ASH

ELEVATION E

3-CAR
FRONT LOAD
OPTION

PRINCE PLACE LOT 16

INCLUDED OPTIONS:
1st FLOOR
SCREENED PORCH
FIREPLACE
OWNERS SPA SHOWER
BOX OAK STAIRS
OPEN RAIL
3-CAR GARAGE
4' GARAGE EXTENSION
2nd FLOOR
2nd SINK @ BATH 2
UNFINISHED STORAGE

SQUARE FOOTAGE

	ELEVATION 'E'	
	UNHEATED	HEATED
FIRST FLOOR	0	1496
SECOND FLOOR	0	905
MECHANICAL	102	0
SCREEN PORCH	133	0
FRONT PORCH	143	0
2-CAR GARAGE	449	0
SUBTOTALS	827	2401
TOTAL UNDER ROOF	3228	

OPTIONS

	UNHEATED S.F.	HEATED S.F.
ONE CAR GARAGE	295	0
4' GARAGE EXTENSION (FRONT LOAD ONLY)	+83	0
UNFIN. STOR. 2F W/ 4' GARAGE. EXTENTION	184	0

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2387 - ASH - RH

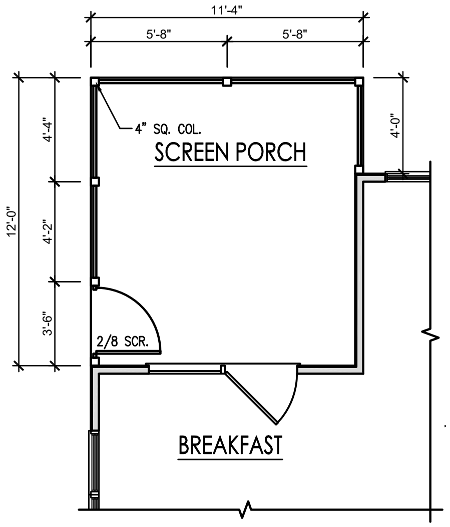
Coversheet 'E'

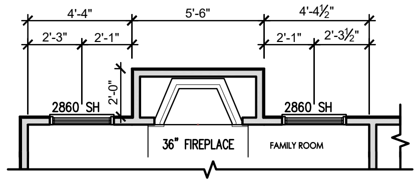
DRAWN BY: South Designs
ISSUE DATE: 09/29/2018
CURRENT REVISION DATE: 10/13/2020
SCALE: 1/8" = 1'-0"
SHEET 0.0e

PRINCE PLACE LOT 16

SCREENED PORCH FLOOR PLAN

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





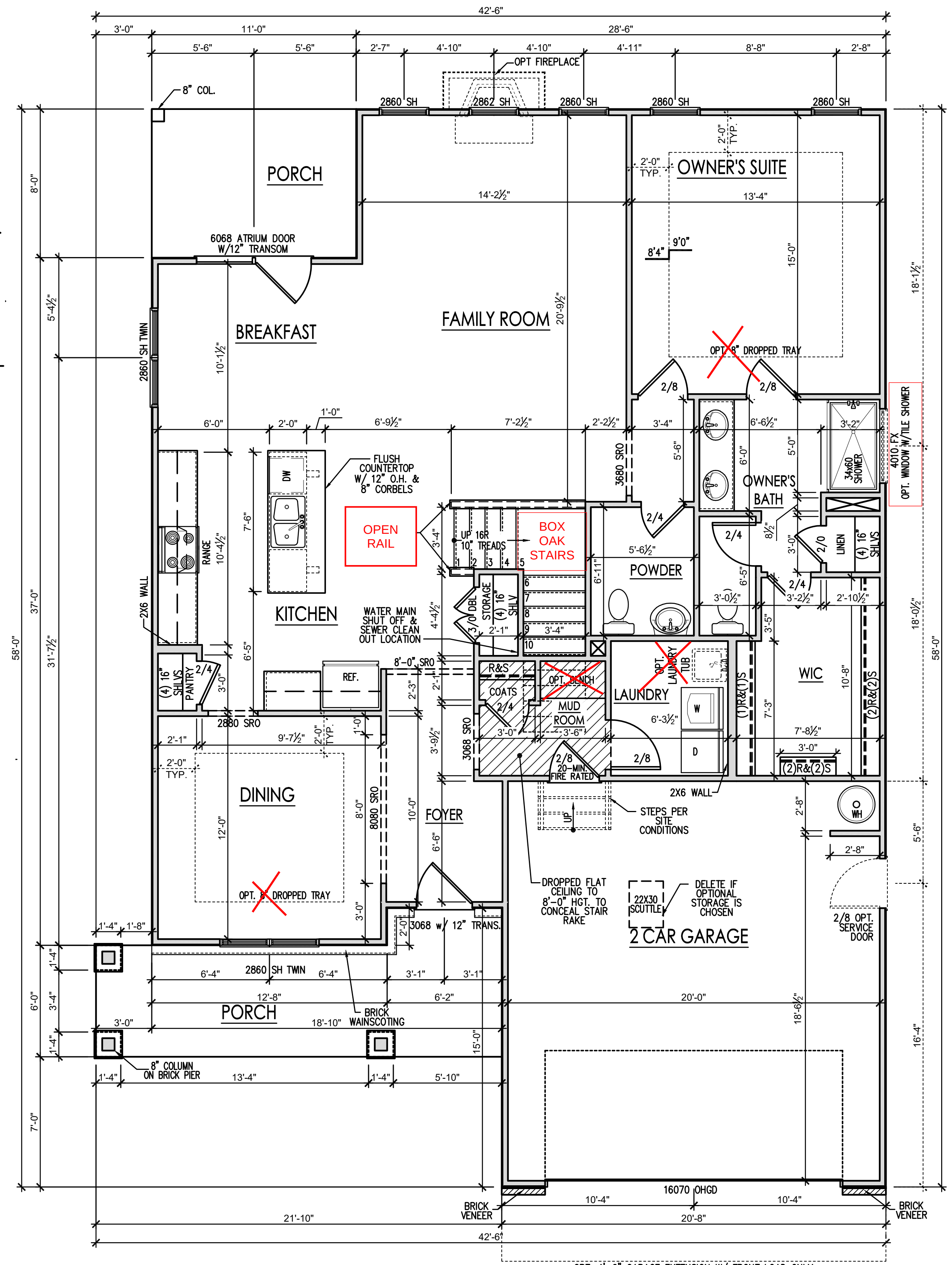
OPT. FIREPLACE - A

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

General Floor Plan Notes

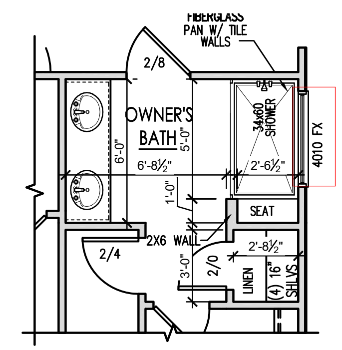
General Floor Plan Notes shall apply unless noted otherwise on plan.

1. 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.
3. Typical header height shall be 8'-0" AFF at First Floor, and 7'-0" AFF at Second Floor U.N.O.
4. 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.
5. 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 **do not** include soffits over wall cabinetry.
6. 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.
7. 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 glazing.
8. Closets for clothing or coat storage shall be equipped with 1 rod/shelf (unless otherwise noted). Closets for linen shall have 5 open equal shelves. Closets for pantries shall have 5 equal wood shelves, painted.
9. 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. Handrails and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails 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.
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 stairs 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.



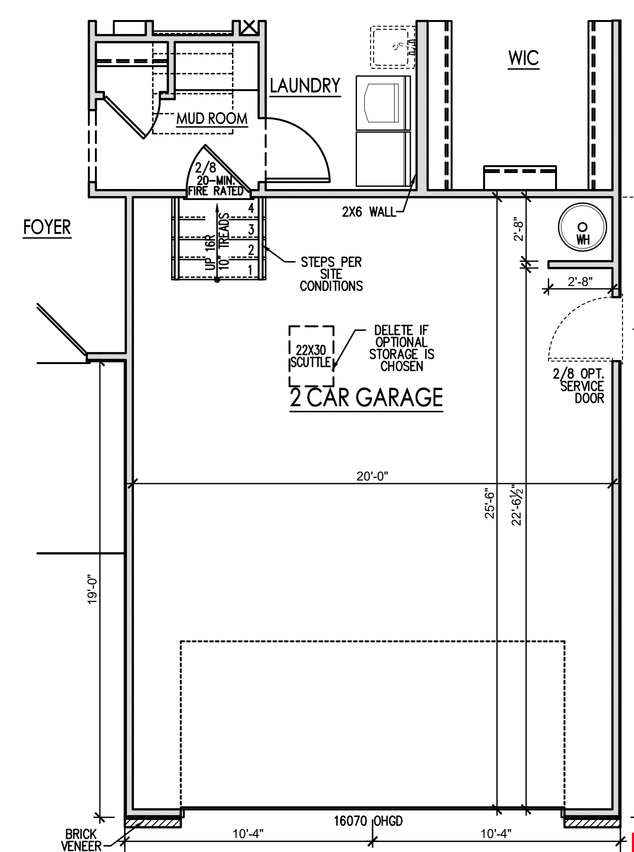
FIRST FLOOR PLAN 'E'

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



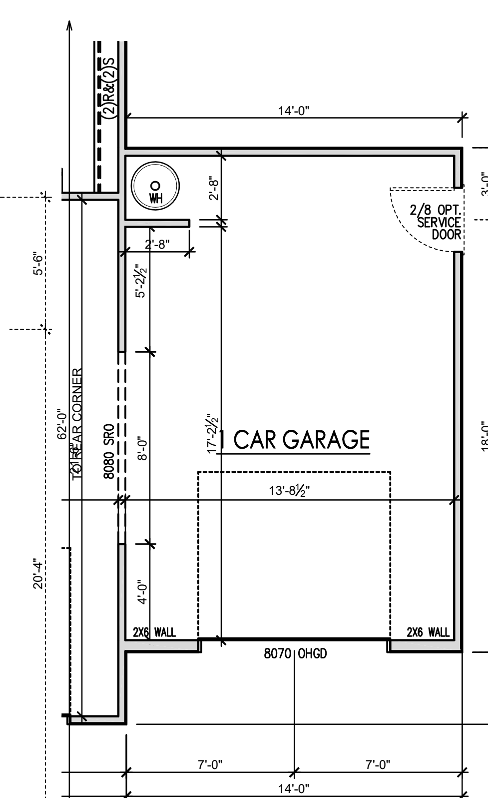
OPT. SPA SHOWER

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



OPT. 4' GARAGE EXTENSION

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



3 CAR FRONT LOAD FLOOR PLAN

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

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2387 - ASH - RH

First Floor Plan 'E'

DRAWN BY: South Designs

ISSUE DATE: 09/29/2018

CURRENT REVISION DATE: 10/13/2020

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

SHEET 2.1e

PRINCE PLACE LOT 16

General Floor Plan Notes

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

1. **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.**
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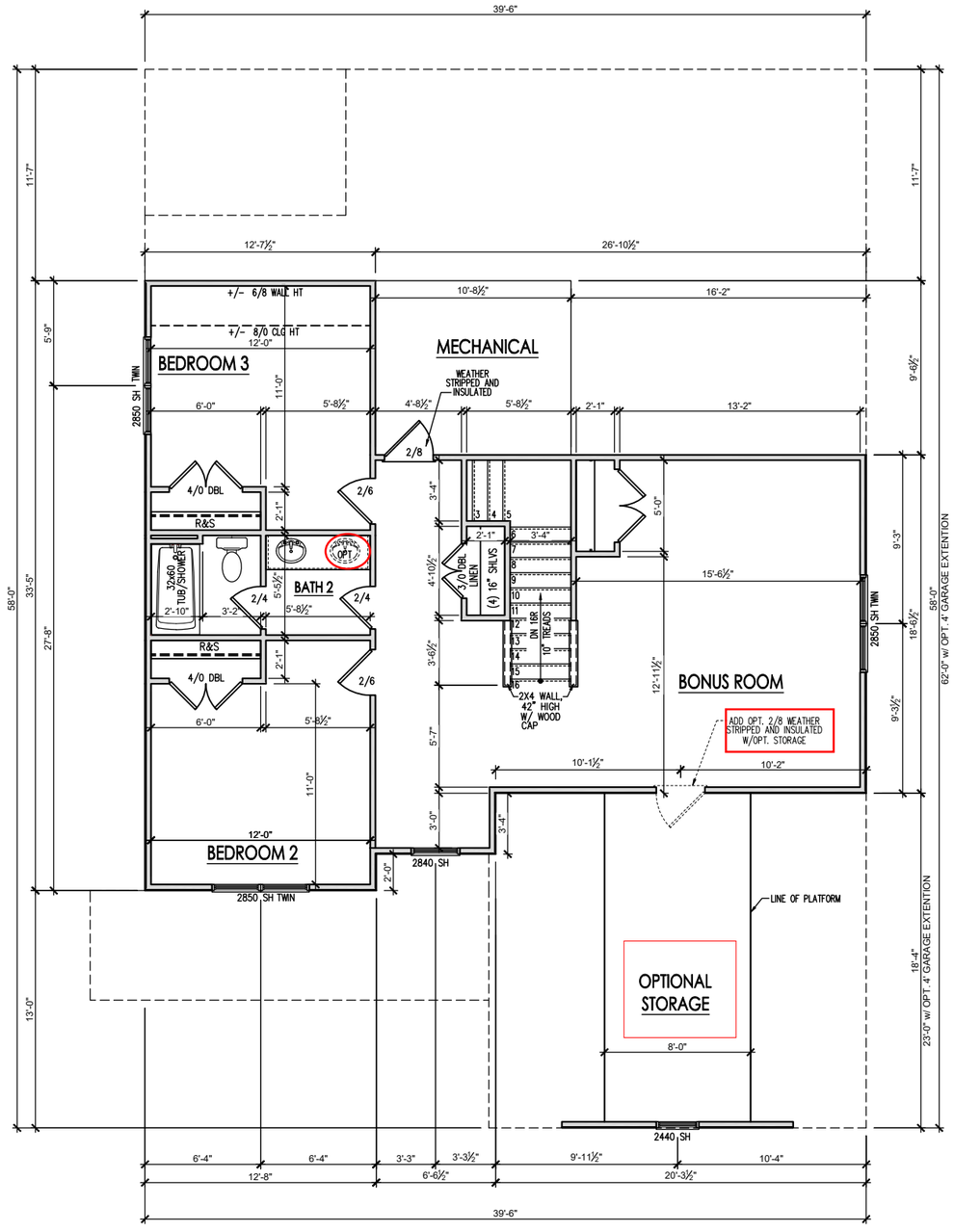
3. **Typical header height shall be 8'-0" AFF at First Floor, and 7'-0" AFF at Second Floor U.N.O.**
4. **Jacks: Openings up to 3'-4" wide shall have (1) 2x4 jack stud SPF on each side. Openings greater than 3'-4" wide shall have (2) 2x4 jack studs SPF on each side.**
5. **Soffits, Coffered Ceilings, 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 not</u> include soffits over wall cabinetry.**
6. **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.**
7. **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 glazing.**
8. **Closets for clothing or coat storage shall be equipped with 1 rod/shelf (unless otherwise noted). Closets for linen shall have 5 open equal shelves. Closets for pantries shall have 5 equal wood shelves, painted.**
9. **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. **Handrails and Guards at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails 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.**
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 stairs 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.**



