# AUBREY ELEVATION 'A'

## OPTION SUMMARY

| YES | OPTION NAME |
|---|---|
| | **EXTERIOR** |
| | GARAGE SERVICE DOOR |
| | 10 X 12 CONSERVATORY |
| | 10 X 12 SCREEN PORCH |
| | 14 X 10 DECK |
| | STONE FRONT ELEVATION |
| | **FIRST FLOOR** |
| | TRANSOM OVER S.G.D. REAR DOOR |
| | GOURMET KITCHEN |
| | BDRM/BATH 3 I/L HM OFFICE/PR |
| | RAIL I/L HALF WALL AT FOYER |
| | MUD ROOM CUBBIES |
| | (2) PENDANT LIGHTS AT KITCH ISLAND |
| | **SECOND FLOOR** |
| | RAIL I/L HALF WALL 2ND FL HALL |
| | DELUXE OWNER'S BATH |
| | LOFT I/L BEDROOM 4 |
| | RAIL I/L HALF WALL LOFT OPT |

## DESIGN CRITERIA

**BUILDING CODE:**
**NORTH CAROLINA STATE BUILDING**
**RESIDENTIAL CODE 2018 EDITION**

| | |
|---|---|
| ASSUMED SOIL BEARING | – 2000 PSF |
| ASSUMED SOIL TYPE | – CL, ML, MH, CH |
| LIVING SPACE TOTAL FLOOR LOAD | – 50 PSF |
| SLEEPING SPACE TOTAL FLOOR LOAD | – 40 PSF |
| TOTAL ROOF LOAD WITH CEILING | – 30 PSF |
| TOTAL ROOF LOAD WITHOUT CEILING | – 20 PSF |
| DECK (DOUBLE WITH HOT TUB) | – 50 PSF |

*ADD 2 PSF TO TOTAL FLOOR LOADS FOR I-JOISTS
*ADD 5 PSF TO TOTAL FLOOR LOADS FOR FLOOR TRUSSES

## CLIMATIC AND GEOGRAPHIC DESIGN

| | |
|---|---|
| ROOF SNOW LOAD | – 20 PSF |
| WIND EXPOSURE | – B |
| WIND SPEED | – 115 MPH |
| WEATHERING | – MODERATE |
| FROST DEPTH | – 12" |
| SUBJECT TO TERMITE DAMAGE | – MODERATE TO SEVERE |

## TABLE N1102.1.2 INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

**BUILDING CODE:**
**NORTH CAROLINA STATE BUILDING**
**RESIDENTIAL CODE 2018 EDITION**

**CLIMATE ZONE 4**

| | |
|---|---|
| GLASS DOORS | – 0.30 |
| SOLID DOORS | – 0.22 |
| PLYGEM WINDOWS | – Max U value of 0.35 |
| CEILING R-VALUE m | – 38 or 30ci |
| WOOD FRAME WALL R-VALUE | – 15 or 13+2.5h |
| MASS WALL R-VALUE | – 5/13 or 5/10ci |
| FLOOR R-VALUE | – 19 |
| BASEMENT c, o WALL R-VALUE | – 10/15 |
| SLABd R-VALUE & DEPTH | – 10 |
| CRAWL SPACEc WALL R-VALUE | – 10/15 |

## AREA SUMMARY ELEV 'A'

### MAIN HOUSE AREAS

| | |
|---|---|
| 1ST FLOOR | – 967 S.F. |
| 2ND FLOOR | – 1190 S.F. |
| TOTAL | – 2157 S.F. |
| FRONT PORCH | – 48 S.F. |
| GARAGE | – 424 S.F. |
| PATIO | – 100 S.F. |
| DECK | – 100 S.F. |

### PLAN OPTION AREAS

| | |
|---|---|
| SCREEN PORCH | – 120 S.F. |
| CONSERVATORY | – 120 S.F. |
| OPT DECK | – 140 S.F. |

| SHEET # | SHEET TITLE |
|---|---|
| 1.00 | COVER SHEET |
| 4.00 | EXTERIOR ELEVATIONS SLAB AND STEM WALL |
| 4.10 | EXTERIOR ELEVATIONS SLAB AND STEM WALL |
| 4.00 | EXTERIOR ELEVATIONS CRAWL |
| 4.10 | EXTERIOR ELEVATIONS CRAWL |
| 4.20 | EXT ELEV SLAB/STEM/CRAWL W/ STONE OPT |
| 4.30 | EXT ELEV SLAB/STEM-SCRN PRCH/CONSERV |
| 4.30 | EXT ELEV CRAWL-SCRN PRCH/CONSERV |
| 6.00 | 1ST FLOOR PLAN |
| 7.00 | 1ST FLOOR ELECTRICAL PLAN |
| 8.00 | 2ND FLOOR PLAN |
| 9.00 | 2ND FLOOR ELECTRICAL PLAN |
| 10.00 | SCRN PRCH/CONSERV FLOOR AND ELEC PLAN |

