	14.0

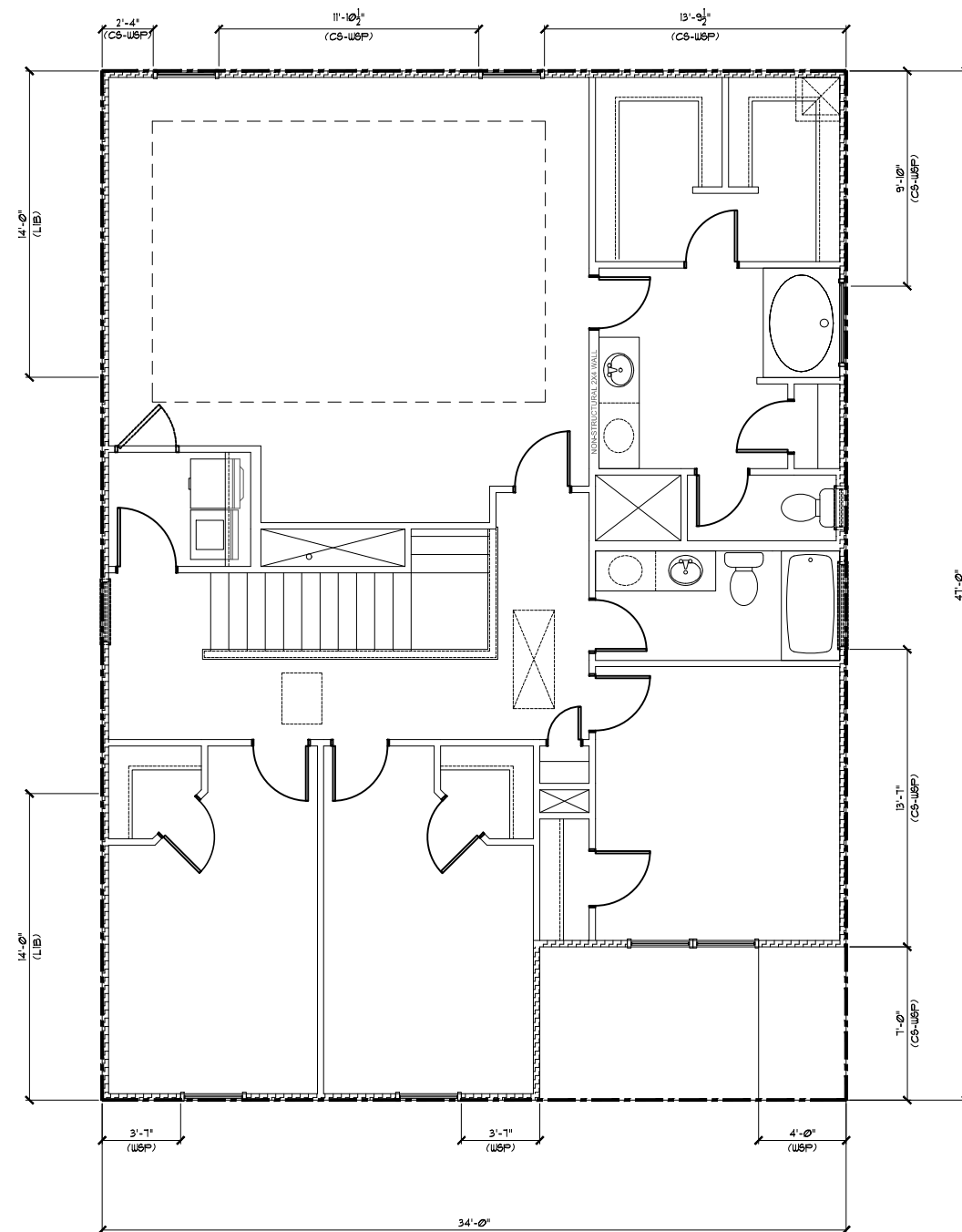
STRUCTURAL MEMBERS ONLY

ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT. SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

SECOND FLOOR BRACING PLAN

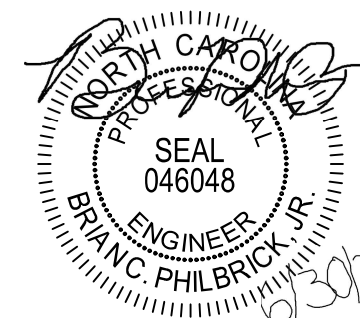
SCALE: 1/8"=1'



ALL ELEVATIONS

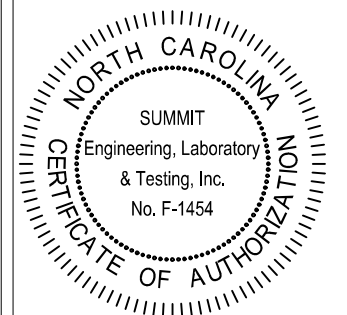
OPTION 2 BRACING

Cane Mill
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DATE PROJECT#
12/11/15 3832.09

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET

S8.1

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
- The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
- The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
- Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
- Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
- The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
- This structure and all construction shall conform to all applicable sections of the international residential code.
- This structure and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCRC) and any local codes or restrictions

FOUNDATIONS:

- Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Building Code (Special consideration shall be given to Chapter 45 in wind zones above 130mph)
- Footing sizes based on a presumptive soil bearing capacity of 2000 PSF. Contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction
- Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC
- The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.
- 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.
- 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.
- 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.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
- Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bearing in the middle third of the piers. Pilasters to be bonded to perimeter foundation wall
- Crawl spaced to be graded level and clear of all debris
- Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
- Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC

CONCRETE:

- 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.
- 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".
- 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%
- No admixtures shall be added to any structural concrete without written permission of the SER
- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.1R-96: "Guide for Concrete Slab and Slab Construction".
- 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.
- 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.
- Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
- Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
- 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. Fibermesh may be used in lieu of W.W.F.

CONCRETE REINFORCEMENT:

- 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.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (1.5 pounds per cubic yard)
- Fibermesh shall comply with ASTM C1116, any local building code requirements, and shall meet or exceed the current industry standard.
- Steel Reinforcing bars shall be new billet steel conforming to ASTM A615, grade 60.
- 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"
- 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.
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.
- 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.
- Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

WOOD FRAMING:

- 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.
- LVL or PSL engineered wood shall have the following minimum design values:
 - E = 1,900,000 psi
 - Fb = 2600 psi
 - Fv = 285 psi
 - Fc = 700 psi
- 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
- Nails shall be common wire nails unless otherwise noted.
- Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.
- 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.
- 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 fully blocked at all floor levels to ensure proper load transfer.
- Multi-ply beams shall have each ply attached with (3)10d nails @ 24" O.C.
- Fitch beams and four and five ply beams shall be bolted together with (2) rows of 1/2" dia. through bolts staggered @24" O.C. w/ 2" edge distance and (2) bolts located at 6" from each end, unless noted otherwise.

WOOD TRUSSES:

- 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.
- 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 7-10), 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.
- 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."
- 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.
- 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.

WOOD STRUCTURAL PANELS:

- 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.
- All structurally required wood sheathing shall bear the mark of the APA.
- 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.
- 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.
- Wood floor sheathing shall be APA rated sheathing exposure 1 or 2. Attach sheathing to its supporting framing with (1)-8d CC ringshank 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.
- Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

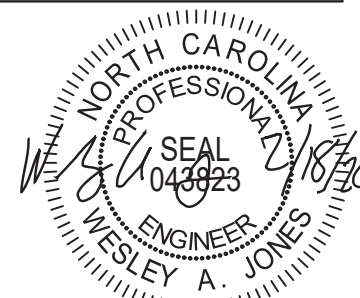
- Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
- Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan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

EXTERIOR WOOD FRAMED DECKS:

- Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

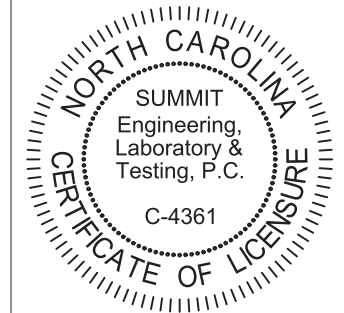
STRUCTURAL STEEL:

- 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.
- All steel shall have a minimum yield stress (Fy) of 36 ksi unless otherwise noted.
- 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.



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PROJECT
Standard Details
Notes and Specifications
CLIENT
Smith Douglas Homes
110 Village Trail, Suite 215
Woodstock, GA 30188

CURRENT DRAWING

DATE: 2/18/20
SCALE: NTS
PROJECT #: 3832
DRAWN BY: LBV
CHECKED BY: WAJ

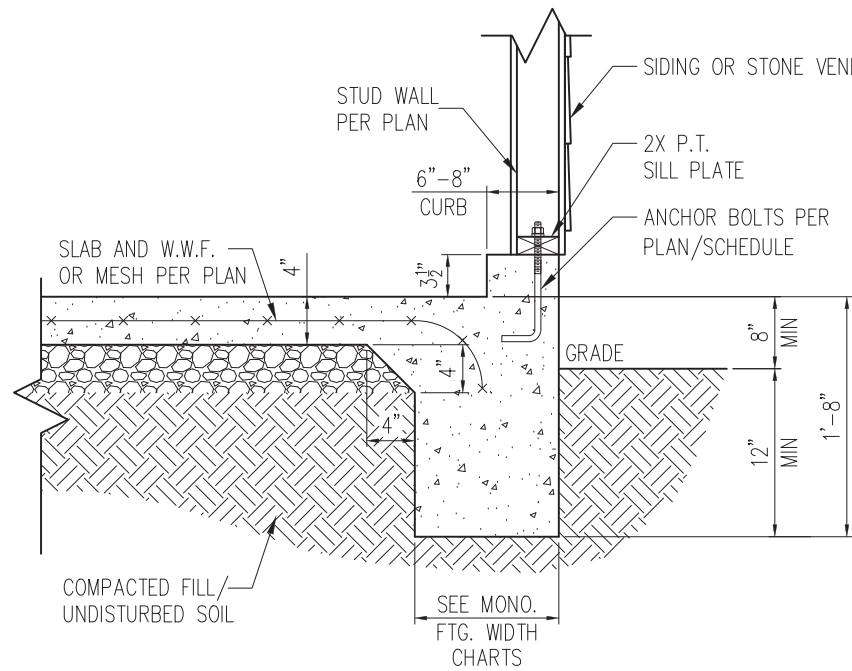
ORIGINAL DRAWING

NO.	DATE	PROJECT #
0	1/7/16	3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

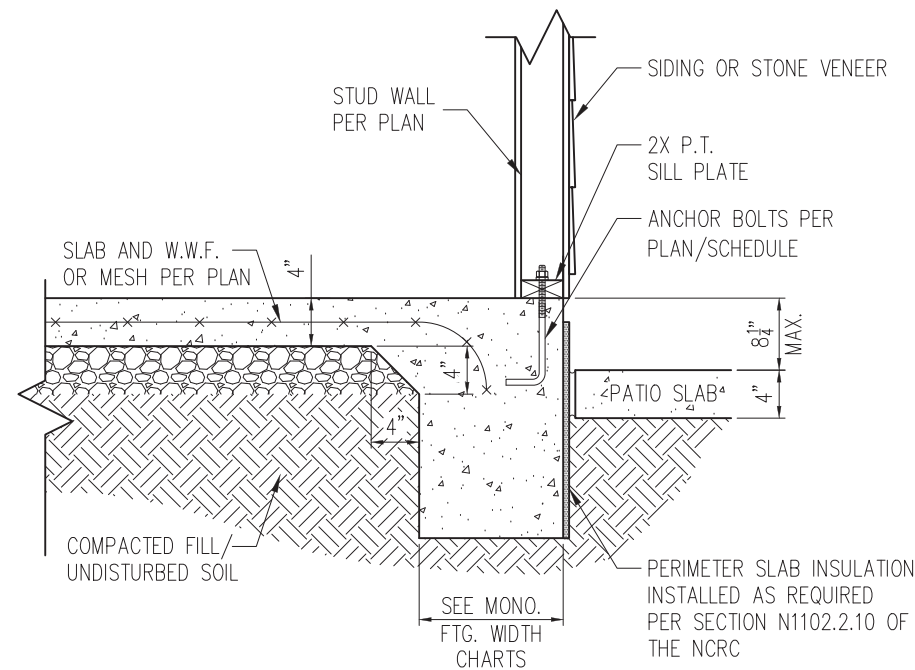
SHEET

CS2



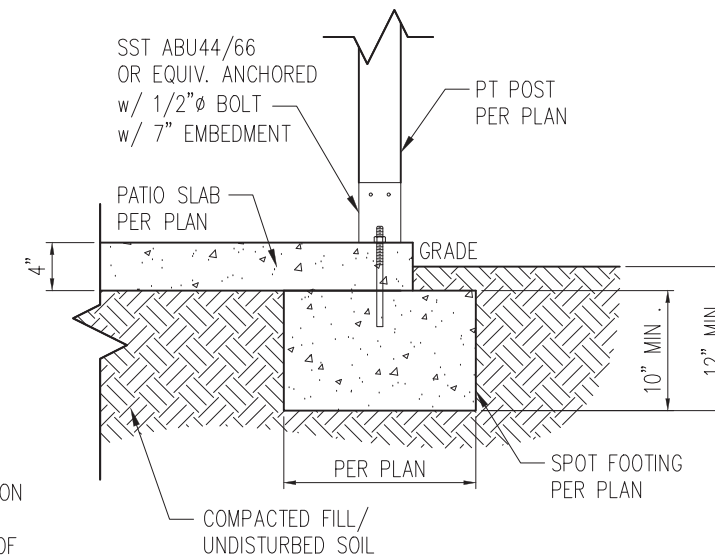
STANDARD - SIDING/STONE

1 TYP. GARAGE CURB DETAIL
D1m 3/4" = 1'-0"

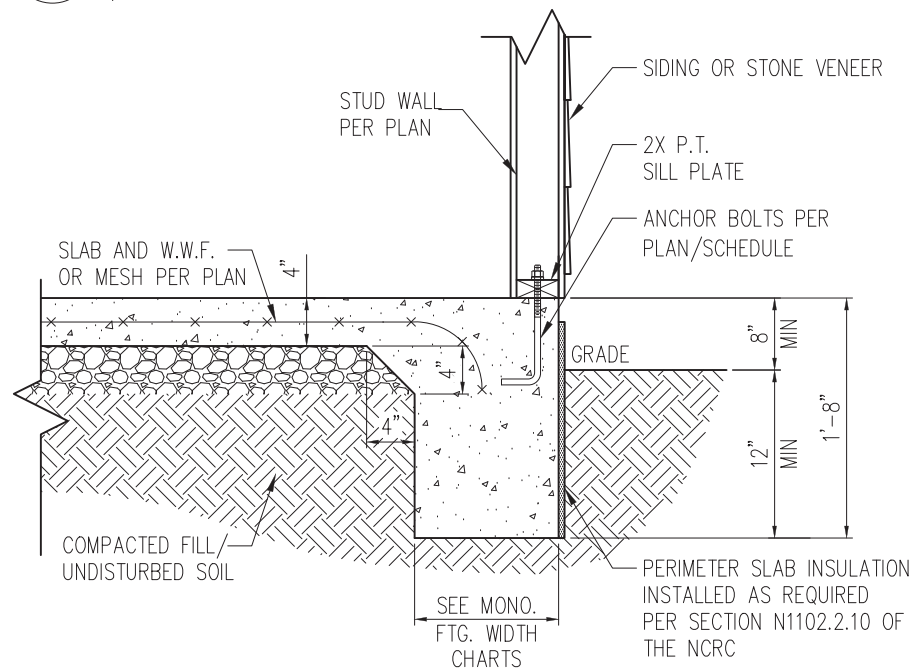


STANDARD - SIDING/STONE

2 PATIO SLAB DETAIL
D1m 3/4" = 1'-0"

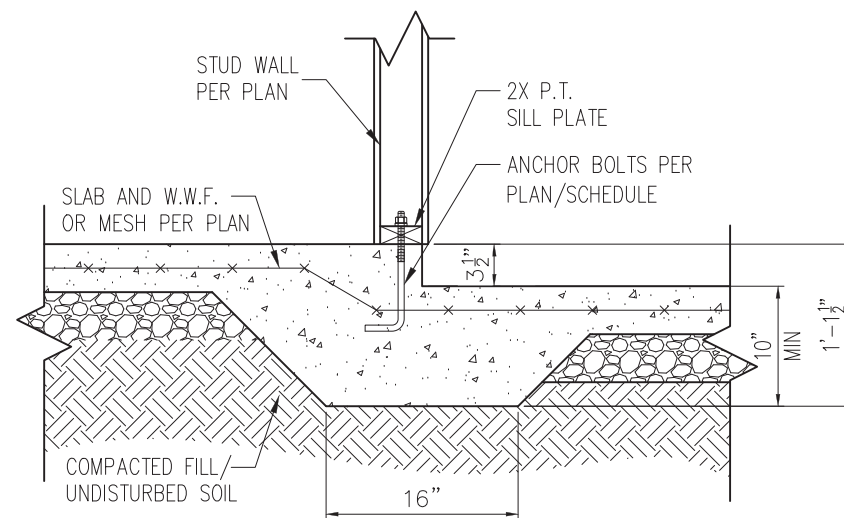


2A COVERED PATIO DETAIL
D1m 3/4" = 1'-0"



STANDARD - SIDING/STONE

3 TYP. SLAB DETAIL
D1m 3/4" = 1'-0"



4 STEP IN GARAGE
D1m 3/4" = 1'-0"

WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2" A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

MONOLITHIC FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"	21"	21"
2 STORY - STD.	20"	16"	16"
2 STORY - BRICK VENEER	25"	21"	21"

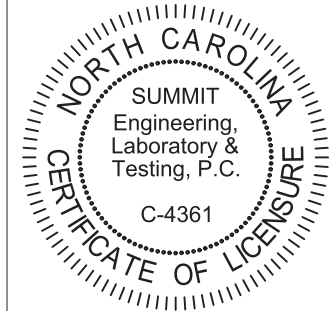
*5" BRICK LEDGE HAS BEEN ADDED TO THE MONOLITHIC FOOTING WIDTH FOR BRICK SUPPORT

- NOTES:
- REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET CS2 FOR ADDITIONAL INFORMATION.
 - PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
 - SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.



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SCALE: NTS
PROJECT #: 3832
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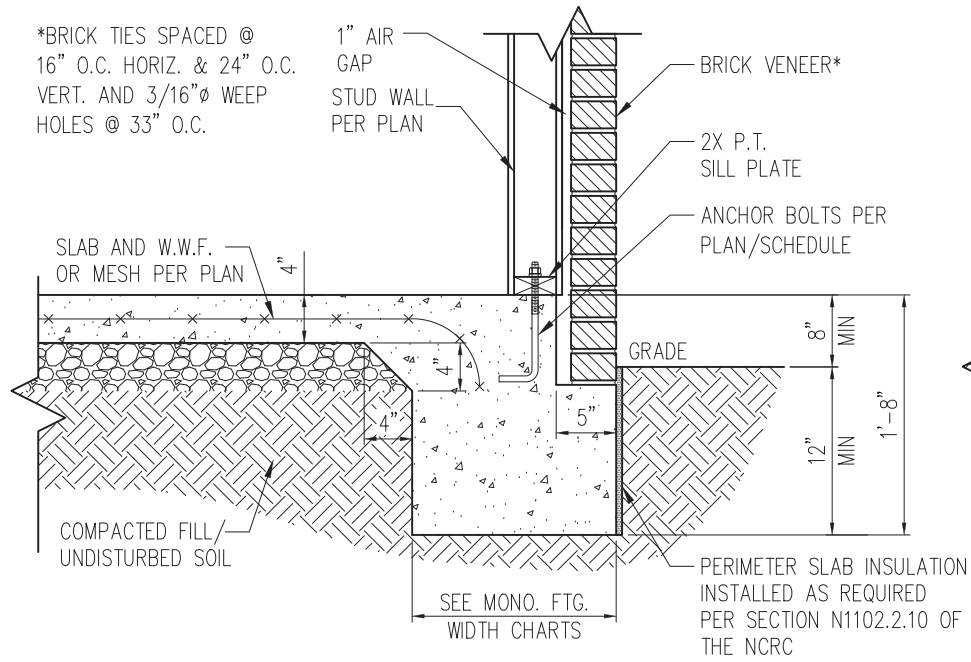
ORIGINAL DRAWING
NO. DATE PROJECT #
0 1/7/16 3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

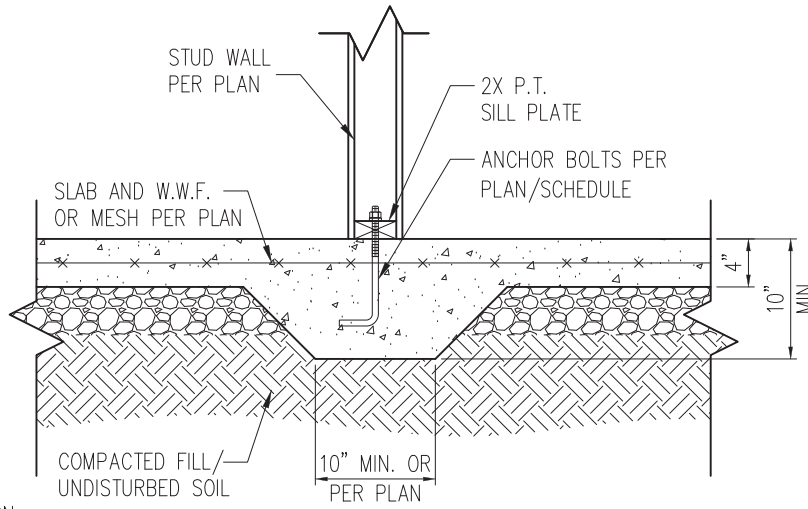
SHEET

D1m

*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16" Ø WEEP HOLES @ 33" O.C.

