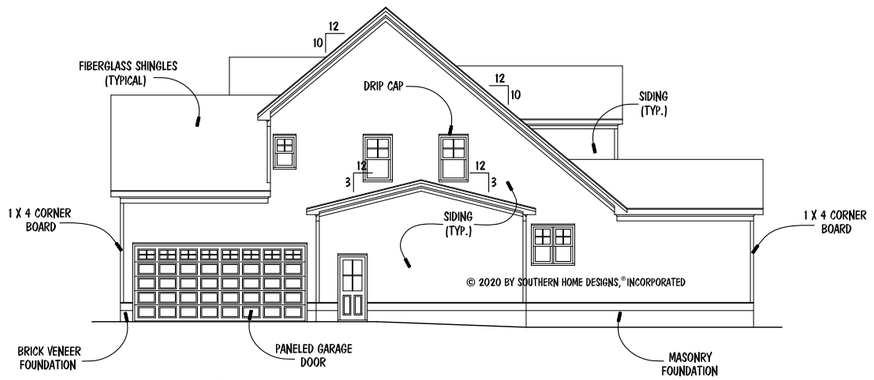
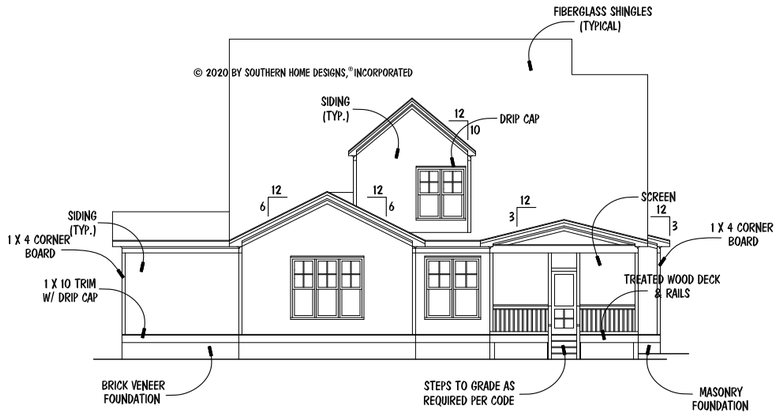


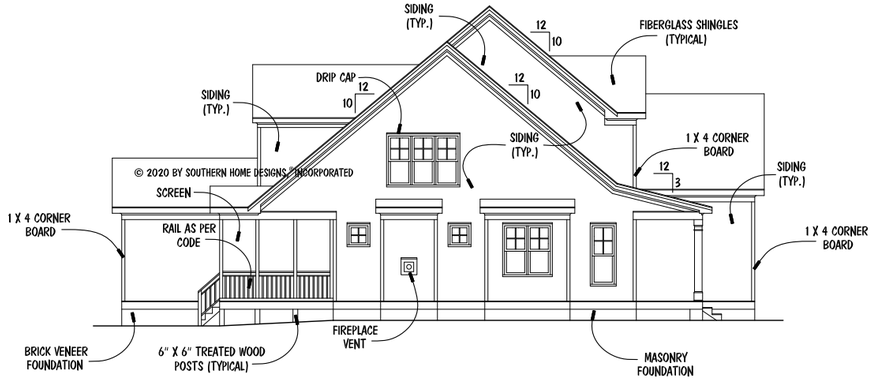

## RIGHT ELEVATION

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



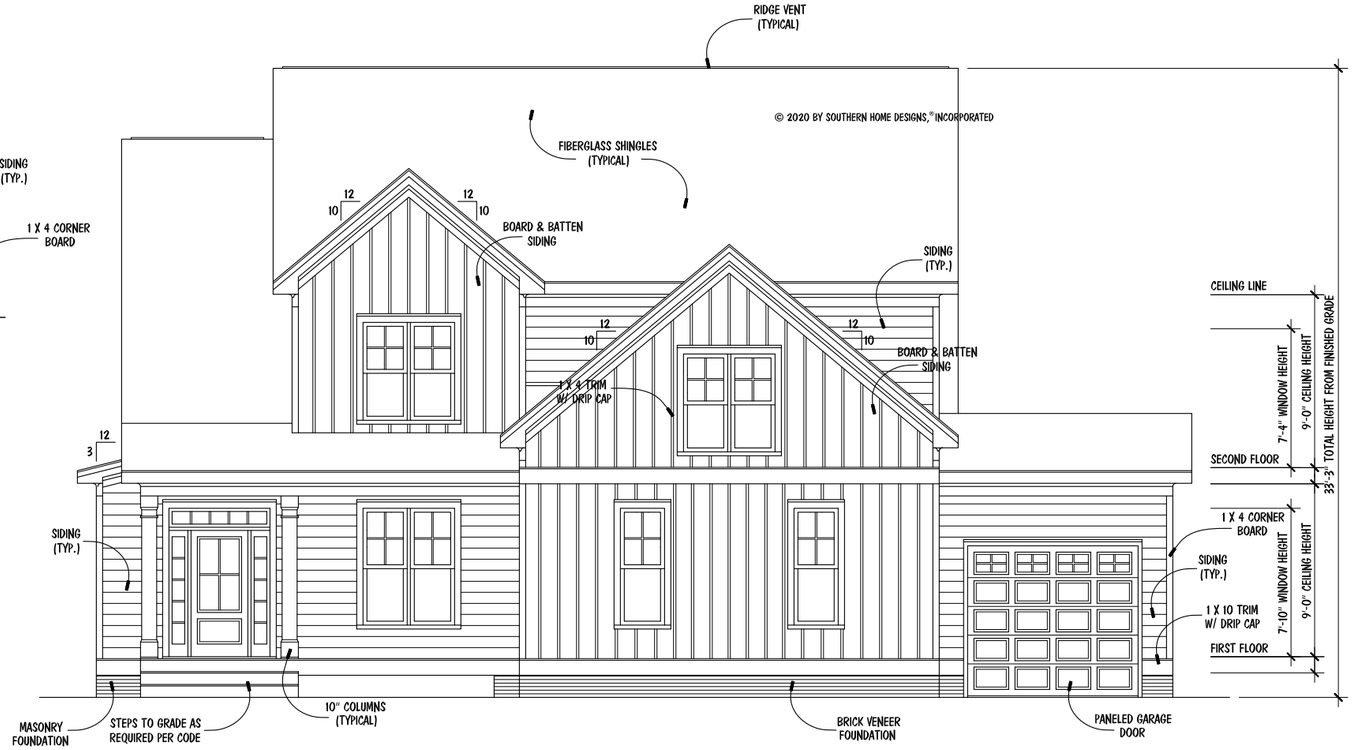

## REAR ELEVATION

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




## LEFT ELEVATION

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




## FRONT ELEVATION

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





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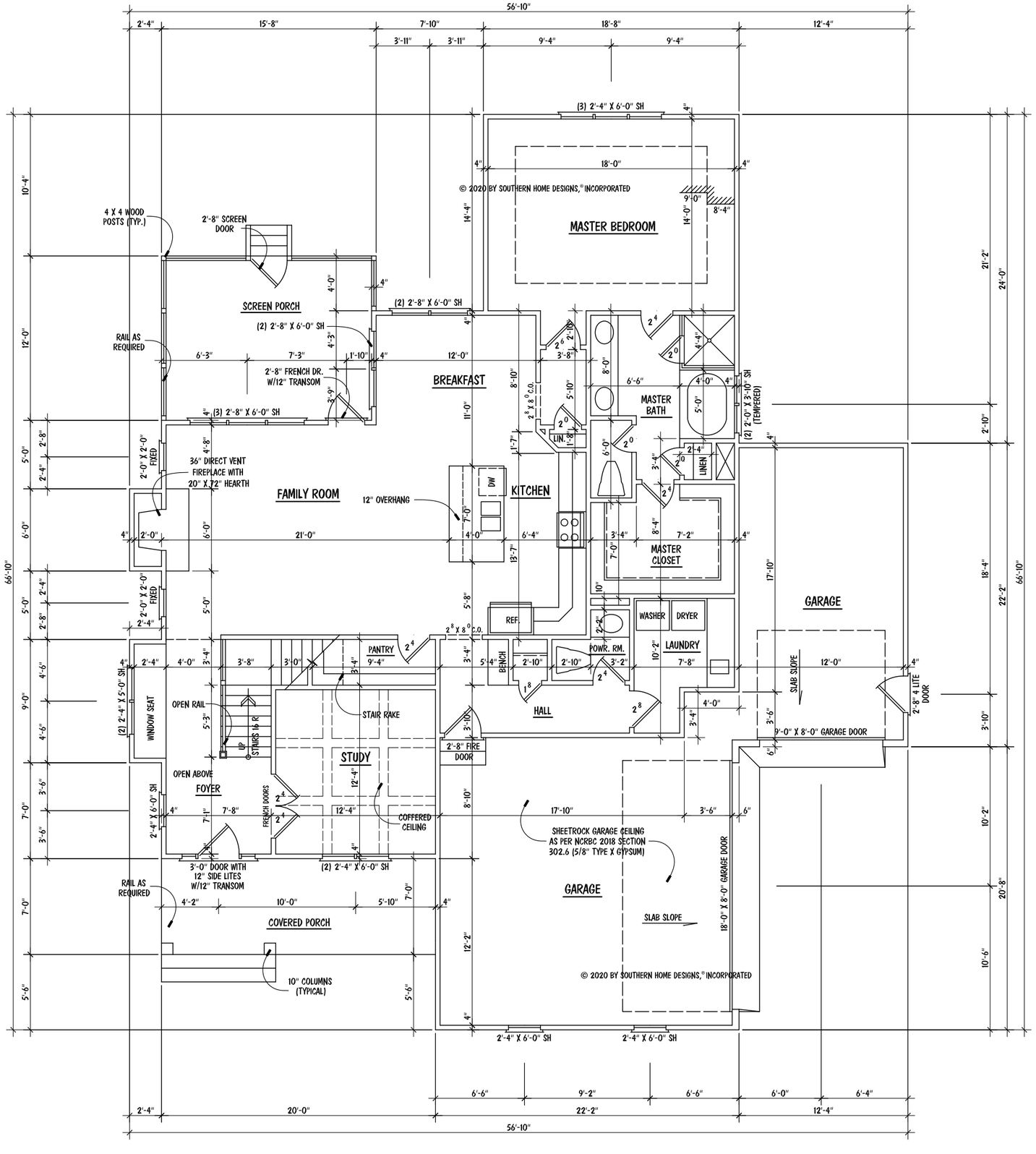
Southern Home Designs®
INCORPORATED
301 South Salem Street, Suite 101, Apex, NC 27502
919.380.7400 Office 919.380.7464 Fax
Web: shdplans.com Email: shd@nc.rr.com

