#### REVISION LOG

REVISION:001

DATE: 07/22/2022

ADD STEM WALL SLAB FOUNDATION SHEETS
ADD "STEM WALL" TO CRAWL ELEVATION TITLES AND NOTE "SEE FOUNDATION PAGES
FOR FOUNDATION TYPE". UPDATE SHEET TITLES.

DATE: 10/20/2023

- STANDARD SHOWER REVISED TO BE 60X36.

  CHANGED SHOWER SIZE FOR THE OWNER'S SHOWER/TUB OPTION TO 42"X42" AND MADE THE TUB DECK LARGER. CHANGED WINDOW OVER TUB TO 4/0x1/0 RELABELED FREPLACES IN SEPTEMANCES AS OPT. DENOTED FIREPLACE IN THE FAMILY ROOM AS AN INTERIOR FIREPLACE. NOTED THE WINDOWS FOR THIS OPTION TO BE 2/X5X/0.

  CHANGE FRONT DOOR FOR THE SMART DOOR DELIVERY OPTION TO AN INSWING DOOR. MODIFIED HALF WALL AT THE STAYEN TO BE A FULL WALL FOR THE DOUBLE POCKET OFFICE OPTION. THIS IS TO CARRY THE BEAM OVER THE STAYEN.

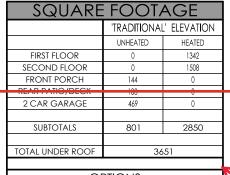
  SMART DOOR DELIVERY EXTENDED 2'-0" TOWARD THE FRONT IN THE POCKET OFFICE OPTIONS. FOUNDATIONS WERE CHANGED TO MATCH.

REVISION:003 DATE: 01/21/2024

 Clarify notes to indicate that the owner's bedroom 3/0x5/0 side windows
are optional to purchase but also standard if the covered porch option is
selected on the rear of the house. The 2/0x2/0 side windows are optional. TO PURCHASE. THE REAR 3/0X5/0 WINDOW NEAR THE THE CORNER BECOMES AN OPTIONAL PURCHASE WHEN COVERED PORCH IS SELECTED.

Redlines completed 7-Aug - DP

Redline Revision: Mark out window at Family Room and show the dbl drop zone. - JJ 9-19-2024



OPTIONS								
		UNHEATED S.F.	HEATED S.F.					
	0.000							
	TOCKLI OTTICL	· ·	7.01					
	PORCH W/ POCKET	127						
	OITICL							
	ROOM W/ FF POCKET OFFICE		174					
	SMART DOOR	-42	+42					
	SITTING BOOM	0	152					
	OFT. SKD CAK GARAGE	1200	Û					
	OPI. 3KD CAR GARAGE	200	•					
	COVERED PATIO/DECK	188	0					
	PATIO/DECK	+107	0					
		1						

# NC.



## Lot 160 - Duncan's Creek

--- Duncan Creek Road Lillington, NC 27546

Total Heated: 2892 Total Unheated: 759

## THE APEX - LH 'TRADITIONAL'

Sheet No.	Sheet Description
0.0	Cover Sheet
1.1	Foundation (Slab)
1.1.1	Foundation Options (Slab)
1.1.2	Foundation Options (Slab)
1.2	Foundation (Crawl)
1.2.1	Foundation Options (Crawl)
1.2.2	Foundation Options (Crawl)
1.3	Foundation (Stem Wall Slab)
1.3.1	Foundation Options (Stem Wall Slab)
1.3.2	Foundation Options (Stem Wall Slab)
2.1	First Floor Plan
2.1.1	First Floor Plan Options
2.2	Second Floor Plan
2.2.1	Second Floor Plan Options
2.4	Covered Porch Plans & Elevations (Slab)
2.4.1	Covered Porch Plans & Elevations (Crawl/Stem Wall)
2.4.2	Opt. Owner's Sitting w/ Covered Porch Plans & Elevations (Slab)
2.4.3	Opt. Owner's Sitting w/ Covered Porch Plans & Elevations (Crawl/Stem Wa
2.5	Extended Cafe Elevations & Roof Plan (Slab)
2.5.1	Extended Cafe Elevations & Roof Plan (Crawl)
2.5.2	Opt. Owner's Sitting w/ Ext. Cov. Porch Elevations & Roof Plan (Slab)
2.5.3	Opt. Owner's Sitting w/ Ext. Cov. Porch Elevations & Roof Plan (Crawl/ Stem
2.6	2-Car Sideload Garage Plans
2.6.1	2-Car Sideload Garage Elevations
2.7	3-Car Garage Plans
2.7.1	3-Car Garage Elevations
2.8	2 Car Side Load with Third Car Garage Plans
2.8.1	2 Car Side Load with Third Car Garage Elevation(SLAB)
2.8.2	2 Car Side Load with Third Car Garage Elevation (SLAB
3.1	Front & Rear Elevations (Slab)
3.1.1	Front & Rear Elevations (Crawl/Stem Wall)
3.2	Side Elevations (Slab)
3.2.1	Side Elevations (Stab)  Side Elevations (Crawl/Stem Wall)
3.2.1	X 2 2
	Roof Plan
5.1	First Floor Californ Flooring
5.1.1	First Floor Options Electrical
5.1.2	Two Car Side Load w/ Third Car Garage Electrical
5.2	Second Floor Electrical
5.2.1	Second Floor Options Electrical

#### **DESIGN CRITERIA:**

THIS PLAN IS TO BE BUILT IN CONFORMANCE WITH THE 2018 NORTH CAROLINA STATE BUILDING CODE: RESIDENTIAL CODE

DIMENSIONS SHALL GOVERN OVER SCALE, AND CODE SHALL GOVERN OVER DIMENSIONS.

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<b>3</b>	
INC.	

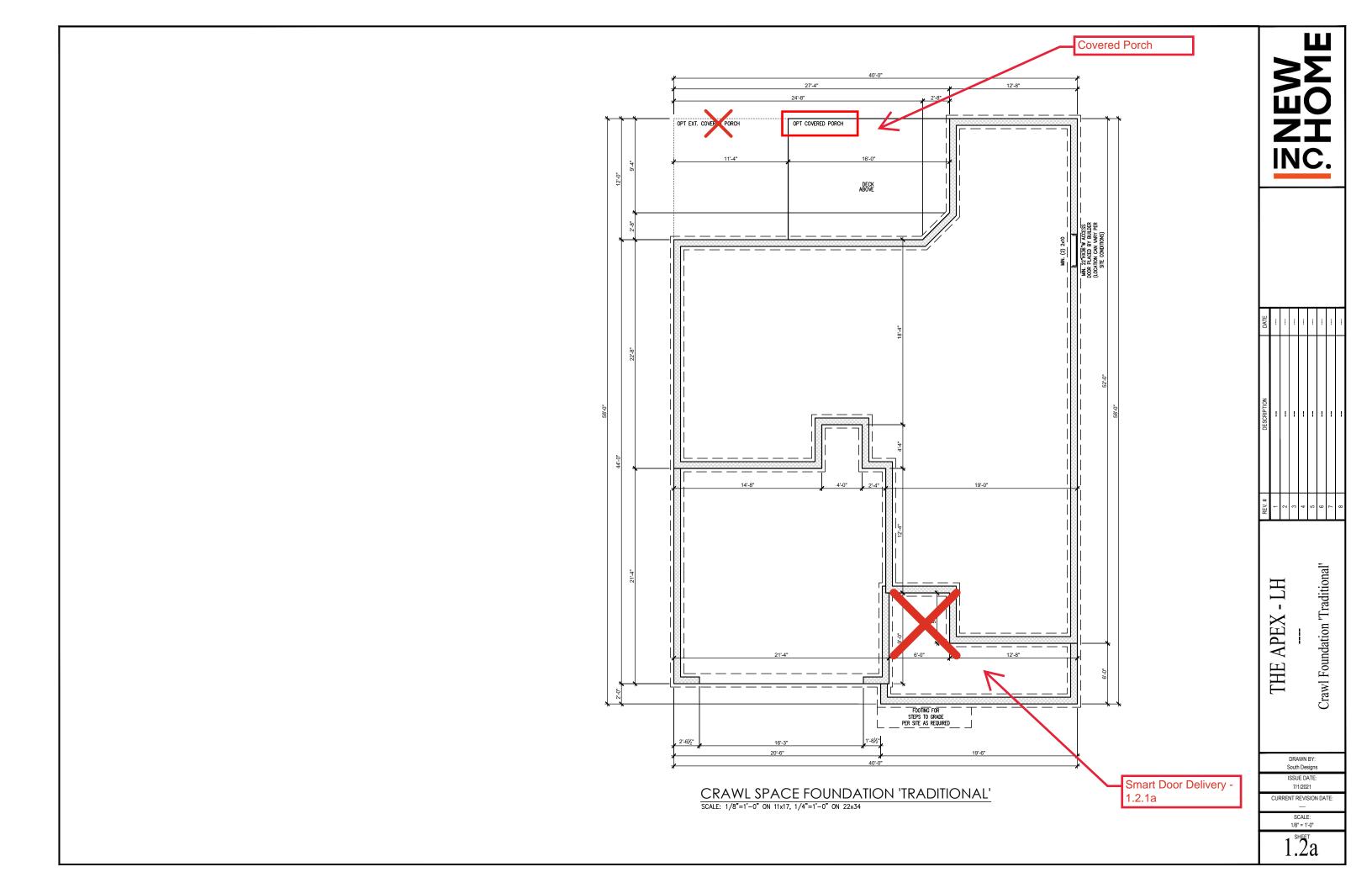
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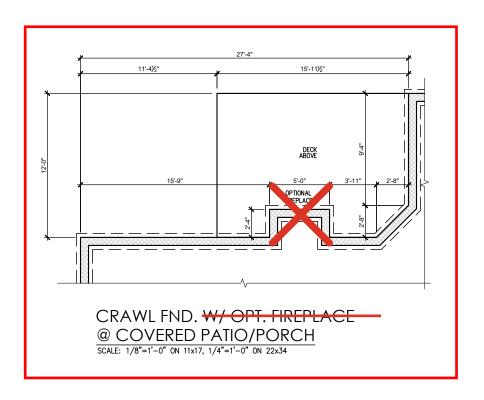
Cover Sheet 'Traditional'