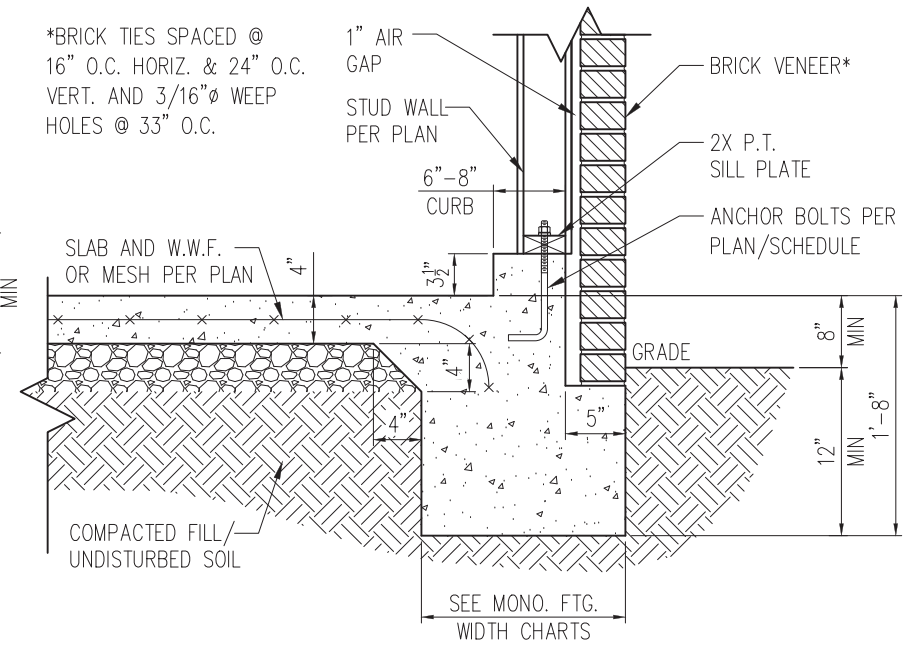


STANDARD - BRICK



3 TYP. THICKENED SLAB DETAIL
D2m 3/4" = 1'-0"

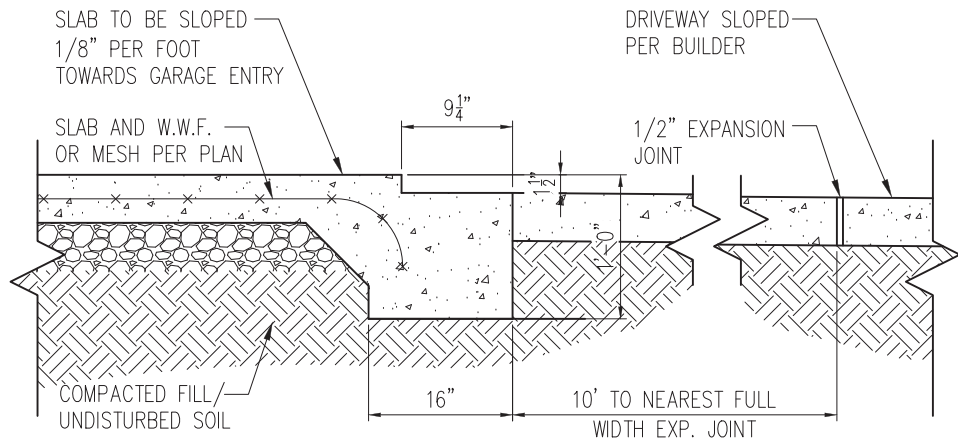
*BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16" Ø WEEP HOLES @ 33" O.C.



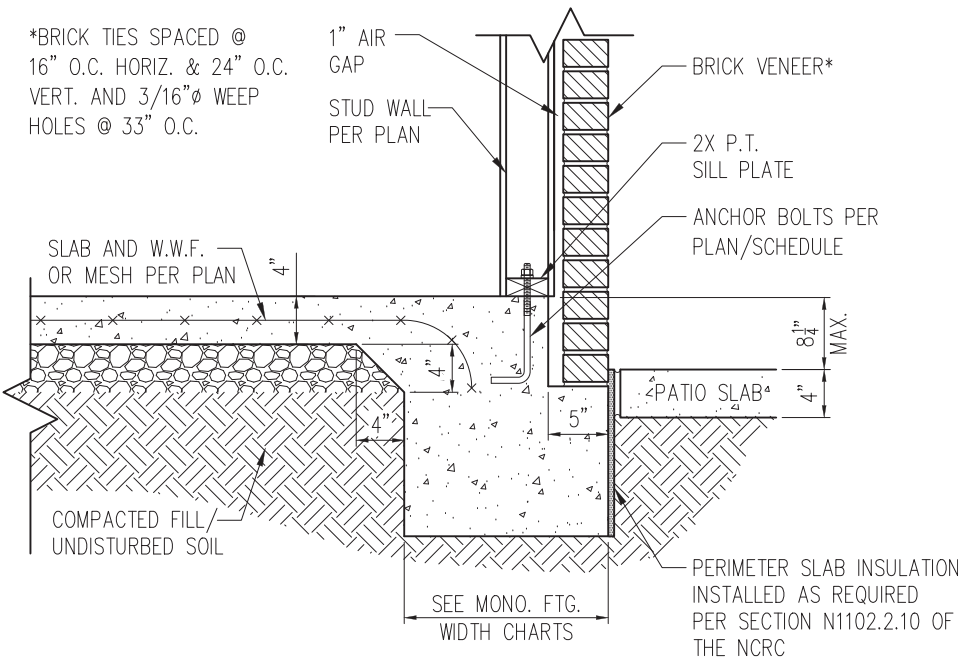
STANDARD - BRICK

5 TYP. GARAGE CURB DETAIL W/ BRICK VENEER
D2m 3/4" = 1'-0"

1 TYP. SLAB DETAIL W/ BRICK VENEER
D2m 3/4" = 1'-0"



2 SLAB AT GARAGE DOOR
D2m 3/4" = 1'-0"



STANDARD - BRICK

4 PATIO SLAB DETAIL W/ BRICK VENEER
D2m 3/4" = 1'-0"

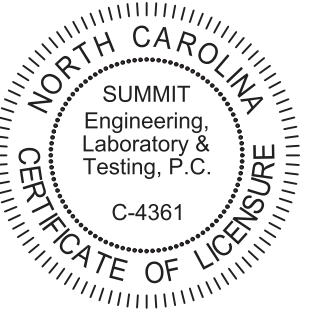
NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON SHEET CS2 FOR ADDITIONAL INFORMATION.
2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.



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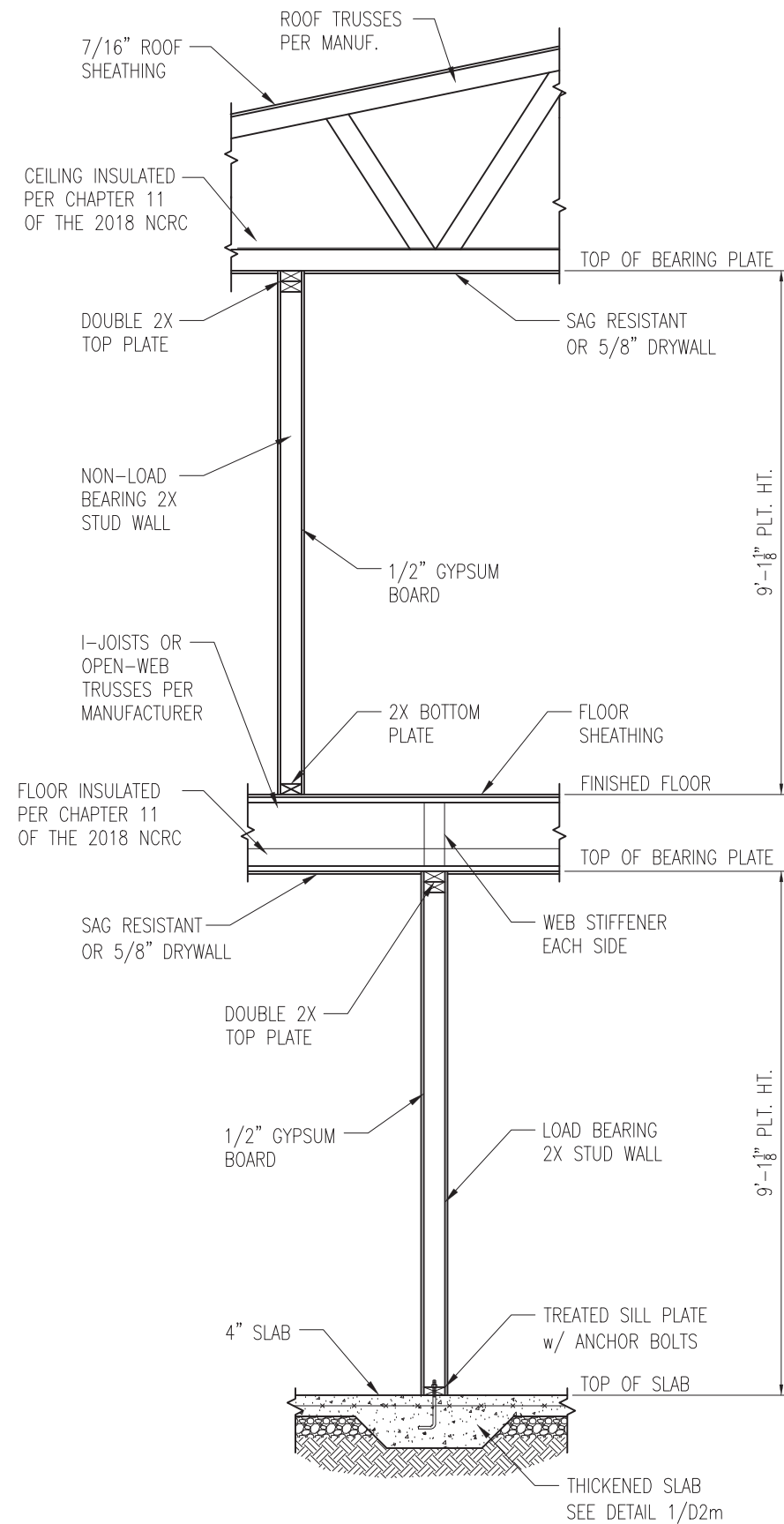
PROJECT
Standard Details
Monolithic Slab Details
CLIENT
Smith Douglas Homes
110 Village Trail, Suite 215
Woodstock, GA 30188

CURRENT DRAWING
DATE: 2/18/20
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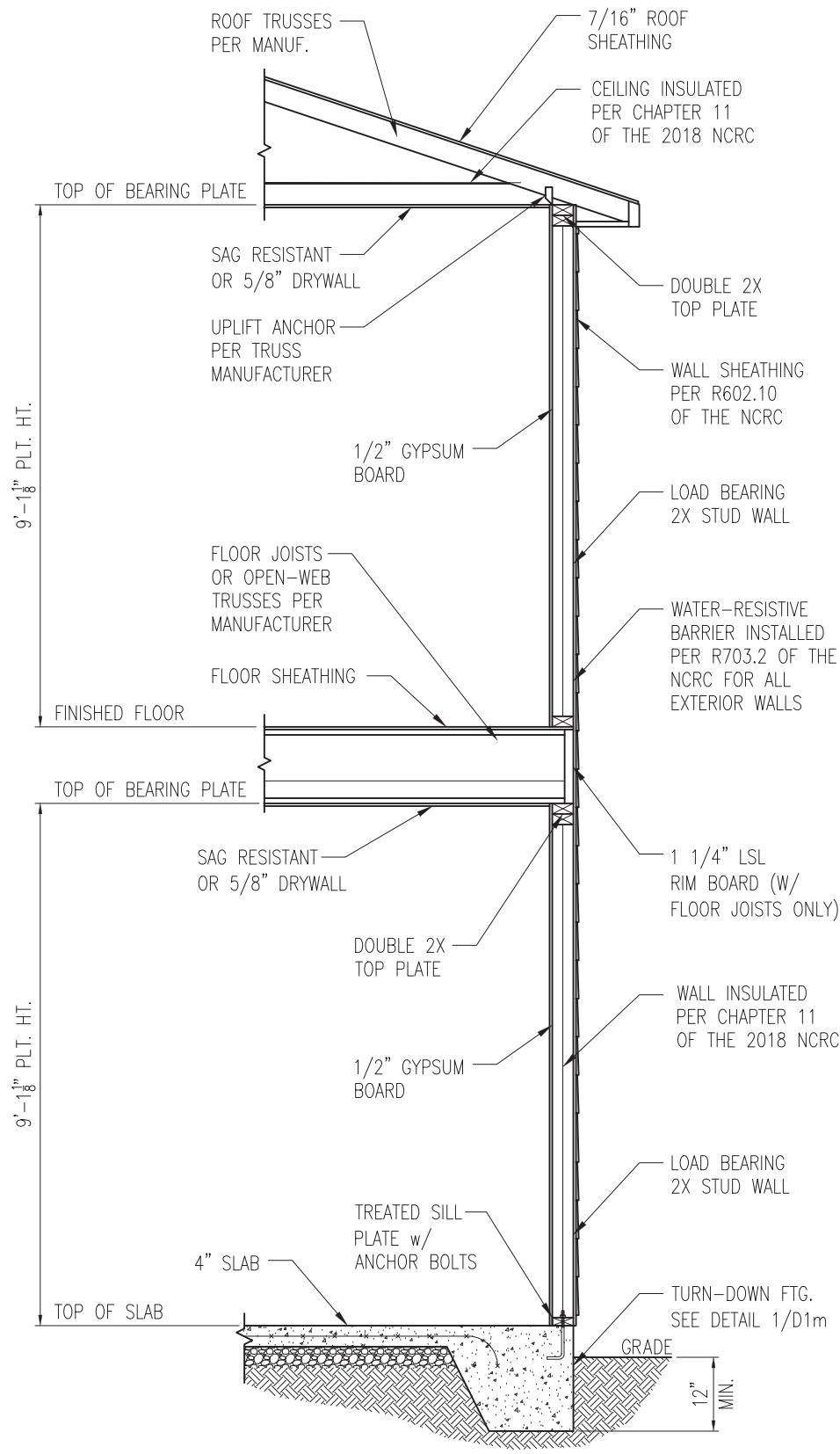
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REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
D2m



1 TYP. INTERIOR LOAD BEARING WALL SECTION
 D3m 3/4" = 1'-0"

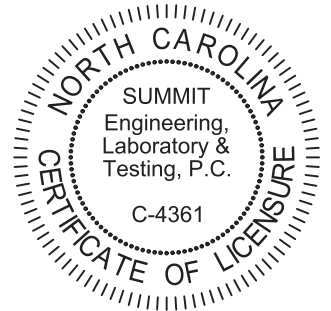


2 TYP. EXTERIOR LOAD BEARING WALL SECTION
 D3m 3/4" = 1'-0"
 -SIMILAR w/ BRICK AND STONE
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.
 -MIN. 3/16" Ø WEEP HOLES @ 33" O.C.

- NOTES:
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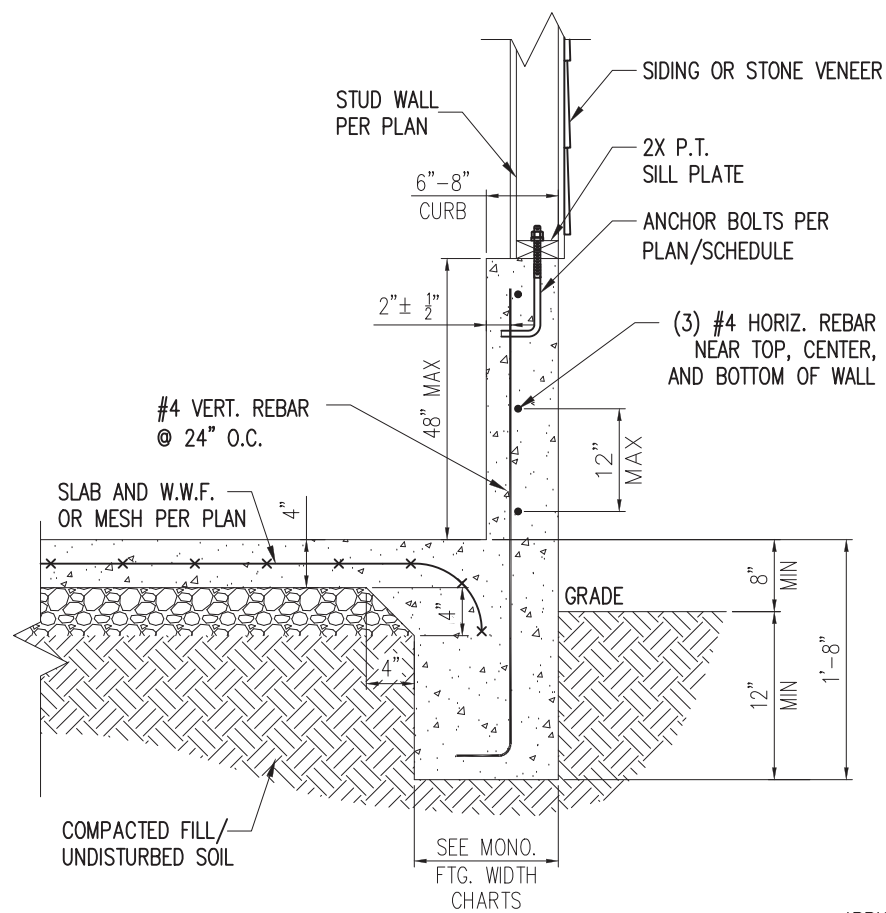
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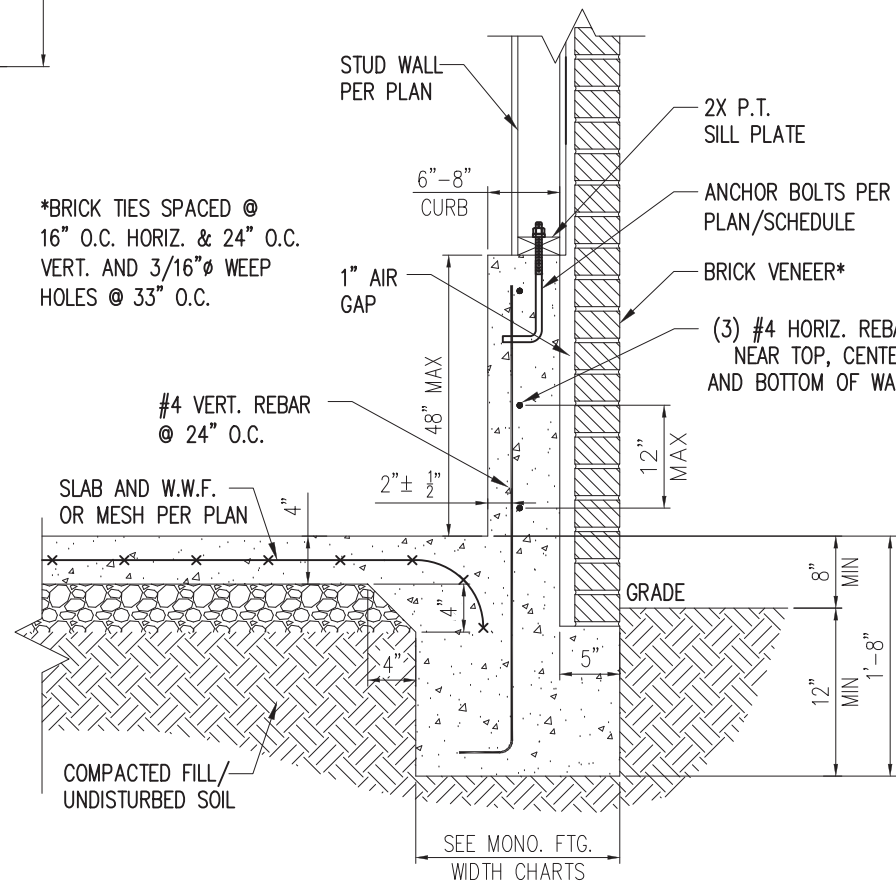
SHEET
D3m



STANDARD - SIDING/STONE

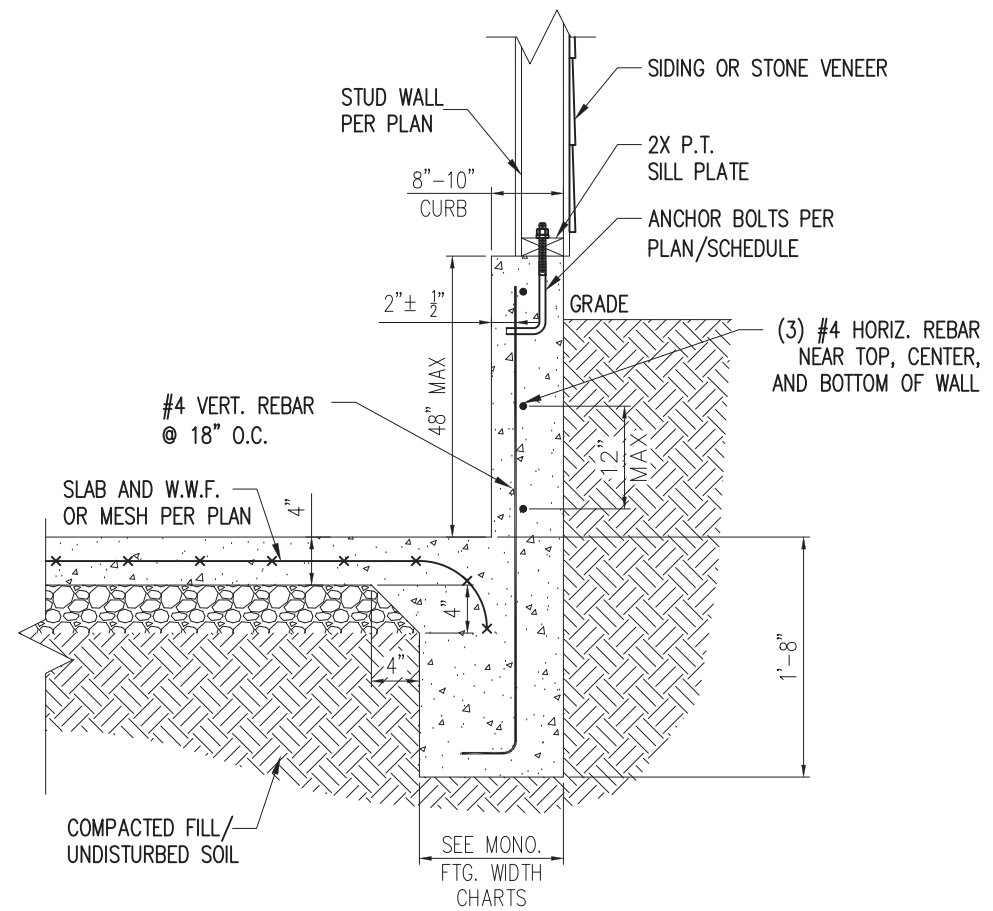
1 EXTENDED GARAGE CURB DETAIL
D4m NTS

*BRICK TIES SPACED @
16" O.C. HORIZ. & 24" O.C.
VERT. AND 3/16" Ø WEEP
HOLES @ 33" O.C.



