Wellers Knoll Lot 63 Grace ELEVATION 'B'



INCLUDED OPTIONS:

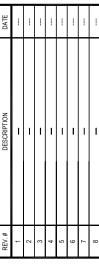
1st FLOOR SCREENED PORCH BOX OAK STAIRS OPEN RAIL

2nd FLOOR OWNERS SPA SHOWER 2ND SINK @ BATH 2 TUB W/TILE ILO FG TUB @ BATH 2

SQUARE	FOOT/	4GE
	ELEVA	ION 'B'
	UNHEATED	HEATED
FIRST FLOOR	0	866
SECOND FLOOR	0	1158
FRONT PORCH	38	0
2-CAR GARAGE	432	0
SUBTOTALS	470	2024
TOTAL UNDER ROOF	24	194
	-	
0	PTIONS	
	UNHEATED S.F.	HEATED S.F.
OPT SCREENED PORCH	+177	0







1791 - THE GRACE - RH SINGLE FAMILY

Cover Sheet 'B'

DRAWN BY:
South Designs
ISSUE DATE:
03/07/2022
CURRENT REVISION DATE:
04/19/2022
SCALE:
1/8" = 1'-0"

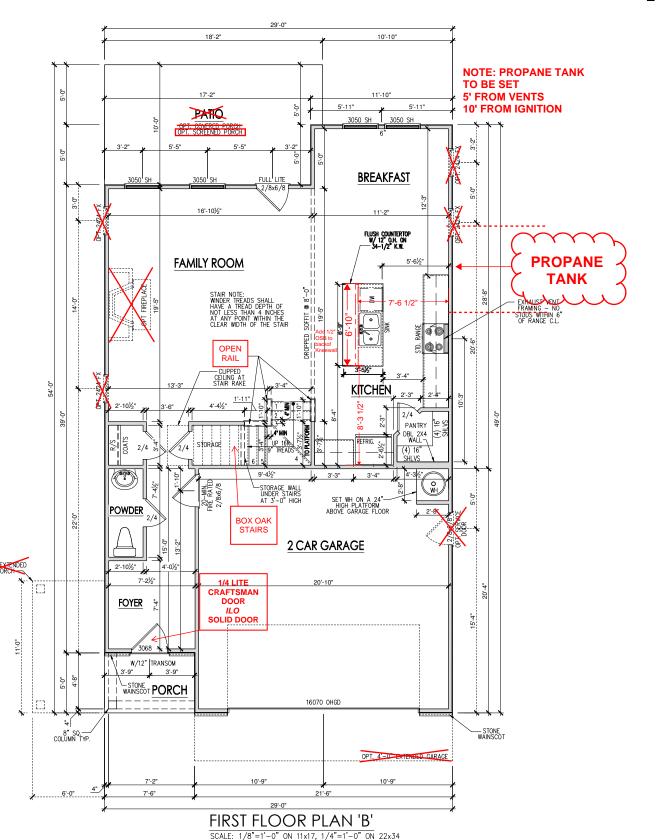
1/8" = 1'-0"
SHEET
0.0b

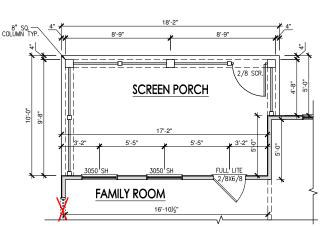
General Floor Plan Notes

General Floor Plan Notes shall apply unless noted otherwise on plan.

- Wall Heights: Typically 9°-1 1/2" at first floor and second floor, and 8'-1 1/2" at attics U.N.O. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to occur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
- 2. Wall Thickness is typically 4" at exterior walls, 3 1/2" at interior. 2x6 frame shall be used at walls that back up to plumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
- Typical header height shall be 8'-0" AFF at First Floor, and 7'-1" AFF at Second Floor U.N.O.
- Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.
- Soffits, Coffered Ceilings, Trey Ceilings and other significant ceiling plan elements are shown on the floor plans and are denoted as single dashed lines. Unless specifically call out as included, Kitchens <u>do</u> <u>not</u> include soffits over wall cabinetry.
- Door & Window Frames, where occurring near corners, shall be a minimum of 4 1/2" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
- Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. False windows shall be installed with obscure alazina.
- Closets for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5 open equal shelves. Closets for pantries shall have 5 equal wood shelves, painted.
- Stair treads shall be a min of 9" deep, risers shall be a maximum of 8 1/4", unless noted otherwise, per the current North Carolina Residential Code
- 10. Handralls and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handralls at landings and overlooks of multilevel spaces shall be 36" above finished floor. Guards (pickets or ballsters) shall be spaced with no more than 4" between guards.
- 11. Attic Access shall be provided at all attic area with a height greater than 30". Minimum clear attic access shall be 20" x 30". Pull down statis and access doors in knee walls meeting minimum criteria are also acceptable.
- 12.Garage Door to Living Space shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.
- 13. Garage Walls, as a minimum, shall be separated from living space by installing 1/2" gypsum board on the garage side of the wall. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.

Wellers Knoll Lot 63

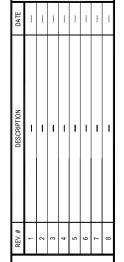




SCREENED PORCH FLOOR PLAN
SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



DAVIDSON HOMES



SINGLE FAMILY First Floor Plan 'B'

RH

- THE GRACE

1791

DRAWN BY: South Designs

03/07/2022 CURRENT REVISION DATE:

04/19/2022 SCALE:

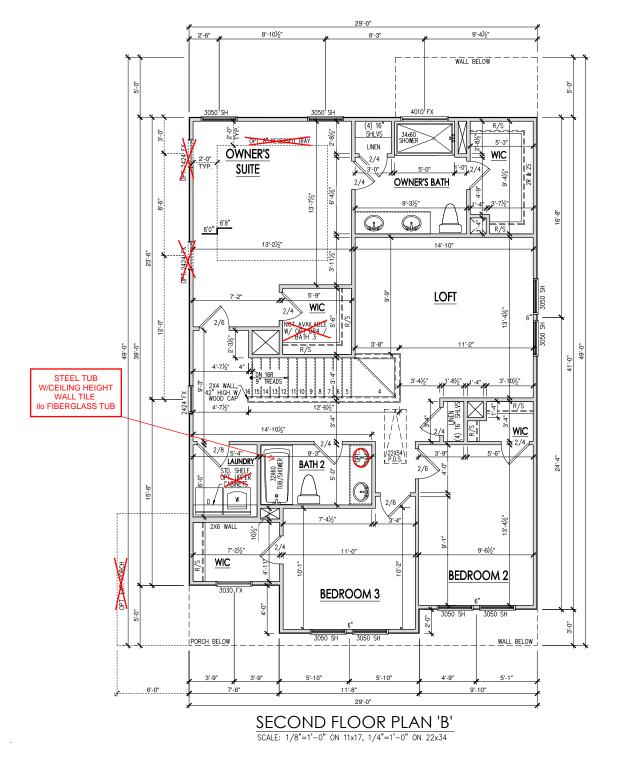
2.1b

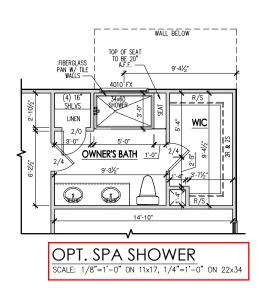
General Floor Plan Notes

General Floor Plan Notes shall apply unless noted otherwise on plan.

- Wall Heights: Typically 9°-1 1/2" at first floor and second floor, and 8'-1 1/2" at attics U.N.O. All walls are constructed using a double top plate. Splices at Double Top Plate do not need to accur at Vertical Studs but must be at least 24" apart from Joint in other Top Plate layer. Special wall heights are noted on plans where they occur.
- Wall Thickness is typically 4" at exterior walls, 3 1/2" at interior. 2x6 frame shall be used at walls that back up to polumbing fixtures. Walls greater than 10' high shall be framed with 2x6 framing or greater and will be noted as a special condition where it occurs on plan.
- Typical header height shall be 8'-0" AFF at First Floor, and 7'-1" AFF at Second Floor U.N.O.
- Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.
- Soffits, Coffered Ceilings, Trey Ceilings and other significant ceiling plan elements are shown on the floor plans and are denoted as single dashed lines. Unless specifically call out as included, Kitchens <u>do</u> <u>not</u> include soffits over wall cabinetry.
- Door & Window Frames, where occurring near corners, shall be a minimum of 4 1/2" from corner. Except for walk-in closets with doors near a corner, doors at closets shall be centered on closet.
- Windows: Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. False windows shall be installed with obscure alazina.
- Closets for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5 open equal shelves. Closets for pantries shall have 5 equal wood shelves, painted.
- Stair treads shall be a min of 9" deep, risers shall be a maximum of 8 1/4", unless noted otherwise, per the current North Carolina Residential Code
- 10. Handralls and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handralls at landings and overlooks of multilevel spaces shall be 36" above finished floor. Guards (pickets or balisters) shall be spaced with no more than 4" between guards.
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- 13. Garage Walls, as a minimum, shall be separated from living space by installing 1/2" gypsum board on the garage side of the wall. With habitable space above, the inside of all garage walls require 1/2" GWB supporting 5/8" type X GWB on ceiling.

Wellers Knoll Lot 63







DAVIDSON HOMES

DATE									
DESCRIPTION	-	-	-	-	-		-	-	
REV.#	1	2	3	4	2	9	7	8	

1791 - THE GRACE - RH SINGLE FAMILY Second Floor Plan 'B'

DRAWN BY: South Designs ISSUE DATE:

03/07/2022 CURRENT REVISION DATE: 04/19/2022

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

2.2b

General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

- Ridge Vent shall be provided and installed on all ridges greater than δ' in length per manufacturer's specifications.
- House Wrap, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's
- Flashing shall be provided above all door and window openings, above finish wall material changes and at wall surfaces where lower roof areas
- Porch Railings shall be provided at all porch walking surfaces greater than 30" above adjacent finished grade. It shall be 36" high with guards spaced no more than 4" apart. Consult community
- Finish Wall Material shall be as noted on elevation
- Brick Veneer, if included on elevation shall be tied to sinck Veneer, if included on elevation shall be fied to wall surface with galvanized corrugated metal fies at a rate of 24° oc horizontally and 16° oc vertically so that no more than 2.675 of brick is supported by (1) fie. Space between face of wall and back face of brick shall be limited to a maximum of 1°. Flashing shall be provided behind brick above all wall shall be provided behind brick above all wall openings and at base of brick wall. Rashing shall be a minimum of 6-mil poly or other corrosion resistant material and shall be installed so that it laps under the house wrap material a minimum of 2".

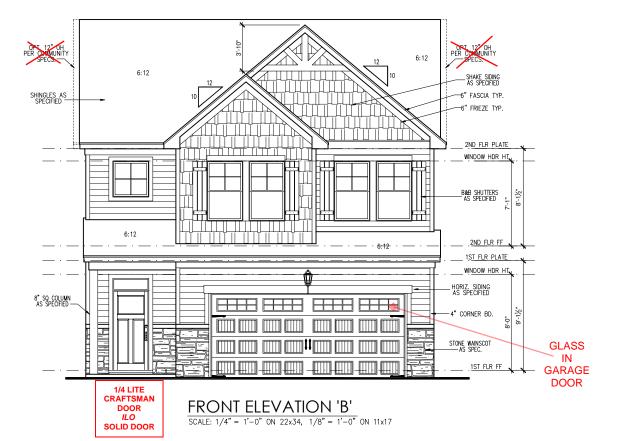
 Weepholes shall be provided at a rate of 48" oc and shall not be less than 3/16" in diameter and shall be located immediately above flashing.
- Brick Veneer Support Lintels shall be provided if brick veneer is included on elevation. Lintels shall be provided as listed in the following schedule and shall have a minimum bearing length of 6". Masonry Lintels shall be provided so that deflection is limited to L/600.

Masonry Opening Lintel Schedule

Opening Size	Ang
--------------	-----

up to	4'-0"		3-1/2" x 3-1/2" x 5/16
4'-1"	to	5'-6"	4" x 3-1/2" x 5/16" LL\
5'-7"	to	6'-6"	5" x 3-1/2" x 5/16" LL\
6'-7"	to	8'-4"	6" x 3-1/2" x 5/16" LL\
8'-5"	to	16'-4"	7" x 4" x 3/8" LLV

Wellers Knoll Lot 63

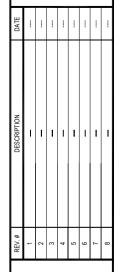




SCREENED PORCH REAR ELEVATION SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34







RH Rear Elevations - THE GRACE 1791

Ā

8

DRAWN BY: South Designs ISSUE DATE: 03/07/2022

CURRENT REVISION DATE: 04/19/2022 SCALE:

General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

- Roof shall be finished with architectural composition
 shingles with slopes as noted on plan
- Ridge Vent shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
- 3. Soffit Vent shall be continuous soffit vent
- House Wrap, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations.
- Flashing shall be provided above all door and window openings, above finish wall material changes and at wall surfaces where lower roof areas abut vertical wall surfaces.
- Porch Raillings shall be provided at all porch walking surfaces greater than 30° above adjacent finished grade. It shall be 36° high with guards spaced no more than 4° apart. Consult community specific ritions for material
- Finish Wall Material shall be as noted on elevation drawings.
- 8. Brick Veneer, if included on elevation shall be fied to wall surface with galvanized corrugated metal fies at a rate of 24" ac horizontally and 16" oc vertically so that no more than 2.67sf of brick is supported by (1) fie. Space between face of wall and book face of brick shall be limited to a maximum of 1". Flashing shall be provided behind brick above all wall openings and at base of brick wall. Flashing shall be a minimum of 6-mil poly or other corrosion resistant material and shall be installed so that it laps under the house wrap material a minimum of 2".

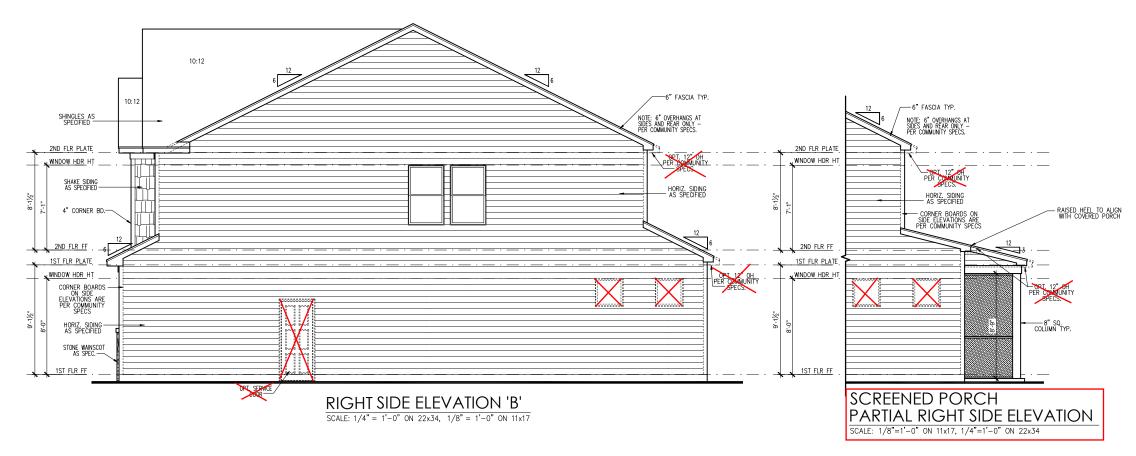
 Weepholes shall be provided at a rate of 48" oc and shall not be less than 3/16" in diameter and shall be located immediately above flashing.
- Brick Veneer Support Lintels shall be provided if brick veneer is included on elevation. Lintels shall be provided as listed in the following schedule and shall have a minimum bearing length of 6". Masonry Lintels shall be provided so that deflection is limited to 1/600.