SECOND FLOOR PLAN 'E'

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

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2387 - ASH - RH

Second Floor Plan 'E'

DRAWN BY: South Designs

ISSUE DATE: 09/29/2018

CURRENT REVISION DATE: 10/13/2020

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

SHEET 2.2e

PRINCE PLACE LOT 16

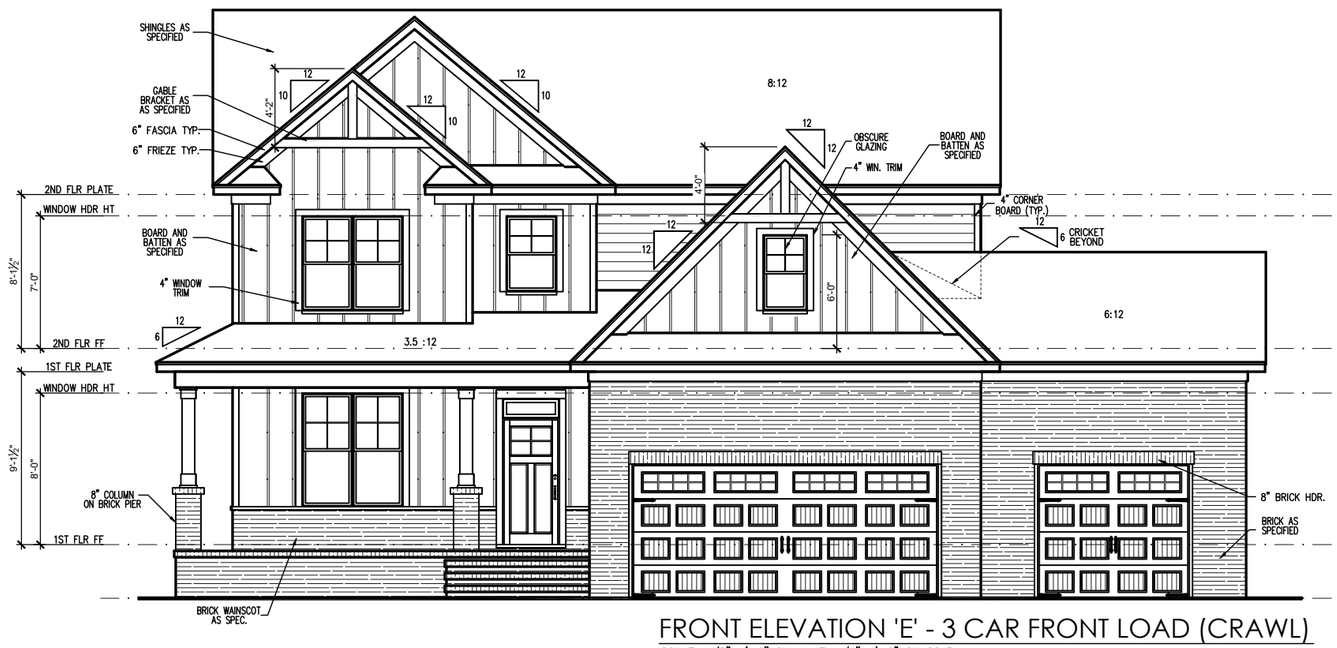
General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

1. Roof shall be finished with architectural composition shingles with slopes as noted on plan.
2. 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
4. House Wrap, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations.
5. 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.
6. 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 specifications for material.
7. Finish Wall Material shall be as noted on elevation drawings.
8. Brick Veneer, if included on elevation shall be tied to wall surface with galvanized corrugated metal ties at a rate of 24" oc horizontally and 16" oc vertically so that no more than 2.67sf of brick is supported by (1) tie. 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 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.
9. 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.

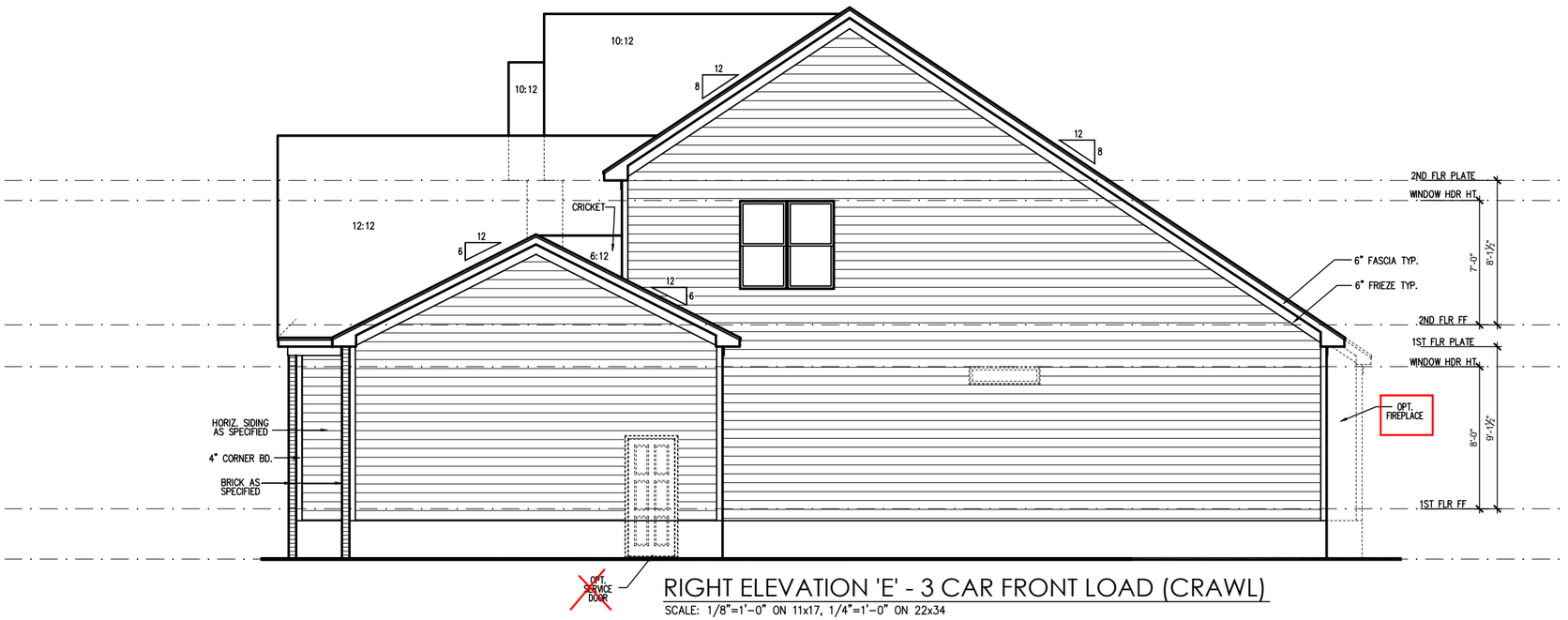
Masonry Opening Lintel Schedule

Opening Size	Angle
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" LLV
5'-7" to 6'-6"	5" x 3-1/2" x 5/16" LLV
6'-7" to 8'-4"	6" x 3-1/2" x 5/16" LLV
8'-5" to 16'-4"	7" x 4" x 3/8" LLV



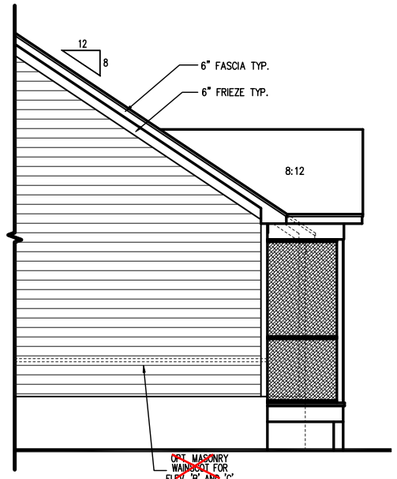
FRONT ELEVATION 'E' - 3 CAR FRONT LOAD (CRAWL)

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



RIGHT ELEVATION 'E' - 3 CAR FRONT LOAD (CRAWL)

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



PARTIAL RIGHT SIDE ELEVATION

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

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2387 - ASH - RH

Front Load 3-Car Garage Elevations 'E' (Crawl)

DRAWN BY: South Designs

ISSUE DATE: 09/29/2018

CURRENT REVISION DATE: 10/13/2020

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

SHEET 2.8.1e

PRINCE PLACE LOT 16

General Elevation Notes

General Elevation Notes shall apply unless noted otherwise on plan.

1. Roof shall be finished with architectural composition shingles with slopes as noted on plan.
2. 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
4. House Wrap, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations.
5. 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.
6. 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 specifications for material.
7. Finish Wall Material shall be as noted on elevation drawings.
8. Brick Veneer, if included on elevation shall be tied to wall surface with galvanized corrugated metal ties at a rate of 24" oc horizontally and 16" oc vertically so that no more than 2.67sf of brick is supported by (1) tie. 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 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.
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Masonry Opening Lintel Schedule

Opening Size		Angle
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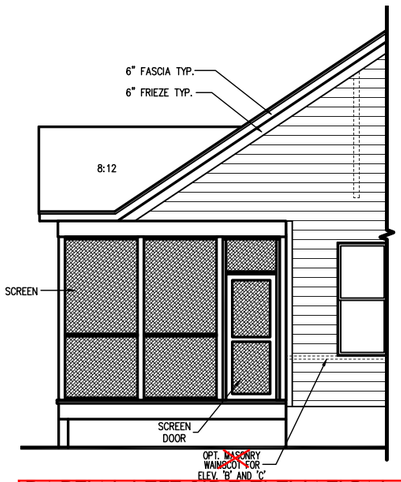
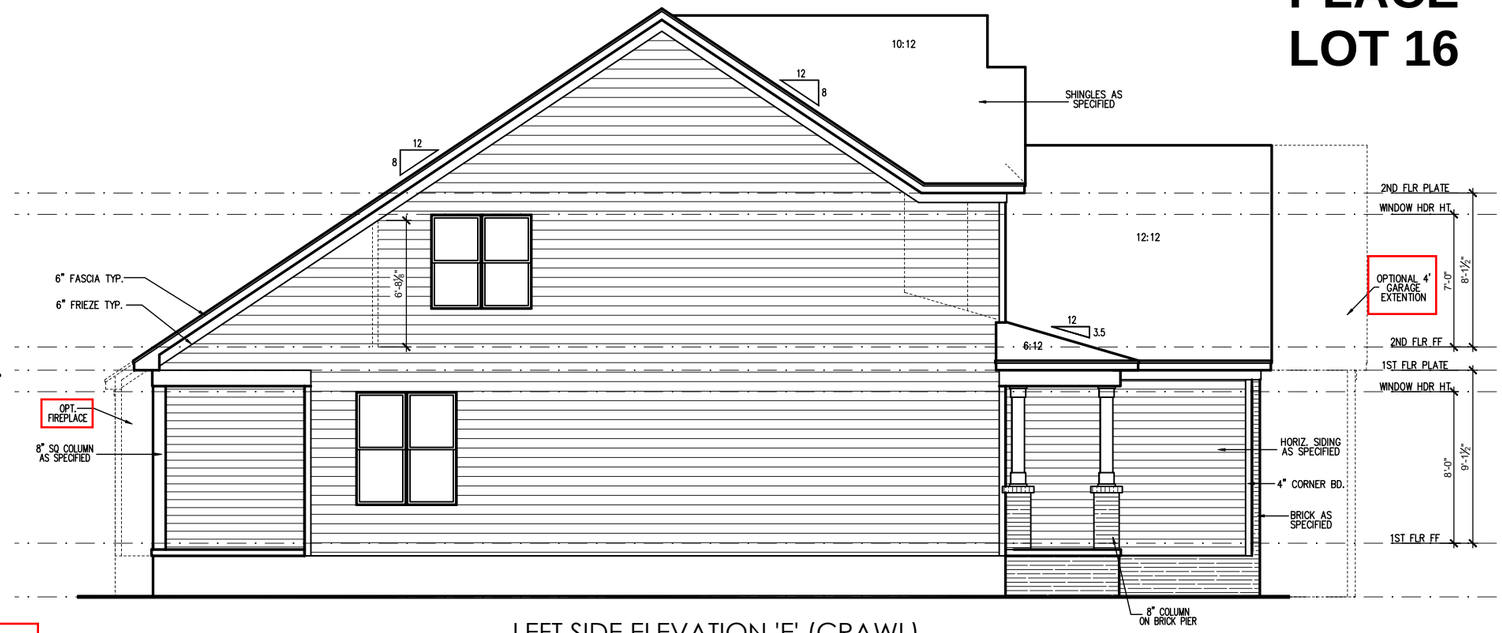
4'-1" to	5'-6"	4" x 3-1/2" x 5/16" LLV
5'-7" to	6'-6"	5" x 3-1/2" x 5/16" LLV
6'-7" to	8'-4"	6" x 3-1/2" x 5/16" LLV
8'-5" to	16'-4"	7" x 4" x 3/8" LLV



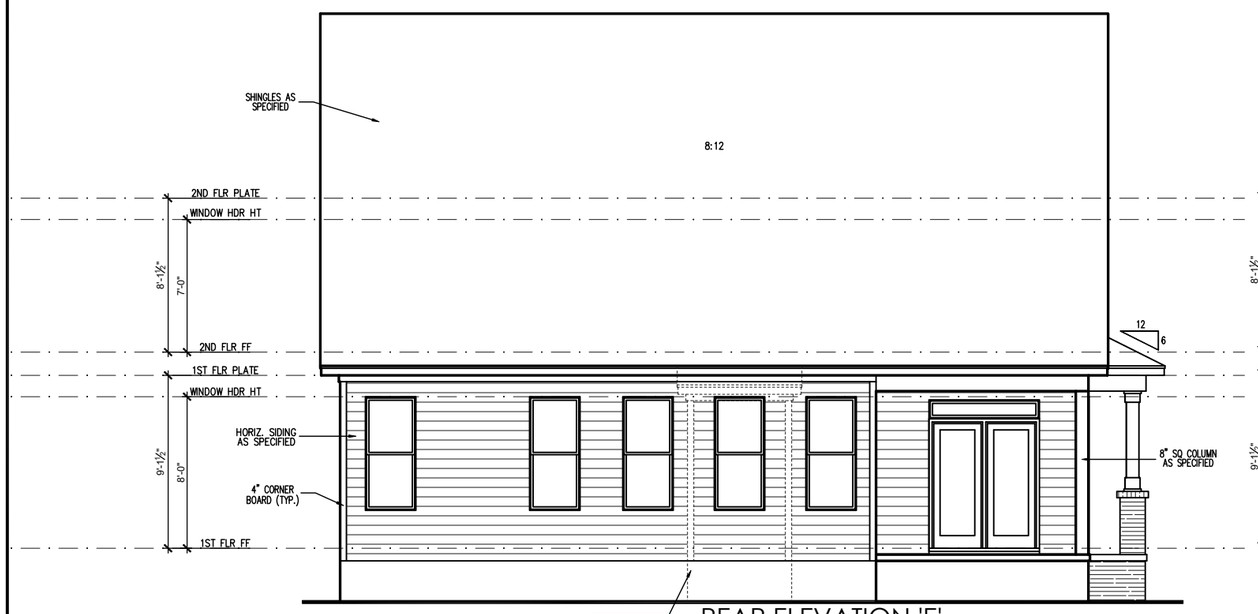
PARTIAL LEFT SIDE ELEVATION

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



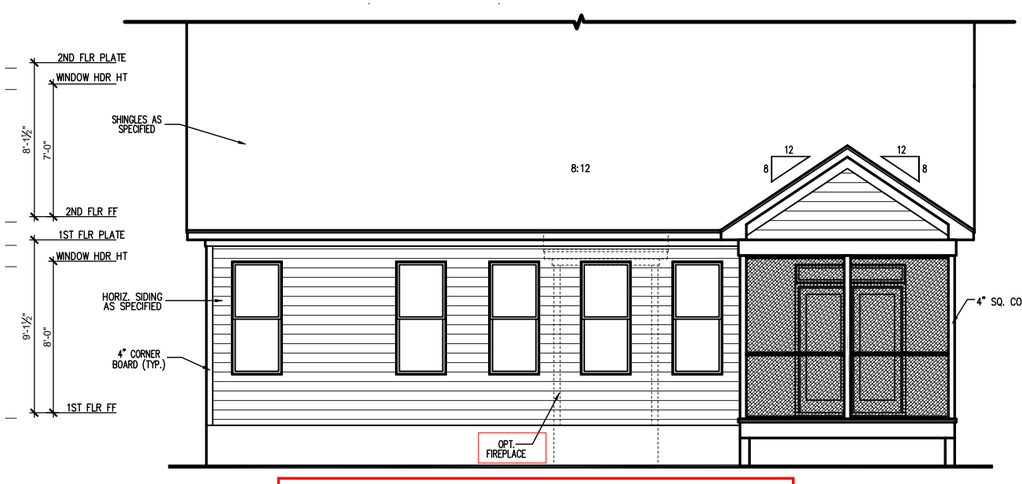
LEFT SIDE ELEVATION 'E' (CRAWL)