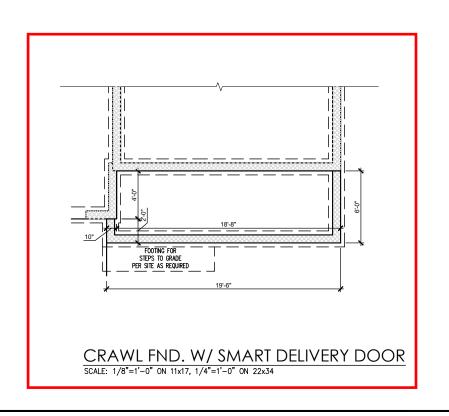
THE APEX

ISSUE DATE: 7/1/2021 CURRENT REVISION DATE:

1/8" = 1'-0"







	REV. #	DESCRIPTION	DATE
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i roumation	8		-

DRAWN BY: South Designs

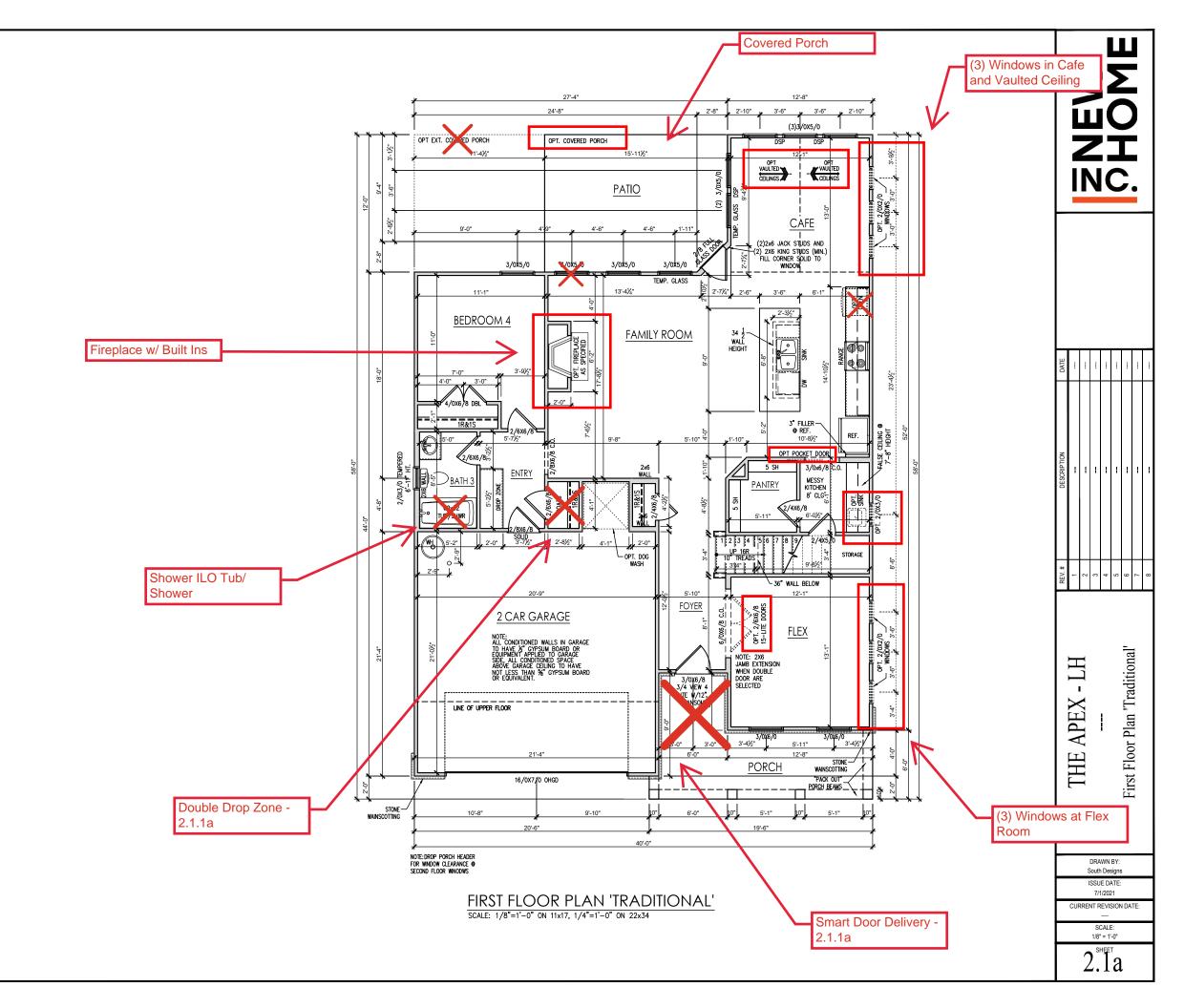
ISSUE DATE:

CURRENT REVISION DATE

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

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

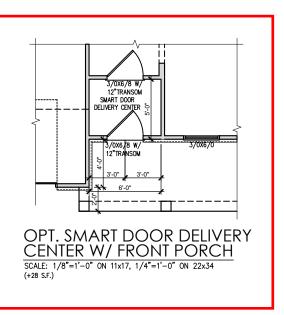
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- Wall Thickness is typically 3 1/2". 2x6 frame shall be used at walls that back up to plumbing fixtures.
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- Typical header height shall be 7'-8" AFF at First Floor, and 7'-4" AFF at Second Floor 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
- 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.
- 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 glazing.
- Closets for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 4 open equal shelves. Closets for pantries shall have 4 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. 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 balusters) 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  $20^{\circ} \times 30^{\circ}$ . 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.

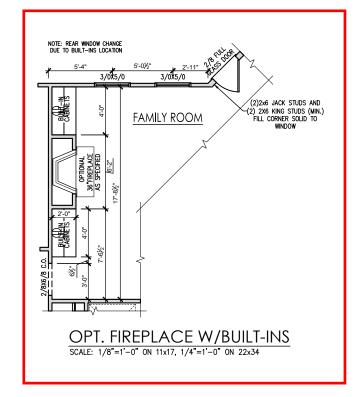


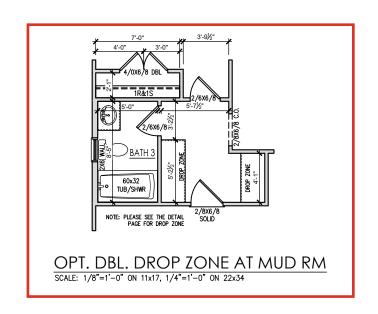
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REV.#         DESCRIPTION         DATE           1             2             4             5             7             8             8             8             9             10             10             10             10             11             12             13             14             15             16             17             18             18             19             10
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----First Floor Plan Options

APEX

THE

DRAWN BY: South Designs ISSUE DATE:

7/1/2021

CURRENT REVISION DATE

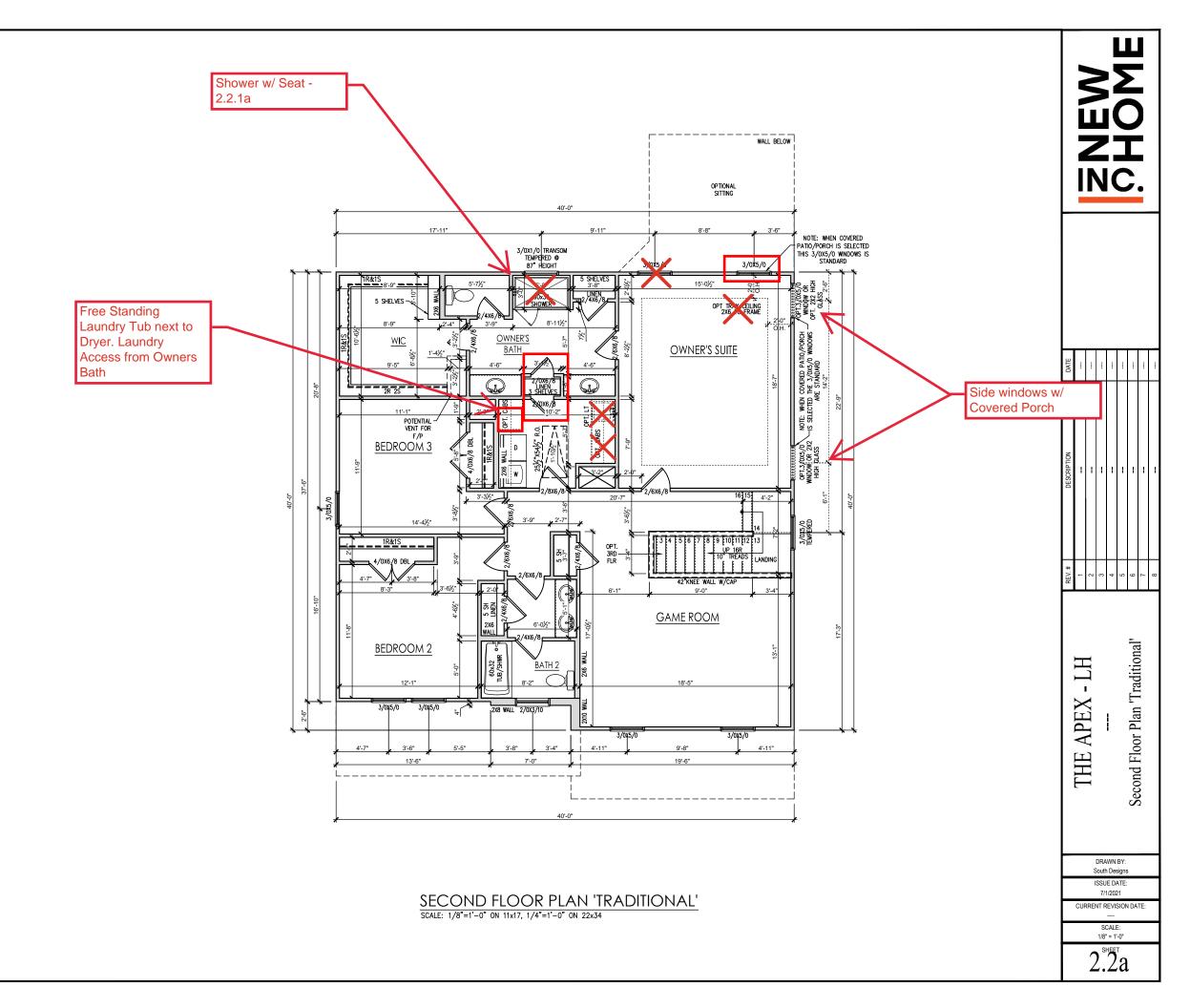
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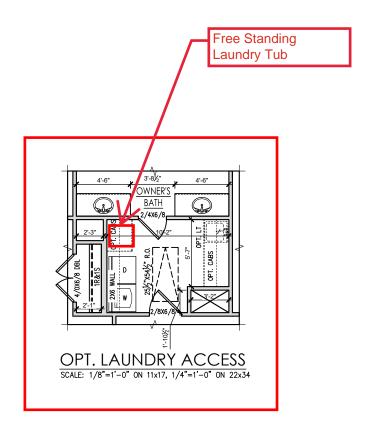
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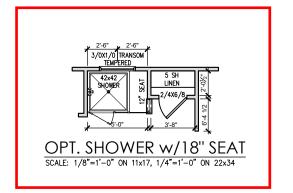


