LANCASTER

SMITH DOUGLAS HOMES

QUALITY | INTEGRITY | VALUE

CANE MILL ESTATES
LOT 17

PLAN ID: 090120.1101

110 VILLAGE TRAIL SUITE 215
WOODSTOCK, GA. 30188

DRAWING INDEX

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

AREA TABULATION	
FIRST FLOOR	2015
SECOND FLOOR	270
TOTAL	2285
GARAGE	666
REAR PATIO (COVERED)	112
FRONT PORCH (COVERED)	105

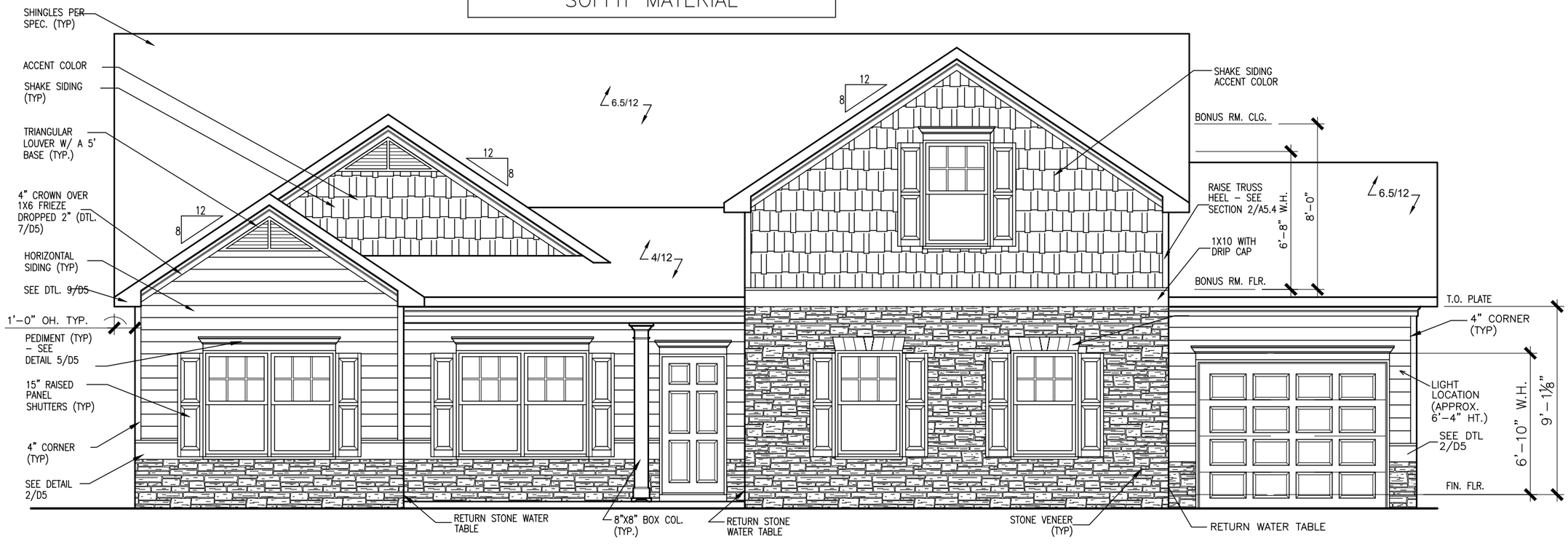
PLAN REVISIONS

DATE	BY	REVISION	PAGE #
11/27/2018	AW	PCR #2694 To comply with electrical code, changed 12" o.h. on one side of kitchen island to 6" o.h. on both sides of island	A3.1, A5.1, A7.2
12/7/2018	AW	Option for patio door from Owner's was removed	A5.1
2/27/2019	AW	PCR #2843 when HVAC platform is above Pwdr Rm added note to furr down ceiling as needed for insulation above	A5.1.1
3/27/2019	MM	Added callout for detail 3/D5.1 on C Mass	A1.3-A1.9.1
6/3/2019	MM	Added coffered clg. option to Living/Dining/Study	A5.1, A7.2
6/5/2019	AW	PCR #3029 swing door to HVAC platform on second floor into landing	A5.2, A5.2.1, A7.3, A7.3.1
10/3/2019	AW	Revised Ranch plan version to relocate PDS to hall and scuttle hole to Owner's W.I.C. and removed header & wall adjacent to the Family Rm and hall to Mud Room and header in hall by Pwdr. Changed wall behind water heater to 2x6.	A5.2, A6.1, A6.2, A6.3, A7.2, A8.1
9/1/2020	MM	PCR #3865 Removed HVAC platform and access door on optional 2nd floor. Relocated AC pad to left side of house.	A5.1, A5.2, A5.2.1, A6.1-A6.3.1, A7.3, A7.4, A7.4.1
11/1/2020	MM	Removed decorative corbels from elevations A, D, & G elevations when second floor is chosen.	A1.1.1, A1.4.1, A1.7.1

CANE MILL ESTATES
LOT 17

ALL NON–MASONRY RETURNS TO BE HORIZONTAL SIDING

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



FRONT ELEVATION "B"

SCALE : 3/16" = 1'-0"

SIDE ENTRY GARAGE
WITH ROOM ABOVE GARAGE

BY	DATE	REVISION
#	#	#
#	#	#
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SMITH DOUGLAS HOMES
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ELEVATIONS
FRONT ELEVATION
LANCASTER

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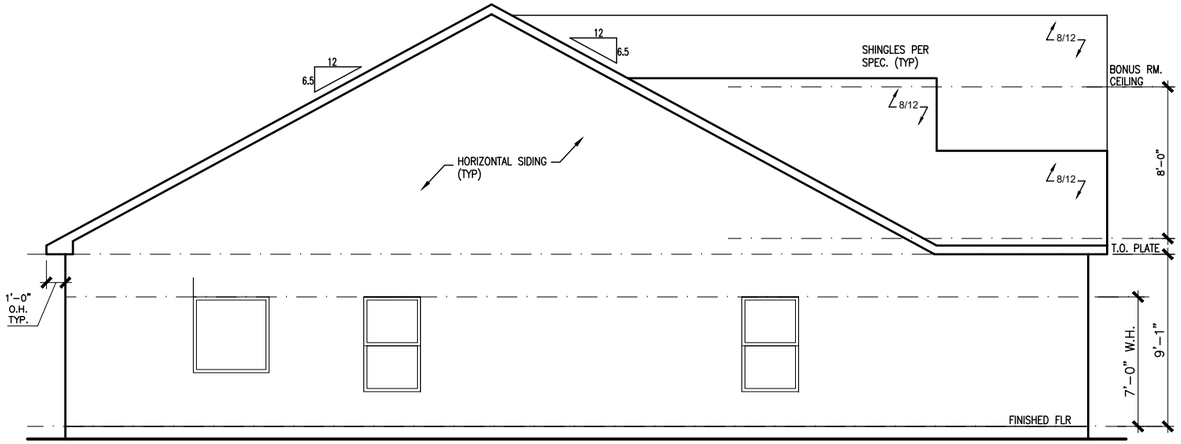
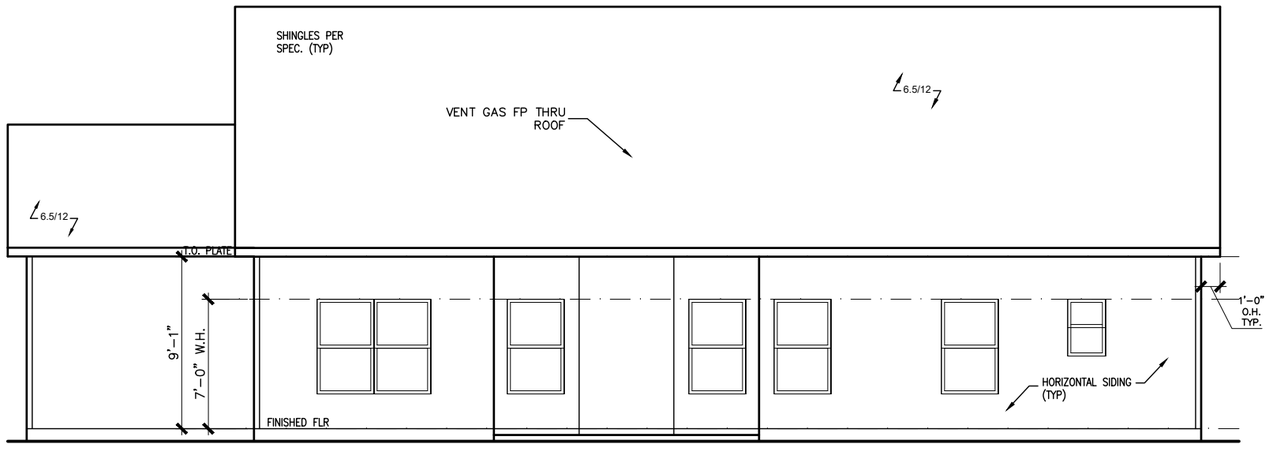
CANE MILL ESTATES
LOT 17



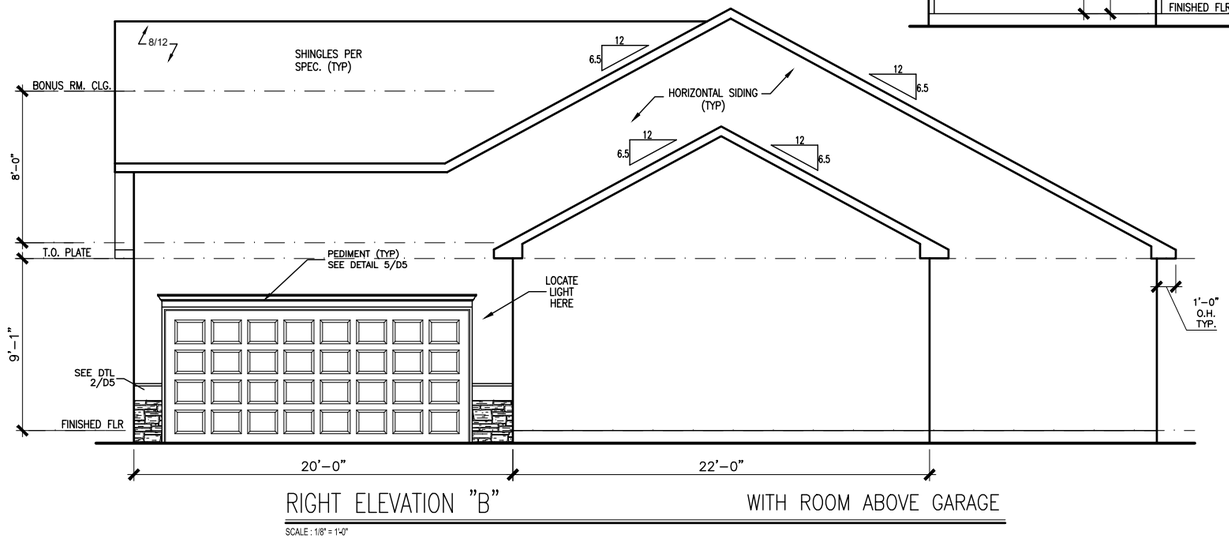
LEFT ELEVATION "B" WITH ROOM ABOVE GARAGE

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



REAR ELEVATION "B" WITH ROOM ABOVE GARAGE

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



RIGHT ELEVATION "B" WITH ROOM ABOVE GARAGE

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

BY	REVISION	DATE
#	#	#
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#	#	#
#	#	#
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SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

ELEVATIONS
SIDES AND REAR
LANCASTER

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PLAN ID:	
FND:	ELEV:
ALL	B
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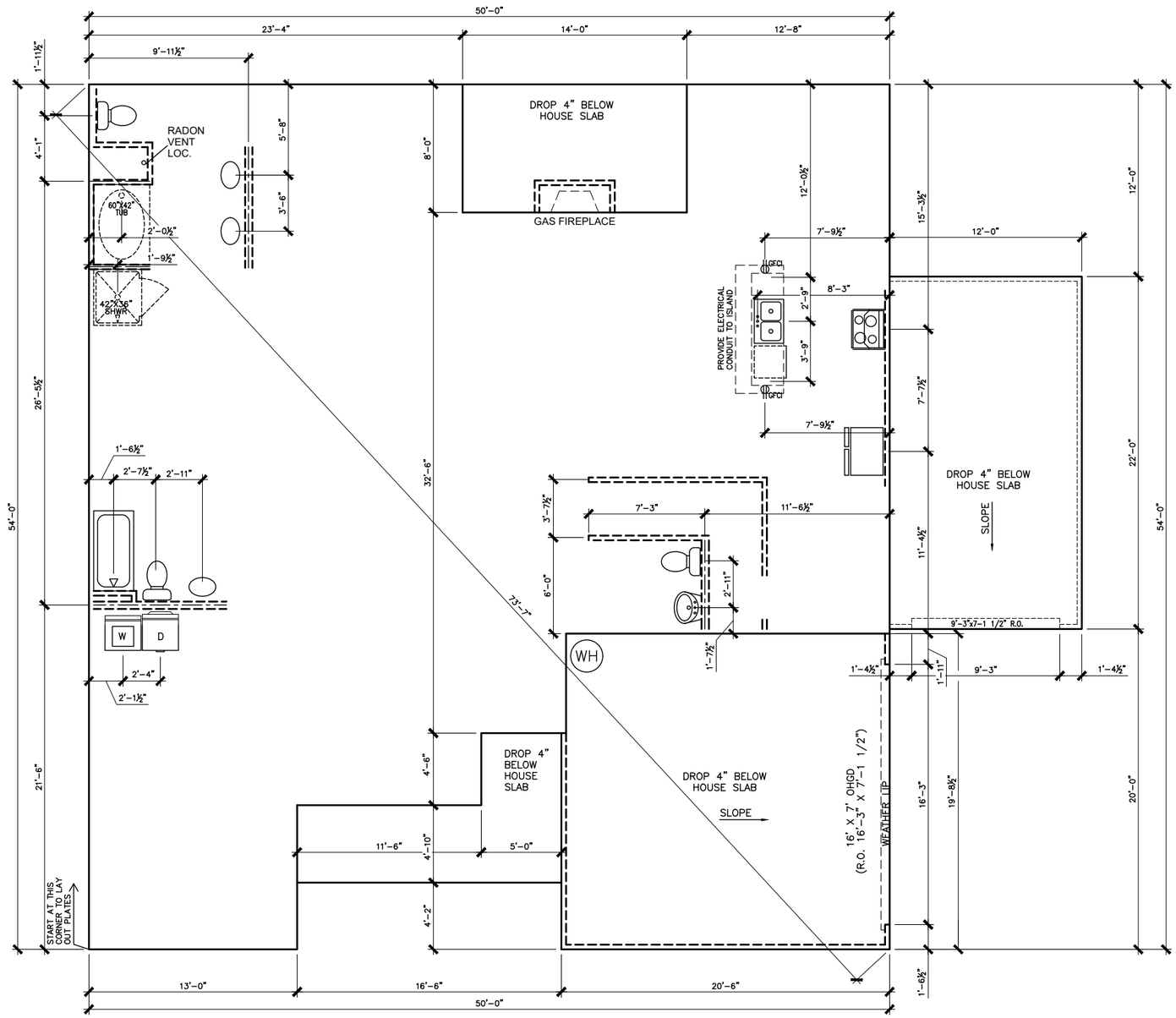
CANE MILL ESTATES
LOT 17



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

BY	REVISION	DATE
#	#	#
#	#	#
#	#	#
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SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FOUNDATION PLAN
SLAB PLAN
LANCASTER

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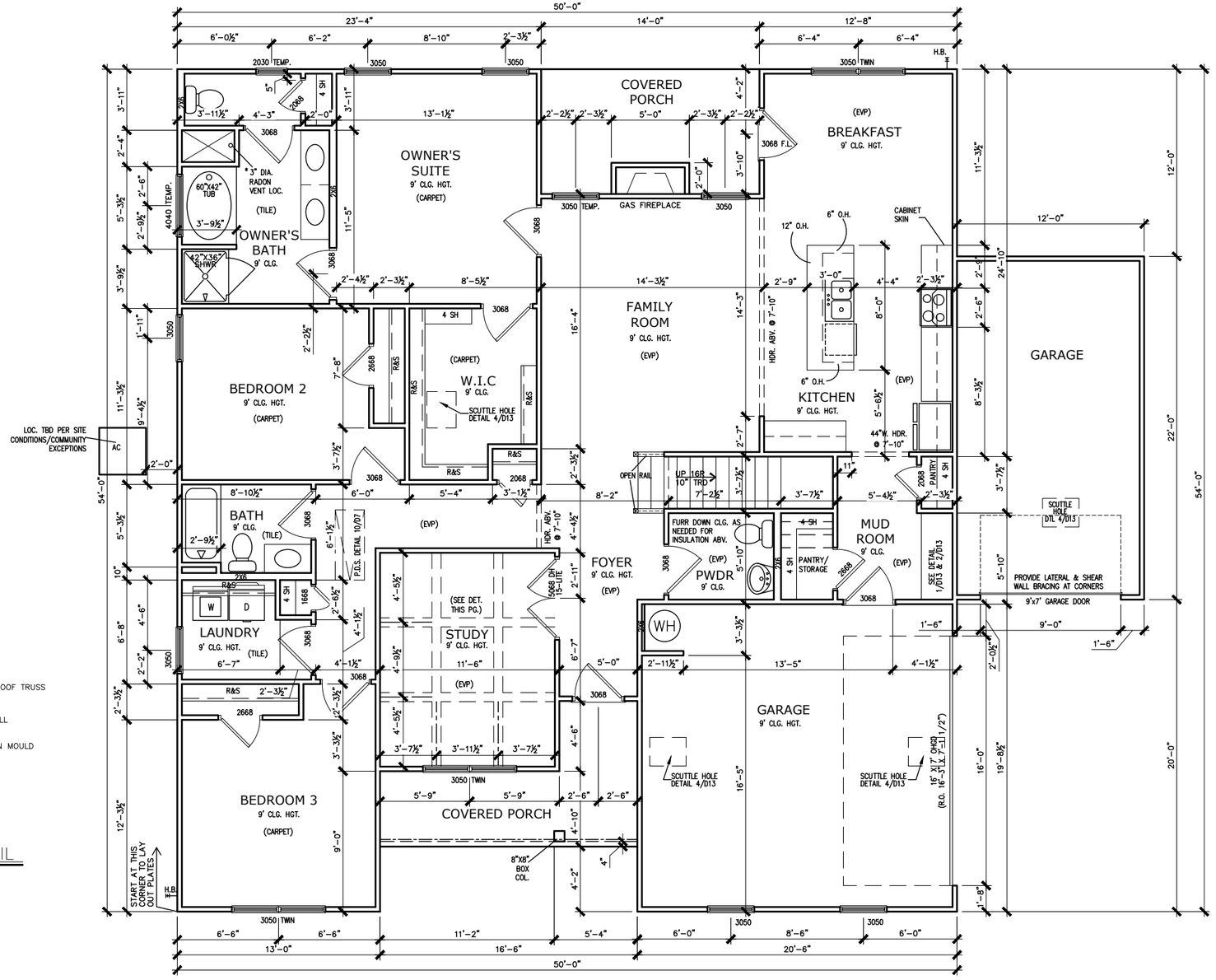
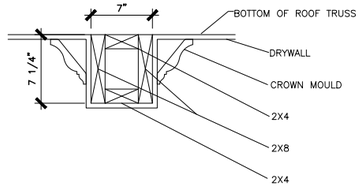
CANE MILL ESTATES
LOT 17



FIRST FLOOR PLAN

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



1 A8.1 COFFERED CEILING DETAIL

N.T.S

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

*RADON VENT PROVIDED PER LOCAL CODE

REVISION	DATE	BY
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SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FLOOR PLAN
FIRST FLOOR
LANCASTER

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
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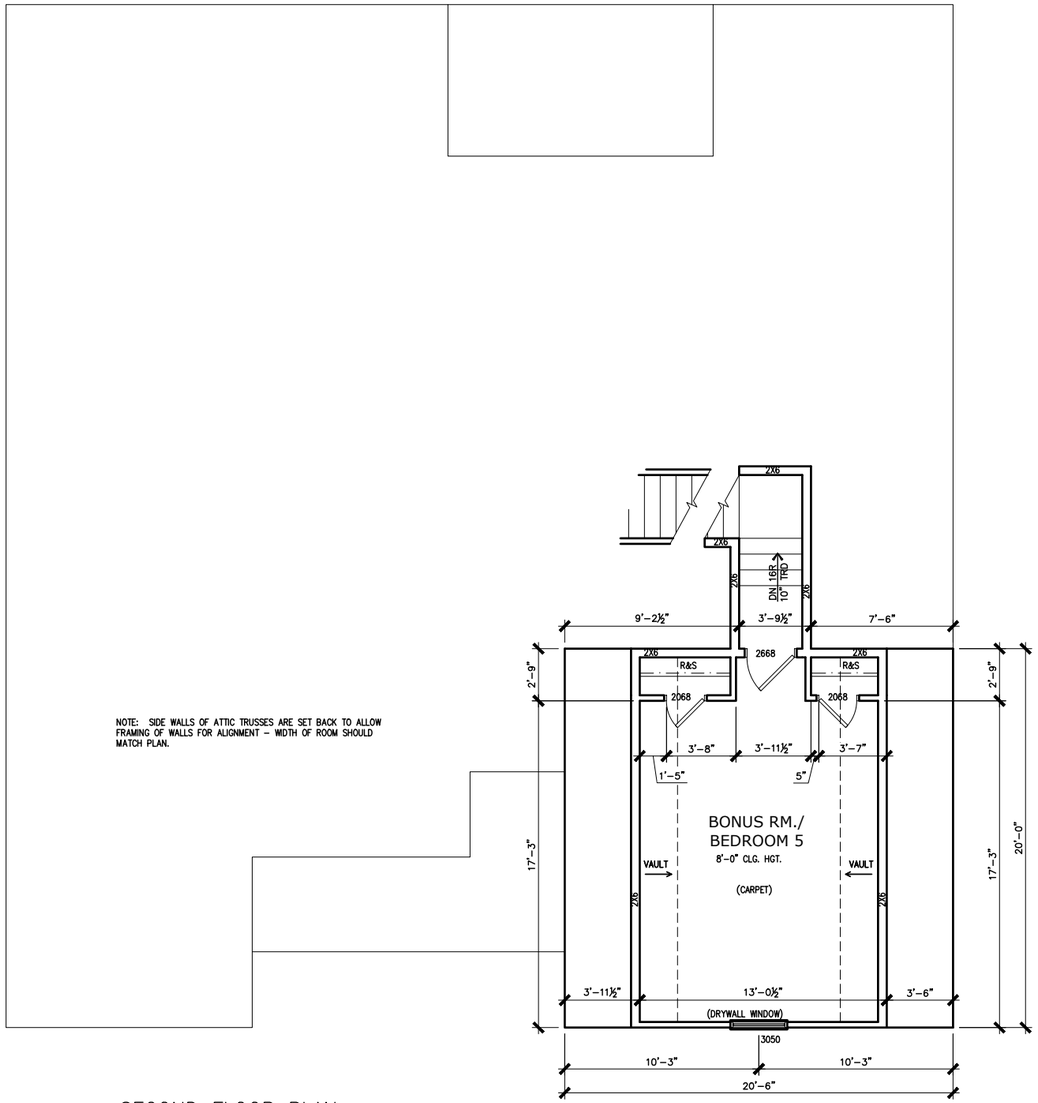
PAGE NO: A5.1	

CANE MILL ESTATES
LOT 17



NOTE: SIDE WALLS OF ATTIC TRUSSES ARE SET BACK TO ALLOW FRAMING OF WALLS FOR ALIGNMENT – WIDTH OF ROOM SHOULD MATCH PLAN.