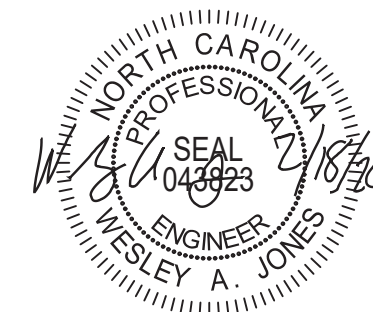
STANDARD - BRICK

3 EXTENDED GARAGE CURB DETAIL
W/ BRICK VENEER
D4m NTS



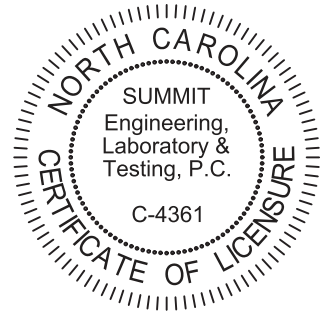
STANDARD - SIDING/STONE

2 EXTENDED GARAGE CURB DETAIL
W/ UNBALANCED FILL
D4m NTS



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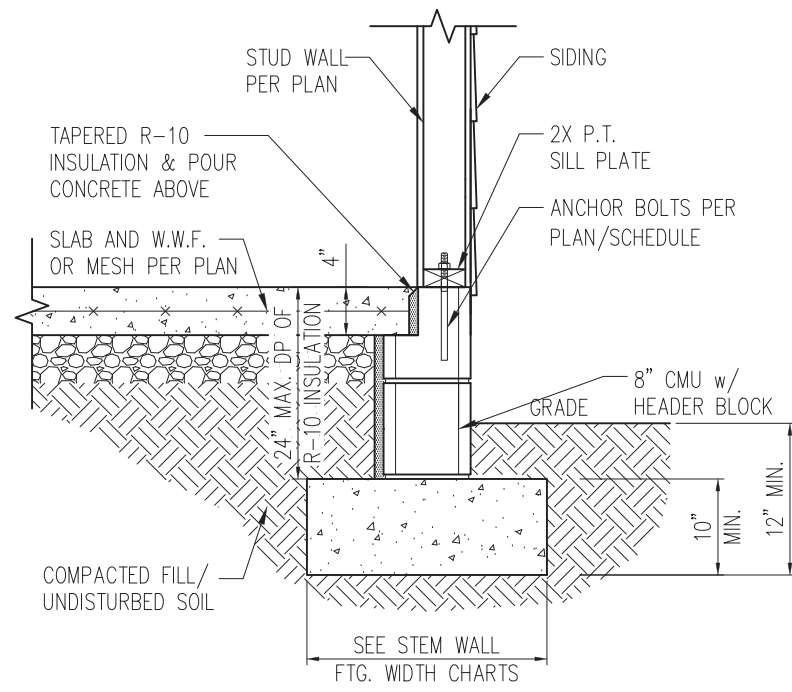
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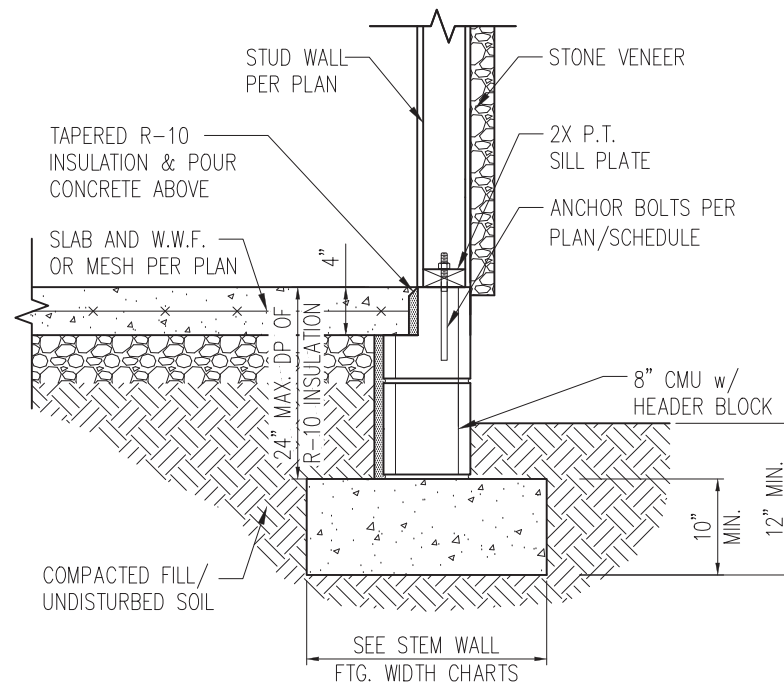
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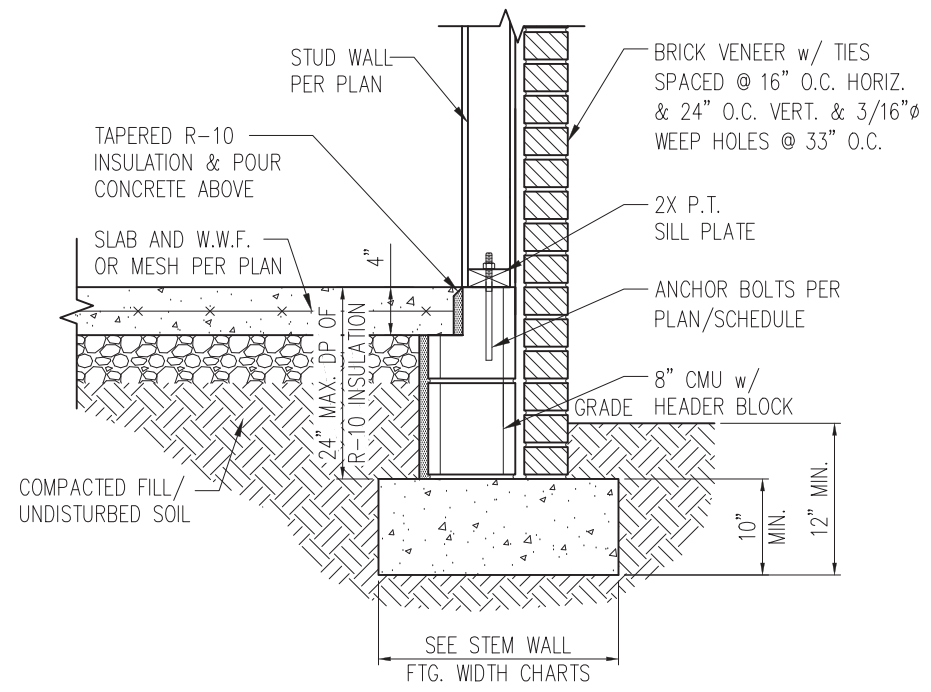
D4m



STANDARD - SIDING

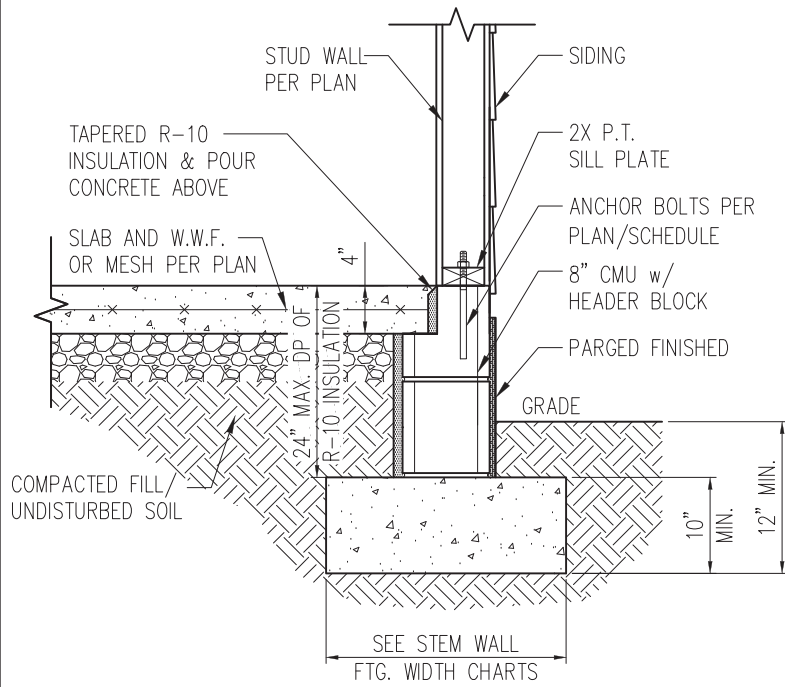


STANDARD - STONE

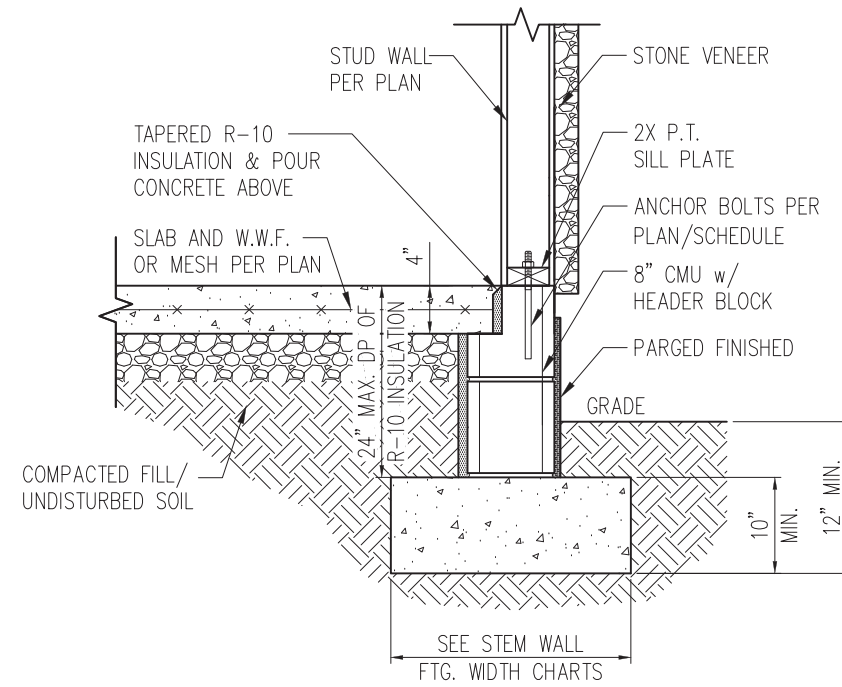


STANDARD - BRICK

1 TYP. STEM WALL DETAIL
D1s 3/4" = 1'-0"



STANDARD - SIDING



STANDARD - STONE

1a STEM WALL DETAIL w/ PARGED FINISH
D1s 3/4" = 1'-0"

STEM WALL FOOTING WIDTH

# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY		
	1500 PSF	2000 PSF	2500 PSF
1 STORY - STD.	16"	16"	16"
1 STORY - BRICK VENEER	21"*	21"*	21"*
2 STORY - STD.	20"	16"	16"
2 STORY - BRICK VENEER	25"*	21"*	21"*

*5" BRICK LEDGE HAS BEEN ADDED TO THE STEM WALL FOOTING WIDTH FOR BRICK SUPPORT

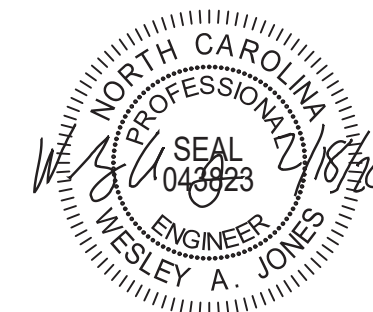
WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2" A307 BOLTS w/ STD. 90° BEND	7"	6'-0"	YES	YES
SST - MAS	4"	5'-0"	NO	YES
HILTI KWIK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2" HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	YES

NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

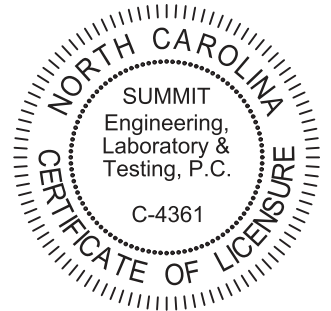
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PROJECT
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CURRENT DRAWING

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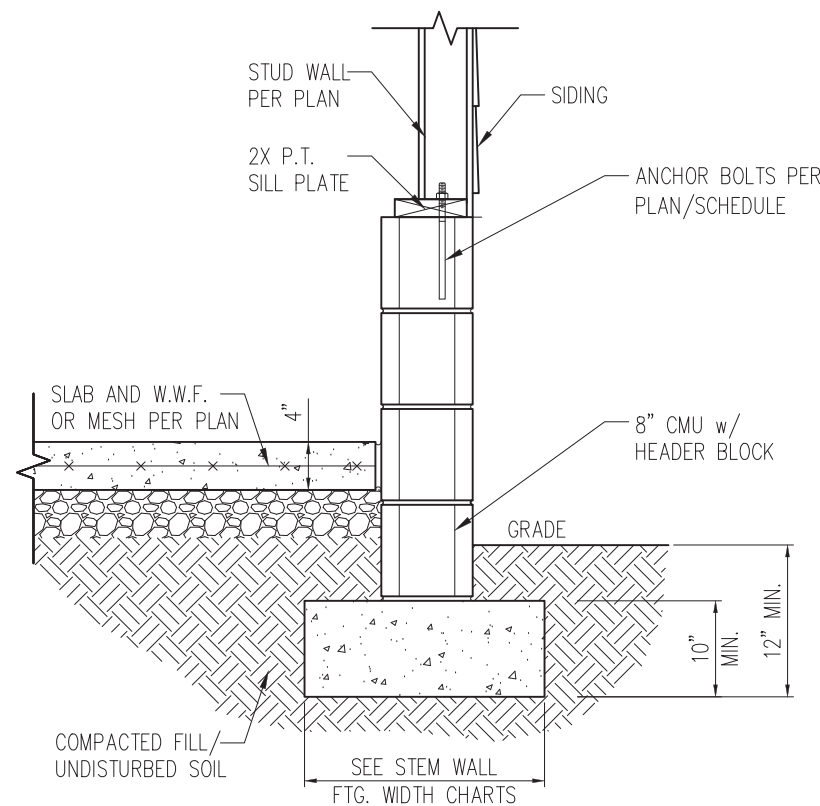
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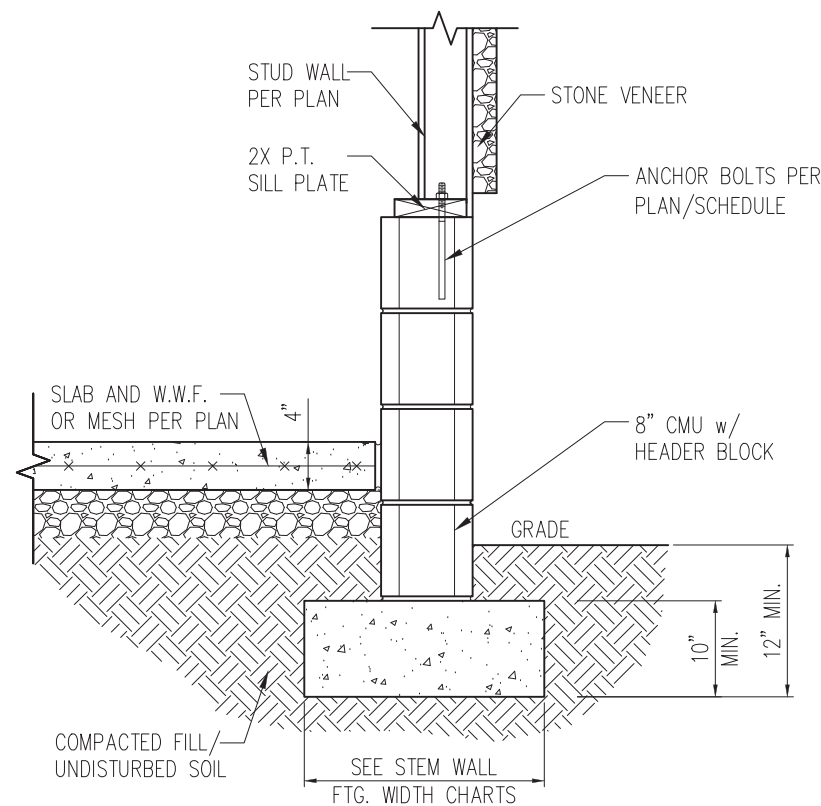
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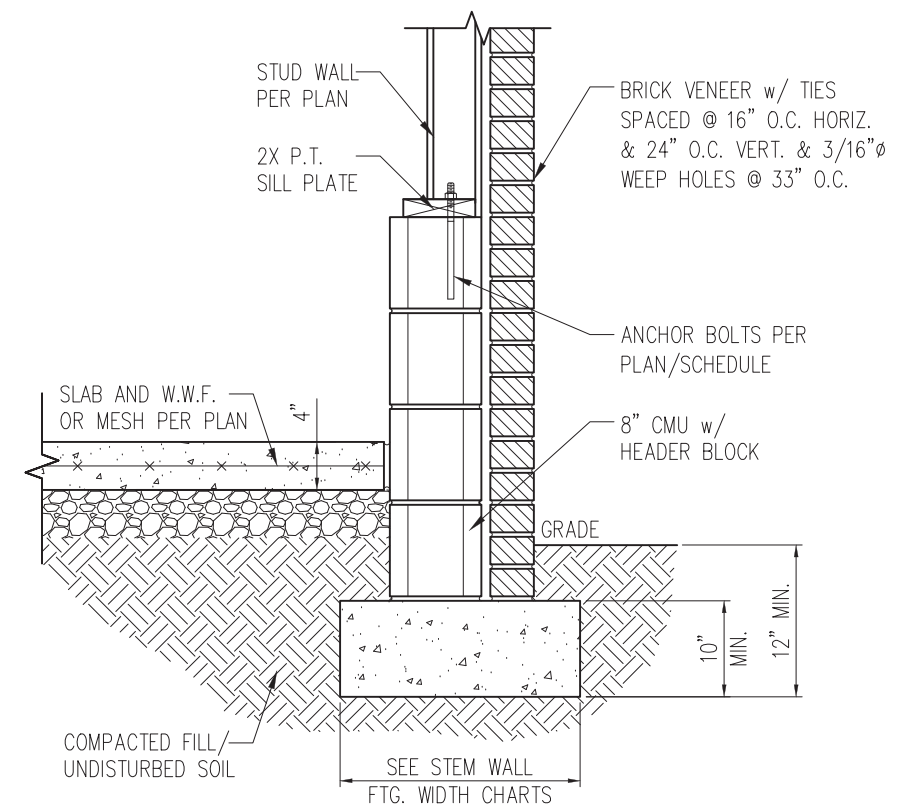
D1s



STANDARD - SIDING

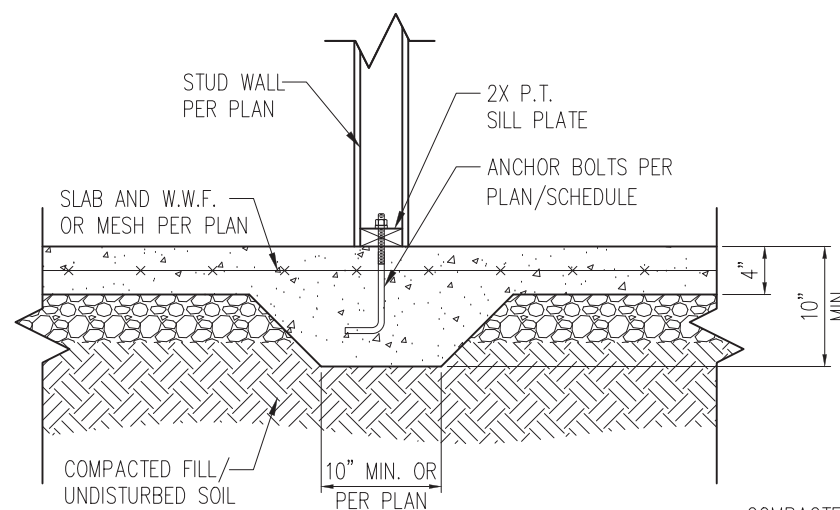


STANDARD - STONE

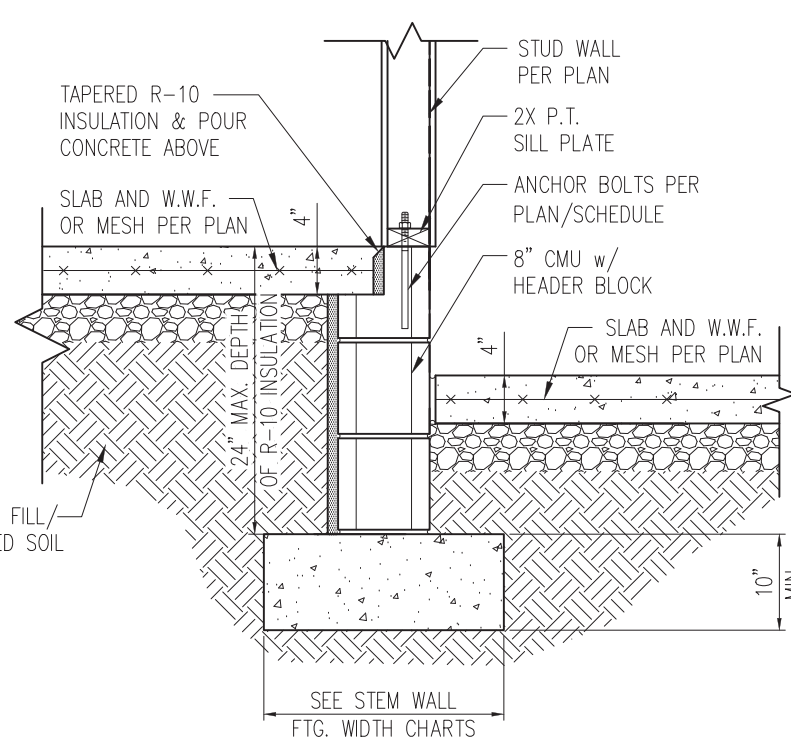


STANDARD - BRICK

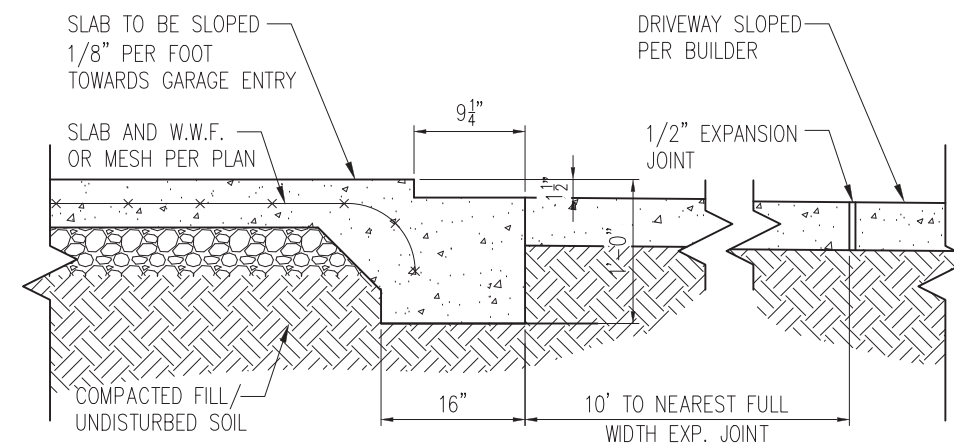
1 TYP. GARAGE CURB DETAIL
D2s 3/4" = 1'-0"