THE KATHRYN
LOT 18 PRINCE PLACE

TRIPLE A HOMES, INC.

| | |
|---|---|
| ENGR. #: | |
| DATE: | 02-13-20 |
| SHEET: | A-1 |
| PLAN #: | 20-021320-R |




## NOTES:

- 9'-0" CEILING HGT. (TYP.) U.N.O.
- SET WINDOWS @ 7'-10" A.F.F. (TYP.) U.N.O
- STAIRS: UP 16 R (TYP.), 1ST FLOOR TO 2ND FLOOR

## NOTES:

- MEAN ROOF HEIGHT FOR THIS STRUCTURE IS 22'-7"

## ATTIC VENTILATION:

2742 / 300 SQUARE FEET = 9.14 REQUIRED

THE NET FREE AREA OF VENTILATION REQUIRED IS TO BE

9.14 SQUARE FEET.

### CRAWL SPACE VENTILATION

1660 SQ. FT. OF CRAWL AREA / 150 = 11.07 SQ. FT. OF FREE VENT AREA REQUIRED

SEE SECTION R408.1 OF 2018 NCRBC (2015 IRC)

FREE VENT AREA REQUIRED MAY BE REDUCED TO 1/1500 IF APPROVED VAPOR BARRIER IS INSTALLED OVER 100% OF CRAWL FLOOR AREA AND VENTS ARE INSTALLED TO PERMIT CROSS- VENTILATION OF CRAWL SPACE.

SEE SECTION R408.1.1.

### SQUARE FOOTAGE

| | |
|---|---|
| FIRST FLOOR | 1660 |
| SECOND FLOOR | 1433 |
| TOTAL | 3093 |

### MISCELLANEOUS

| | |
|---|---|
| GARAGE | 757 |
| FRONT PORCH | 140 |
| SCREEN PORCH | 185 |

# FIRST FLOOR PLAN

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







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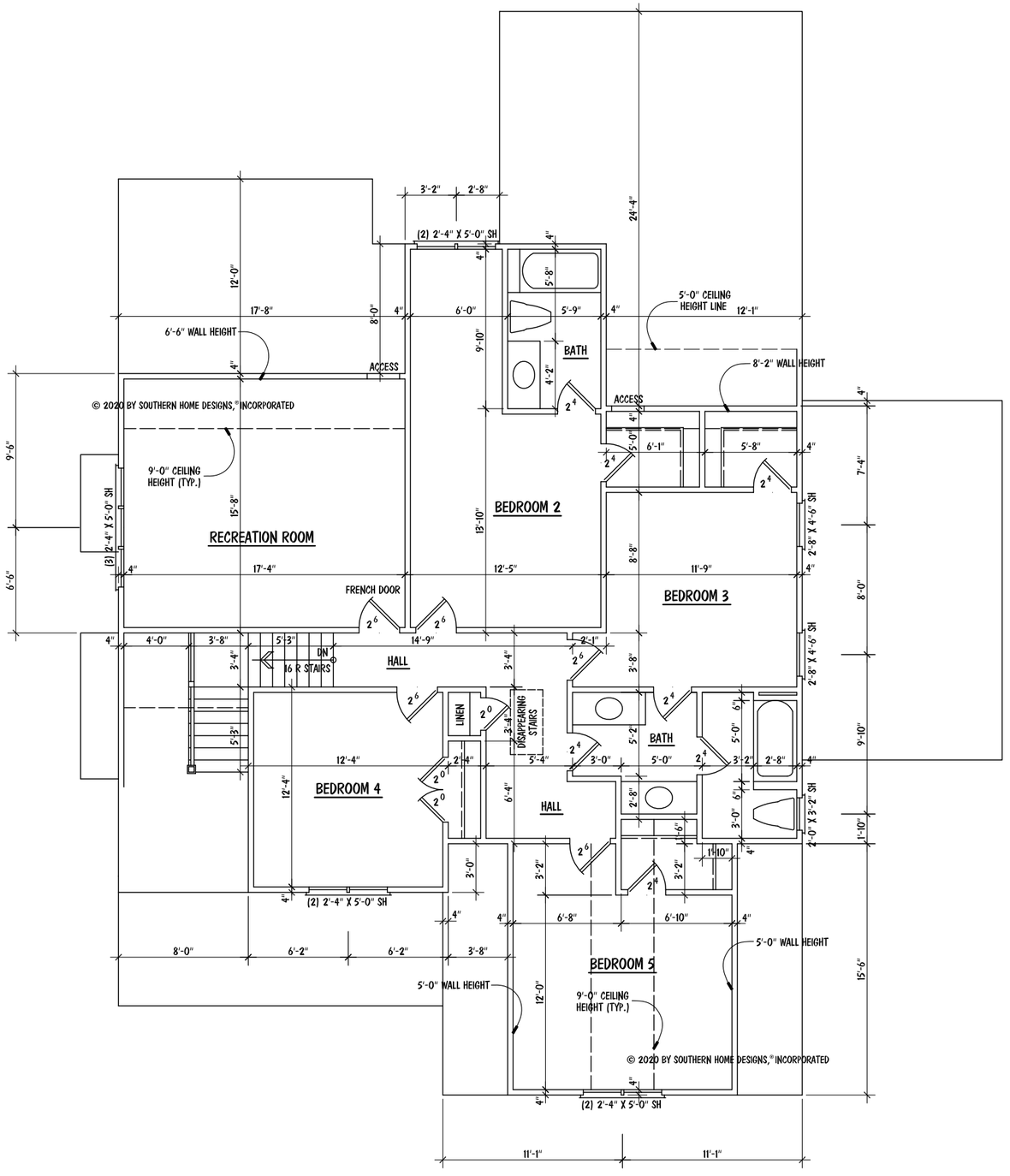
THE KATHRYN
LOT 18 PRINCE PLACE

TRIPLE A HOMES, INC.

| | |
|---|---|
| ENGR. #: | |
| DATE: | 02-13-20 |
| SHEET: | A-2 |
| PLAN #: | 20-021320-R |




## NOTES:

- 9'-0" CEILING HGT. (TYP.) U.N.O.
- SET WINDOWS @ 7'-4" A.F.F. (TYP.) U.N.O
- SET WINDOWS IN BEDROOM 4 @ 7'-8" A.F.F.
- SET WINDOWS IN BEDROOM 5 @ 6'-0" A.F.F.
- STAIRS: DN 16 R (TYP.), 2ND FLOOR TO 1ST FLOOR

## SECOND FLOOR PLAN

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





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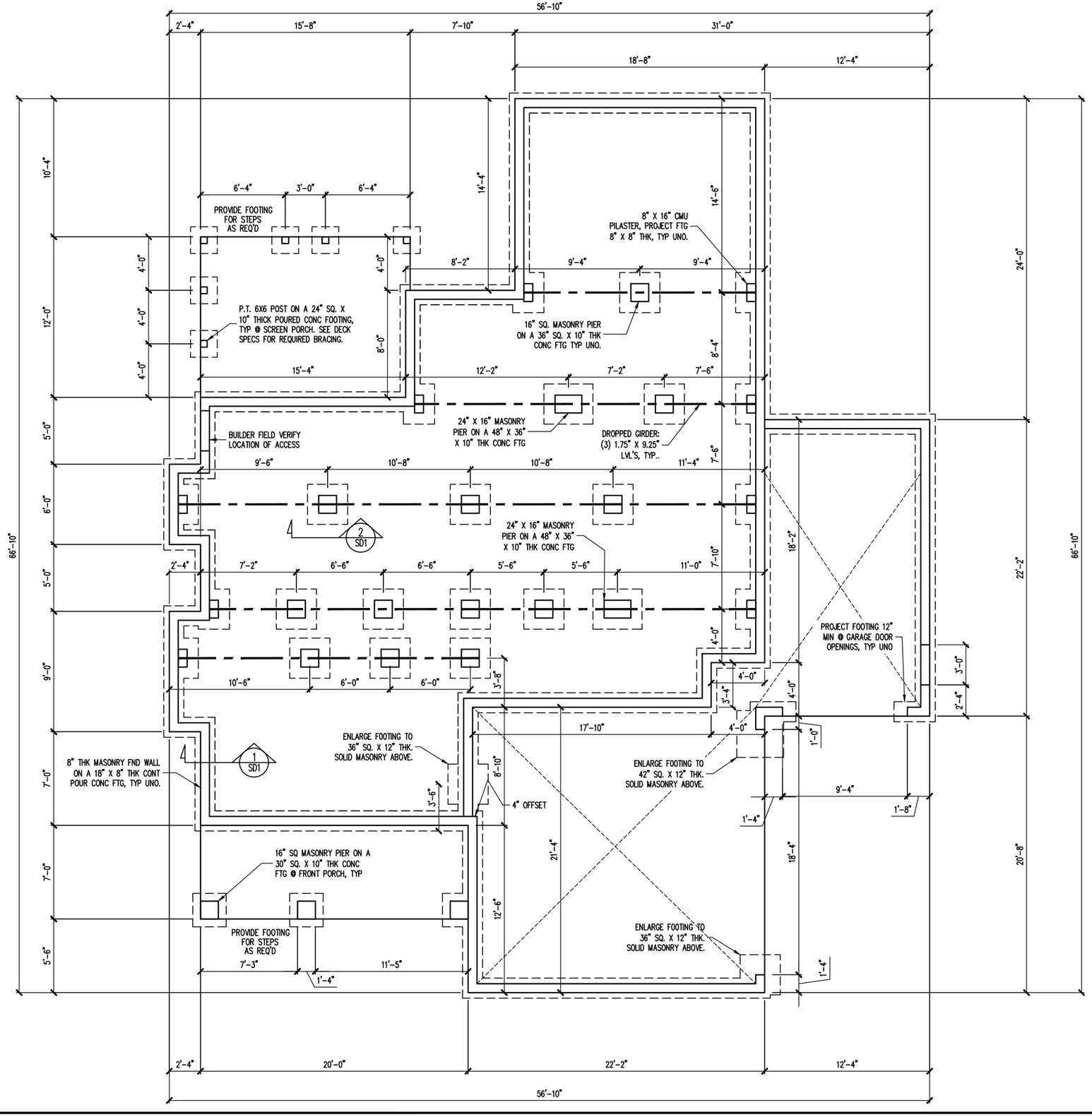
THE KATHRYN
LOT 18 PRINCE PLACE

TRIPLE A HOMES, INC.

| | |
|---|---|
| ENGR. #: | |
| DATE: | 02-13-20 |
| SHEET: | A-3 |
| PLAN #: | 20-021320-R |




NOTES:
-HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSBC, LATEST EDITION.