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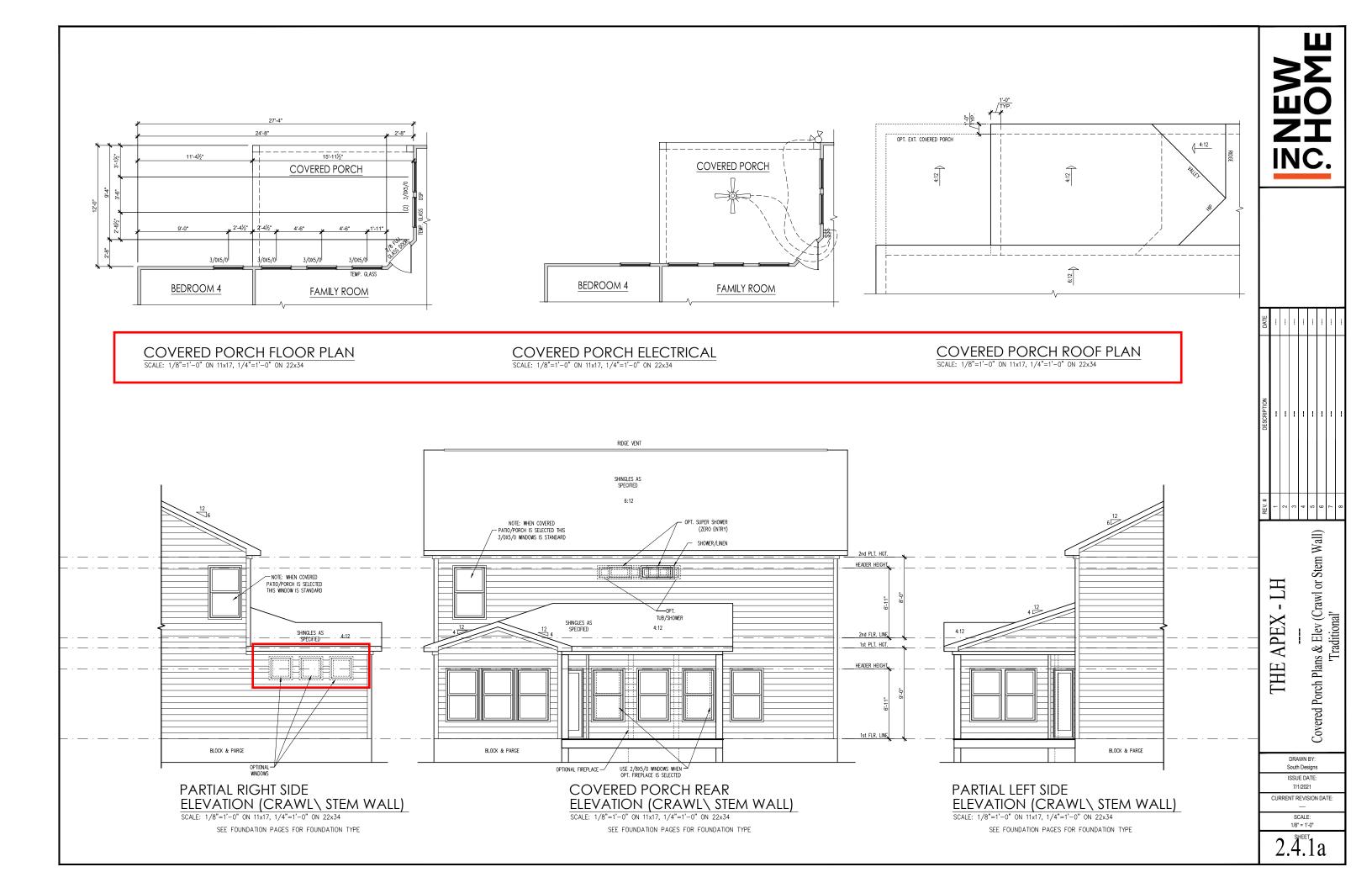
THE APEX - LH
--Second Floor Plan Options

DRAWN BY: South Designs

ISSUE DATE: 7/1/2021 CURRENT REVISION DATE:

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

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#### **General Elevation Notes**

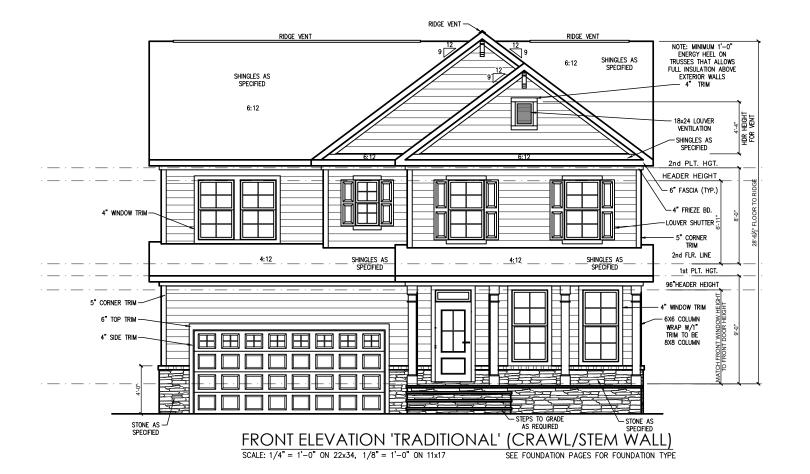
General Elevation Notes shall apply unless noted otherwise on plan.

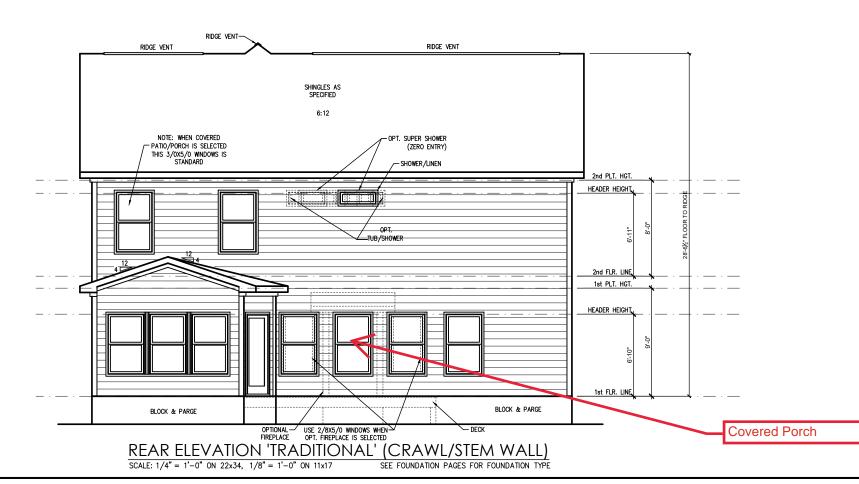
- Roof shall be finished with architectural composition shingles with slopes as noted on plan.
- Ridge Vent shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
- 3. Soffit Vent shall be continuous soffit vent
- House Wrap, "tyvek" or approved equal 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 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.
- 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" oc 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 back face of brick shall be limitled 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 corosion 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 3". Masonry Lintels shall be provided so that deflection is limited

asonry Opening Lintel Schedule

ina Size Ar

up to 4'-0"		3-1/2" x 3-1/2" x 5/1
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







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REV. #	DESCRIPTION	DATE
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THE APEX - LH

--Front & Rear Elevations (Crawl or Stem
Wall) 'Traditional'

DRAWN BY: South Designs ISSUE DATE: 7/1/2021 CURRENT REVISION DATE:

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

3.1.1a

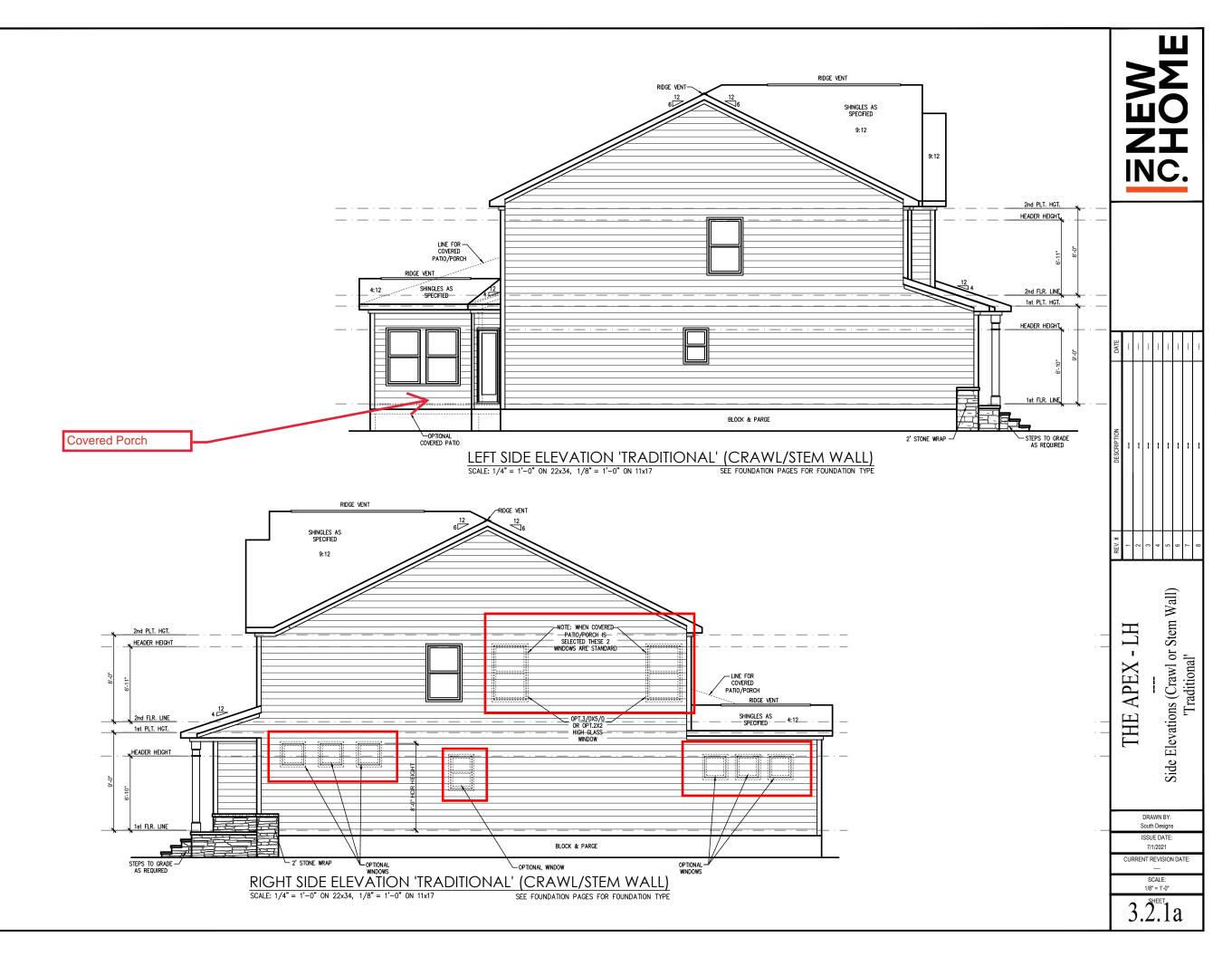
#### **General Elevation Notes**

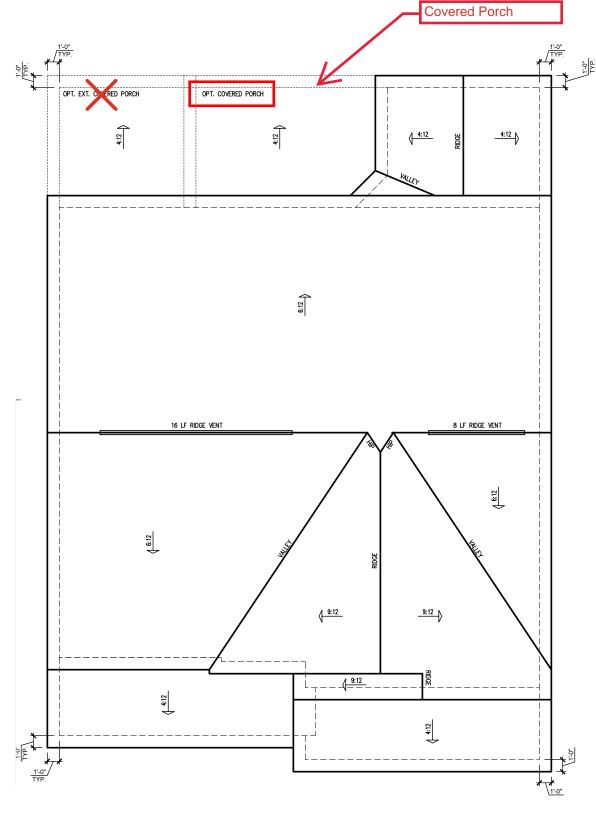
General Elevation Notes shall apply unless noted otherwise on plan.

- 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 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) lie. Space between face of wall and back face of brick shall be limited to a maximum of 1". Riashing 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 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					





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

	ATTIC VENT SCHEDULE											
		'TRADITIONAL' ELEVATION										
TYP.	MAIN I	HOUSE		SQ FTG	1551	AT	AT / NE/	IEAR EAVE				
	SQ. FT. VENT TYPE REQUIRED			SQ. FI. OF TO	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. VENT (SQ. IN. PER LF)		
	p		NGE	SUPPLIED	SUPPLIED	0.4236	0.2778	0.125	0.1944	0.0625		
	RIDGE VENT	2.07	2.59	3.00	44.44	0	0	24.00				
	SOFFIT VENTS	3.10	2.59	3.75	55.56				0	60.00		
	TOTAL (MIN)	5.17	5.17	6.75	100.00	POT VENTS MAY B	E REQUIRED IF THERE	E IS INSUFFICIENT RIE	GE AVAILABLE			

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

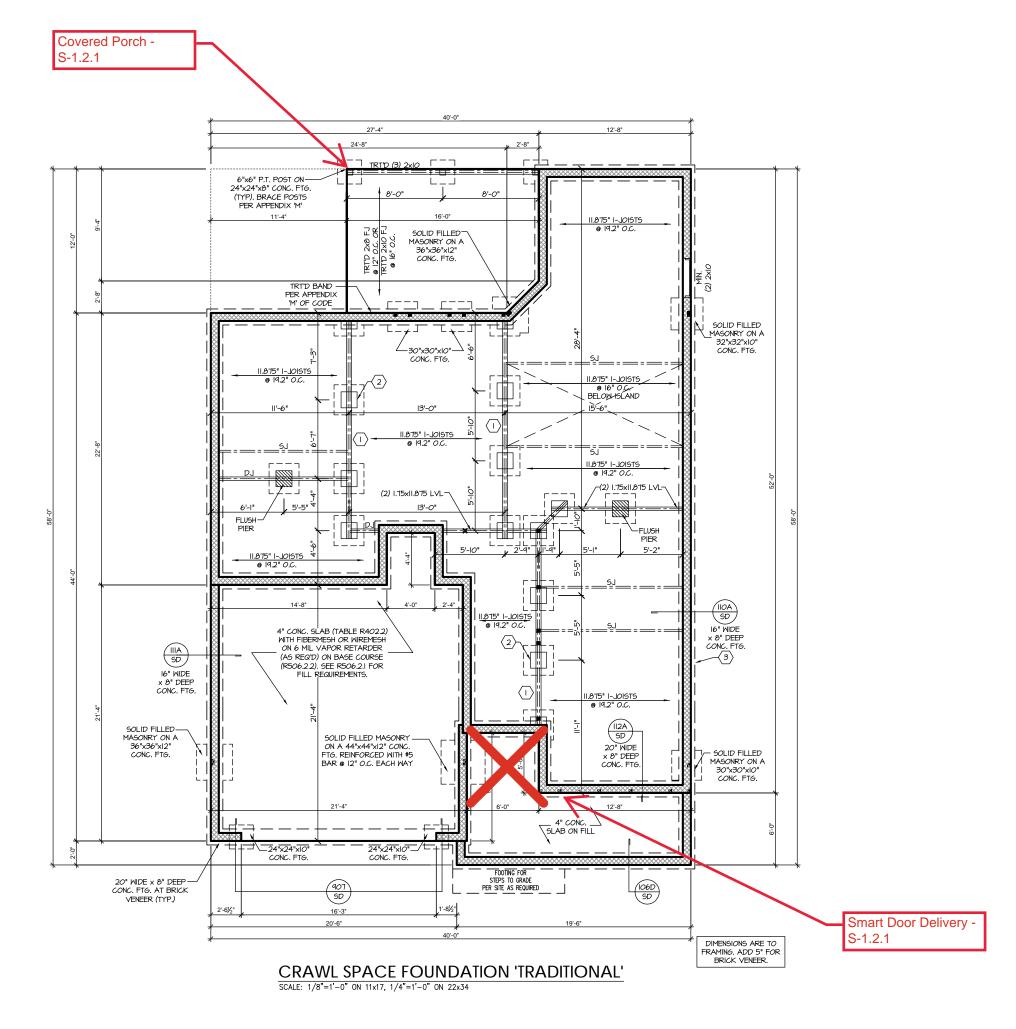
THE APEX - LH
--Roof Plan 'Traditional'

DRAWN BY: South Designs

ISSUE DATE: 7/1/2021

CURRENT REVISION DATE:
---SCALE:
1/8" = 1'-0"

3.3a





#### TRUSS SYSTEM REQUIREMENTS

NC (2018 NCRC): Wind: 115-120 mph

- TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

#### **MOOD I-JOISTS**

(SHALL BE ONE OF THE FOLLOWING OR EQUAL):

• TJI 210 BY TRUS JOIST

- LPI 20 PLUS BY LP
- BCI 5000s I.8 BY BC

#### HEAVY WOOD I-JOISTS

(SHALL BE ONE OF THE FOLLOWING OR EQUAL):

- TJI 360 BY TRUS JOIST LPI 42 PLUS BY LP
- BCI 60s 2.0 BY BC
- ALL WOOD I-JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I-JOIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.
- FLOOR TRUSSES BY MANUFACTURER MAY BE SUBSTITUTED FOR ANY I-JOISTS.

#### FOUNDATION STRUCTURAL NOTES NC (2018 NCRC): Wind: 115-120 mph - CRAWL

(I) (3)2xIO SYP#2 OR SPF#2 GIRDER, TYPICAL UNO.

2 CONCRETE BLOCK PIER SIZE SHALL BE:

<u> SIZE</u> 8x16 HOLLOW UP TO 32" <u>SOLID</u> UP TO 5'-0" 12x16 UP TO 48" UP TO 9'-O" UP TO 64" UP TO 12'-0" 16x16 UP TO 96"

24x24

WITH 30" x 30" x 10" CONCRETE FOOTING, UNO.

3 WALL FOOTING AS FOLLOWS

DEPTH: 8" - UP TO 2 STORY

10" - 3 STORY

16" - UP TO 2 STORY

20" - 3 STORY 16" - I STORY BRICK:

20" - 2 STORY 24" - 3 STORY

- FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.I.I (I THRU 4) NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSE, CONTRACTOR MUST VERIEY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
- $\langle 4 \rangle$ (4) 2xIO SPF #2 OR SYP #2 GIRDER
- (2) 1.75x4.25 LVL OR LSL GIRDER
- (3) 1.75x9.25 LVL OR LSL GIRDER
- "DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FND, TYPICAL.
- ABBREVIATIONS:
- "SJ" = SINGLE JOIST
- "DJ" = DOUBLE JOIST
- "TJ" = TRIPLE JOIST
- ADJUST SUBFLOOR THICKNESS OR JOIST SPACING AS REQ'D FOR FLOOR FINISH MATERIALS.