2 TYP. THICKENED SLAB DETAIL
D2s 3/4" = 1'-0"

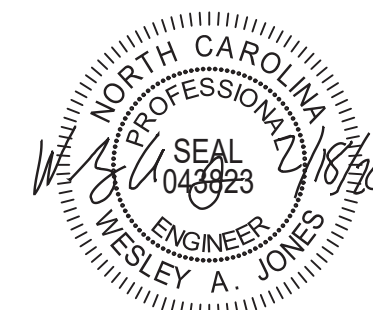


3 HOUSE/GARAGE WALL DETAIL
D2s 3/4" = 1'-0"



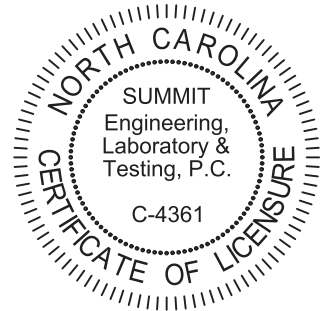
4 SLAB AT GARAGE DOOR
D2s 3/4" = 1'-0"

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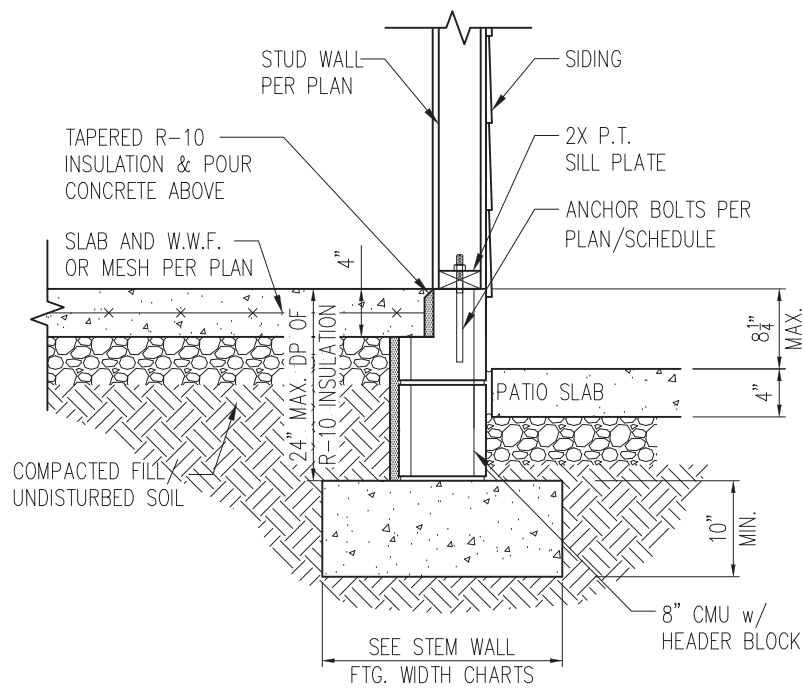


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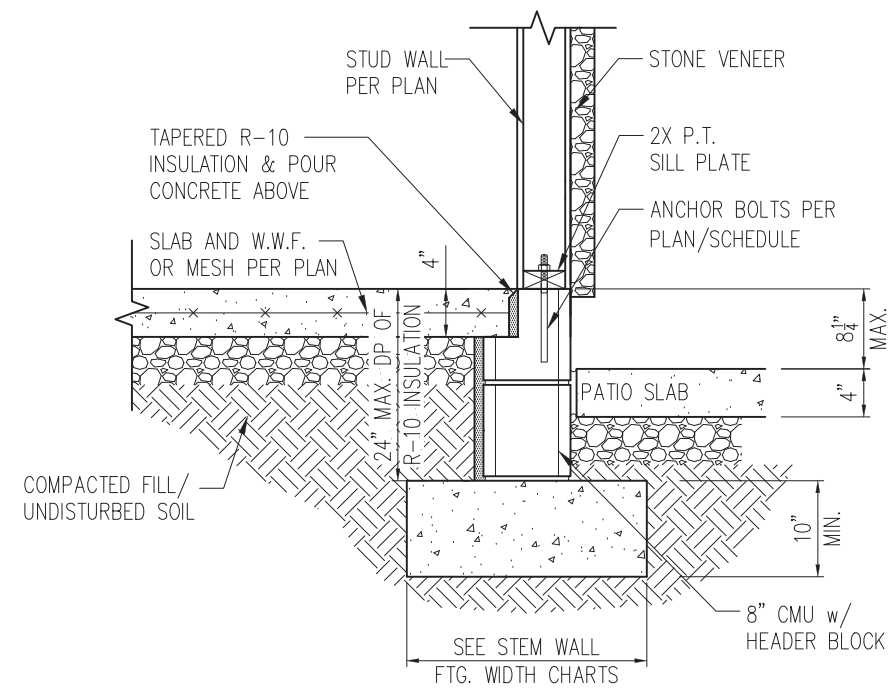
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PROJECT #: 3832		
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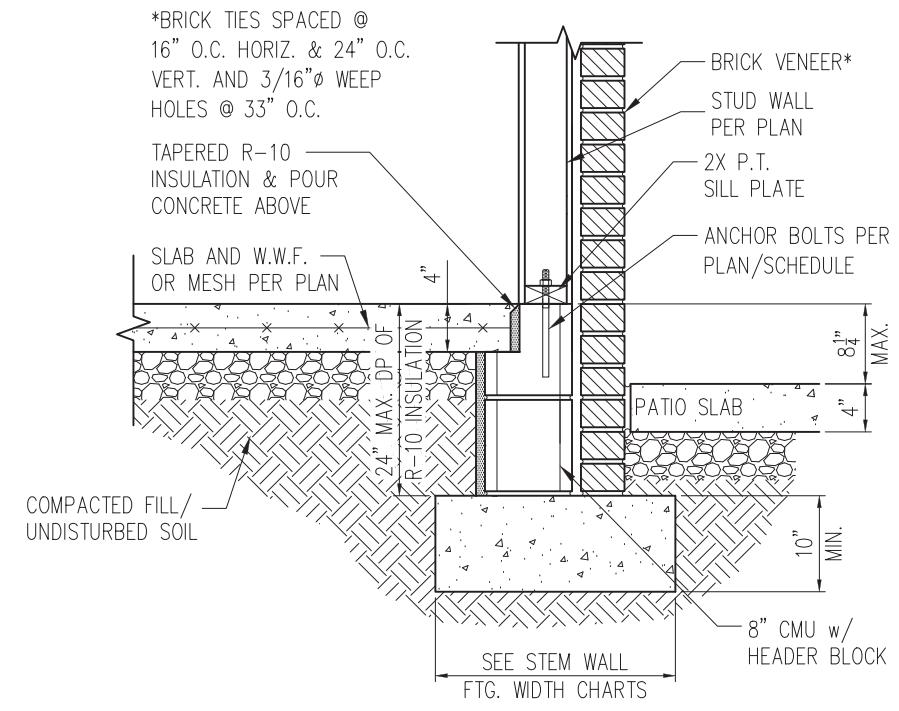
SHEET
D2s



STANDARD - SIDING

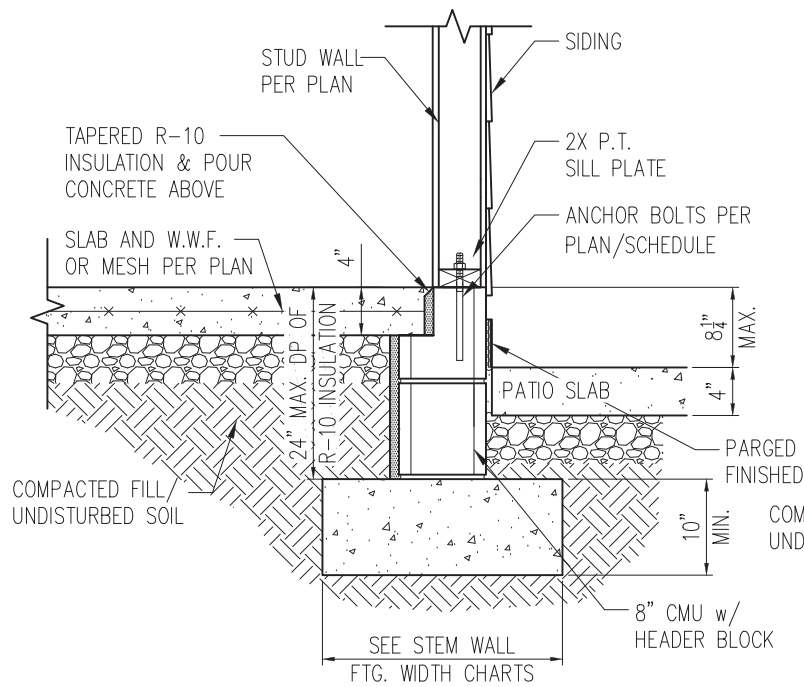


STANDARD - STONE

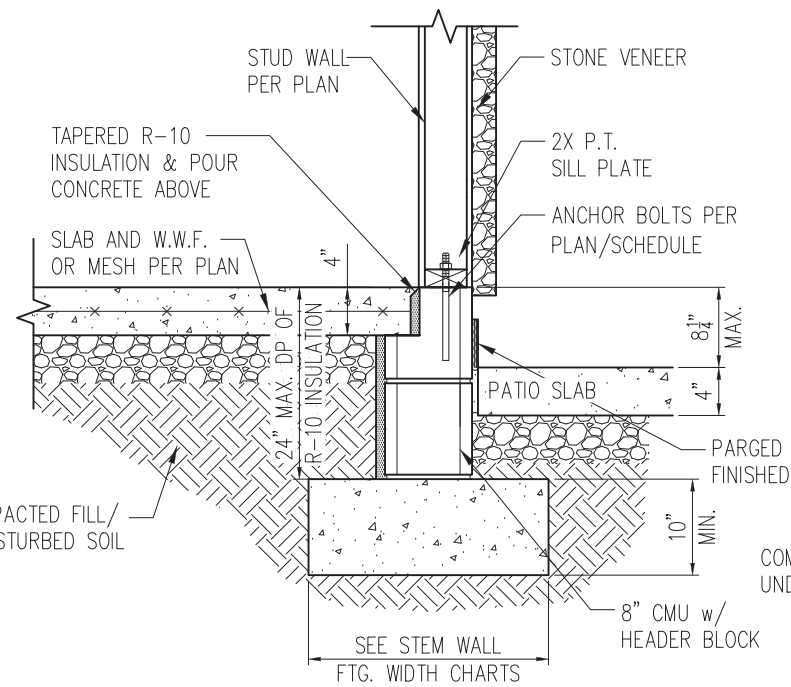


STANDARD - BRICK

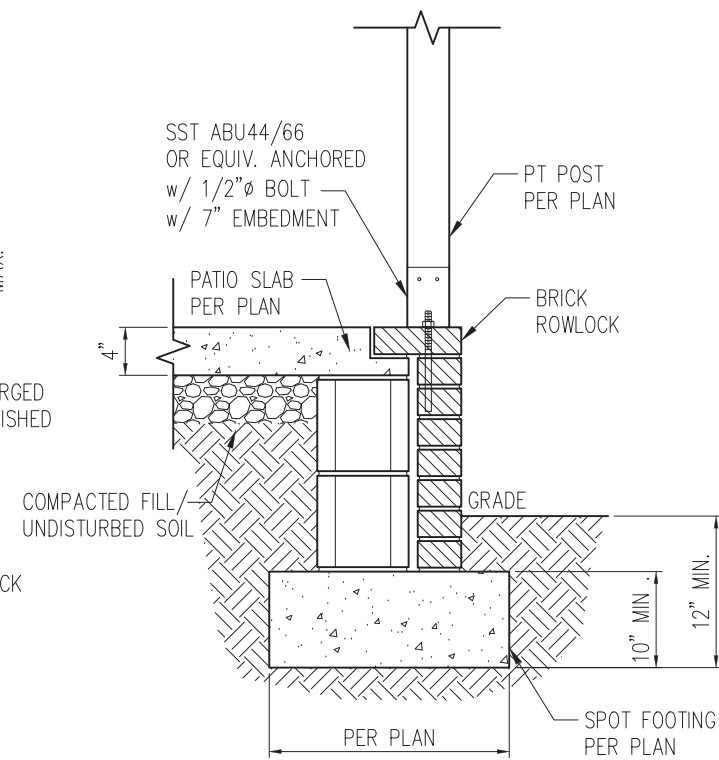
1 PORCH SLAB DETAIL
D3s 3/4" = 1'-0"



STANDARD - SIDING

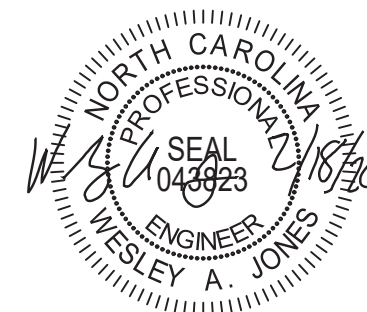


STANDARD - STONE



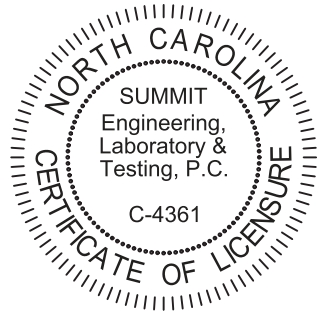
2 COVERED PORCH DETAIL
D3s 3/4" = 1'-0"

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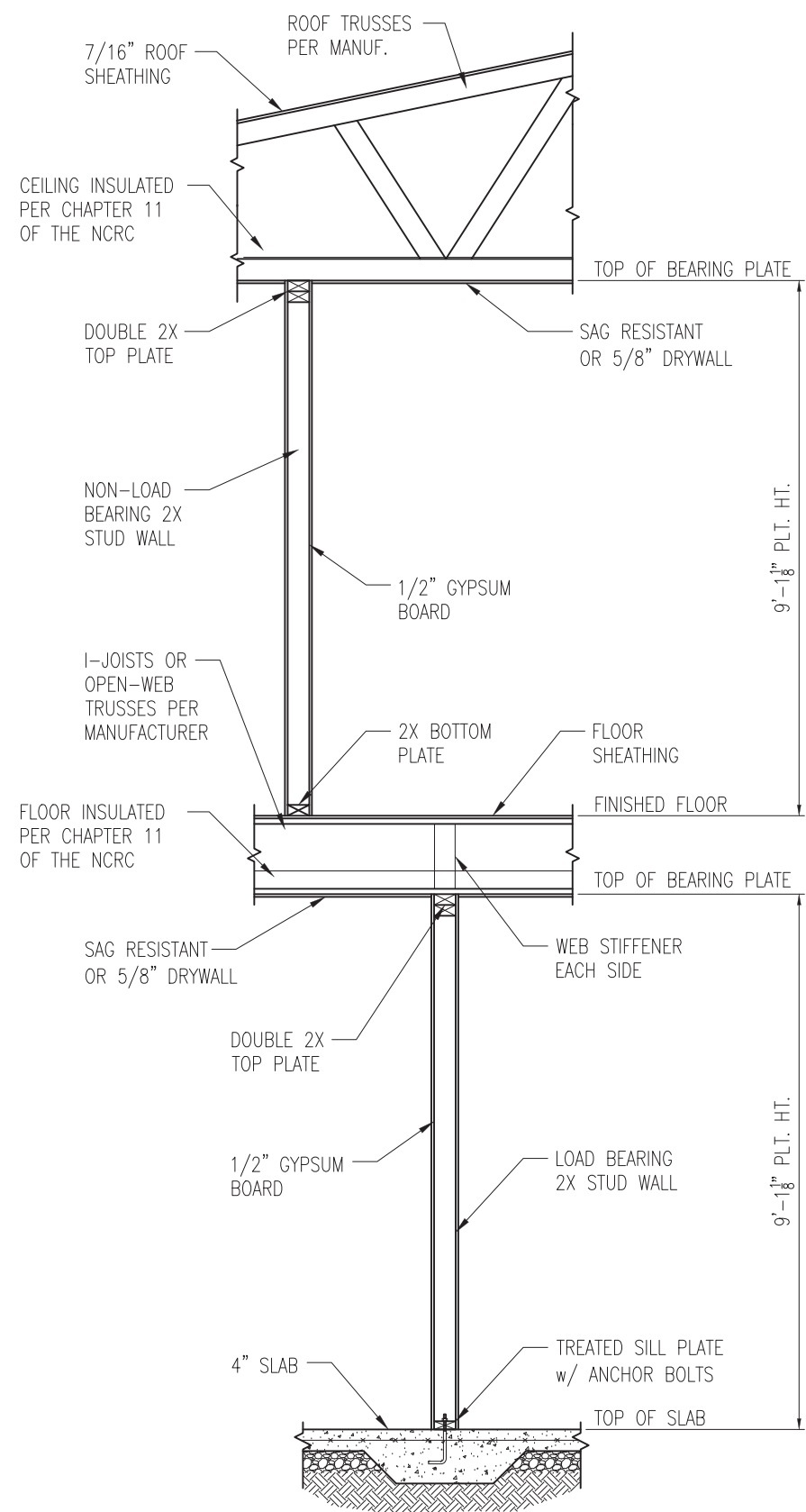
PROJECT
Standard Details
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CLIENT
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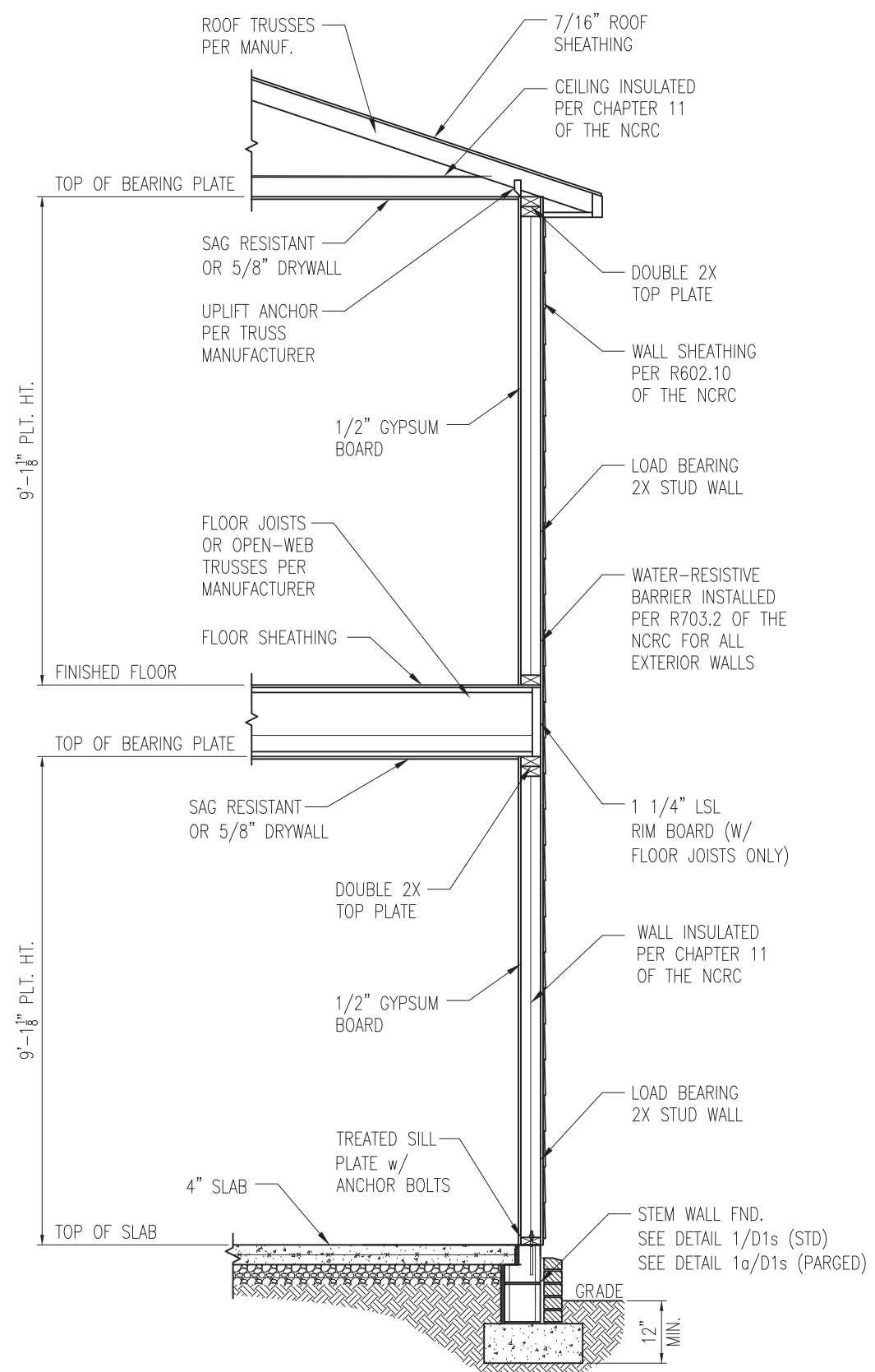
ORIGINAL DRAWING
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0 1/7/16 3832

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
D3s



1 TYP. INTERIOR LOAD BEARING WALL SECTION
 D4s 3/4" = 1'-0"



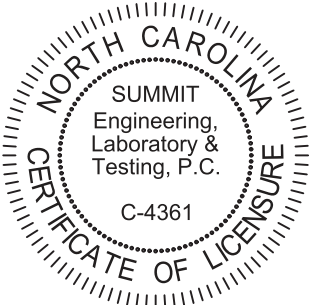
2 TYP. EXTERIOR LOAD BEARING WALL SECTION
 D4s 3/4" = 1'-0"
 -SIMILAR w/ BRICK AND STONE
 -BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT.
 -MIN. 3/16" Ø WEEP HOLES @ 33" O.C.