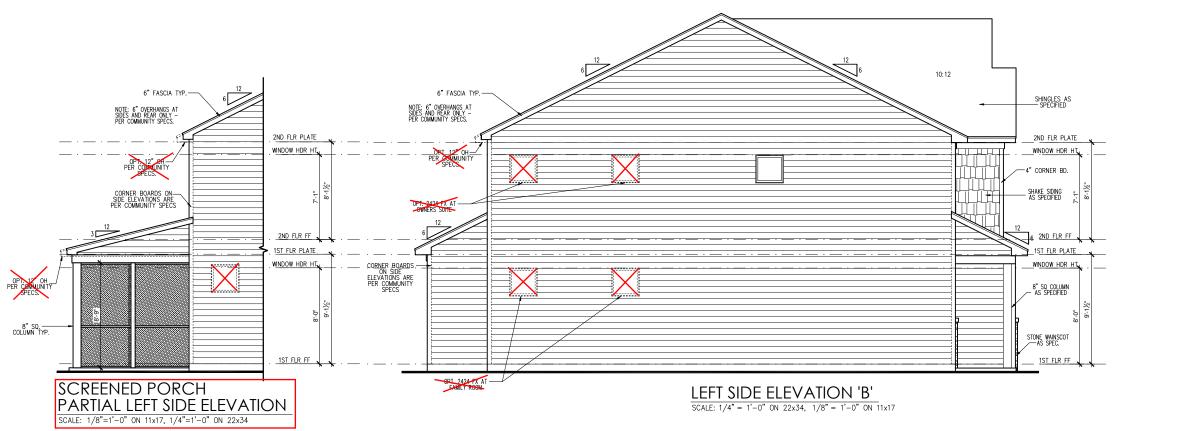
Masonry Opening Lintel Schedule

Opening Size	Angle
--------------	-------

up to	4'-0"		3-1/2" x 3-1/2" x 5/
4'-1"	to	5'-6"	4" x 3-1/2" x 5/16" L
5'-7"	to	6'-6"	5" x 3-1/2" x 5/16" L
6'-7"	to	8'-4"	6" x 3-1/2" x 5/16" L
8'-5"	to	16'-4"	7" x 4" x 3/8" LLV

Wellers Knoll Lot 63







DAVIDSON HOMES



- THE GRACE - RH SINGLE FAMILY
Side Elevations 'B'

DRAWN BY: South Designs ISSUE DATE:

1791

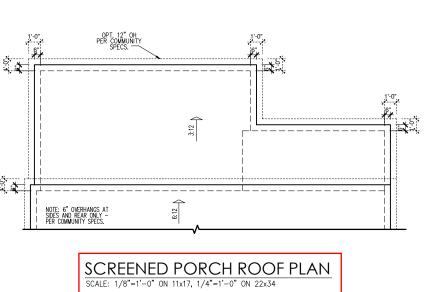
03/07/2022

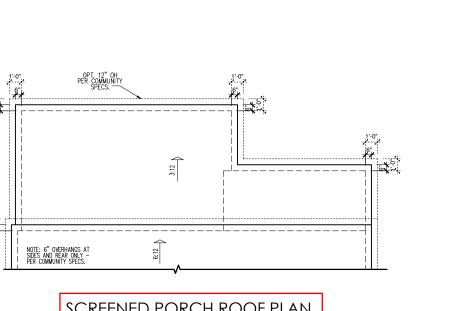
CURRENT REVISION DATE: 04/19/2022

SCALE:

3 2h

				<u> </u>	ELEVATION	1 'B'			
MAIN	HOUSE	Ē	SQ FTG	1197	AT	/ NEAR RID	GE	AT / NE	AR EAVE
VENT TYPE	SQ. REQU		SQ. FT.	PERCENT OF TOTAL	POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)	CONT. V (SQ. IN. PER
	RAN		SUPPLIED	SUPPLIED	0.4236	0.2778	0.125	0.1944	0.062
RIDGE VENT	1.60	2.00	3.25	50.00	0	0	26.00		
SOFFIT VENTS	2.39	2.00	3.25	50.00				0	52.00
TOTAL (MIN)	3.99	3.99	6.50	100.00	POT VENTS MAY BE	E REQUIRED IF THERE	E IS INSUFFICIENT RID	GE AVAILABLE	





DESIGNS
(0) 919-556-2226
(F) 919-556-2228
www.southdesigns.com

DAVIDSON HOMES

REV.#	DESCRIPTION	DATE
1	I	I
2	I	1
3	_	1
4	-	1
5	-	-
9	_	
7	-	
8	ı	-

1791 - THE GRACE - RH SINGLE FAMILY

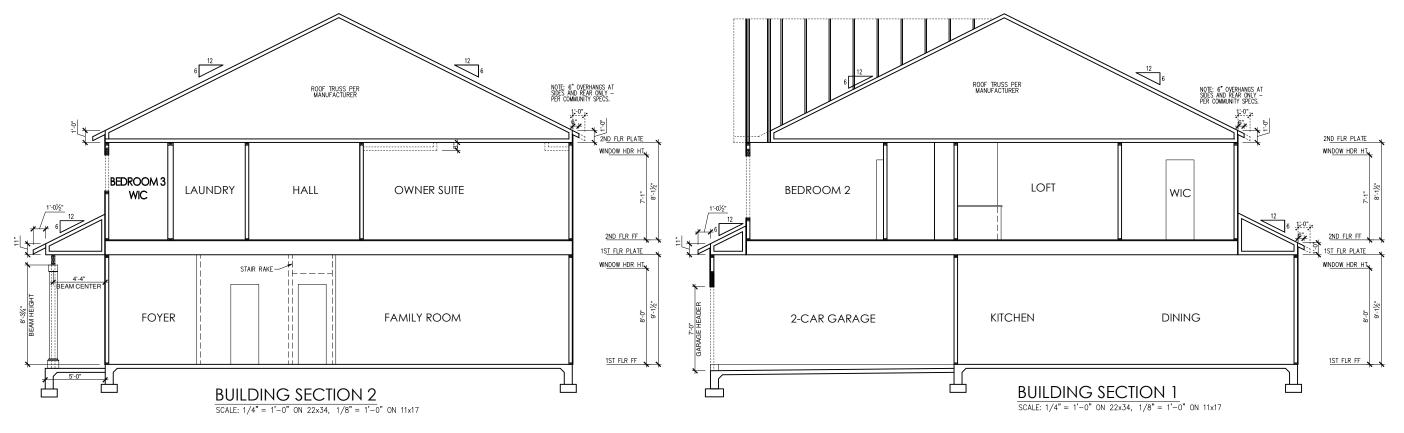
CURRENT REVISION DATE 04/19/2022

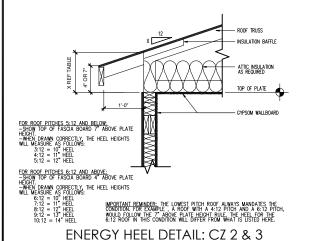
3.3b

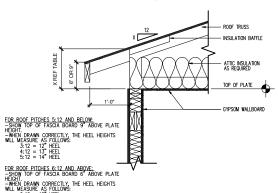
Wellers Knoll Lot 63

.0.1 · · · · · · · · · · · · · · · · · · ·	(Z)	1-0°
*: **	NOTE: 6" OVERHANGS AT SIDES AND REAM ONLY— PER COMMUNITY SPECS.	
OP DAY OH PER COMMUNITY SPECS	(2,9)	PER SPECS
	26 LF RIDGE VENT	
11-0° 11-0° 11-0° 11-0°	10:12 10:12 10:12	
**	10:12 1:00 1:00 1:00 1:00 1:00 1:00 1:00	50

ELEVATION 'B' ROOF PLAN SCALE: 1/4" = 1'-0" ON 22x34, 1/8" = 1'-0" ON 11x17

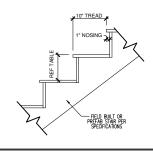






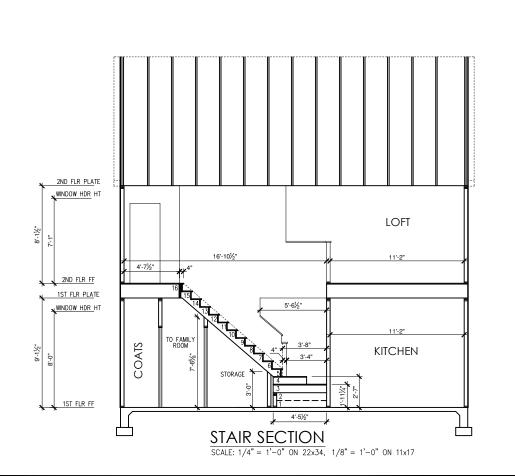
MPORTANT REMINDER: THE LOWEST PITCH ROOF ALWAYS MANDATES THE CONDITION. FOR EXAMPLE, A ROOF WITH A 4-12 PITCH AND A 6-12 PITCH, WOULD FOLLOW THE 9" ABOVE PLATE HIGHT RULE. THE HEEL FOR THE 6-12 ROOF "IN THIS CONDITION WILL DIFFER ROOM WHAT IS USED HERE."

ENERGY HEEL DETAIL: CZ 4 & 5



	RISER HEIGHTS PER	STAIR CONFIGURA	ATION
LATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM
8'-1 1/2'	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"

TYPICAL STAIR DETAIL
SCALE: 1" = 1'-0" ON 22x34, 1/2" = 1'-0" ON 11x17





DAVIDSON HOMES



1791 - THE GRACE - RH SINGLE FAMILY

Building Sections

DRAWN BY: South Designs ISSUE DATE: 03/07/2022

CURRENT REVISION DATE: 04/19/2022 SCALE:

4.0b

ELECTRICAL SYMBOL KEY LIGHT FIXTURES CEILING SURFACE MOUNT LIGHT RECESSED CAN LIGHT WP RECESSED CAN LIGHT WATERPROOF RECESSED CAN - EYEBALL PENDANT LIGHTING ₩ALL SCONCE ₩ WALL MOUNT LIGHT FLOOD LIGHT OUTLETS DUPLEX OUTLET GFI OUTLET SFI-MP WATERPROOF GFI OUTLET SWITCHED 1/2 HOT DUPLEX OUTLET 220V OUTLET TELEPHONE OU TELEPHONE OUTLE - CATV (TELEVISION) OUTLET ===== UNDER-COUNTER OR CONCEALED OUTLETS Ø CEILING MOUNTED DUP. OUTLET ØFLOOR FLOOR MOUNTED DUP. OUTLET SWITCHES \$ SINGLE POLE SWITCH \$3 THREE-WAY SWITCH \$4 FOUR-WAY SMITCH ELECTRICAL DISCONNECT MISC FIXTURES EXHAUST FAN JUNCTION BOX UNCTION BOX 220V CARBON MONOXIDE DETECTOR OR SMOKE DETECTOR CARBON MONOXIDE DETECTOR AND SMOKE DETECTOR ELECTRIC METER ELECTRICAL PANEL DOOR BELL CHIME DOOR BELL PUSH BUTTON CEILING FAN PREWIRE FLUORESCENT LIGHT

General Power and Lighting:

General Power and Lighting Notes shall apply unless noted otherwise on plans.

All work shall be installed per the current NC Residential Building Code, and the National Electric Code. Alarm devices shall meet NFPA 72

- Smoke Alarms Shall be provided as a minimum of (1) per floor, including basements (if applicable), (1) in each sleep room, and (1) outside each sleeping area, within the immediate vicinity of sleeping rooms. When more than one alarm is required, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Smoke alarms shall be hard wired to permanent power and shall have batter back-ups.
- Switches For lighting, fans, etc. shall be installed at heights illustrated on this page and shall be located a minimum of 4 1/2" from door openings to allow for the proper installation of door casings. Switches, thermostats, security pads, and other similar devices shall be grouped together and installed thoughtfully for convenience of use and to avoid placement within centers of wall areas.

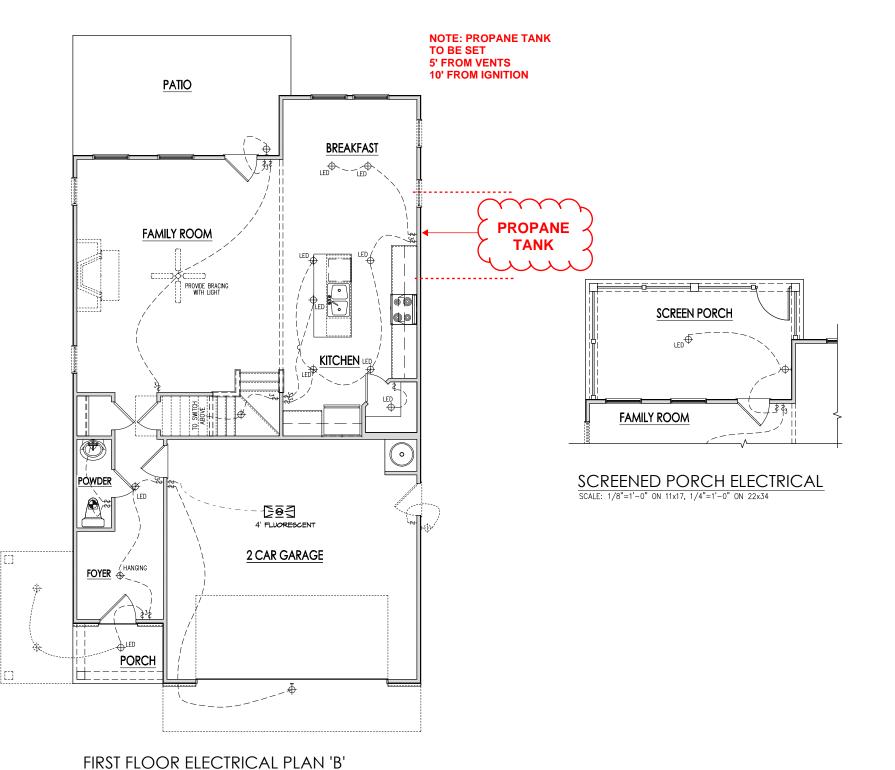
Note:

Note:
This plan is a diagram showing approximate locations of convenience outlets based on requirements found in the NC Residential Code and N.E.C. Actual positions may vary from what is shown on plan.

SMTCHES (INCLIDUNG FIREPLACE) SMTCHES (INCLIDUNG FIREPLACE) Therefore the there is a second to the the there is a second to the the there is a second to the there is a sec

ELECTRICAL BOX HEIGHTS

Wellers Knoll Lot 63



SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



DAVIDSON HOMES



91 - THE GRACE - RH SINGLE FAMILY First Floor Electrical 'B'

> DRAWN BY: South Designs

1791

South Designs ISSUE DATE: 03/07/2022

CURRENT REVISION DATE: 04/19/2022 SCALE:

5.1h

ELECTRICAL SYMBOL KEY LIGHT FIXTURES CEILING SURFACE MOUNT LIGHT RECESSED CAN LIGHT WP RECESSED CAN LIGHT WATERPROOF RECESSED CAN - EYEBALL PENDANT LIGHTING ₩ WALL SCONCE ₩ALL MOUNT LIGHT FLOOD LIGHT OUTLETS OFI OUTLET GEI-WP WATERPROOF GFI OUTLET SWITCHED 1/2 HOT DUPLEX OUTLET 220V OUTLET TELEPHONE OUTLET TELEPHONE OUTLET -E CATY (TELEVISION) OUTLET = UNDER-COUNTER OR CONCEALED OUTLETS Ø CEILING MOUNTED DUP. OUTLET AFLOOR FLOOR MOUNTED DUP. OUTLET **SWITCHES** \$ SINGLE POLE SWITCH \$3 THREE-WAY SWITCH \$4 FOUR-WAY SWITCH DISJ ELECTRICAL DISCONNECT MISC FIXTURES EXHAUST FAN UNCTION BOX \$\Phi_{220V}\$ JUNCTION BOX 220V CARBON MONOXIDE DETECTOR OR SMOKE CO.SD CARBON MONOXIDE DETECTOR AND SMOKE ELECTRIC METER ELECTRICAL PANEL DOOR BELL CHIME DOOR BELL PUSH BUTTON CEILING FAN PREWIRE FLUORESCENT LIGHT

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- Switches For lighting, fans, etc. shall be installed at heights illustrated on this page and shall be located a minimum of 4 1/2" from door openings to allow for the proper installation of door casings. Switches, thermostals, security pads, and other similar devices shall be grouped together and installed thoughfully for convenience of use and to avoid placement within centers of wall areas.

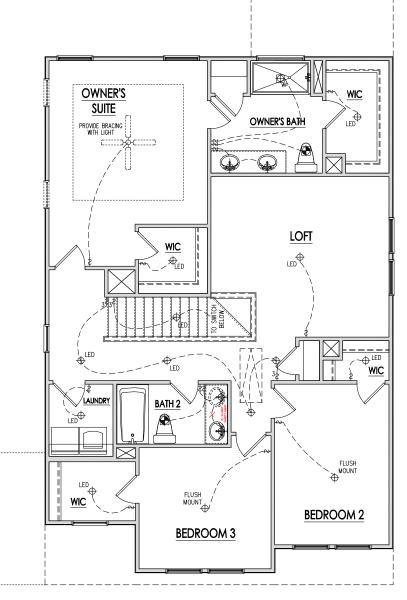
Note:

This plan is a diagram showing approximate locations of convenience outlets based on requirements found in the NC Residential Code and N.E.C. Actual positions may vary from what is shown on plan.

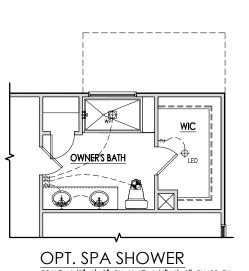
PHONE & TV PECEPIAGLES 3-2" SMITCHES (WGLUDUNG FREPLACE) THERMOSTAT T-4" DOOR CHARES

ELECTRICAL BOX HEIGHTS

Wellers Knoll Lot 63



SECOND FLOOR ELECTRICAL PLAN 'B'
SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34





DAVIDSON HOMES



1791 - THE GRACE - RH SINGLE FAMILY

Second Floor Electrical

DRAWN BY: South Designs

ISSUE DATE: 03/07/2022

CURRENT REVISION DATE: 04/19/2022 SCALE:

5.2h



1900 AM DRIVE, SUITE 201, QUAKERTOWN, PA 18951 www.kse-eng.com (215) 804-4449

1791 THE GRACE RH

RALEIGH, NORTH CAROLINA

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. THIS COORDINATION IS NOT THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD (SER). SHOULD ANY DISCREPANCIES BECOME APPARENT, THE CONTRACTOR SHALL NOTIFY KSE ENGINEERING, P.C. BEFORE CONSTRUCTION BEGINS. IT IS THE INTENT OF THE ENGINEER LISTED ON THESE DOCUMENTS THAT THESE DOCUMENTS BE ACCURATE, PROVIDING LICENSED PROFESSIONALS CLEAR INFORMATION. EVERY ATTEMPT HAS BEEN MADE TO PREVENT ERROR. THE BUILDER AND ALL SUBCONTRACTORS ARE REQUIRED TO REVIEW ALL OF THE INFORMATION CONTAINED IN THESE DOCUMENTS PRIOR TO THE COMMENCEMENT OF ANY WORK. THE ENGINEER IS NOT RESPONSIBLE FOR ANY PLAN ERRORS, OMISSIONS, OR MISINTERPRETATIONS UNDETECTED AND NOT REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION. ALL CONSTRUCTION MUST BE IN ACCORDANCE TO THE INFORMATION FOUND IN THESE DOCUMENTS.