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



REAR ELEVATION 'E'

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



SCREENED PORCH REAR ELEVATION

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

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2387 - ASH - RH

Front and Rear Elevations 'E'

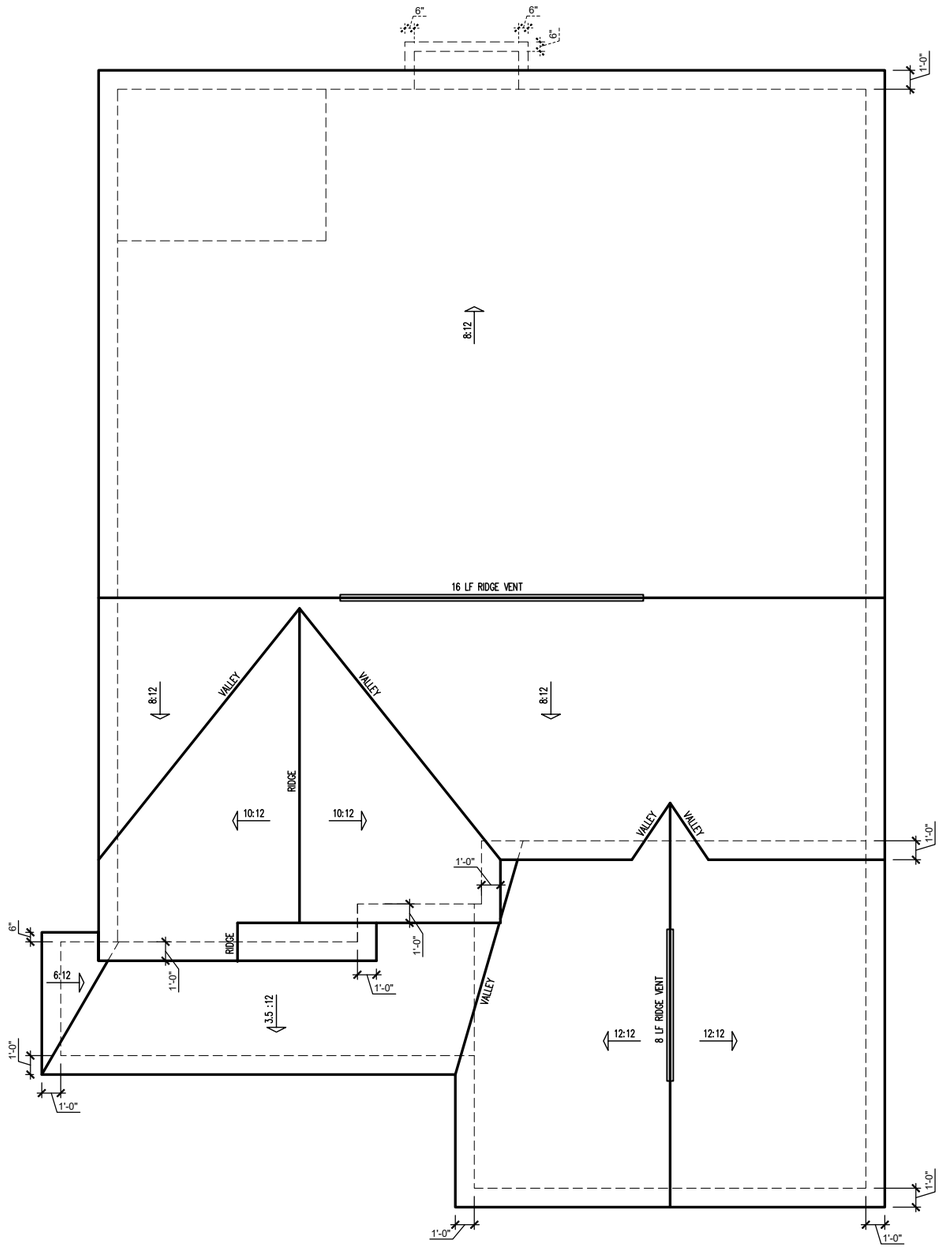
DRAWN BY: South Designs

ISSUE DATE: 09/29/2018

CURRENT REVISION DATE: 10/13/2020

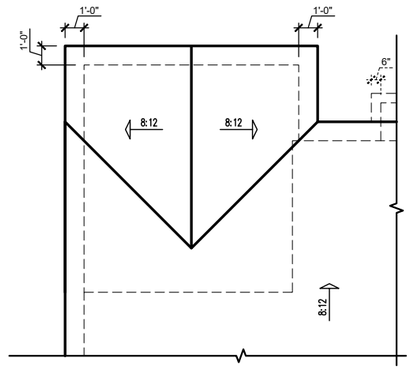
SCALE: 1/8" = 1'-0"

SHEET 3.3e



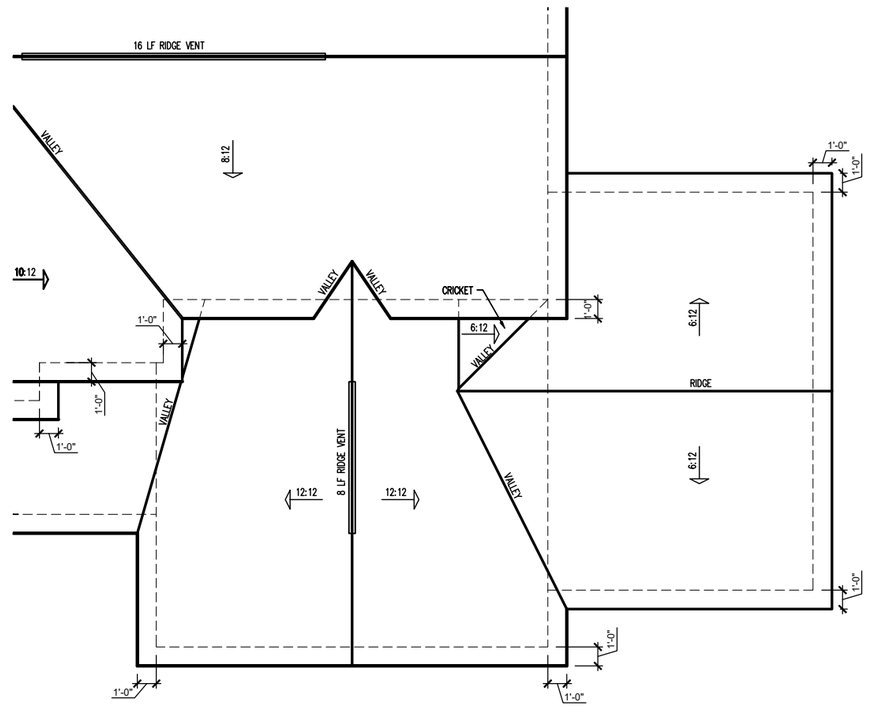
ELEVATION 'E' ROOF PLAN

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



SCREENED PORCH ROOF PLAN

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



3 CAR FRONT LOAD GARAGE ROOF PLAN 'E'

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

ATTIC VENT SCHEDULE

ELEVATION 'E'

MAIN HOUSE			SQ FTG	2034	AT / NEAR RIDGE			AT / NEAR EAVE	
VENT TYPE	SQ. FT. REQUIRED RANGE		SQ. FT. SUPPLIED	PERCENT OF TOTAL SUPPLIED	POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)	CONT. VENT (SQ. IN. PER LF)
					0.4236	0.2778	0.125	0.1944	0.0625
RIDGE VENT	2.71	3.39	3.00	43.64	0	0	24.00		
SOFFIT VENTS	4.07	3.39	3.88	56.36				0	62.00
TOTAL (MIN)	6.78	6.78	6.88	100.00	POT VENTS MAY BE REQUIRED IF THERE IS INSUFFICIENT RIDGE AVAILABLE				

* SCHEDULE HAS BEEN CALCULATED ASSUMING EAVE VENTILATION AT 50–60% OF TOTAL AND RIDGE AT 40–50% OF TOTAL REQUIRED VENTILATION

OPT 4' GARAGE EXTENTION

MAIN HOUSE			SQ FTG	2117	AT / NEAR RIDGE			AT / NEAR EAVE	
VENT TYPE	SQ. FT. REQUIRED RANGE		SQ. FT. SUPPLIED	PERCENT OF TOTAL SUPPLIED	POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)	CONT. VENT (SQ. IN. PER LF)
					0.4236	0.2778	0.125	0.1944	0.0625
RIDGE VENT	2.82	3.53	3.25	45.61	0	0	26.00		
SOFFIT VENTS	4.23	3.53	3.88	54.39				0	62.00
TOTAL (MIN)	7.06	7.06	7.13	100.00	POT VENTS MAY BE REQUIRED IF THERE IS INSUFFICIENT RIDGE AVAILABLE				

PRINCE PLACE LOT 16

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2387 - ASH - RH

Roof Plan 'E'

DRAWN BY: South Designs
ISSUE DATE: 09/29/2018
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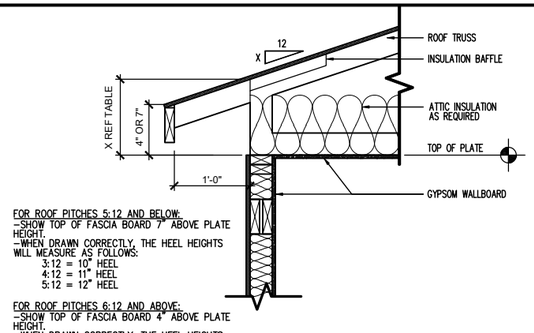
SCALE: 1/8" = 1'-0"
SHEET 3.5e



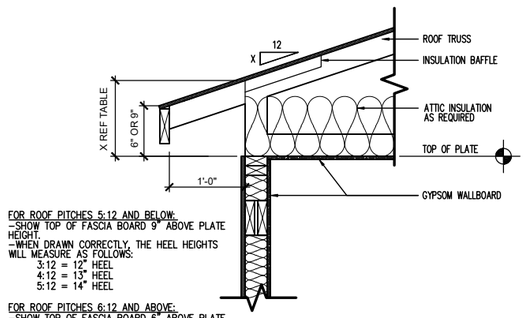
FOR ROOF PITCHES 5:12 AND BELOW:
--SHOW TOP OF FASCIA BOARD 7" ABOVE PLATE HEIGHT.
--WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
3:12 = 10" HEEL
4:12 = 11" HEEL
5:12 = 12" HEEL

FOR ROOF PITCHES 6:12 AND ABOVE:
--SHOW TOP OF FASCIA BOARD 4" ABOVE PLATE HEIGHT.
--WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
6:12 = 10" HEEL
7:12 = 11" HEEL
8:12 = 12" HEEL
9:12 = 13" HEEL
10:12 = 14" HEEL

IMPORTANT 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 7" ABOVE PLATE HEIGHT RULE. THE HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL DIFFER FROM WHAT IS LISTED HERE.

ENERGY HEEL DETAIL: CZ 2 & 3

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



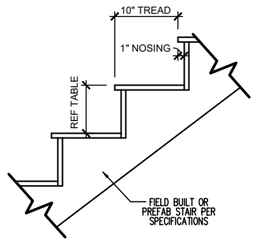
FOR ROOF PITCHES 5:12 AND BELOW:
--SHOW TOP OF FASCIA BOARD 9" ABOVE PLATE HEIGHT.
--WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
3:12 = 12" HEEL
4:12 = 13" HEEL
5:12 = 14" HEEL

FOR ROOF PITCHES 6:12 AND ABOVE:
--SHOW TOP OF FASCIA BOARD 6" ABOVE PLATE HEIGHT.
--WHEN DRAWN CORRECTLY, THE HEEL HEIGHTS WILL MEASURE AS FOLLOWS:
6:12 = 12" HEEL
7:12 = 13" HEEL
8:12 = 14" HEEL
9:12 = 15" HEEL
10:12 = 16" HEEL

IMPORTANT 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 HEIGHT RULE. THE HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL DIFFER FROM WHAT IS LISTED HERE.