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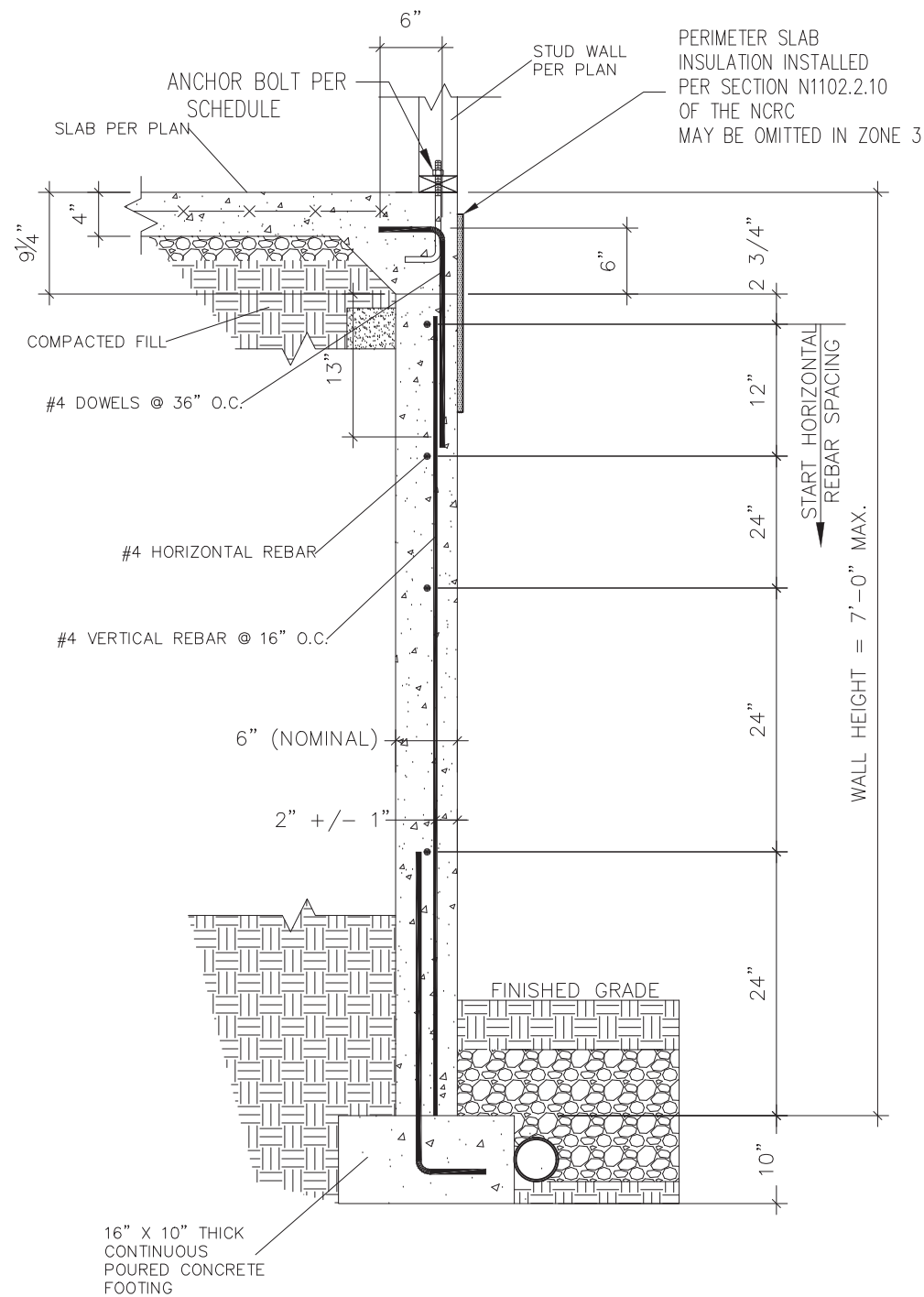
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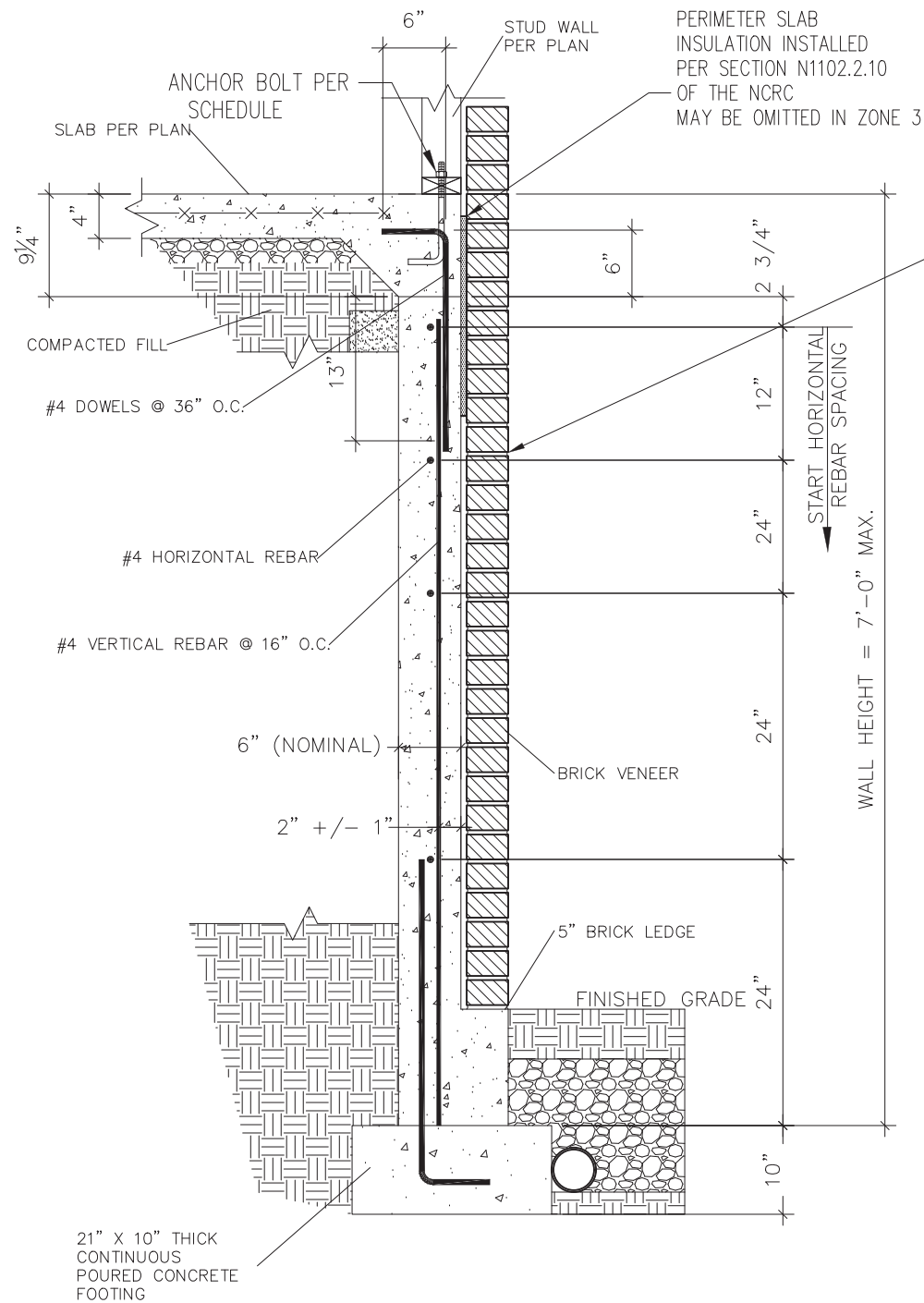
ORIGINAL DRAWING
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SHEET
D4s



1 SUBWALL FOUNDATION
 D5s 3/4" = 1'-0"



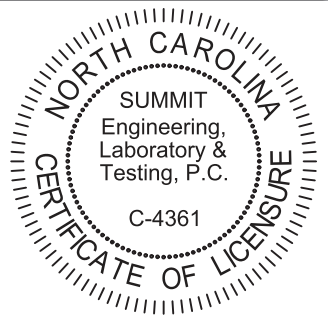
2 SUBWALL FOUNDATION W/ BRICK VENEER
 D5s 3/4" = 1'-0"

PROVIDE LADDER WIRE OR METAL TIES, INSTALLED PER R608.1.2 OF THE 2012 NCRC, AND FULLY GROUT BETWEEN BRICK AND CONCRETE.



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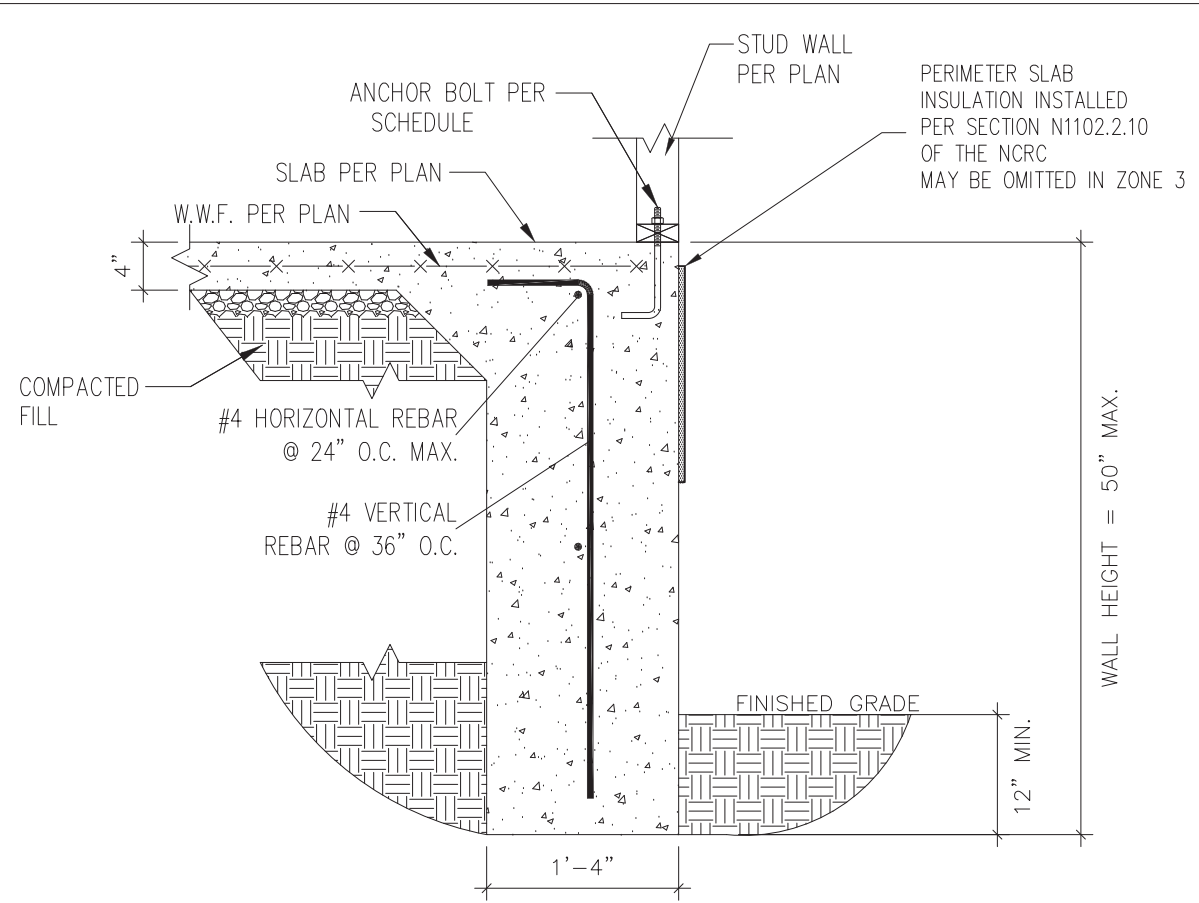
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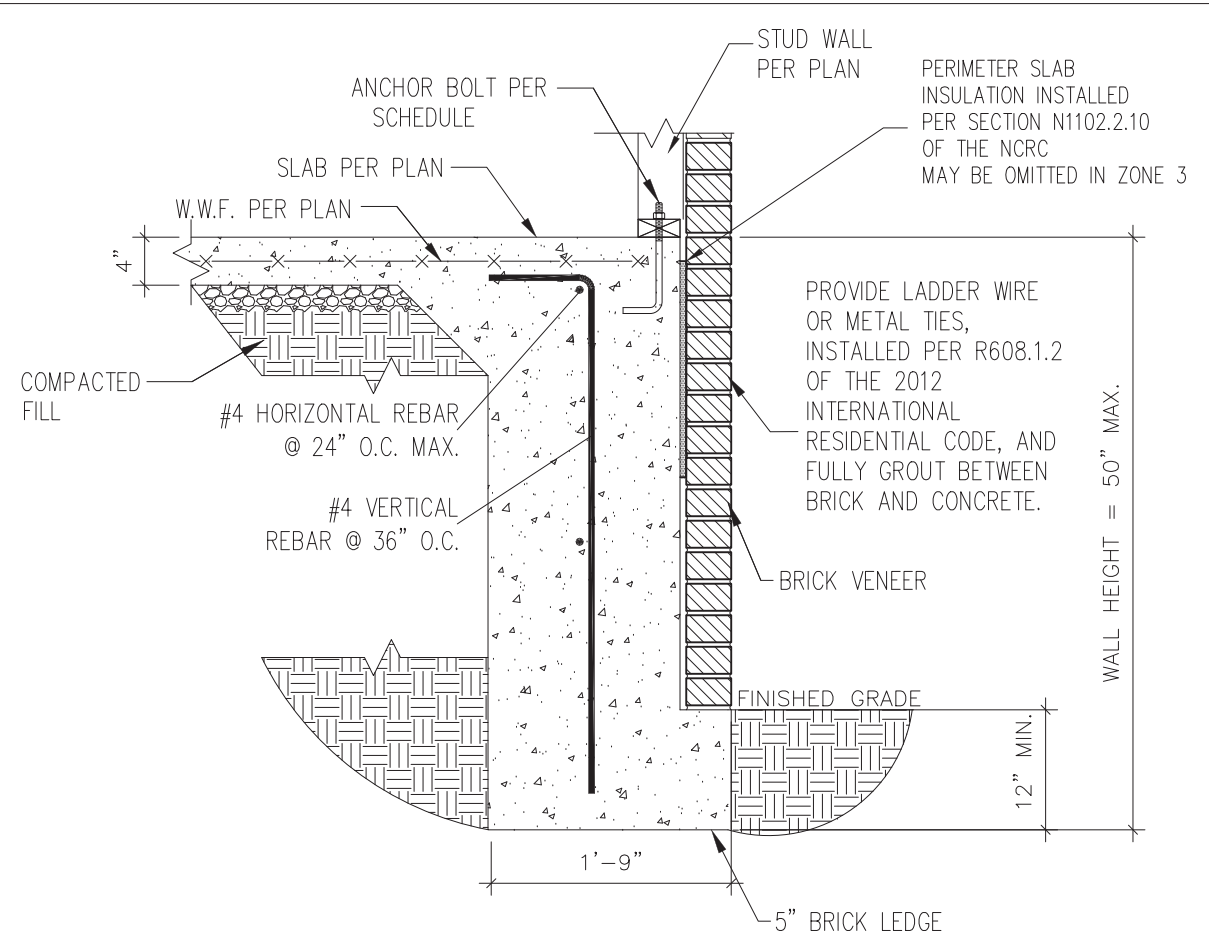
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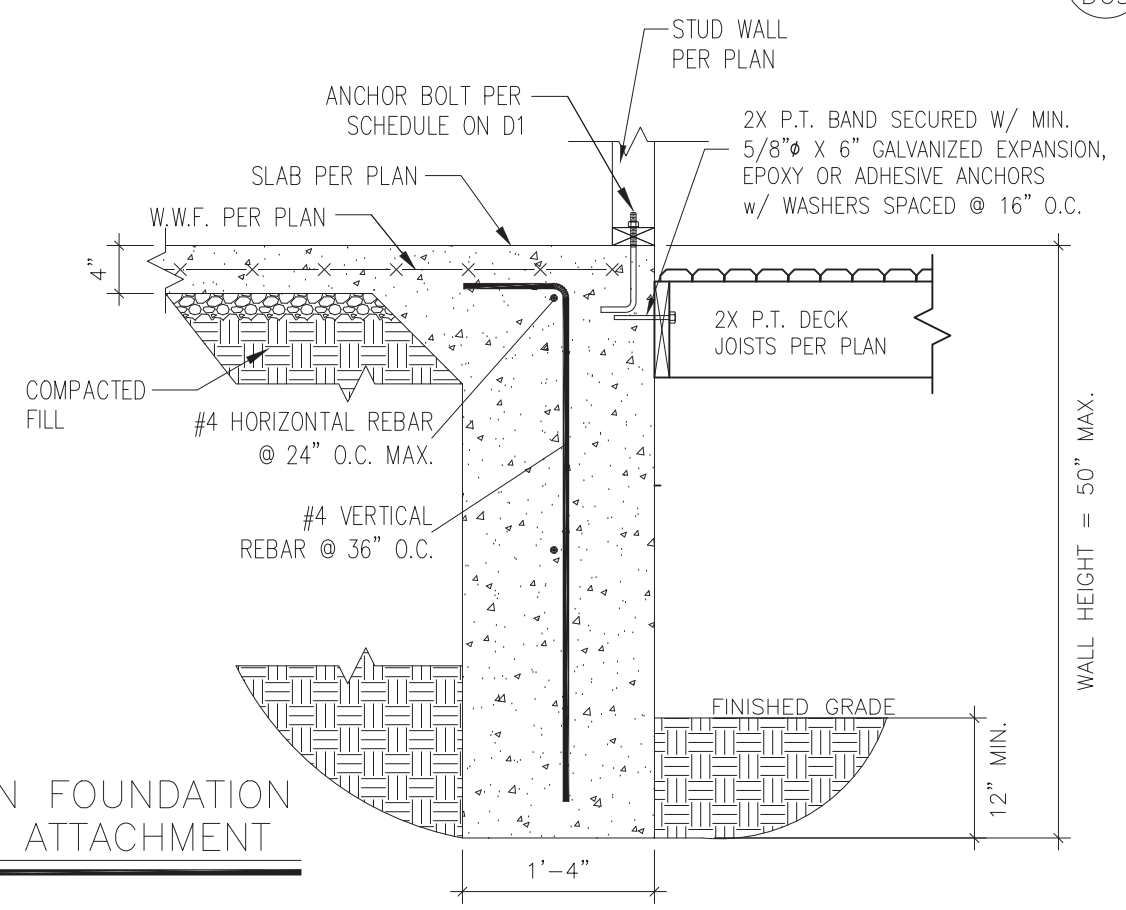
SHEET
D5s



1 TURNDOWN FOUNDATION
 D6s 3/4" = 1'-0"



2 TURNDOWN FOUNDATION W/ BRICK VENEER
 D6s 3/4" = 1'-0"

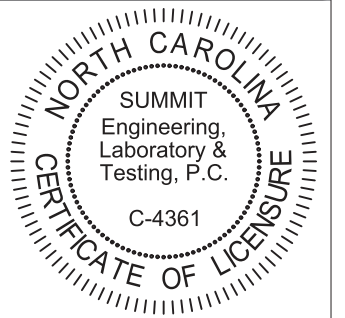


3 TURNDOWN FOUNDATION W/ DECK ATTACHMENT
 D6s 3/4" = 1'-0"



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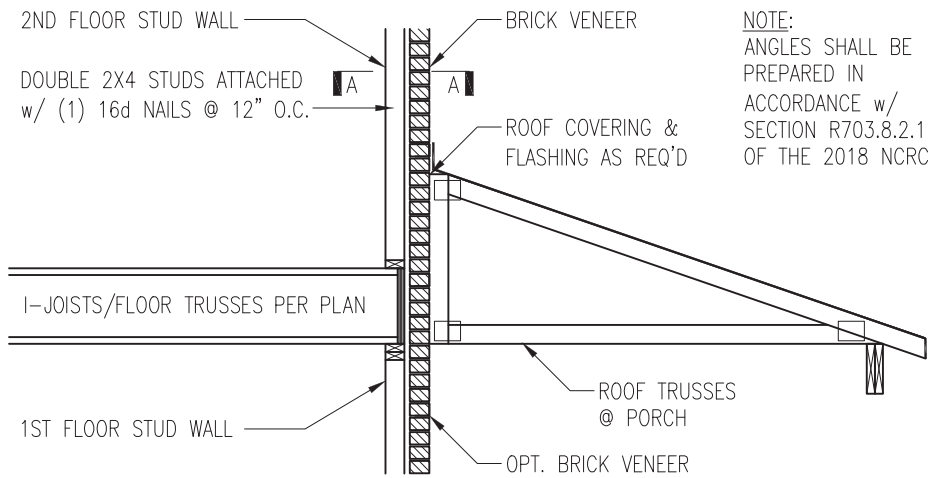
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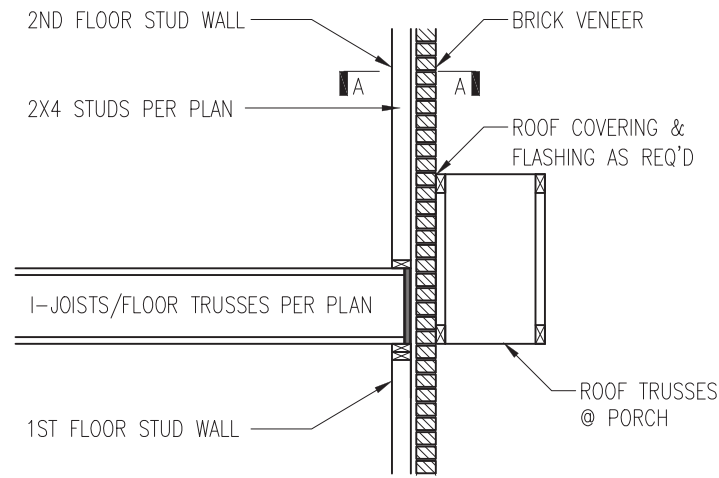
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SHEET
D6s



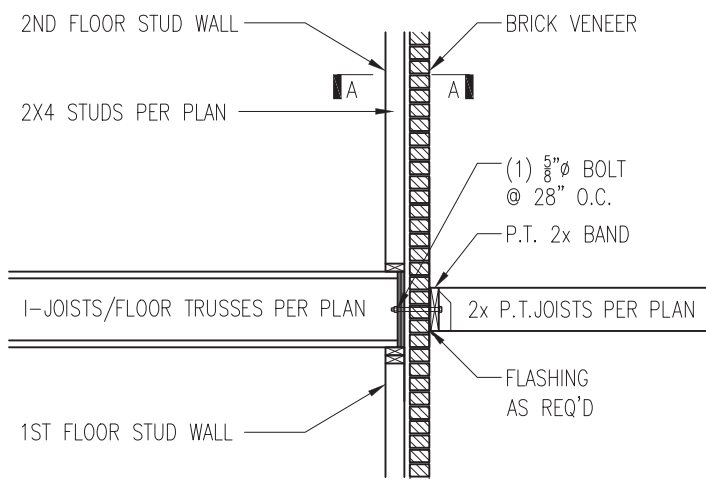
NOTE:
ANGLES SHALL BE PREPARED IN ACCORDANCE w/ SECTION R703.8.2.1 OF THE 2018 NCR