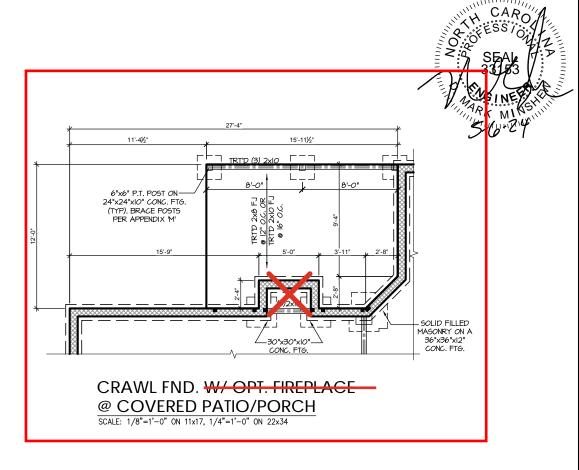
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PROJECT #

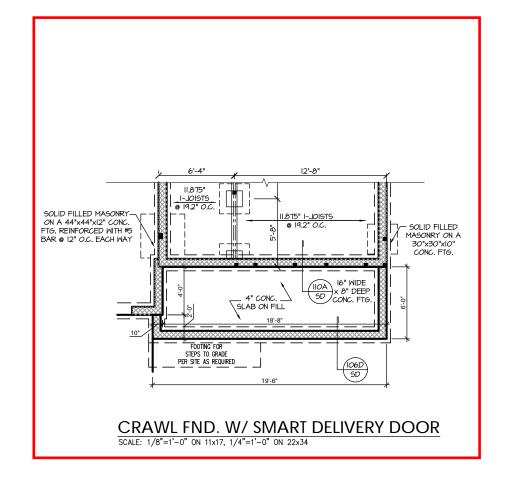
21-2780.1-LH

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DIMENSIONS ARE TO FRAMING. ADD 5" FOR BRICK VENEER.



PROJECT # 21-2780.1-LH

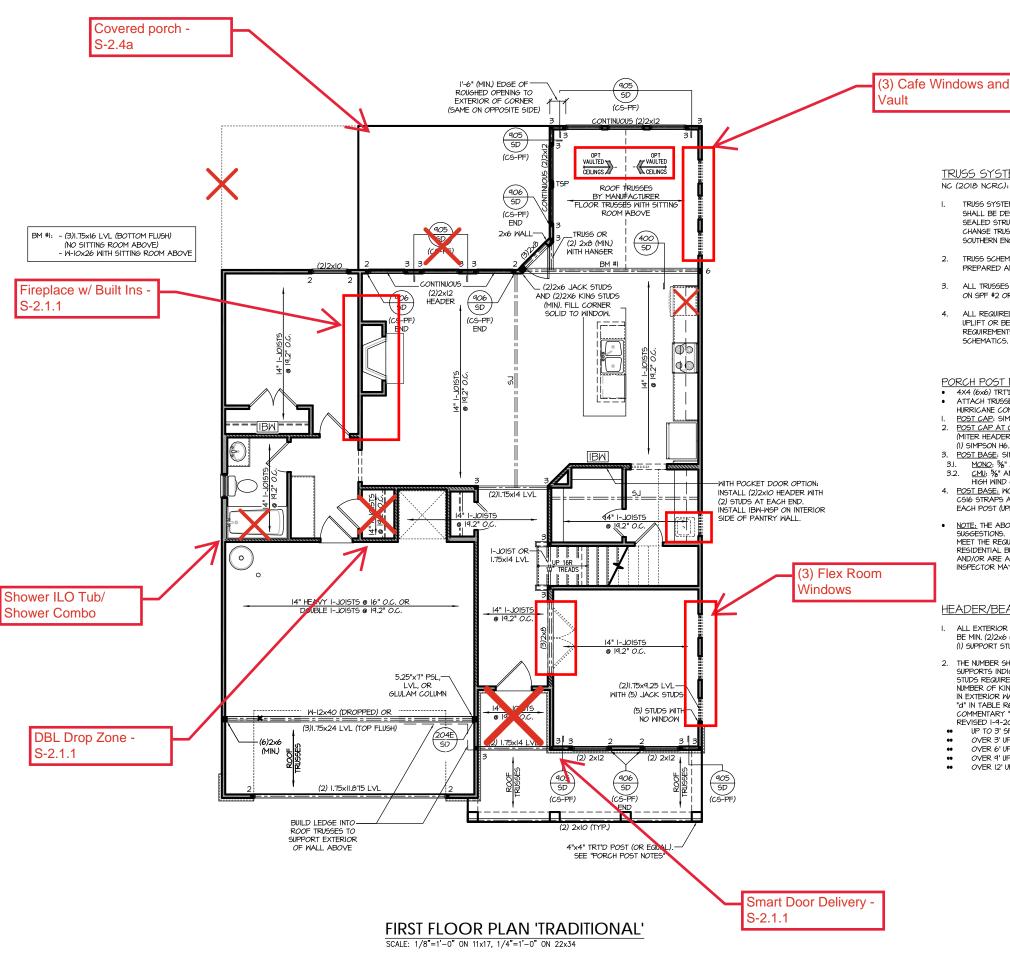
ument.
I does not include construction means, methods, techniques, uences, procedures or safety precautions.
I deviations or discrepancies on plans are to be brought to thredate attention of Southern Engineers. Failure to do so will d Southern Engineers.

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S-1.2.1





#### TRUSS SYSTEM REQUIREMENTS NC (2018 NCRC): Wind: 115-120 mph

- TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS

#### PORCH POST NOTES:

- 4X4 (6x6) TRT'D POST (OR EQUAL,
- ATTACH TRUSSES (RAFTERS) AT PORCH WITH HIRRICANE CONNECTORS
- POST CAP: SIMPSON AC4-MAX (AC6-MAX)
- POST CAP AT CORNER: (2) SIMPSON LCE4 (MITER HEADER AT CORNER). HIGH WIND; ADD (1) SIMPSON H6.
  3. <u>POST BASE</u>: SIMPSON ABU44 (ABU66).
- MONO: %" ANCHOR (EMBED 7")
- CMU: 3/8" ANCHOR (EXTEND TO FOOTING HIGH WIND ONLY) 3.2.
- 4. POST BASE: WOOD FOUNDATION: (2) SIMPSON CSI6 STRAPS AT POSTS. EXTEND 12" ONTO EACH POST (UPPER AND LOWER) OR TO GIRDER.
- NOTE: THE ABOVE CONNECTORS ARE SUGGESTIONS. EQUIVALENT CONNECTORS THAT MEET THE REQUIREMENTS OF THE NC RESIDENTIAL BUILDING CODE LOCAL CODES AND/OR ARE APPROVED BY THE BUILDING INSPECTOR MAY BE SUBSTITUTED

#### HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x6 (4" WALL) OR (3)2x6 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- 2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R6023(5) OR AS BELOW PER NODOL COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020:
- UP TO 3' SPAN: (I) KING STUD
- OVER 3' UP TO 6' SPAN: (2) KING STUDS
- OVER 6' UP TO 9' SPAN: (3) KING STUDS
- OVER 9' UP TO 12' SPAN: (4) KING STUDS OVER 12' UP TO 15' SPAN: (5) KING STUDS

#### FRAMING NOTES

NC (2018 NCRC): Wind: 115-120 mph

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP: CS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE, SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 1/16" EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS) INSTALL BLOCKING AT ALL PANEL EDGES.
- MSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE.
  WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- 4. "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY
  ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBI Y
- \*\*GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
- \*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON C520 OR CSHP20 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W (7) 8d NAILS.
- 5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH I/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS. SEE SECTION R602.10.4.4 OF THE CODE.
- 6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/4" WSP SHEATHING WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES, ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS. SEE SECTION R602.10.4.4 OF THE CODE.

#### **MOOD I-JOISTS**

- (SHALL BE ONE OF THE FOLLOWING OR EQUAL):

  TJI 210 BY TRUS JOIST

  LPI 20 PLUS BY LP

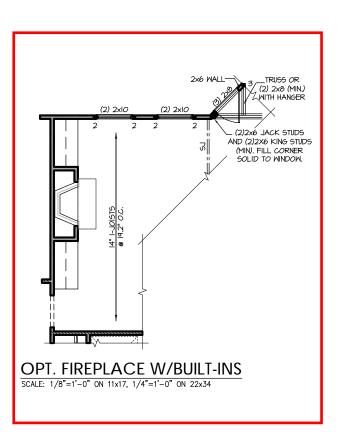
- HEAVY WOOD 1-JOISTS (SHALL BE ONE OF THE FOLLOWING OR EQUAL): TJI 360 BY TRUS JOIST
- BCI 60s 2.0 BY BC
- ALL WOOD I-JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS
- INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I- IDIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.
  - FLOOR TRUSSES BY MANUFACTURER MAY BE SUBSTITUTED FOR ANY I-JOISTS.