ENERGY HEEL DETAIL: CZ 4 & 5

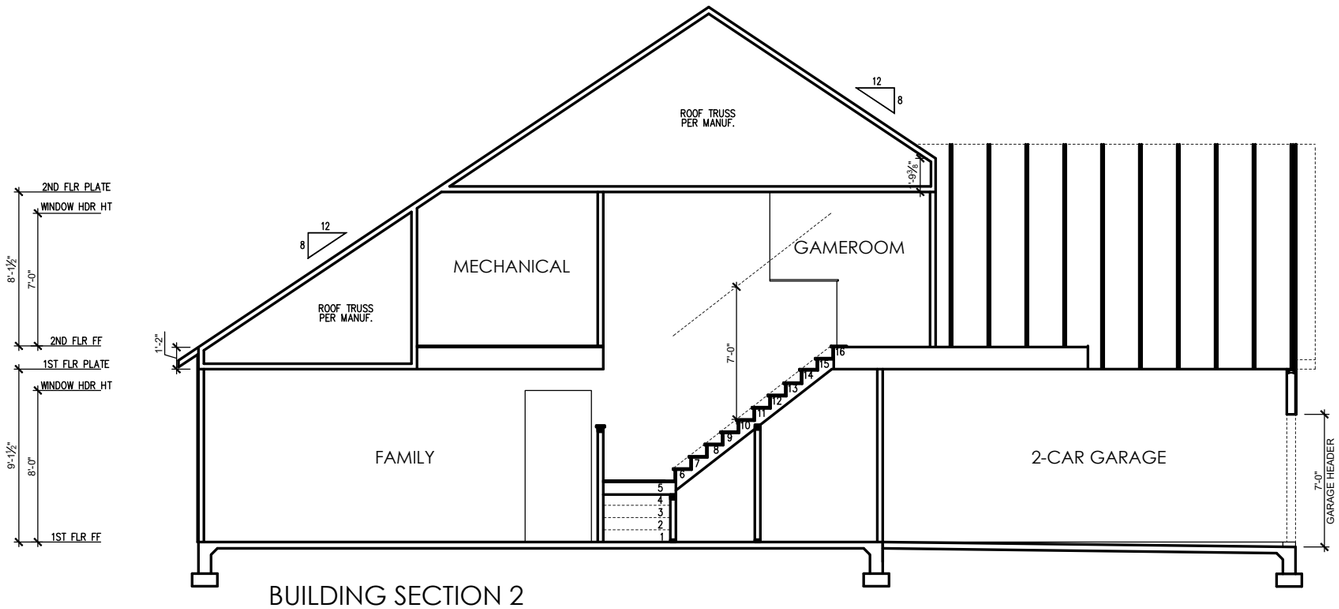
SCALE: 1" = 1'-0" ON 22x34, 1/2" = 1'-0" ON 11x17



RISER HEIGHTS PER STAIR CONFIGURATION			
PLATE 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"

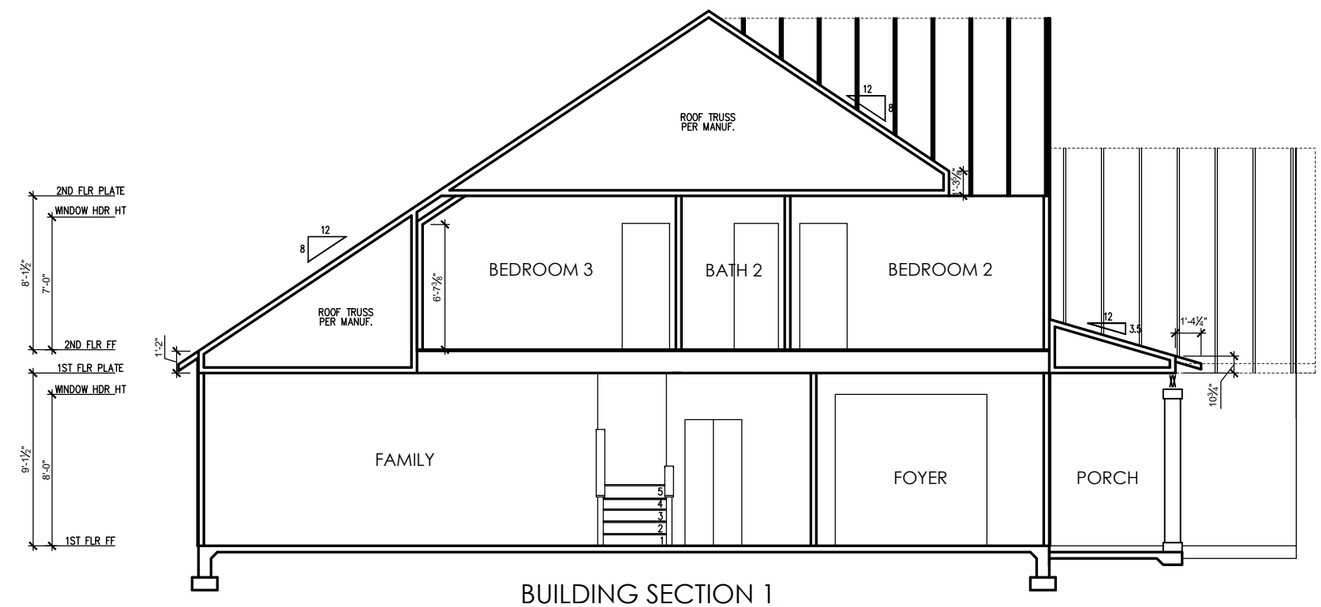
TYPICAL STAIR DETAIL

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



BUILDING SECTION 2

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



BUILDING SECTION 1

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

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REV #	DESCRIPTION	DATE
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2	----	----
3	----	----
4	----	----
5	----	----
6	----	----
7	----	----
8	----	----

2387 - ASH - RH

Building Sections

DRAWN BY: South Designs
ISSUE DATE: 09/29/2018
CURRENT REVISION DATE: 10/13/2020
SCALE: 1/8" = 1'-0"
SHEET 4.0

PRINCE PLACE LOT 16

ELECTRICAL SYMBOL KEY

LIGHT FIXTURES	
	CEILING SURFACE MOUNT LIGHT
	RECESSED CAN LIGHT
WP	RECESSED CAN LIGHT WATERPROOF
	RECESSED CAN - EYEBALL
	PENDANT LIGHTING
	WALL SCONCE
	WALL MOUNT LIGHT
	FLOOD LIGHT
OUTLETS	
	DUPLEX OUTLET
GFI	GFI OUTLET
GFI-WP	WATERPROOF GFI OUTLET
	SWITCHED 1/2 HOT DUPLEX OUTLET
220V	220V OUTLET
	TELEPHONE OUTLET
	CATV (TELEVISION) OUTLET
	UNDER-COUNTER OR CONCEALED OUTLETS
	CEILING MOUNTED DUP. OUTLET
FLOOR	FLOOR MOUNTED DUP. OUTLET
SWITCHES	
$	SINGLE POLE SWITCH
$3	THREE-WAY SWITCH
$4	FOUR-WAY SWITCH
DISJ	ELECTRICAL DISCONNECT
MISC FIXTURES	
	EXHAUST FAN
	JUNCTION BOX
220V	JUNCTION BOX 220V
CM SD	CARBON MONOXIDE DETECTOR OR SMOKE DETECTOR
CO.SD	CARBON MONOXIDE DETECTOR AND SMOKE DETECTOR
	ELECTRIC METER
Elec Panel	ELECTRICAL PANEL
	DOOR BELL CHIME
	DOOR BELL PUSH BUTTON
PREWIRE FAN/LIGHT	CEILING FAN PREWIRE
	FLUORESCENT LIGHT

General Power and Lighting:

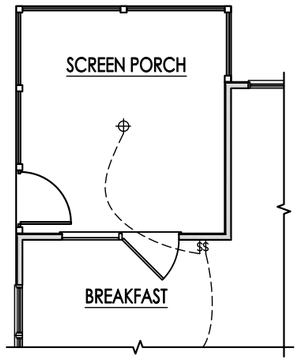
General Power and Lighting Notes shall apply unless noted otherwise on plans.

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

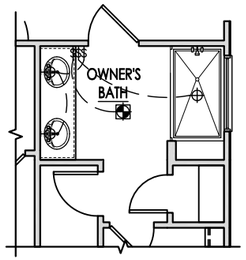
1. **Smoke Alarms - Shall be provided as a minimum of (1) per floor, including basements (if applicable), (1) in each sleep room, and (1) outside each sleeping area, within the immediate vicinity of sleeping rooms. When more than one alarm is required, the alarm devices shall be interconnected in such 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.**

2. **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.**

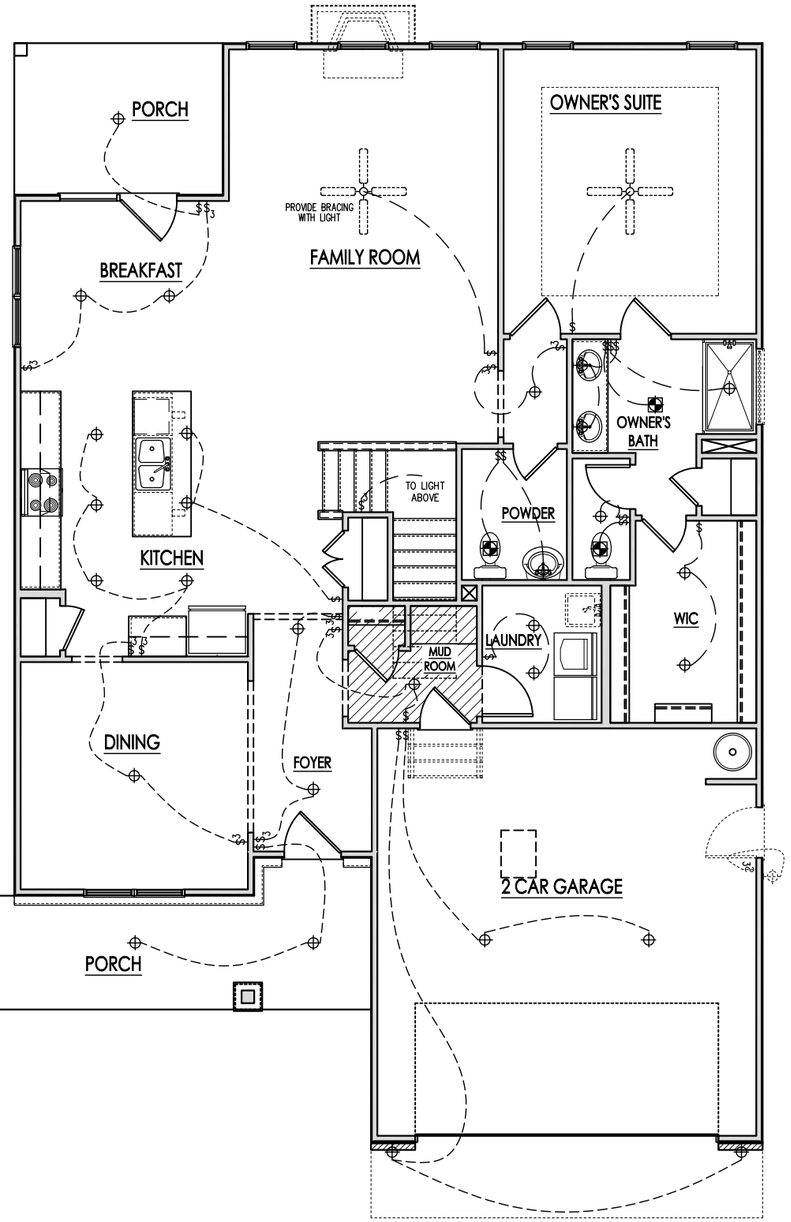
Note:
This plan is a diagram showing approximate locations of convenience outlets based on requirements found in the NC Residential Code and N.E.C. Actual positions may vary from what is shown on plan.

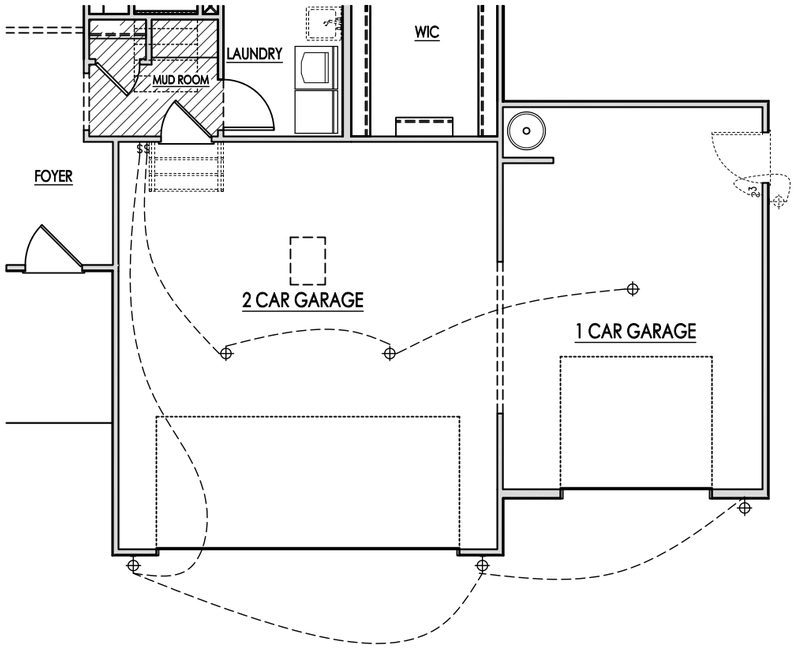


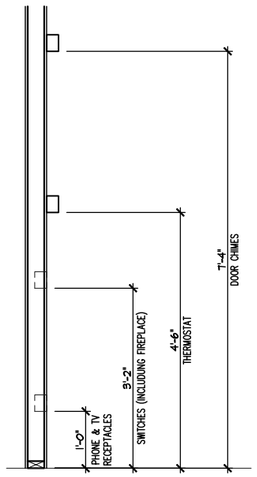
SCREENED PORCH ELECTRICAL
CALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



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







ELECTRICAL BOX HEIGHTS

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

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2387 - ASH - RH

First Floor Electrical 'E'

DRAWN BY: South Designs
ISSUE DATE: 09/29/2018
CURRENT REVISION DATE: 10/13/2020
SCALE: 1/8" = 1'-0"
SHEET 5.1e

PRINCE PLACE LOT 16

ELECTRICAL SYMBOL KEY

LIGHT FIXTURES	
	CEILING SURFACE MOUNT LIGHT
	RECESSED CAN LIGHT
WP	RECESSED CAN LIGHT WATERPROOF
	RECESSED CAN - EYEBALL
	PENDANT LIGHTING
	WALL SCONCE
	WALL MOUNT LIGHT
	FLOOD LIGHT
OUTLETS	
	DUPLEX OUTLET
GFI	GFI OUTLET
GFI-WP	WATERPROOF GFI OUTLET
	SWITCHED 1/2 HOT DUPLEX OUTLET
220V	220V OUTLET
	TELEPHONE OUTLET
	CATV (TELEVISION) OUTLET
	UNDER-COUNTER OR CONCEALED OUTLETS
	CEILING MOUNTED DUP. OUTLET
FLOOR	FLOOR MOUNTED DUP. OUTLET
SWITCHES	
$	SINGLE POLE SWITCH
$3	THREE-WAY SWITCH
$4	FOUR-WAY SWITCH
DISC	ELECTRICAL DISCONNECT
MISC FIXTURES	
	EXHAUST FAN
	JUNCTION BOX
220V	JUNCTION BOX 220V
CM SD	CARBON MONOXIDE DETECTOR OR SMOKE DETECTOR
CO.SD	CARBON MONOXIDE DETECTOR AND SMOKE DETECTOR
	ELECTRIC METER
ENC PANEL	ELECTRICAL PANEL
	DOOR BELL CHIME
	DOOR BELL PUSH BUTTON
PREWIRE	CEILING FAN PREWIRE
	FLUORESCENT LIGHT