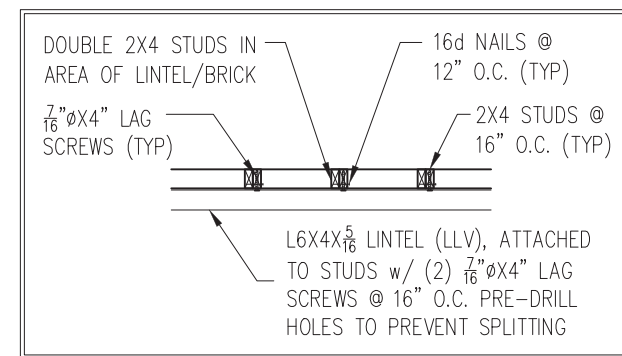
TRUSSES PERPENDICULAR TO STUD WALL

TRUSSES PARALLEL TO STUD WALL w/ CONTINUOUS BRICK VENEER

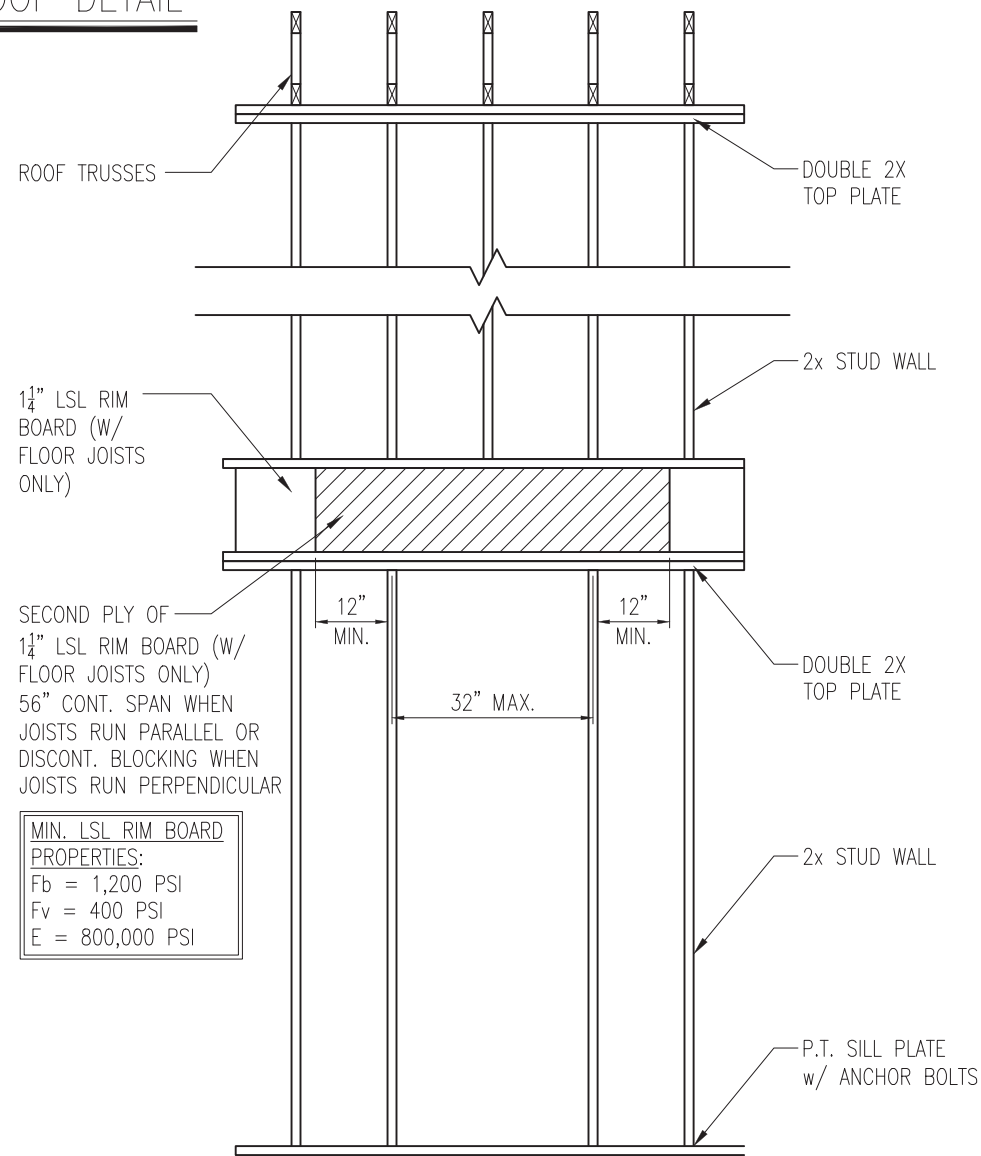
1 BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL
D5f NTS



3 BALCONY JOIST ATTACHMENT
D5f NTS



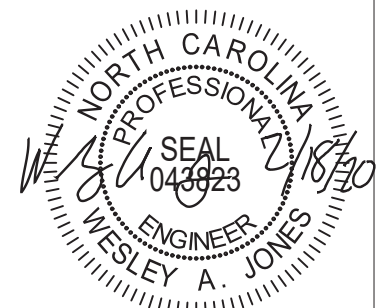
SECTION A-A
NTS



SECOND PLY OF 1 1/4\"/>

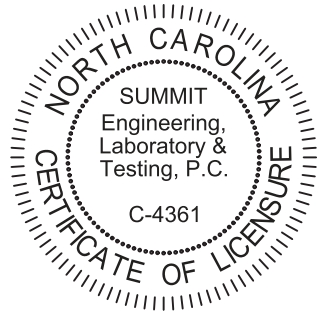
MIN. LSL RIM BOARD
PROPERTIES:
Fb = 1,200 PSI
Fv = 400 PSI
E = 800,000 PSI

4 TYP. RANGE VENT FRAMING
D5f VENTED TO EXTERIOR WALL



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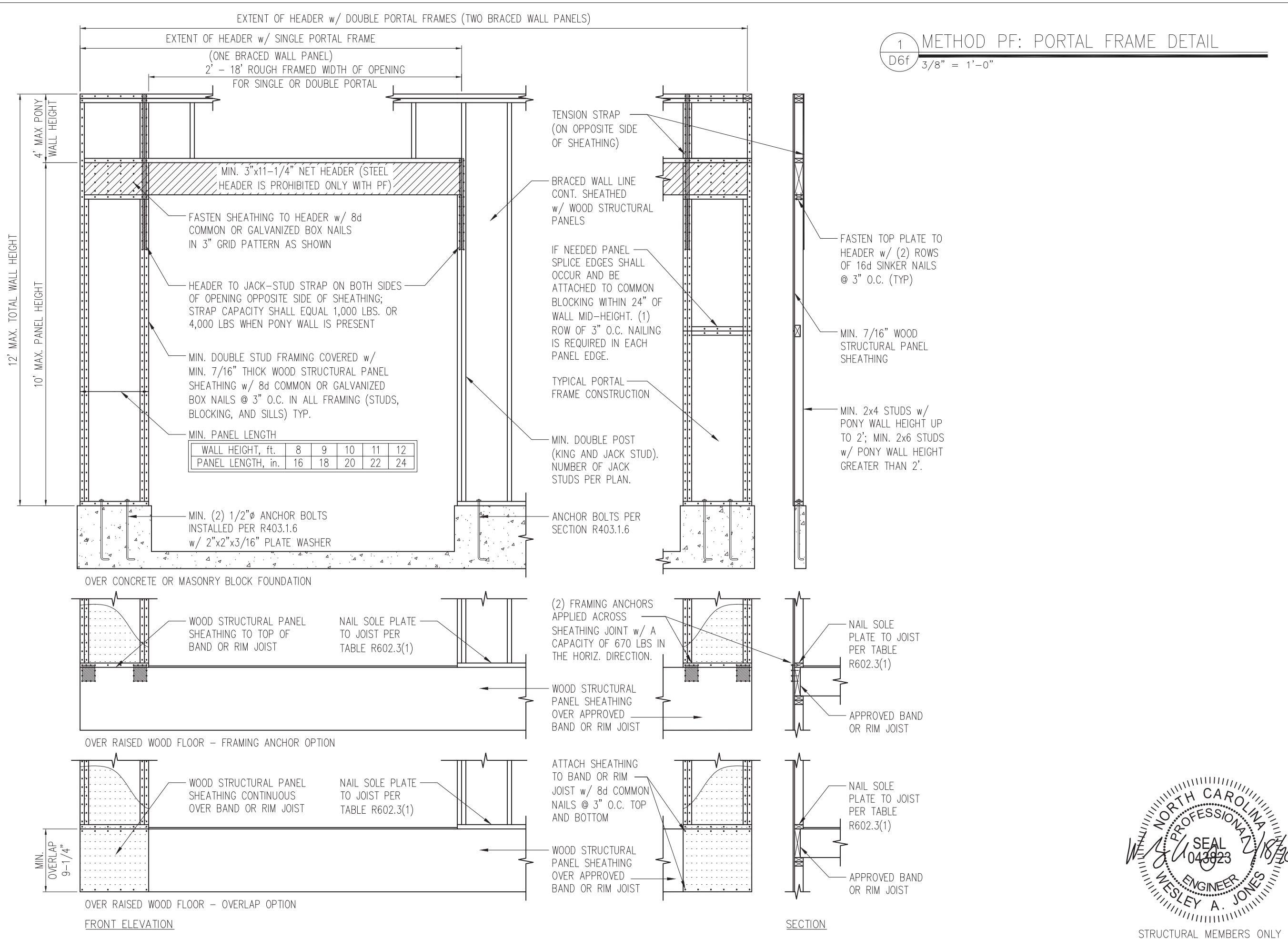
PROJECT
Standard Details
Framing Details
CLIENT
Smith Douglas Homes
110 Village Trail, Suite 215
Woodstock, GA 30188

CURRENT DRAWING
DATE: 2/18/20
SCALE: NTS
PROJECT #: 3832
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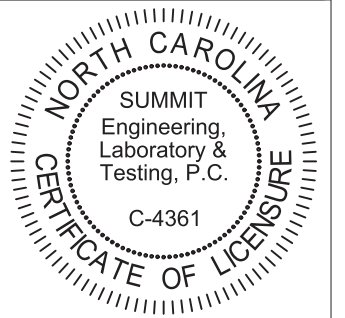
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NO. DATE PROJECT #
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REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
D5f



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PROJECT
Standard Details
Framing Details - Bracing

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110 Village Trail, Suite 215
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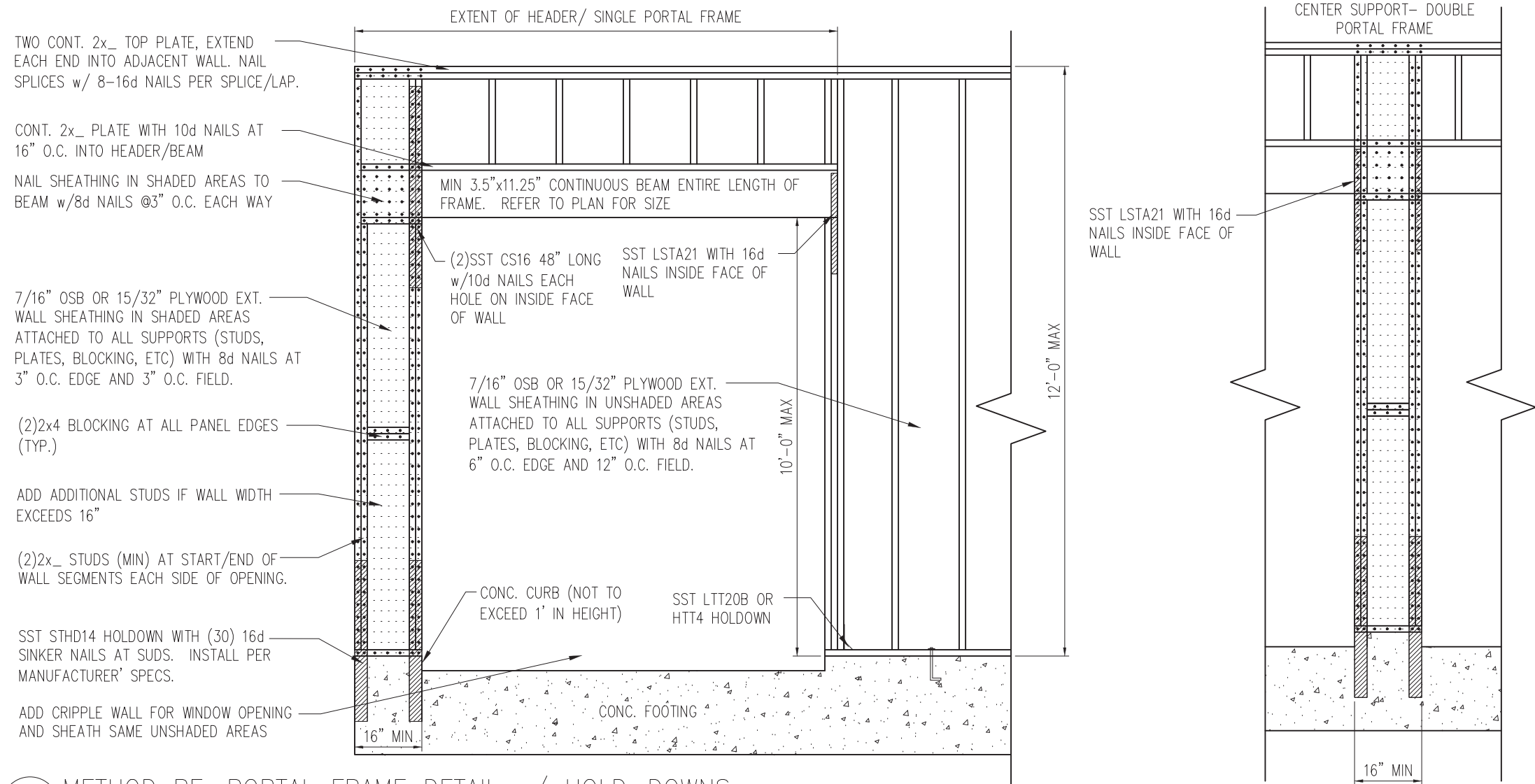
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ORIGINAL DRAWING
NO. DATE PROJECT #
0 1/7/16 3832

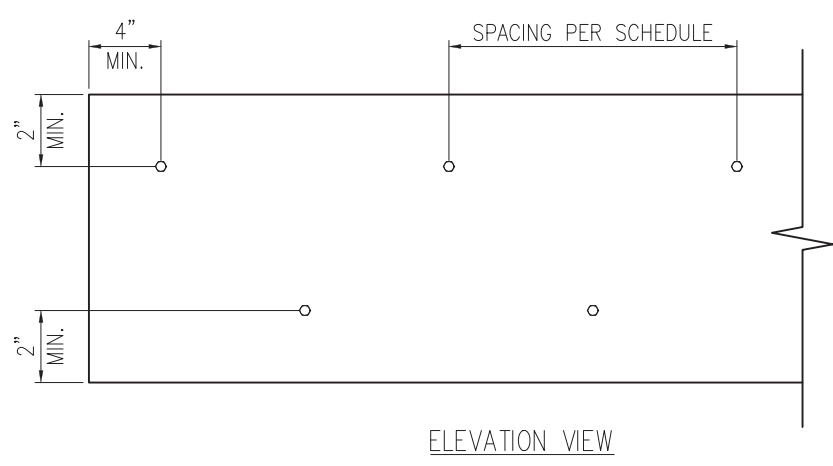
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



SHEET
D6f
STRUCTURAL MEMBERS ONLY



1 METHOD PF: PORTAL FRAME DETAIL w/ HOLD-DOWNS
 D7f 3/4" = 1'-0"



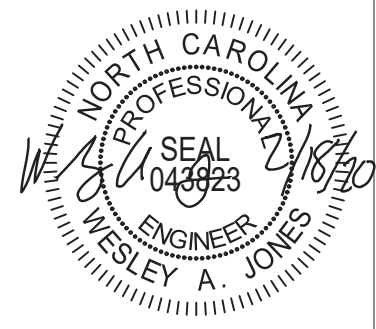
2 MULTI-PLY BEAM CONNECTION DETAIL
 D7f N.T.S.

MINIMUM FASTENING REQUIREMENTS FOR TOP- AND SIDE-LOADED MEMBERS

FASTENER TYPE	LVL DEPTH	3/4" WIDE		5/4" WIDE		7" WIDE	
		2-Ply 1 3/4"	3-Ply 1 3/4"	1 3/4" + 3 1/2"	4-Ply 1 3/4"	2-Ply 1 3/4" + 3 1/2"	2-Ply 3 1/2"
10d (0.128" x 3") Nails	7/4" ≤ d < 14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
	d ≥ 14"	4 rows @ 12" o.c.	4 rows @ 12" o.c. (ES)	4 rows @ 12" o.c.	-	4 rows @ 12" o.c. (ES)	-
16d (0.162" x 3 1/2") Nails	7/4" ≤ d < 14"	2 rows @ 12" o.c.	2 rows @ 12" o.c. (ES)	2 rows @ 12" o.c.	-	2 rows @ 12" o.c. (ES)	-
	d ≥ 14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.	-	3 rows @ 12" o.c. (ES)	-
1/2" Through Bolts	d ≥ 7/4"	2 rows @ 24" o.c.	2 rows @ 24" o.c.		2 rows @ 24" o.c.		
SDS 1/4" x 3 1/2", WS35, 3 3/8" TrussLok		2 rows @ 24" o.c.	2 rows @ 24" o.c. (ES)	2 rows @ 24" o.c.	-	2 rows @ 24" o.c. (ES)	-
SDS 1/4" x 6", WS6		-	-	-	2 rows @ 24" o.c. (ES)		
5" TrussLok		-	2 rows @ 24" o.c.		-		
6 3/4" TrussLok		-	-	-	2 rows @ 24" o.c.		

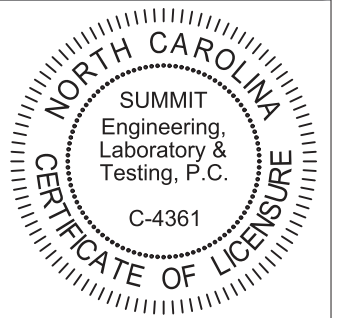
NOTES:

- All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.
- Minimum fastening requirements for depths less than 7/4" require special consideration. Please contact your technical representative.
- Three general rules for staggering or offsetting for a certain fastener schedule:
 - If staggering or offsetting is not referenced, then none is required;
 - If staggering is referenced, then fasteners installed in adjacent rows on the front side are to be staggered up to one-half the o.c. spacing, but maintaining the fastener clearances above; and
 - If "ES" is referenced, then the fastener schedule must be repeated on each side, with the fasteners on the back side offset up to one-half the o.c. spacing of the front side (whether or not it is staggered).



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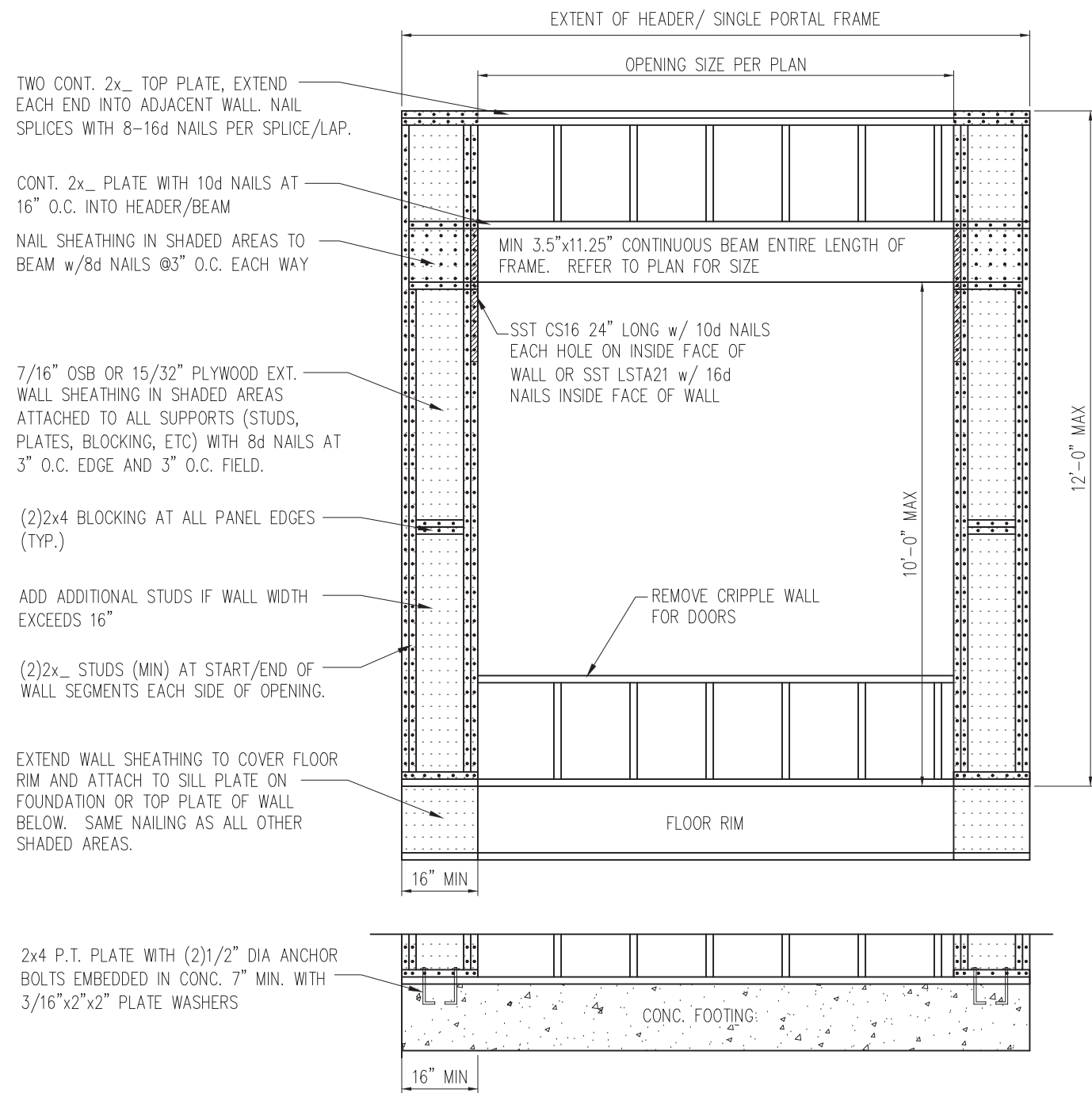


PROJECT
 Standard Details
 Framing Details - Bracing
 CLIENT
 Smith Douglas Homes
 110 Village Trail, Suite 215
 Woodstock, GA 30188

CURRENT DRAWING
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 0 1/7/16 3832

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SHEET
D7f



TWO CONT. 2x_ TOP PLATE, EXTEND EACH END INTO ADJACENT WALL. NAIL SPLICES WITH 8-16d NAILS PER SPLICE/LAP.