SECOND FLOOR PLAN

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

REVISION	DATE	BY
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#	#	#
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SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FLOOR PLAN
SECOND FLOOR
LANCASTER

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110 VILLAGE TRAIL
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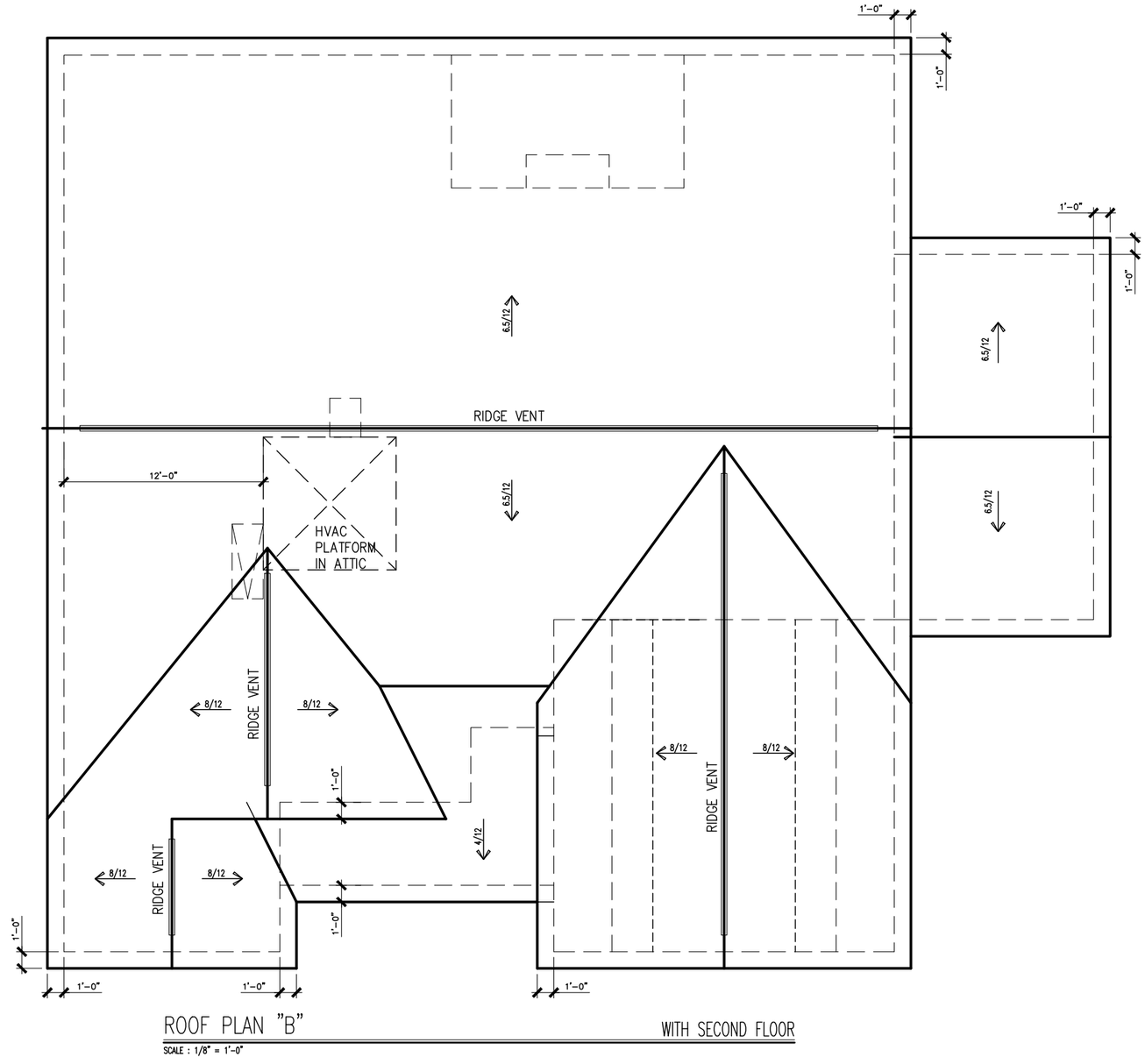
PAGE NO: A5.2	

CANE MILL ESTATES
LOT 17



ROOF PLAN "B" WITH SECOND FLOOR

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

REVISION	DATE	BY
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SMITH DOUGLAS HOMES
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ROOF PLAN
ROOF PLAN
LANCASTER

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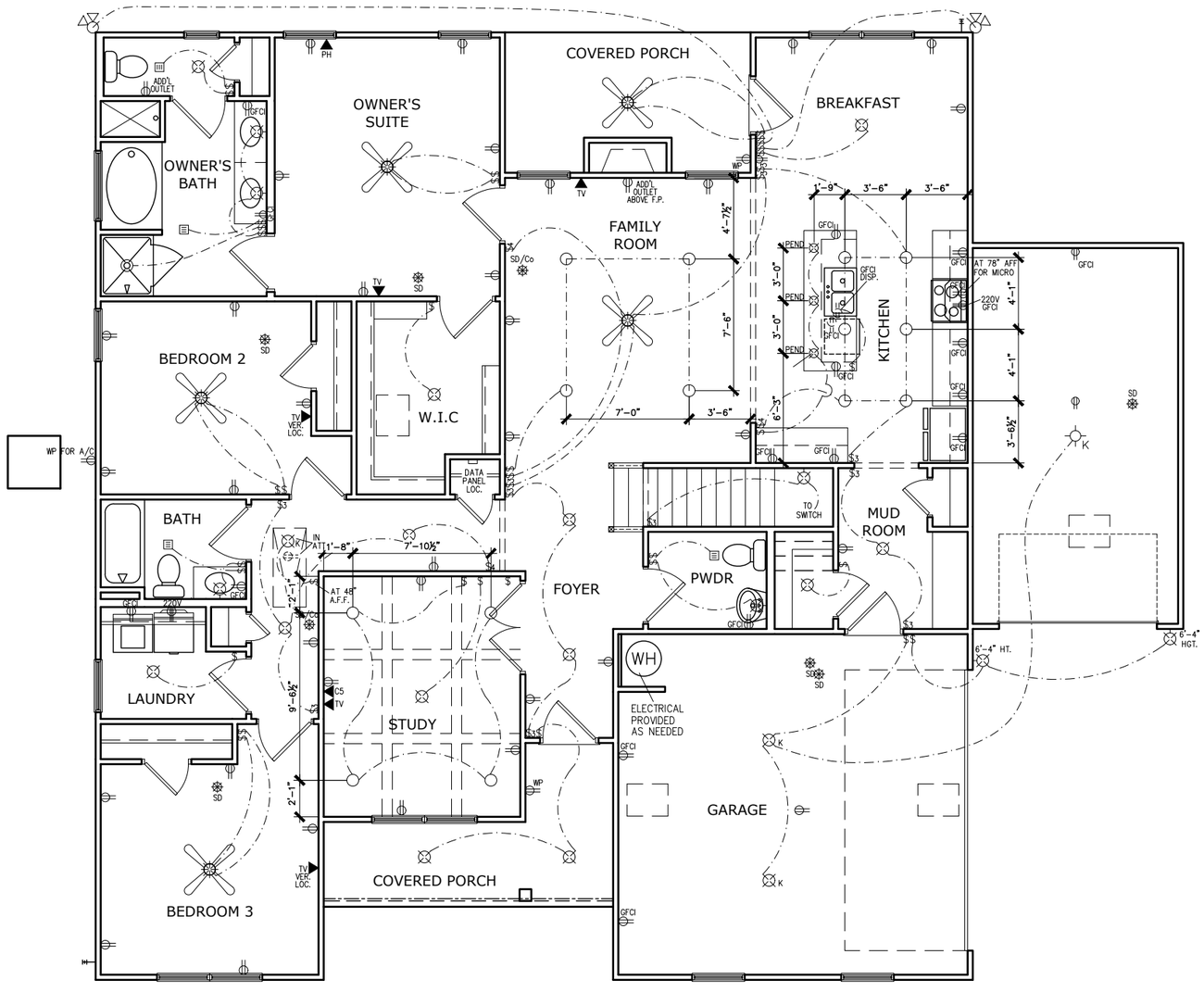
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A6.1	

CANE MILL ESTATES
LOT 17



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
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		
	EXHAUST FAN		ELECTRICAL WIRING
	FAN/LIGHT		CEILING FIXTURE

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

REVISION	DATE	BY

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

ELECTRICAL PLAN
FIRST FLOOR
LANCASTER

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
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BY: CLJ	CH: AW
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FACADE OPT: B	
PLAN ID:	
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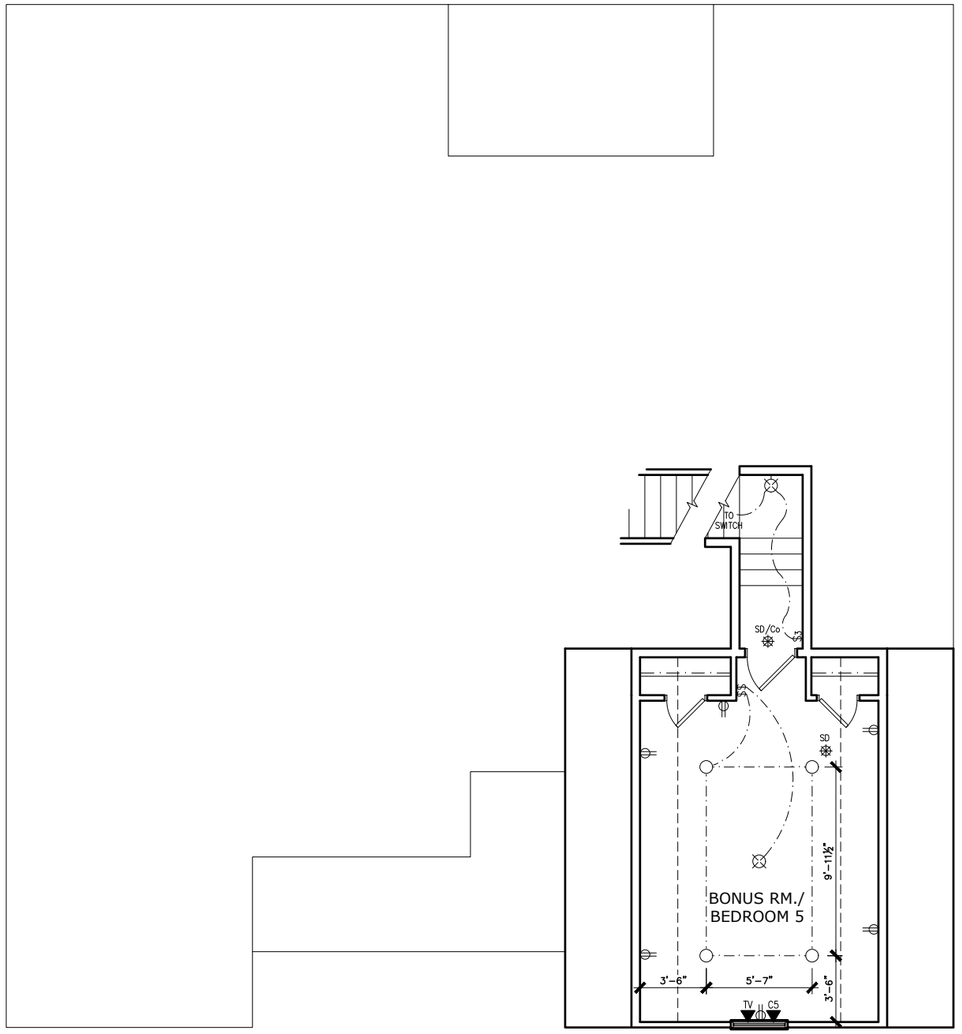
PAGE NO: A7.2	

CANE MILL ESTATES
LOT 17



SECOND 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
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		
	EXHAUST FAN		ELECTRICAL WIRING
	FAN/LIGHT		CEILING FIXTURE

ELECTRICAL PLANS TO FOLLOW ALL LOCAL CODES

APPROX. FIXTURE HGTS (MEASURED FROM BOTTOM OF FIXTURE)

BREAKFAST/DINING ROOM	63" ABOVE FINISHED FLOOR
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CEILING FAN	96" ABOVE FINISHED FLOOR

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

REVISION	DATE	BY

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

ELECTRICAL PLAN
SECOND FLOOR
LANCASTER

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
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BY:	CH:
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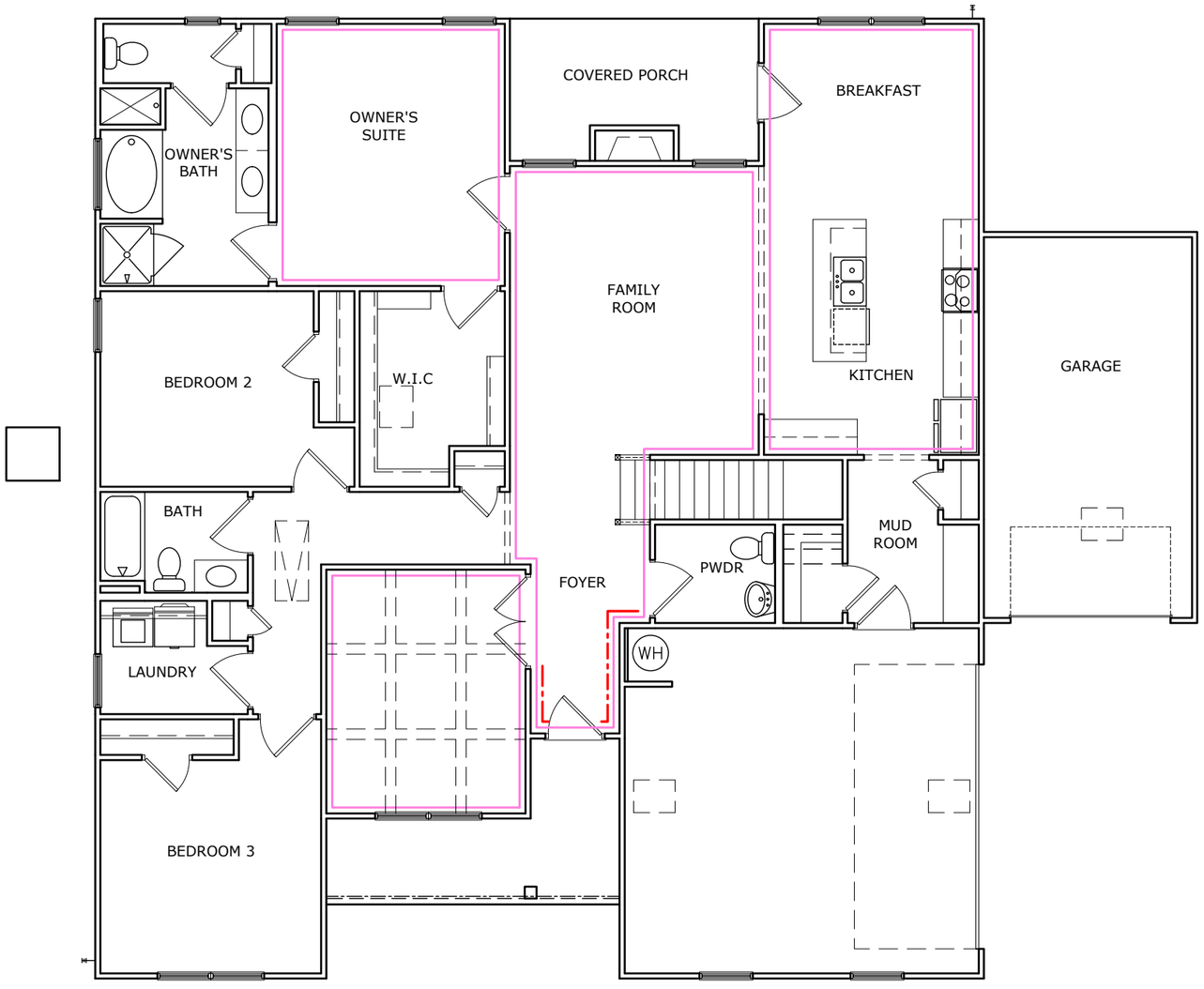
DATE: 4-5-21	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A7.3	

CANE MILL ESTATES
LOT 17



TRIM LAYOUT FIRST FLOOR PLAN

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

REVISION	BY	DATE
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SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

FLOOR PLAN
TRIM LAYOUT
LANCASTER

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.smithdouglas.com

BY:	CH:
CLJ	AW
DATE: 4-5-21	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A8.1	

CANE MILL ESTATES
LOT 17

Lot Definition

Project: Cane Mill Estates
Building: 000
Unit: 0017

Community: Cane Mill Estates
Builder: Thomas Kenneth Barlow
Status: Sold

Plan: Lancaster B Ranch Side Entry
Orientation: Garage Right
Sq. Ft: 2,015
Bedrooms: 3
Bathrooms: 2.5
Address: 208 Planters Lane
Coats
NC 27521

RTeam: Raleigh West
Slot: 5432
Permit:
Notes:

Sales Data	
Contract:	89105
Buyer:	Scott Carns
Sales Agent:	Sam Fulmer

Dates	
Ratified:	03/28/2021
Original Start:	03/30/2021
Start:	03/30/2021
Scheduled Complete:	08/10/2021

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
36" Cabinet 2nd Upgr w/ Hardware	Includes hardware - knobs, pulls, or knob/pull combo. Note: Bath cabinets to match	1
3rd-Car Garage-SIDE Entry Home-Fiber	Attached 3rd Car Garage on side entry home w/Fiber Cement Siding. NOTE: Location must be on Contract Exhibit floor plan and side plan. NOTE: Builder must approve in writing per lot. Site Exclusions may apply.	1
4 Ceiling Fixture Lights (Global)	Add Four Low Profile Flush Mount LED Lights on One Single Switch. Locations to be noted on exhibit for Electrician. NOTE: Option cannot be used to replace light fixtures at a specific location.	1
Add Int Ceiling Fan w/Light and PreWire	Additional Interior Ceiling fan, including Light Kit and fan Pre-wire. Includes credit of standard fixture. NOTE: Do not use this option for Family Room or Owner Bedroom, use room-specific options instead. ***INSIDE USE ONLY***	2
Additional Cable Outlet		4
Addtl Standard Interior Electric Outlet	Standard Interior Duplex Outlet. This is not an exterior weather proof outlet or a GFCI protected outlet. A quantity of 1 gives you one additional outlet.	2
Automatic Garage Door Opener	Garage Door Opener - Per Door	2
Blind for 4040 Picture Window		1

Lot Definition

Blind for Rear/Back Door	Blinds - Additional blind to cover rear/back door.	1
Blind per Optional 2030 Window	One 2030 blind. For use when you've added a 2030 optional window. See Optional Windows Sales Guide on the Process Model for assistance.	1
Blind per Optional 3050 Single Window	One 3050 blind. For use when you've added a 3050 optional window. See Optional Windows Sales Guide on the Process Model for assistance.	1
Blinds for Base House w/fin 2nd	Includes blinds for all standard windows on front, sides, and rear that are operational and accessible. For use in communities that include the finished 2nd floor.	1
Blinds Side Entry Garage Windows		1
Cabinet Bump above Microwave	Cabinet Bump above Micorwave	1
Ceiling Fan w/Light Family Room	Ceiling fan, including Light Kit. Does not include Prewire. This option is for use in Family Rooms that are pre-wired standard but have no fan.	1
Ceiling Fan w/Light Owner Bedroom	Ceiling fan, including Light Kit. Does not include Prewire. This option is for use in Owner Bedrooms that are pre-wired standard but have no fan.	1
CofferedCeiling-DiningRoom w/1-Pc Cr	Coffered Ceiling for Dining Room with One Piece Crown Sheetrock boxes with crown run inside.	1
Crown Molding on Kitchen Cabinets		1
Decorative 4040 Picture Window-Upgrade	Replace clear 4040 Window over Master Garden Tub with Decorative Victorian 4040 Picture Window Upgrade. NOTE: This option cannot be used with the large f/g shower option, the large tile shower option, or on any plan/job that otherwise does not have a 4040 clear window over Master Garden Tub.	1
Exterior Flood Lights		2
Family/Great Room Ceiling Fixture Lights	Family/Great Room Lights - Low Profile Flush Mount LED Lights per plan.	1
Finished Walkup 2nd Floor - Fiber	Add 2nd Floor Finished Walkup room per plan. For use in Fiber Cement Communities.	1
Fireplace in Family Room - Gas		1
FlPkg 5EB-EVP1, Upgr1Cpt (tlPkg1)	Flooring Package 5EB - Enhanced Vinyl Plank 1, Upgrade 1 Carpet, Upgrade Pad (from Package 1)	1
FlPkg W2-AllStdBaths/Laundry Tile 1	Flooring Package - All Standard Baths and Laundry - Tile 1. Does not include powder room or bathrooms which are parts of globally optional space. See Flooring Package Layouts for details.	1
FlrPkg Opt-FinBonus Upgr1Cpt	Floor Package Option - Carpet/pad Upgrade 1 Finished Bonus Room, including stairs	1
FlrPkg Opt-Powder EVP1	Flooring Package - Option Powder Room Enhanced Vinyl Plank 1	1
Foyer - Chair Raili/Shadow Box		1
FP Surround Upgrade	Upgrade from Slate Surround to Marble or Granite. Material/Color chosen by Selection.	1
Garage Door Wireless Entry Pad		1
Gas Fireplace Blower	Add blower to Gas Fireplace. Note: Blower is variable speed and controlled by the fireplace box, not a switch.	1