-BUILDER TO FIELD LOCATE CRAWLSPACE ACCESS OPENING WITH MINIMUM DIMENSIONS OF 18X24. DO NOT LOCATE ACCESS OPENING BELOW POINT LOADS FROM ABOVE WITHOUT ENGINEER APPROVAL.

# FOUNDATION PLAN

1/8" = 1'-0"

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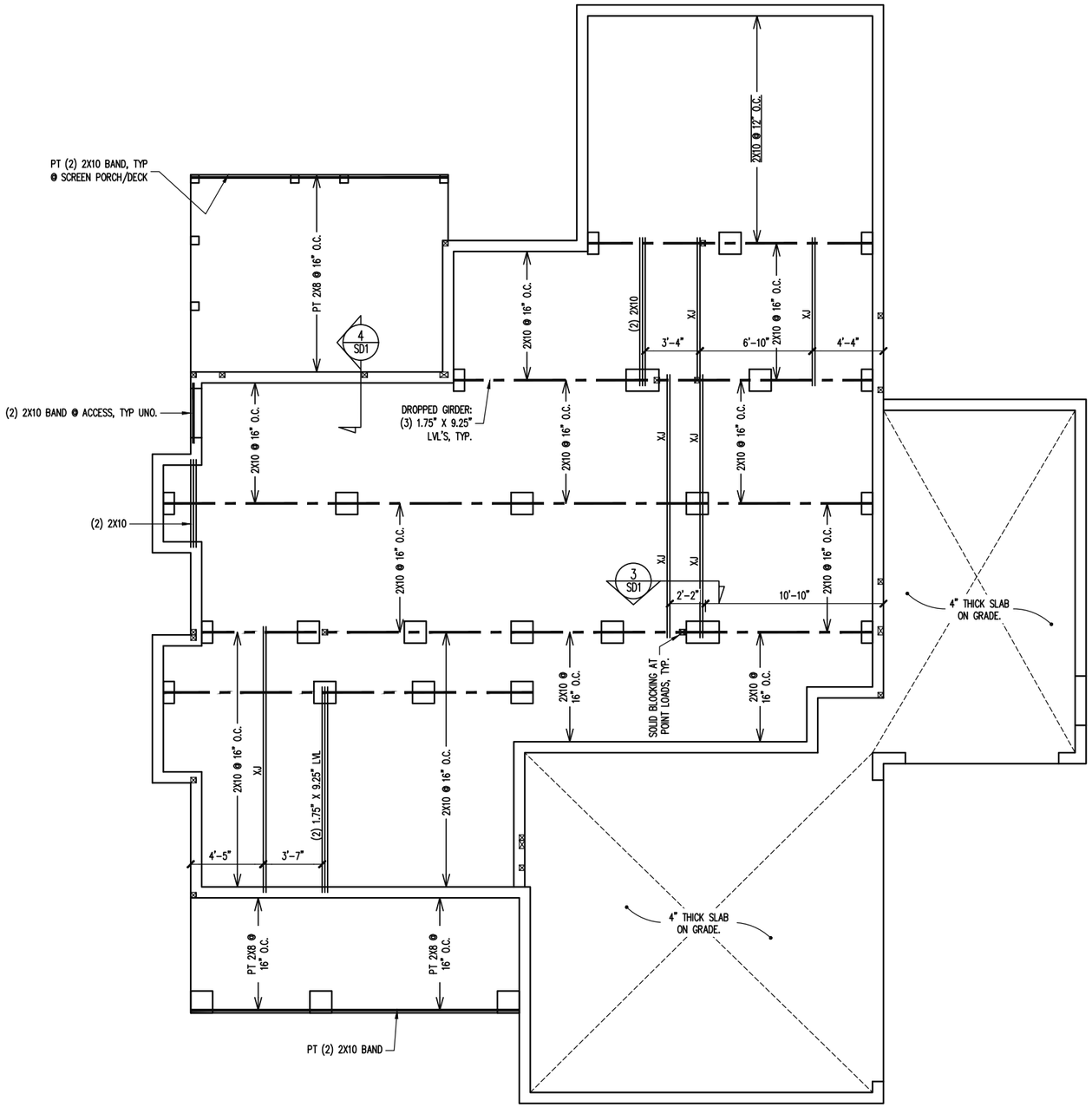
License No. C-3870
183 Wind Chime Ct, Ste 100
Raleigh, North Carolina 27615
Phone (919) 844-1661


TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
S1
1 of 10




# CRAWL SPACE FRAMING PLAN

1/8" = 1'-0"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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 035020 6-18-2021 RALPH J. SIGLER III

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Raleigh, North Carolina 27615
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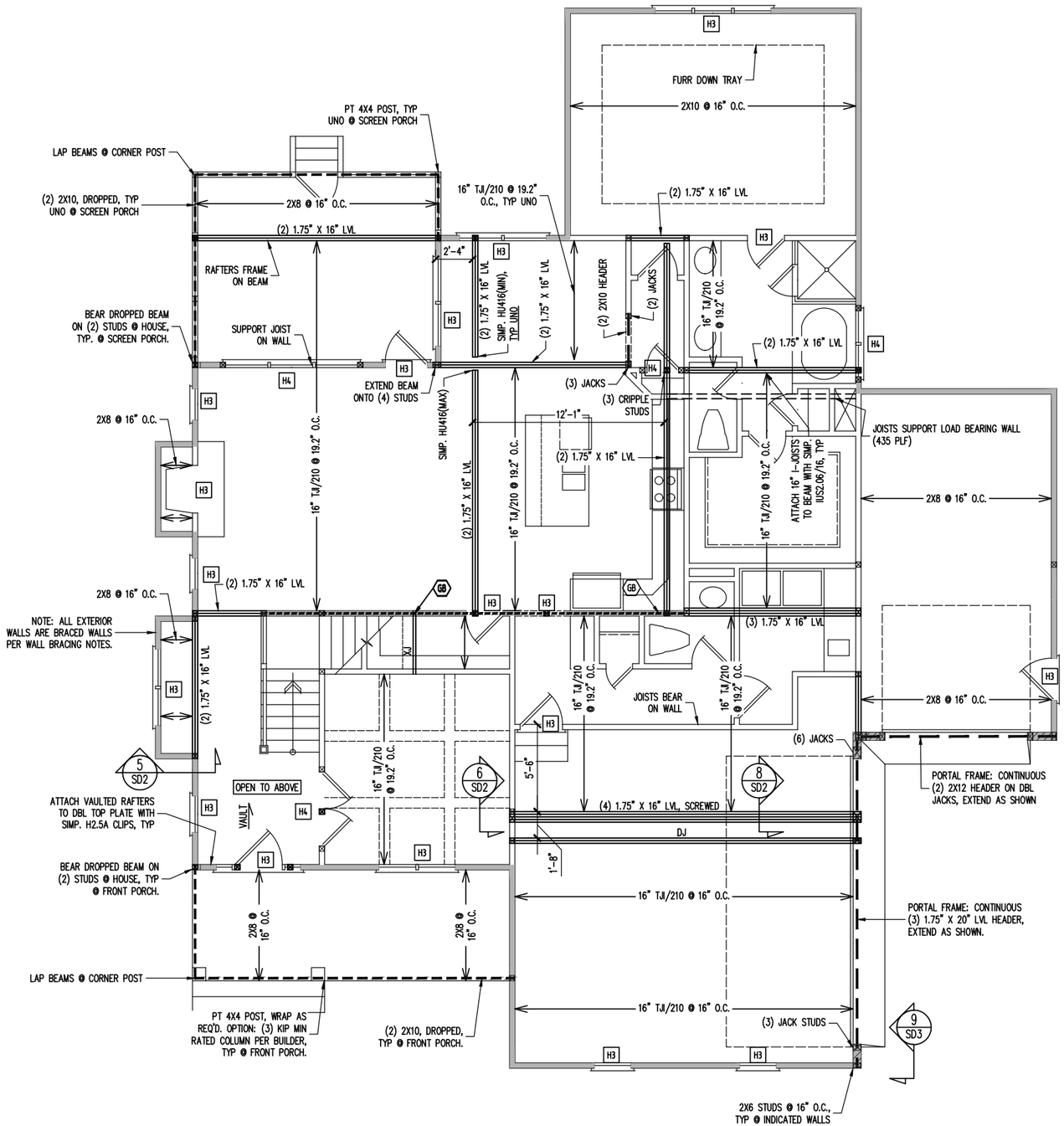
TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
S2
2 of 10




## REQUIRED STUDS FOR BEAM SUPPORT

REFER TO PART 14: STUD SUPPORTS FOR BEAMS OF THE CONSTRUCTION SPECIFICATIONS FOR REQUIRED NUMBER OF STUDS FOR BEAM SUPPORT, TYP UNO.

## I-JOIST/TRUSS SUBSTITUTION

BUILDER PERMITTED TO USE 16" FLOOR TRUSSES @ 19.2" O.C. IN LIEU OF 16" I-JOISTS @ 16" OR 19.2" O.C., TYPICAL THIS FLOOR PLAN.