DESIGN SPECIFICATIONS:

DESIGN BUILDING CODE (REFERRED TO HEREIN AS 'THE BUILDING CODE'):

• 2018 NORTH CAROLINA RESIDENTIAL CODE. WALL BRACING PER INTERNATIONAL RESIDENTIAL CODE 2015 EDITION.

DESIGN LIVE LOADS:

■ ROOF = 20 PSF (LOAD DURATION FACTOR=1.25)

- UNINHABITABLE ATTICS WITH LIMITED STORAGE = 20 PSF (WHERE SPECIFIED ON PLANS)
- HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS = 30 PSF
- FLOOR = 40 PSF
- FLOOR (SLEEPING AREAS) = 30 PSF
- DECK/BALCONY = 40 PSF
- STAIRS = 40 PSF

DESIGN DEAD LOADS:

• ROOF TRUSS = 17 PSF (TC=7, BC=10)

- FLOOR TRUSS = 15 PSF (TC=10, BC=5)
- FLOOR JOIST = 10 PSF
- STANDARD BRICK = 40 PSF
- QUEEN ANNE BRICK = 25 PSF

NOTE: STRUCTURAL FRAMING HAS NOT BEEN DESIGNED FOR TILE, GRANITE, MARBLE OR OTHER MATERIALS HEAVIER THAN THE ABOVE LOADING UNLESS SPECIFICALLY NOTED ON PLANS..

DESIGN WIND LOADS:

• ULTIMATE WIND SPEED = 120 MPH

• EXPOSURE CATEGORY = B

ASSUMED SOIL BEARING CAPACITY = 2000 PSF

ASSUMED LATERAL SOIL PRESSURE = 45 PCF

FROST DEPTH = 12" MINIMUM

SEISMIC DESIGN CATEGORY = B

ENGINEERED LUMBER SHALL HAVE THE FOLLOWING MINIMUM DESIGN VALUES:

- TJI 210 SERIES (SERIES AND SPACING PER PLANS)
- LSL: E=1,550,000 PSI, $F_B=2,325$ PSI, $F_V=310$ PSI, $F_C=900$ PSI
- LVL: E=2,000,000 PSI, $F_B=2,600$ PSI, $F_V=285$ PSI, $F_C=750$ PSI • PSL: E=2,100,000 PSI, $F_B=2,900$ PSI, $F_V=290$ PSI, $F_C=625$ PSI

THIS PLAN HAS BEEN DESIGNED PER THE 2018 EDITION OF THE NC RESIDENTIAL CODE. WHERE FRAMING, FOUNDATION, OR OTHER STRUCTURAL ITEMS DO NOT COMPLY WITH THE PRESCRIPTIVE METHODS OF THE CODE, THOSE ITEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE PER NCRC R301.1.3.





ne Grace Model – 20 M.P.H.

X

Project #: 214-2200

Project #: 214-22001
Designed By: AAM

Checked By: KRK
Issue Date: 4/20/22

Sheet

NC Firm #C-2101

Re-Issue: 3/9/23 Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-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 CONSENT OF KSE ENGINEERING, P.C. OR THE SER. FOR THE PURPOSES OF THESE CONSTRUCTION DOCUMENTS, THE SER AND KSE ENGINEERING SHALL BE CONSIDERED THE SAME ENTITY.
- THE STRUCTURE IS ONLY STABLE IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION TO STABILIZE THE STRUCTURE.
- 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. THE SER DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF GEOMETRY. THE SER ASSUMES NO LIABILITY FOR CHANGES MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS. THE SER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.
- 5. 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 KSE ENGINEERING 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 KSE ENGINEERING, P.C.
- 6. 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 KSE ENGINEERING, P.C. BEFORE CONSTRUCTION BEGINS.
- 7. THE SER IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL ELEMENTS OR NON-STRUCTURAL ELEMENTS, EXCEPT FOR THE ELEMENTS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. 8. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL
- APPLICABLE SECTIONS OF THE BUILDING CODE AND ANY LOCAL CODES OR RESTRICTIONS. 9. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE
- OVER SCALED DIMENSIONS. ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED. 10. PROVIDE MOISTURE PROTECTION AND FLASHING PER ARCHITECTURAL
- DETAILS.

- 1. FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE BUILDING CODE
- 2. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. THE BUILDER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE GEOTECHNICAL ENGINEER ON THE STUDY OF THE PROPOSED SITE TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.
- MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN THE BUILDING CODE.
- 4. THE SER HAS NOT PERFORMED A SUBSURFACE INVESTIGATION. VERIFICATION OF THE 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, BUT NOT LESS THAN A MINIMUM OF 12" BELOW GRADE. ALL FOOTINGS TO HAVE A MINIMUM PROJECTION OF 2" ON EACH SIDE OF FOUNDATION WALLS. MAXIMUM FOOTING PROJECTION SHALL NOT EXCEED THE THICKNESS OF THE FOOTING.
- 6. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH ½" ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT, SPACED A MAXIMUM of 6'-0" o.c. install minimum 2 anchor bolts per section, 12" MASONRY MAXIMUM FROM CORNERS. 1/2" DIAMETER x 8" LONG SIMPSON TITEN HD OR USP SCREW-BOLT+ SCREWS MAY BE SUBSTITUTED ON A 1 FOR 1 BASIS.
- 7. 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.
- 8. 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.
- 9. NO CONCRETE SHALL BE PLACED AGAINST ANY SUBGRADE CONTAINING WATER, ICE, FROST, OR LOOSE MATERIAL.
- 10. PROVIDE FOUNDATION WATERPROOFING AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS (SEE ARCHITECTURAL PLANS AND DETAILS).
- 11. NONE OF THE FOUNDATION DESIGNS IN THESE DOCUMENTS ARE SUITABLE FOR INSTALLATION IN SHRINK/SWELL CONDITIONS. REFER TO GEOTECHNICAL ENGINEER FOR APPROPRIATE DESIGN.
- 12. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST TEN FEET.
- 13. CRAWL SPACE TO BE GRADED LEVEL AND CLEAR OF ALL DEBRIS. 14. PROVIDE MINIMUM 6 MIL APPROVED VAPOR BARRIER. ALL JOINTS TO

BE LAPPED MINIMUM 12" AND SEALED.

CONCRETE & REINFORCING

- 1. CONCRETE DESIGN BASED ON ACI 318 AND ACI 318.1 OR ACI 332. CONCRETE SHALL HAVE A NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (f'c) = 3,000 PSI MINIMUM AT 28 DAYS PER CODE (VARIES W/ WEATHER), UNLESS OTHERWISE NOTED ON THE PLAN.
- CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH THE LATEST EDITIONS OF ACI 318: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 301: "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
- AIR ENTRAINED CONCRETE MUST BE USED FOR ALL STRUCTURAL ELEMENTS EXPOSED TO FREEZE/THAW CYCLES AND DEICING CHEMICALS. AIR ENTRAINMENT AMOUNTS (IN PERCENT) SHALL BE WITHIN -1% TO +2% OF 5% FOR FOOTINGS AND EXTERIOR SLABS
- NO ADMIXTURES SHALL BE ADDED TO ANY STRUCTURAL CONCRETE WITHOUT WRITTEN PERMISSION OF THE SER. WATER ADDED TO CONCRETE ON SITE SHALL NOT EXCEED THAT ALLOWED BY THE MIX
- 5. CONCRETE SLABS-ON-GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R: "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION".
- 6. CONTROL OR SAW CUT JOINTS (CUT OR TOOLED) 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. CARE SHALL BE TAKEN TO AVOID RE-ENTRANT CORNERS.
- CONTROL OR SAW CUT JOINTS SHALL BE PRODUCED USING CONVENTIONAL CUT OR TOOLED PROCESSES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED.
- 8. 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. FIBROUS CONCRETE REINFORCEMENT, OR POLYPROPYLENE FIBERS MAY BE USED IN LIEU OF W.W.F. APPLICATION OF POLYPROPYLENE FIBERS PER CUBIC YARD OF CONCRETE SHALL BE PER MANUFACTURER AND COMPLY WITH ASTM C1116, ANY LOCAL BUILDING CODE REQUIREMENTS AND SHALL MEET OR EXCEED CURRENT INDUSTRY STANDARD.
- POLYPROPYLENE REINFORCING TO BE 100% VIRGIN, CONTAINING NO REPROCESSED OLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED FOR USE AS CONCRETE SECONDARY REINFORCEMENT.
- 10. STEEL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
- 11. 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".
- 12. 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.
- 13. PROVIDE REINFORCEMENT LAP AS NOTED BELOW, UNLESS NOTED OTHERWISE:
- #4 BARS 30" LENGTH #5 BARS - 38" LENGTH #6 BARS - 45" LENGTH
- 14. 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. SEE KSE FOUNDATION DETAILS.
- 15. WHERE FOOTING BOTTOMS ARE TO BE STEPPED AT SLOPING GRADE CONDITIONS, PROVIDE CONTINUOUS REINFORCING WITH Z BARS (TO MATCH FOOTING REINFORCING) AS REQUIRED.
- 16. BAR SUPPORT ACCESSORIES SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, EXCEPT THAT REINFORCING SHALL BE CHAIRED ON THE BOTTOM AND/OR THE SIDES ON BOLSTERS SPACED NOT MORE THAN 4 FEET ON CENTER. NO ROCKS, CMU, CLAY TILE, OR BRICK SHALL BE USED TO SUPPORT REINFORCING.
- 17. FOR GRADE SUPPORTED SLABS, SLAB REINFORCING SHALL BE HELD IN PLACE BY BAR SUPPORTS AND ACCESSORIES AS DESCRIBED IN THE CRSI MANUAL OF STANDARD PRACTICE. BAR SUPPORTS SHALL BE SPACED A MAXIMUM OF 4'-0" O.C. BOTH WAYS IN STRAIGHT LINES ON THE MESH GRID.

- 1. ALL MASONRY SHALL CONFORM TO ASTM C-90, F'm=1500 PSI. ALL BRICK SHALL CONFORM TO ASTM C-216, F'm=1500 PSI. ALL MORTAR SHALL BE TYPE 'S' (TYPE 'M' BELOW GRADE) AND CONFORM TO ASTM C-270. COARSE GROUT SHALL CONFORM TO ASTM C-476 WITH A MAXIMUM AGGREGATE SIZE OF 36" AND A MINIMUM COMPRESSIVE STRENGTH OF 2,000 3. GUARD RAILS REQUIRED AT DECKS. DESIGN BY OTHERS TO MEET
- 2. ALL MASONRY WORK SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530/ASCE 5/TMS 402 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" ACI 530.1/ ASCE 6/TMS 602.
- THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION.
- 4. EACH CRAWL SPACE PIER SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING AND EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
- 5. TOP COURSE OF MASONRY SHALL BE GROUTED SOLID. 6. HORIZONTAL WALL JOINT REINFORCEMENT SHALL BE STANDARD 9 GAGE GALVANIZED LADDER OR TRUSS TYPE SPACED AT 16" O.C., UNLESS
- SHOWN OTHERWISE ON THE DRAWINGS. SPLICED WIRE REINFORCEMENT SHALL BE LAPPED AT LEAST 6" AND CONTAIN AT LEAST ONE CROSS WIRE OF EACH PIECE OF REINFORCEMENT WITHIN THE 6". LAP WITH STANDARD 'T' AND 'L' SHAPED PIECES AT INTERSECTIONS AND CORNERS.

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
- SPRUCE-PINE-FIR (SPF) WITH THE FOLLOWING MINIMUM DESIGN
- $E=1,400,000 \text{ PSI}, F_b=875 \text{ PSI}, F_v=135 \text{ PSI}$ 1.1. FRAMING: SPF #2.
- 1.2. PLATES: SPF #2.
- 1.3. STUDS: SPF STUD GRADE.
- 2. WALL STUD SPACING, (MAXIMUM 10' NOMINAL PLATE HEIGHT): 1 & 2 STORY EXTERIOR AND INTERIOR BEARING: 2x4 @ 16" O.C. OR 2x6 @ 24" O.C., U.N.O. BOTTOM OF 3 STORIES EXTERIOR AND INTERIOR BEARING:
- INTERIOR NON-BEARING:
- 2x @ 24" O.C., U.N.O.

2x6 @ 16" O.C., U.N.O.

- 3. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE TREATED SOUTHERN YELLOW PINE #2 OR
- 4. ANCHOR SILL PLATES IN ACCORDANCE W/ GENERAL STRUCTURAL NOTES. 5. ALL BEAMS SPECIFIED ARE MINIMUM SIZES ONLY. LARGER MEMBERS MAY
- BE SUBSTITUTED AS NEEDED FOR EASE OF CONSTRUCTION. 6. NAILS SHALL BE COMMON WIRE NAILS UNLESS OTHERWISE NOTED. 7. BOLT HOLES AND LEAD HOLES FOR LAG SCREWS SHALL BE IN
- ACCORDANCE WITH NDS SPECIFICATIONS. 8. INDIVIDUAL STUDS FORMING A COLUMN SHALL BE ATTACHED WITH (2) ROWS 10d NAILS @ 6" O.C. STAGGERED. THE STUD COLUMN SHALL BE FULLY BLOCKED AT ALL FLOOR LEVELS TO ENSURE PROPER LOAD
- TRANSFER. WALL SHEATHING SHALL BE NAILED TO EDGE OF EACH STUD. 9. FACE NAIL ALL MULTI-PLY BEAMS AND HEADERS WITH (2) ROWS 16d COMMON NAILS @ 16" O.C., STAGGERED, OR PER MANUFACTURER'S SPECIFICATIONS FOR ENGINEERED LUMBER. APPLY NAILING FROM BOTH FACES FOR (3) OR MORE PLIES.
- 10. FASTEN 4-PLY BEAMS WITH (1) $\frac{1}{2}$ " DIAMETER THROUGH BOLT W/ NUTS AND WASHERS AT 12" O.C. STAGGERED TOP AND BOTTOM, 11/2" MINIMUM EDGE DISTANCE. (UNLESS OTHERWISE NOTED)
- 11. ALL BEAMS AND HEADERS SHALL HAVE (1)2x JACK STUD & (1)2x KING STUD UNLESS OTHERWISE NOTED. THE NUMBER OF STUDS INDICATED ON PLANS ARE THE TOTAL NUMBER OF JACK STUDS REQUIRED, UNLESS OTHERWISE NOTED.
- 12. PROVIDE KING STUDS AT EACH END OF HEADERS AS NOTED BELOW. (1) STUD UP TO 6' OPENING (2) STUDS UP TO 8' OPENING (3) STUDS UP TO 9' OPENING
- 13. ALL BEAMS TO BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF TWO STUDS, UNLESS OTHERWISE NOTED. ALL BEAM SPLICES SHALL OCCUR OVER SUPPORTS.
- 14. SOLID BLOCKING TO BE PROVIDED AT ALL POINT LOADS THROUGH FLOOR LEVELS TO THE FOUNDATION OR TO OTHER STRUCTURAL COMPONENTS.
- 15. ALL LUMBER SPECIFIED ON DRAWINGS IS INTENDED FOR DRY USE ONLY (MOISTURE CONTENT <19%) UNLESS OTHERWISE NOTED 16. ALL WATERPROOFING AND FIRE SAFETY SYSTEMS ARE THE
- RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE DESIGNED AND DETAILED BY OTHERS. 17. ANY WOOD FRAME INTERIOR BEARING WALL STUDS THAT HAVE HOLES IN
- THE CENTER OF THE STUD UP TO 1" DIAMETER SHALL HAVE STUD PROTECTION SHIELDS. ALL HOLES OVER 1" IN DIAMETER FOR PLUMBING LINES, ETC. SHALL BE REPAIRED WITH SIMPSON HSS2 OR USP STS1 STUD SHOES, TYPICAL, UNLESS OTHERWISE NOTED. 18. BEARING WALLS SHALL BE SHEATHED ON NOT LESS THAN ONE SIDE
- WITH OSB OR GYPSUM BOARD. BRIDGING SHALL BE INSTALLED NOT GREATER THAN 4 FEET APART MEASURED VERTICALLY FROM EITHER END OF THE STUD IN LIEU OF SHEATHING.
- 19. DIAGONAL BRACING SHALL BE INSTALLED AT EACH END OF BASEMENT BEARING WALLS AND NOT MORE THAN 20' ON CENTER.