Lot Definition

Granite-Kitchen Countertops - Lvl 1 (l)	Kitchen Granite Countertops - Level 1-where Lamanite is Std.	1
Granite-Kitchen Sink Level 1	Level 1 Undermount rectangular stainless steel sink upgrade for kitchen granite.	1
G-Tub & PF Shwr FD OBATHC	(Garden tub and separate shower with framed door ILO of Large prefab shower . (obathc))	1
Hall Bath Marble 1 Single ilo LamSgl		1
Insulate Garage Carriage Door/Walls (s)	Upgrade from uninsulated steel panel door to insulated carriage panel door and insulate exterior garage walls.	1
Kitchen Ceiling Fixture Lights ILO Std	Kitchen Lights - Low Profile Flush Mount LED Lights per Plan ILO Standard Light.	1
Kitchen Faucet - Level 2 (G)	Upgrade to Level 2 Pulldown Kitchen Sink Faucet From Level 1 Faucet on Granite OR Solid Surface	1
Level 7 - Package Electric (from E1)	NOTE: Must Pick a Tile Backsplash Frigidaire Professional SS 24" Professional Fully Integrated DishW Frigidaire Professional SS 1.8 CU. FT. Convection Microwave Frigidaire Profesional Convection Smooth Top Elec Range- Front Controls	1
Lighting Package Farmhouse		1
Mud Room Trim with Bench Seat	Bead board with crown and hooks with bench seat	1
Nickel Interior Finish Color Package	NOTE: If Laminate Kitchen top, Upgrade Kit Faucet or it remains Chrome. Includes SS kitchen faucet, brushed nickel bath faucets & fixtures & door hardware (hinges, bumps, knobs/levers, deadbolts), Pkg1(bn) light fixtures, pewter oval mirror. Separate options also affected: shower door, bath hardware (towel bar/ring, tp holder), shower grab bar, cabinet hardware	1
Open Rail 1st Floor - Iron		1
Optional Laundry Cabinet Upper - White	Laundry Wall: White Cabinets: 36" Uppers Per Plan Two 33" wide Wall Cabinets with Four Doors. Installed over the Washing/Dryer Installed over the Washer/Dryer Connection area Includes Credit for Wire Shelves	1
Owner Bath Marble 1 Double ilo LamSgl	***Includes Vanity Double Bowl Option Do Not Select Both***	1
Owner Bath Water Closet Window	2030 Single Window for Owner Bath Water Closet. NOTE: Blind not included.	1
Paint Interior Ceiling White		1
Paint Wall/Ceiling Color Upgrade	Upgrade Interior Paint Color on Walls and Ceilings for the whole house in lieu of base color	1
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
RearPorchCeiling Fan w/Light and PreWire	NOTE: DONT PICK TWICE. Rear Porch Exterior Ceiling Fan Including Light Kit. Includes Pre-Wire. For use on plans with Included Covered Porches OR lots with Optional Rear Covered Porches. Includes credit for std.light.	1

Lot Definition

Screen Per Optional 2030 Window		1
Screen Per Optional 3050 Window	Note: If the optional window is a 3050 twin, it needs two screens.	3
Screens Base House w/Opt2ndFloor SF	Add window screens to all operable standard windows on single family home INCLUDING windows for optional 2nd floor. Do no pick both Base House Options. NOTE: Does not include screens for windows for side entry garage, or windows added or changed from structural options, optional windows, or basement windows. See additional options to complete screens.	1
SS SmudgeProof 21.6 cuft Fr Dr Clr Depth	21.6 Cu. Ft. French Door Counter-Depth Refrigerator Multi-level LED Lighting; 1 Full-Width Deli Drawer; PureSource Ultra® Ice & Water Filtration; PureAir Ultra® II Air Filtration; 2 Humidity-Controlled CrispSeal™ Crispers; SpaceWise® Organization System; SpaceWise® Freezer Organization System; Effortless® Glide Freezer Drawers; Dual Ice; PowerPlus Freeze	1
Stone 19 A ExtColPkg(f)		1
Structure Wiring Package	Two rooms with Cat 5e data wiring connected includes a hub (aka data panel)	1
Study Ceiling Fixture Lights (4)	Study Lights - 4 Low Profile Flush Mount LED Lights.	1
Study ILO Living Room		1
Tile - Kit Backsplash LVL 2 Brick Lay		1
Upgrade Soft-Close Drawers w/Dovetail	Upgrade to Select Construction Soft Close Drawer w/Dovetail and doors w/SmartStop hinges. See pg. 2 of Cabinet Product Lineup. Includes Bath cabinets.	1
Vent Microwave/Hood Combo to Outside	Vent the Microwave/Hood Combo to Outside. NOTE: Must be used with option Cabinet Bump above Microwave. If Cabinet Bump above Microwave is not standard, the option MUST be chosen.	1
Whole House Surge Protector for Pnl Box		1
Window in Laundry Room	Per Plan - Does not include blind.	1

Lot Definition

Activity	Description	Selection Description
Ceramic Tile Set-Kitchen	TILEKitBacksplash-2ndUpgr ALL	Baker St.4x16 Taupe 550INaturalGray00035
Deli&Install AppliancePkg	Appliance Package Select - All	Appliance Package Selected
Inst Fireplace Surround	Fireplace Surround Upgrade ALL	Arctic Gray
Install Cabinets Complet	Cab Hrdwr Type#(2/3)ALL	Knob/Pull Combo
Install Cabinets Complet	Cabinet Finish - Upgrade 2Aris	2nd-Upg Brellin Purestyle-White
Install Cabinets Complet	Secondary Bath Vanity Tops-All	Selection not Needed
Install Carpet	Carpet - 1stUpgr ALL	SMITH PLAZA PEBBLE CREEK 00135
Install EnhancedVnlPlank	Enhanced Vinyl Plank-Level 1	Spectrum Plus 9"PLK Riverside Oak 1031
Install Granite Tops	RDU Granite CounterKitchenLvl1	Daltile-Crema Caramel
Install Granite Tops	Rectangular SS sink LVL 1	Single Bowl Sink
Install Marble Tops	RDU Marble Vanity Top Lvl 1	Mattle-#153 White w/Ice Grey w/oval bowl
Paint Interior Complete	Interior Paint (Trim)-Ceiling	Selection not needed
Paint Interior Complete	Interior Paint (Walls) - Upgrd	SW 7029 Agreeable Gray
PM - Tile Floor Complete	TILE Floor-1stUpgr ALL	Contempo Pier 500 (13x13)/Silver00030
Stain Handrails	Hand Rail Stain - All	MW-Classic Gray [LVP:1031 Riverside Oak]

REVISION | BY | DATE

SMITH DOUGLAS HOMES
QUALITY | INTEGRITY | VALUE

DETAILS
LOT DEFINITION
LANCASTER

SMITH DOUGLAS HOMES
110 VILLAGE TRAIL
SUITE 115
WOODSTOCK, GA 30188
www.smithdouglas.com

BY: CLJ	CH: AW
DATE: 4-5-21	
FACADE OPT: B	
PLAN ID:	
FND: ALL	ELEV: B
PAGE NO: A9.1	

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

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

Design Loads:

1. Roof
   - 1.1 Live ..... 20 PSF
   - 1.2 Dead ..... 10 PSF
   - 1.3 Snow ..... 15 PSF
     - 1.3.1 Importance Factor 1.0
2. 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
3. Floor Dead Loads
   - 3.1 Conventional 2x ..... 10 PSF
   - 3.2 I-Joist ..... 15 PSF
   - 3.3 Floor Truss ..... 15 PSF
4. 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 =
5. 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 I
   - 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

SUMMIT
ENGINEERING LABORATORY TESTING

STRUCTURAL PLANS PREPARED FOR:

LANCASTER

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 engineer 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	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by SMITH DOUGLAS HOMES. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

SHEET LIST:

REVISION LIST:

Revision No.	Date	Project No.	Description
1	2.25.19	3832.236	Revised per 2018 NCRC
2	11.27.19	3832.236R	Removed truss bearing at rear porch beam w/ non-bonus option
3	1.6.19	3832.309	Revised per new architectural files and truss layouts
4	8.28.20	3832.309R	Update HVAC and pull down stair location

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 8/31/20

Cane Mill
Lot 17

STRUCTURAL MEMBERS ONLY

SUMMIT
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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
Coversheet
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave
Apex, NC 27539

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832.309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.175

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS1

GENERAL STRUCTURAL NOTES:

1. 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.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. 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.
4. 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.
5. 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.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the International residential code.
8. 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:

1. 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)
2. 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
3. Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC
4. 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.
5. 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.
6. 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.
7. 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.
8. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
9. 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
10. Crawl spaced to be graded level and clear of all debris
11. Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
12. Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC

CONCRETE:

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

CONCRETE REINFORCEMENT:

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

WOOD FRAMING:

1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Spruce-Pine-Fir (SPF) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
   2.1. E = 1,900,000 psi
   2.2. Fb = 2600 psi
   2.3. Fv = 285 psi
   2.4. Fc = 700 psi
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SPF#2 @16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
8. Individual studs forming a column shall be attached with one 10d nail @6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be fully blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached with (3)10d nails @ 24" O.C.
10. 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:

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-10), 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.
3. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
4. The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
5. Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

WOOD STRUCTURAL PANELS:

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

STRUCTURAL FIBERBOARD PANELS:

1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. 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.
3. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

EXTERIOR WOOD FRAMED DECKS:

1. 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:

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

Cane Mill
Lot 17

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 8/31/20

STRUCTURAL MEMBERS ONLY

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
Coversheet

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

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.175

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS2

FOUNDATION NOTES:

1. FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
2. STRUCTURAL CONCRETE TO BE F_c = 3000 PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
3. 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.
4. 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.
5. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
6. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
7. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
8. PROVIDE FOUNDATION WATERPROOFING AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
9. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
10. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
11. CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
12. 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 7" 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.
13. 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

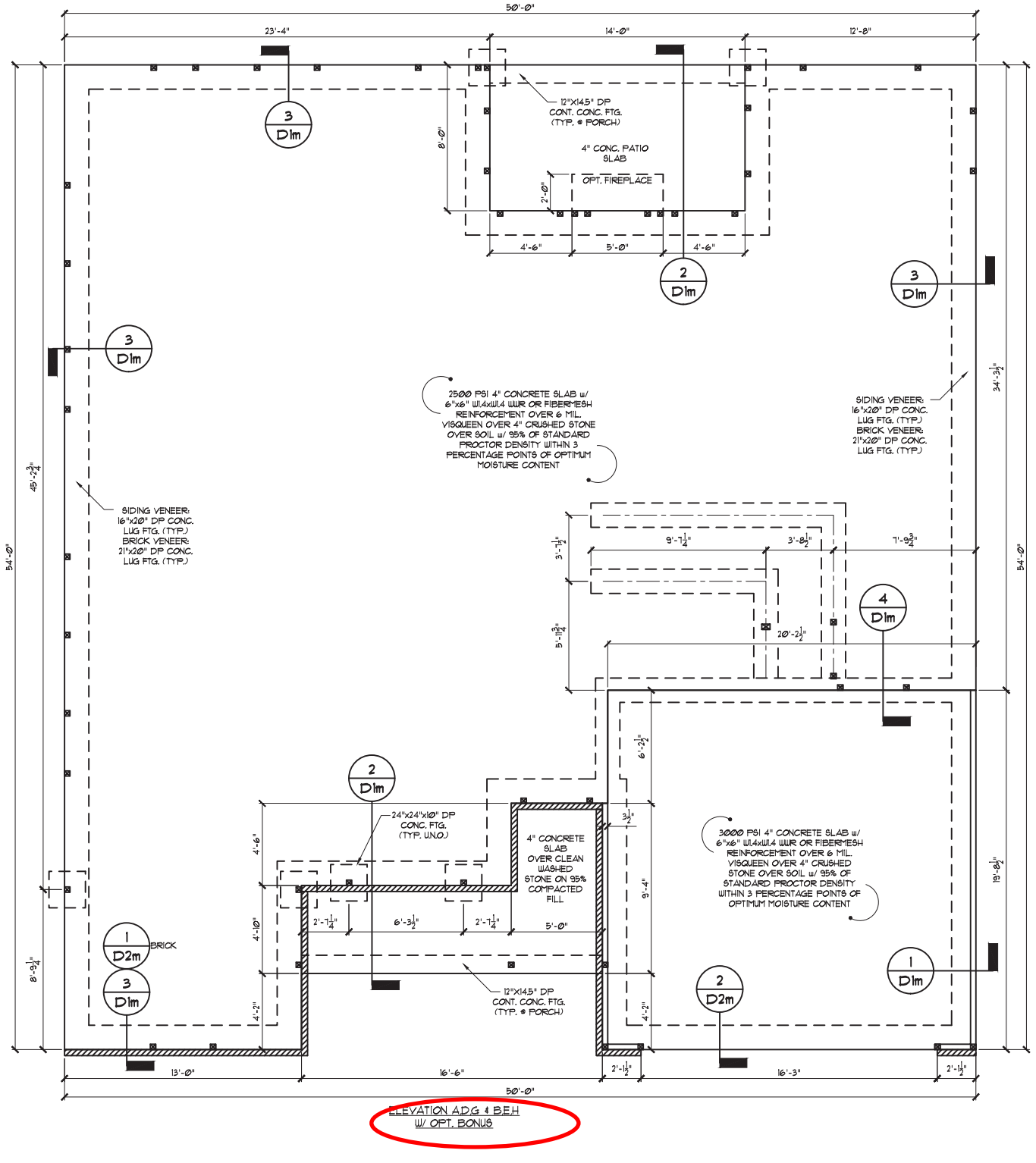
14. ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (UNO)
15. WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
16. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER, OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED 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.
17. 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 HOLDOWNS. ADDITIONAL INFO. PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

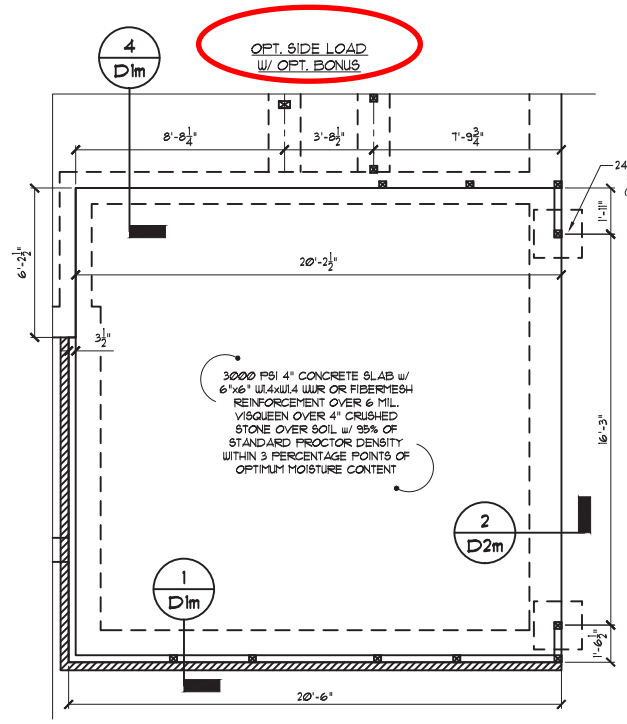
NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, UNO

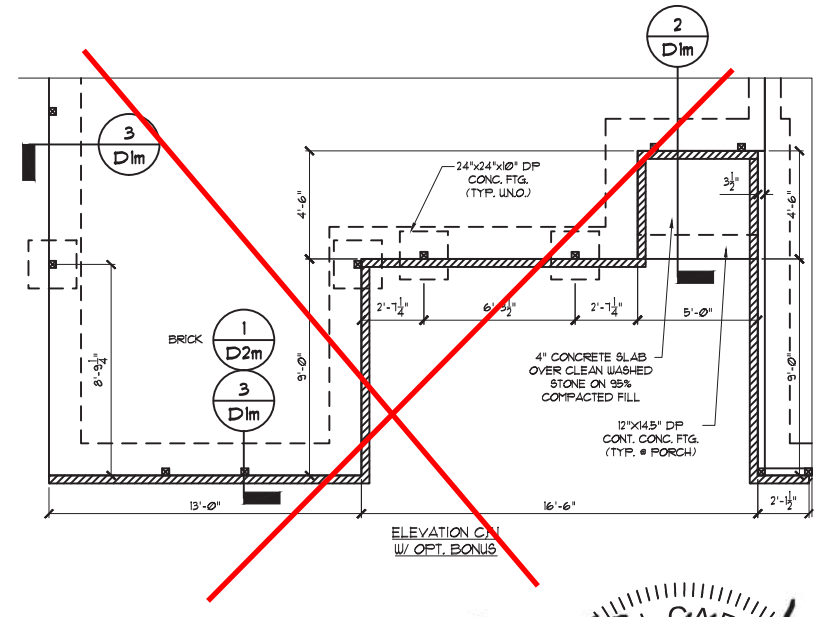
THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES, COMPLETED/REVISED ON 09/01/2020. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT 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



ELEVATION ADG & BEH
W/ OPT. BONUS





ELEVATION CH
W/ OPT. BONUS

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'

Cane Mill
Lot 17

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 09/11/20

STRUCTURAL MEMBERS ONLY

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
Monolithic Slab Fnd.

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

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832.309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.115

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S1.1m

GENERAL STRUCTURAL NOTES:

1. CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
2. 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.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
4. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
   MICRO=LAM (LVL) F_b = 2600 PSI, F_v = 285 PSI, E = 1.9×10^6 PSI
   PARALLAM (PSL) F_b = 2900 PSI, F_v = 290 PSI, E = 2.0×10^6 PSI
5. ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (UNO).
6. ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
7. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
8. 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 7" 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.
9. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
10. FLITCH BEAMS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL W23/. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
11. 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)
12. 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

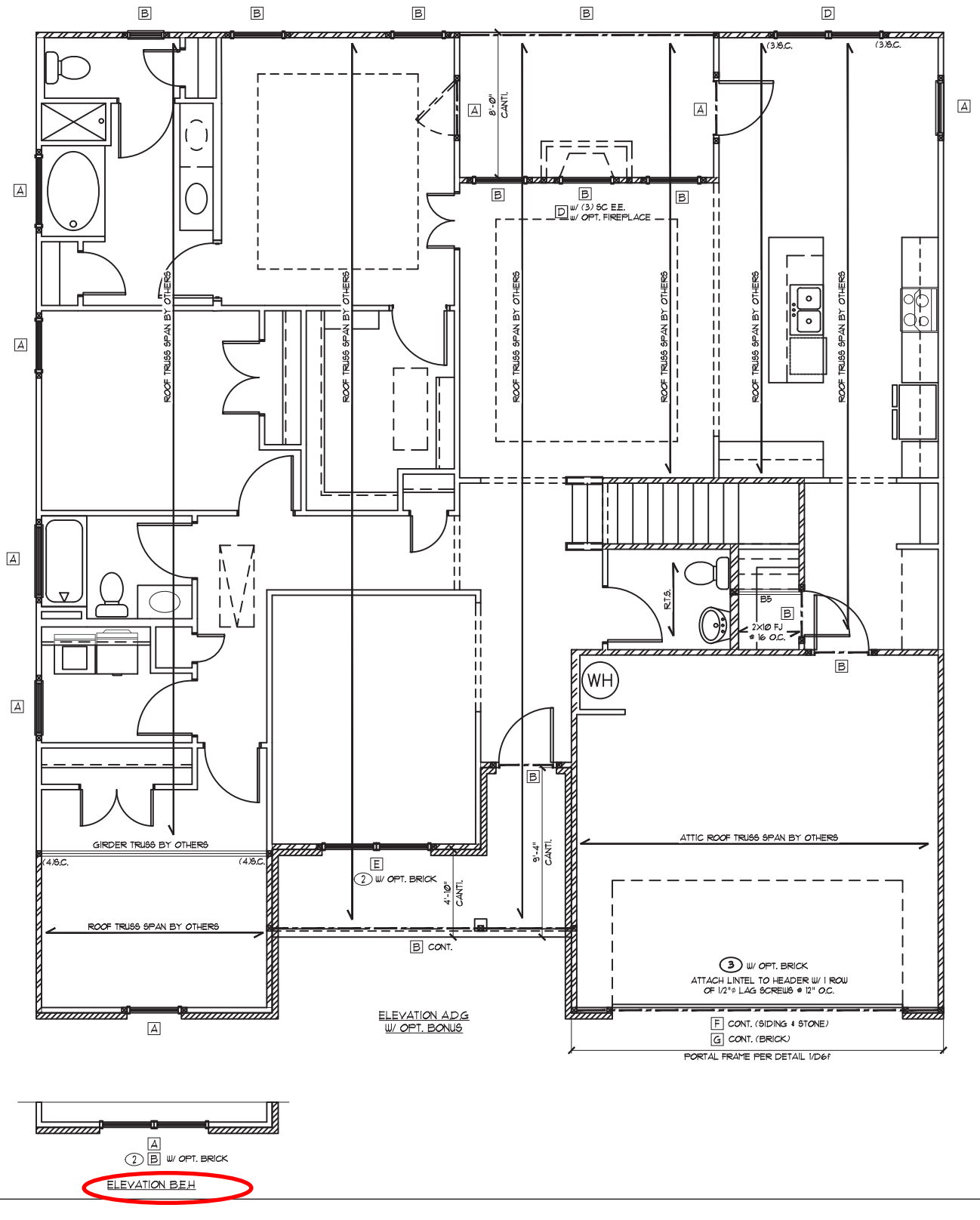
NOTE:
_____ DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE. PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

NOTE: SHADED WALLS INDICATE LOAD BEARING WALLS

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

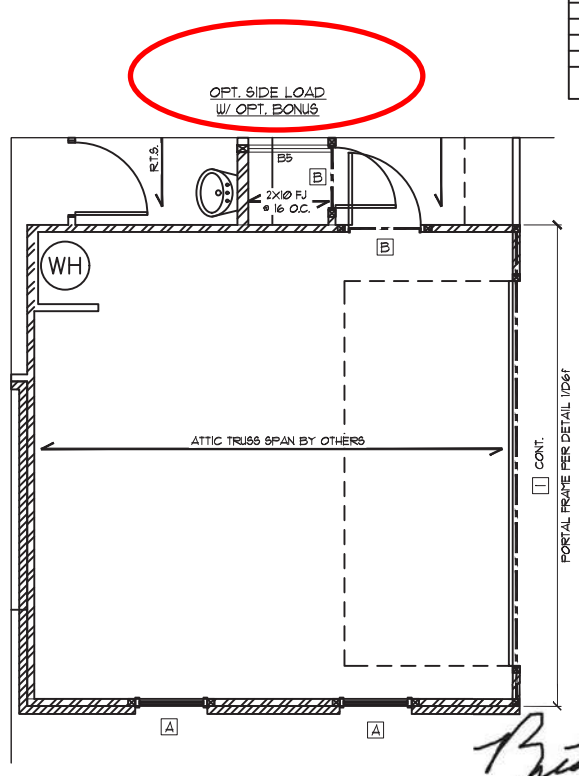
NOTE: REDUCE JOIST SPACING UNDER TILE FLOORS, GRANITE COUNTERTOPS AND/OR ISLANDS.