**REVISIONS**

Lot 9 Brian-Keith Meadows
208 Farrah Shea Way Angier 27501

MASTER ISSUE DATE:
4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

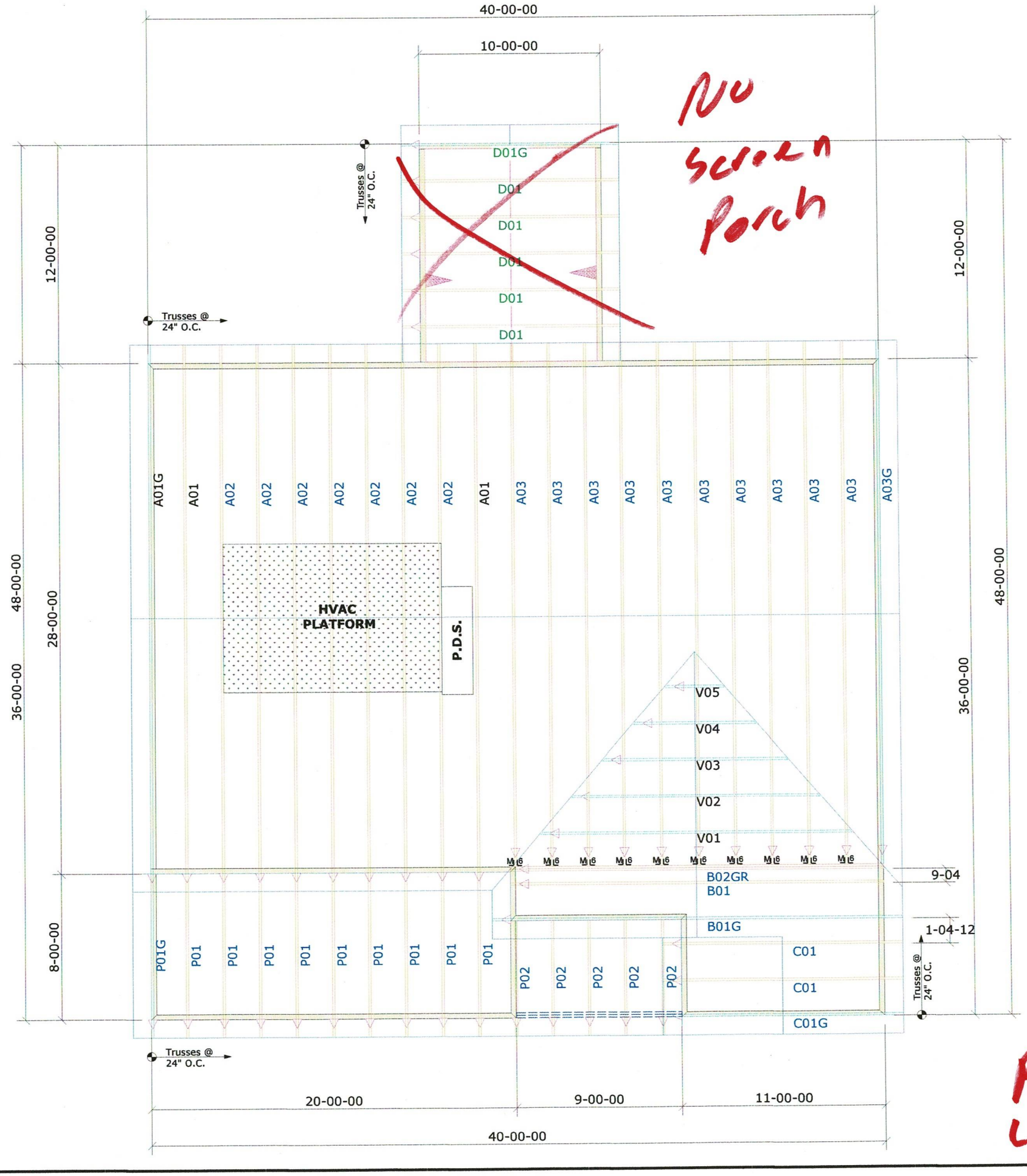
LATEST REVISION DATE:

GAR RIGHT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
COVER SHEET

SHEET #
1.00





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

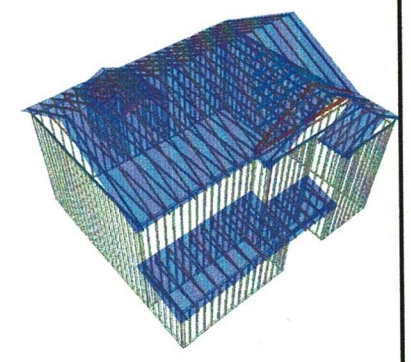

**General Notes:**
- Per ANSI/TPI 1-2002 all " Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer.
- Dimensions are Feet-Inches- Sixteenths.
- Trusses are to be 24" o.c. unless noted otherwise (U.N.O.)
- Trusses are not designed to support brick U.N.O.
- Do not cut or modify trusses without first contacting Builders FirstSource.
- Immediately contact Builders FirstSource if trusses are damaged.

***Connection Notes:***
- All hangers are to be Simpson or equivalent U.N.O.
- Use Manufacturer's specifications for all hanger connections U.N.O.
- Use 10d x 1 1/2" Nails in hanger connections to single ply roof girder trusses.