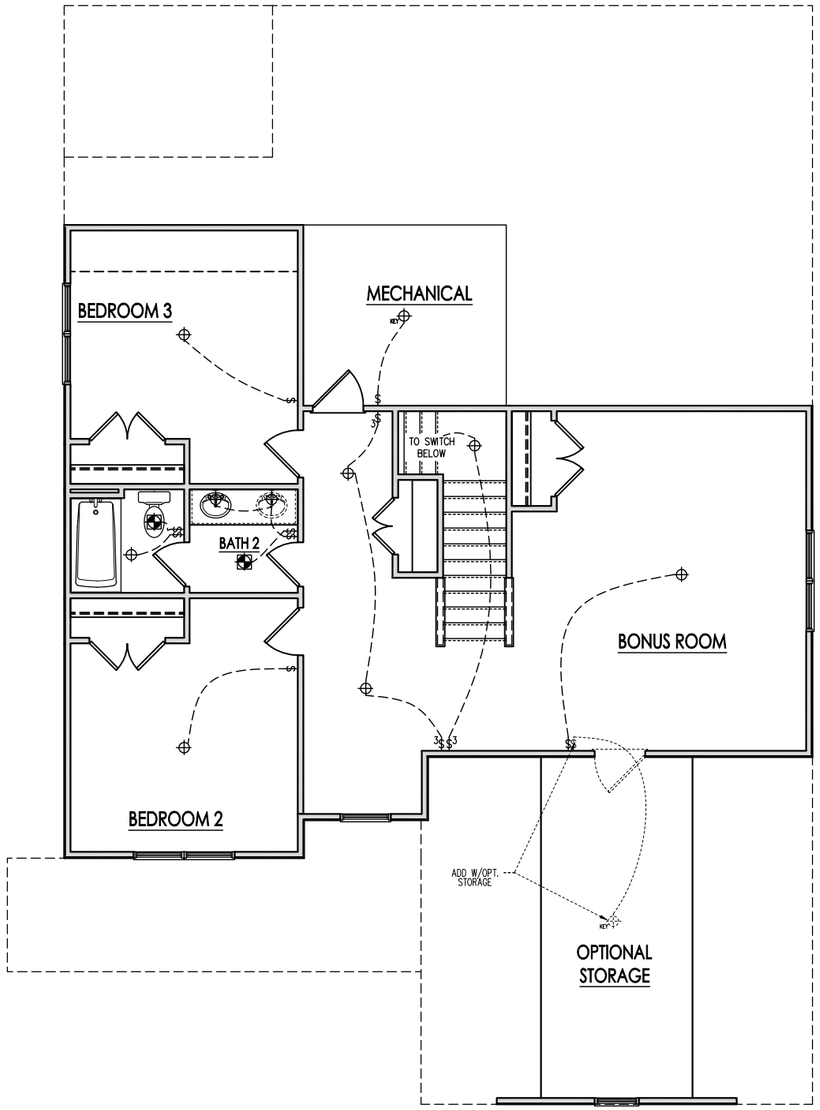
General Power and Lighting:

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

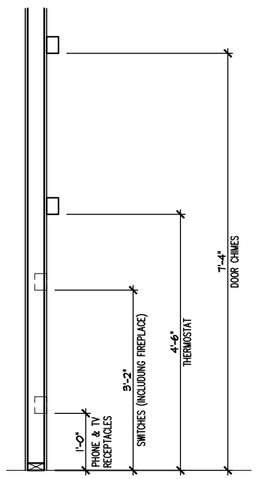
All work shall be installed per the current NC Residential Building Code, and the National Electric Code. Alarm devices shall meet NFPA 72.

1. 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.
2. 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:
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.



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



ELECTRICAL BOX HEIGHTS

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2	---	---
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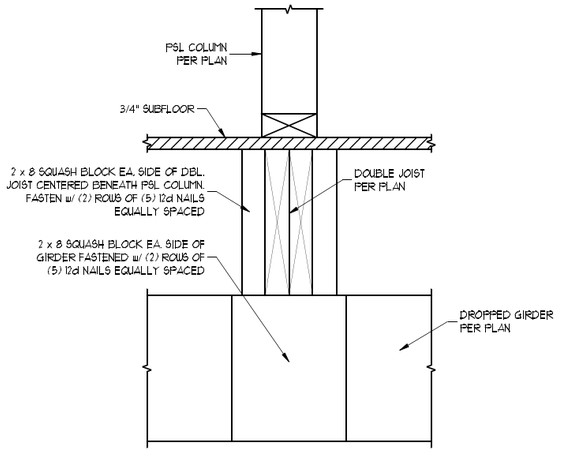
4	---	---
5	---	---
6	---	---
7	---	---
8	---	---

2387 - ASH - RH

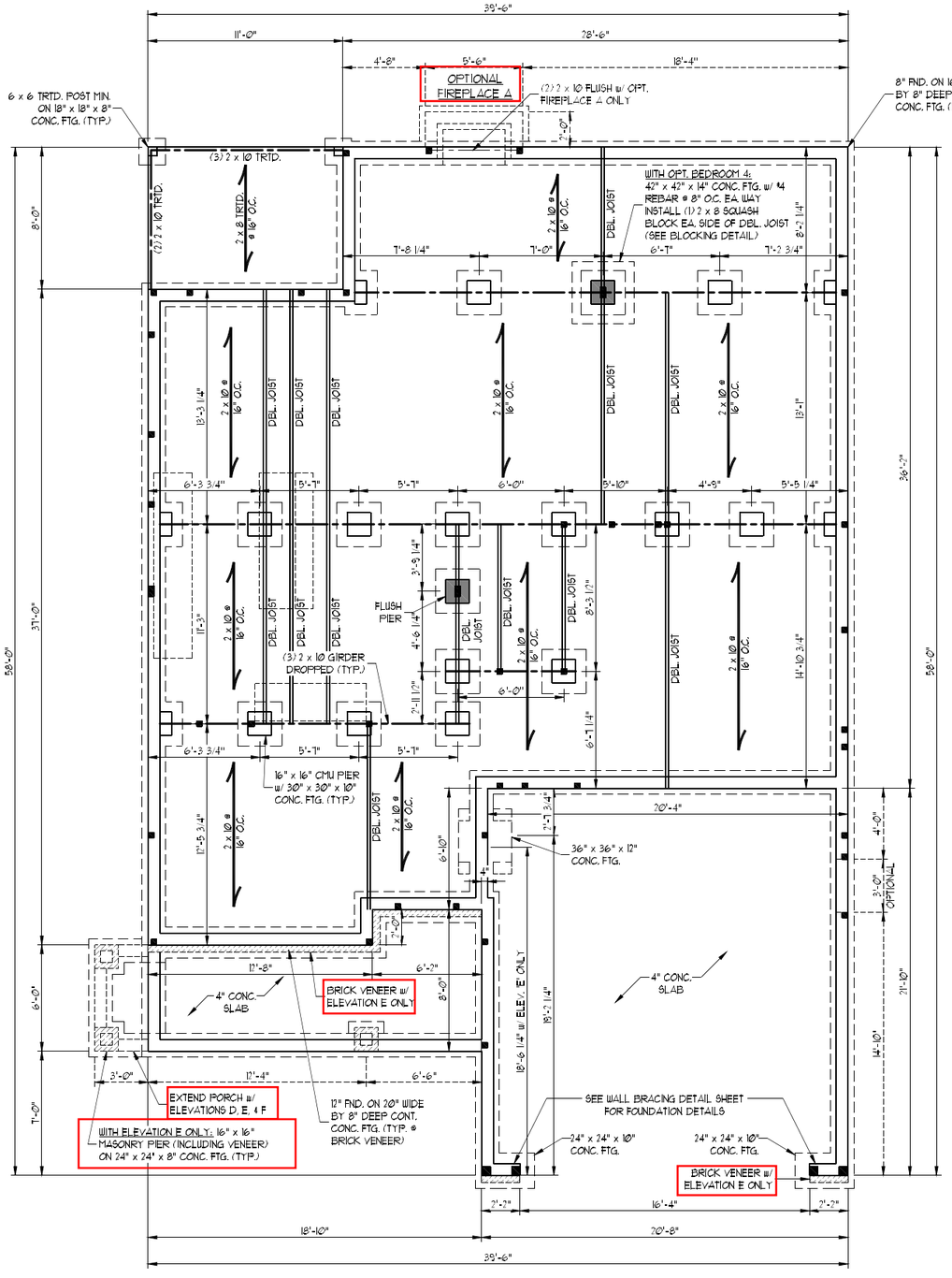
Second Floor Electrical 'E'

DRAWN BY: South Designs
ISSUE DATE: 09/29/2018
CURRENT REVISION DATE: 10/13/2020
SCALE: 1/8" = 1'-0"
SHEET 5.2e



BLOCKING DETAIL
(NOT TO SCALE)

SEE PAGE S-1.1c FOR 4' GARAGE EXENSION THIRD-CAR GARAGE SCREENED PORCH



SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

PRINCE PLACE LOT 16

120 MPH ULTIMATE DESIGN WIND SPEED NOTES FOR LESS THAN 30' MEAN ROOF HEIGHT:

1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
2. STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
3. INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. LOCATE BOLT WITHIN MIDDLE THIRD OF PLATE WIDTH.
4. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
5. EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS.
6. WALL CLADDING DESIGNED FOR +15.5 PSF AND -20 PSF (+/- INDICATE POSITIVE / NEGATIVE PRESSURE (TYP.)
7. ROOF CLADDING DESIGNED FOR +14.2 PSF AND -18 PSF FOR ROOF PITCHES 1/12 TO 12/12 AND +19 PSF AND -36 PSF FOR ROOF PITCHED 229/12 TO 7/12.
8. INSTALL 7/16" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STORIES IN ACCORDANCE WITH SECTION R602.10.3 OF THE NCRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION.
9. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.
10. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO). ALL TREATED LUMBER TO BE #2 SYP (UNO.)
2. INSTALL DOUBLE OR TRIPLE JOIST UNDER WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
3. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION.
4. SHADED PIERS TO BE FILLED SOLID.
5. INSTALL LADDER WIRE @ 16" O.C. TO SECURE MULTIPLE WYTHE FOUNDATION WALLS TOGETHER.
6. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

J.S. THOMPSON ENGINEERING, INC
606 WADE AVE, SUITE 104 RALEIGH, NC 27605
PHONE: (919) 789-9519 FAX: (919) 789-9921
N.C. LICENSE NO.: C-1753

ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET: 2 OF: 23

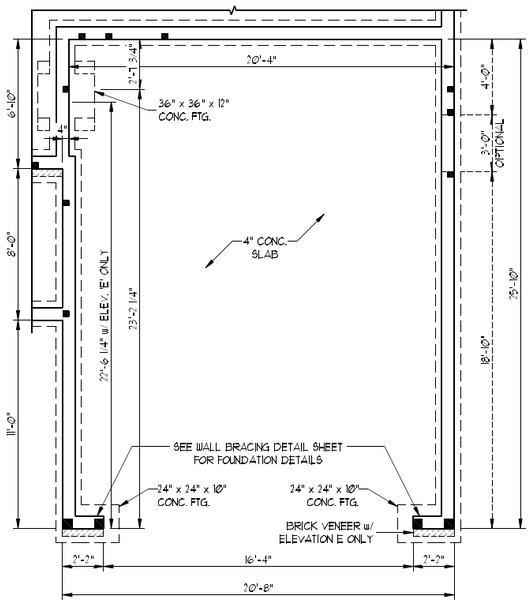
S-1.1b
CRAWL FOUNDATION PLAN w/ OPT. 2 x 10 JOISTS

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

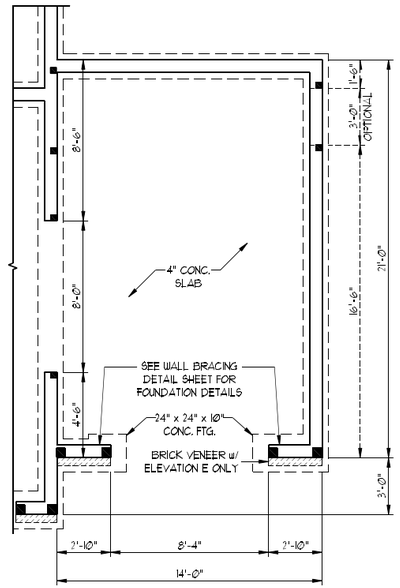
6/2/2021

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

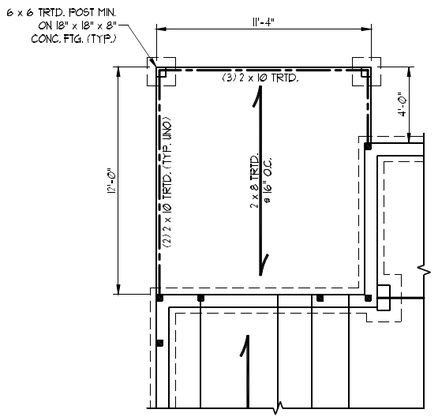
PRINCE PLACE LOT 16



OPTIONAL 4' GARAGE EXTENSION
(FRONT LOAD ONLY)



OPTIONAL THIRD CAR GARAGE
(ONLY AVAILABLE w/ FRONT LOAD GARAGE)



OPTIONAL EXTENDED COVERED/SCREENED PORCH

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N.C. LICENSE NO.: C-1753

ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET 3 OF: 23

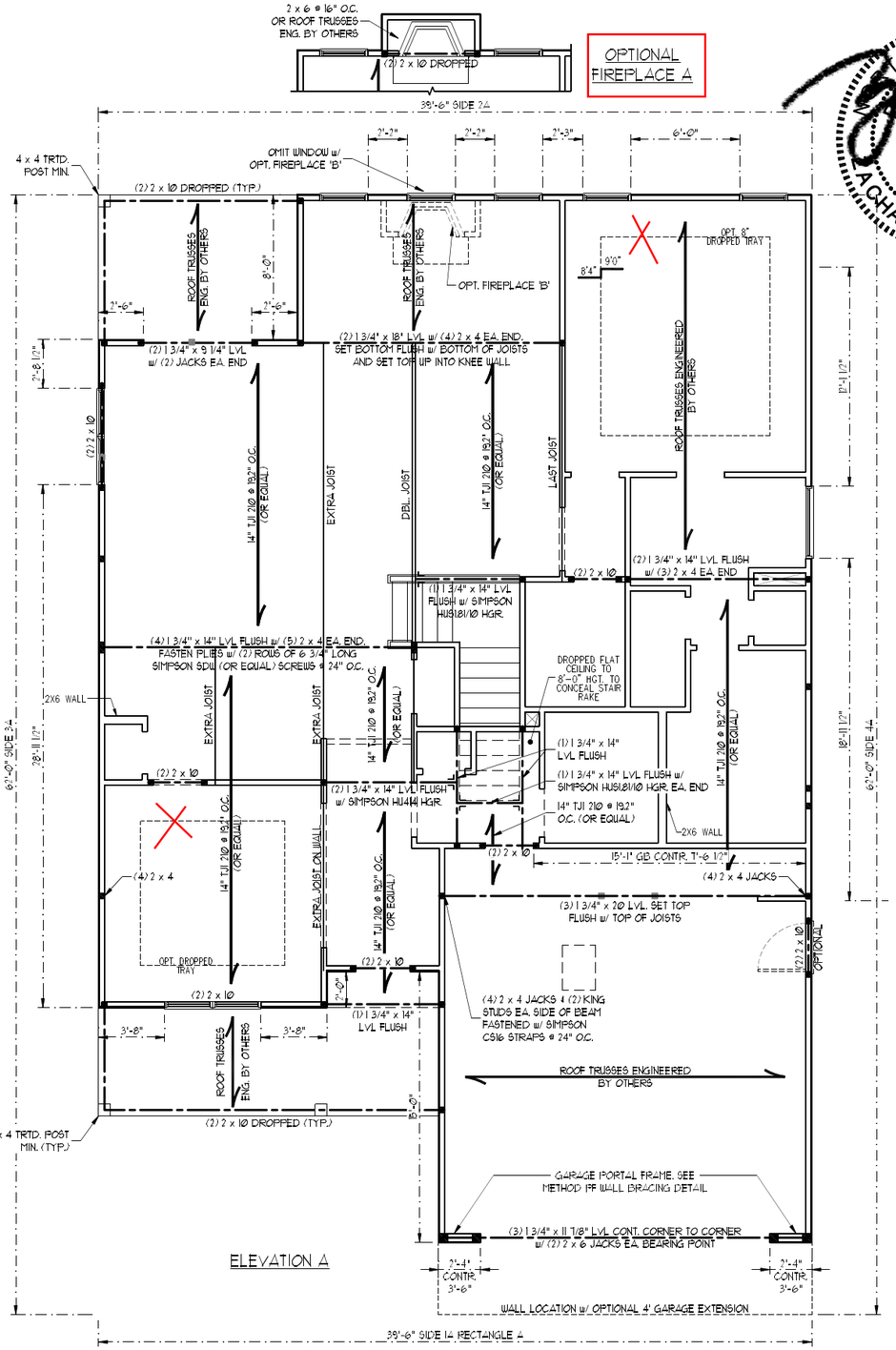
S-1.1c
CRAWL
FOUNDATION PLAN

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

6/2/2021

PRINCE PLACE LOT 16

SEE PAGE S-2c FOR ELEVATION E 4' GARAGE EXENSION THIRD-CAR GARAGE SCREENED PORCH



ELEVATION A

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

NOTE:
BCI 5000s-18 JOISTS MAY BE USED IN LIEU OF TJI 210 JOISTS AT THE DEPTH AND SPACING INDICATED ON THE PLANS

BRACED WALL DESIGN NOTES:

1. BRACED WALL DESIGN PER SECTION R602.10 OF THE NCRC 2018 EDITION.
2. GS-WSP REFERS TO "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS ATTACHED W/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.
3. "GB" REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL 1/2" (MIN.) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
4. BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION.
5. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

BRACED WALL DESIGN

RECTANGLE A		RECTANGLE B	
SIDE 1A (FRONT LOAD)		SIDE 1B	
METHOD: GS-WSP/GB/PF		METHOD: PF/GS-WSP	
TOTAL REQUIRED LENGTH: 15.58'		TOTAL REQUIRED LENGTH: 2.47'	
TOTAL PROVIDED LENGTH: 21.88'		TOTAL PROVIDED LENGTH: 9'	
SIDE 2A		SIDE 2B	
METHOD: GS-WSP		METHOD: GS-WSP	
TOTAL REQUIRED LENGTH: 15.58'		TOTAL REQUIRED LENGTH: 2.47'	
TOTAL PROVIDED LENGTH: 17.58'		TOTAL PROVIDED LENGTH: 14.0'	
SIDE 3A		SIDE 3B/4A COMBINED	
METHOD: GS-WSP		METHOD: GS-WSP	
TOTAL REQUIRED LENGTH: 10.31'		TOTAL REQUIRED LENGTH: 17.31'	
TOTAL PROVIDED LENGTH: 56.67'		TOTAL PROVIDED LENGTH: 29.0'	
SIDE 4A (SIDE LOAD)		SIDE 4B	
METHOD: GS-WSP		METHOD: GS-WSP	
TOTAL REQUIRED LENGTH: 10.31'		TOTAL REQUIRED LENGTH: 2.0'	
TOTAL PROVIDED LENGTH: 34.0'		TOTAL PROVIDED LENGTH: 16.67'	

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO).
2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
3. INSTALL AN EXTRA JOIST UNDER WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
4. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL KING STUD REQUIREMENTS.
5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.)
6. ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS w/ SIMPSON ABU44 POST BASES (OR EQUAL) AND 6 x 6 POSTS w/ ABU66 POST BASES (OR EQUAL) (UNO.). ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 700 LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.)
7. FOR FIBERGLASS, ALUMINUM, OR COLUMN ENG. BY OTHERS, SECURE TO SLAB w/ (2) METAL ANGLES USING 2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS w/ 1/4" THROUGH BOLTS w/ NUTS AND WASHERS. LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUMN.
8. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.3(5))	
	16	24
UP TO 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4

SOUTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

6/2/2021

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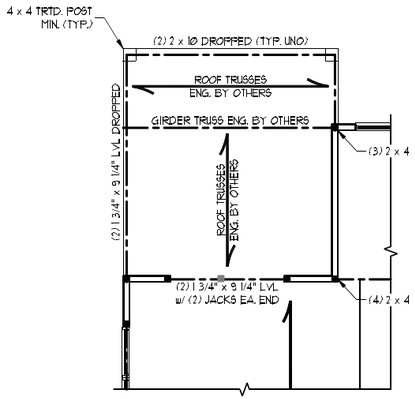
ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

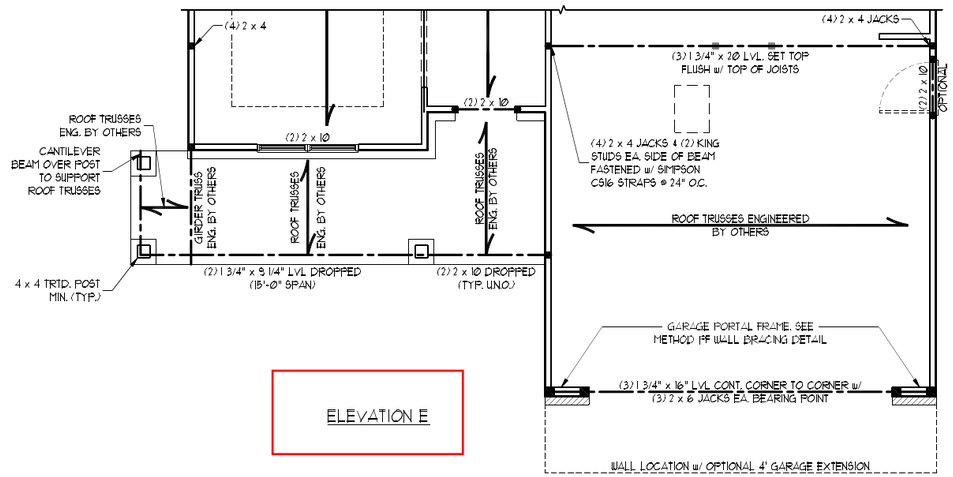
S-2a
SECOND FLOOR FRAMING PLAN

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

PRINCE PLACE LOT 16



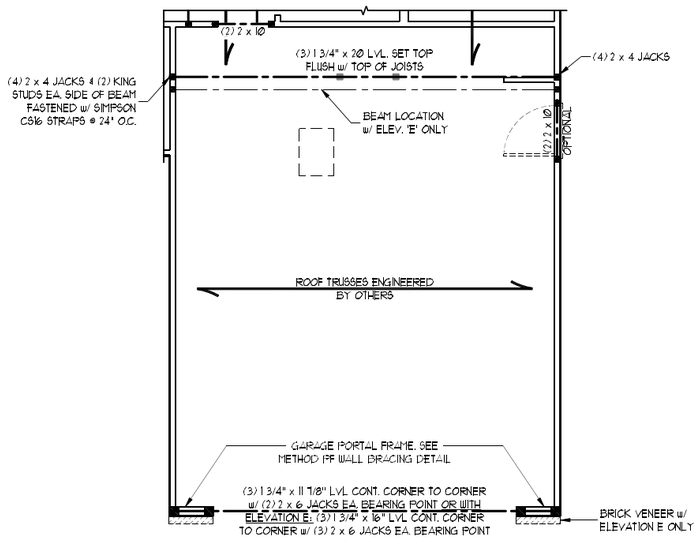
OPTIONAL EXTENDED COVERED/SCREENED PORCH



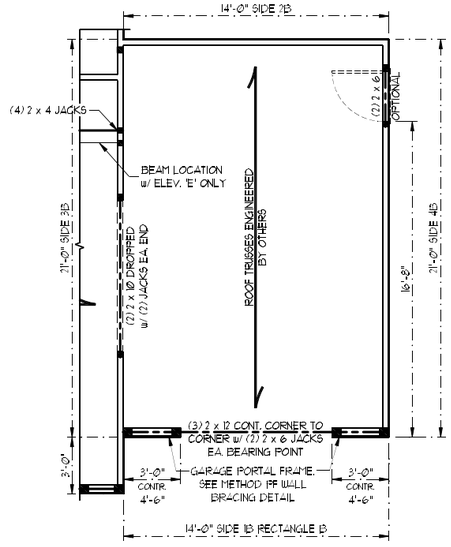
ELEVATION E

LINTEL SCHEDULE FOR BRICK/NATURAL STONE SUPPORT	
LENGTH (FT.)	SIZE OF LINTEL
UP TO 4 FT.	L 3 1/2 x 3 1/2 x 1/4
4-8	L 5 x 3 1/2 x 5/16 LLV
8 AND GREATER	L 6 x 4 x 5/16 LLV

BRICK SUPPORT NOTES:
1. LINTEL SCHEDULE APPLIES TO ALL OPENINGS IN BRICK VENEER (UNO). SEE ARCH DWGS. FOR SIZE AND LOCATION OF OPENINGS.
2. (LLV) = LONG LEG VERTICAL
3. LENGTH = CLEAR OPENING
4. EMBED ALL ANGLE IRONS MIN. 4" EACH SIDE INTO VENEER TO PROVIDE BEARING.
5. FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, ATTACH STEEL ANGLE TO HEADER W/ 1/2" LAG SCREWS @ 12" O.C. STAGGERED.
6. FOR ALL BRICK SUPPORT @ ROOF LINES, FASTEN (2) 2 x 10 BLOCKING BETWEEN STUDS w/ (4) 12d NAILS PER PLY. FASTEN A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING w/ (2) 1/2" LAG SCREWS @ 12" O.C. STAGGERED. SEE SECTION R703.8.2.1 OF THE 2018 NCRC FOR ADDITIONAL BRICK SUPPORT INFORMATION.
7. PRECAST REINFORCED CONCRETE LINTELS ENGINEERED BY OTHERS MAY BE USED IN LIEU OF STEEL LINTELS.



OPTIONAL 4' GARAGE EXTENSION
(FRONT LOAD ONLY)



OPTIONAL THIRD CAR GARAGE
(ONLY AVAILABLE w/ FRONT LOAD GARAGE)

J.S. THOMPSON ENGINEERING, INC
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N.C. LICENSE NO.: C-1753

ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET 10 OF 23
S-2c
SECOND FLOOR FRAMING PLAN

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

6/2/2021

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

PRINCE PLACE LOT 16

BRACED WALL DESIGN NOTES:

1. BRACED WALL DESIGN PER SECTION R602.10 OF THE NCIRC 2018 EDITION.
2. GB-WSP REFERS TO "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS ATTACHED w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.
3. "GB" REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL 1/2" (MIN.) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
4. BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCIRC 2018 EDITION.
5. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

NOTE:

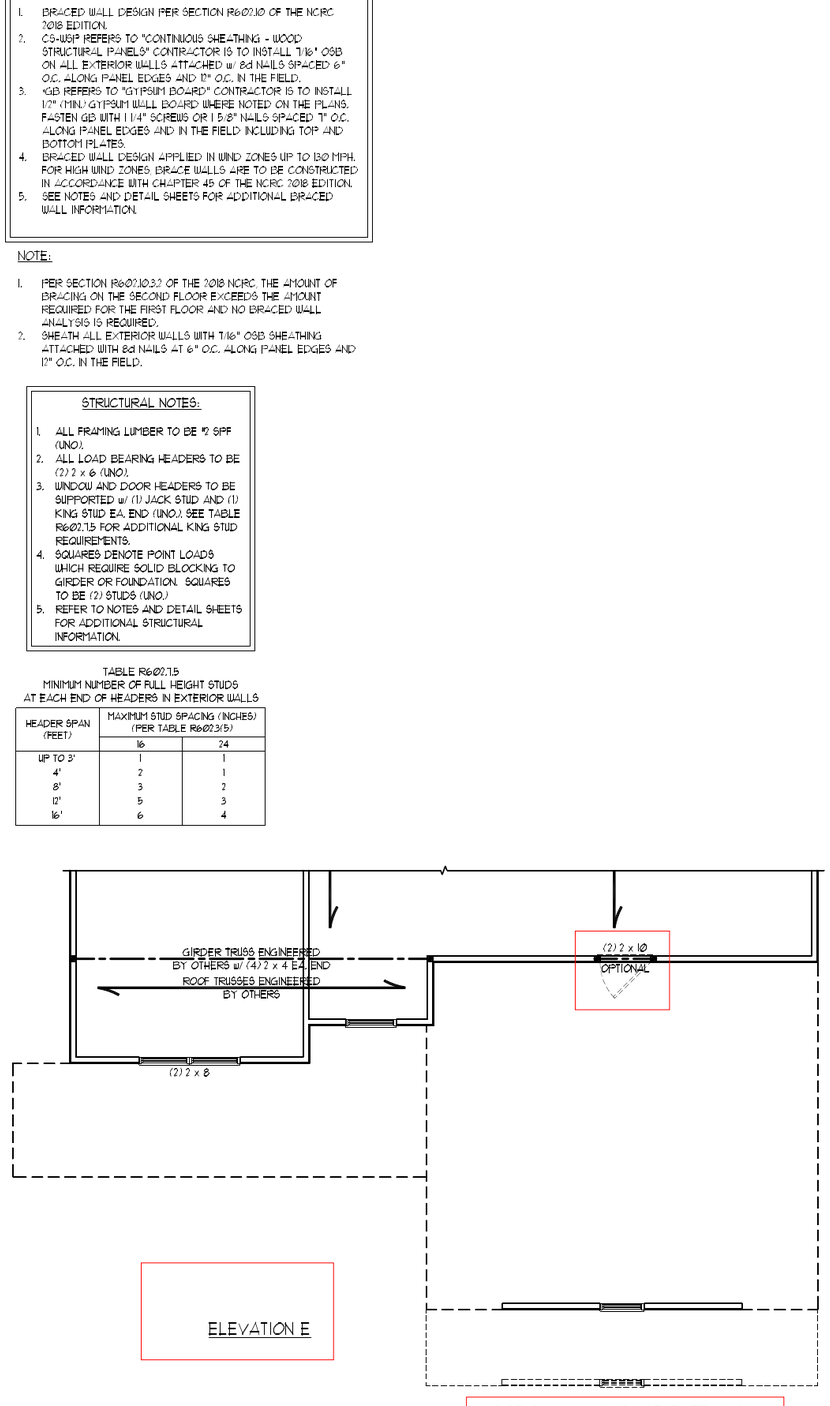
1. PER SECTION R602.10.3.3 OF THE 2018 NCIRC, THE AMOUNT OF BRACING ON THE SECOND FLOOR EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.
2. SHEATH ALL EXTERIOR WALLS WITH 7/16" OSB SHEATHING ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE TABLE R602.7.5 FOR ADDITIONAL KING STUD REQUIREMENTS.
4. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO.)
5. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