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.



ELEVATION A.D.G
W/ OPT. BONUS

ELEVATION B.E.H



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) 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.

LINTEL SCHEDULE

TAG	SIZE	OPENING SIZE
1	L3x3x1/4"	LESS THAN 6'-0"
2	L3x3x1/4"	6'-0" TO 10'-0"
3	L3x3-1/2"x5/16"	GREATER THAN 10'-0"
4	L3x3-1/2"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 09/01/2020. 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'

Cane Mill
Lot 17

STRUCTURAL MEMBERS ONLY

SUMMIT
ENGINEERING LABORATORY TESTING
3070 Hammond Business Place
Suite 171, RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM

NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
First Floor Framing
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave
Apex, NC 27539

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832.309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.175

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S3.1

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
9/29/20

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) 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.

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

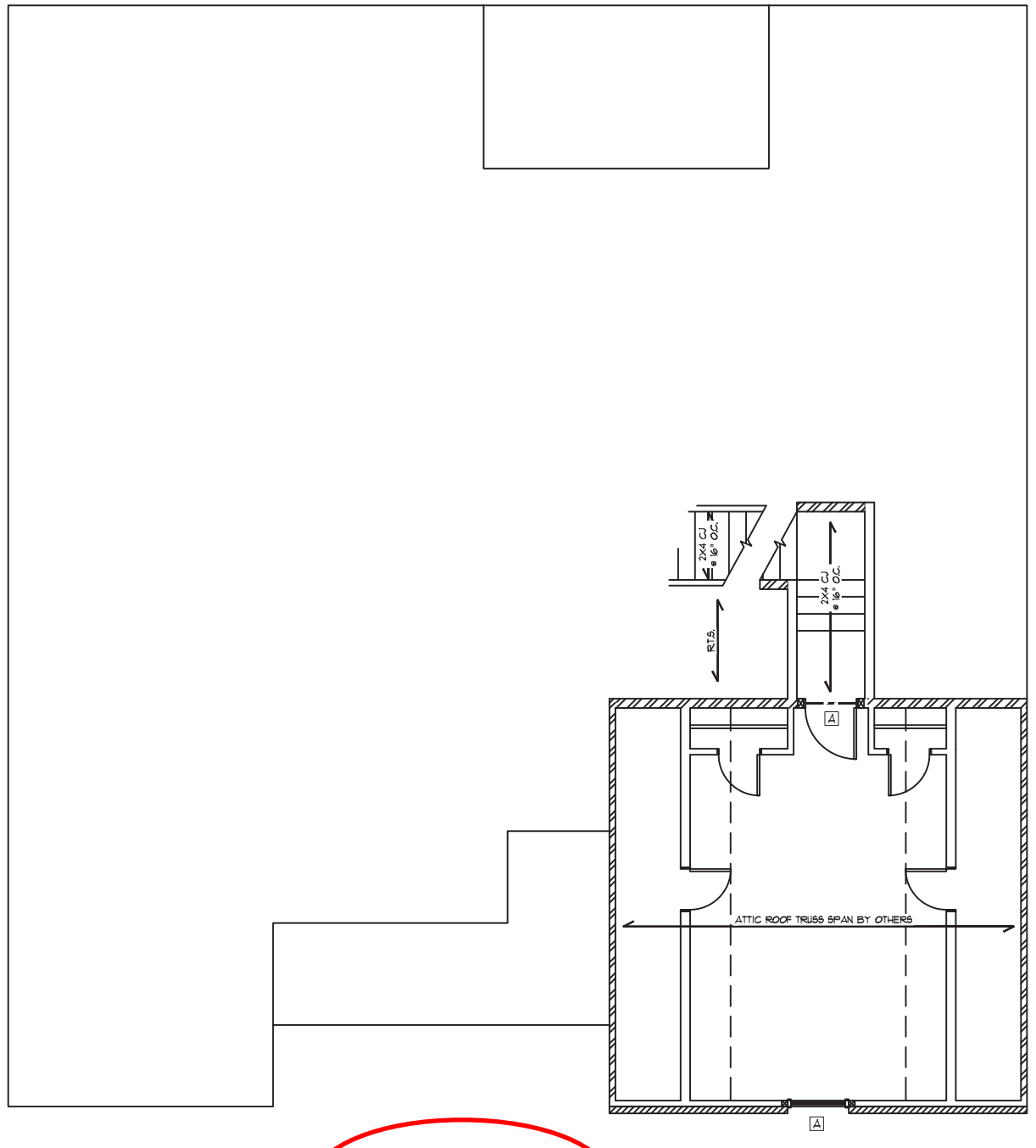
1ST & 2ND FLOOR LOAD BEARING STUDS:
2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C.
1ST FLOOR LOAD BEARING STUDS w/ WALK-UP ATTIC:
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
BASEMENT LOAD BEARING STUDS:
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C.
NON-LOAD BEARING STUDS (ALL FLOORS):
2x4 STUDS @ 24" O.C.
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

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.



OPT. FINISHED BONUS ROOM ALL ELEVATIONS

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STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

SECOND FLOOR FRAMING PLAN

SCALE: 1/8"=1'

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 09/01/20

Cane Mill
Lot 17

STRUCTURAL MEMBERS ONLY

SUMMIT
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WWW.SUMMIT-COMPANIES.COM

NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
Second Floor Framing
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave
Apex, NC 27539

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832.309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.175

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S4.0

TRUSS UPLIFT CONNECTOR SCHEDULE

MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND
600 LBS	H2.5A	PER WALL SHEATHING & FASTENERS	
1200 LBS	(2) H2.5A	CS16 (END = 11")	DTT2Z
1450 LBS	HTS20	CS16 (END = 11")	DTT2Z
2000 LBS	(2) HTS20	(2) CS16 (END = 11")	DTT2Z
2900 LBS	(2) HTS20	(2) CS16 (END = 11")	HTT4
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4

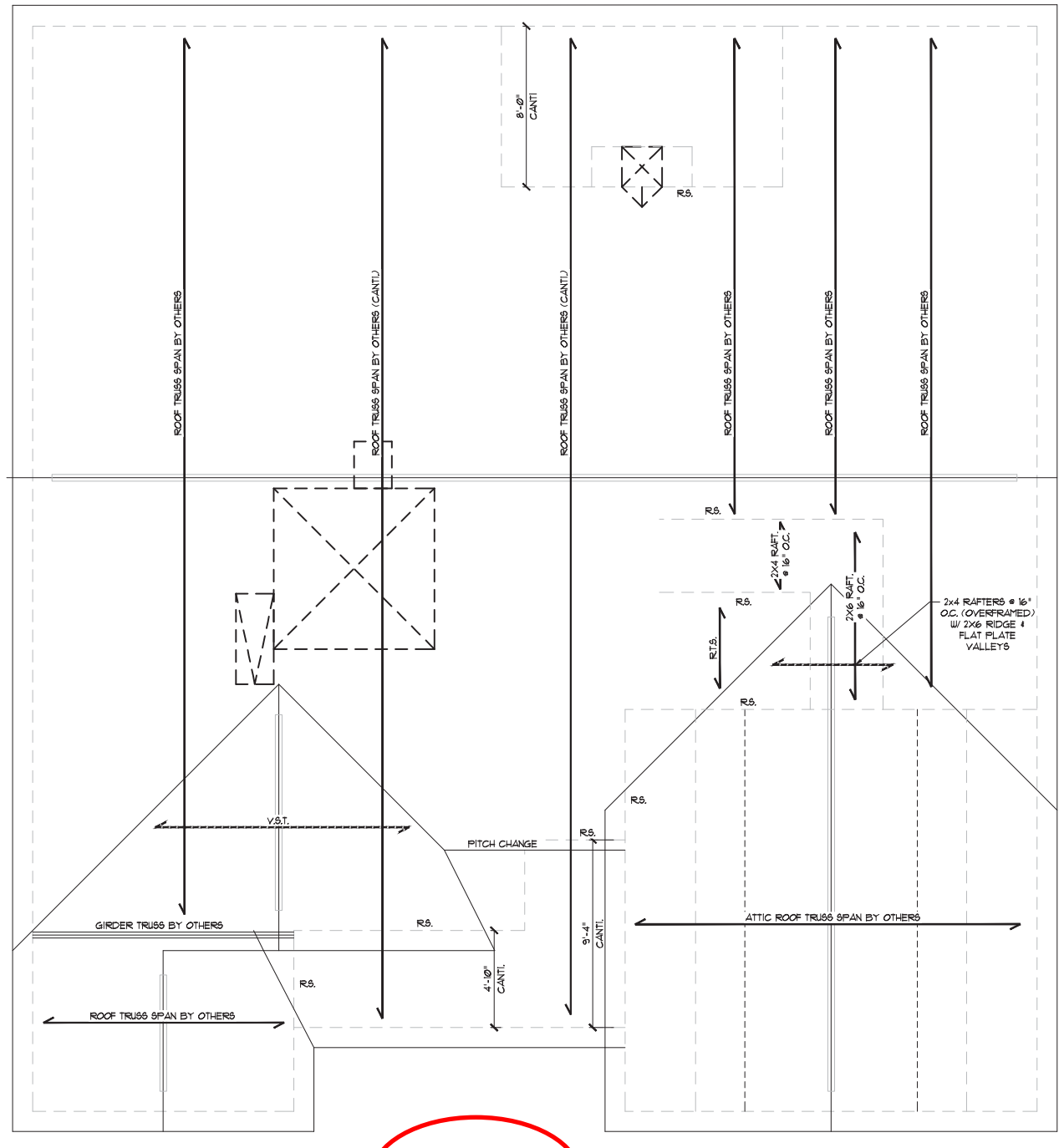
1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR STP #2 GRADE MEMBERS.
3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE THOSE LISTED ABOVE.
4. CONTACT SUMMIT FOR REQUIRED CONNECTORS WHEN LOADS EXCEED THOSE LISTED ABOVE.

NOTE: 1ST PLY 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)

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.11.1. 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.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY SMITH DOUGLAS HOMES COMPLETED/REVISED ON 09/01/2020. 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.



ELEVATION B.E.H
W/ OPT. BONUS
R.S. = ROOF SUPPORT

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/8"=1'

Cane Mill
Lot 17

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 09/11/20

STRUCTURAL MEMBERS ONLY

SUMMIT
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FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM

NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
Roof Framing Plan
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave
Apex, NC 27539

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832175

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S5.4

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION @ PANEL EDGES	REQUIRED CONNECTION @ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** @ 7" O.C.	5d COOLER NAILS** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
FF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.1	PER FIGURE R602.10.1
**OR EQUIVALENT PER TABLE R1002.3.5				

BRACED WALL NOTES:

1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
3. REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
4. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
5. 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.
6. MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
7. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO.)
8. FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
9. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
10. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
11. THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
12. 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.
13. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
14. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
15. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
16. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO.)
17. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
18. ABBREVIATIONS:

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

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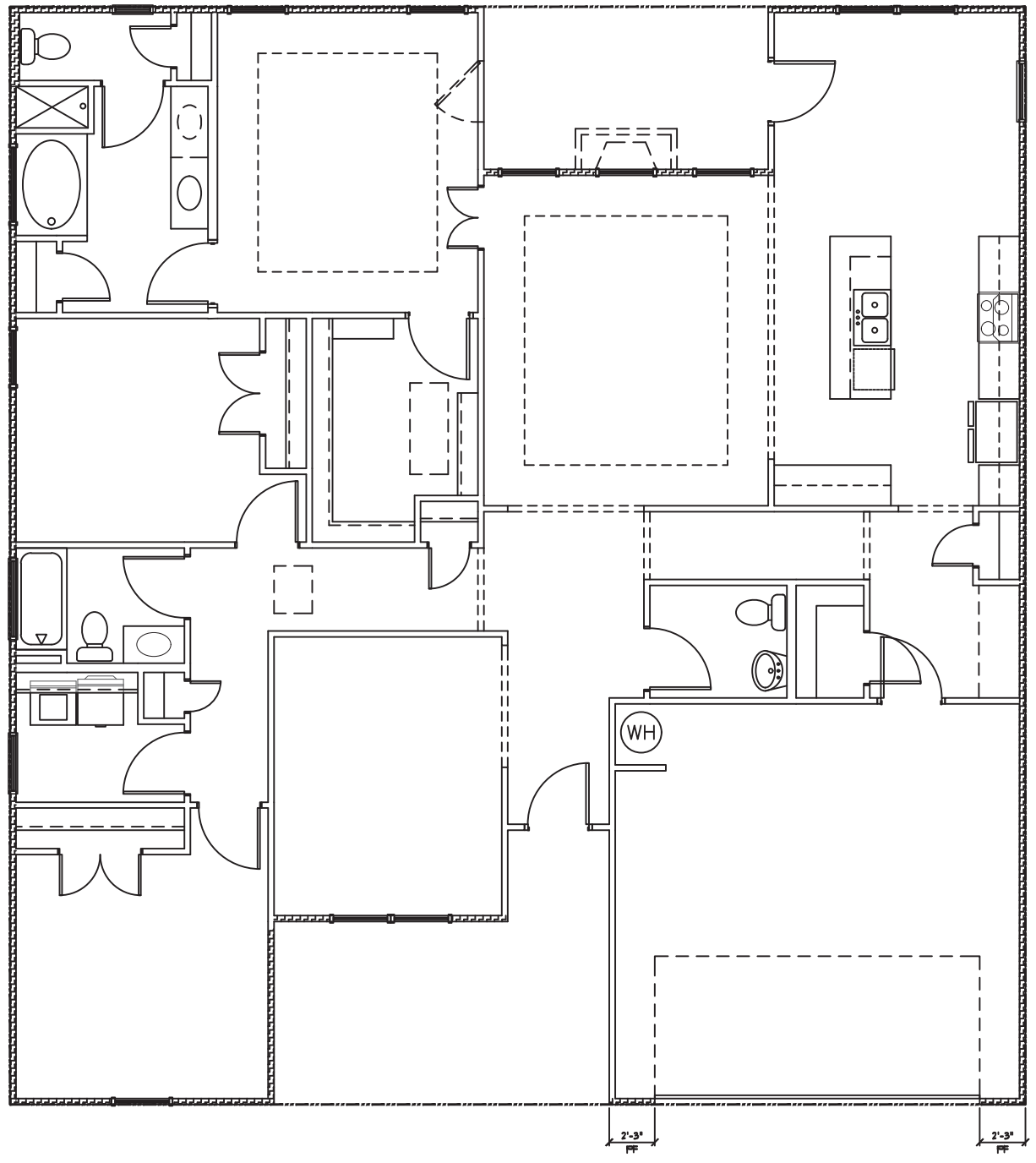
INSTALL HOLD-DOWNS PER SECTION R602.10.4 AND FIGURE R602.10.3.(4) OF THE 2018 NCRC.

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD ELEV ADG & CFI		
	REQUIRED	PROVIDED
FRONT	8.8	22.2
LEFT	8.4	40.0
REAR	8.8	21.2
RIGHT	8.4	51.0

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD - ELEV BEH		
	REQUIRED	PROVIDED
FRONT	8.8	19.2
LEFT	8.4	40.0
REAR	8.8	21.2
RIGHT	8.4	51.0

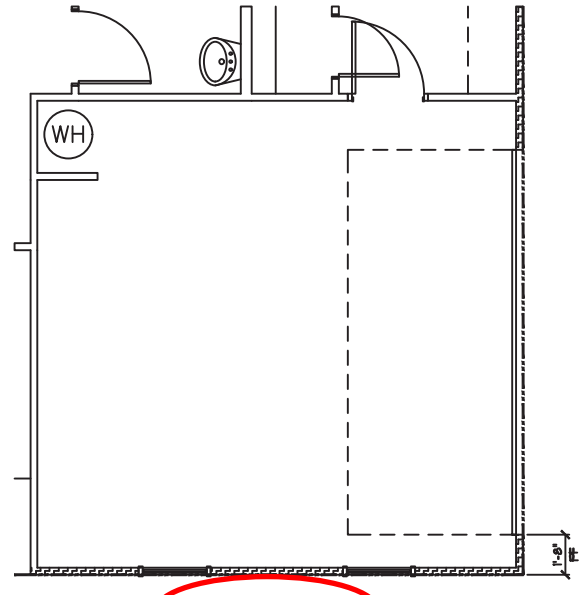
REAR / LEFT / HOUSE / RIGHT / FRONT



ELEVATION ADG & CFI

ELEVATION BEH

FIRST FLOOR BRACING (FT)		
CONTINUOUS SHEATHING METHOD		
	REQUIRED	PROVIDED
FRONT	8.8	30.0
LEFT	8.4	40.0
REAR	8.8	21.2
RIGHT	8.4	35.8



OPT. SIDE ENTRY

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR BRACING PLAN

SCALE: 1/8"=1'

Cane Mill
Lot 17

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR. 09/14/20

STRUCTURAL MEMBERS ONLY

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SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Lancaster (RH)
First Floor Bracing
CLIENT
Smith Douglas Homes - Raleigh
2520 Reliance Ave
Apex, NC 27539

CURRENT DRAWING
DATE: 08/28/2020
SCALE: 1/8"=1'-0"
PROJECT #: 3832.309R
DRAWN BY: EMB
CHECKED BY: WAJ

ORIGINAL DRAWING

DATE	PROJECT #
11/16/2018	3832.115

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S7.0

GENERAL STRUCTURAL NOTES:

1. 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.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. 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.
4. 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.
5. 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.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the international residential code.
8. 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:

1. 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)
2. 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
3. Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC
4. 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.
5. 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.
6. 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.
7. 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.
8. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
9. 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
10. Crawl spaced to be graded level and clear of all debris
11. Provide foundation waterproofing and drain with positive slope to outlet as required by site conditions
12. Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC

CONCRETE:

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

CONCRETE REINFORCEMENT:

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

WOOD FRAMING:

1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Spruce-Pine-Fir (SPF) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
   2.1. E = 1,900,000 psi
   2.2. Fb = 2600 psi
   2.3. Fv = 285 psi
   2.4. Fc = 700 psi
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SPF#2 @16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
8. Individual studs forming a column shall be attached with one 10d nail @6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be fully blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached wth (3)10d nails @ 24" O.C.
10. 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:

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-10), 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.
3. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
4. The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
5. Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

WOOD STRUCTURAL PANELS:

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

STRUCTURAL FIBERBOARD PANELS:

1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. 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.
3. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

EXTERIOR WOOD FRAMED DECKS:

1. 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:

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

NORTH CAROLINA PROFESSIONAL SEAL 043823 ENGINEER WESLEY A. JONES — 2/18/20

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NORTH CAROLINA CERTIFICATE OF LICENSURE
SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Standard Details
Notes and Specifications

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

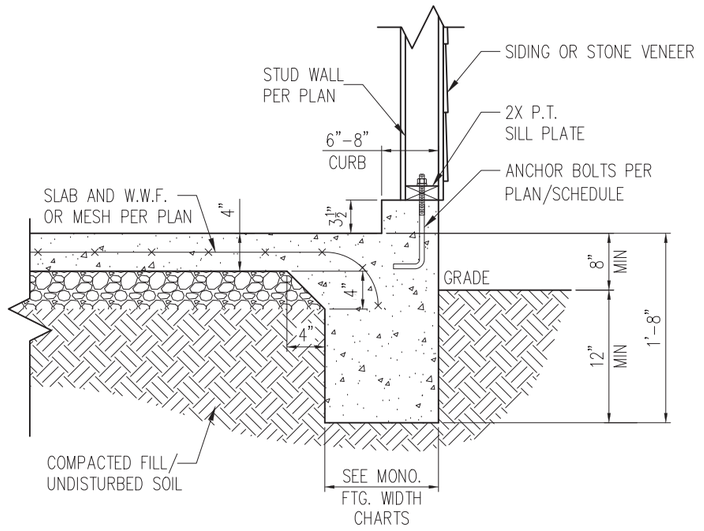
CURRENT DRAWING
DATE: 2/18/20
SCALE: NTS
PROJECT #: 3832
DRAWN BY: LBV
CHECKED BY: WAJ

ORIGINAL DRAWING

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

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

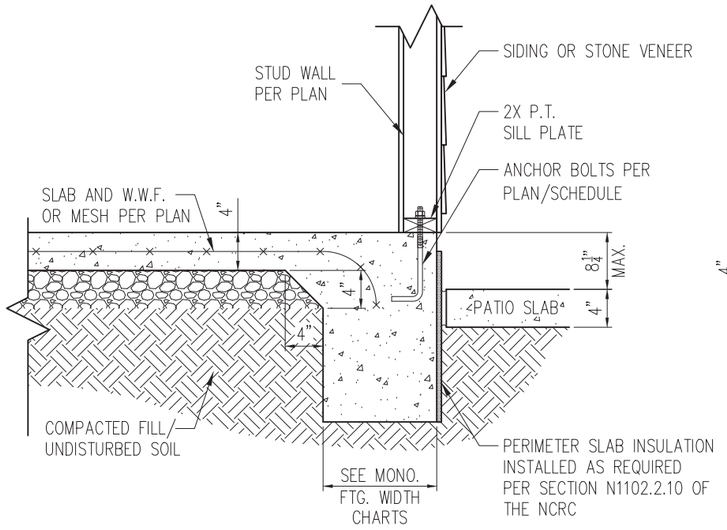
SHEET
CS2



STANDARD – SIDING/STONE

1 D1m TYP. GARAGE CURB DETAIL

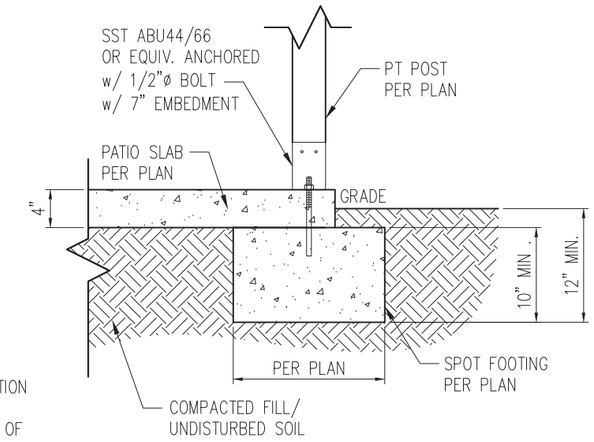
3/4" = 1'-0"



STANDARD – SIDING/STONE

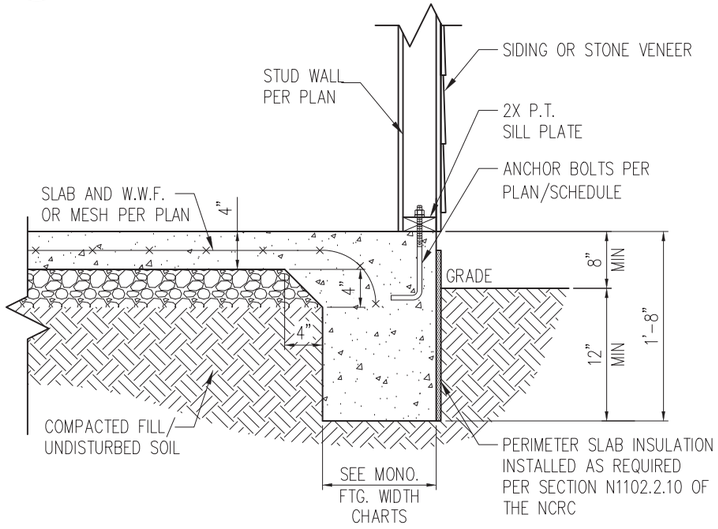
2 D1m PATIO SLAB DETAIL

3/4" = 1'-0"



2A D1m COVERED PATIO DETAIL

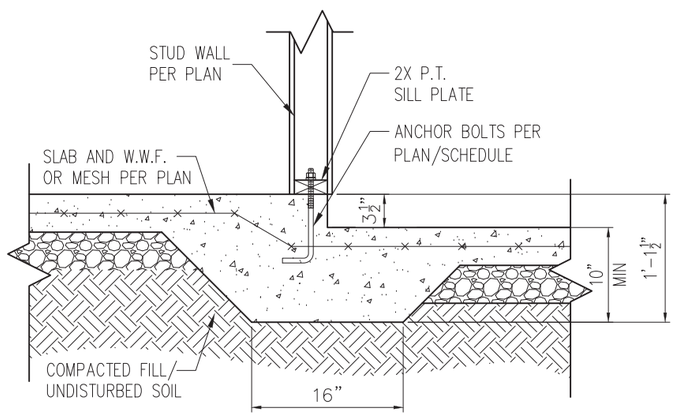
3/4" = 1'-0"



STANDARD – SIDING/STONE

3 D1m TYP. SLAB DETAIL

3/4" = 1'-0"



4 D1m STEP IN GARAGE

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.