## HEADER SCHEDULE

H1 SINGLE 2X4 TURNED FLAT (A)

H2 (2) 2X4'S ON SINGLE JACKS (B)

H3 (2) 2X10'S ON SINGLE JACKS (C)

H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS

H5 (3) 2X10'S ON SINGLE 2X6 JACKS

---

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.

(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.

(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

NOTES:
-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

## HEADER KING STUDS

SEE PART 17: KING STUDS OF THE CONSTRUCTION SPECIFICATIONS FOR REQUIRED NUMBER OF KING STUDS FOR EXTERIOR WALL HEADERS

## WALL BRACING

ALL EXTERIOR STUD WALLS ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 8d TOE NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

---

SHADED WALLS:

GB – INTERIOR BRACED WALL WITH GYPSUM BOARD. 1/2" GB BOTH SIDES OF WALL ATTACHED TO PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES, AT 7" O.C. (BUILDER PERMITTED TO SUBSTITUTE "WSP" FOR ANY "GB" WALL)

WSP – INTERIOR BRACED WALL WITH 7/16" MIN. THICKNESS WOOD STRUCTURAL PANELING, (1) SIDE. ATTACH WSP TO STUD WALL WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD. BLOCK AT ALL PANEL EDGES.

---

PROVIDED CONTINUOUS SHEATHING = 254' MIN.
-WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NCRC HAS BEEN MET AND EXCEEDED.

-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

# 1ST FLOOR FRAMING PLAN

WALLS AND CEILING

1/8" = 1'-0"

NORTH CAROLINA ENGINEER SEAL 035020 REGISTERED PROFESSIONAL ENGINEER RALPH J. SIGLER III
Ralph J. Sigler III 6-18-2021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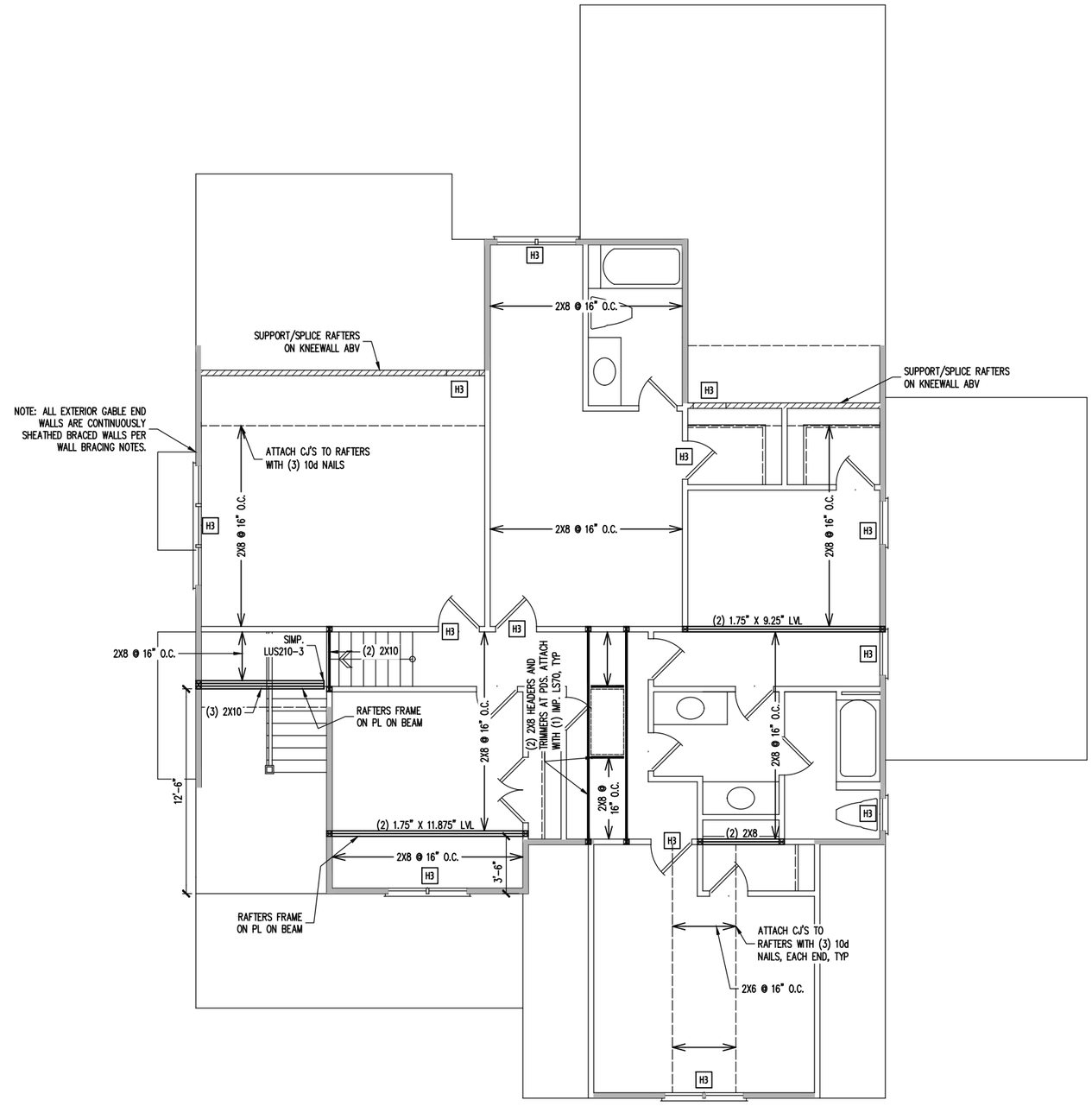
Phone (919) 844-1661
ASSOCIATES, P.A.


TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
S3
3 of 10




## REQUIRED STUDS FOR BEAM SUPPORT

REFER TO PART 14: STUD SUPPORTS FOR BEAMS OF THE CONSTRUCTION SPECIFICATIONS FOR REQUIRED NUMBER OF STUDS FOR BEAM SUPPORT, TYP UNO.

## HEADER SCHEDULE

H1 SINGLE 2X4 TURNED FLAT (A)

H2 (2) 2X4'S ON SINGLE JACKS (B)

H3 (2) 2X10'S ON SINGLE JACKS (C)

H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS

---

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.

(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.

(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

NOTES:
-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

## HEADER KING STUDS

SEE PART 17: KING STUDS OF THE CONSTRUCTION SPECIFICATIONS FOR REQUIRED NUMBER OF KING STUDS FOR EXTERIOR WALL HEADERS

## WALL BRACING

ALL EXTERIOR STUD WALLS ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 8d TOE NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

---

SHADED WALLS:

---

PROVIDED CONTINUOUS SHEATHING = 134' MIN.

-WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NCRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NCRC HAS BEEN MET AND EXCEEDED.

-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NCRBC R602.3.5 AND R802.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.

# 2ND FLOOR FRAMING PLAN

WALLS AND CEILING

1/8" = 1'-0"

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 035020 RALPH J. SIGLER III
Ralph J. Sigler III
6-18-2021

Lech Engineering
STRUCTURAL ENGINEERS
License No. C-3870
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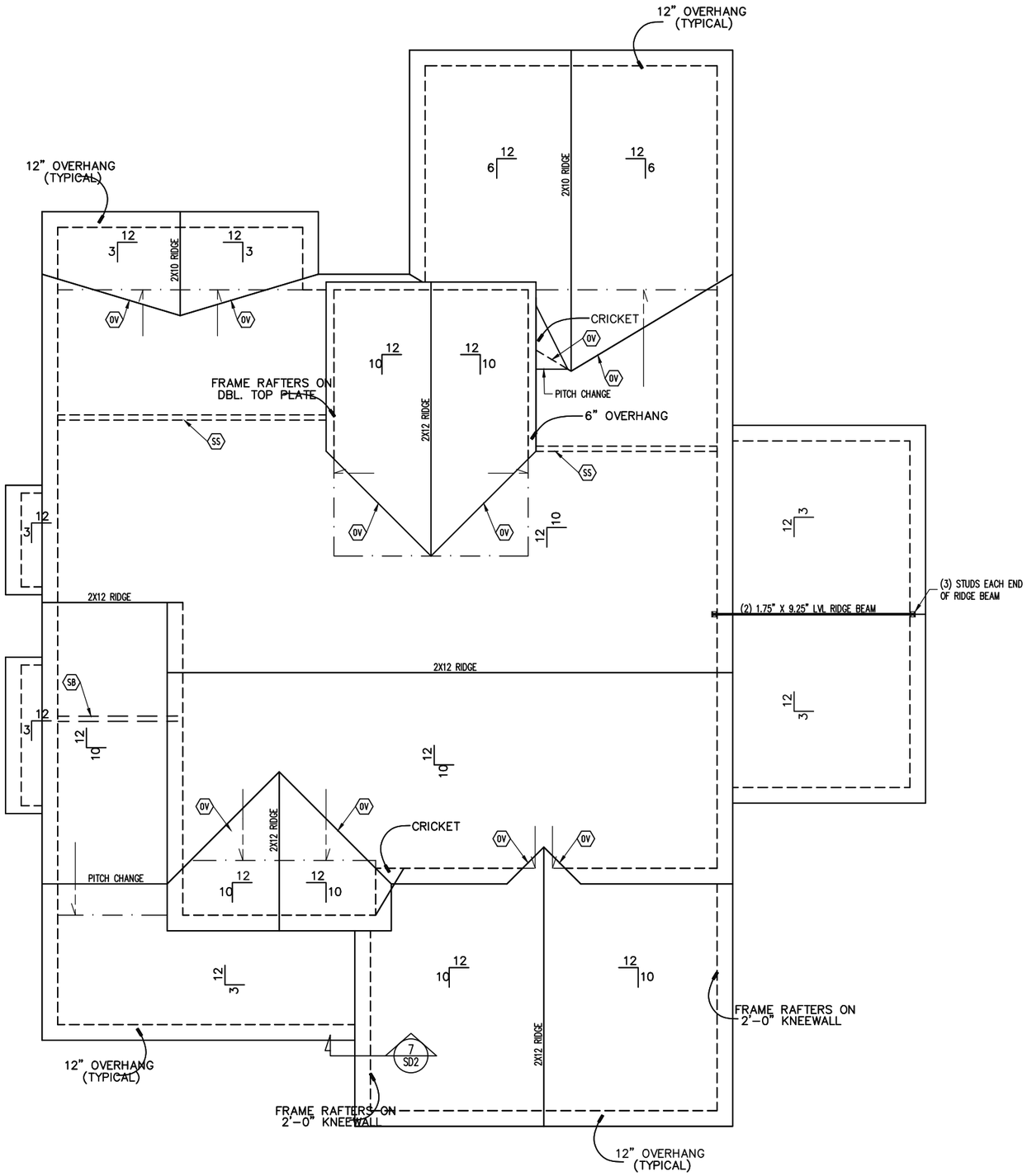
Raleigh, North Carolina 27615
Phone (919) 844-1661
ASSOCIATES, P.A.

SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
S4
4 of 10




| FRAMING SCHEDULE | |
|---|---|
| ROOF ONLY | |
| OV | OVERFRAME VALLEY ( 2X10 SLEEPER ) |
| SS | SUPPORT/SPLICE RAFTERS ON KNEEWALL BELOW |
| SB | SUPPORT/SPLICE RAFTERS ON BEAM BELOW |

## FRAMING NOTES

ROOF ONLY

- COMMON RAFTERS 2X8 @ 16" O.C. TYP U.N.O.
- COLLAR TIES 2X4 EVERY 3RD SET OF RAFTERS TYP U.N.O.
- VERIFY ALL KNEEWALL HEIGHTS, ARCHITECTURAL OVERHANGS, AND ROOF PITCHES PRIOR TO CONSTRUCTION

# ROOF FRAMING PLAN

1/8" = 1'-0"

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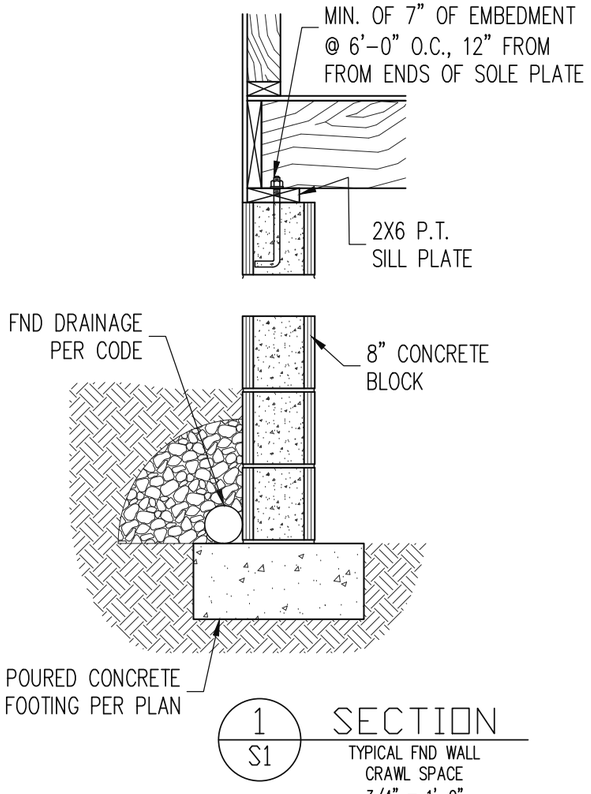
Phone (919) 844-1661
ASSOCIATES, P.A.


TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

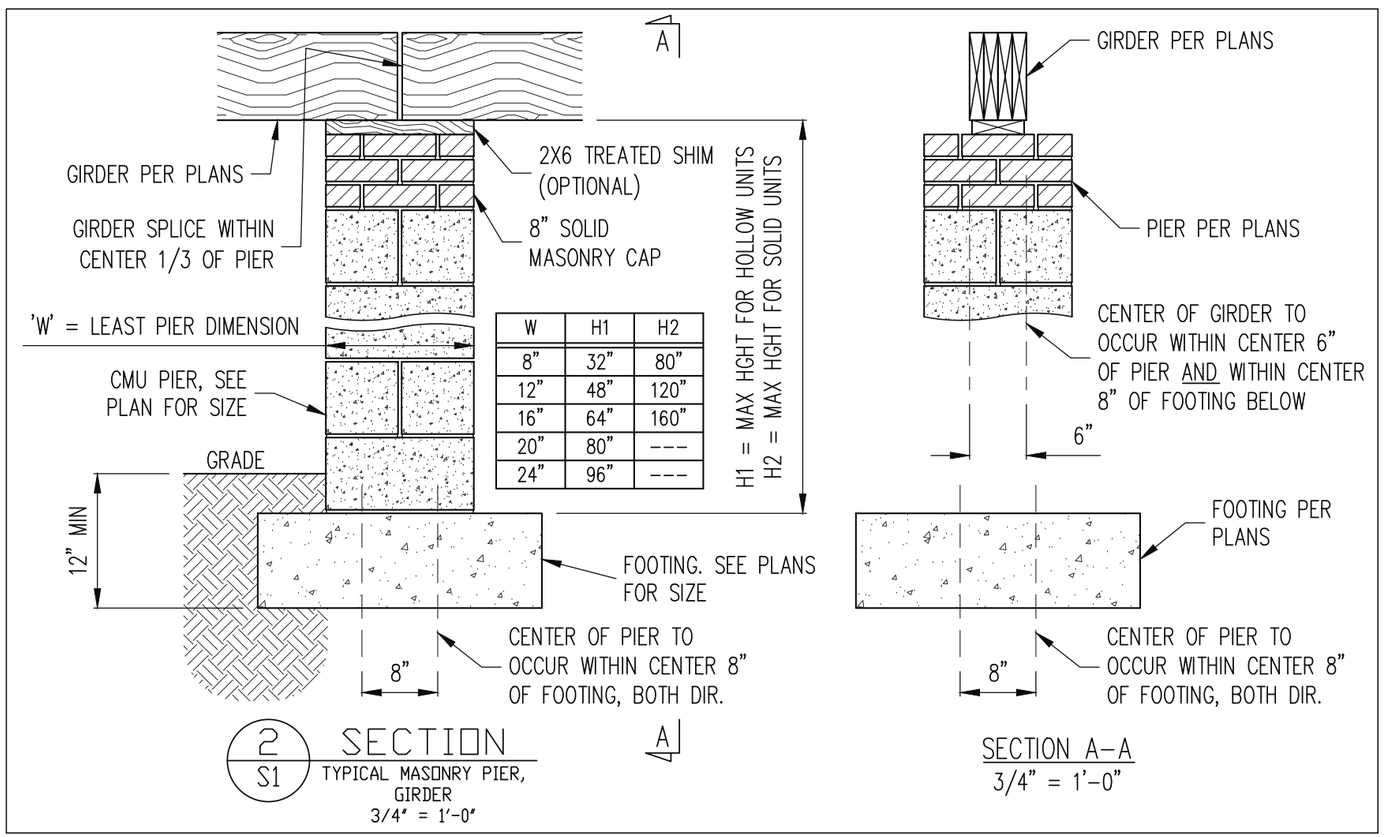
ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
S5
5 of 10



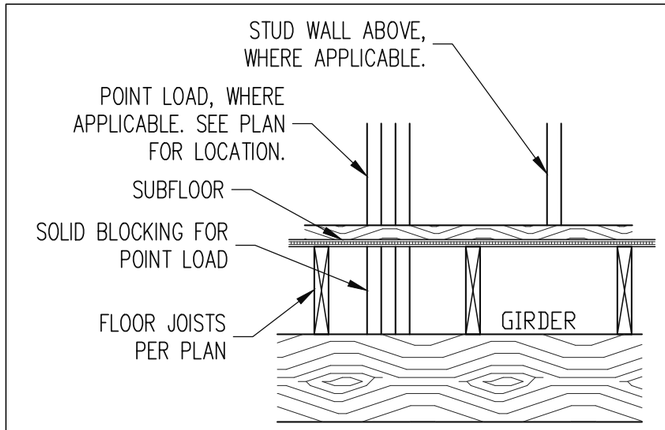

1/S1 SECTION
TYPICAL FND WALL CRAWL SPACE
3/4" = 1'-0"



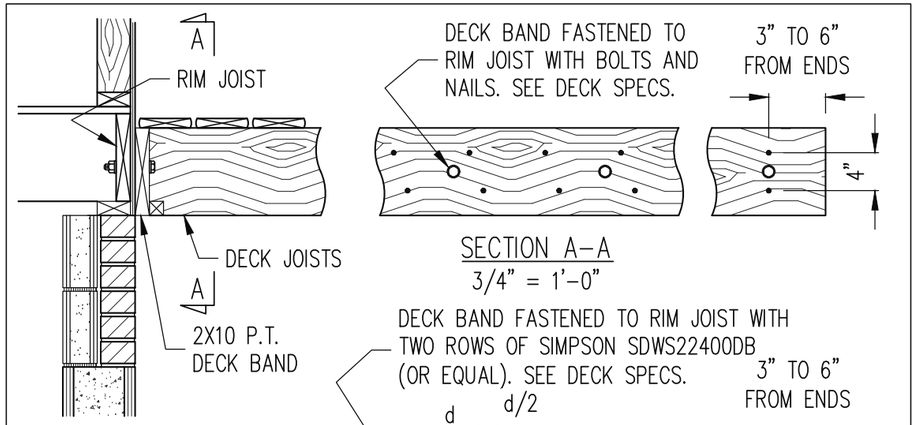

| W | H1 | H2 |
|---|---|---|
| 8" | 32" | 80" |
| 12" | 48" | 120" |
| 16" | 64" | 160" |
| 20" | 80" | --- |
| 24" | 96" | --- |

2/S1 SECTION
TYPICAL MASONRY PIER, GIRDER
3/4" = 1'-0"