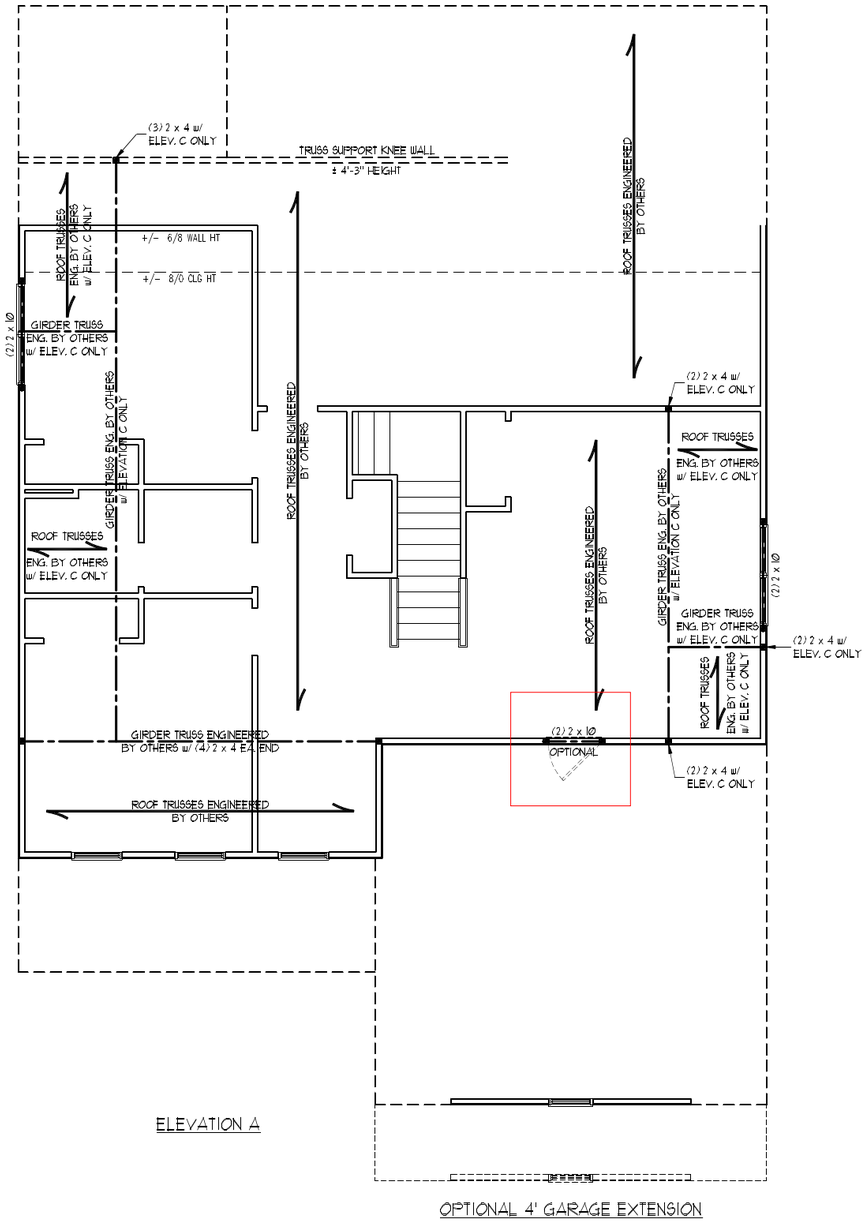
TABLE R602.7.5
MINIMUM NUMBER OF FULL HEIGHT STUDS
AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN (FEET)	MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.3(5))	
	16	24
UP TO 3'	1	1
4'	2	1
8'	3	2
12'	5	3
16'	6	4



ELEVATION E

OPTIONAL 4' GARAGE EXTENSION



ELEVATION A

OPTIONAL 4' GARAGE EXTENSION

6/2/2021

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ASH
PLAN 2387
DAVIDSON HOMES

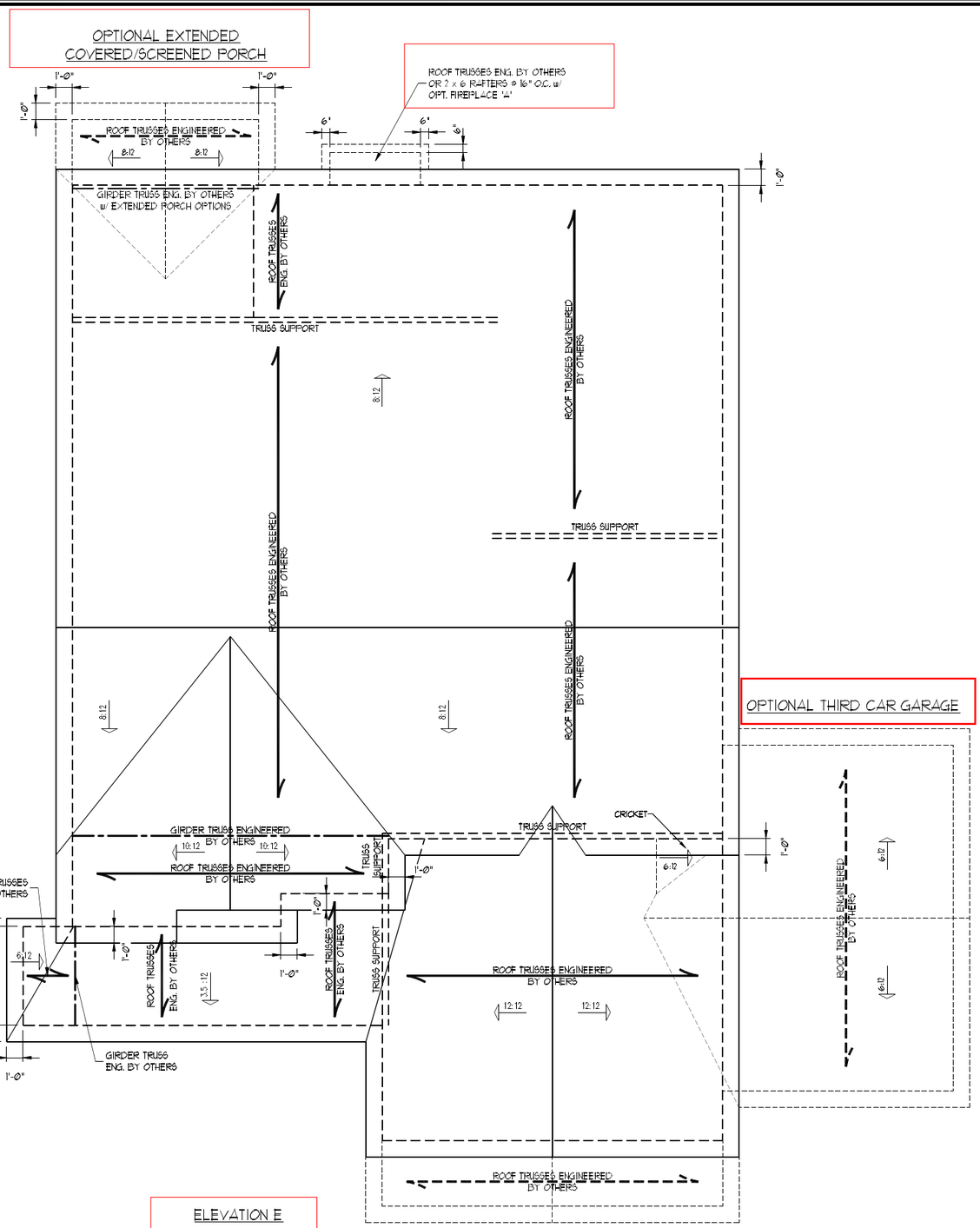
DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET: 11 OF: 23

S-3a
ATTIC FLOOR FRAMING PLAN

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

PRINCE PLACE LOT 16



STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
2. STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 8 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.
3. FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES WITH SIMPSON H2.5A HURRICANE TIES @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN. OF (6) 12d TOE NAILS.
4. REFER TO SECTION R802.11 OF THE 2018 NCRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.
5. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

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N.C. LICENSE NO.: C-1753

ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET: 18 OF: 23

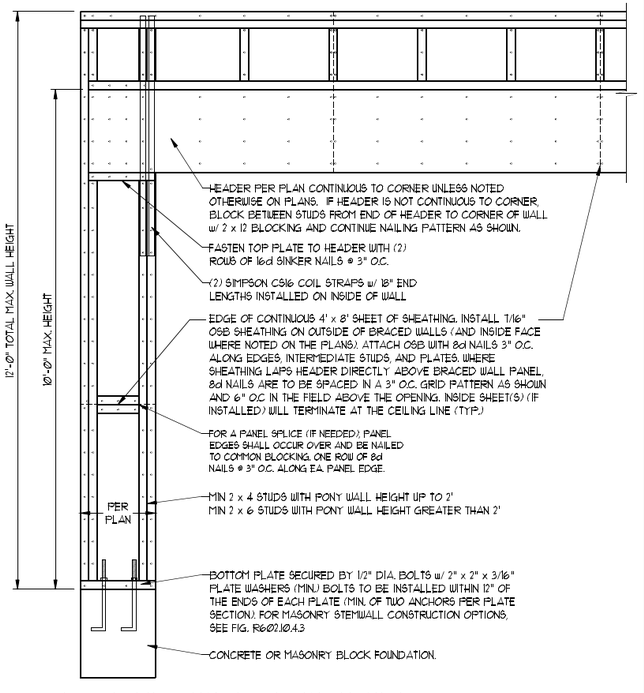
S-4e
ROOF FRAMING PLAN

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

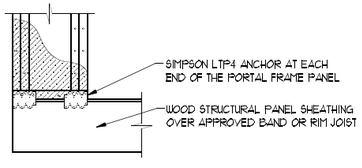
6/2/2021

GENERAL WALL BRACING NOTES:

1. WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NCRC.
2. SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NCRC FOR ADDITIONAL INFORMATION AS NEEDED.
3. BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN DESIGNED PER R602.3.5 (3). WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERED PRACTICE.
4. SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, BRACED WALL LINE KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR REQUIREMENTS.
5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-WSP IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R702.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1
7. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x 0.113" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (U.N.O.).
8. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (U.N.O.). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R702.3.5. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). EXTERIOR GB TO BE INSTALLED VERTICALLY.
9. REQUIRED BRACED WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602.10.3, METHOD CS-WSP CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES .5 ITS ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 1.5 TIMES ITS ACTUAL LENGTH.



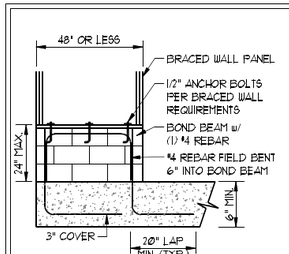
OVER CONCRETE OR MASONRY BLOCK FOUNDATION



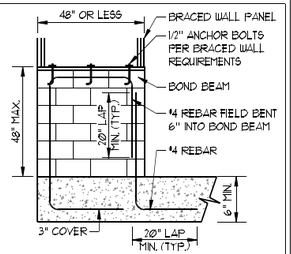
OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION

* APPLICABLE w/ GREATER THAN 12" KNEE WALL HEIGHTS IN CRAWL SPACE AND ABOVE FRAMED BASEMENT WALLS *

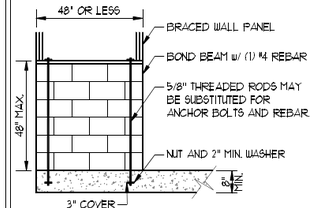
METHOD PF-PORTAL FRAME DETAIL (1)



SHORT STEM WALL REINFORCEMENT

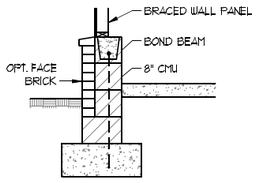


TALL STEM WALL REINFORCEMENT



RODS MAY BE INSTALLED USING AN ADHESIVE ANCHORING SYSTEM WITH A MINIMUM TENSILE CAPACITY OF 3750 LBS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECS.

OPTIONAL STEM WALL REINFORCEMENT

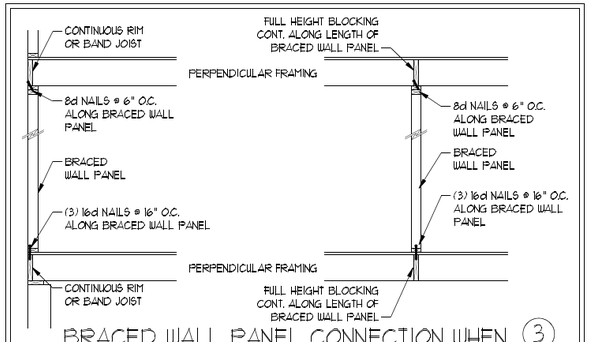


TYPICAL STEM WALL SECTION

NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

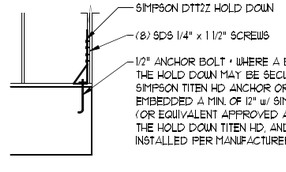
MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS (2)

PER FIGURE R602.10.4.3



BRACED WALL PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING (3)

PER FIGURE R602.10.4.4(1)

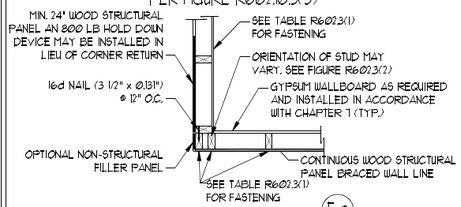


HOLD DOWN DETAIL FOR MASONRY FOUNDATION OR MONOLITHIC SLAB (4)

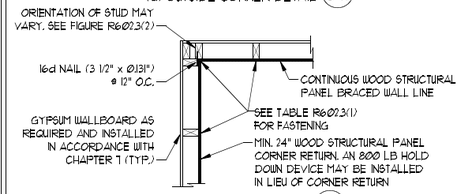
* APPLICABLE ONLY WHERE SPECIFIED ON PLAN *

TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING (5)

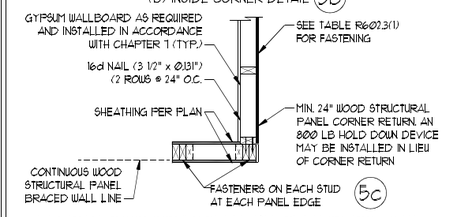
PER FIGURE R602.10.3(5)



(a) OUTSIDE CORNER DETAIL (5a)



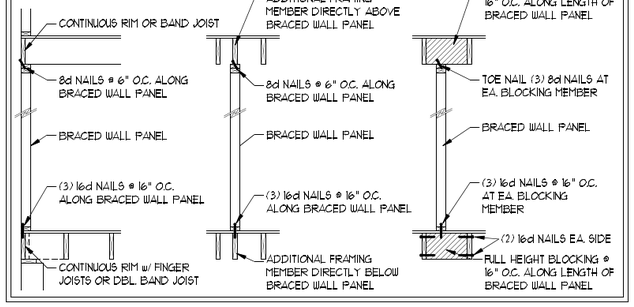
(b) INSIDE CORNER DETAIL (5b)



(c) GARAGE DOOR CORNER DETAIL (SEE PLAN FOR ADDITIONAL STRUCTURAL INFORMATION OR ALTERNATE CONFIGURATIONS) (5c)

BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING (6)

PER FIG. R602.10.4.4(2)



SCALE NOTE:
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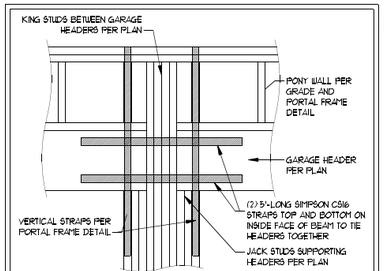
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

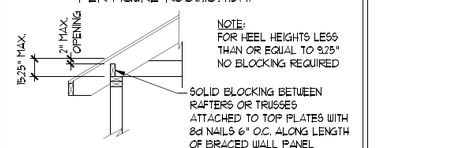


PORTAL FRAME CONNECTION DETAIL BETWEEN GARAGE DOOR HEADERS (7)

(REFERENCE PORTAL FRAME DETAIL FOR ALL OTHER PORTAL FRAME INFORMATION)

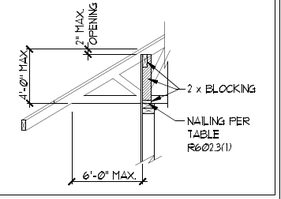
BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS (8)

PER FIGURE R602.10.4.5(1)



BRACED WALL PANEL CONNECTION TO PERPENDICULAR ROOF TRUSSES (9)

PER FIGURE R602.10.4.5(3)
(OR ALTERNATIVE: FIGURE R602.10.4.5(2))



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ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

SHEET 22 OF 23

D-3
WALL BRACING NOTES AND DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

6/2/2021

SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE

GENERAL NOTES

1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO I-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.