WALL ANCHOR SCHEDULE

TYPE OF ANCHOR	MIN. CONC. EMBEDMENT	SPACING EMBEDMENT	INTERIOR WALL	EXTERIOR WALL
1/2"ø 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"ø 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			

NORTH CAROLINA PROFESSIONAL SEAL 043823 ENGINEER WESLEY A. JONES 2/18/20

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PROJECT
Standard Details
Monolithic Slab Details

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

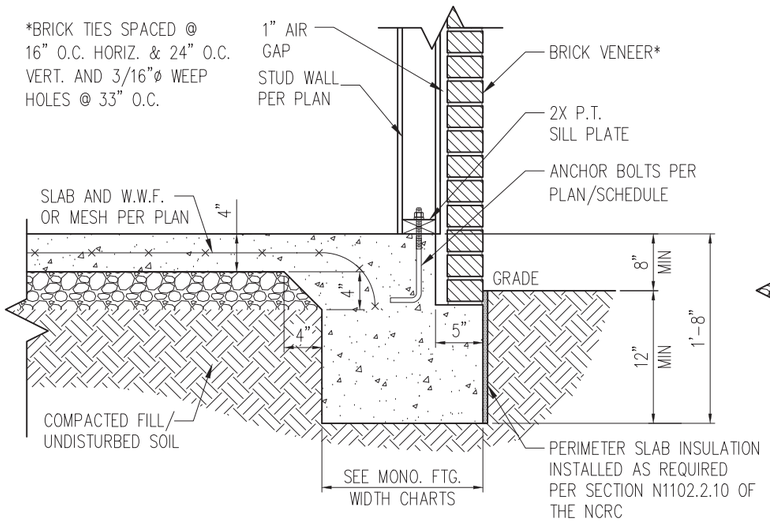
CURRENT DRAWING
DATE: 2/18/20
SCALE: NTS
PROJECT #: 3832
DRAWN BY: LBV
CHECKED BY: WAJ

ORIGINAL DRAWING

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

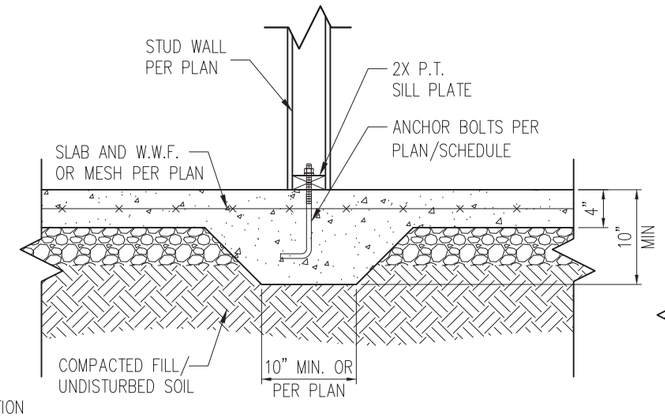
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
D1m

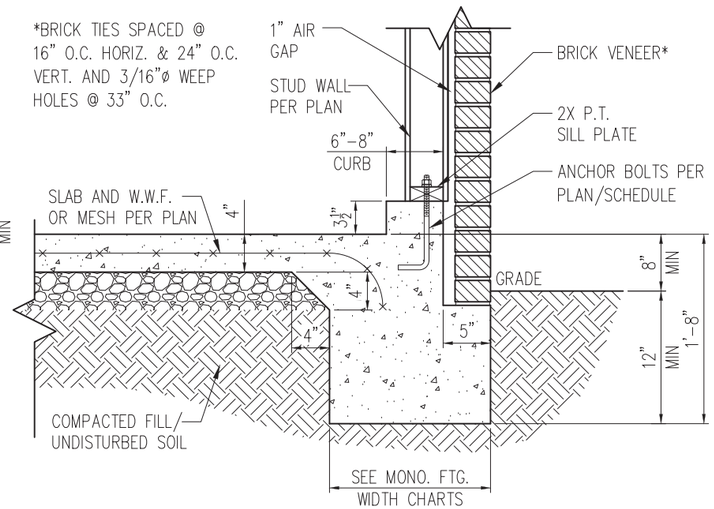


STANDARD – BRICK

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

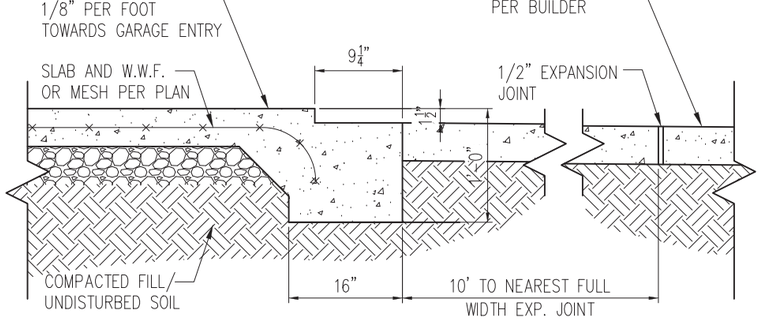


3 D2m TYP. THICKENED SLAB DETAIL
3/4" = 1'-0"

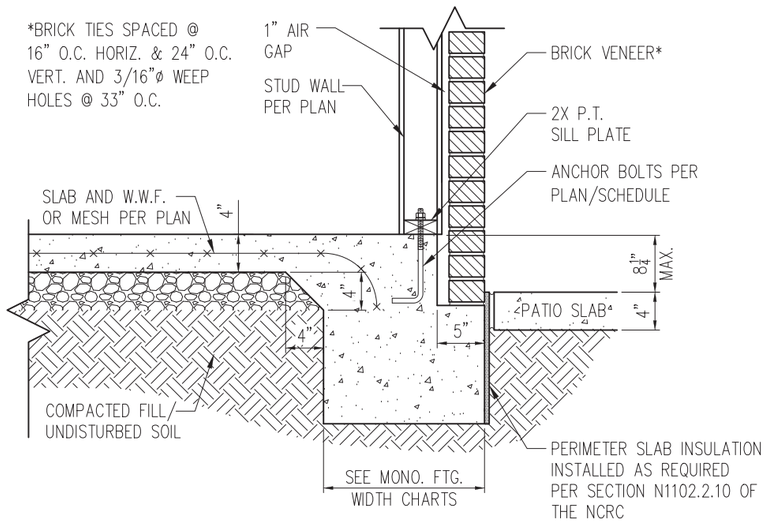


STANDARD – BRICK

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



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



STANDARD – BRICK

4 D2m PATIO SLAB DETAIL W/ BRICK VENEER
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
SCALE: NTS
PROJECT #: 3832
DRAWN BY: LBV
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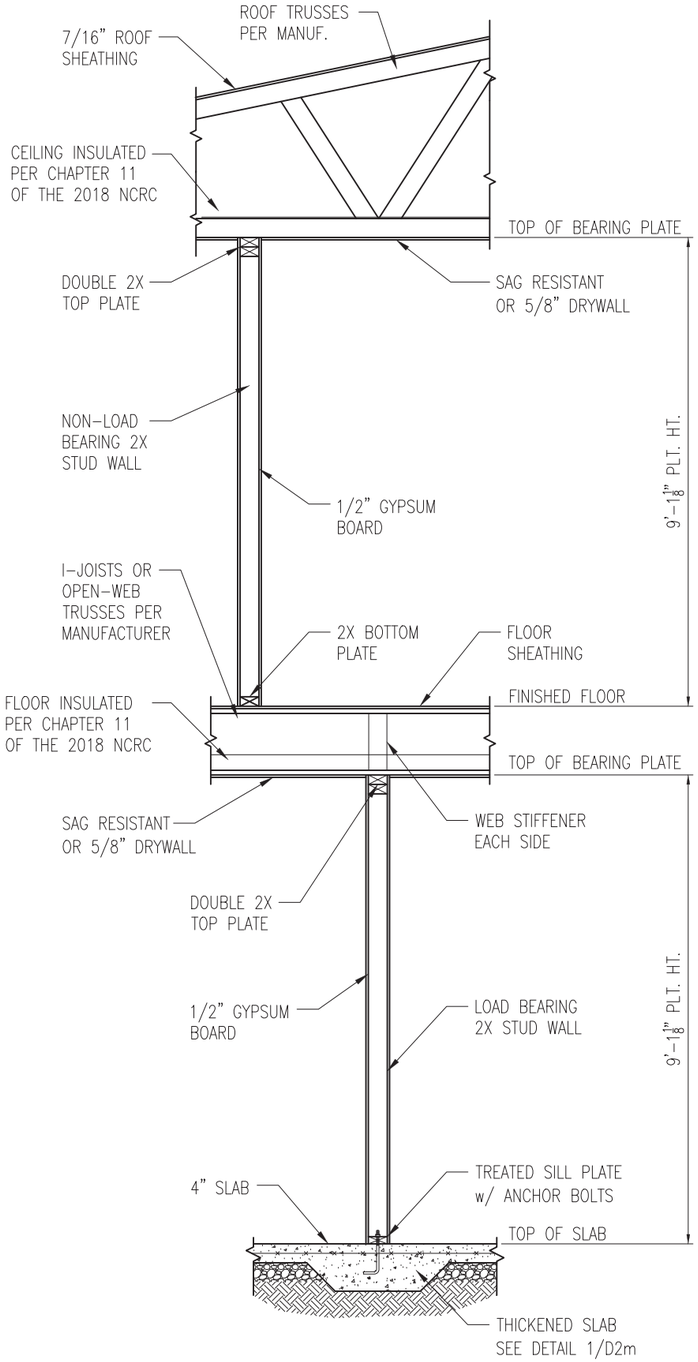
ORIGINAL DRAWING

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

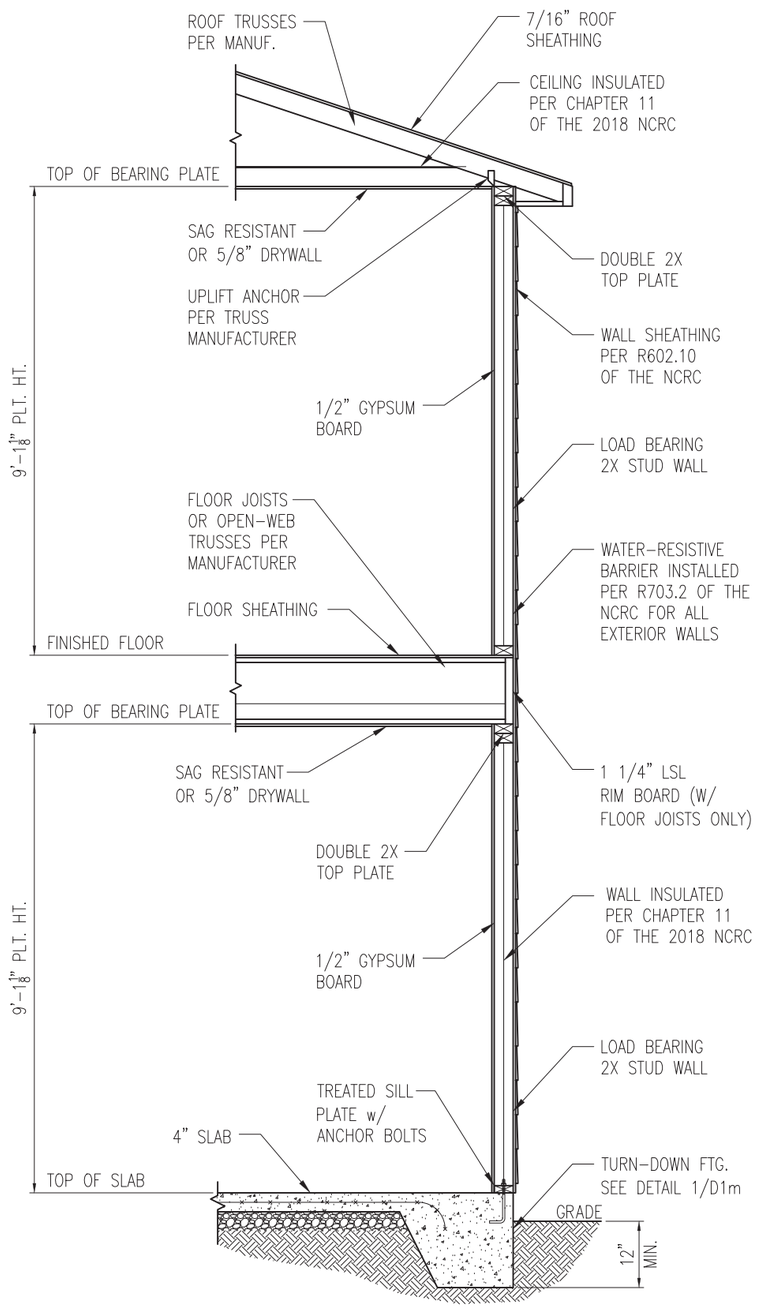
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
D2m



1 D3m TYP. INTERIOR LOAD BEARING WALL SECTION

3/4" = 1'-0"



2 D3m TYP. EXTERIOR LOAD BEARING WALL SECTION

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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NORTH CAROLINA PROFESSIONAL SEAL 043923 ENGINEER WESLEY A. JONES

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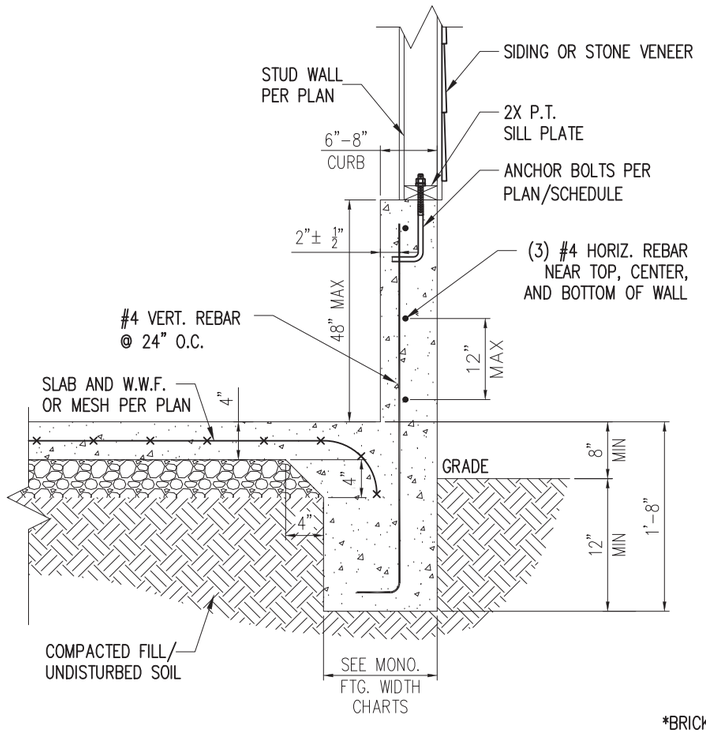
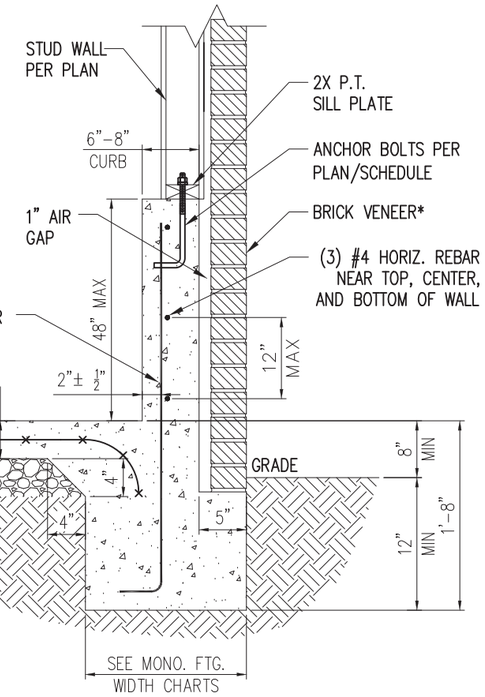
SHEET
D3m



STANDARD – SIDING/STONE

1 D4m NTS

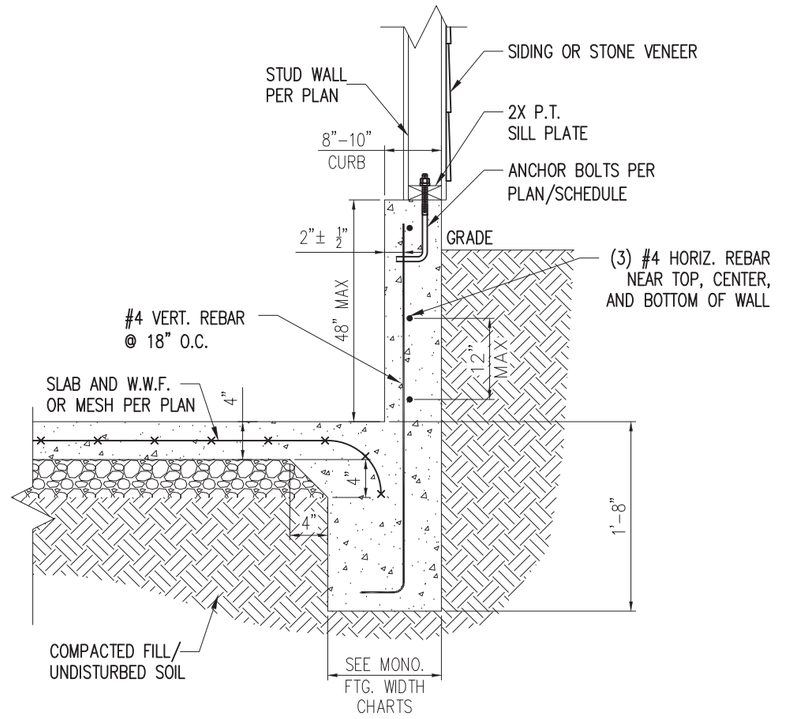
EXTENDED GARAGE CURB DETAIL



STANDARD – BRICK

3 D4m NTS

EXTENDED GARAGE CURB DETAIL W/ BRICK VENEER



STANDARD – SIDING/STONE

2 D4m NTS

EXTENDED GARAGE CURB DETAIL W/ UNBALANCED FILL

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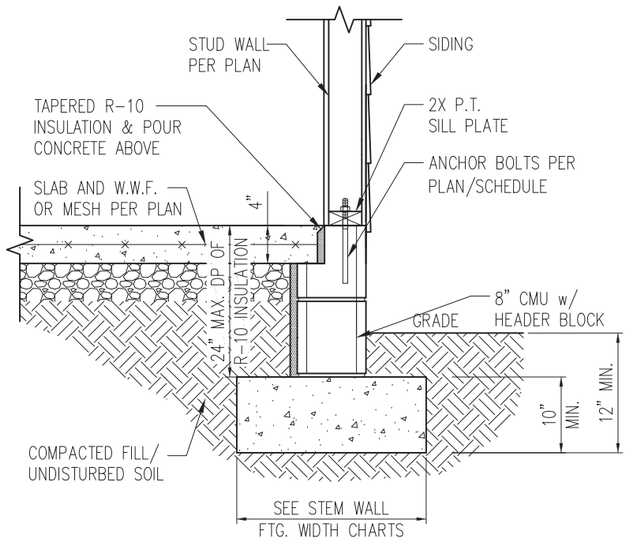
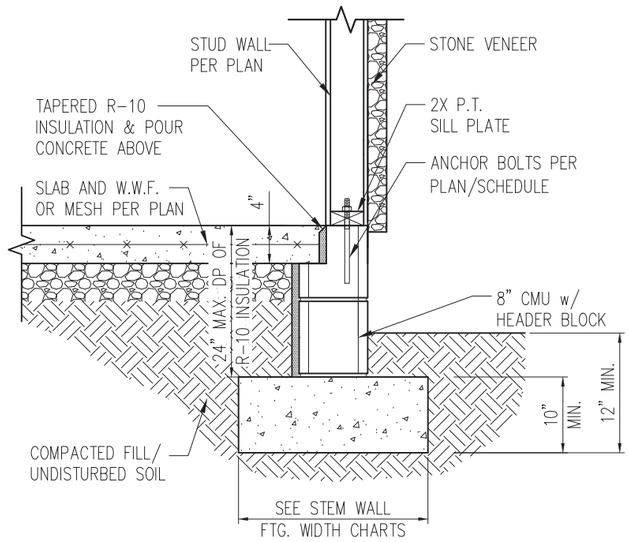
2/18/20