EXTERIOR WOOD FRAMED DECKS:

- DECKS ARE TO BE FRAMED IN ACCORDANCE WITH APPLICABLE BUILDING CODES AND AS REFERENCED ON THE STRUCTURAL PLANS, EITHER THROUGH CODE REFERENCES OR CONSTRUCTION DETAILS. 2. PRESERVATIVE TREATED WOOD FRAMING TO BE SOUTHERN YELLOW
- PINE #2 OR BETTER.
- MINIMUM CODE REQUIREMENTS. 4. PROVIDE DECK LATERAL LOAD AND BRACING CONNECTIONS PER BUILDING

RAFTER FRAMED ROOF CONSTRUCTION:

- PROVIDE 2x4x4'-0" RAFTER TIES AT 48" O.C. 2. RAFTERS SHALL BE SUPPORTED BY PURLINS AND PURLIN BRACES AS SHOWN ON THE PLAN. PURLIN BRACES SHALL NOT BEAR ON ANY CEILING JOIST, STRONGBACK OR HEADER UNLESS SPECIFICALLY
- SHOWN ON PLAN. RAFTERS MAY BE SPLICED AT PURLIN LOCATIONS. 3. CEILING JOISTS SHALL HAVE LATERAL SUPPORT W/ 1x4 FLAT BRACING ON TOP EDGE OF JOIST AT LOOSE JOIST ENDS (WHERE JOISTS NOT FASTENED TO RAFTERS) OR FULL DEPTH BLOCKING.
- FASTEN END OF BRACING TO RAFTER OR GABLE END FRAMING. 4. FASTEN RAFTER AND CEILING JOIST WITH (6) 12d NAILS UNLESS OTHERWISE NOTED.
- 5. PROVIDE VERTICAL 2x6 STRONGBACKS AT CEILING JOISTS @ 8'-0" O.C. TIE STRONGBACK ENDS TO GABLE STUDS OR RAFTERS WHERE POSSIBLE. PROVIDE BLOCKING BETWEEN TOP PLATES AND STRONGBACKS. PROVIDE 2x4 FLAT FASTENED TO EACH JOIST WITH (2) 12d NAILS. FASTEN STRONGBACK TO 2x4 FLAT WITH 12d NAILS @ 12" O.C. AND FASTENED TO EACH JOIST WITH (1) 12d TOENAIL.

WOOD TRUSSES (FLOOR & ROOF)

- 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 (5) DAYS FOR REVIEW. THE REVIEW BY THE SER SHALL BE FOR OVERALL COMPLIANCE OF THE DESIGN DOCUMENTS. THE SER SHALL ASSUME NO RESPONSIBILITY FOR THE CORRECTNESS OF 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), 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 ANSI/TPI 1: "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION".
- 4. THE TRUSS MANUFACTURER SHALL PROVIDE ADEQUATE BRACING INFORMATION IN ACCORDANCE WITH "BUILDING COMPONENT SAFETY INFORMATION GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" (BCSI). 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.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING TEMPORARY BRACING AND SHORING FOR THE FLOOR AND ROOF TRUSSES AS REQUIRED DURING CONSTRUCTION. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE LATEST BCSI. THE CONTRACTOR SHALL KEEP A COPY OF THE BCSI SUMMARY SHEETS ON SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PERMANENT TRUSS BRACING SHOWN IN THE STRUCTURAL DRAWINGS AND IN THE TRUSS DESIGNS. ALL CONTINUOUS LATERAL BRACING OF WEBS REQUIRES BRACES. REFER TO BCSI SUMMARY SHEET B3 FOR TYPES OF DIAGONAL BRACES TO PROVIDE AT EACH CONTINUOUS LATERAL BRACE LINE. SUCH DIAGONAL BRACES SHALL NOT BE SPACED MORE THAN 20 FEET O.C. DIAGONAL BRACES SHALL BE FASTENED TO EACH TRUSS WEB WITH A MINIMUM OF TWO 10d FACE NAILS. WHERE CONTINUOUS LATERAL BRACING CANNOT BE INSTALLED, DUE TO A MINIMUM OF THREE ADJACENT TRUSSES NOT BEING IDENTICAL, THE CONTRACTOR SHALL COORDINATE WITH THE TRUSS SPECIALTY ENGINEER/MANUFACTURER TO DETERMINE WHAT TYPE OF ALTERNATE BRACE (I.E., T OR L BRACE, ETC.) IS REQUIRED.
- 7. 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.
- 8. TRUSS LAYOUT AND PLACEMENT BY MANUFACTURER TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN ON THE SEALED STRUCTURAL DRAWINGS. TRUSS PROFILES TO BE SEALED BY THE TRUSS MANUFACTURER. TRUSS PLANS TO BE COORDINATED WITH THE SEALED STRUCTURAL DRAWINGS.
- 9. TRUSS MANUFACTURER TO PROVIDE REQUIRED UPLIFT CONNECTORS FOR ALL TRUSSES
- 10. PROVIDE SIMPSON H2.5A, USP RT7 OR EQUIVALENT AT EACH TRUSS TO TOP PLATE CONNECTION, UNLESS OTHERWISE NOTED.

WOOD STRUCTURAL PANELS:

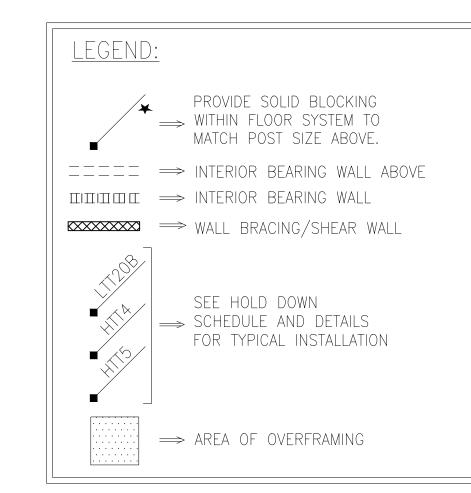
- 1. FABRICATION AND PLACEMENT OF STRUCTURAL WOOD SHEATHING SHALL BE IN ACCORDANCE WITH THE APA DESIGN/CONSTRUCTION GUIDE "RESIDENTIAL AND COMMERCIAL," AND ALL OTHER APPLICABLE APA STANDARDS.
- 2. ALL REQUIRED WOOD SHEATHING SHALL BEAR THE MARK OF THE APA.
- 3. WOOD WALL SHEATHING SHALL COMPLY WITH THE 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. EXTERIOR WALLS TO BE FULLY SHEATHED USING $\frac{7}{6}$ OSB OR PLYWOOD MINIMUM. AT BRACED WALL PANELS, PROVIDE BLOCKING AT ALL SHEET EDGES NOT FALLING ON STUDS OR PLATES.
- ROOF SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ROOF SHEATHING SHALL BE CONTINUOUS OVER TWO SUPPORTS MINIMUM AND ATTACHED TO ITS SUPPORTING ROOF FRAMING WITH 8d NAILS 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. PROVIDE SUITABLE EDGE SUPPORT BY USE OF PLYWOOD CLIPS OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING. ROOF SHEATHING TO BE $\frac{7}{16}$ " OSB MINIMUM.
- WOOD FLOOR SHEATHING SHALL BE APA RATED SHEATHING EXPOSURE 1 OR 2. ATTACH SHEATHING TO ITS SUPPORTING FRAMING WITH (1) 10d 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. PROVIDE SUITABLE EDGE SUPPORT BY USE OF T&G PLYWOOD OR LUMBER BLOCKING UNLESS OTHERWISE NOTED. PANEL END JOINTS SHALL OCCUR OVER FRAMING.
- 6. SHEATHING SHALL HAVE A 1/8" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE APA.

STRUCTURAL FIBERBOARD PANELS:

- STRUCTURAL FIBERBOARD SHEATHING SHALL ONLY BE USED WHERE
- SPECIFICALLY NOTED ON THE STRUCTURAL PLANS. 2. FABRICATION AND PLACEMENT OF STRUCTURAL FIBERBOARD SHEATHING SHALL BE IN ACCORDANCE WITH THE APPLICABLE AFA
- FIBERBOARD WALL SHEATHING SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL BUILDING CODES FOR THE APPROPRIATE STATE AS INDICATED ON THESE DRAWINGS. REFER TO WALL BRACING NOTES IN PLAN SET FOR MORE INFORMATION.
- 4. SHEATHING SHALL HAVE A 1/8" GAP AT PANEL ENDS AND EDGES AS RECOMMENDED IN ACCORDANCE WITH THE AFA.

- 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 (F,) OF 50 KSI UNLESS OTHERWISE NOTED.
- 3. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE AWA D1.1. ELECTRODES FOR SHOP AND FIELDING WELDING SHALL BE CLASS E70XX. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER PER THE ABOVE STANDARDS.
- 4. ALL STEEL BEAMS TO BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 31/2" AND FULL FLANGE WIDTH UNLESS OTHERWISE NOTED. BEAMS MUST BE ATTACHED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR (2) $\frac{1}{2}$ " x 4" LAG SCREWS UNLESS OTHERWISE NOTED.
- INSTALL 2x WOOD PLATE ON TOP OF STEEL BEAMS, RIPPED TO MATCH BEAM WIDTH. FASTEN PLATE TO BEAM W/ HILTI X-DNI 52 P8 PINS AT 12" O.C. STAGGERED OR 1/2" DIAMETER BOLTS AT 24"

- 1. ALL METAL HARDWARE AND FASTENERS TO BE SIMPSON STRONG-TIE
- OR APPROVED EQUIVALENT. 2. ALL HARDWARE AND FASTENERS IN CONTACT WITH PRESERVATIVE PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 153, G-185.
- 3. MANY OF THE NEW PRESSURE TREATED WOODS USE CHEMICALS THAT ARE CORROSIVE TO STEEL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE TYPE OF WOOD TREATMENT AND SELECT APPROPRIATE CONNECTORS THAT WILL RESIST THE APPLICABLE CORROSIVE CHEMICALS.



SPAN	LINTEL SIZE	END BEARING
UP TO 3'-0"	3½"×3½"×¼"	4"
UP TO 6'-3"	5"x3½"x5⁄16" L.L.V.	8"
UP TO 9'-6"	6"x3½"x5⁄ ₁₆ " L.L.V.	12"



Project #: 214-22000 Designed By: KRK Checked By: Issue Date: 3/6/23 Re-Issue: Scale: 1/8"=1'-0" @ 11x171/4"=1'-0" @ 22x34

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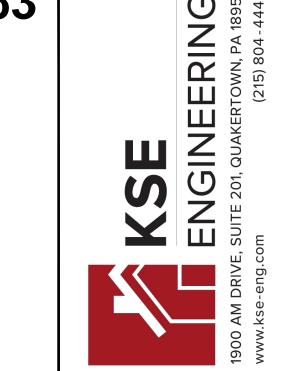
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Wellers Knoll Lot 63







Plans

Foundation

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T Y

Option Model

MATCH POST SIZE ABOVE.

48" WSP

⇒ BRACED WALL PANEL (SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING &

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND



MONOLITHIC SLAB FOUNDATION PLAN ELEVATION 'B'

28'-11"

28'-11"

<u>SLAB ON GRADE</u>

4" THICK CONCRETE SLAB W/

FIBERMESH PER MANUFACTURER

ON 6 MIL VAPOR BARRIER ON 95% COMPACTED FILL.

24"x24"x12" DEEP CONCRETE

FOOTING 7

21'-1½"

GARAGE SLAB

4" THICK CONCRETE SLAB W/

FIBERMESH ON 6 MIL VAPOR

BARRIER ON 95% COMPACTED

FILL. SLOPE 1/8" PER 1'-0" TOWARDS DOOR.

-42"x24"x20" DEEP MONOLITHIC—

CONCRETE FOOTING

16" WIDE TURNDOWN SLAB TO 12" BELOW

GRADE @ OPENING~

21'-5"

5'-01/4"

18'-1½"

4" THICK CONCRETE SLAB W/ FIBERMESH ON 95% ĆOMPACTED FILL

17'-2"

16" WIDE x 20" DEEP MONOLITHIC CONCRETE FOOTING. 20" WIDE @

OPT. BRICK VENEER (TYP.)

8" DEEP x 16"

WIDE THICKENED

SLAB (TYP.)7

7'-9½"

16" WIDE x

20" DEEP

MONOLITHIC

CONCRETE

FOOTING

4" THICK CONCRETE-

SLAB W/ FIBERMESH ON 95% COMPACTED FILL

16" WIDE TURNDOWN-/ 🏃

TO 12" BELOW GRADE

10'-9½"

11'-9"

11'-71/4"

16" WIDE x 20" DEEP MONOLITHIC CONCRETE

FOOTING W/ 6" STEMWALL @ GARAGE.

20" WIDE @ OPT.

BRICK VENEER (TYP.)

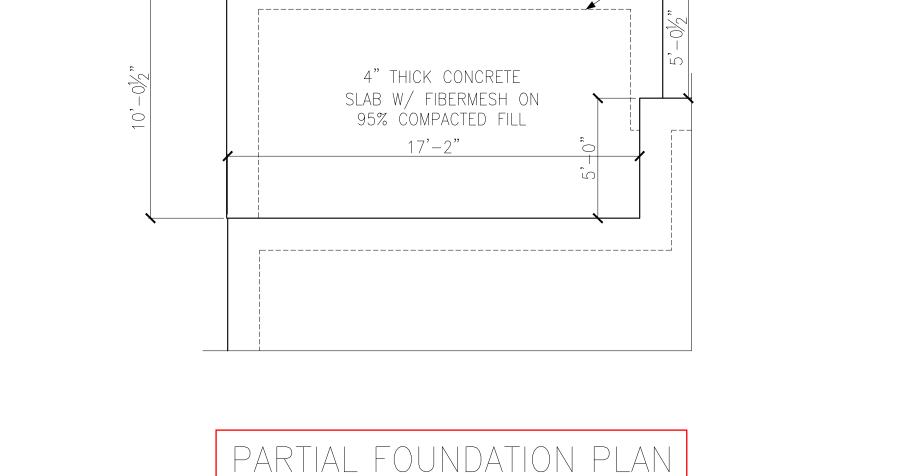
16" WIDE x 20"

DEEP MONOLITHIC CONCRETE FOOTING PROPANE

TANK

NOTE: PROPANE TANK TO BE SET 5' FROM VENTS

10' FROM IGNITION



OPT. SCREENED PORCH

18'-2"

_16" WIDE TURNDOWN

TO 12" BELOW GRADE

SIMPSON ABA44

BASE @ 4x4 P.T.

POST. ABOVE (TYP.)



PROVIDE SOLID BLOCKING

→ WITHIN FLOOR SYSTEM TO

⇒ BEARING WALL ABOVE ⇒ INTERIOR BEARING WALL

BLOCKING DETAILS)

TYPICAL DETAILS



Project #: 214-22001 Designed By: AAM Checked By: KRK

Issue Date: 4/20/22 Re-Issue: 3/9/23Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

Monolithic Elevation 1791 The Up to 120 Raleigh, N





PROVIDE SOLID BLOCKING

WITHIN FLOOR SYSTEM TO
MATCH POST SIZE ABOVE.

(SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

NH \Longrightarrow NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

SERIES I-JOISTS @ 19.2" O.C. MAXIMUM OR EQUAL (U.N.O.). 11/8" BC RIM BOARD OSB.

<u>KEYNOTES:</u>





SECOND FLOOR FRAMING PLAN

ELEVATION 'B'

4x4 P.T. POST FASTEN HEADER TO POST AND POST TO DECK $W/(4) \frac{1}{4}$ "x6" SIMPSON SDS SCREWS (TYP.)-SIMPSON HUC210-2 (TYP.) SCREEN PORCH CS-ESW(1) DESIGNED TO REPLACE 73" OF CS-WSP. STRAP AROUND 5 (2)2x6 OPENINGS PER DETAIL C/SD-3. **BREAKFAST** (2)1¾"x14" LVL FLUSH 7 (2)2x6

> PARTIAL FRAMING PLAN OPT. SCREENED PORCH

<u>NOTE:</u> BEAMS, HEADERS AND FLOOR JOISTS MAY BE SYP #2 GRADE LUMBER.

⇒ BEARING WALL ABOVE ⇒ INTERIOR BEARING WALL ⇒ BRACED WALL PANEL

PLAN DESIGNED WITH 9' WALL PLATES

FLOOR FRAMING TO BE 14" DEEP BCI 5000s

(5) INSTALL TWO PANEL CS-PF PORTAL FRAME PER DETAIL A OR B/SD-4.



Designed By: AAM Checked By: KRK Issue Date: 4/20/22 Re-Issue: 3/9/23Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

Project #: 214-22001

Option Model

Plans

Framing

Floor

Second F Elevation 1791 The

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ROOF FRAMING PLAN

-ROOF TRUSSES

@ 24" O.C.

ELEVATION 'B'

ROOF TRUSSES

@ 24" O.C.

Wellers Knoll Lot 63





NOTE:
BEAMS, HEADERS AND
FLOOR JOISTS MAY BE SYP
#2 GRADE LUMBER.

LEGEND

PROVIDE SOLID BLOCKING

WITHIN FLOOR SYSTEM TO

MATCH POST SIZE ABOVE.

(SEE KSE STRUCTURAL DETAILS SET FOR BRACED WALL PANEL SHEATHING FASTENING & BLOCKING DETAILS)

NH ⇒ NO HEADER REQUIRED

REFER TO KSE STRUCTURAL DETAILS SET FOR GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS

PLAN DESIGNED WITH 8' WALL PLATES

KEYNOTES:

48" WSP

8'x12' HVAC PLATFORM TRUSSES
DESIGNED TO SUPPORT HVAC UNITS.

(11) VALLEY SET TRUSSES @ 24" O.C.
OR 2x6 OVERFRAMING @ 24" O.C.
W/ 2x8 RIDGE & VALLEY PLATES
(TYP.)