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

**Dimension Notes:**
- Drawing not to scale. Do not scale dimensions

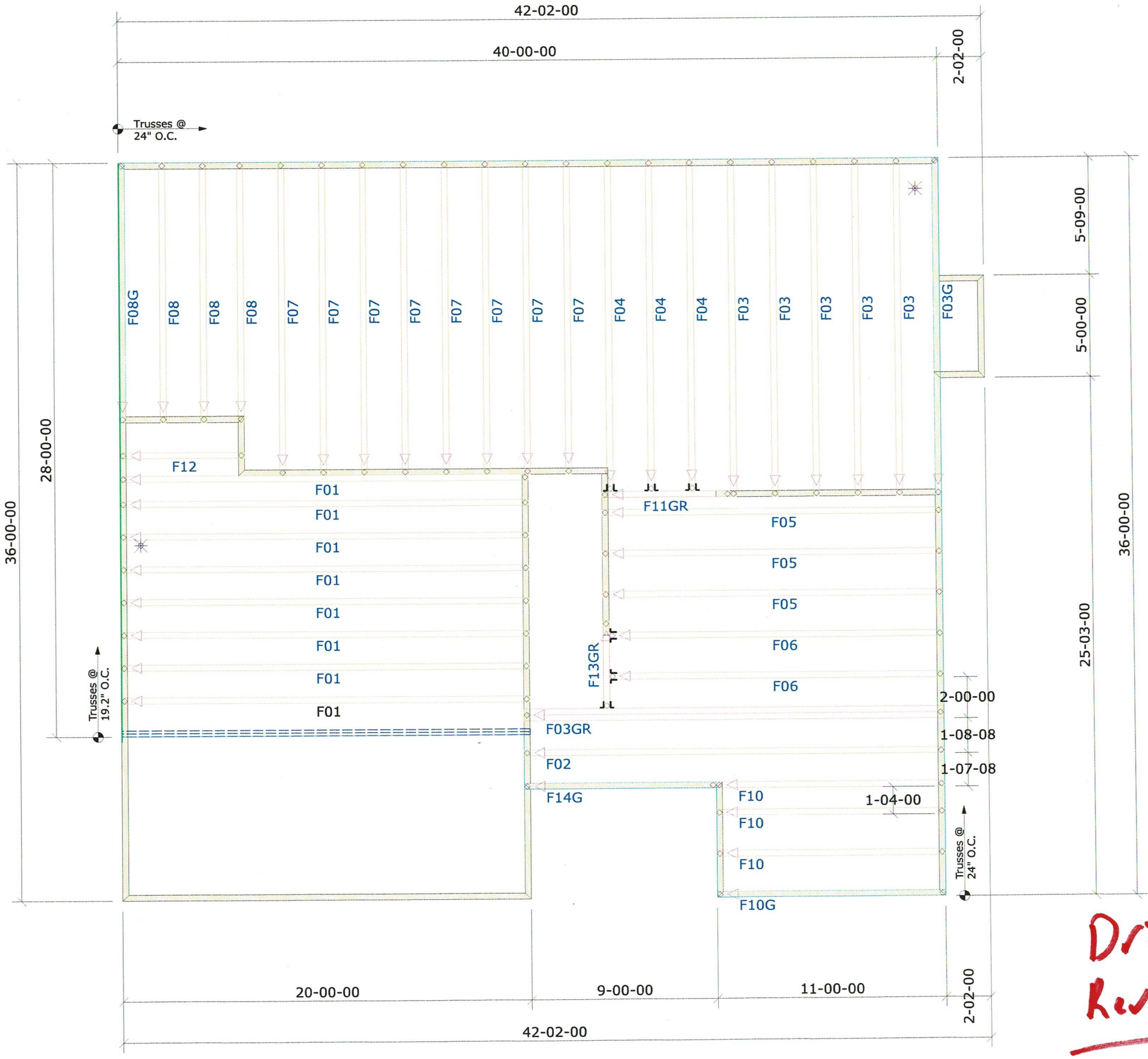
△◁▽▷ LEFT END OF TRUSS AS SHOWN ON TRUSS DETAIL DRAWINGS ARE INDICATED BY TRIANGLE ICONS.



| HANGER LIST | | | ALL TIE DOWNS H2.5A UNLESS NOTED |
|---|---|---|---|
| 10 | HTU26 | M6 | SPECIAL ITEMS LIST |
| | | | MISC MATERIAL |

| | | | |
|---|---|---|---|
| JOHN DOVE | | | |
| ---AUBREY | | ELEV: | ---A |
| ---ROOF | | | |
| --- | NC | LOT: | --- |
| • [OPTION 1]<br>• [OPTION 2]<br>• [OPTION 3] | | APPWRIGHT # | --- |
| | | CODE: | IRC 2015 |
| | | LOADING: | |
| DESIGNED BY: | ---DS | T.C.L.L. | 40 PSF |
| LAYOUT: | --- | T.C.D.L. | 10 PSF |
| L/O DATE: | 5/12/2020 | B.C.L.L. | 0 PSF |
| REVISION HISTORY | | B.C.D.L. | 5 PSF |
| REV1: | XX/XX/XX | WIND: | |
| REV2: | XX/XX/XX | M.P.H. | 115 MPH |
| REV3: | XX/XX/XX | EXPOSURE CATEGORY | B (WOODED AREAS/OTHERS) |
| PICK TICKET: | --- | JOB NO: | --- |
| SALES NO: | --- | ACCT NO: | --- |

| HATCH LEGEND | |
|---|---|
| | ATTIC ROOM |
| | VOLUME CEILING |
| | STICK FRAMING |




Drive Right
Reverse layout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- Use 10d x 1 1/2" Nails in hanger connections to single ply roof girder trusses.