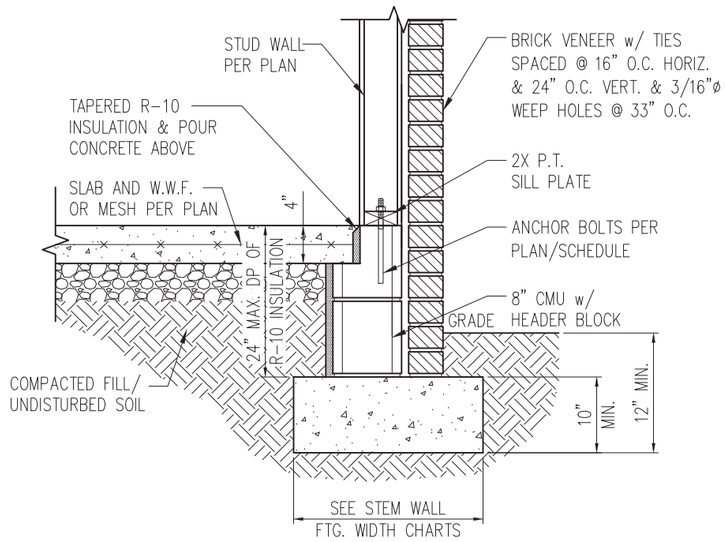
SHEET
D4m



STANDARD – SIDING



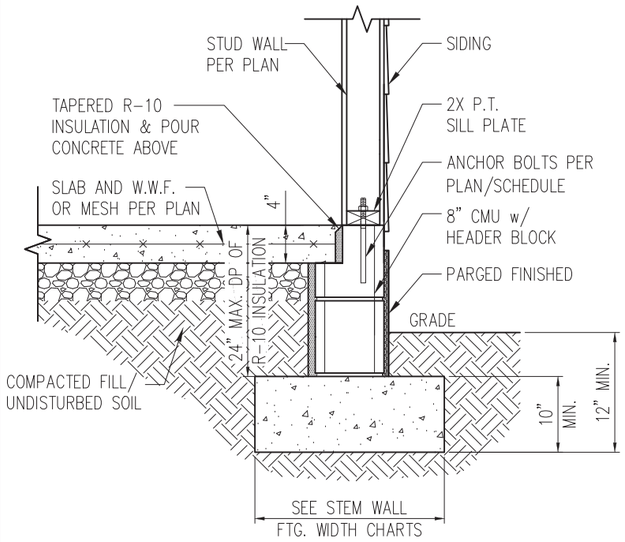
STANDARD – STONE



STANDARD – BRICK

1 / D1s TYP. STEM WALL DETAIL

3/4" = 1'-0"



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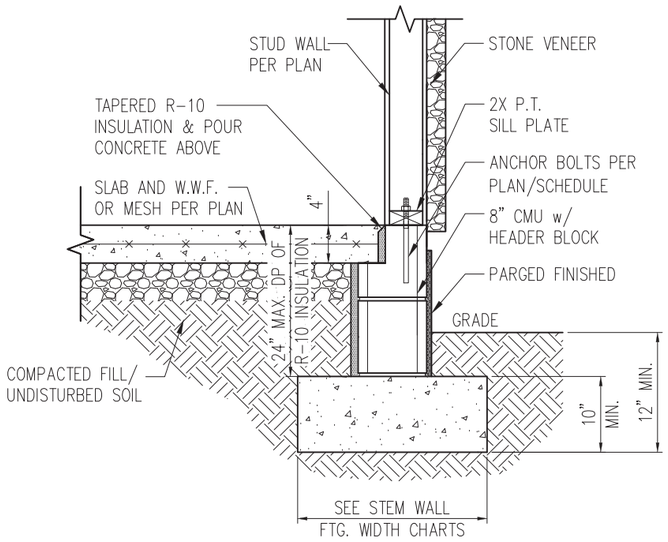

STANDARD – STONE

1a / D1s STEM WALL DETAIL w/ PARGED FINISH

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"ø 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"ø 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.

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, SLOPS AND DEPRESSIONS.

NORTH CAROLINA PROFESSIONAL SEAL 043823 ENGINEER WESLEY A. JONES
2/18/20

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PROJECT
Standard Details
Stemwall Details

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

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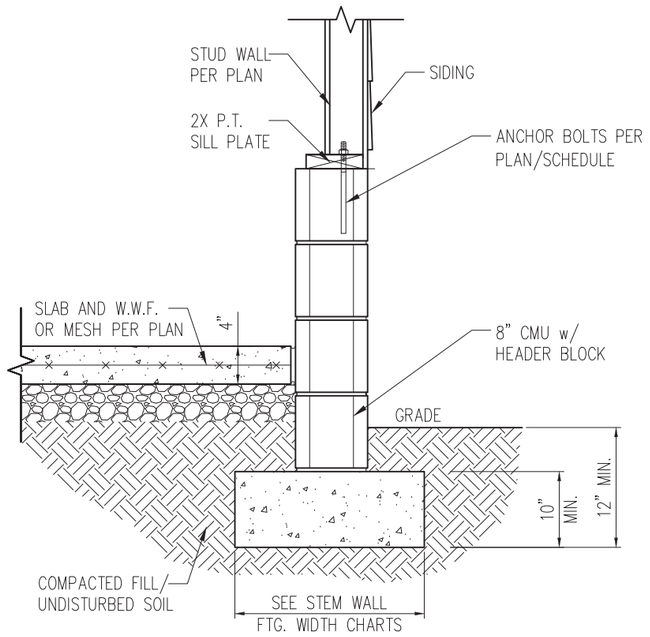
SHEET
D1s



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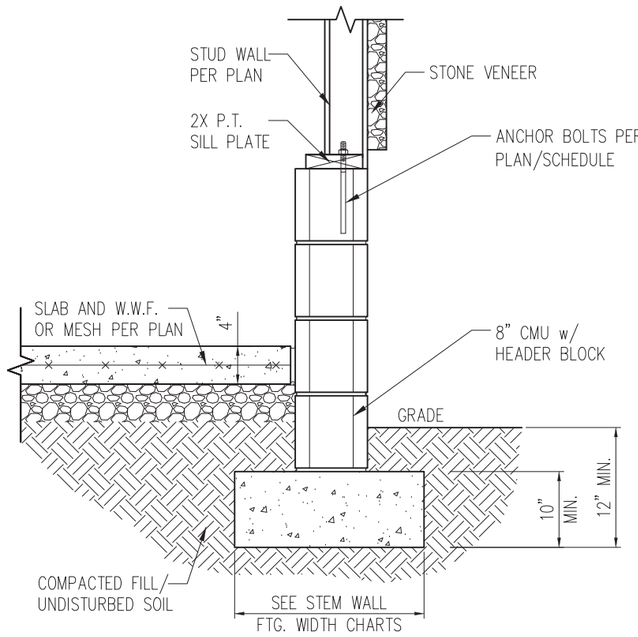
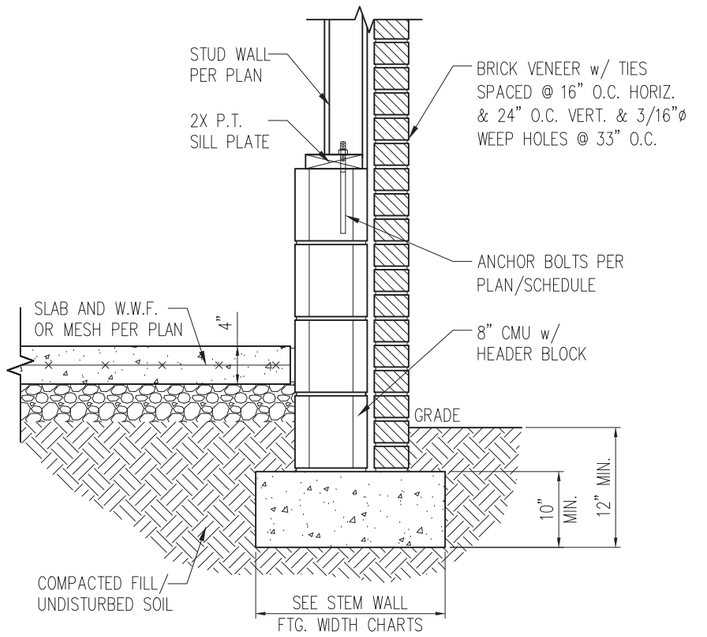


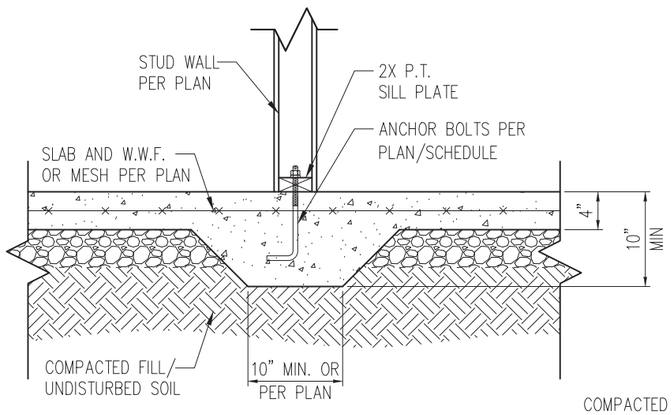
STANDARD – STONE



STANDARD – BRICK

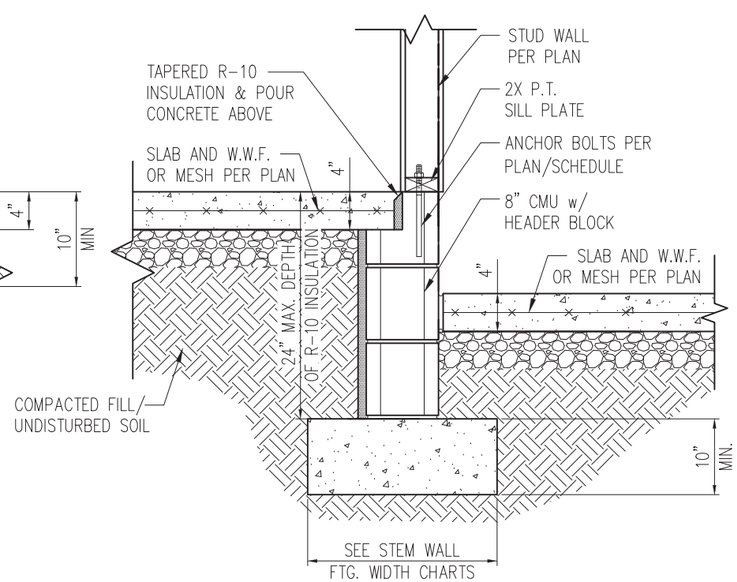
1 D2s TYP. GARAGE CURB DETAIL

3/4" = 1'-0"



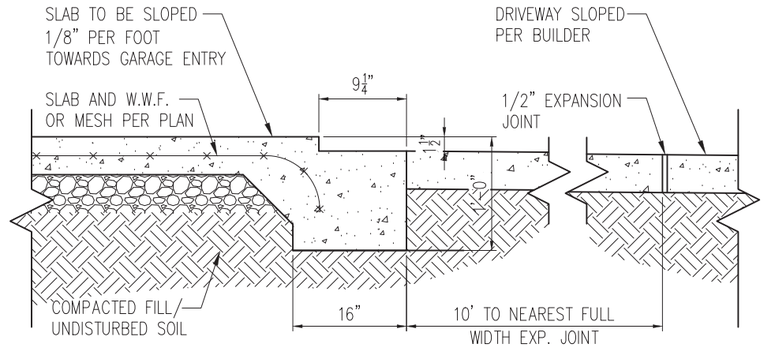
2 D2s TYP. THICKENED SLAB DETAIL

3/4" = 1'-0"



3 D2s HOUSE/GARAGE WALL DETAIL

3/4" = 1'-0"



4 D2s SLAB AT GARAGE DOOR

3/4" = 1'-0"

NOTES:

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3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.

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PROJECT
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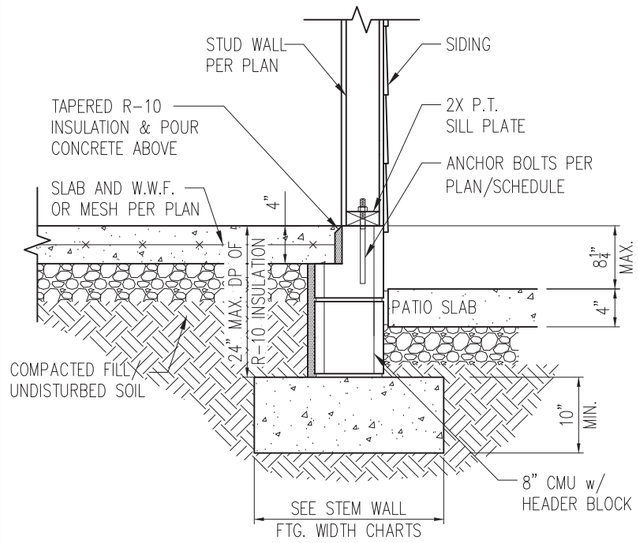
SHEET
D2s



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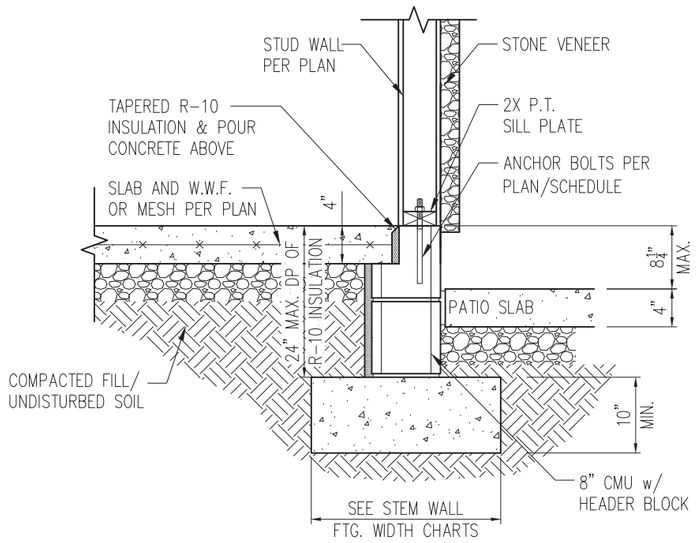

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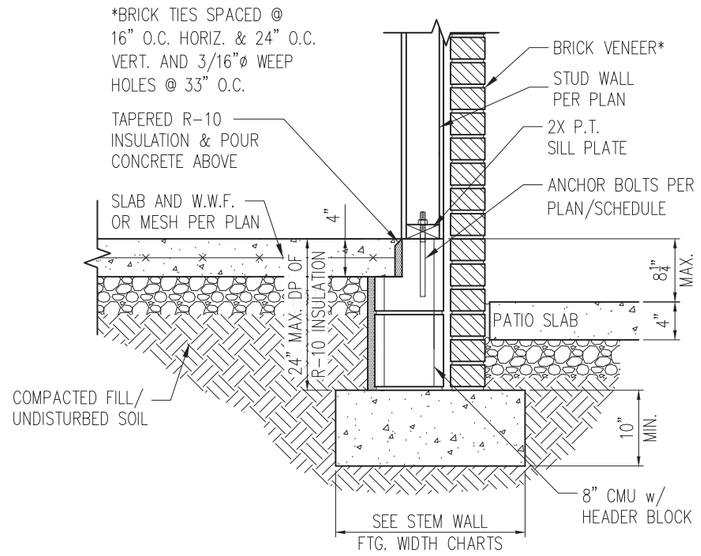
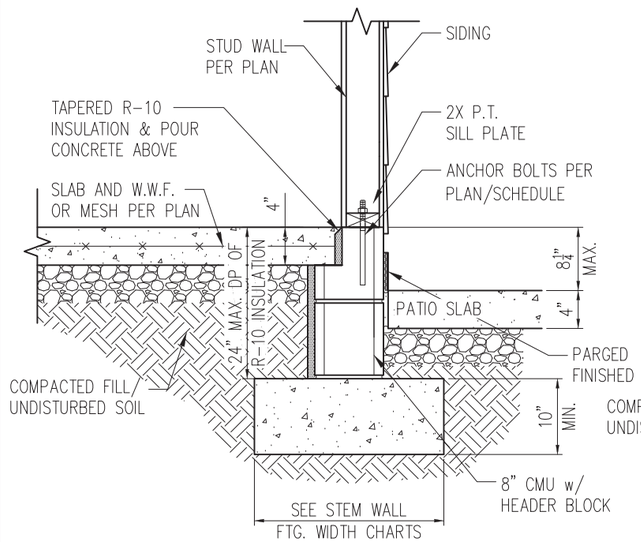


STANDARD – BRICK

1 / D3s PORCH SLAB DETAIL

3/4" = 1'-0"



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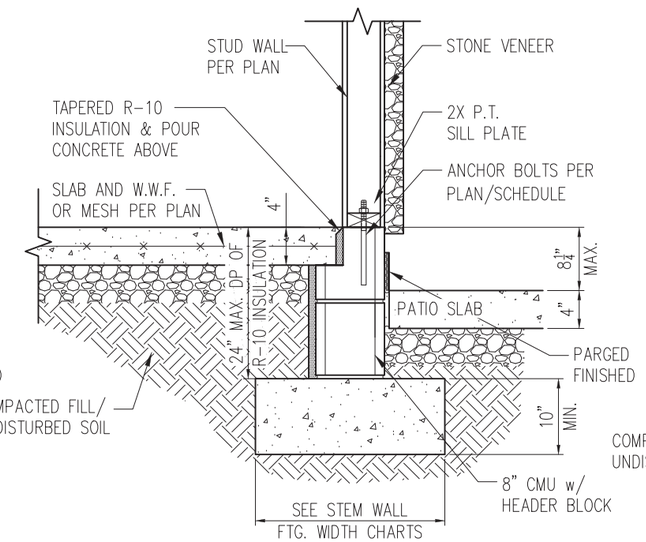
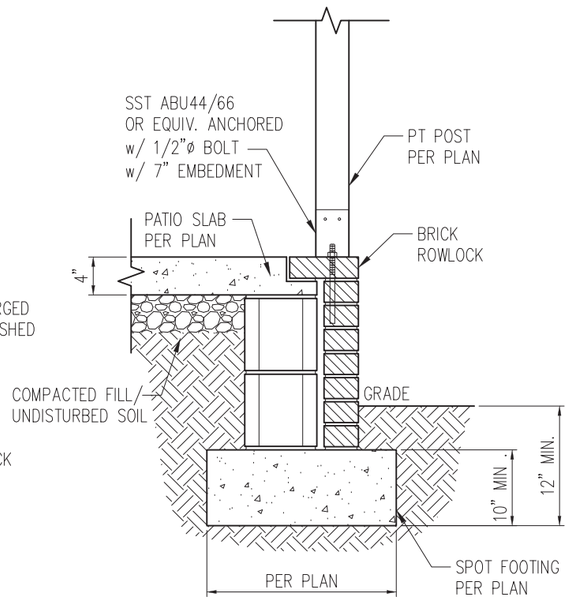


STANDARD – STONE

1a / D1s PORCH SLAB DETAIL w/ PARGED FINISH

3/4" = 1'-0"



2 / D3s COVERED PORCH DETAIL

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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Standard Details
Stemwall Details