Project #: 214-22001

Designed By: AAM

Checked By: KRK

Model

Plan

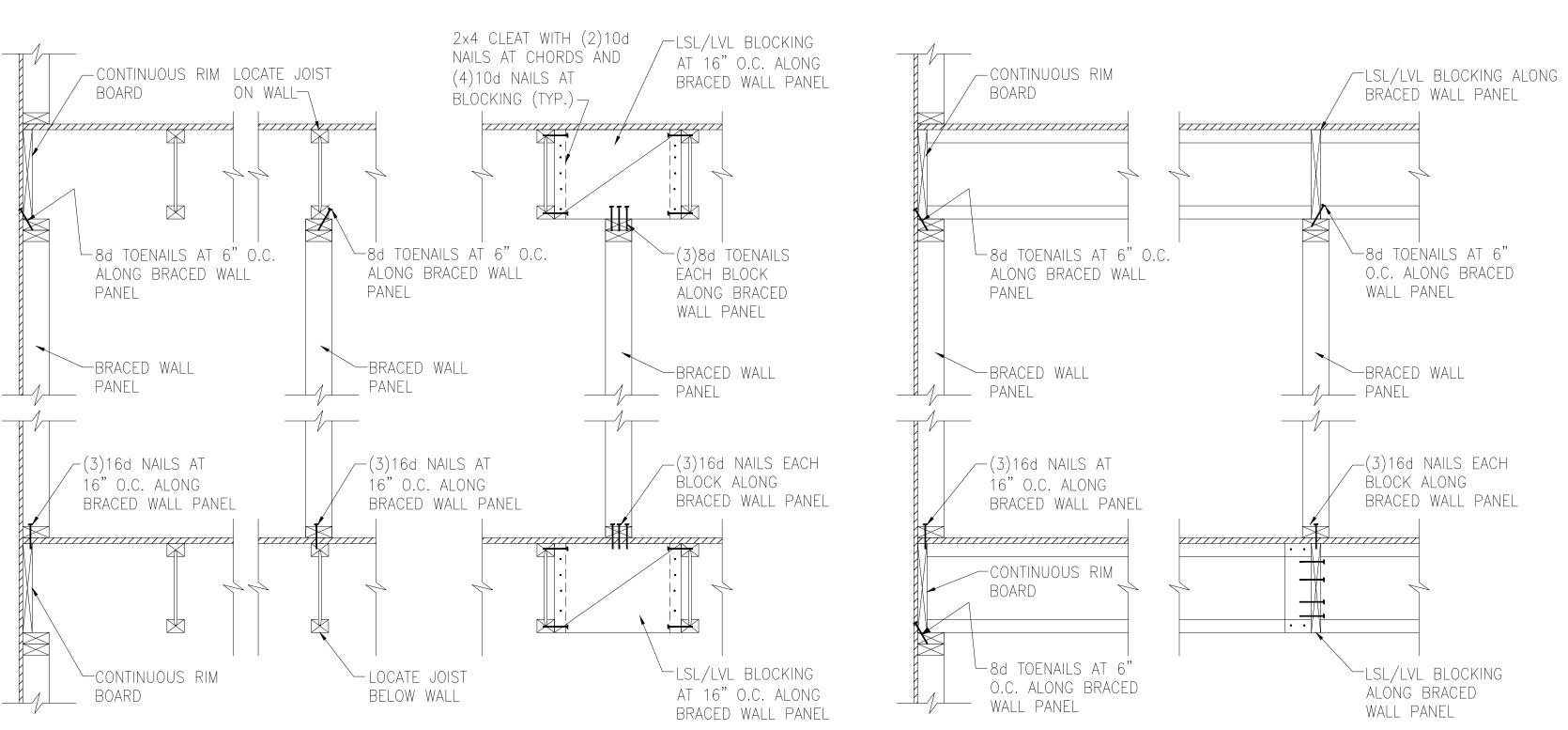
Framing

Checked By: KRK

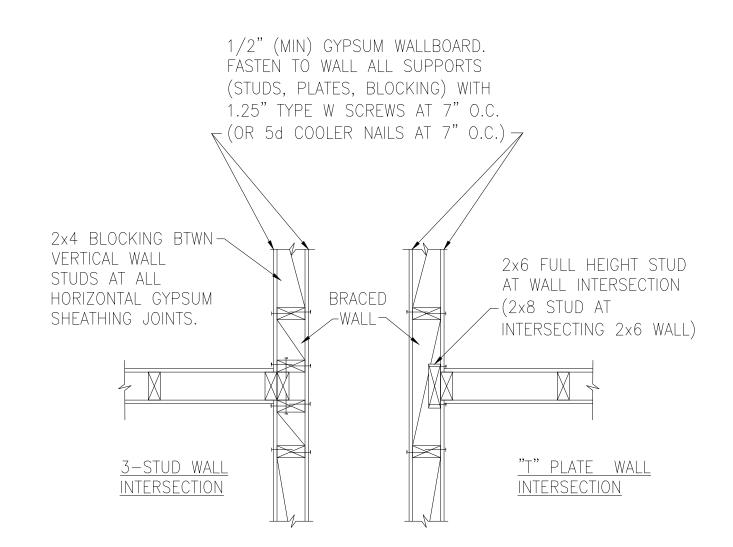
Issue Date: 4/20/22

Re-Issue: 3/9/23 Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

S-4.1

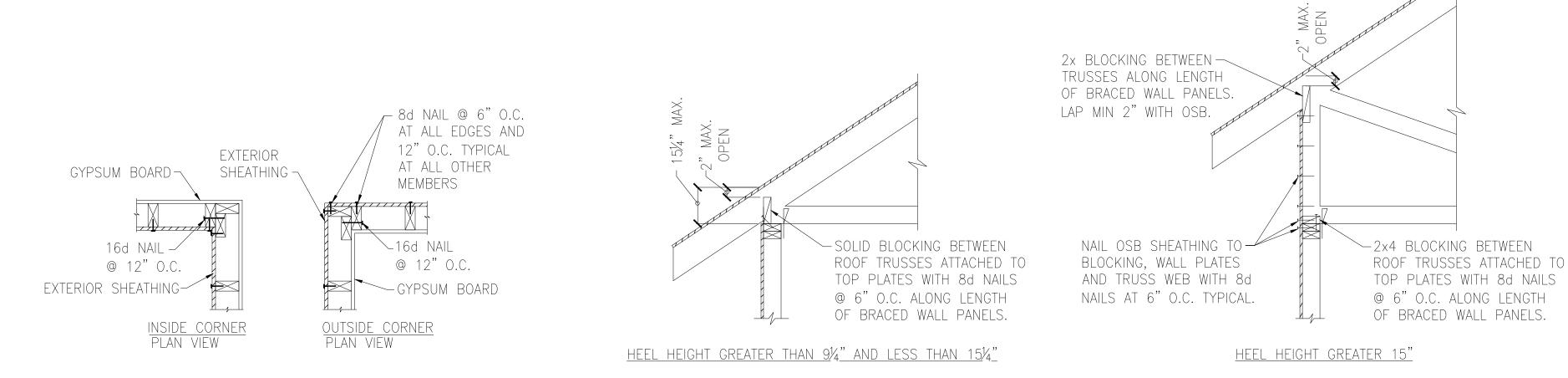


BYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION BRACED WALL PANELS PERPENDICULAR TO I-JOISTS



BRACED WALL INTERSECTIONS MAY BE FRAMED USING EITHER THE 3-STUD OR THE T-PLATE METHOD.

 \nearrow METHOD GB(1) AND GB(2) INTERSECTION DETAILS



TYPICAL EXTERIOR CORNER WALL FRAMING

TYPICAL BRACED WALL PANEL TO FLOOR/CEILING CONNECTION

A BRACED WALL PANELS PARALLEL TO 1-JOISTS

ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS ONLY REQUIRED AT BRACED WALL PANELS







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Project #: 214-22000

Designed By: KRK

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Checked By: Issue Date: 3/6/23 Re-Issue:

1/4"=1'-0" @ 22x34

Scale: 1/8"=1'-0" @ 11x17

O.C. ALONG BRACED

WALL PANEL



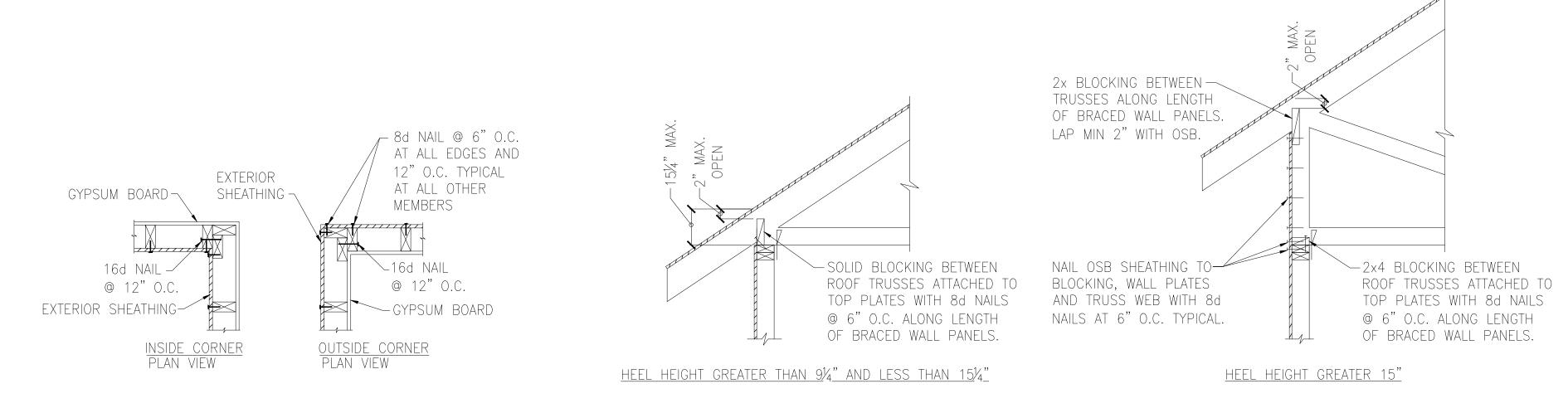
FLOOR TRUSS

BTYPICAL BRACED WALL PANEL TO FLOOR / CEILING CONNECTION BRACED WALL PANELS PERPENDICULAR TO TRUSSES

PANELS

O.C. ALONG BRACED

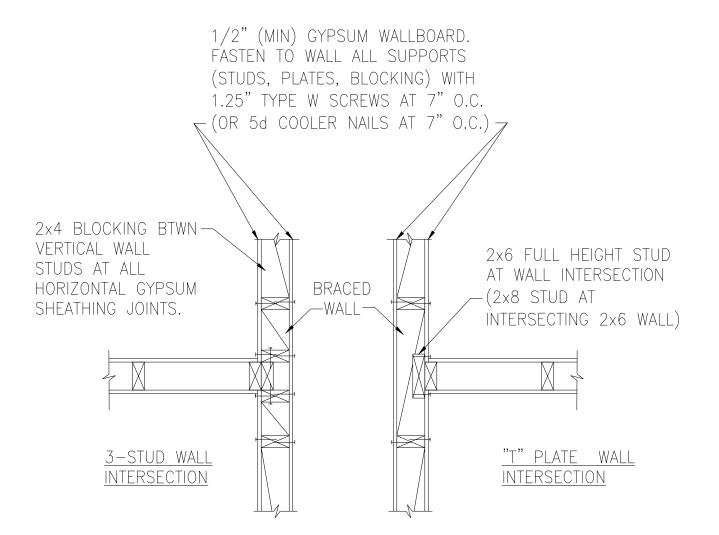
WALL PANEL



TYPICAL EXTERIOR CORNER WALL FRAMING

ROOF TRUSS BEARING/BLOCKING AT BRACED WALL PANELS ONLY REQUIRED AT BRACED WALL PANELS

Wellers Knoll Lot 63



BRACED WALL INTERSECTIONS MAY
BE FRAMED USING EITHER THE
3-STUD OR THE T-PLATE METHOD.

METHOD GB(1) AND GB(2) INTERSECTION DETAILS





ced Wall Details

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Project #: 214-22000

Designed By: KRK

Designed By: KRK

Checked By:

Issue Date: 3/6/23

Re-Issue:
Scale: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

SD-1

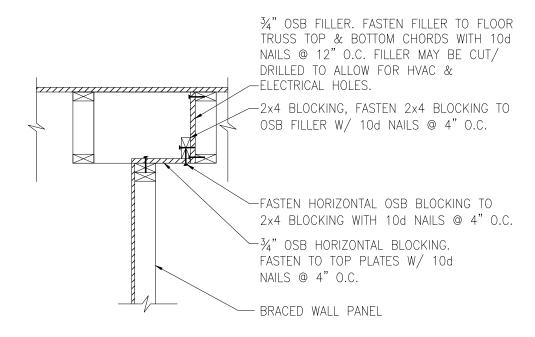




Project #:	214-22009	
Designed By:	AAM	
Checked By:	AAM	
Issue Date:	10/19/23	
Re-Issue:		
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Davidson Homes

All Models Designed by KSE Alternate Braced Wall Details Raleigh, North Carolina



PARALLEL BRACING DETAIL







Project #:	214-22009	
Designed By:	AAM	
Checked By:	AAM	
Issue Date:	10/19/23	
Re-Issue:		
Scale:	N.T.S.	
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Davidson Homes

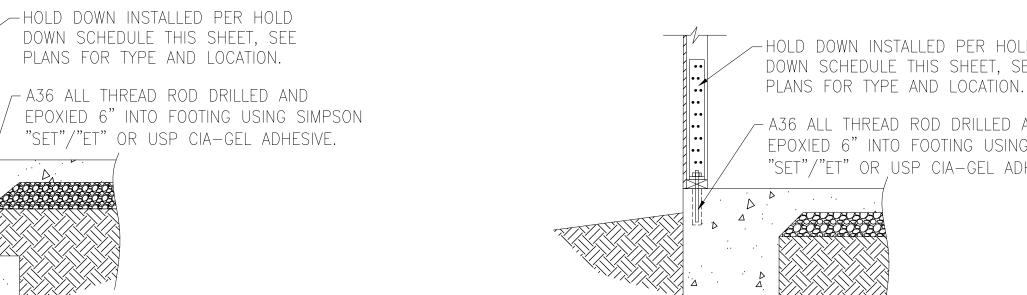
All Models Designed by KSE Alternate Braced Wall Details Raleigh, North Carolina

EXTEND WALL SHEATHING TO UNDERSIDE
OF FLOOR SHEATHING ABOVE. FASTEN
SHEATHING TO FLOOR TRUSS END
VERTICAL MEMBERS WITH (3)10d NAILS
& TO 2x RIBBON OR BLOCKING W/
10d NAILS @ 12" O.C. SHEATHING MAY
BE CUT/ DRILLED TO ALLOW FOR HVAC
& ELECTRICAL HOLES.

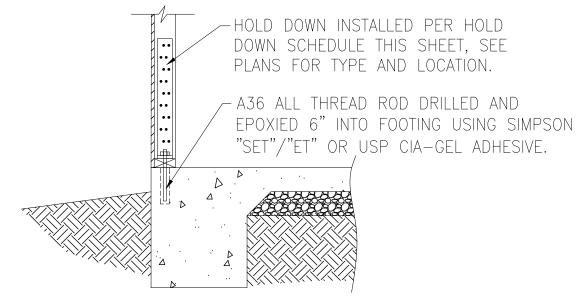
PERPENDICULAR BRACING DETAIL







DHOLD DOWN AT MONOLITHIC SLAB FOUNDATION















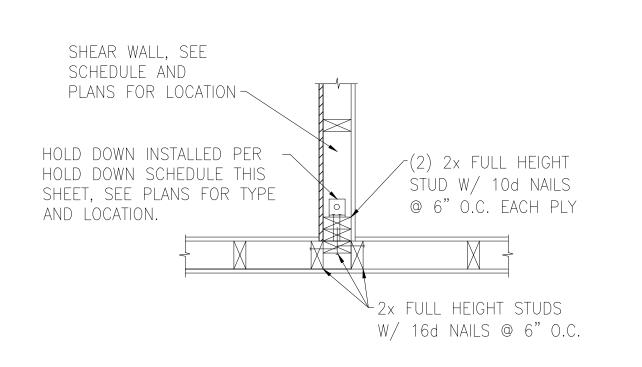


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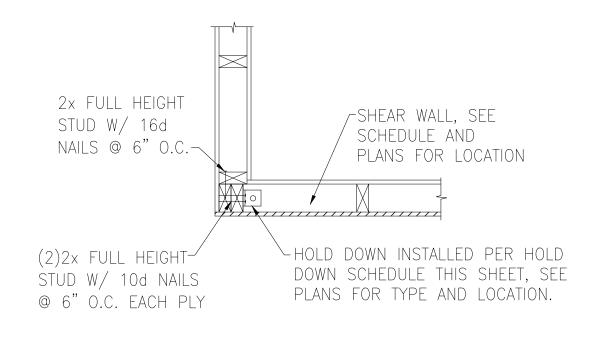
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Checked By: Issue Date: 3/6/23 Re-Issue: Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34



(A) TYPICAL HOLD DOWN DETAIL



B TYPICAL HOLD DOWN DETAIL

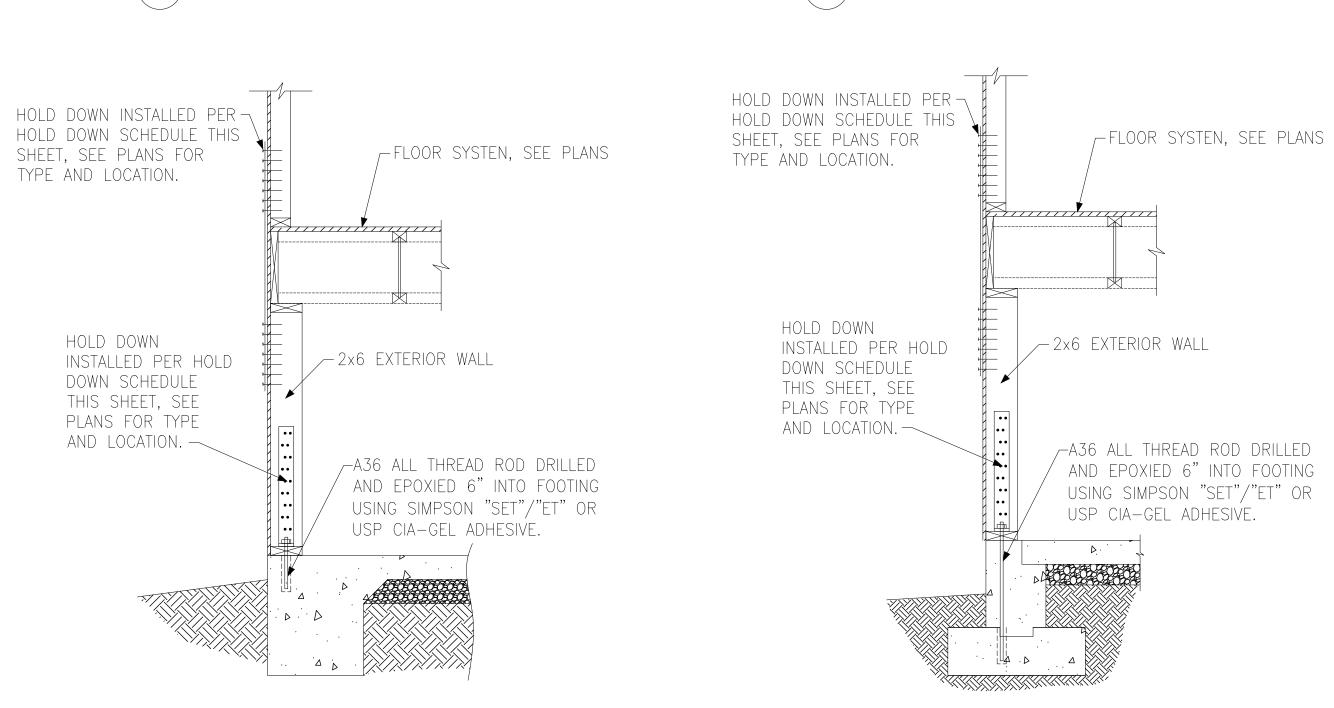
HOLD DOWN

DOWN SCHEDULE

THIS SHEET, SEE

PLANS FOR TYPE

AND LOCATION. —



G HOLD DOWN AT BASEMENT FOUNDATION STEM WALL

PLANS FOR TYPE AND LOCATION.