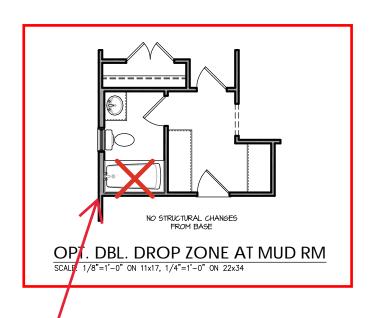
PROJECT # 21-2780.1-LH

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> HOME, NEW

Apex ~ 1 eft







BUILD LEDGE INTO
ROOF TRUSCES TO
SUPPORT EXTERIOR
OF WALL ABOVE

OPT. SMART DOOR DELIVERY
CENTER W/ FRONT PORCH
SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34

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S-2.1.1

Shower ILO Tub/ Shower Combo



PROJECT #

21-2780.1-LH

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P.A. 27609

TRUSS SYSTEM REQUIREMENTS

NC (2018 NCRC): Wind: 115-120 mph

Window locations w/ Covered Porch

- TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS

#### PORCH POST NOTES:

- 4X4 (6x6) TRT'D POST (OR EQUAL). ATTACH TRUSSES (RAFTERS) AT PORCH WITH
- HURRICANE CONNECTORS. POST CAP: SIMPSON AC4-MAX (AC6-MAX)
- POST CAP AT CORNER: (2) SIMPSON LCE4 (MITER HEADER AT CORNER). HIGH WIND; ADD
- (1) SIMPSON H6. 3. <u>POST BASE</u>: SIMPSON ABU44 (ABU66).
- 3.I. MONO: 3/8" ANCHOR (EMBED 7")
  3.2. CMJ: 3/" ANCHOR (EXTEND TO FOOTING HIGH WIND ONLY)
- 4. POST BASE: WOOD FOUNDATION: (2) SIMPSON CSI6 STRAPS AT POSTS. EXTEND 12" ONTO EACH POST (UPPER AND LOWER) OR TO GIRDER.
- NOTE: THE ABOVE CONNECTORS ARE SUGGESTIONS. EQUIVALENT CONNECTORS THAT MEET THE REQUIREMENTS OF THE NC RESIDENTIAL BUILDING CODE, LOCAL CODES, INSPECTOR MAY BE SUBSTITUTED

#### HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x6 (4" WALL) OR (3)2x6 (6" WALL) WITH (I) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- 2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS"
  REVISED 1-9-2020:
- UP TO 3' SPAN: (I) KING STUD
- OVER 3' UP TO 6' SPAN: (2) KING STUDS
- OVER 6' UP TO 9' SPAN: (3) KING STUDS OVER 9' UP TO 12' SPAN: (4) KING STUDS
- OVER 12' UP TO 15' SPAN: (5) KING STUDS

#### FRAMING NOTES

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED MSP: CS-MSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING
- EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS)
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE.
  WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12"
- 4. "HD" = HOLDOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY
  ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBI Y
- ON SD SHEET (OR EQUIV.)
- AND ATTACH EACH END W (7) 8d NAILS.
- 5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH I/2" GYPSUM BOARD (GB) ON EACH SIDE OF 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS. SEE SECTION R602.10.4.4 OF THE CODE.
- (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 16" MSP SHEATHING WITH 8d NAILS AT A 6"/12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES, ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH I/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS. SEE SECTION R602.10.4.4 OF THE CODE.

NC (2018 NCRC): Wind: 115-120 mph

- REQUIRED BY SECTION R602.10 OF THE CODE, SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING 2. EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED
- BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16". INSTALL BLOCKING AT ALL PANEL EDGES.
- BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- \*\*GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL"
- \*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON C520 OR C5HP20 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER)
- WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @
- 6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL:

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

(2)2x8

ROOF TRUSSES BY MANUFACTURER

WITH WINDOW, ATTACH BASE OF STUD WITH A SIMPSON CS20 OR CSHP20 STRAF DOWN ACROSS THE BAND AND DOWN TO

A STUD BELOW OR HEADER BELOW. EXTEND STRAP 9" MIN ALONG EACH STUD

(8) 8d COMMON NAILS (OR EQ).

OR HEADER) AND ATTACH EACH END WITH

Shower w/ Seat -

ROOF TRUSSES

(2) 2×8

(2) 2x8

BUILD LEDGE INTO ROOF TRUSS BELOW TO SUPPORT

\_\_\_\_

Free Standing Tub in

Laundry

Apex

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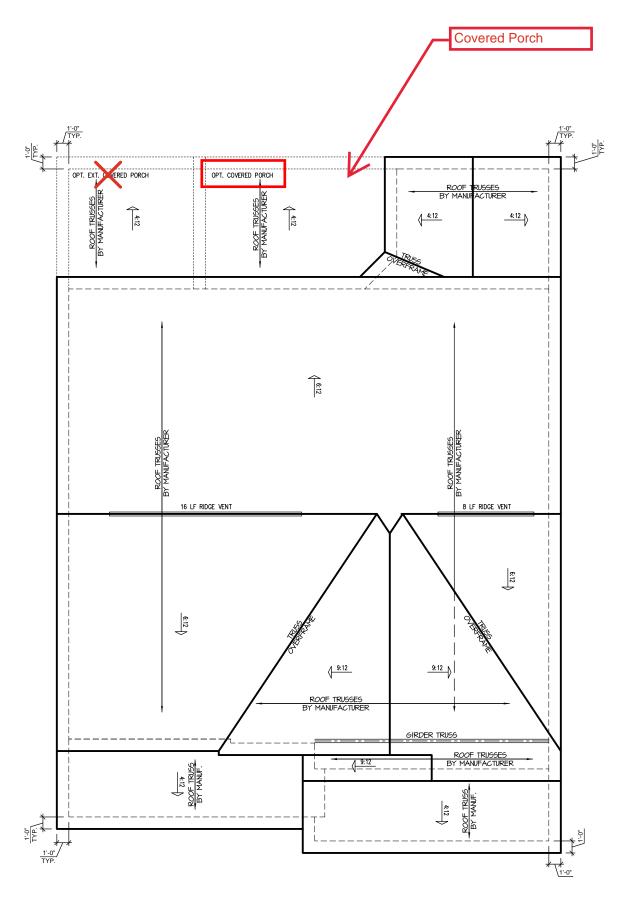


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 $\frac{\text{'TRADITIONAL'}}{\text{SCALE: }1/4" = 1'-0"} \; \text{ON } \; 22x34, \; \; 1/8" = 1'-0" \; \text{ON } \; 11x17}$ 



#### TRUSS SYSTEM REQUIREMENTS NC (2018 NCRC): Wind: 115-120 mph

- I. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS)
  SHALL BE DESIGNED IN ACCORDANCE WITH
  SEALED STRUCTURAL PLANS, ANY NEED TO
  CHANGE TRUSSES SHALL BE COORDINATED
  WITH SOUTHERN ENGINEERS.
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

PROJECT # 21-2780.1-LH

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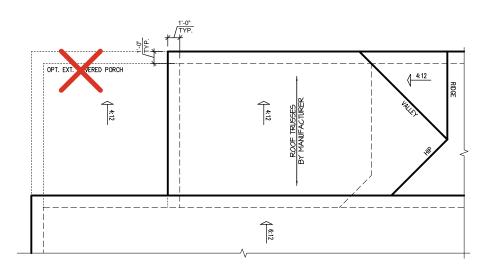
sequences, procedures or safely precautions.
Any deviations or discrepancies on plans are to b
immediate attention of Southern Engineers. Failt
void Southern Engineer's liability.
Use of these plans constitutes approval of terms &

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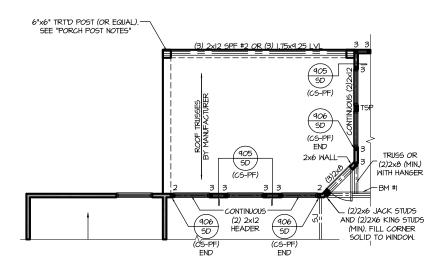
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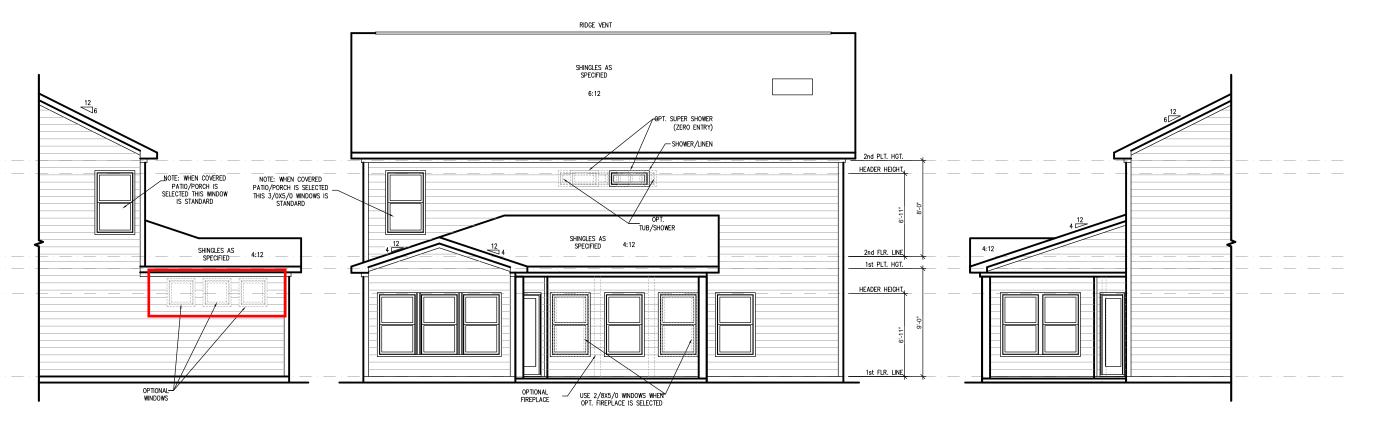
S-3 1



**COVERED PORCH ROOF PLAN** SCALE: 1/8"=1'-0" ON 11x17, 1/4"=1'-0" ON 22x34



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



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

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

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

PARTIAL RIGHT SIDE ELEVATION

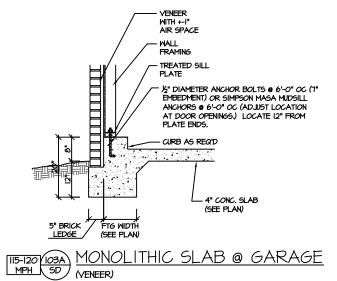
PROJECT # 21-2780.1-LH

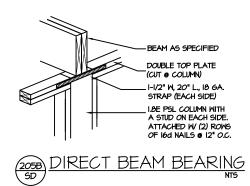
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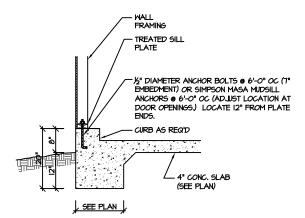
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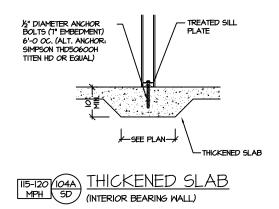
## MONOLITHIC SLAB FOOTING (SIDING OR FOLIAL)