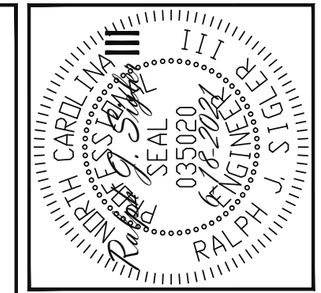
SECTION A-A
3/4" = 1'-0"




3/S2 SECTION
TYPICAL DROPPED GIRDER
3/4" = 1'-0"




4/S2 SECTION
DECK CONNECTION AT SIDING, TYP.
3/4" = 1'-0"





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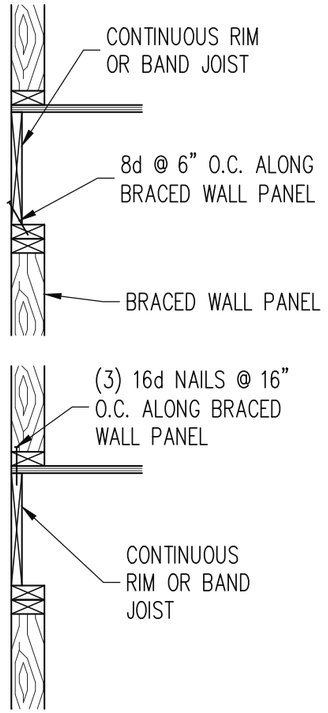
Phone (919) 844-1661


TRIPLE A HOMES
STRUCTURAL ADDENDUM
SCOPE:
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

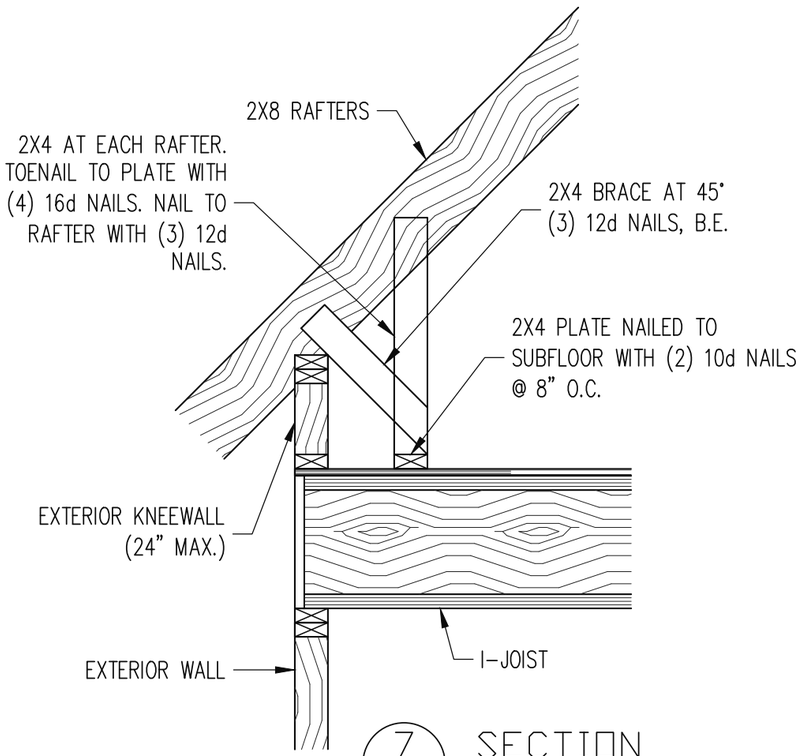
PROJECT NO.
21-28-023

SHEET NO.
SD1
6 of 10



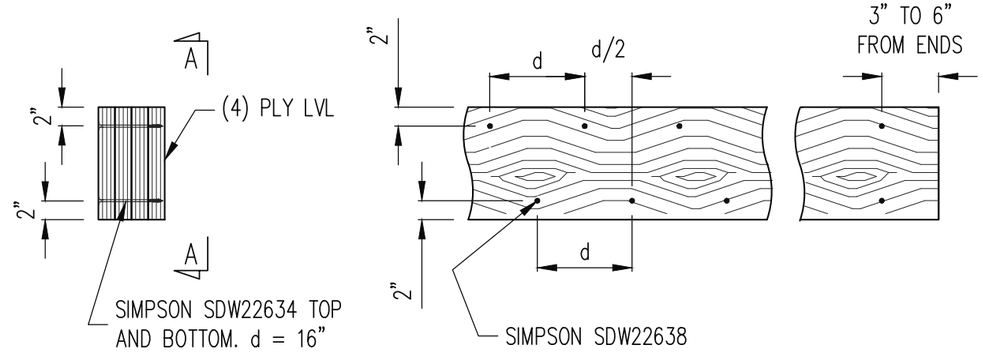

5/S3 SECTION

TYPICAL BRACED WALL PANEL CONNECTION AT EXTERIOR WALL, JOISTS PERPENDICULAR OR PARALLEL.
3/4" = 1'-0"




7/S5 SECTION

RAFTER TIE AT 24" OR LESS PERIMETER KNEEWALL
3/4" = 1'-0"

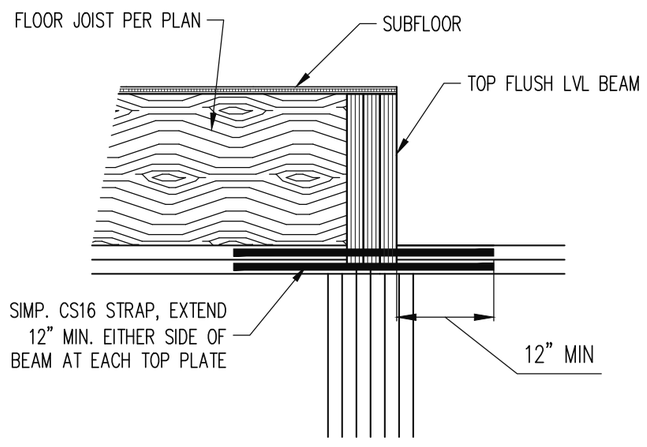



SECTION A-A
3/4" = 1'-0"

8/S3 SECTION

TYPICAL FASTENING (4) PLY LVL
3/4" = 1'-0"

*BUILDER PERMITTED TO SUBSTITUTE $\frac{1}{2}$"ø THROUGH BOLTS FOR SIMP. SDW SCREWS @ EQUAL SPACING.




6/S3 SECTION

TOP FLUSH BEAM
3/4" = 1'-0"

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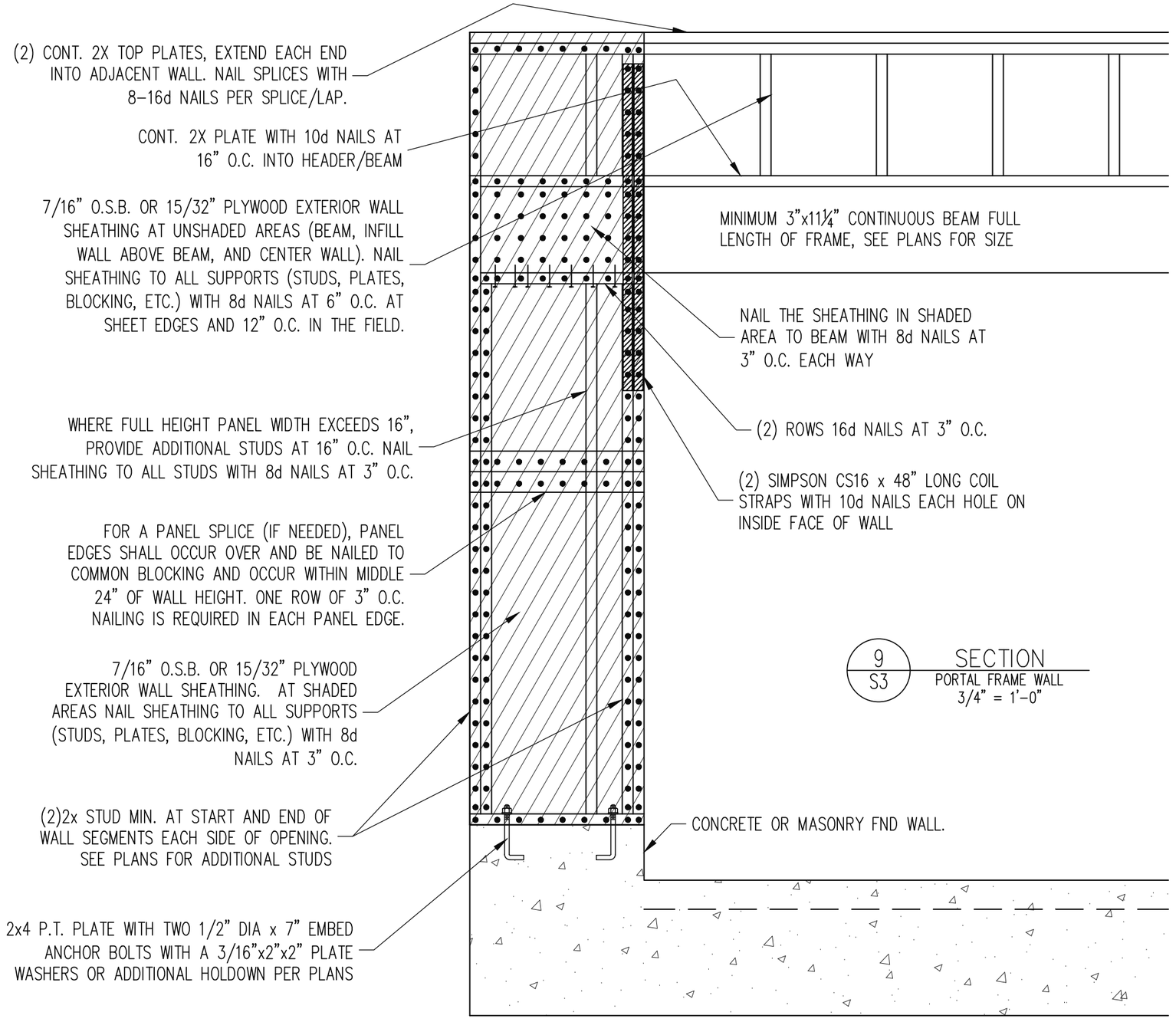
Lech Engineering ASSOCIATES, P.A.