**Floor notes:**
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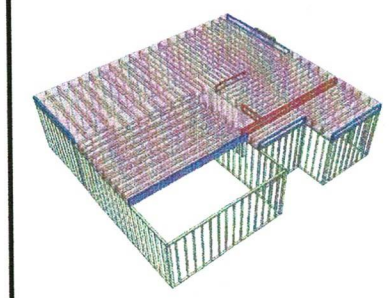
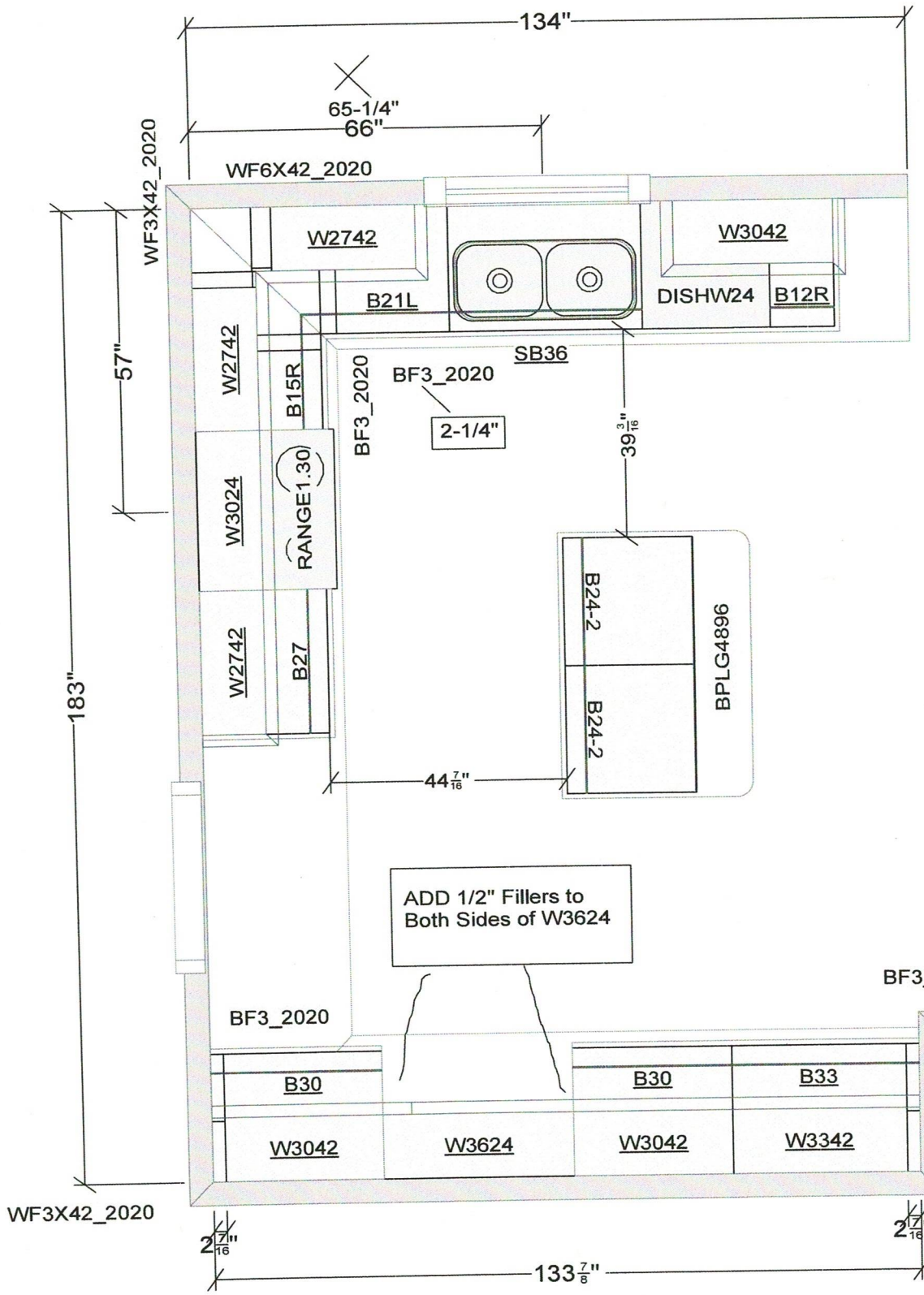


| HANGER LIST | | | ALL TIE DOWNS H2.5A UNLESS NOTED |
|---|---|---|---|
| 6 | THA422 | J L | SPECIAL ITEMS LIST |
| | | | MISC MATERIAL |

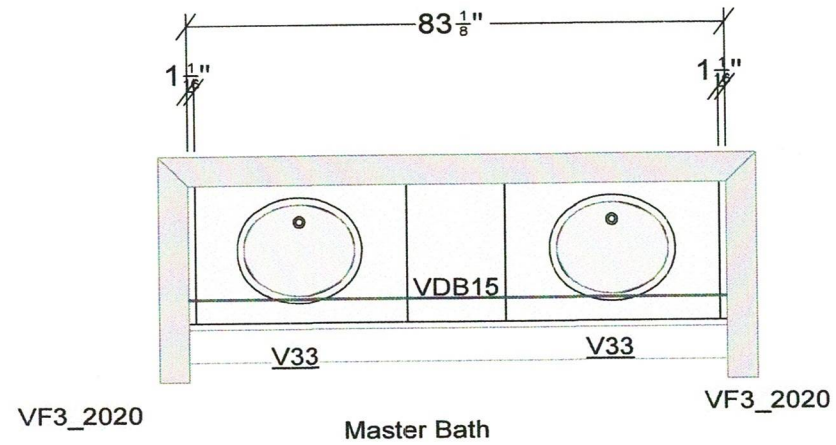
| | | | |
|---|---|---|---|
| JOHN DOVE | | | |
| ---AUBREY | | ELEV: | ---A |
| ---FLOOR | | | |
| --- | NC | LOT: | --- |
| • [OPTION 1]<br>• [OPTION 2]<br>• [OPTION 3] | | APPWRIGHT # | --- |
| | | CODE: | IRC 2015 |
| | | LOADING: | |
| | | T.C.L.L. | 40 PSF |
| DESIGNED BY: | --- | T.C.D.L. | 10 PSF |
| LAYOUT: | --- | B.C.L.L. | 0 PSF |
| L/O DATE: | 5/12/2020 | B.C.D.L. | 5 PSF |
| REVISION HISTORY | | WIND: | |
| REV1: | XX/XX/XX | M.P.H. | 115 MPH |
| REV2: | XX/XX/XX | EXPOSURE CATEGORY | |
| REV3: | XX/XX/XX | B (WOODED AREAS/OTHERS) | |
| PICK TICKET: | --- | JOB NO: | --- |
| SALES NO: | --- | ACCT NO: | --- |

| HATCH LEGEND | |
|---|---|
| | ATTIC ROOM |
| | VOLUME CEILING |
| | STICK FRAMING |

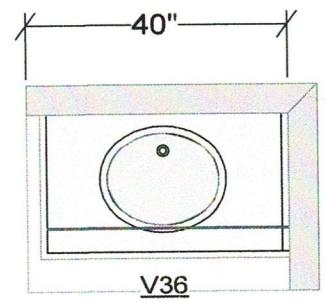



5 - TKS8
11 - SCRIBE
1 - Back Panel
1 - OCM
5 - CROWN
1 - F696
4 - F396

62 - HP164 ( DRILL - 3-3/4+ " Spread)




Master Bath

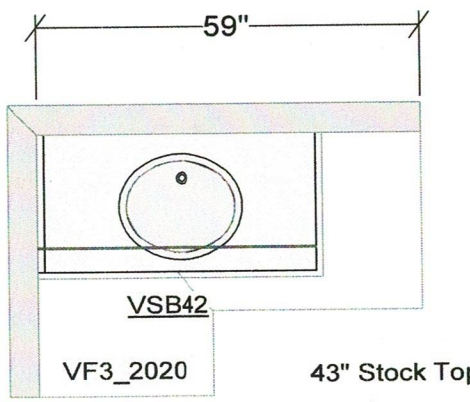



37" Stock Top

VF3_2020

Up Hall Bath

1/4"




VF3_2020

43" Stock Top

Down Bath

1/4"

All dimensions _size designations given are subject to verification on job site and adjustment to fit job conditions.