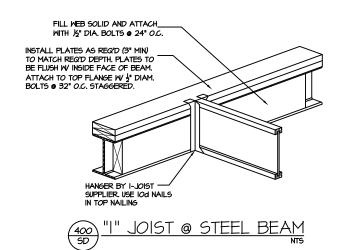


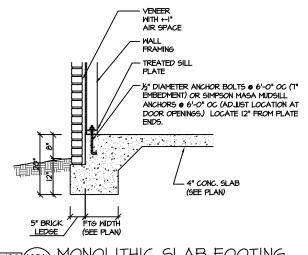




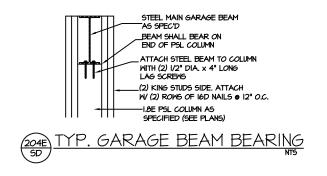
MONOLITHIC SLAB @ GARAGE (SIDING OR EQUAL)

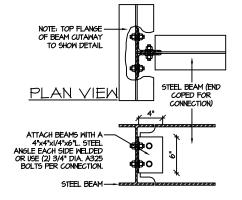






MONOLITHIC SLAB FOOTING (VENEER)





TYPICAL BEAM CONNECTION DETAIL NTS

STRUCTURAL DETAILS: MONO SLAB FOUNDATION PROJECT # 21-2780.1

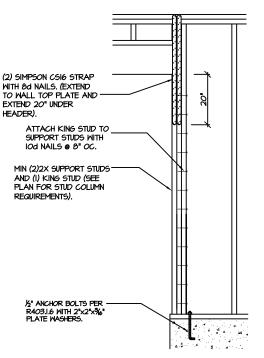
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<u>CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION</u> DETAIL AND APPLICATION BASED ON NCRC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION

CS-PF - OVER WOOD FLOOR



CS-PF: END CONDITION DETAIL (FOR USE WITH SINGLE CS-PF CONDITION) DETAIL AND APPLICATION BASED ON NORC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION



#### STRUCTURAL NOTES

NC (2018 NCRC): Wind: 115-120 mph

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM, ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM, ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NC RESIDENTIAL CODE, 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 FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.
- 3. DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)

   ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, IO PSF, L/360)

- SLEEPING ROOMS: (30 PSF, I/O PSF, L/360) ATTIC WITH PERMANENT STAIR: (40 PSF, I/O PSF, L/360)
- ATTIC WITHOUT PERMANENT STAIR: (20 PSF, IO PSF, L/360)
- ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
- DECKS AND EXTERIOR BALCONIES: (40 PSF, IO PSF, L/360)
- PASSENGER VEHICLE GARAGES: (50 PSF, IO PSF, L/360)
- 4. WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH MOOD STRUCTURAL PANELS, SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.
- 5. SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR
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- 7. ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO
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- 4. L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1,9xl0 PSI,
   9.1. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2,0xl0 PSI,
   9.2. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1,55xl0 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- IO. ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS, TRUSSES AND I-LOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS, ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE
- II. ALL STRUCTURAL STEEL SHALL BE ASTM A-36, STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH, PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCRENS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE • 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.
- 12. REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60. LAP ALL REBAR SPLICES 30 BAR
- 13. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF I/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
- 14. BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS
- I5. METAL CONNECTORS REFERENCED ON PLANS CORRESPOND TO SIMPSON STRONG-TIE BRAND. CONNECTORS OF EQUAL OR BETTER CAPACITY ARE ACCEPTABLE. CORROSION RESISTANCE PER CODE AND AS RECOMMENDED BY MANUFACTURER.

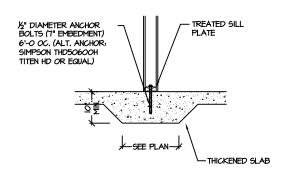
STRUCTURAL DETAILS: MONO SLAB FOUNDATION PROJECT # 21-2780.1

P.A. 27609

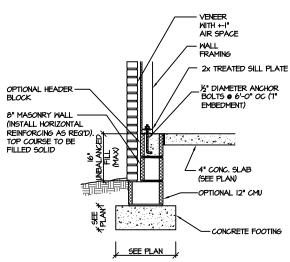
Engineers, Drive, Raleigh, NC e: (919) 878-1617 nson Drive, R. Phone: (919) Southern 3716 Benson D

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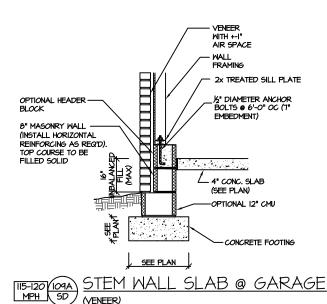






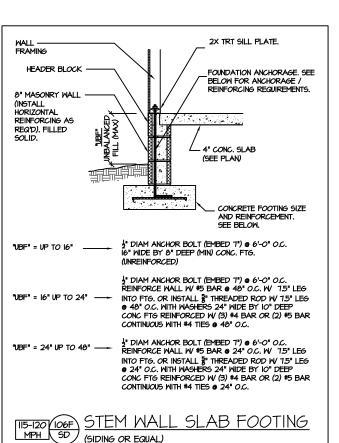


SEE DETAIL "IO6E/SD")



(FOR UNBALANCED FILL EXCEEDING 16" O.C.

SEE DETAIL "106E/SD")



STEEL MAIN GARAGE BEAM

ATTACH STEEL BEAM TO COLUMN

W (2) ROWS OF 16D NAILS @ 12" O.C.

MITH (2) I/2" DIA. x 4" LONG LAG SCREMS

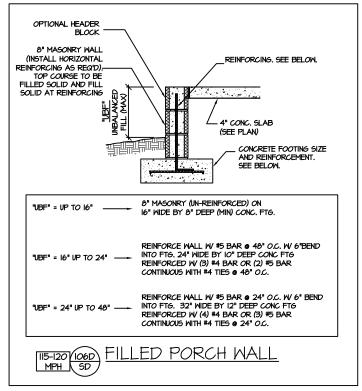
(2) KING STUDS SIDE, ATTACH

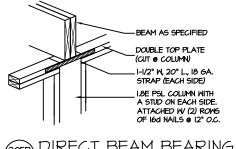
-1.8E PSL COLUMN AS

TYP. GARAGE BEAM BEARING

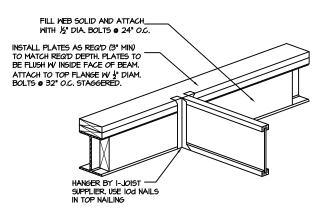
BEAM SHALL BEAR ON END OF PSL COLUMN

AS SPEC'D

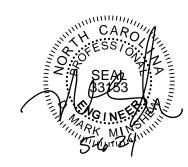


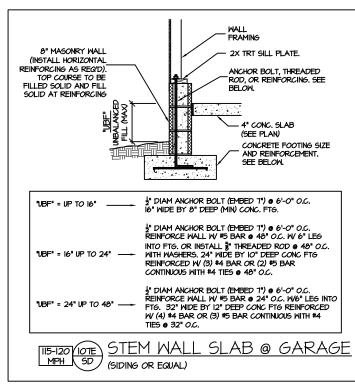


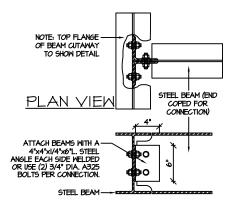












TYPICAL BEAM CONNECTION DETAIL NTS

STEMMALL SLAB FOUNDATION

PROJECT # 21-2780.1

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to be

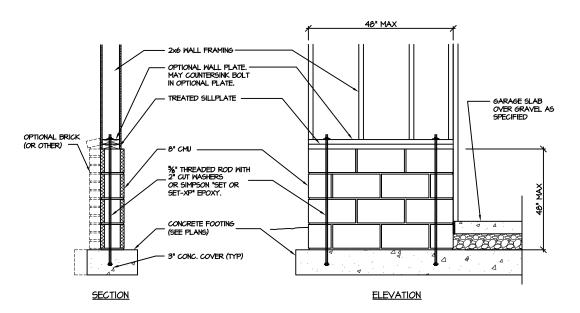
P.A. 27609

Southern Engineers, F 3716 Benson Drive, Raleigh, NC 2. Phone: (919) 878-1617

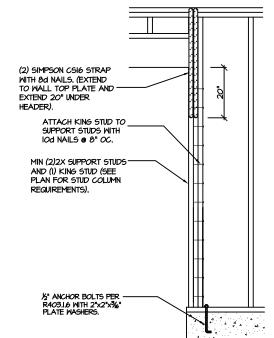
NEW HOME, INC.

The Apex - Plan 05









CS-PF: END CONDITION DETAIL (FOR USE WITH SINGLE CS-PF CONDITION) DETAIL AND APPLICATION BASED ON NORC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION

NOTE: AT INTERMEDIATE WALL SEGMENTS BETWEEN OPENINGS. THE STRAPS SHALL BE INSTALLED AT

EXTERIOR VIEW

(2) ROWS OF 160 MIN. 3"XII.25" HEADER, SEE PLAN FOR ACTUAL SIZE, EXTEND OVER PANEL. NAILS @ 3" OC 2' TO 18' FASTEN SHEATHING TO HEADER W 8d COMMON NAILS IN 3" GRID PATTERN AND 3" O.C. IN ALL MIN (2)2X WALL FRAMING. FRAMING (STUDS, BLOCKING, AND SEE PLAN FOR STUD SILLS) TYP. COLUMN REQUIREMENTS. PANEL EDGES SHALL BE BLOCKED AND OCCUR WITHIN 24" OF MID-HEIGHT. ONE ROW OF TYP. SHEATHING-TO-FRAMING NAILING IS REQ'D (3" OC). ATTACH BLOCKING TOGETHER W MIN 1/6" THICK WOOD STRUCTURAL PANEL (3) 16d SINKERS. TREATED SILLPLATE SHEATHING TREATED SILLPLATE **15" ANCHOR BOLTS PE** R403.1.6 WITH 2"x2"x3/6" PLATE WASHERS. NOTE: FOR CMU APPLICATIONS AT GARAGE DOORS, ANCHOR BOLTS SHAL

(2) SIMPSON CSI6 STRAP

WITH 8d NAILS, (EXTEND

BE %" DIAMETER AND SHALL EXTEND TO FOOTING (PER NORC FIGURE

R602.IO.4.3 (SEE GARAGE "WING WALL" DETAIL ON STRUCTURAL PLANS)

EXTEND 20" UNDER

HEADER).