HOLD DOWN AT STEMWALL SLAB FOUNDATION

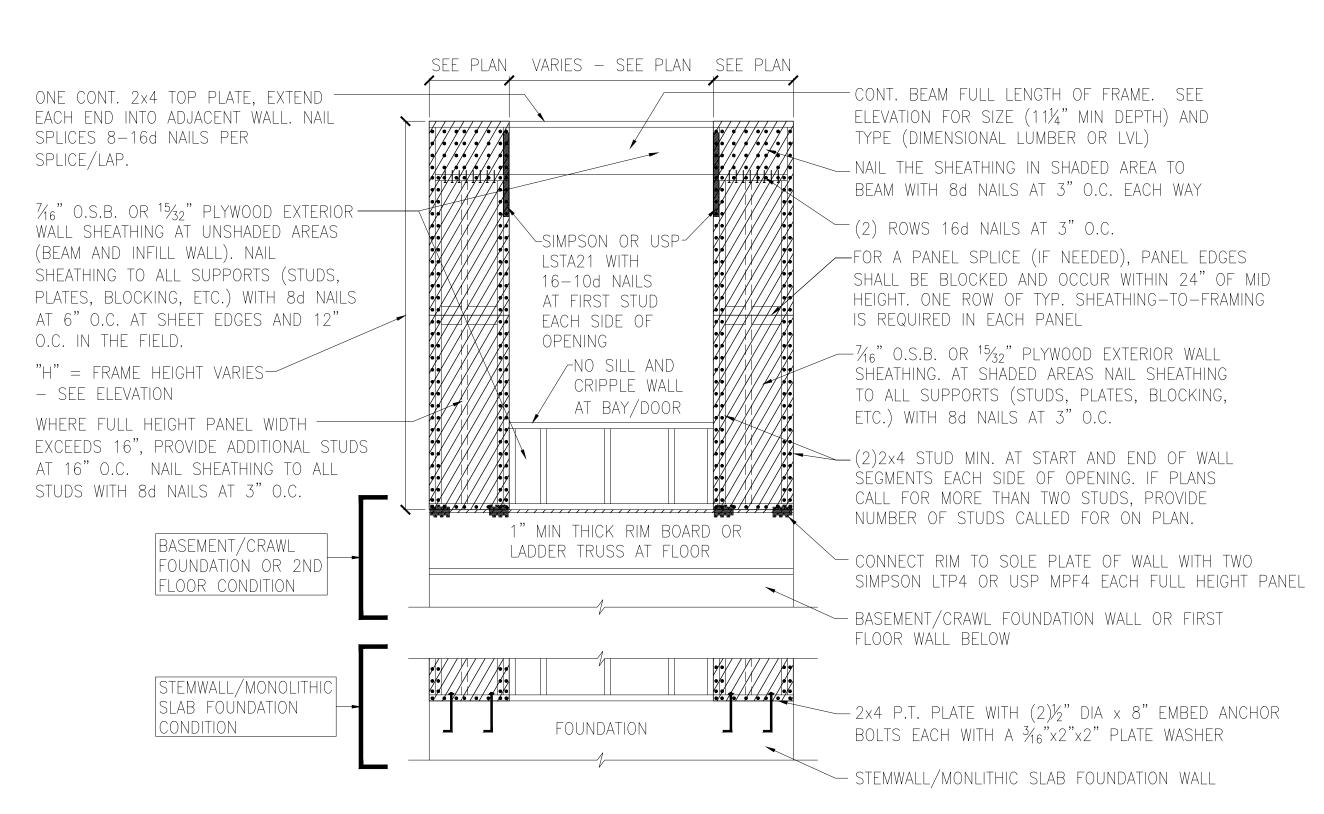
A36 ALL THREAD ROD— SIMPSON CNW1/2 OR USP CNW12-ZP COUPLER NUT GROUT CMU SOLID AT ALL THREAD ROD—	HOLD DOWN INSTALLED PER HOLD DOWN SCHEDULE THIS SHEET, SEE PLANS FOR TYPE AND LOCATION. A36 ALL THREAD ROD DRILLED AND EPOXIED 6" INTO FOOTING USING SIMPSON "SET"/"ET" OR USP CIA—GEL ADHESIVE.

(E)HOLD DOWN AT CRAWL SPACE FOUNDATION

F HOLD DOWN AT BASEMENT FOUNDATION MONOLITHIC TURN-DOWN

HOLD DOWN SCHEDULE						
HOLD	DOWN	ALL THREAD ROD	FASTENERS			
SIMPSON	USP	ALL ITINLAD NOD	FASILINERS			
LTTP2	LTS20B	½" DIA.	(12)0.148"x2.5" LONG NAILS			
HTT4	HTT16	%" DIA.	(18)0.162"x2.5" LONG NAILS			
HTT5	HTT45	%" DIA.	(26)0.162"x2.5" LONG NAILS			

JONE BRACED WALL SEGMENT



\METHOD CS-PF: CONTINUOUS PORTAL FRAME PANEL CONSTRUCTION B) TWO BRACED WALL SEGMENTS

BRACED WALL PANEL AND ENGINEERED SHEAR WALL SCHEDULE PANEL TYPES PANEL TYPE MATERIAL FASTENERS 6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT INTERMITTENT WOOD WSP 7/16" OSB INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG STRUCTURAL PANEL STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS INTERMITTENT GYPSUM 1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W BOARD (SHEATHING ONE | 1/2" GYPSUM GB(1) DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS. FACE OF WALL) INTERMITTENT GYPSUM 1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W BOARD (SHEATHING ONE | 1/2" GYPSUM GB(1)-4DRYWALL SCREWS AT 4" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS. FACE OF WALL) INTERMITTENT GYPSUM 1.5" LONG GALV. ROOFING NAILS, 6d COMMON NAILS, OR 1.25" LONG TYPE W BOARD (SHEATHING BOTH 1/2" GYPSUM GB(2) DRYWALL SCREWS AT 7" O.C. AT SHEET EDGES AND INTERMEDIATE SUPPORTS. FACES OF WALL) 6D OR 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT CONTINUOUS SHEATHED CS-WSP 7/16" OSB INTERMEDIATE SUPPORTS. ENGINEERED ALTERNATIVE: 16 GAGE BY 1.75" LONG WOOD STRUCTURAL STAPLES AT 3" O.C. AT SHEET EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS PANFI CONTINUOUS SHEATHED 7/16" OSB NAILING PER DETAIL CS-PF PORTAL FRAME PORTAL FRAME WITH 7/16" OSB NAILING PER DETAIL PFH HOLD DOWNS 7/16" OSB 8D COMMON NAILS AT 6" O.C. AT SHEET EDGES AND 12" O.C. AT ENGINEERED SHEAR CS-ESW(1) WALL, TYPE 1 INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS 7/16" OSB 8D COMMON NAILS AT 4" O.C. AT SHEET EDGES AND 12" O.C. AT ENGINEERED SHEAR

BRACED WALL PANEL NOTES:

WALL, TYPE 2

WALL, TYPE 3

ENGINEERED SHEAR

CS-ESW(2)

CS-ESW(3)

1. ALL BRACED WALL PANELS, EXCEPT GB(1) & GB(2), SHALL HAVE 2x BLOCKING BETWEEN WALL STUDS AT ALL HORIZONTAL SHEET EDGES.

INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS

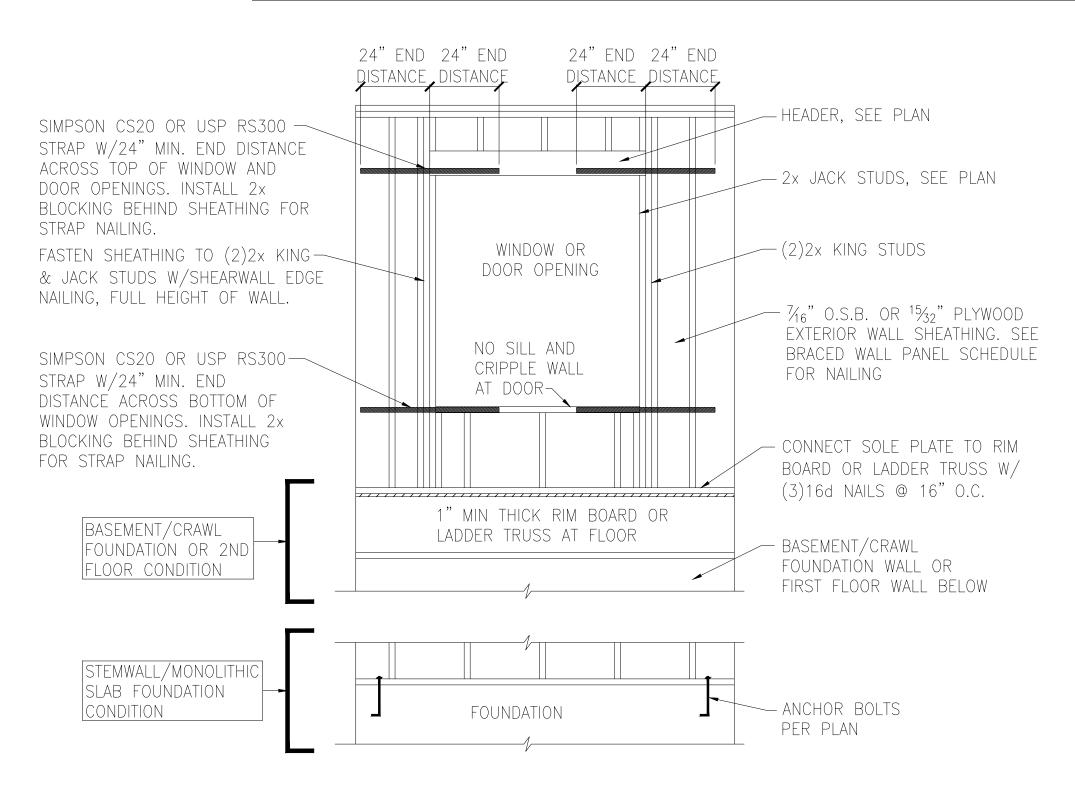
INTERMEDIATE SUPPORTS. CONTINUOUS OSB AROUND DOOR/WINDOW OPENINGS

8D COMMON NAILS AT 3" O.C. AT SHEET EDGES AND 12" O.C. AT

2. PROVIDE NAILING/BLOCKING ABOVE AND BELOW ALL BRACED WALL PANELS PER KSE BRACED WALL DETAILS.

7/16" OSB

- 3. SHEATH ALL EXTERIOR WALLS OF THE HOUSE WITH $\frac{7}{6}$ " O.S.B., OR $\frac{15}{32}$ " PLYWOOD, FASTENED PER IRC. AT EXTERIOR CORNERS, SHEATHING SHALL BE FASTENED PER KSE BRACED WALL DETAILS. AT INTERIOR WALL INTERSECTIONS, FASTEN STUDS & WALL BRACING PER KSE BRACED WALL DETAILS.
- 4. BRACED WALL PANELS AND ENGINEERED SHEAR WALLS ARE PROVIDED PER IRC. PANEL LENGTHS SHOWN ON PLANS ARE THE MINIMUM LENGTH REQUIRED.



WINDOW OR DOOR REINFORCEMENT IN ENGINEERED SHEAR WALL

ONLY REQUIRED WHERE SPECIFED ON PLANS

NC Firm #C-2101 Wellers Knoll Lot 63





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Designed By: KRK Checked By: Issue Date: 3/6/23

Re-Issue: Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34

MONOLITHIC SLAB OR BASEMENT FOUNDATION







Details

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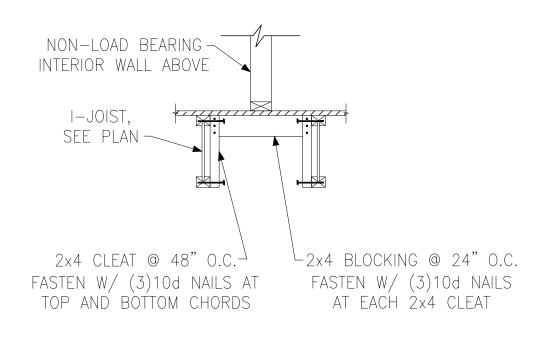
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Checked By: Issue Date: 3/6/23