2020

This is an original design and must not be released or copied unless applicable fee has been paid or job order placed.

Designed: 5/11/2020
Printed: 12/21/2020

197 Farrah-Shea Design

All

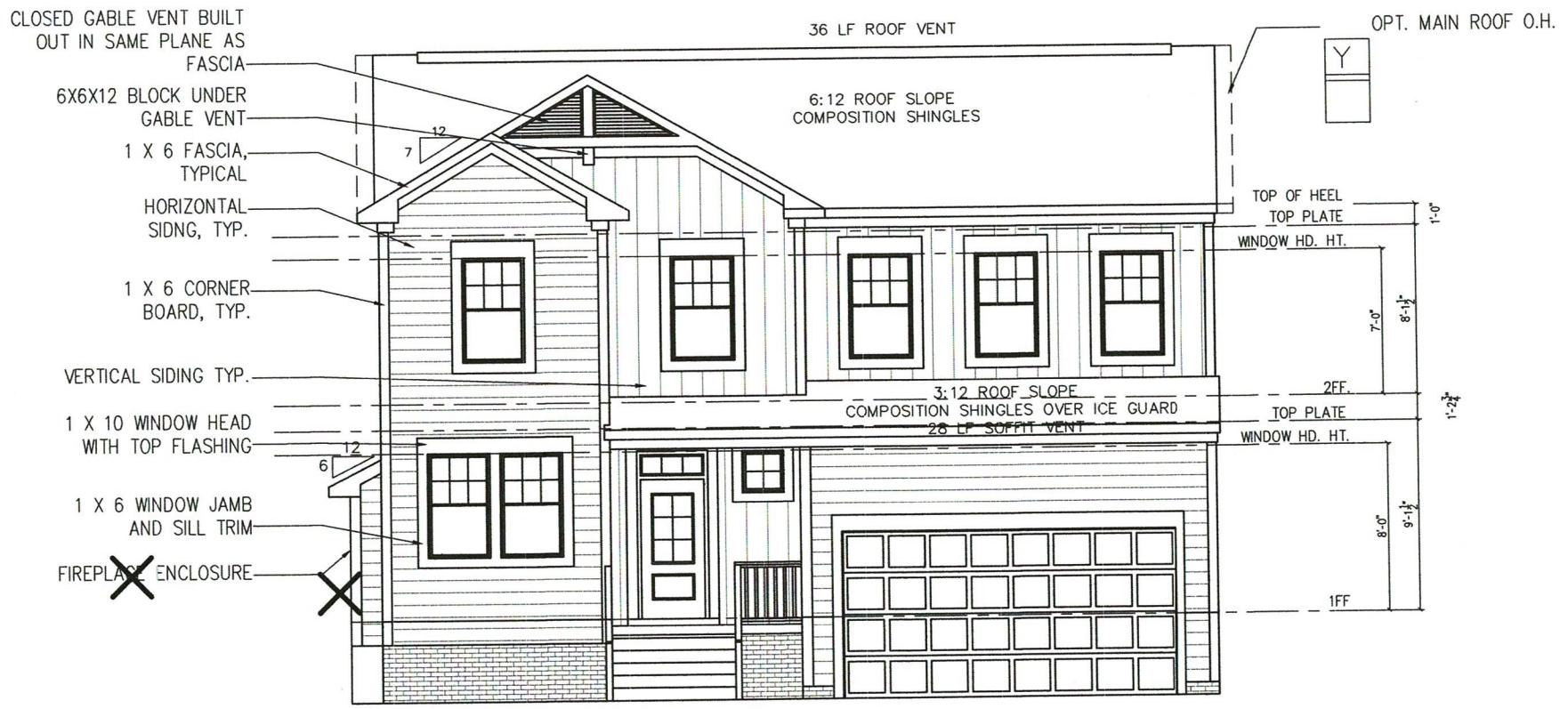
Drawing #: 1

No Scale.