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Woodstock, GA 30188

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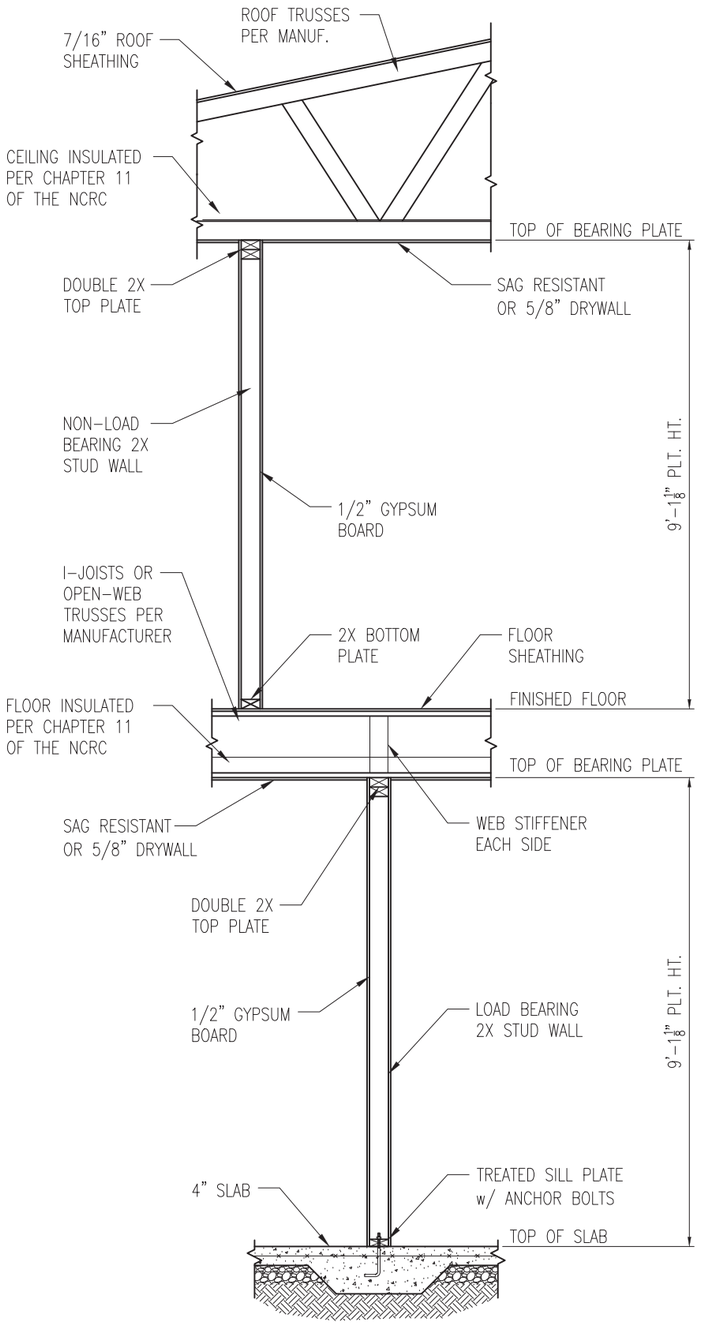
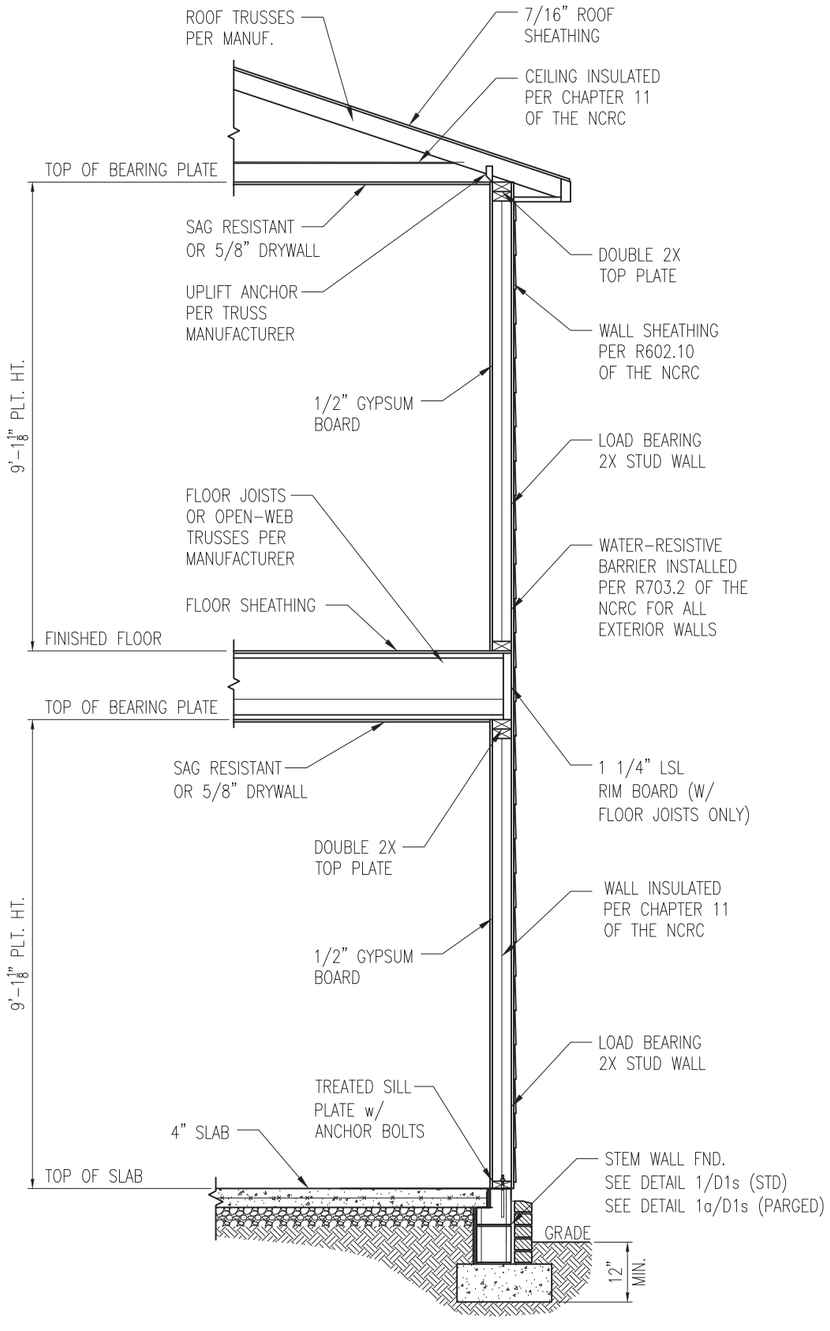
SHEET
D3s



1 D4s TYP. INTERIOR LOAD BEARING WALL SECTION

3/4" = 1'-0"



2 D4s TYP. EXTERIOR LOAD BEARING WALL SECTION

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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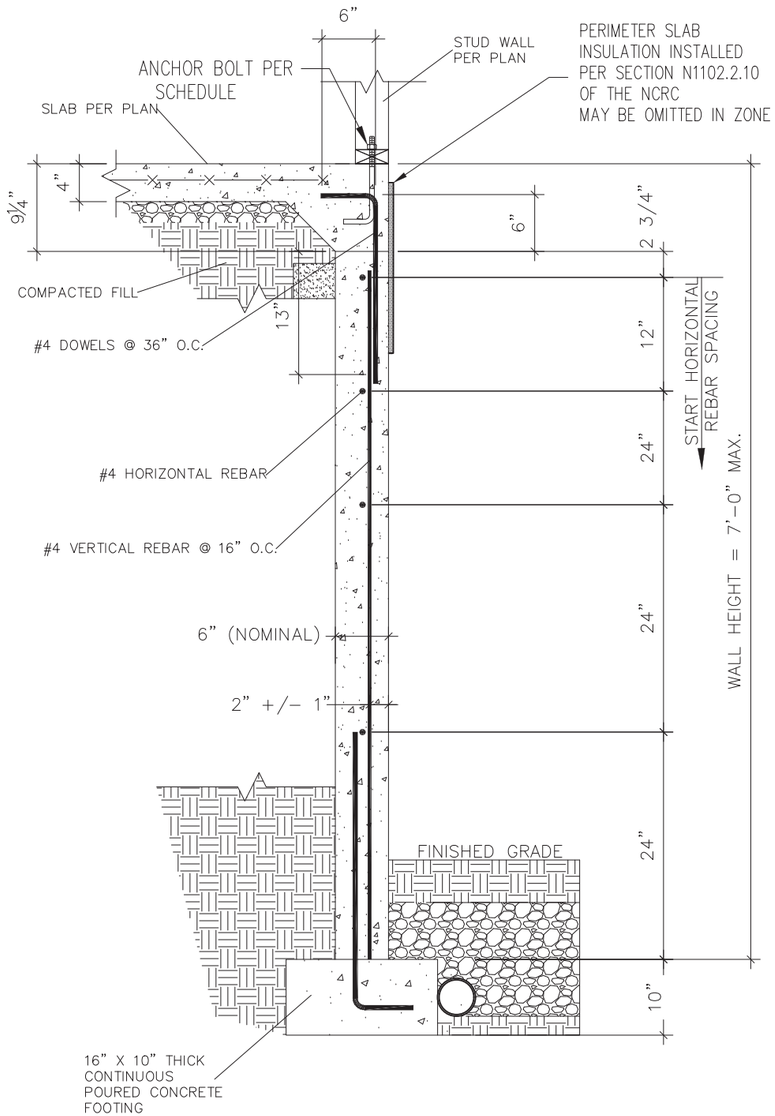
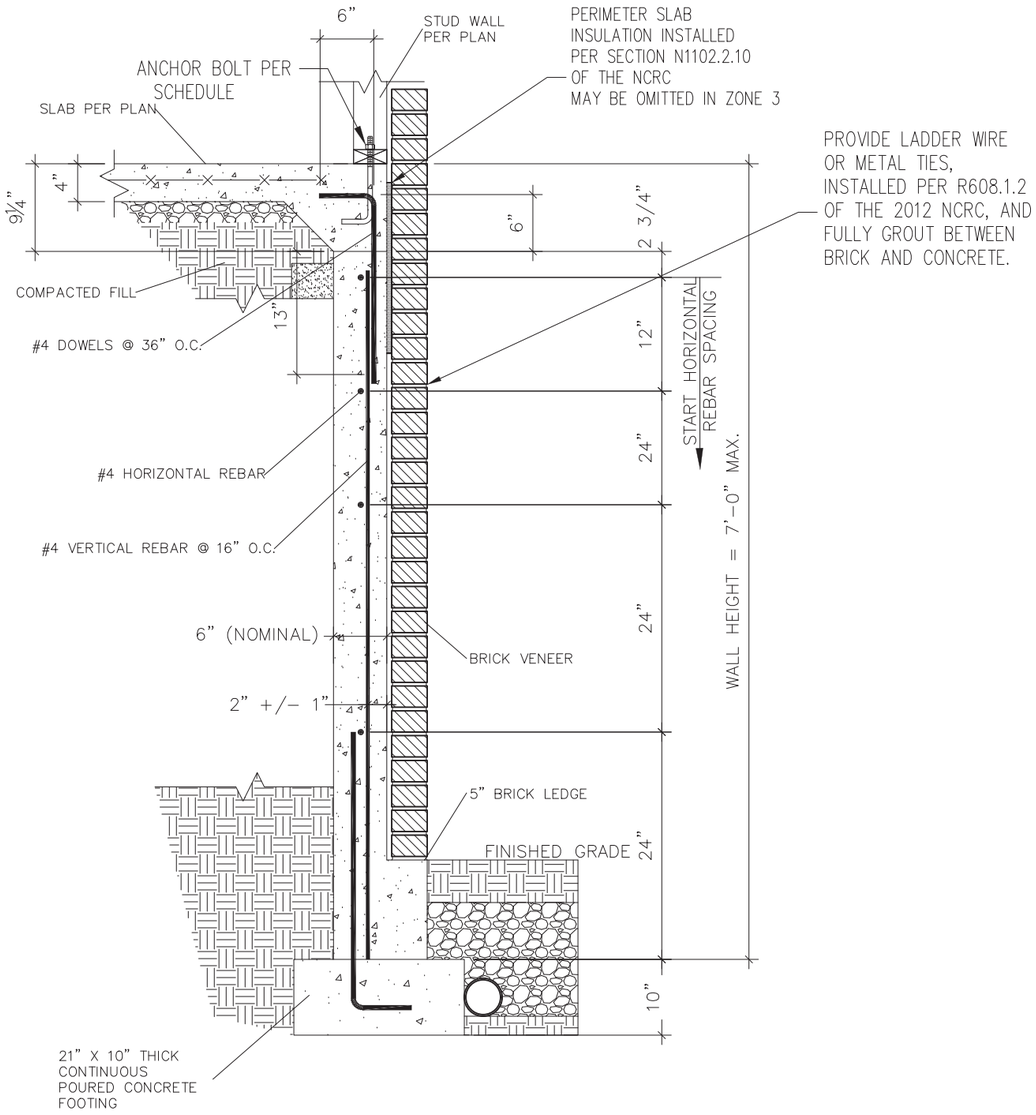
SHEET
D4s



1 D5s SUBWALL FOUNDATION

3/4" = 1'-0"



2 D5s SUBWALL FOUNDATION W/ BRICK VENEER

3/4" = 1'-0"

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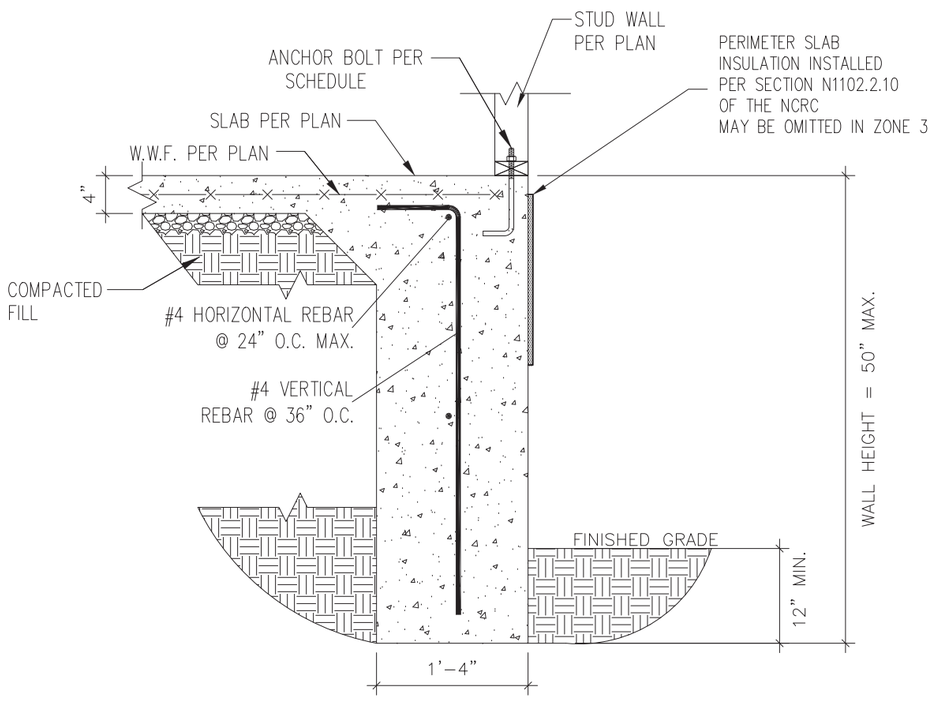
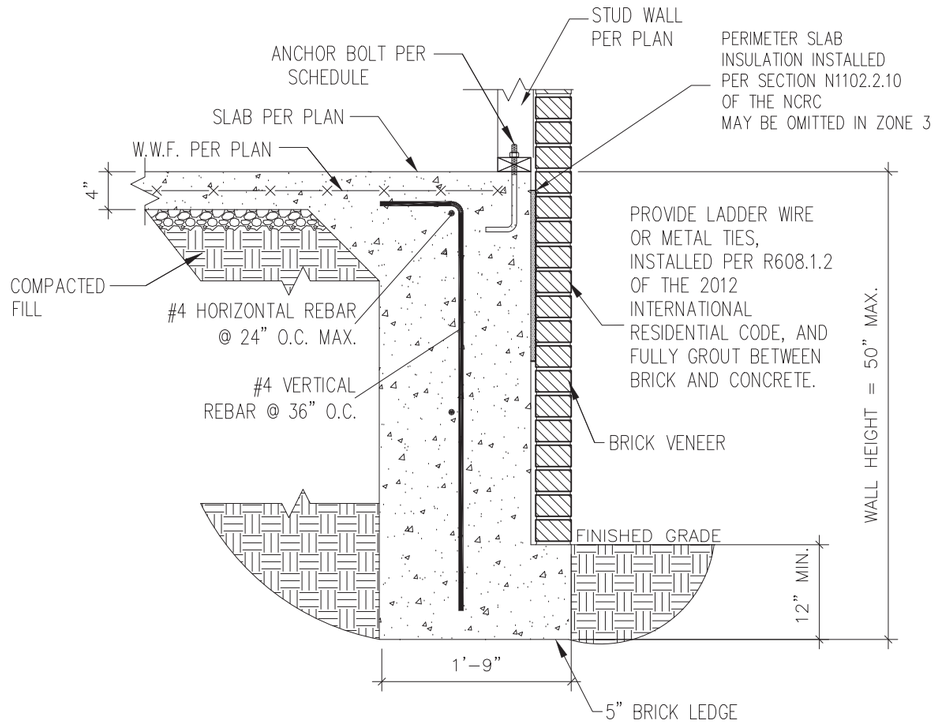
2/18/20

SHEET
D5s



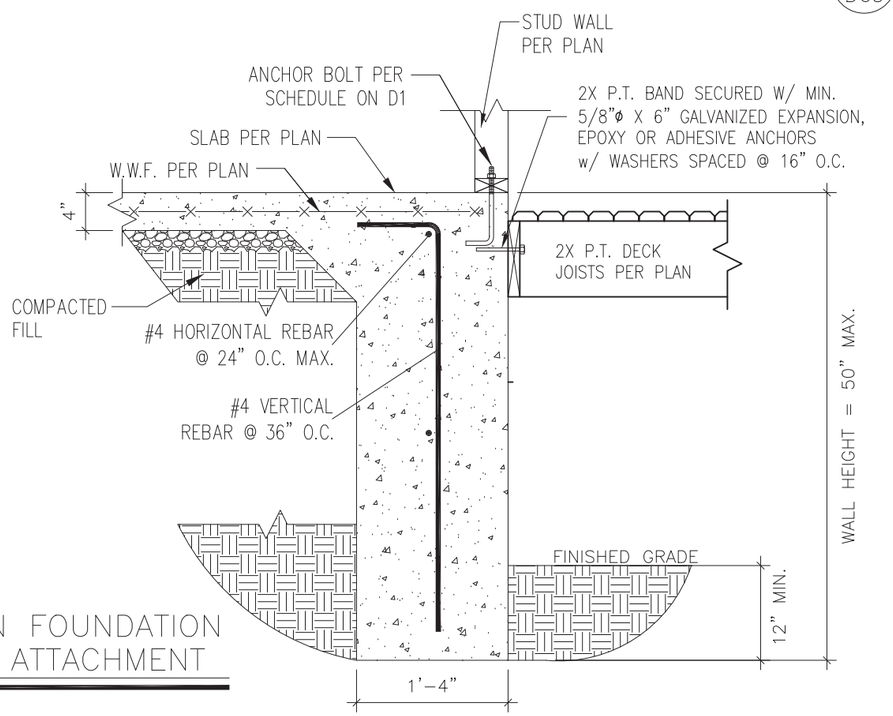
1 D6s TURNDOWN FOUNDATION

3/4" = 1'-0"



2 D6s TURNDOWN FOUNDATION W/ BRICK VENEER

3/4" = 1'-0"



3 D6s TURNDOWN FOUNDATION W/ DECK ATTACHMENT

3/4" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 043823 ENGINEER WESLEY A. JONES
2/18/20

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

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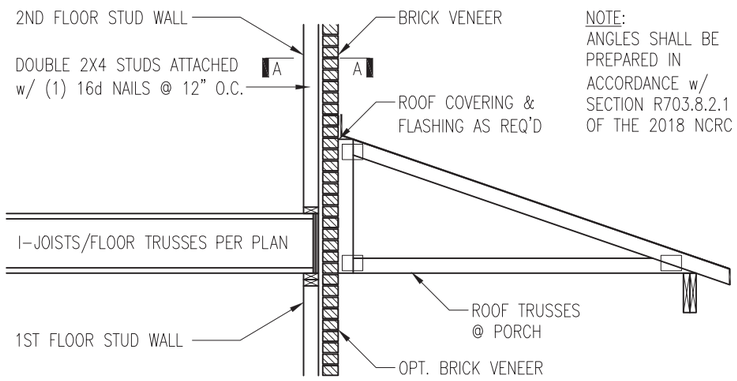
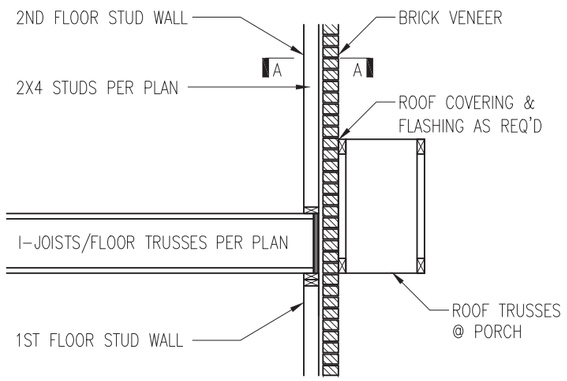
SHEET
D6s



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

TRUSSES PERPENDICULAR TO STUD WALL



TRUSSES PARALLEL TO STUD WALL
w/ CONTINUOUS BRICK VENEER

1 D5f BRICK SUPPORT ABOVE STORAGE/PORCH ROOF DETAIL

NTS

3 D5f BALCONY JOIST ATTACHMENT

NTS

SECTION A-A

NTS

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

4 D5f TYP. RANGE VENT FRAMING

VENTED TO EXTERIOR WALL

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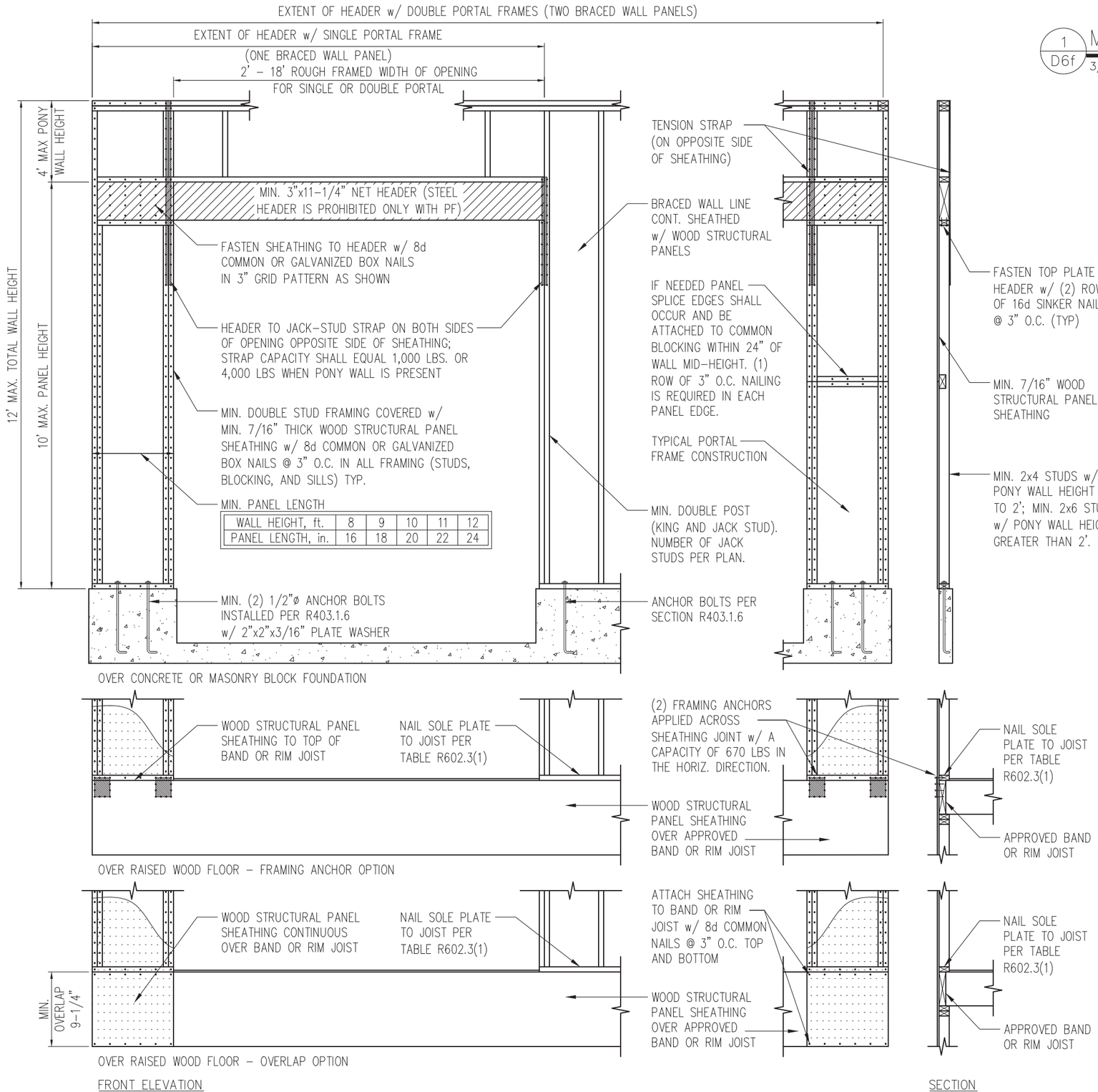
NORTH CAROLINA PROFESSIONAL SEAL 043823 ENGINEER WESLEY A. JONES
2/18/20