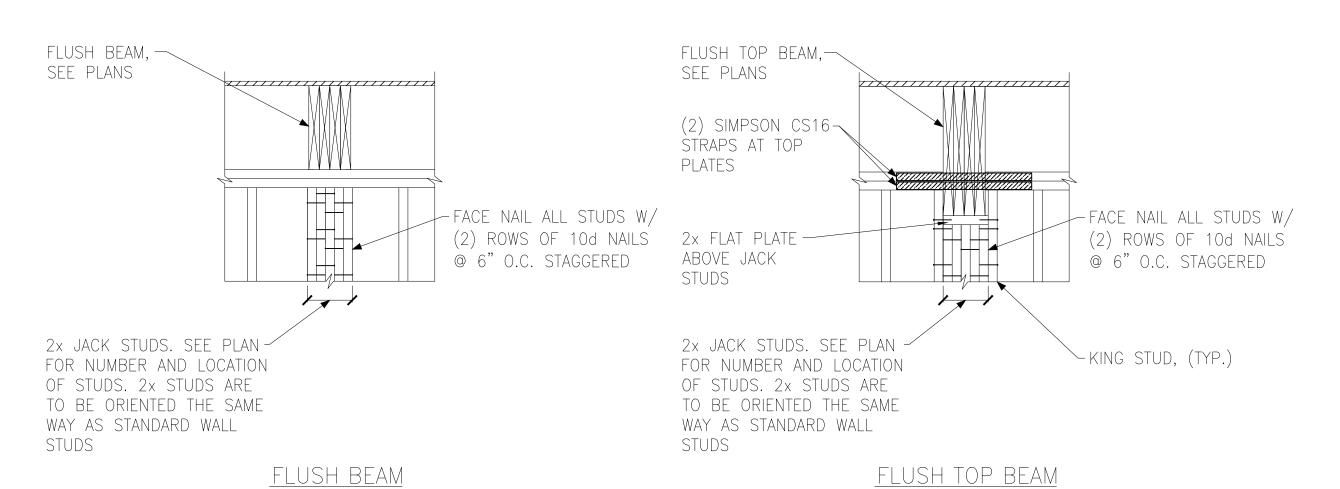
NC Firm #C-2101

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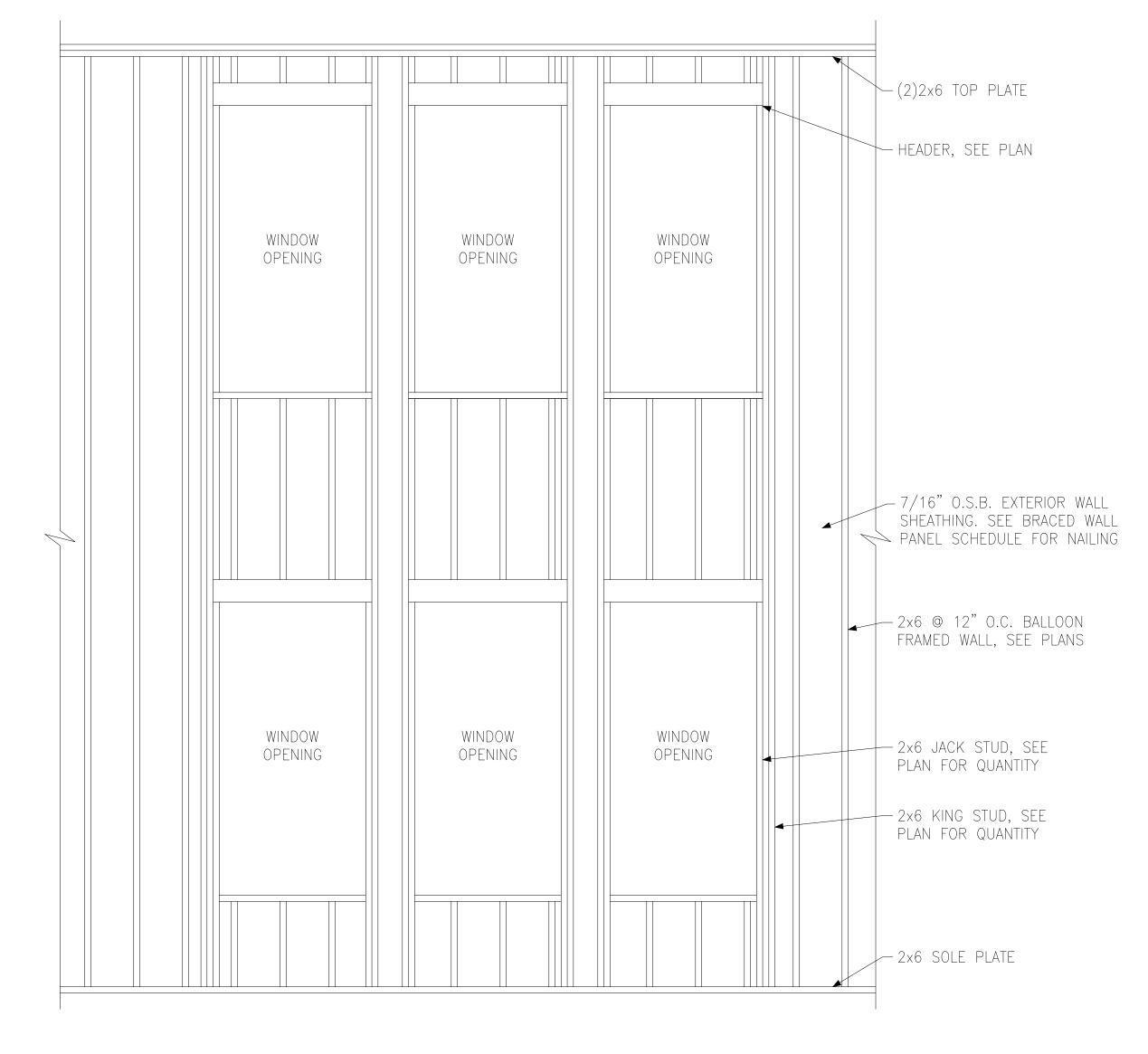




I-JOIST LADDER BLOCKING
AS REQUIRED @ PARALLEL WALLS



BUILT-UP STUD DETAIL SUPPORTING BEAM



DBALLOON FRAMED WALL DETAIL N.T.S.

Wellers Knoll Lot 63

NC Firm #C-2101

NC Firm #C-2101

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WGINEE

MONTE W A. MONTE WA. MONTE WA



DAVIDSON HOMES

Miscellaneous Framing Details

Project #: 214-22000

Designed By: KRK

Checked By:

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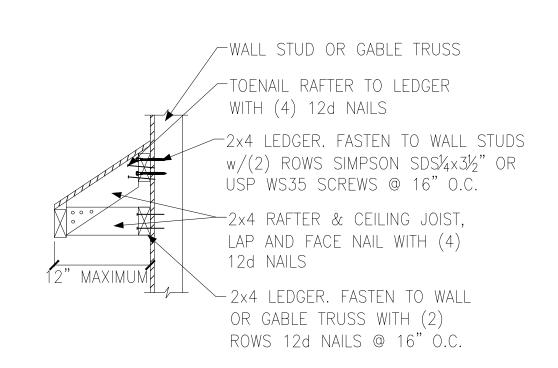
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Checked By:
Issue Date: 3/6/23

Re-Issue:
Scale: 1/8"=1'-0" @ 11x17
1/4"=1'-0" @ 22x34

SD-5



EYEBROW ROOF DETAIL STRAIGHT ROOF

SINEERING, QUAKERTOWN, PA 18951 (215) 804-4449

Details Framing Miscellaneous

Carolina

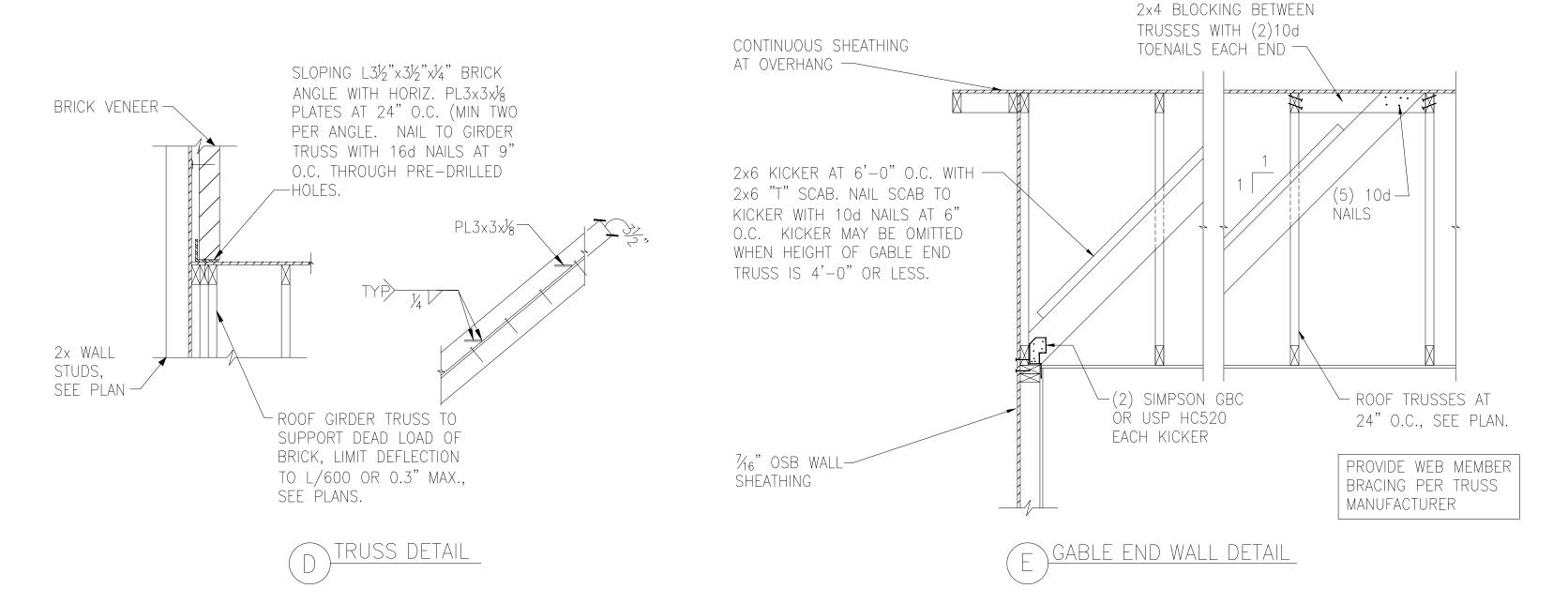
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Project #: 214-22000

Designed By: KRK Checked By: Issue Date: 3/6/23

NC Firm #C-2101

Re-Issue: Scale: 1/8"=1'-0" @ 11x17 1/4"=1'-0" @ 22x34



2x STUD WALL W/ P.T.

-INSTALL ½" DIA. ANCHOR

BOLTS, SEE FOUNDATION

CONCRETE SLAB POURED

MONOLITHICALLY WITH

FOOTING, SEE PLAN.

-4" GRAVEL FILL

OR GROUP 1

CLASSIFIED SOIL

-COMPACTED SOIL

2x STUD WALL W/ P.T.

-MONOLITHIC CONCRETE

FOOTING W/ 4" LEDGE @

BRICK VENEER, SEE PLAN.

PLATE, SEE PLAN.

NOTES.





Details Foundation Slab Monolithi

 \bigcirc Project #: 214-22000 Designed By: KRK

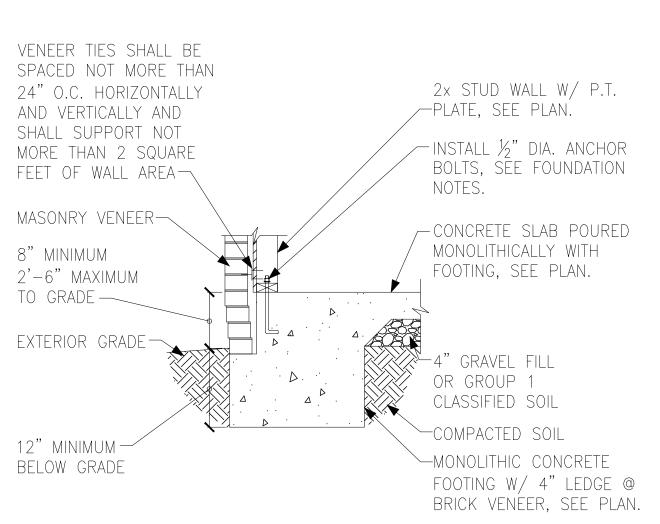
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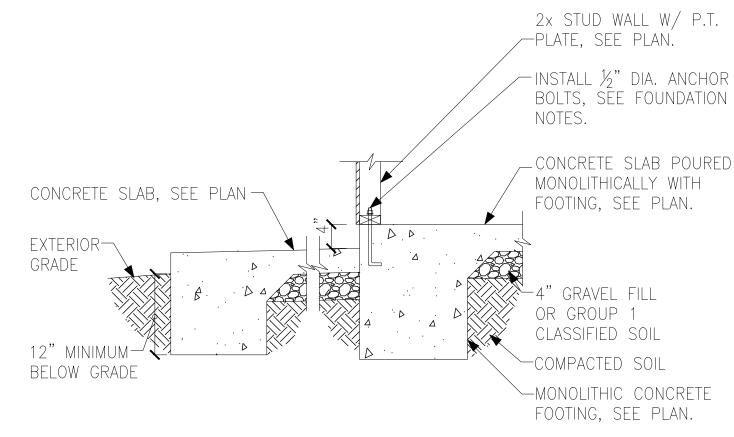
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NC Firm #C-2101

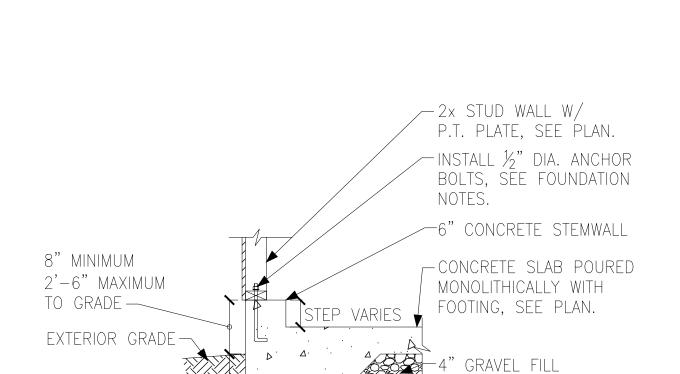












FOUNDATION SECTION

A EXTERIOR WALL

8" MINIMUM

TO GRADE -

12" MINIMUM-

BELOW GRADE

12" MINIMUM —

BELOW GRADE

2'-6" MAXIMUM

EXTERIOR GRADE

∕ 2x STUD WALL W/

NOTES.

P.T. PLATE, SEE PLAN.

-INSTALL $\frac{1}{2}$ " DIA. ANCHOR

BOLTS, SEE FOUNDATION

-CONCRETE SLAB POURED

MONOLITHICALLY WITH

FOOTING, SEE PLAN.

-4" GRAVEL FILL

CLASSIFIED SOIL

COMPACTED SOIL

OR GROUP 1

CLASSIFIED SOIL

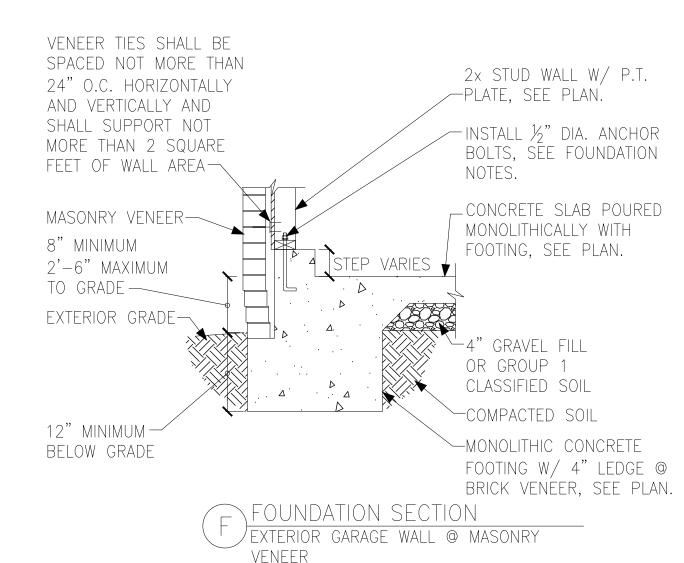
-COMPACTED SOIL

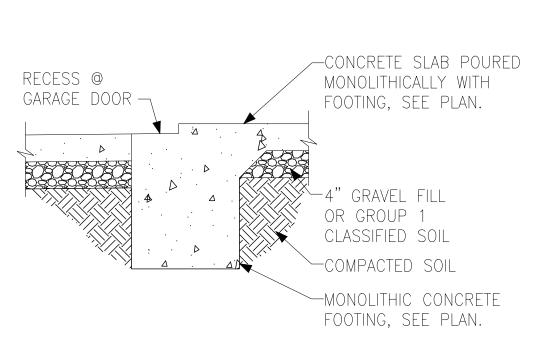
-MONOLITHIC CONCRETE

FOOTING, SEE PLAN.