CONT. 2x_ PLATE WITH 10d NAILS AT 16" O.C. INTO HEADER/BEAM

NAIL SHEATHING IN SHADED AREAS TO BEAM w/8d NAILS @3" O.C. EACH WAY

7/16" OSB OR 15/32" PLYWOOD EXT. WALL SHEATHING IN SHADED AREAS ATTACHED TO ALL SUPPORTS (STUDS, PLATES, BLOCKING, ETC) WITH 8d NAILS AT 3" O.C. EDGE AND 3" O.C. FIELD.

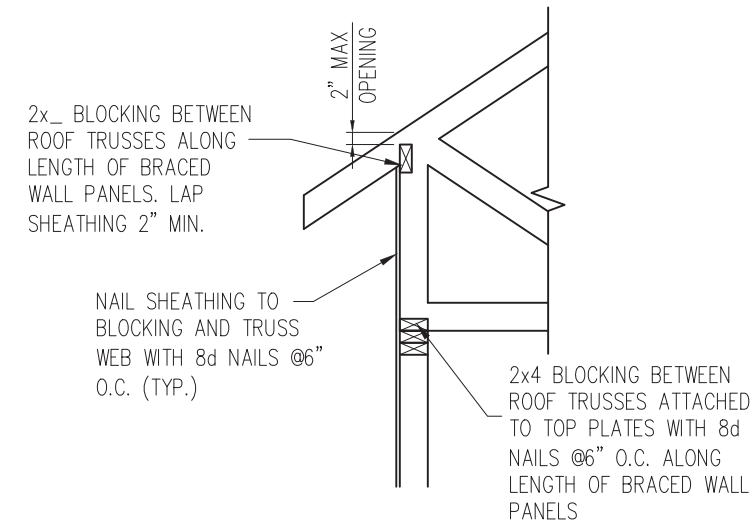
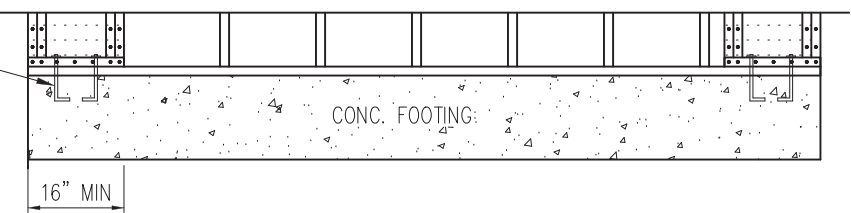
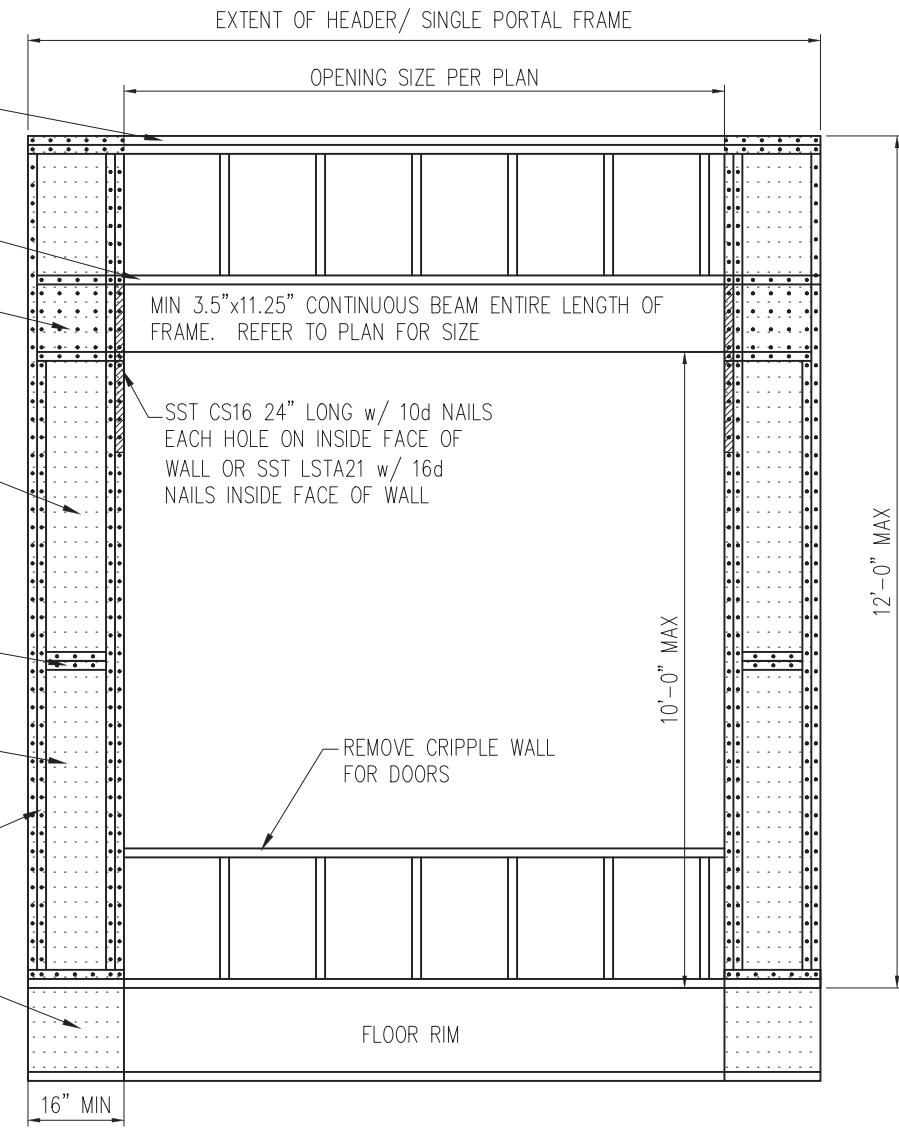
(2)2x4 BLOCKING AT ALL PANEL EDGES (TYP.)

ADD ADDITIONAL STUDS IF WALL WIDTH EXCEEDS 16"

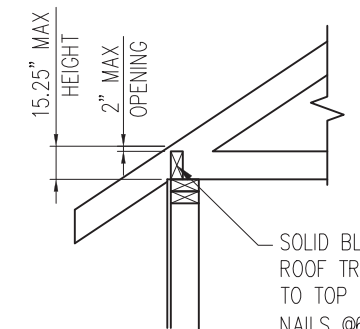
(2)2x_ STUDS (MIN) AT START/END OF WALL SEGMENTS EACH SIDE OF OPENING.

EXTEND WALL SHEATHING TO COVER FLOOR RIM AND ATTACH TO SILL PLATE ON FOUNDATION OR TOP PLATE OF WALL BELOW. SAME NAILING AS ALL OTHER SHADED AREAS.

2x4 P.T. PLATE WITH (2)1/2" DIA ANCHOR BOLTS EMBEDDED IN CONC. 7" MIN. WITH 3/16"x2"x2" PLATE WASHERS



HEEL HEIGHT GREATER THAN 15.25"



*BLOCKING IS NOT REQUIRED WITH HEEL HEIGHTS LESS THAN 9.25"

HEEL HEIGHT LESS THAN 15.25" *

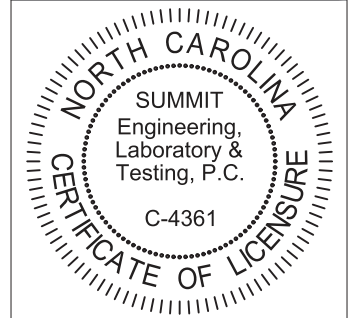
2 TYP. WALL PANEL TO ROOF TRUSS CONNECTION
D8f 1" = 1'-0"

1 METHOD PF: PORTAL FRAME DETAIL
D8f 3/4" = 1'-0" OPENINGS UNDER 8'-0"



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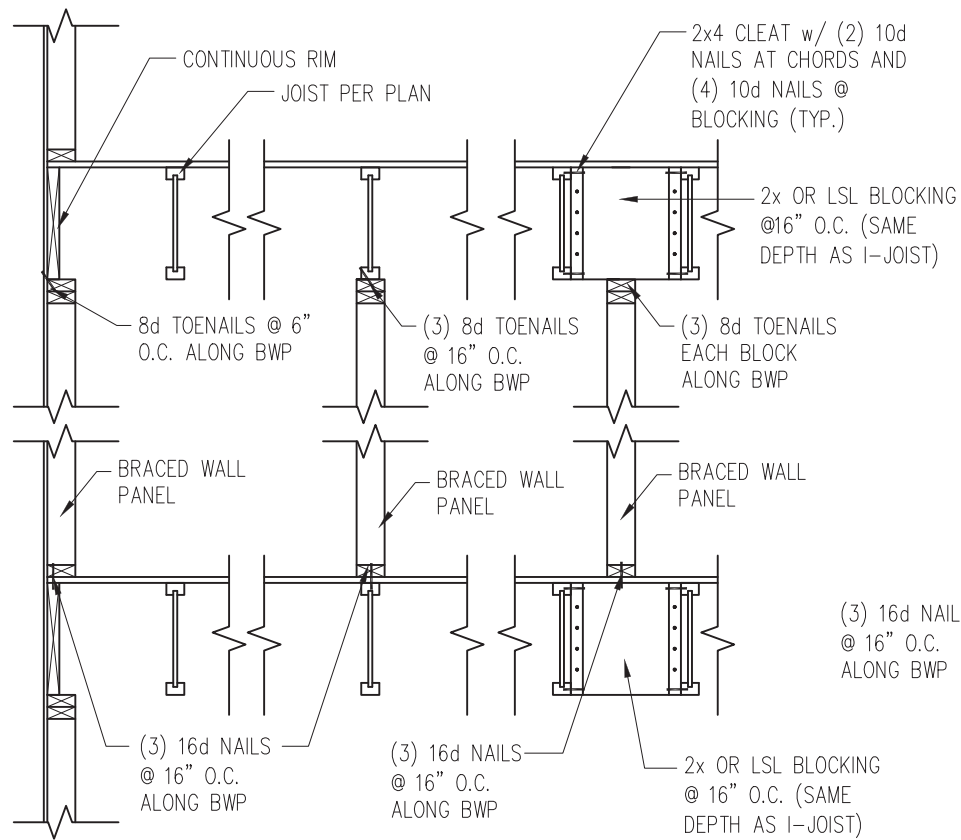
PROJECT
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Framing Details - Bracing
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Woodstock, GA 30188

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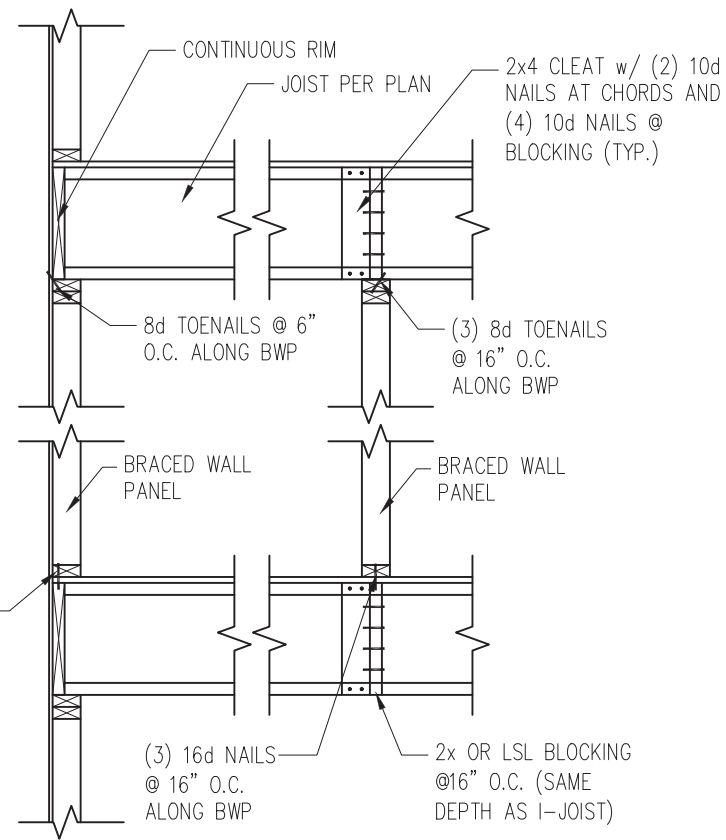
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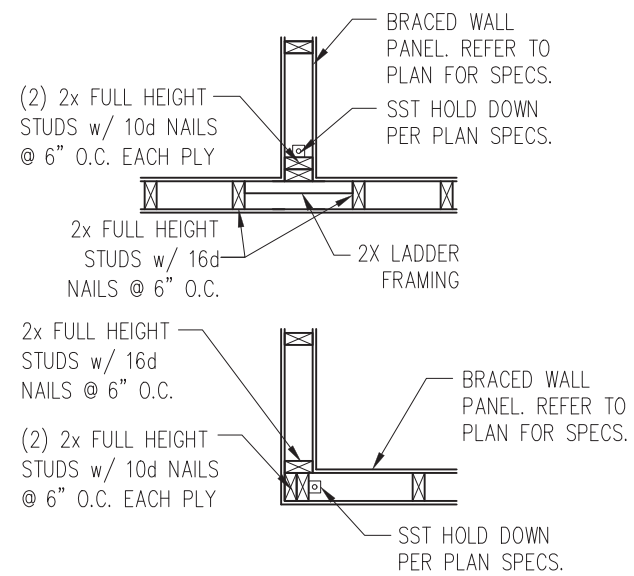
SHEET
D8f



JOISTS PARALLEL TO BRACED WALLS

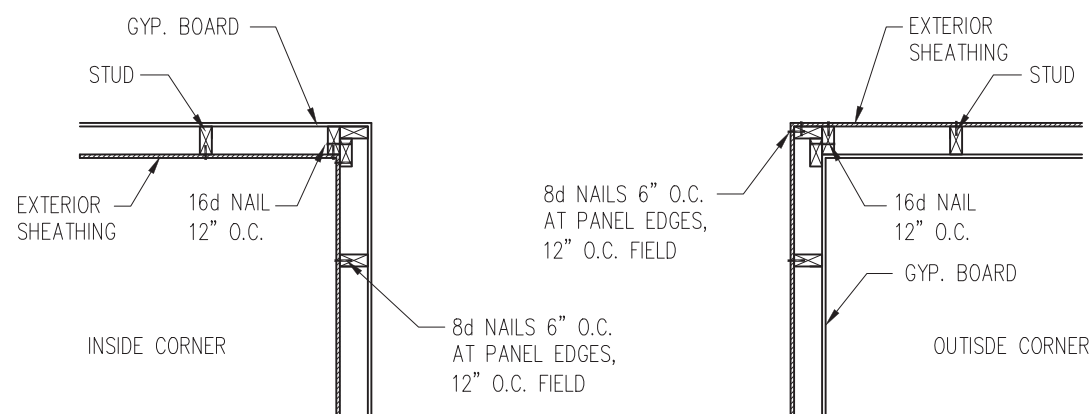


JOISTS PERPENDICULAR TO BRACED WALLS

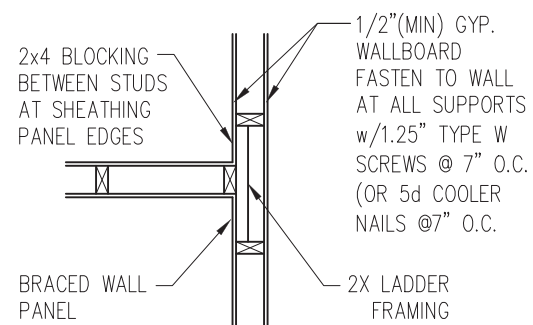


4 TYP. HOLD DOWN DETAIL
D9f 1" = 1'-0"

1 TYP. WALL PANEL TO FLOOR/CEILING CONNECTION
D9f 1" = 1'-0"



2 TYP. EXTERIOR CORNER FRAMING
D9f 1" = 1'-0"

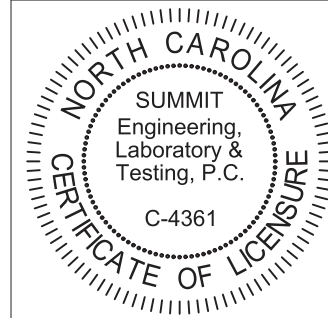


3 INTERIOR 3-STUD WALL INTERSECTION
D9f 1" = 1'-0"



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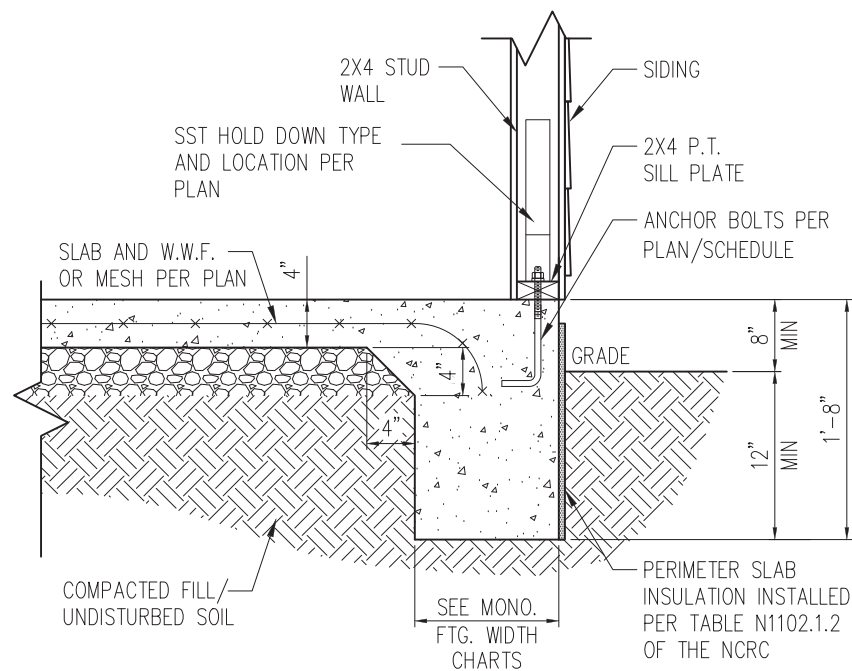
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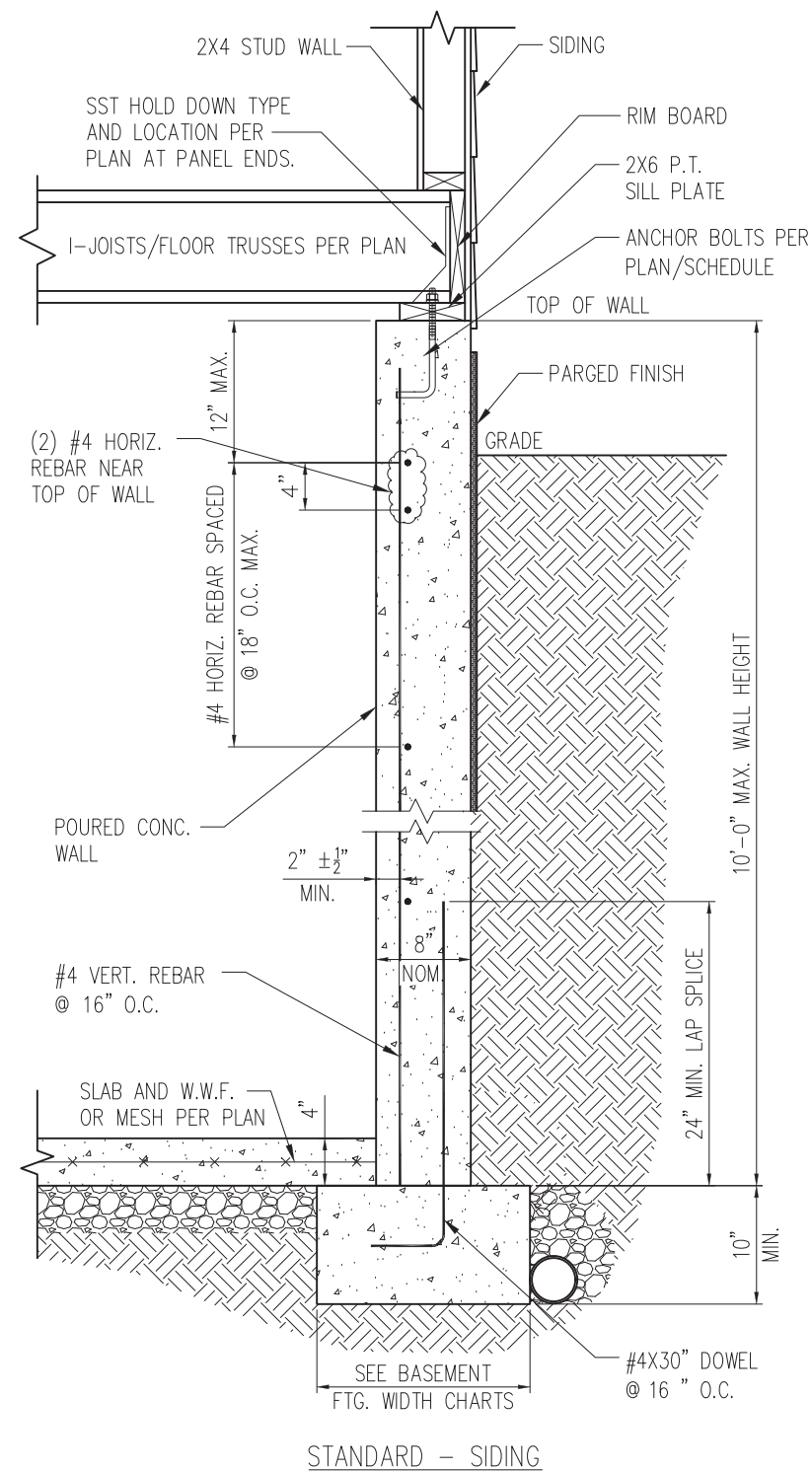
ORIGINAL DRAWING
NO. DATE PROJECT #
0 1/7/16 3832