-8d NAILS @ 3" OC TOP SIMPSON LTP4 FRAMING -EXTEND SHEATHING TO SILL PLATE (DO NOT SPLICE) FRAMING ANCHOR OPTION MSP OVERLAP OPTION

FOOTING / FOUNDATION (SEE

CS-PF - OVER WOOD FLOOR

INTERIOR VIEW

CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION DETAIL AND APPLICATION BASED ON NORC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION

### ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM, ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2016 NC RESIDENTIAL CODE, 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 FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE

CARO

DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)
ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, IO PSF, L/360)

SLEEPING ROOMS: (30 PSF, I/O PSF, L/360) ATTIC WITH PERMANENT STAIR: (40 PSF, I/O PSF, L/360)

CONSTRUCTION PRACTICE AND THE BUILDING CODE.

ATTIC WITHOUT PERMANENT STAIR: (20 PSF, IO PSF, L/360)

ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)

STAIRS: (40 PSF, IO PSF, L/360)

DECKS AND EXTERIOR BALCONIES: (40 PSF, IO PSF, L/360) PASSENGER VEHICLE GARAGES: (50 PSF, IO PSF, L/360)

STRUCTURAL NOTES NC (2018 NCRC): Wind: 115-120 mph

4. WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH MOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.

5. SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR

CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD

6. CONCRETE SHALL HAVE A MINIMUM 20 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERNISE (UNO). AIR ENTRAINED PER TABLE 4022, ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE HITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PIMP, CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF  $\leftrightarrow$ 30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SANCUT TO A DEPTH OF I/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SANCUT IN SLAB ON A +-10'-0" x +-10'-0" GRID).

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II. ALL STRUCTURAL STEEL SHALL BE ASTM A-36, STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH, PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCRENS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE • 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.

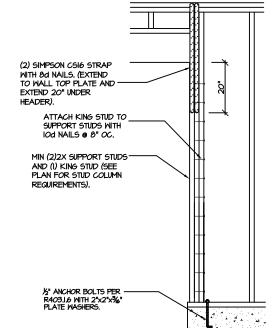
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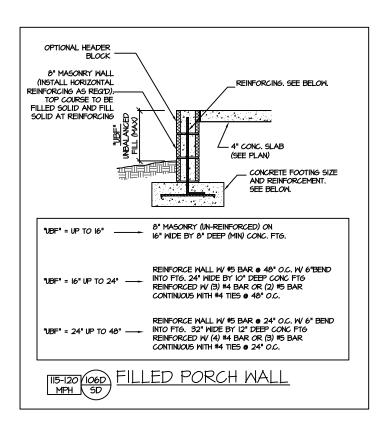
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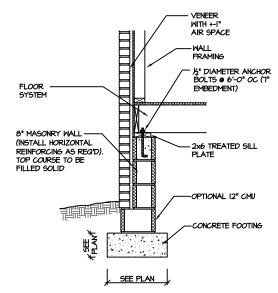
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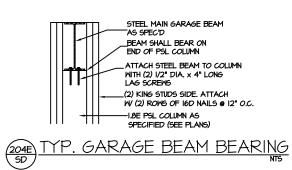
STEMMALL SLAB FOUNDATION

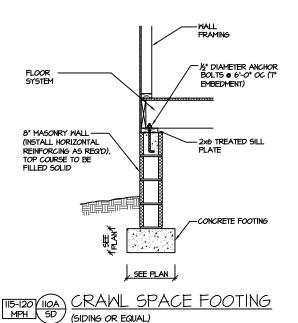


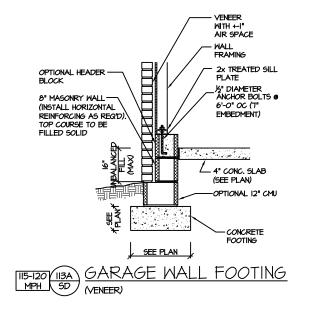


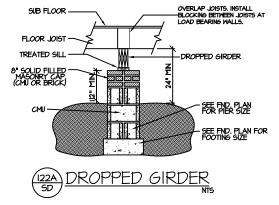


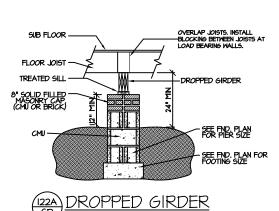












SEE PLAN

- WALL FRAMING

8" MASONRY WALL (INSTALL HORIZONTAL REINFORCING AS REQ'D).

TOP COURSE TO BE

FILLED SOLID

MPH SD (SIDING OR FOILAL)

2x TREATED SILL PLATE

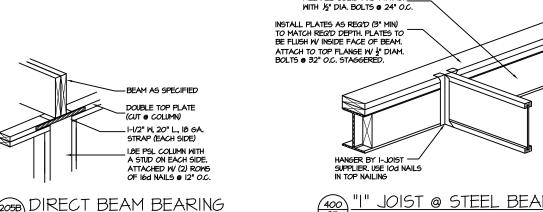
EMBEDMENT)

4" CONC. SLAB (SEE PLAN)

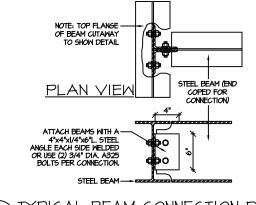
- CONCRETE FOOTING

FOOTING

必" DIAMETER ANCHOR - BOLTS @ 6'-0" OC (7"



FILL WEB SOLID AND ATTACH\_



TYPICAL BEAM CONNECTION DETAIL

STRUCTURAL DETAILS: CRAWL SPACE FOUNDATION



CAR

P.A. 27609 Southern Engineers, P 3716 Benson Drive, Raleigh, NC 2' Phone: (919) 878-1617 License: C-4772

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INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

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SLEEPING ROOMS: (30 PSF, I/O PSF, L/360) ATTIC WITH PERMANENT STAIR: (40 PSF, I/O PSF, L/360)

ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)

STAIRS: (40 PSF, IO PSF, L/360)

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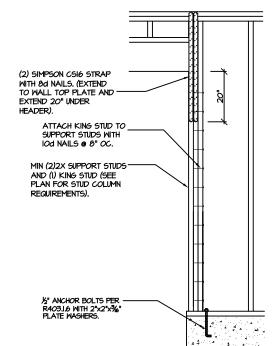
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SD

PTIONAL WALL PLATE. MAY COUNTERSINK BOLT IN OPTIONAL PLATE. TREATED SILLPLATE GARAGE SLAE OVER GRAVEL AS SPECIFIED (OR OTHER) THREADED ROD WITH OR SIMPSON "SET OR CONCRETE FOOTING 3" CONC. COVER (TYP) SECTION **ELEVATION** 





CS-PF: END CONDITION DETAIL (FOR USE WITH SINGLE CS-PF CONDITION) DETAIL AND APPLICATION BASED ON NORC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION

NOTE: AT INTERMEDIATE WALL (2) SIMPSON CSI6 STRAP SEGMENTS BETWEEN OPENINGS. THE WITH 8d NAILS, (EXTEND STRAPS SHALL BE INSTALLED AT EXTEND 20" UNDER

2' TO 18'

MIN 1/6" THICK WOOD STRUCTURAL PANEL

TREATED SILLPLATE

SHEATHING

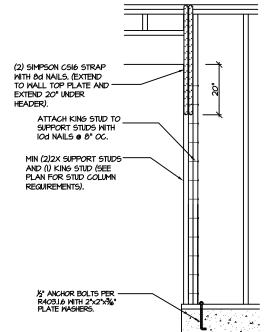
EXTERIOR VIEW

-8d NAILS @ 3" OC TOP

-EXTEND SHEATHING TO

SILL PLATE (DO NOT SPLICE)

MSP OVERLAP OPTION



CS-PF - OVER WOOD FLOOR

MIN, 3"XII.25" HEADER, SEE PLAN FOR ACTUAL SIZE, EXTEND - OVER PANEL.

FASTEN SHEATHING TO HEADER W 8d COMMON NAILS IN 3" GRID

FRAMING (STUDS, BLOCKING, AND

PANEL EDGES SHALL BE BLOCKED AND OCCUR WITHIN 24" OF MID-HEIGHT. ONE ROW OF TYP. SHEATHING-TO-FRAMING

NAILING IS REQ'D (3" OC). ATTACH BLOCKING TOGETHER W

FOOTING / FOUNDATION (SEE

PATTERN AND 3" OC. IN ALL

SILLS) TYP.

(3) 16d SINKERS.

CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION DETAIL AND APPLICATION BASED ON NORC FIGURE R602.IO.I - PORTAL FRAME CONSTRUCTION

SIMPSON LTP4 FRAMING

INTERIOR VIEW

FRAMING ANCHOR OPTION

HEADER).

(2) ROWS OF 16d

MIN (2)2X WALL FRAMING.

COLUMN REQUIREMENTS.

SEE PLAN FOR STUD

TREATED SILLPLATE

**15" ANCHOR BOLTS PE** 

R403.1.6 WITH 2"x2"x36" PLATE WASHERS.

NOTE: FOR CMU APPLICATIONS AT GARAGE DOORS, ANCHOR BOLTS SHAL BE %" DIAMETER AND SHALL EXTEND TO FOOTING (PER NORC FIGURE

R602.IO.4.3 (SEE GARAGE "WING WALL" DETAIL ON STRUCTURAL PLANS)

NAILS @ 3" OC

STRUCTURAL DETAILS: CRAWL SPACE FOUNDATION

 FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF I/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

STRUCTURAL NOTES NC (2018 NCRC): Wind: 115-120 mph

14. BRICK LINTELS (MHEN REQUIRED) SHALL BE 3 1/2\*x3 1/2\*x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6'x4'x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS

I5. METAL CONNECTORS REFERENCED ON PLANS CORRESPOND TO SIMPSON STRONG-TIE BRAND. CONNECTORS OF EQUAL OR BETTER CAPACITY ARE ACCEPTABLE. CORROSION RESISTANCE PER CODE AND AS RECOMMENDED BY MANUFACTURER.