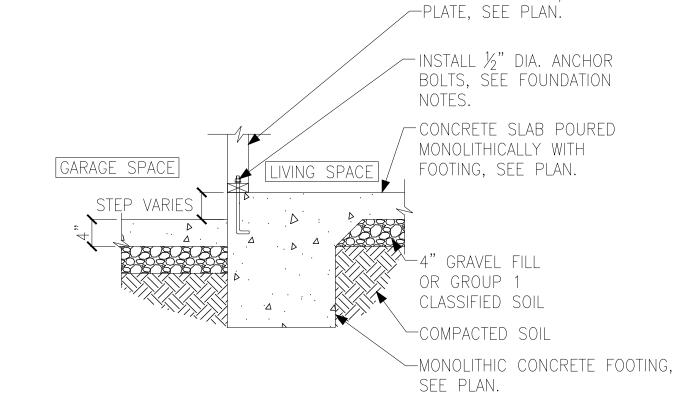
OR GROUP 1

-- MONOLITHIC CONCRETE FOOTING, SEE PLAN. FOUNDATION SECTION EXTERIOR GARAGE WALL









VENEER

FOUNDATION SECTION

EXTERIOR WALL AT PORCH W/ MASONRY

VENEER TIES SHALL BE

24" O.C. HORIZONTALLY

AND VERTICALLY AND

SHALL SUPPORT NOT

MORE THAN 2 SQUARE

CONCRETE SLAB, SEE PLAN -

FEET OF WALL AREA -

MASONRY VENEER —

EXTERIOR

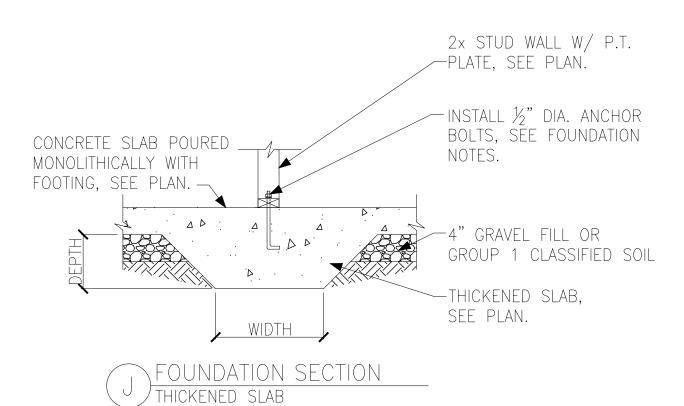
12" MINIMUM

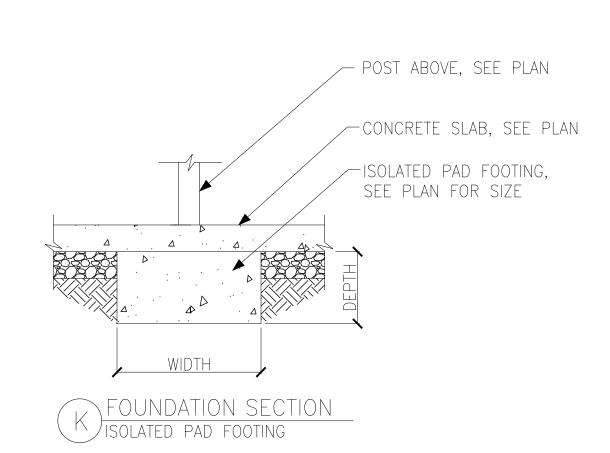
BELOW GRADE

GRADE

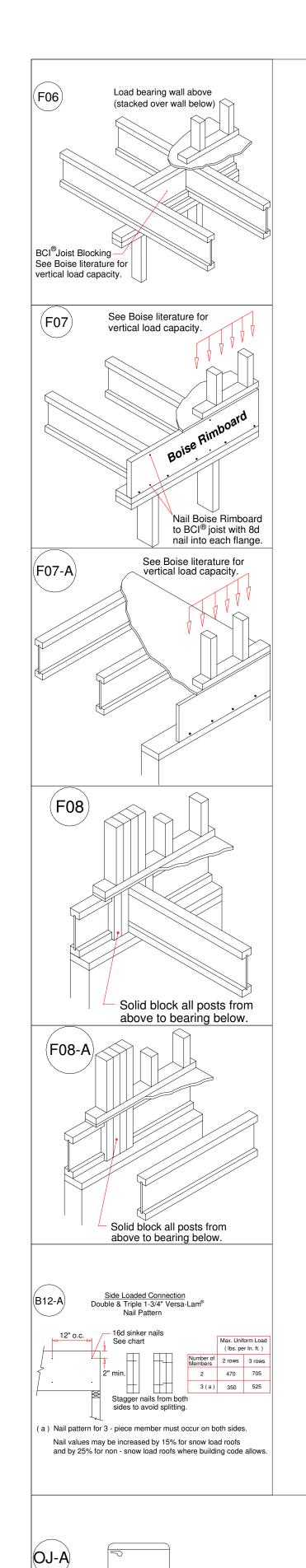
SPACED NOT MORE THAN

FOUNDATION SECTION INTERIOR GARAGE WALL

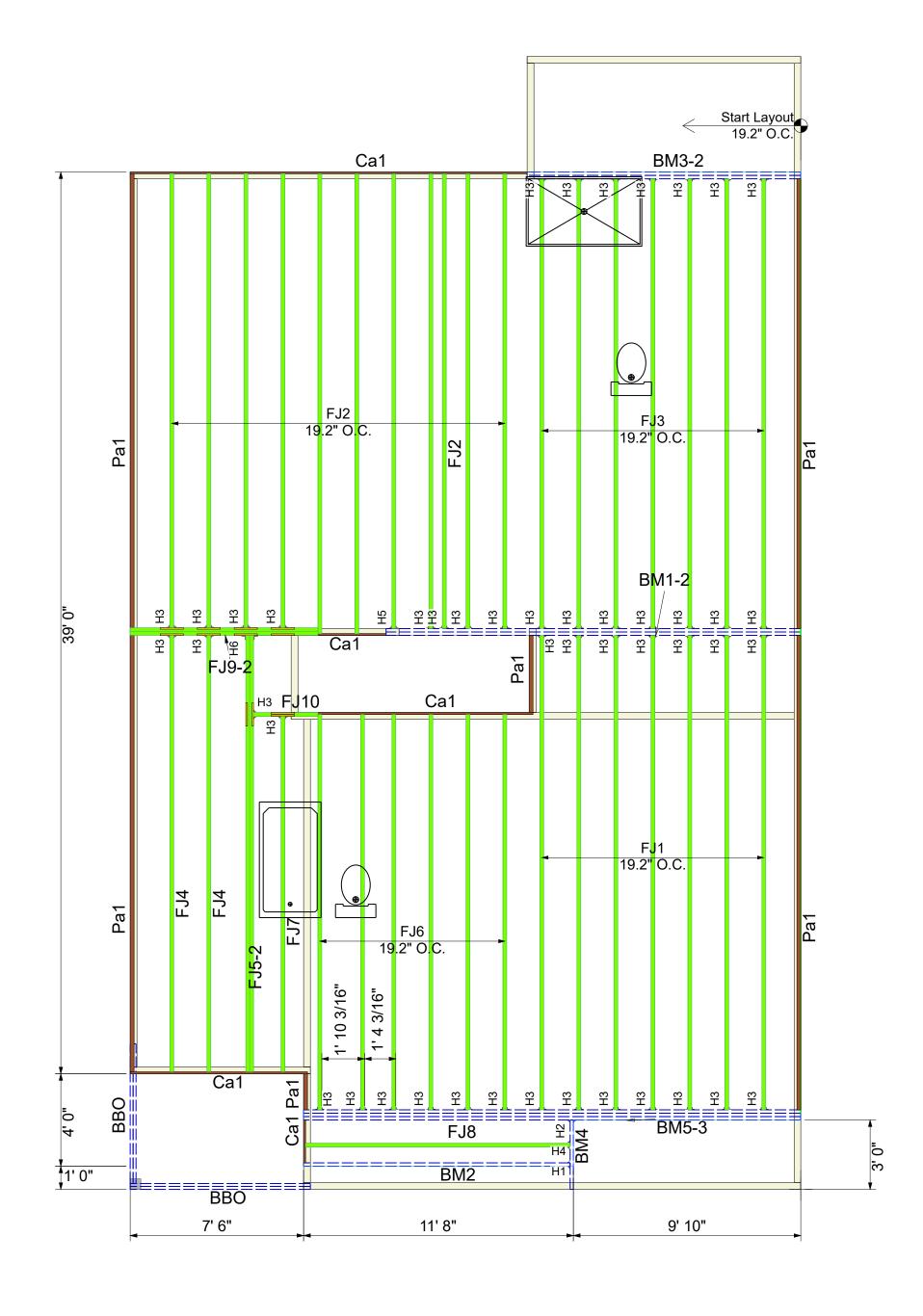




Wellers Knoll Lot 63



Boise I-Joist can be offset up to 3" to avoid vertical plumbing.



Products					
PlotID	Length	Product	Plies	Net Qty	Fab Type
FJ1	21' 0"	14" BCI® 5000s-1.8	1	7	MFD
FJ2	20' 0"	14" BCI® 5000s-1.8	1	11	MFD
FJ3	19' 6"	14" BCI® 5000s-1.8	1	7	MFD
FJ4	19' 0"	14" BCI® 5000s-1.8	1	2	MFD
FJ5-2	19' 0"	14" BCI® 5000s-1.8	2	2	MFD
FJ6	17' 6"	14" BCI® 5000s-1.8	1	6	MFD
FJ7	15' 6"	14" BCI® 5000s-1.8	1	1	MFD
FJ8	11' 6"	14" BCI® 5000s-1.8	1	1	MFD
FJ9-2	8' 6"	14" BCI® 5000s-1.8	2	2	MFD
FJ10	3' 0"	14" BCI® 5000s-1.8	1	1	MFD
BM1-2	18' 0"	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	2	FF
BM2	12' 0"	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	1	1	FF
BM3-2	12' 0"	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	2	FF
BM4	4' 0"	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	1	1	FF
BM5-3	22' 0"	1-3/4" x 16" VERSA-LAM® 2.0 3100 SP	3	3	FF
Ca1	12' 0"	1" x 14" BC RIM BOARD	1	4	FF
Pa1	84' 0"	14" BCI® 5000s-1.8	1	1	FF

Connector Summary						
Qty	Manuf	Product				
1	Simpson	HUS1.81/10				
1	Simpson	IUS1.81/14				
46	Simpson	IUS2.06/14				
1	Simpson	IUS2.06/14				
1		IUS2.0614				
1		MIU4.12/14				
	Qty 1 1 46 1	Qty Manuf 1 Simpson 1 Simpson 46 Simpson 1 Simpson 1				

F58-B

Double BCI®Joist
Connection

Backer and Filler Block Dimensions
Bcl®Joist
Series Tribckness
Filler Block (see chart)

Web-Filler
Nailing 12" OC

Web-Filler
Nailing 12" OC

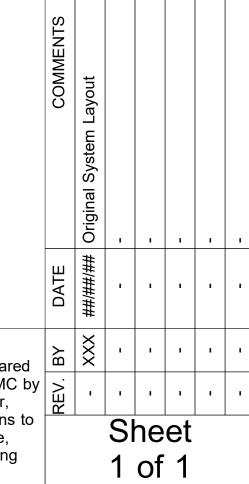
Sometion

Backer and Filler Block Dimensions
Filler Block Series
Filler Block
Series Tribckness
Filler Block Tribckness
Filler Block Dimensions
Filler Block Dimensions
Filler Block Dimensions
Filler Block Dimensions
Series Tribckness
Filler Block Dimensions
Series Tribckness
Filler Block Dimensions
Filler

Second Floor Layout Scale: 1/4"=1'-0"

SALES PRESENTATION DRAWING This layout and associated materials list has been prepared based on project plans and/or information provided to BMC by

based on project plans and/or information provided to BMC by the builder. It remains the responsibility of the builder, architect, engineer of record, or other responsible persons to review this information to assure that it is appropriate, accurate, complete and complies with applicable building codes.



Davidson Homes

ROOF TRUSS NOTES:

DO NOT CUT, DRILL, NOTCH, OR OTHERWISE DAMAGE TRUSSES. Contact your BFS Representative for assistance PRIOR TO modifying

Espanol - (NO CORTE, PERFORE, HAGA MUESCAS O DANE DE CUALQUIER OTRA MANERA LAS TRUSSES (CERCHAS DE MADERA). ontacte a su representante de BFS para sistencia ANTES de realizar cualquier

odification.)
This Truss Placement Diagram is intended to serve s a guide for truss installation. This Diagram has een prepared by a Truss Technician and is not an gineered drawing.

C. The responsibilities of the Owner, Building
Designer, Contractor, Truss Designer, and Truss
Manufacturer shall be as defined by the TPI 1 National tandard.

The wood components shown on this diagram are be used in dry service (moisture content<19%) and on-toxic environmental applications. The metal plates nd hangers are galvanized to the G60 Standard nless noted otherwise.

Refer to the Truss Design Drawings for specific

formation about each individual truss design.

The Truss Technician shall provide Truss-to-Truss. onnection Requirements. Any special or other nnection shall be the responsibility of the Building

The Truss Placement Diagram and Truss Design Drawings are the property of Builders FirstSource and may not be reused or reproduced in part or in total under any circumstances without prior written

. In some cases, field framing may be required to chieve the final appearance shown on the Construction Documents.

Field framing, including valley rafters, installed over oof trusses shall have a knee brace from the rafter to the truss top chord at intervals of 48" on center (O.C.) r less. Stagger knee braces from adjacent rafters such that the load is distributed uniformly over multiple russ locations and not concentrated at one location or lona one truss.

9. Truss Top Chords shall be fully sheathed or have ateral bracing (purlins) spaced at 24" O.C. or less. uss Bottom Chord Bracing shall not exceed the naximum shown on the Truss Design Drawing. Field ramed bottom chord floor or ceiling attachments shall be spaced at 24" O.C. or less. Proper Bracing revents buckling of individual truss members due to esian loads.

0. This Placement Diagram is based upon the ipporting structure being structurally adequate, mensionally correct, square, plumb, and level to dequately support the trusses. The foundation esign, structural member sizing, load transfer, bearing nditions, and the structure's compliance with the pplicable building code are the responsibility of the wner, Building Designer, and Contractor. If Piggyback Trusses are included in this project,

efer to the Mitek Piggyback Connection Detail pplicable for the project details and wind load 12. The Contractor shall follow the SBCA TTB

Partition Separation Prevention and Solutions for truss attachment to non-load bearing walls and carefully complete these details to avoid gypsum wall board

WARNING:

TRUSSES MUST BE BRACED DURING NSTALLATION. FAILURE TO DO SO MAY RESULT N INJURY OR DEATH.

ESPANOI - (TRUSSES (CERCHAS) DEBERAN TENER UN SOPORTE DURANTE LA INSTALACION NO HACERLO PODRIA RESULTAR EN LESIONES O MUFRTE.)

Trusses shall be installed in a safe manner meetin Il code, local, OSHA, TPI, and BCSI Specifications. ailure to follow these specifications may result in njury or death.

Buildings under construction are vulnerable to high winds and present a possible safety hazard. The Contractor is responsible for recognizing adverse eather conditions and shall take appropriate action to event injury or death.

BCSI INSTRUCTIONS SHALL BE FOLLOWED:

BCSI-B1 = Safe Truss Handling and Installation BCSI-B2 = Installation and Temporary Restraint

BCSI-B3 = Permanent Restraint

CSI-B4 = Safe Construction Loading

BCSI-B5 = Truss Damage and Modification Guidelines BCSI-B7 = Floor Truss Installation

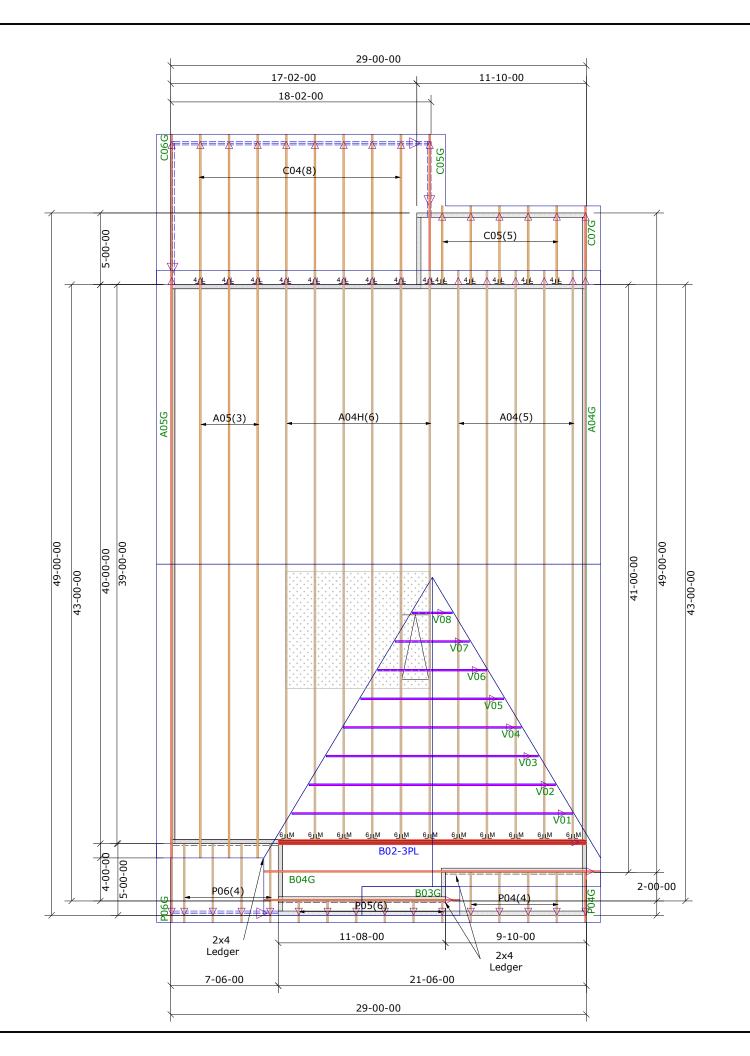
BCSI-B8 = Toe-Nailed Connections BCSI-B9 = Multi-Ply Girders

BCSI-B10 = Post Frame Truss Installation

BCSI-B11 = Fall Protection

Follow TPI Requirements for Long Span Trusses

TOTAL ROOF AREA 1953.96 SQ FT





Builders First Source

23 Red Cedar Way Apex, NC 27523 Phone: (919) 363-4956 Fax: (919) 387-8565 https://www.bldr.com

General Notes:

- Per ANSI/TPI 1-2002 all " Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer. Dimensions are Feet-Inches- Sixteenths

Trusses are to be 24" o.c. unless noted otherwise

Trusses are not designed to support brick U.N.O. - Do not cut or modify trusses without first contacting Builders FirstSource.

- Immediately contact Builders FirstSource if trusses are damaged.

<u>Connection Notes:</u>
- All hangers are to be Simpson or equivalent U.N.O. - Use Manufacturer's specifications for all hanger connections U.N.O.

- Use 10d x 1 1/2" Nails in hanger connections to single

ply roof girder trusses.

Floor notes:
- Shift truss as required to avoid plumbing traps. - Installation Contractor and/or Field Supervisor are to verify all dimensions, trap locations, and options prior to

Dimension Notes:

- Drawing not to scale. Do not scale dimensions

 $\triangle \triangleleft \nabla \triangleright$ LEFT END OF TRUSS AS SHOWN ON TRUSS DETAIL DRAWINGS ARE INDICATED BY TRIANGLE ICONS.



HANGER LIST ALL TIE DOWNS H2.5A UNLESS NOTED

HANGER EIGH				,		*****	IST CITEEDS NOTE	
	ITU26		Мј [6	SPECIAL ITEMS LIS				
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					MIS	SC M	<u>ATERIAL</u>	
			DAVI)	HOME	3		
TH	E GR	ACE		E	ELEV:		В	
WELLER KNOLLS								
-			NC		LOT:		63	
		APPWRIGHT #						
	[BAS	SE]		4020906				
	OPTIC			9	CODE: IRC 2015			
• [0	OPTIC	ON 3]	<u>LOADING:</u>				
				Т	.C.L.L	20 PSF		
DESIGNED		Υ	_		.C.D.L		10 PSF	
LAYOUT:	Α,	B SP	6''	В	B.C.L.L		0 PSF	
L/O DATE:	5/:	16/2	024	В	B.C.D.L. 10 PSF			
REVISI	<u>ON I</u>	HIST	ORY	<u>WIND:</u>			ND:	
REV1:	X	X/XX/XX			M.P.H.		115 MPH	
REV2:	V2: XX/XX/XX		EXPOSURE CATEGORY					
REV3:	REV3: XX/XX/XX			B (WOO	DED A	REAS/OTHERS)		
PICK TICK	PICK TICKET:			JOB NO:				
SALES	SALES NO:			ACCT	NO:			
HATCH LEGEND			ľ					
+ + + + + +	AT	TIC R	ООМ	I				

OLUME CEILIN

STICK FRAMIN