## General Elevation Notes

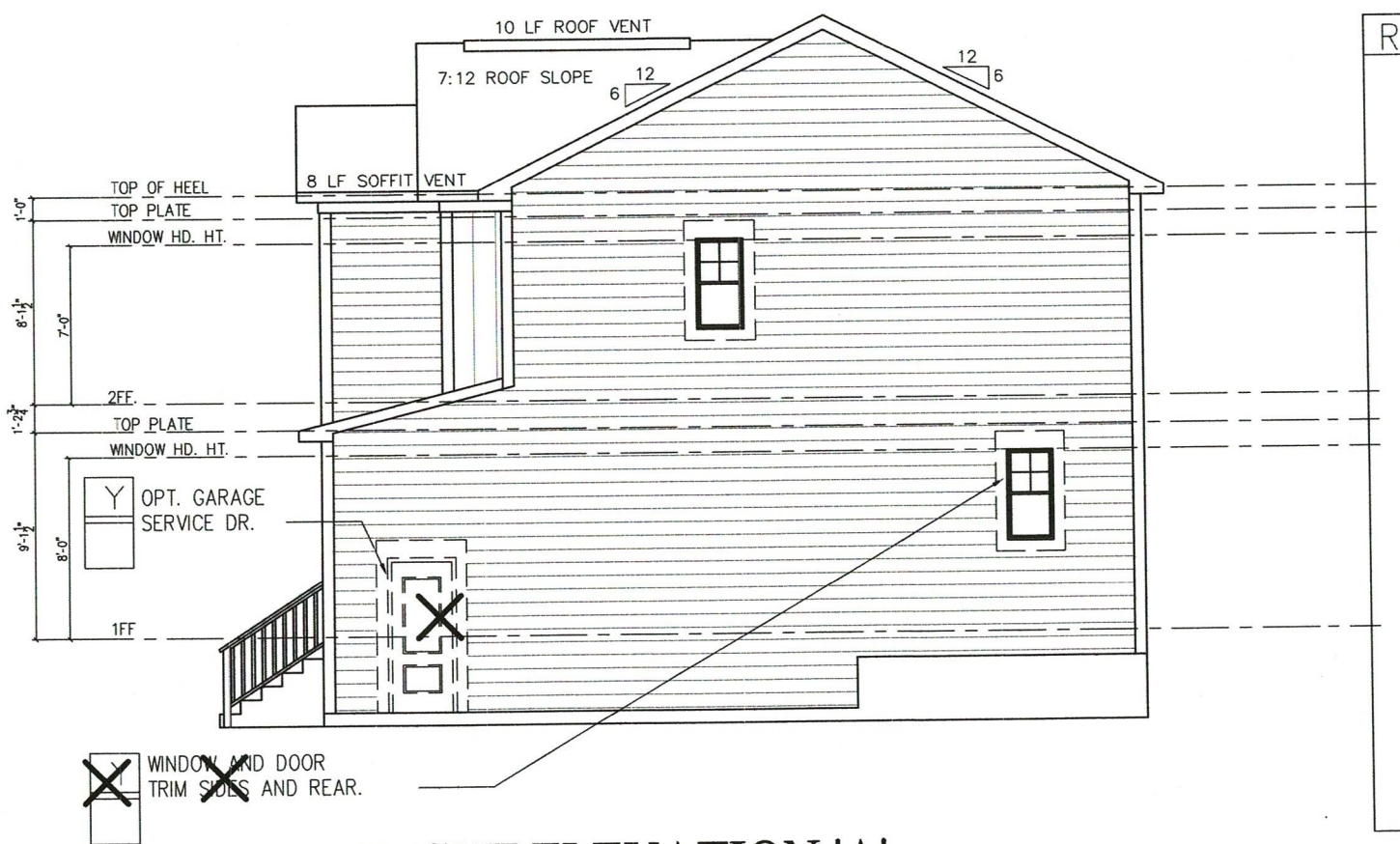
**General Elevation Notes shall apply unless noted otherwise on plan.**

1. **Roof** shall be finished with composition shingles with slopes as noted on plan.
2. **Metal Roof** finish is used as an accent material and may be optional, consult community specifications.
3. **Ridge Vent** shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
4. **Soffit Vent** shall be continuous soffit vent, consult community specifications for material.
5. Additional Vents may be required to meet ventilation requirements, consult ventilation calculations and additional vents noted on plan.
6. **House Wrap**, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations. "Zip" system sheathing may substitute for House Wrap.
7. **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.
8. **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.
9. **Finish Wall Material** shall be as noted on elevation drawings. Consult community specifications for material make-up of siding, shown as generic on drawing.
10. **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.
11. **Brick Veneer Support Lintels** shall be provided if brick veneer is included on elevation. See structural plans for lintel size, bearing area, and connection to header.
12. **Sheathing** House is covered 100% with structural wood sheathing at front and rear and side elevations provide nail pattern of 3" o.c. at perimeter and 6" o.c. at field.




FRONT ELEVATION 'A'

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




RIGHT ELEVATION 'A'

### ROOF VENT. CALCULATIONS ELEV 'A'

MAIN ROOF ATTIC
1232 SQ. FT.

ATTIC VENTILATION REQUIRED

1232 SQ. FT. / 300 = 4.1 SQ. FT. REQUIRED

46 LF RIDGE VENT @ 18 S.1./LF = 46x18 = 828 S.1 = 5.75 SF
74 LF SOFFIT VENT @ 4.5 S.1./LF = 74x4.5 = 333 S.1 = 2.31 SF
8.06 SF PROVIDED

ROOF OF GARAGE AND FRONT PORCH
206 SQ. FT.

ATTIC VENTILATION REQUIRED

206 SQ. FT. / 300 = 0.68 SQ. FT. REQUIRED

28 LF SOFFIT VENT @ 4.5 S.1./LF = 28x4.5 = 126 S.1 = 0.87 SF
0.87 SF PROVIDED

OPT COVERED OR SCREEN PORCH
120 SQ. FT.

ATTIC VENTILATION REQUIRED

120 SQ. FT. / 300 = 0.4 SQ. FT. REQUIRED

10 LF RIDGE VENT @ 18 S.1./LF = 10x18 = 180 S.1 = 1.25 SF
20 LF SOFFIT VENT @ 4.5 S.1./LF = 20x4.5 = 90 S.1 = 0.62 SF
1.87 SF PROVIDED

MASTER ISSUE DATE: 4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR RIGHT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