2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NCRC, 2018 EDITION (R301.4 - R301.7)

DESIGN CRITERIA:	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (IN)
ATTIC WITH LIMITED STORAGE	20	10	L/240 (L/360 w/ BRITTLE FINISHES)
ATTIC WITHOUT STORAGE	10	10	L/360
DECKS	40	10	L/360
EXTERIOR BALCONIES	40	10	L/360
FIRE ESCAPES	40	10	L/360
HANDRAILS/GUARDRAILS	200 LB OR 50 (PLF)	10	L/360
PASSENGER VEHICLE GARAGE	50	10	L/360
ROOMS OTHER THAN SLEEPING ROOM	40	10	L/360
SLEEPING ROOMS	30	10	L/360
STAIRS	40	10	L/360
WIND LOAD	(BASED ON TABLE R301.2(4) WIND ZONE AND EXPOSURE)		
GROUND SNOW LOAD: Pg	20 (PSF)		

- I-JOIST SYSTEMS DESIGNED WITH 12 PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
- FLOOR TRUSS SYSTEMS DESIGNED WITH 15 PSF DEAD LOAD

4. FOR 115 AND 120 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.1.6 OF THE NCRC, 2018 EDITION. FOR 130 MPH, 140 MPH, AND 150 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NCRC, 2018 EDITION.

5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2018 EDITION.

FOOTING AND FOUNDATION NOTES

1. FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.

2. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP I, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NCRC, 2018 EDITION.

3. PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE SLAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" - 1" DEEP CONTROL JOINTS ARE TO BE SAWED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.

4. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 1/2" FOR #5 BARS OR SMALLER, AND NOT LESS THAN 2" FOR #6 BARS OR LARGER.

5. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.

6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PIERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.

7. THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.

8. ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NCRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TR68-A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.1(1), R404.1.1(2), R404.1.1(3), OR R404.1.1(4) OF THE NCRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.1(5) OF THE NCRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

FRAMING NOTES

1. ALL FRAMING LUMBER SHALL BE #2 SPF MINIMUM (Fb = 875 PSI, Fv = 375 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM (Fb = 875 PSI, Fv =175 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO).

2. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb =2600 PSI, Fv = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2325 PSI, Fv = 310 PSI, E = 1550000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 11" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2500 PSI, E =1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN 11" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2900 PSI, E = 2000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.

3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

A.	W AND WT SHAPES:	ASTM A992
B.	CHANNELS AND ANGLES:	ASTM A36
C.	PLATES AND BARS:	ASTM A36
D.	HOLLOW STRUCTURAL SECTIONS:	ASTM A500 GRADE B
E.	STEEL PIPE:	ASTM A53, GRADE B, TYPE E OR S

4. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (UNO). PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (UNO):

A. WOOD FRAMING	(2) 1/2" DIA. x 4" LONG LAG SCREWS
B. CONCRETE	(2) 1/2" DIA. x 4" WEDGE ANCHORS
C. MASONRY (FULLY GROUTED)	(2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 9/16" DIAMETER HOLES @ 16" O.C.

5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.

6. ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.7(1) AND R602.7(2) OF THE NCRC, 2018 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (UNO), WHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO). INSTALL KING STUDS PER SECTION R602.7.5 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

7. ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (UNO). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).

8. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).

9. ALL I-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.

10. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R602.10.

11. PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.

12. FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT SIDES FOR BRICK SUPPORT (U.N.O.). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED w/ (4) 12d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 12" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION R703.8.2.1 OF THE NCRC, 2018 EDITION.

13. FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).

14. FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (UNO).

15. ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 1100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED USING ONE SIMPSON H6 OR LTS12 UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF SIMPSON CS16 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TWIST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

6/2/2021

This sealed page is to be used in conjunction with a full plan set engineered by J.S. Thompson Engineering, Inc. only. Use of this individual sealed page within architectural pages or shop drawings by others is a punishable offense under N.C. Statute § 89C-23

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PHONE: (919) 789-9519 FAX: (919) 789-9921
N.C. LICENSE NO.: C-1753

ASH
PLAN 2387
DAVIDSON HOMES

DATE: JUNE 2, 2021
SCALE: 1/4" = 1'-0"
DRAWN BY: SOUTH DESIGNS
ENGINEERED BY: ZHH

D-4
STANDARD
STRUCTURAL NOTES

J.S. THOMPSON
ENGINEERING, INC
structural and geotechnical
custom residential design

September 20, 2021

Arnold Blankenship
Davidson Homes LLC
4208 Six Forks Road
Suite 100
Raleigh, NC 27609

Re: "Ash" plan-elevations D, E, F
"Birch" plan-elevations D, E, F
"Chestnut" plan-elevations D, E, F
"Hemlock" plan-elevations D, E, F
"Hickory" plan-elevations D, E, F
"Willow" plan-elevations E, F, G

Dear Mr. Blankenship:

The plans listed above were reviewed to address the use of floor trusses for the second-floor system.

Analysis revealed 14" open-web floor trusses engineered by others at 24" o.c. may be used in lieu of the plan specified 14" TJI 210 I-joists. If tile flooring is used in any area, install a 2 x 4 scab at the top of adjacent floor trusses and fasten to all members with (1) row of 12d nails at 4" o.c. Install 2 x 4 blocking at 16" o.c. between the scabs with (2) 12d toe nails at each end. Support walls parallel to the floor trusses per the attached detail. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

NORTH CAROLINA PROFESSIONAL SEAL 33736 ENGINEER MATTHEW G. STROTHER
9/20/2021

Joshua A. Grantham, E.I.

Matthew G. Strother, P.E.

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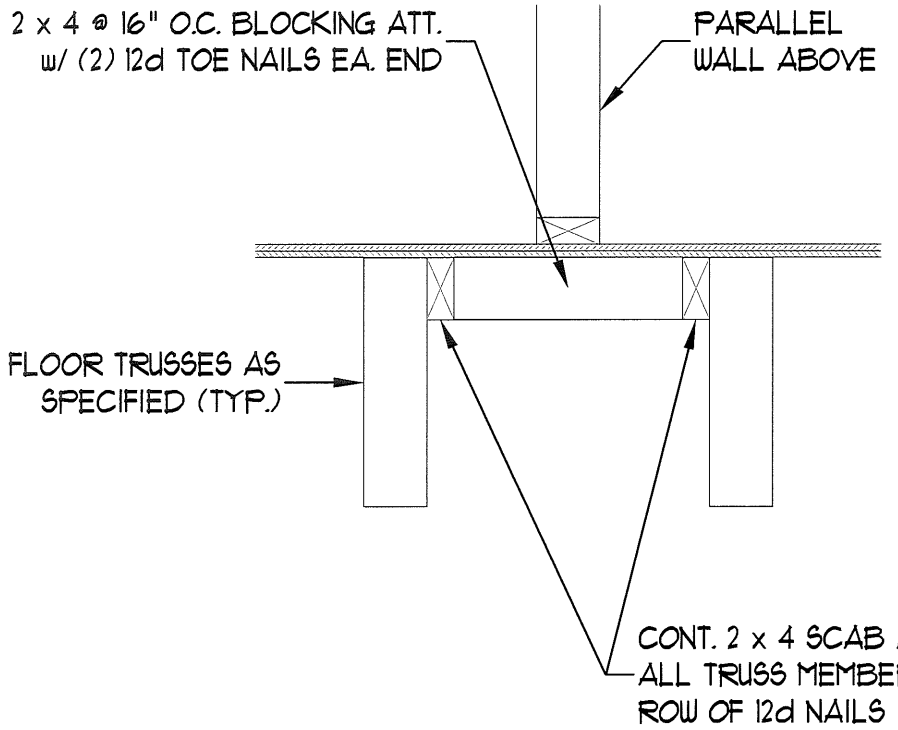

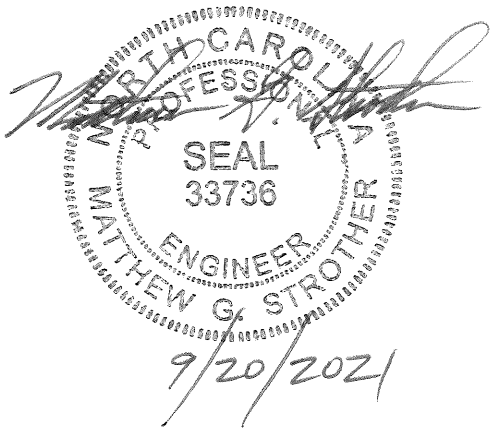

TRUSS BLOCKING DETAIL

(INSTALL 2 x 4 @ 16" O.C. BLOCKING BETWEEN ADJACENT TRUSSES UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES. TRUSS DESIGNER TO DESIGN ADJACENT TRUSSES FOR ADDITIONAL LOADING FROM WALLS)

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N.C. LICENSE NO.: C-1733

TRUSS BLOCKING DETAIL
DAVIDSON HOMES, LLC

DATE: SEPTEMBER 20, 2021
SCALE: AS NOTED
DRAWN BY: JAG
ENGINEERED BY: JAG

SHEET: 2 OF: 2

S-1
STEEL DETAILS

J.S. THOMPSON
ENGINEERING, INC
structural and geotechnical
custom residential design

July 16, 2021

Garrison Safriet
Davidson Homes, LLC
4208 Six Forks Road
Suite 1000
Raleigh, NC 27609

Re: Ash plan
All elevations with the bedroom 4 w/ bath 3 option

Dear Mr. Safriet:

The above noted plan was reviewed to address the continuous beam within the second floor system above the family room and owner's suite.

You indicated continuous LVL plies could not be supplied due to the length. Instead, two separate single-span beams are to be installed with both bearing at the intermediate wall between the family room and owner's suite. Analysis revealed the single-span beams are to be (3) 1 3/4" x 14" LVL supported at the exterior ends with (4) 2 x 4 jacks. The front ply of the beam above the family room does not require bearing at the exterior end. The beam is to be fastened with (2) rows of 5" long Simpson SDS (or equivalent) screws at 16" o.c. driven from the front side. A (2) 1 3/4" x 14" x 4'-0" LVL beam is to be installed on top of the intermediate bearing wall centered on the PSL column and supported at each end with (2) 2 x 4 jacks. The single-span beams are to be fastened to the beam on top of the wall with a Simpson HGUS5.50/12 hanger. The face flanges of the hanger are to be fastened to the beam on top of the wall with #10 x 2 1/2" long Simpson SD screws. The single-span beams may not bear on top of the wall as the 2 x 4 wall does not provide adequate bearing length. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

Zachary H. Hayes, P.E.

NORTH CAROLINA PROFESSIONAL SEAL 52324 ENGINEER ZACHARY H. HAYES

7/16/2021

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J.S. THOMPSON
ENGINEERING, INC
structural and geotechnical
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April 27, 2021

Garrison Safriet
Davidson Homes, LLC
4208 Six Forks Road
Suite 1000
Raleigh, NC 27609

Re: "Ash" plan

Dear Mr. Safriet:

The above noted plan was reviewed to address using Thermo-Ply Blue sheathing in lieu of 7/16" OSB sheathing at exterior walls and gypsum board at interior braced walls.

Review revealed that Thermo-Ply Blue may be used in place of 7/16" OSB for all exterior walls with the exception of portal framed garage walls. Thermo-Ply Blue may also be used in place of gypsum board at all interior braced walls designated by the plan as "GB" wall bracing method. To install Thermo-Ply Blue sheathing, block all horizontal joints and fasten the sheathing with min. 15/16" crown, 16 ga. staples or .012" min. diameter 3/8" head diameter, 11 ga. 1 1/4" length nails. Space fasteners at 3" o.c. along panel edges and in the field with minimum 1" embedment into framing. Do not countersink fasteners. Install per manufacturer's specifications. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

Whitney F. Boykin, E.I.

Matthew G. Strother, P.E.

NORTH CAROLINA PROFESSIONAL SEAL 33736 ENGINEER MATTHEW G. STROTHER
4/27/2021

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J.S. THOMPSON
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April 29, 2021

Josh Clowes
Davidson Homes, LLC
4208 Six Forks Road
Suite 1000
Raleigh, NC 27609

Re: "Ash" plan- all elevations

Dear Mr. Clowes:

Per your request, the plan noted above was reviewed to address the use of BCI joists in lieu of TJI joists as indicated on the structural plans.

Analysis revealed that BCI 4500S-1.8 may be installed in lieu of TJI 210 joists within the first and second floor systems at the depth and spacing indicated on the structural plans. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

Joshua A. Grantham

Matthew G. Strother, P.E.

NORTH CAROLINA PROFESSIONAL SEAL 33736 ENGINEER MATTHEW G. STROTHER

4/29/2021

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J.S. THOMPSON
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March 19, 2021

Joshua Clowes
Davidson Homes, LLC
4208 Six Forks Road
Suite 1000
Raleigh, NC 27609

Re: "Ash" plan
All elevations under construction

Dear Mr. Clowes:

Per your request, the plan noted above was reviewed to address an alternative for the LVL beam above the garage.

Analysis revealed a (4) 1 3/4" x 18" LVL beam may be installed in lieu of the plan specified (3) 1 3/4" x 20" LVL beam. The plies of the beam are to be fastened with (2) rows of 6 3/4" long Simpson SDW (or equivalent) screws at 24" o.c. The beam is to be supported by (5) jacks within the exterior garage wall and (5) jacks with (2) king studs at each side of the beam within the shared garage/foyer wall. The stud columns supporting the beam are to be fastened with Simpson CS16 straps at 24" o.c. This configuration will provide the required support for all applied loads.

Please call me if you have any questions.

Sincerely,

J.S. Thompson Engineering, Inc.
N.C. License No. C-1733

Joshua Grantham

Matthew G. Strother, P.E.

NORTH CAROLINA PROFESSIONAL SEAL 33736 ENGINEER MATTHEW G. STROTHER

3/19/2021

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