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SHEET
D9f



1 SLAB DETAIL w/ HOLD-DOWN
 D10f 3/4" = 1'-0"

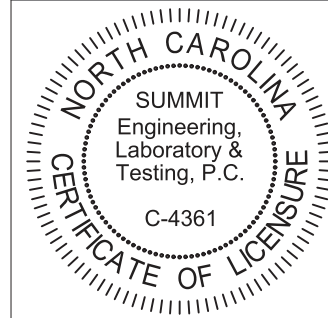


2 BASEMENT FOUNDATION WALL DETAIL W/ HOLD-DOWN
 D10f 3/4" = 1'-0"



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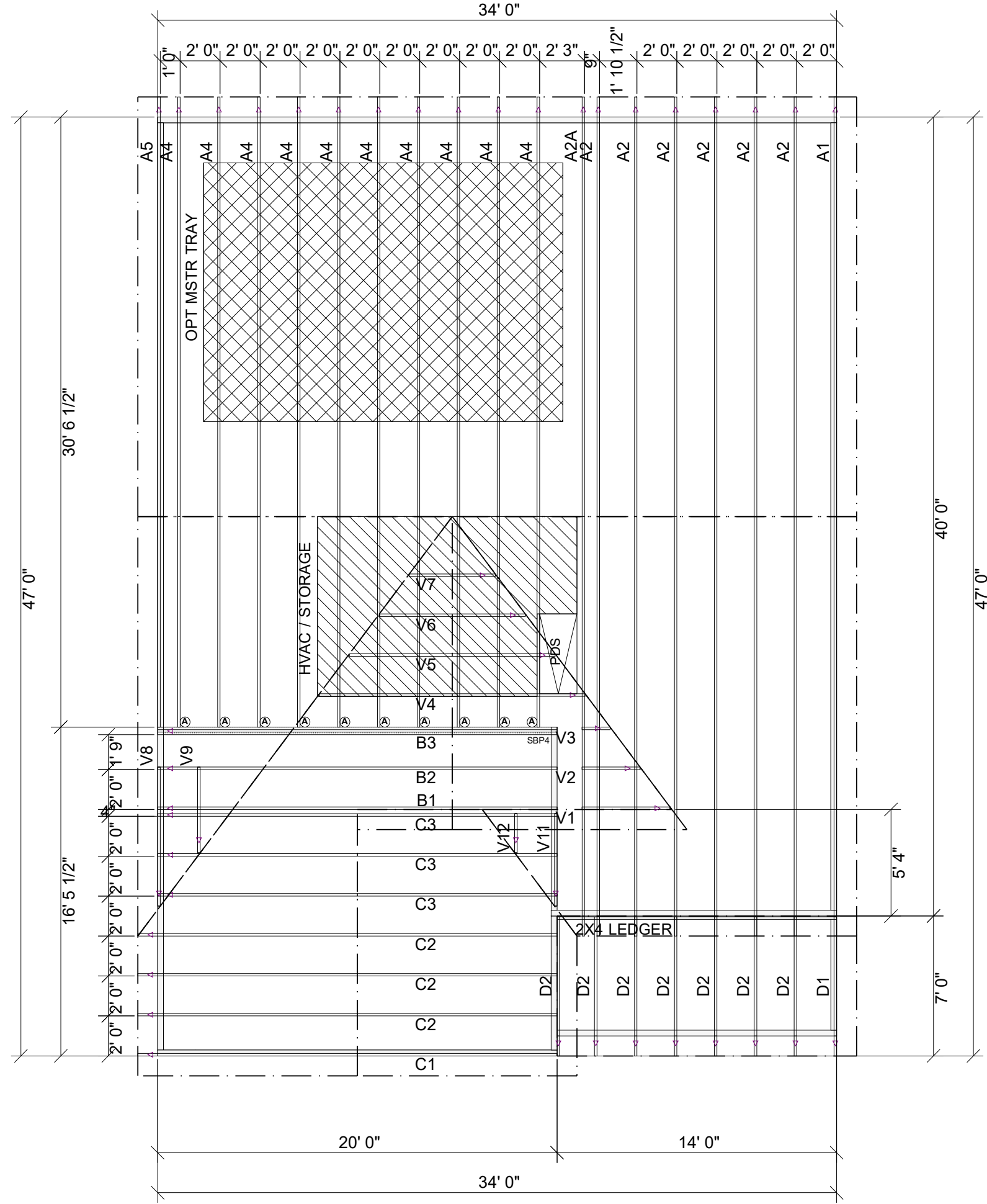
SHEET
D10f

TRUSS TO WALL CONNECTIONS, IF SHOWN, ARE FOR UPLIFT ONLY AND DO NOT CONSIDER LATERAL LOADS. ALL CONNECTORS ON THIS PROJECT ARE TO BE INSTALLED PER THE CONNECTOR MANUFACTURER'S SPECIFICATIONS. ALL CONNECTORS SHOWN THAT ARE NOT "TRUSS TO TRUSS" ARE SUGGESTIONS ONLY AND ARE TO BE VERIFIED BY THE BUILDING DESIGNER OR ENGINEER OF RECORD FOR SUITABILITY TO THIS PARTICULAR PROJECT. UFP MID-ATLANTIC, LLC, ACCEPTS NO RESPONSIBILITY FOR THE SPECIFIC APPLICATION OR SUITABILITY OF ANY CONNECTOR THAT IS NOT "TRUSS TO TRUSS" AS THEY APPLY TO THIS SPECIFIC STRUCTURE.

BUFFINGTON ADG

Hatch Legend	
OPT MSTR TRAY	
HVAC / STORAGE	

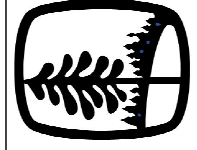
Roof Hanger List			
QTY	DESCRIPTION	TYPE	MARK
10	FACE MOUNT HANGER	HUS26	A
2	SUPPLEMENTAL BEARING ENHANCER	SBP4	2x4



ROOF AREA: 2025.84 RIDGE LINE: 65 VALLEY LINES: 57.89 HIP LINES: 0 INDICATES LEFT END OF TRUSS

CUSTOMER: **SMITH DOUGLAS**
 Job Name: **BUFFINGTON ADG**
 Date: 9-29-20
 Scale: NTS
 Revision Date: _____
 Revision Date2: _____

Checked By: _____
 Quote Number: **MASTER**



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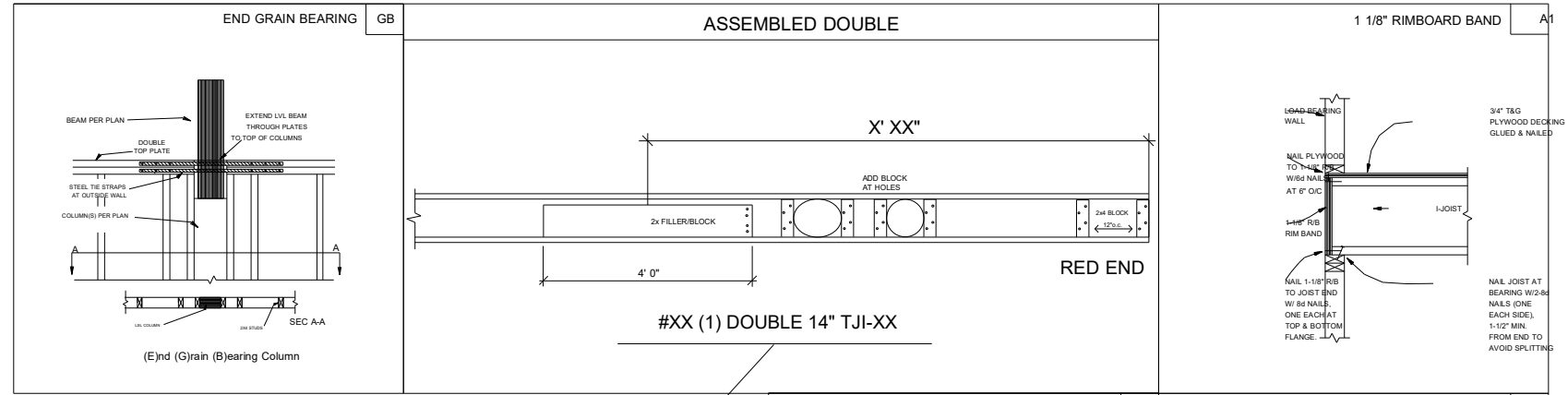
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1. TEMPORARY BRACING TO BE INSTALLED W/ P.I. STANDARD BCSI-B1.
 2. SEE ENGINEERED DRAWING FOR PERMANENT BRACING MINIMUM REQUIREMENTS.
 3. FRAMER TO VERIFY ALL DIMENSIONS, DROP, & RISE LOCATIONS PRIOR TO TRUSS PLACEMENT.
 4. BLDG/FRAMER RESPONSIBLE FOR ADJUSTMENT OF TRUSS SPACING TO MISS PLUMBING DROPS, UNLESS NOTED OTHERWISE.

This layout is not an engineered drawing. This drawing was created to establish truss placement only. It is the responsibility of the builder to provide adequate support for all the elements shown in this drawing.

Products					
Fab Type	Net Qty	Plies	Product	Length	PlotID
MFD	11	1	14" TJI@ 110	34' 0"	J1
MFD	2	2	14" TJI@ 110	20' 0"	J2
MFD	2	1	14" TJI@ 110	14' 0"	J3
MFD	1	1	14" TJI@ 110	7' 0"	J4
MFD	1	1	14" TJI@ 110	6' 0"	J5
MFD	2	1	14" TJI@ 110	5' 0"	J6
MFD	1	1	14" TJI@ 110	4' 0"	J7
MFD	6	1	14" TJI@ 210	34' 0"	J8
MFD	6	1	14" TJI@ 210	20' 0"	J10
MFD	2	1	14" TJI@ 210	20' 0"	J9
MFD	3	1	14" TJI@ 210	17' 0"	J11
MFD	12	1	1 1/8" x 14" TJI@ Rim Board	16' 0"	RIM-1
FF	8	1	14" TJI@ 110	2' 0"	Bk1

Connector Summary				
Product	Manuf	Qty	PlotID	
TFL1714	USP	4	H1	
TFL2014	USP	3	H2	



PLAN LEGEND

*INDICATES BEAM ABOVE TOP PLATE (FLUSH WITH FLOOR SYSTEM)

1B-, 2B- H-, 1H-, GDH-

INDICATES BEAM BELOW TOP PLATE (DROPPED BELOW FLOOR SYSTEM)

*BEAMS MAY PROTRUDE ABOVE OR BELOW DECKING OR TOP PLATE RESPECTIVELY. REFER TO DETAIL IF BEAM IS A DIFFERENT DEPTH THAN FLOOR SYSTEM

SINGLE PLY BEAM (ADD LINE FOR EACH ADDITIONAL PLY)

SHIFT JOIST TO MISS PLUMBING, ALIGN W/WALL OR SUPPORT FURNITURE

A JOIST ADDED TO THE LAYOUT IN ADDITION TO THE ON CENTER JOISTS

TWO JOISTS SIDE BY SIDE (ONLY ASSEMBLED IF NOTED)

SHIFT

EXTRA

DOUBLE

GENERAL NOTES:

- 1.) TOP CHORD OF JOISTS ARE PAINTED RED AT NUMBERED END. PLACE PAINTED END AS NOTED ON PLAN.
- 2.) FOLLOW SPECIAL SPACING AND LOCATION DIMENSIONS FOR EXTRAS OR SHIFTED JOISTS AS SHOWN ON PLAN.
- 3.) ALL INTERIOR WALL PLATES MUST BE LEVEL WITH OUTSIDE WALL TOP PLATES.
- 4.) DO NOT STACK CONSTRUCTION LOADS ON UN-BRACED JOISTS.
- 5.) PROVIDE SOLID SUPPORT BELOW ALL BEAM AND HEADER BEARING POINTS IN WALL AND JOIST SPACES CONTINUOUS DOWN TO THE FOUNDATION.
- 6.) LOCATE CRIPPLE STUDS IN JOIST SPACE DIRECTLY BELOW HEADER JACKS AT ALL FIRST FLOOR EXTERIOR DOOR LOCATIONS.
- 7.) INSTALL NAILS IN ALL HOLES PROVIDED IN JOIST HANGERS EXCEPT AT BOTTOM CHORD SEAT. PLACE A DAB OF GLUE IN THE HANGER SEAT BEFORE SETTING JOISTS.
- 8.) IMPORTANT NOTE! NO STRUCTURAL ANALYSIS OF CONVENTIONAL HEADERS HAS BEEN CONDUCTED IF NOT NOTED. THEY ARE CONSIDERED TO BE ADEQUATE TO SUPPORT THE APPLIED LOADS.

FIELD TRIM NON RED END TO KEEP HOLES ALIGNED
CONTAR EL LADO DE SIN MARCA ROJA PARA HOYOS ALINEADOS

FIELD LOCATE PLUMBING DROPS/CAN LIGHTS, ETC... PRIOR TO JOIST SECUREMENT TO AVOID INTERFERENCE.

LAYOUT FOR 19.2" O/C

9= 172-13/16"	1= 19-3/16"
10= 192"	2= 38-3/8"
11= 211-3/16"	3= 57-5/8"
12= 230-3/8"	4= 76-13/16"
13= 249-13/16"	5= 96"
14= 268-13/16"	6= 115-3/16"
15= 288"	7= 134-3/8"
	8= 153-5/8"

FIELD VERIFY DIMENSIONS TO JOISTS LOCATED UNDER WALLS!!

2ND FLOOR LAYOUT

FRAMER NOTE

DENOTES DUCT HOLE RUNS

ALL DIMENSIONS TO CENTERLINE UNLESS OTHERWISE NOTED

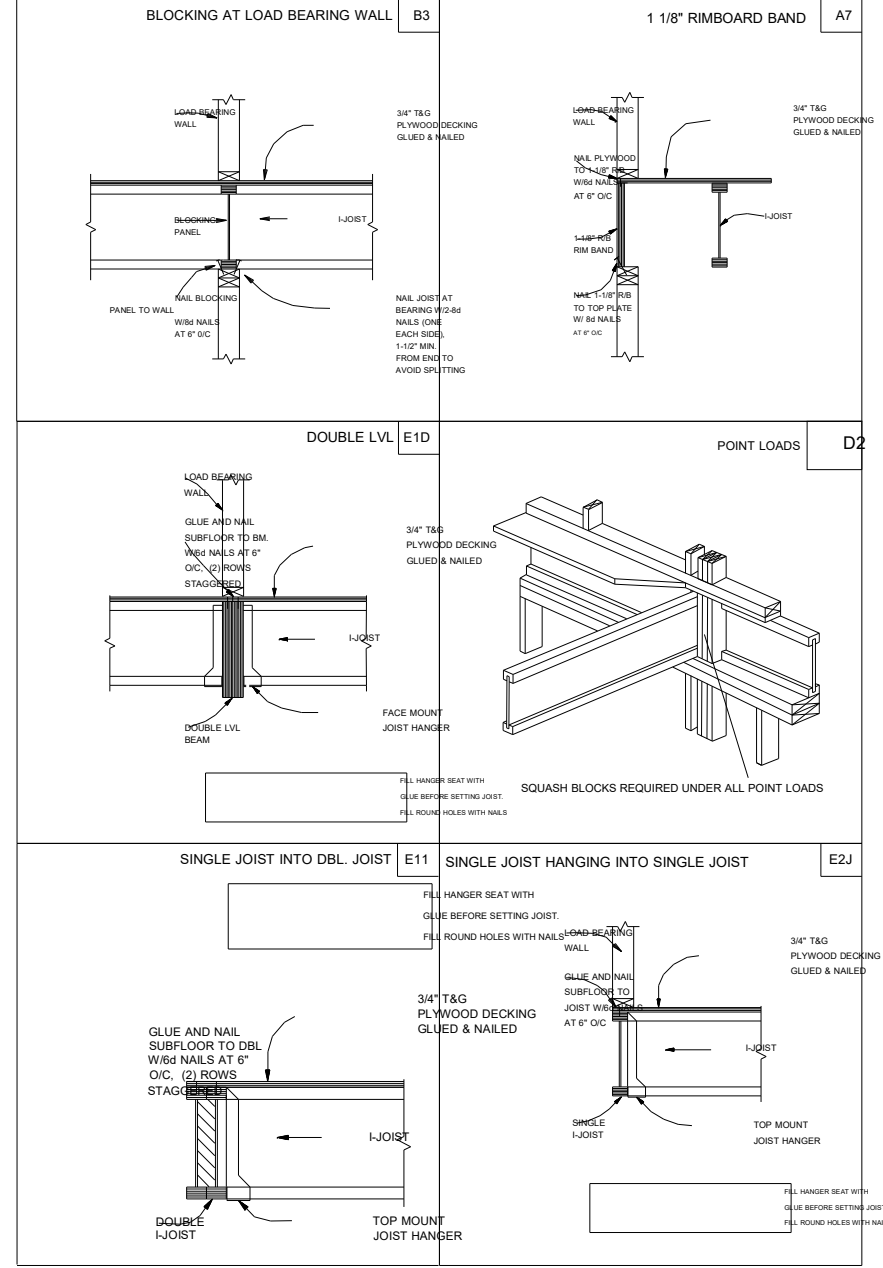
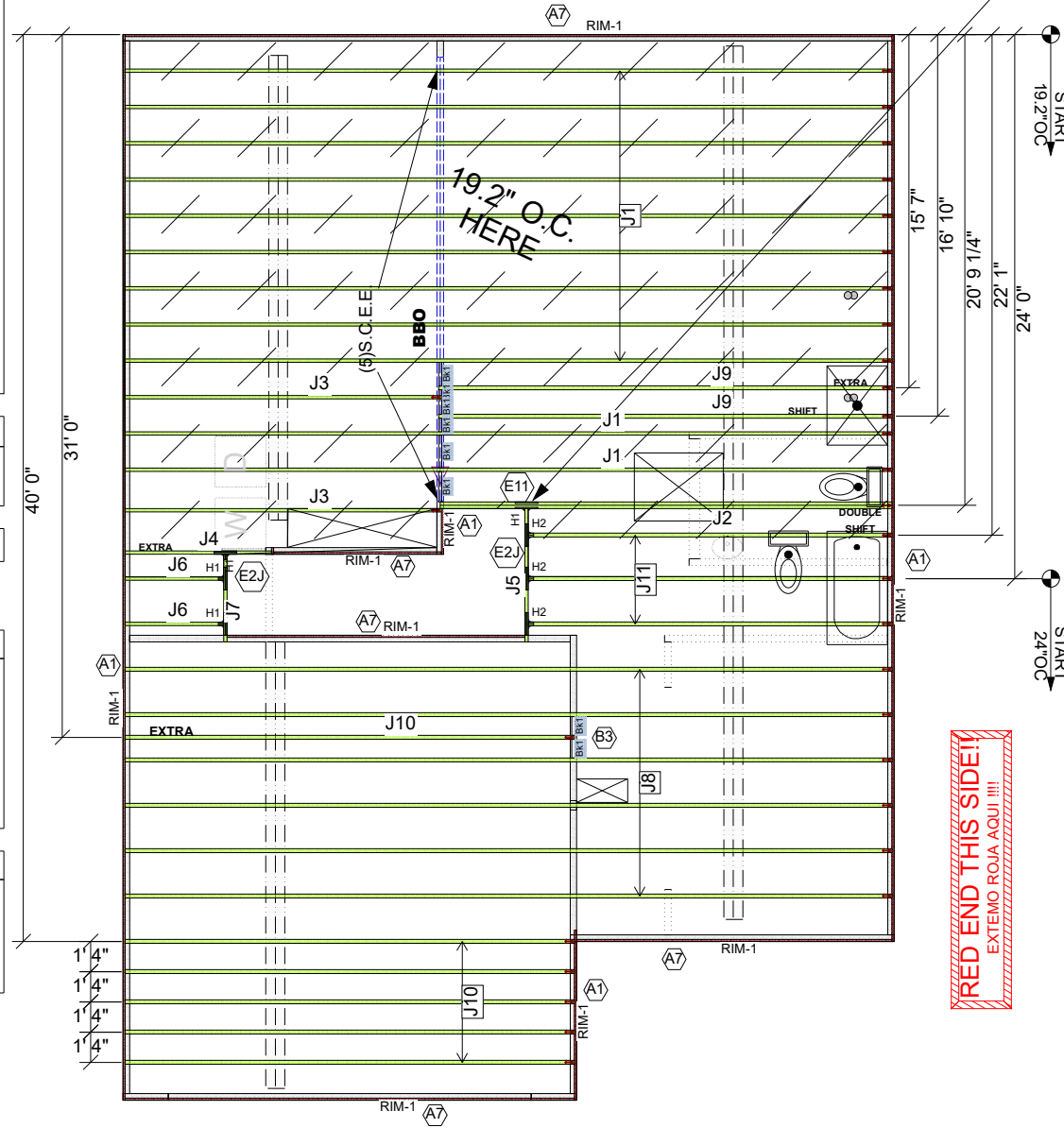
Avoid Plumbing Drops

FRAMER NOTE

1. GLUE AND NAIL PLYWOOD SUBFLOOR TO BEAMS AND GIRDERS AT 6" O/C WHERE NO WALL IS ABOVE.
2. FILL HANGER SEAT WITH GLUE BEFORE SETTING JOIST IN HANGER. FILL ROUND HOLES WITH NAILS.

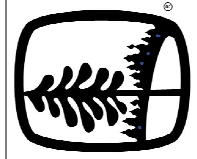
CRITICAL !!

INSTALL 2X4 SQUASH BLOCKS IN FLOOR TRUSS SPACE BELOW ALL EXTERIOR DOOR HEADER JACKS. CUT 1/16" TALLER THAN TRUSS.



RED END THIS SIDE!!
EXTIMO ROJA AQUI !!!

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 PEARISBURG, VA PHONE (800) 397-9571



LOADING	DEFLECTION
ROOF LIVE 20 PSF	L/240
ROOF DEAD 20 PSF	L/180
FLOOR LIVE 40 PSF	L/480
FLOOR DEAD 10 PSF	L/240

Special Loading:

Customer: **SMITH DOUGLAS HOMES**
 Job Name: **BUFFINGTON**
 Date: 4/22/2021
 Scale: NTS
 Revision Date: _____
 Revision Date: _____

Checked By: EOR
 Drawing Number: **21040577F2**
MSTR