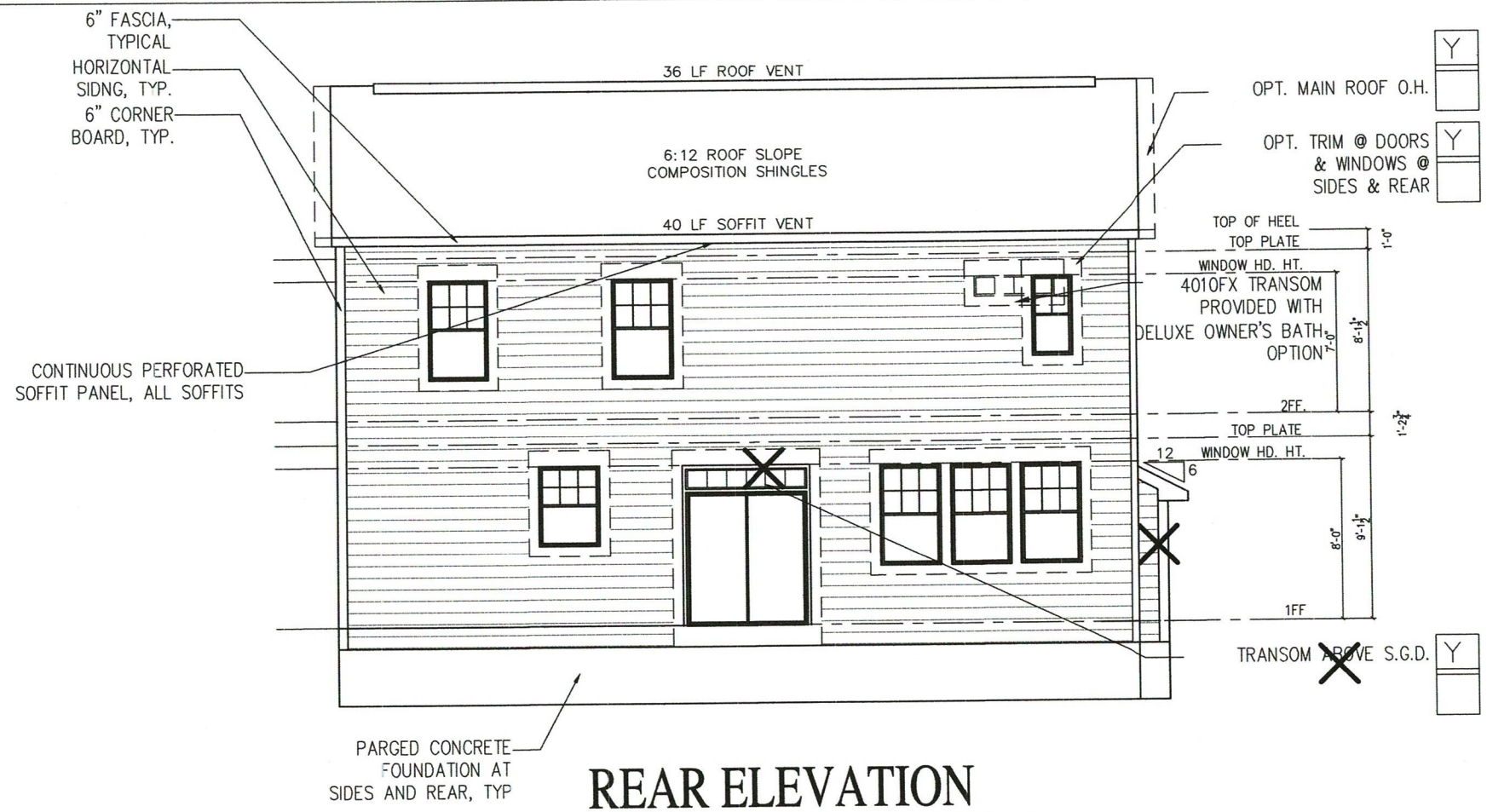
ELEVATION 'A' - CRAWL

SHEET #
4.00

## General Elevation Notes

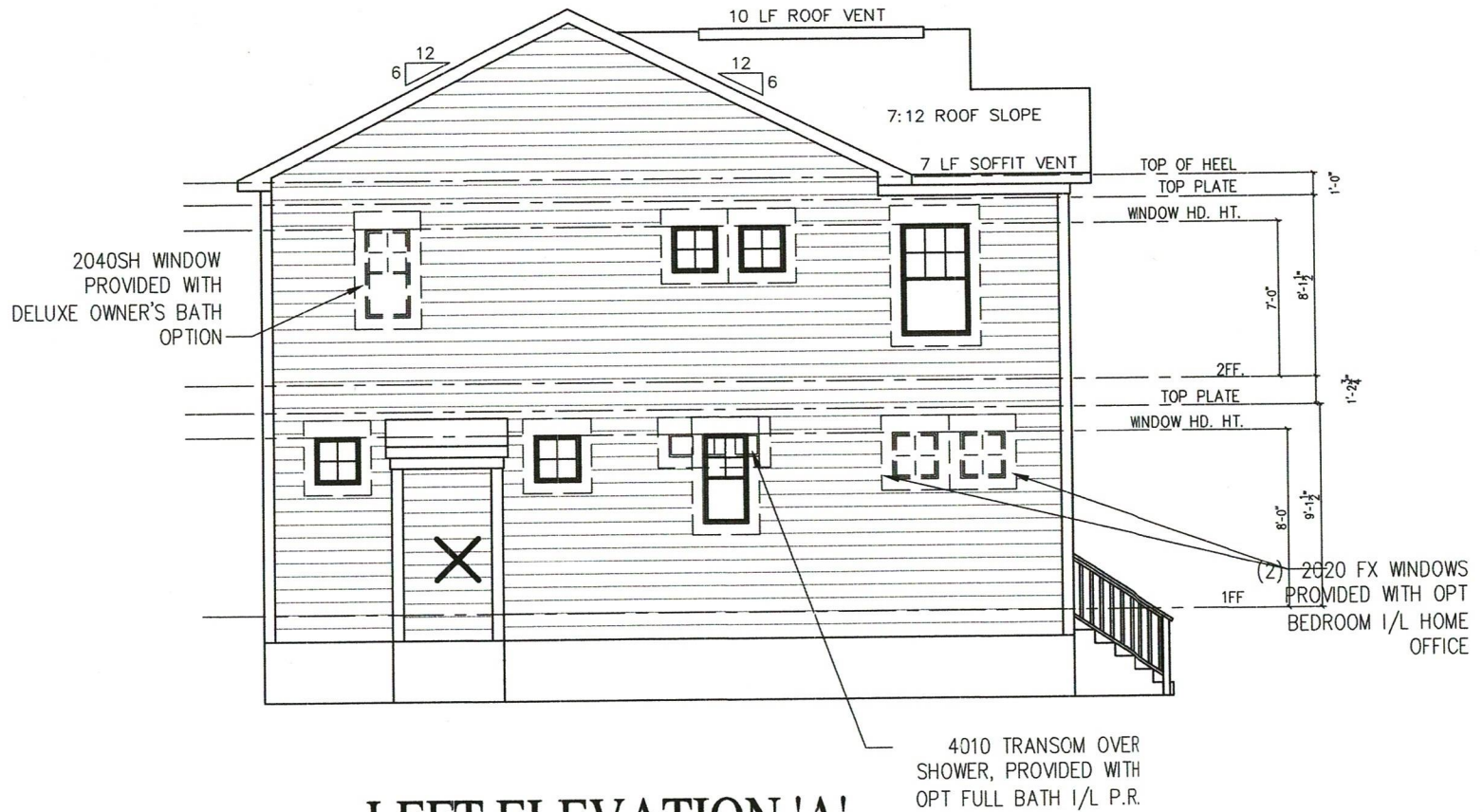
**General Elevation Notes shall apply unless noted otherwise on plan.**