STRUCTURAL MEMBERS ONLY

SHEET
D5f

1 D6f METHOD PF: PORTAL FRAME DETAIL

3/8" = 1'-0"



WALL HEIGHT, ft.	8	9	10	11	12
PANEL LENGTH, in.	16	18	20	22	24

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PROJECT
Standard Details
Framing Details - Bracing

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Smith Douglas Homes
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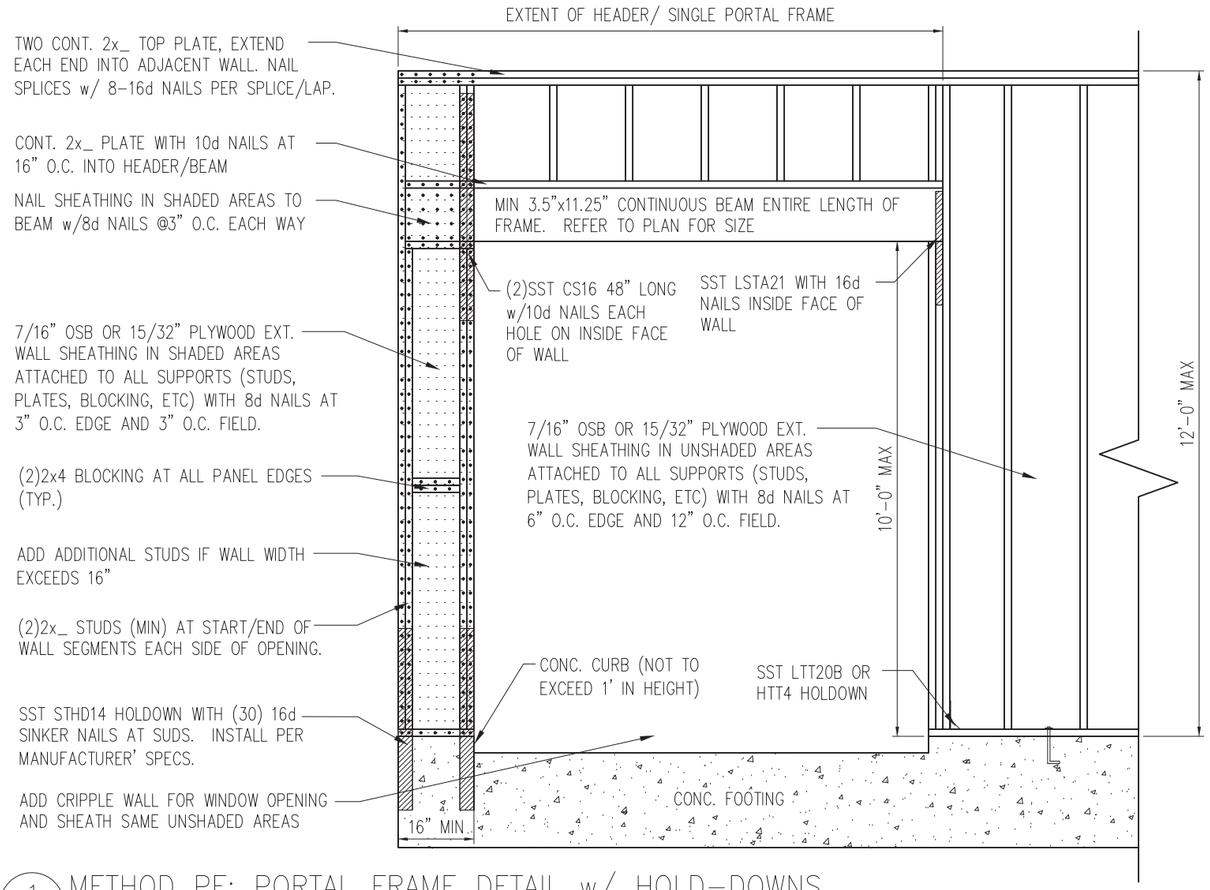
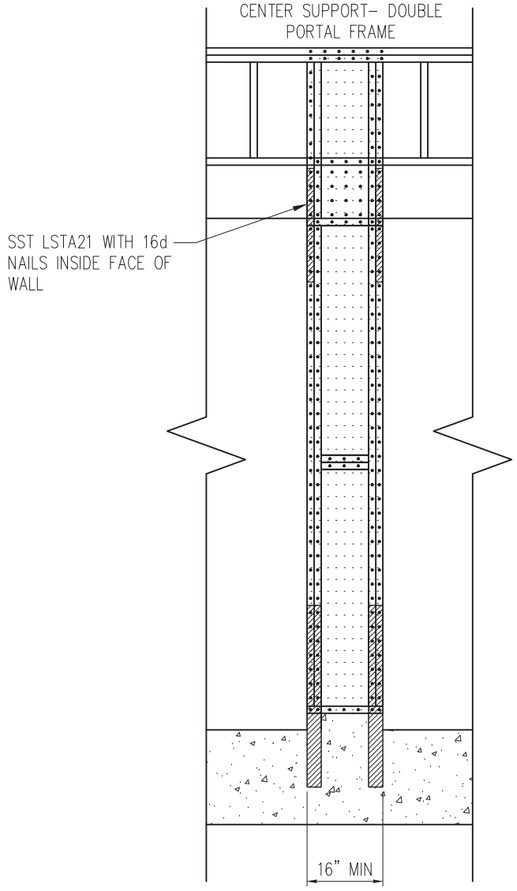
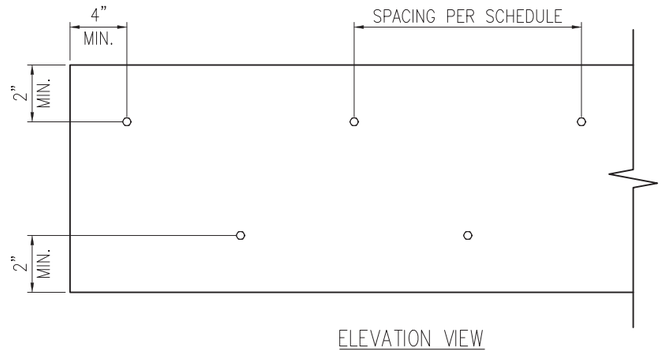
SHEET
D6f





1 D7f METHOD PF: PORTAL FRAME DETAIL w/ HOLD-DOWNS

3/4" = 1'-0"



ELEVATION VIEW

2 D7f MULTI-PLY BEAM CONNECTION DETAIL

N.T.S

MINIMUM FASTENING REQUIREMENTS FOR TOP- AND SIDE-LOADED MEMBERS

		3½" WIDE	5¼" WIDE		7" WIDE		
FASTENER TYPE	LVL DEPTH	2-Ply 1¾"	3-Ply 1¾"	1¾" + 3½"	4-Ply 1¾"	2-Ply 1¾" + 3½"	2-Ply 3½"
10d (0.128" x 3") Nails	7¼"≤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 3½") Nails	7¼"≤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)**	-
½" Through Bolts	d≥7¼"	2 rows @ 24" o.c.	2 rows @ 24" o.c.		2 rows @ 24" o.c.		
SDS ¼" x 3½", WS35, 3⅜" TrussLok		2 rows @ 24" o.c.	2 rows @ 24" o.c. **(ES)**	2 rows @ 24" o.c.	-	2 rows @ 24" o.c. **(ES)**	-
SDS ¼" x 6", WS6		-	-		2 rows @ 24" o.c. **(ES)**		
5" TrussLok		-	2 rows @ 24" o.c.		-		
6¾" TrussLok		-	-		2 rows @ 24" o.c.		

NOTES:

1. 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.
2. Minimum fastening requirements for depths less than 7¼" require special consideration. Please contact your technical representative.
3. Three general rules for staggering or offsetting for a certain fastener schedule:
   (1) if staggering or offsetting is not referenced, then none is required;
   (2) 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
   (3) 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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C-4361

PROJECT
Standard Details
Framing Details - Bracing

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
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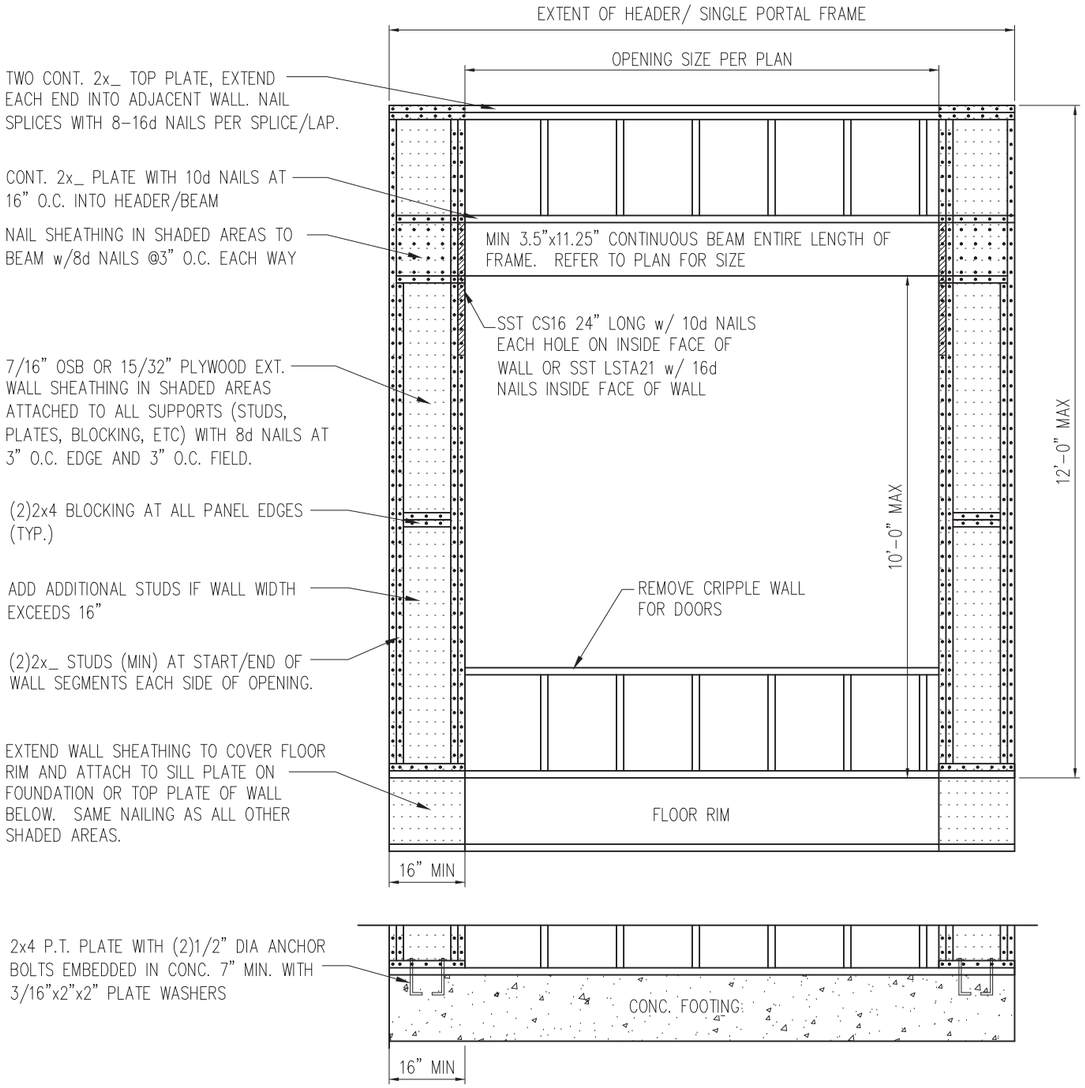
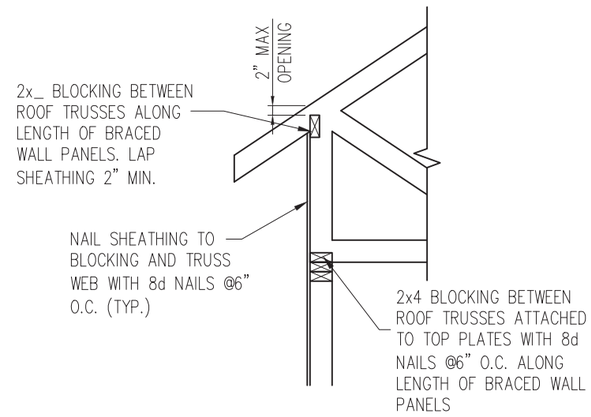
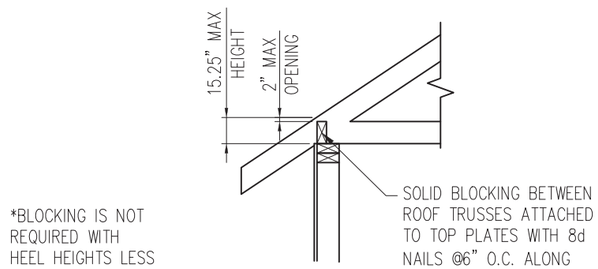


1 D8f METHOD PF: PORTAL FRAME DETAIL

3/4" = 1'-0" OPENINGS UNDER 8'-0"



HEEL HEIGHT GREATER THAN 15.25"



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

HEEL HEIGHT LESS THAN 15.25" *

2 D8f TYP. WALL PANEL TO ROOF TRUSS CONNECTION

1" = 1'-0"

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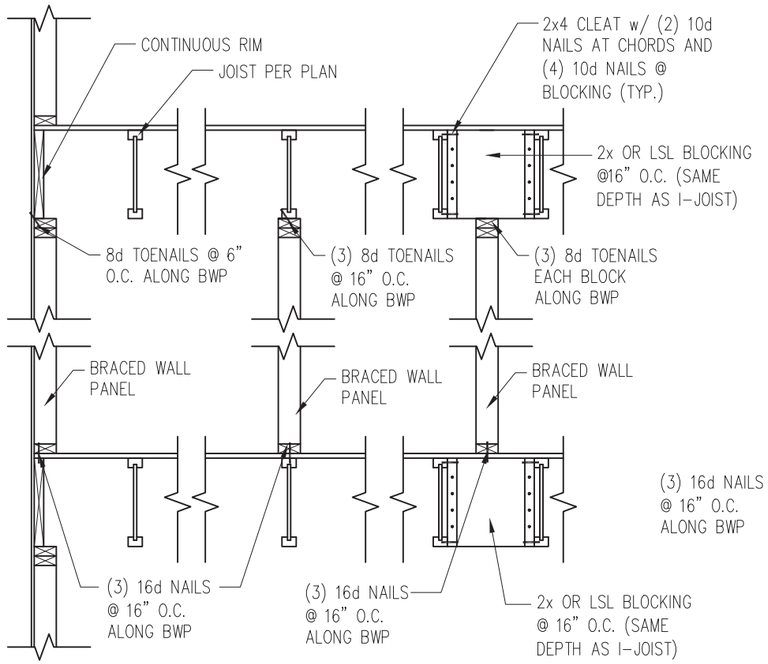
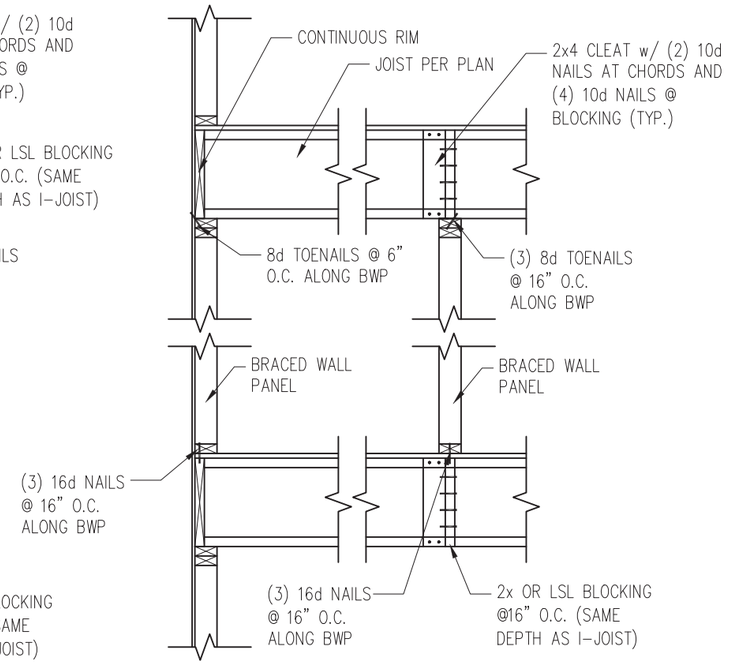
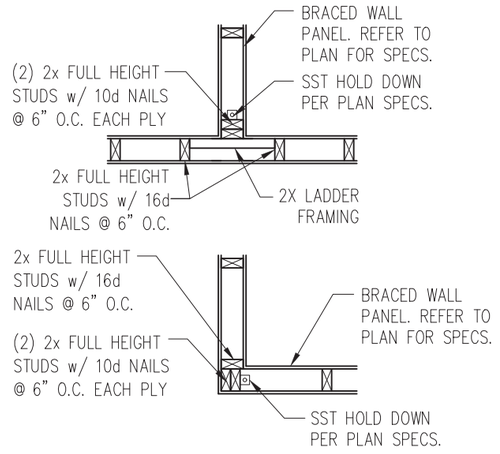


JOISTS PARALLEL TO BRACED WALLS

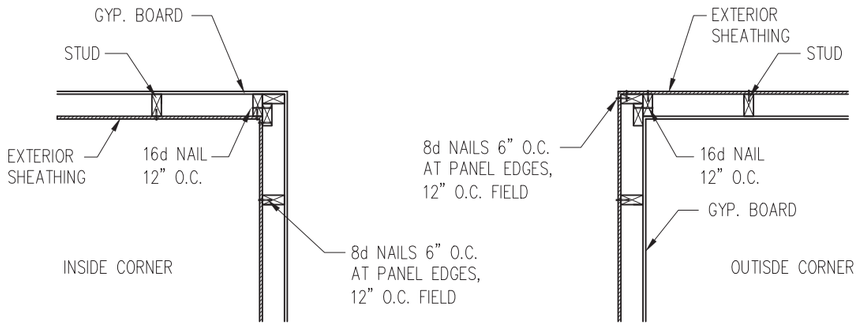


JOISTS PERPENDICULAR TO BRACED WALLS

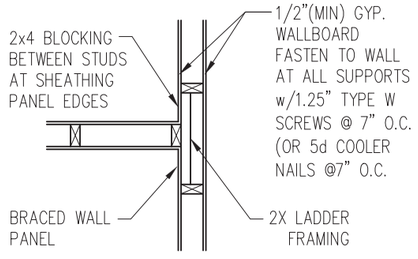


4 D9f TYP. HOLD DOWN DETAIL
1" = 1'-0"

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



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



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

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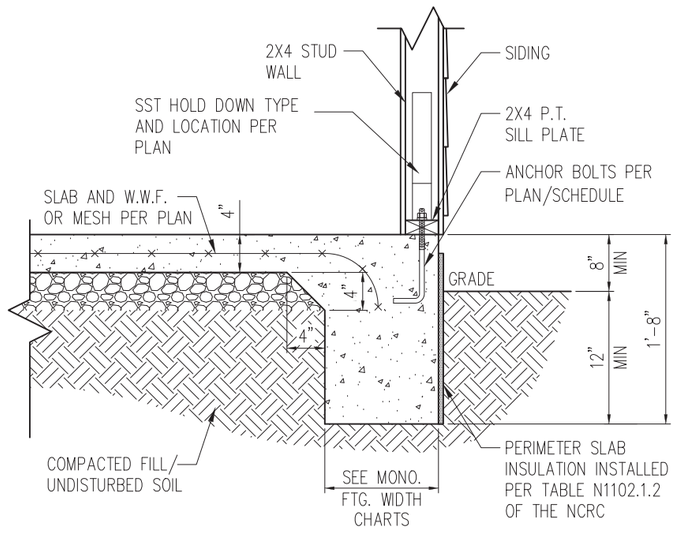
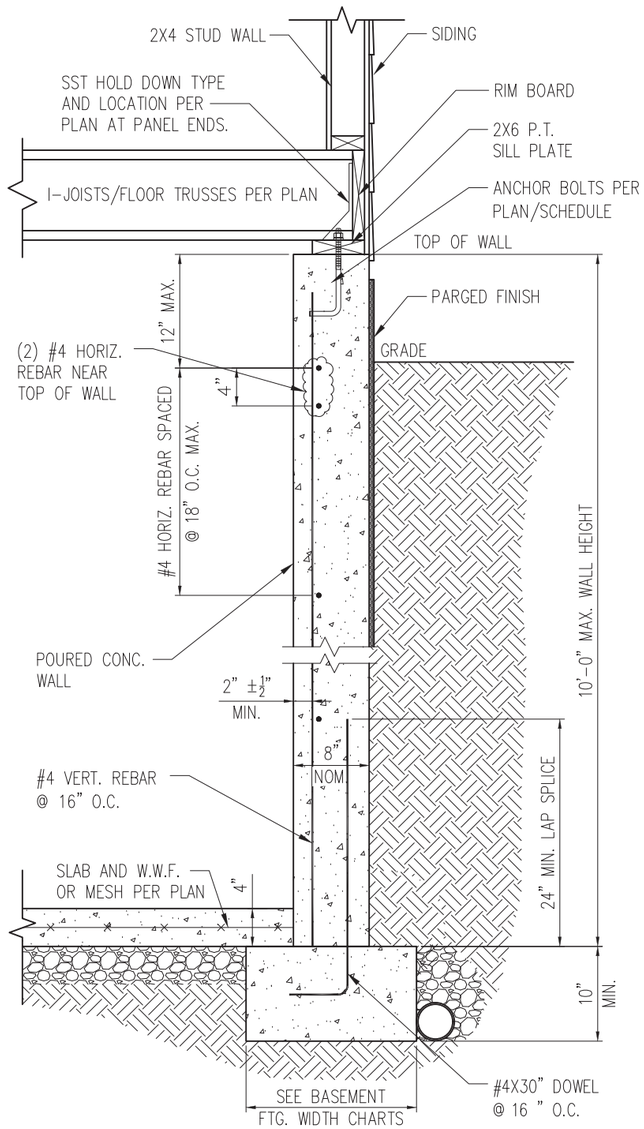


1 D10f SLAB DETAIL w/ HOLD-DOWN

3/4" = 1'-0"



STANDARD - SIDING

2 D10f BASEMENT FOUNDATION WALL DETAIL W/ HOLD-DOWN

3/4" = 1'-0"

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