TRIPLE A HOMES
STRUCTURAL ADDENDUM
SCOPE:
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
SD2
7 of 10




9/S3 SECTION
PORTAL FRAME WALL
3/4" = 1'-0"

NORTH CAROLINA ENGINEER
SEAL 035020
Raleigh J. Sigler III
6-18-2021
RALPH J. SIGLER III

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TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
SD3
8 of 10

# NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

1) THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR
2) THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAN ANY REVISIONS ISSUED BY THE EOR ARE PROMPLY DISTRIBUTED TO THE SUBCONTRACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

# ABBREVIATIONS

| | |
|---|---|
| ABV | ABOVE |
| B. | BOTH |
| B.E. | BOTH ENDS |
| BTWN | BETWEEN |
| CIP | CAST IN PLACE |
| CONC | CONCRETE |
| CS | CONTINUOUS SHEATHING |
| DIA | DIAMETER |
| DBL | DOUBLE |
| DJ | DOUBLE JOIST |
| DSP | DBL STUD POCKET |
| EQ | EQUAL |
| EA | EACH |
| FLG | FLANGE |
| FL PL | FLITCH PLATE |
| FLR | FLOOR |
| FND | FOUNDATION |
| FTG | FOOTING |
| HDG | HOT DIPPED GALVANIZED |
| HGR | HANGER |
| LVL | LAMINATED VENEER LUMBER |
| NTS | NOT TO SCALE |
| O.C. | ON CENTER |
| PSL | PARALLEL STRAND LUMBER |
| PT | PRESSURE TREATED |
| QJ | QUAD JOIST |
| SP | STUD POCKET |
| SQ | SQUARE |
| TJ | TRIPLE JOIST |
| TYP | TYPICAL |
| TRPL | TRIPLE |
| TSP | TRIPLE STUD POCKET |
| UNO | UNLESS NOTED OTHERWISE |
| XJ | EXTRA JOIST |

# ALLOWABLE I-JOIST SUBSTITUTION

NOTE: MAINTAIN JOIST DEPTH, DIRECTION, AND SPACING SPECIFIED ON PLANS.

| MANUFACTURER | DEPTH | SERIES | SIMPSON FACE MOUNT HGR | SIMPSON TOP FLANGE HGR |
|---|---|---|---|---|
| BLUELINX | 11.875" | BLI 40 | IUS2.56/11.88 | ITS2.56/11.88 |
| BOISE CASCADE | 11.875" | BCI 6000s | IUS2.37/11.88 | ITS2.37/11.88 |
| INTERNATIONAL BEAMS | 11.875" | IB 400 | IUS2.56/11.88 | ITS2.56/11.88 |
| LP CORP | 11.875" | LPI 20+ | IUS2.56/11.88 | ITS2.56/11.88 |
| NORDIC | 11.875" | NI 40X | IUS2.56/11.88 | ITS2.56/11.88 |
| ROSEBURG | 11.875" | RFPI 40s | IUS2.56/11.88 | ITS2.56/11.88 |
| WEYERHAEUSER | 11.875" | TJI 210 | IUS2.06/11.88 | ITS2.06/11.88 |
| WEYERHAEUSER | 11.875" | EEI-20 | IUS2.37/11.88 | ITS2.37/11.88 |
| BLUELINX | 16" | BLI 40 | IUS2.56/16 | ITS2.56/16 |
| BLUELINX | 16" | BLI 60 | IUS2.56/16 | ITS2.56/16 |
| BOISE CASCADE | 16" | BCI 5000s | IUS2.06/16 | ITS2.06/16 |
| BOISE CASCADE | 16" | BCI 6000S | IUS2.37/16 | ITS2.37/16 |
| INTERNATIONAL BEAMS | 16" | IB 600 | IUS2.56/16 | ITS2.56/16 |
| LP CORP | 16" | LPI 20+ | IUS2.56/16 | ITS2.56/16 |
| NORDIC | 16" | NI 40X | IUS2.56/16 | ITS2.56/16 |
| ROSEBURG | 16" | RFPI 60S | IUS2.56/16 | ITS2.56/16 |
| WEYERHAEUSER | 16" | TJI 210 | IUS2.06/16 | ITS2.06/16 |

JOISTS NOT LISTED IN THE ABOVE TABLE MAY BE USED PROVIDED THEY MEET OR EXCEED THE PROPERTIES OF THOSE LISTED. SUBSTITUTE USP BRAND HANGERS WITH EQUIVALENT VALUES AS DESIRED.

# DECK SPECIFICATIONS

1. A DECK IS AN EXPOSED EXTERIOR WOOD FLOOR STRUCTURE WHICH MAY BE ATTACHED TO A STRUCTURE OR BE FREE STANDING. ROOFED PORCHES, OPEN OR SCREENED IN, MAY BE CONSTRUCTED USING THESE PROVISIONS.

2. SUPPORT POSTS SHALL BE SUPPORTED BY A FOOTING.

3. WHEN ATTACHED TO A STRUCTURE, THE STRUCTURE TO WHICH ATTACHED SHALL HAVE A TREATED WOOD BAND FOR THE LENGTH OF THE DECK, OR CORROSION RESISTANT FLASHING SHALL BE USED TO PREVENT MOISTURE FROM COMING IN CONTACT WITH THE UNTREATED FRAMING OF THE STRUCTURE. THE DECK BAND AND THE STRUCTURE BAND SHALL BE CONSTRUCTED IN CONTACT WITH EACH OTHER EXCEPT AT BRICK VENEER AND WHERE PLYWOOD SHEATHING IS REQUIRED AND PROPERLY FLASHED. SIDING SHALL NOT BE INSTALLED BETWEEN THE STRUCTURE AND THE DECK BAND. IF ATTACHED TO A BRICK STRUCTURE, NEITHER FLASHING NOR A TREATED BAND FOR THE BRICK STRUCTURE IS REQUIRED. IN ADDITION, THE TREATED DECK BAND SHALL BE CONSTRUCTED IN CONTACT WITH THE BRICK

4. WHEN THE DECK IS SUPPORTED AT THE STRUCTURE BY ATTACHING THE DECK TO THE STRUCTURE, THE FOLLOWING ATTACHMENT SCHEDULES SHALL APPLY FOR ATTACHING THE DECK BAND TO THE STRUCTURE:

   A. ALL STRUCTURES EXCEPT BRICK STRUCTURES

| | JOIST LENGTH | |
|---|---|---|
| | UP TO 8' MAX. | UP TO 16' MAX. |
| REQUIRED FASTENERS | ONE– 5/8" ø BOLT @ 42" O.C. AND (2) ROWS OF 12d NAILS @ 8" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ d = 32" O.C. STAGGERED | ONE– 5/8" ø BOLT @ 20" O.C. AND (3) ROWS OF 12d NAILS @ 6" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ d = 16" O.C. STAGGERED |

A . BRICK VENEER STRUCTURES

| | JOIST LENGTH | |
|---|---|---|
| | UP TO 8' MAX. | UP TO 16' MAX. |
| REQUIRED FASTENERS | ONE– 5/8" ø BOLT @ 28" O.C. | ONE– 5/8" ø BOLT @ 16" O.C. |

5. IF THE DECK BAND IS SUPPORTED BY A 1/2" MINIMUM MASONRY LEDGE ALONG THE FOUNDATION WALL, 5/8" ø BOLTS SPACED @ 48" O.C. MAY BE USED FOR SUPPORT.

6. OTHER MEANS OF SUPPORT, SUCH AS JOIST HANGERS, MAY BE USED TO CONNECT DECK JOISTS TO A TREATED STRUCTURE BAND

7. GIRDERS SHALL BEAR DIRECTLY ON POSTS OR BE BE CONNECTED TO THE SIDES OF POSTS WITH 2– 5/8" ø BOLTS

8. FLOOR DECKING SHALL BE NO. 2 GRADE TREATED SOUTHERN PINE OR EQUIVALENT. THE MINIMUM FLOOR DECKING THICKNESS SHALL BE AS FOLLOWS:

| JOIST SPAN | DECKING |
|---|---|
| 12" O.C. | 1" S4S |
| 16" O.C. | 1" T&G |
| 24" O.C. | 1 1/4" S4S |
| 32" O.C. | 2" S4S |

9. MAXIMUM HEIGHT OF DECK SUPPORT POSTS IS AS FOLLOWS:

| POST SIZE | MAX POST HEIGHT |
|---|---|
| 4X4 | 8' |
| 6X6 | 20' |
| ENGINEERED | 20' + |

NOTES: 1) THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.
2) THIS TABLE IS BASED ON A MAXIMUM TRIBUTARY AREA OF 128 SQ. FT.
3) POST HEIGHT IS FROM TOP OF FOOTING TO BOTTOM OF GIRDER.

10. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE FOLLOWING METHODS:

A. WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'–0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION 4, LATERAL BRACING IS NOT REQUIRED.

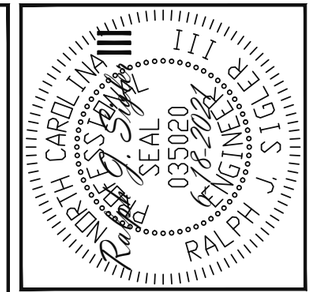
B. 4X4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE ATTACHED AT THE ENDS TO THE GIRDER AND THE POST WITH ONE – 5/8"ø BOLT

C. FOR FREE STANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH THE FOLLOWING:

| POST SIZE | TRIBUT. AREA | POST HEIGHT | EMB. DEPTH | CONC. DIAM. |
|---|---|---|---|---|
| 4X4 | 48 SQ. FT. | 4'–0" | 2'–6" | 1'–0" |
| 6X6 | 120 SQ. FT. | 6'–0" | 3'–6" | 1'–8" |

D. 2X6 DIAGONAL VERTICAL CROSS BRACING SHALL BE PROVIDED IN TWO PERPENDICULAR DIRECTIONS FOR FREE STANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE BRACES SHALL BE ATTACHED TO THE POSTS WITH ONE – 5/8" ø BOLT AT EACH END OF THE BRACE.

NOTES: 1) ALL NAILS AND BOLTS ARE TO BE HOT DIPPED GALVANIZED.
2) MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".
3) NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2".





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TRIPLE A HOMES
SCOPE: STRUCTURAL ADDENDUM
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

PROJECT NO.
21-28-023

SHEET NO.
SD4
9 of 10

# CONSTRUCTION SPECIFICATIONS

## PART 1: GENERAL

1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.

1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

## PART 2: DESIGN LOADS

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

| USE | LIVE LOAD (PSF) | DEAD LOAD (PSF) |
|---|---|---|
| BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES | 40 | 10 |
| GARAGES (PASSENGER CARS ONLY) | 50 | -- |
| ATTICS (NO STORAGE, LESS THAN 5' HEADROOM) | 10 | 10 |
| ATTICS (WITH STORAGE) | 20 | 10 |
| ROOF | 20 | 10 (15 FOR VAULTS) |

NOTES: – INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.
– BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS

2.02 INTERIOR WALLS: 5 PSF LATERAL.

2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.

2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

## PART 5: CONCRETE AND SLABS ON GRADE

5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 6% AIR ENTRAINMENT, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL CONCRETE, INCLUDING CONCRETE FOR FOOTINGS, IS TO BE CAST IN PLACE, TYP UNO.

5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.

5.03 SLABS ON GRADE, IF ANY, SHALL CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 2" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS

## PART 6: REBAR AND WIRE REINFORCEMENT

6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO

6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO

6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.

## PART 7: MASONRY

7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT, f'M = 1,500 PSI MIN

7.02 CLAY MASONRY UNITS SHALL CONFORM TO ASTM C62–17 GRADE SW

7.03 MORTAR SHALL BE TYPE S. MORTAR AND GROUT SHALL CONFORM TO ASTM C476, MIN COMPRESSIVE STRENGTH OF 2000 PSI.

7.04 MASONRY CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS OF ACI 530

7.05 LADDER WIRE REINFORCEMENT SHALL CONFORM TO ASTM A951. 6" MIN LAPS FOR CONTINUOUS WALL APPLICATIONS

## PART 8: BOLTS AND LAG SCREWS

8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844–07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS

8.02 LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1–1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844–07a) FOR SCREW HEAD

## PART 9: DRIVEN FASTENERS

9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667– 05. NAILS ARE TO BE COMMON WIRE OR BOX

## PART 10: DIMENSIONAL LUMBER

10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC.

## PART 11: ENGINEERED LUMBER

11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.9 X 10E6 PSI, Fb = 2600 PSI, Fv = 285 PSI, Fc = 750 PSI
LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.3 X 10E6 PSI, Fb = 1700 PSI, Fv = 400 PSI, Fc = 680 PSI

## PART 12: PRESSURE TREATED LUMBER

12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD C–15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA STANDARD C–2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19–6(A)

## PART 14: STUD SUPPORTS FOR BEAMS

14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

1–WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM
2–BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED COLUMN TYP UNO.

14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:

1–WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM
2–BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN TYP UNO.

14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.

14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS @ 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

## PART 15: NAILING OF MULTI PLY WOOD BEAMS

15.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.

15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP UNO

## PART 16: WALL FRAMING

16.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO

## PART 17: KING STUDS

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

| | | NUMBER OF KING STUDS | | | | |
|---|---|---|---|---|---|---|
| MAX OPENING WIDTH | | 5'–0" | 9'–0" | 13'–0" | 17'–0" | 21'–0" |
| STUD SIZE | 2X4 | 1 | 2 | 3 | 4 | 5 |
| | 2X6 | 1 | 1 | 2 | 2 | 2 |
| | 2X8 | 1 | 1 | 1 | 1 | 2 |

## PART 18: SUBSTITUTIONS

18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

## PART 19: OWNERSHIP OF STRUCTURAL DESIGN

19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 035020 RALPH J. SIGLER III 6-18-2021

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TRIPLE A HOMES
STRUCTURAL ADDENDUM
SCOPE:
LOC: 18 PRINCE PLACE
PLAN: KATHRYN

ENG: RJS
DATE: 6-18-2021

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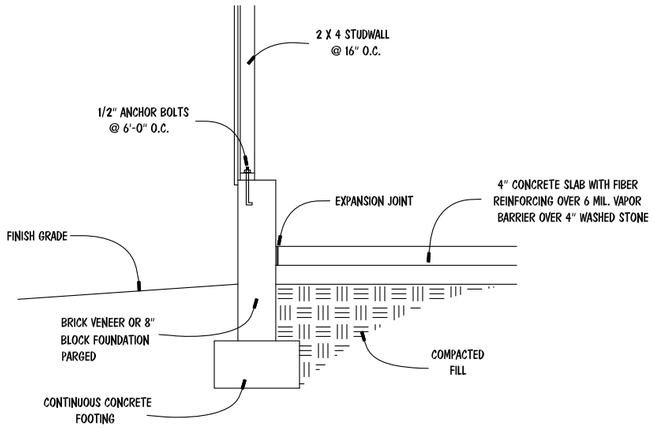
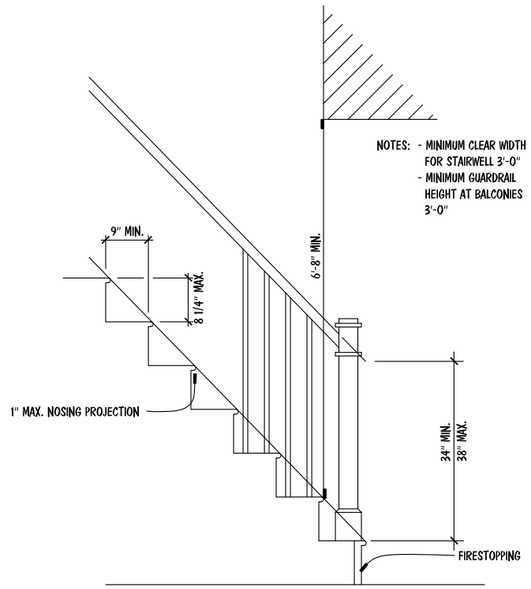
SHEET NO.
SD5
10 of 10




## GARAGE SLAB SECTION

3/4" = 1'-0"




## STAIR DETAIL

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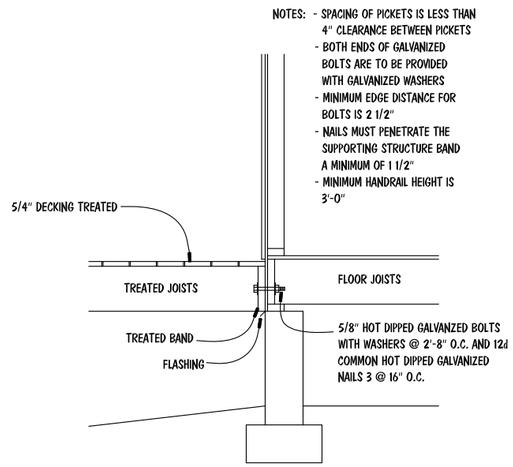
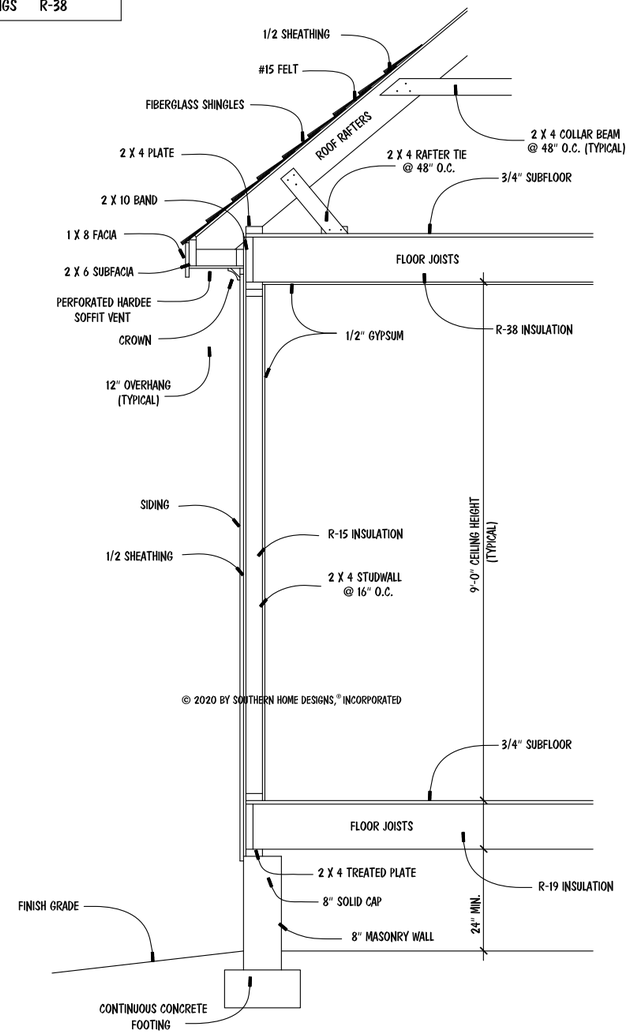



## DECK ATTACHMENT DETAIL

3/4" = 1'-0"

| INSULATION VALUES | |
|---|---|
| WALLS | R-15 |
| FLOORS | R-19 |
| CEILINGS | R-38 |




## TYPICAL SECTION

3/4" = 1'-0"

## STR. DETAIL PLAN





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ALL DIMENSIONS AND SITE DIMENSIONS ARE TO BE VERIFIED BEFORE CONSTRUCTION BEGINS. ONCE CONSTRUCTION HAS BEGUN SOUTHERN HOME DESIGNS, INCORPORATED, IS RELEASED FROM ANY FURTHER RESPONSIBILITIES.

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THE KATHRYN
LOT 18 PRINCE PLACE

TRIPLE A HOMES, INC.

| | |
|---|---|
| ENGR. #: | |
| DATE: | 02-13-20 |
| SHEET: | A-4 |
| PLAN #: | 20-021320-R |