1. **Roof** shall be finished with composition shingles with slopes as noted on plan.
2. **Metal Roof** finish is used as an accent material and may be optional, consult community specifications.
3. **Ridge Vent** shall be provided and installed on all ridges greater than 6' in length per manufacturer's specifications.
4. **Soffit Vent** shall be continuous soffit vent, consult community specifications for material.
5. Additional Vents may be required to meet ventilation requirements, consult ventilation calculations and additional vents noted on plan.
6. **House Wrap**, "tyvek" or approved equal shall be installed over entire exterior wall per manufacturer's specifications and recommendations. "Zip" system sheathing may substitute for House Wrap.
7. **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.
8. **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.
9. **Finish Wall Material** shall be as noted on elevation drawings. Consult community specifications for material make-up of siding, shown as generic on drawing.
10. **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.
11. **Brick Veneer Support Lintels** shall be provided if brick veneer is included on elevation. See structural plans for lintel size, bearing area, and connection to header.
12. **Sheathing** House is covered 100% with structural wood sheathing at front and rear and side elevations provide nail pattern of 3" o.c. at perimeter and 6" o.c. at field.




# REAR ELEVATION

SCALE: 1/8"=1'-0" ON 22x34 AND 1/16"=1'-0" ON 11x17




# LEFT ELEVATION 'A'

SCALE: 1/8" 1'-0" ON 22x34 AND 1/16" 1'-0" ON 11x17

MASTER ISSUE DATE: 4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR RIGHT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
ELEVATION 'A' - CRAWL

SHEET #
4.10

## General Floor Plan Notes

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

1. **Wall Heights:** Typically 9'-1-1/2" first floor and 8'-1-1/2" second floors 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. **Header height** shall be 7'-11" AFF at 9' plate height and 6'-11" at 8' plate height, unless noted otherwise.

4. **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.

5. **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.

6. **Windows:** Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. Windows used at unfinished attic spaces as elevation decorative elements only shall have obscure glazing.

7. **Closets** for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5. Closets for pantries shall have 5 shelves. Consult spec level for solid or wire shelves.

8. **Stairs** shall have a minimum width dimensioned as 3'-7", treads shall be 10" deep, risers shall be a maximum of 7-3/4", unless noted otherwise.

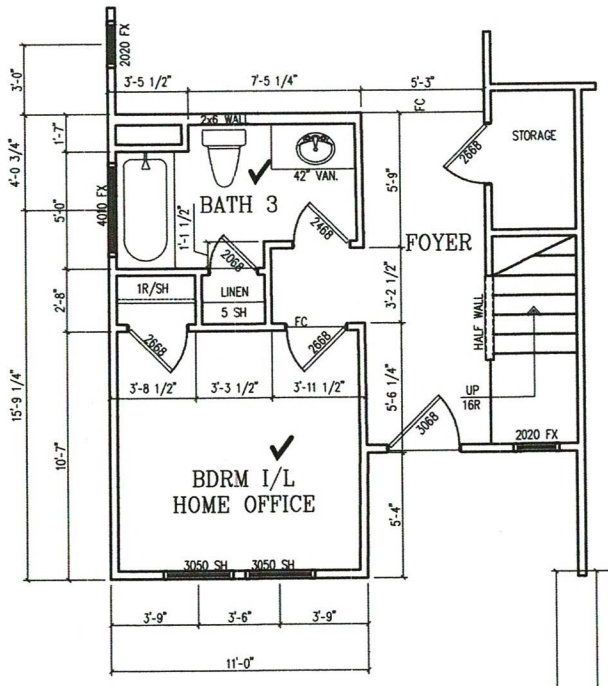
9. **Handrails and Guards** at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 42" above finished floor. Guards (pickets or balusters) shall be spaced with no more than 4" between guards.

10. **Attic Access** shall be provided to attic areas that exceed 400 square feet and have a vertical height of 60" or greater. Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.

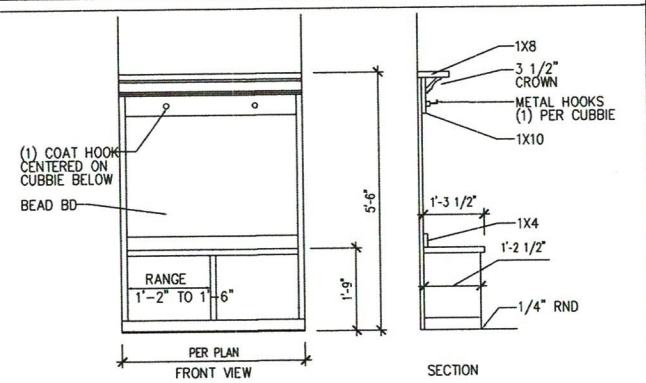
11. **Garage Door to Living Space** shall be 2'-8" x 6'-8" minimum size and shall be 20 minute fire rated and weather sealed.

12. **Garage Walls,** as a minimum, shall be separated from living space and living space attic by installing 1/2" gypsum board on the garage side of the wall.

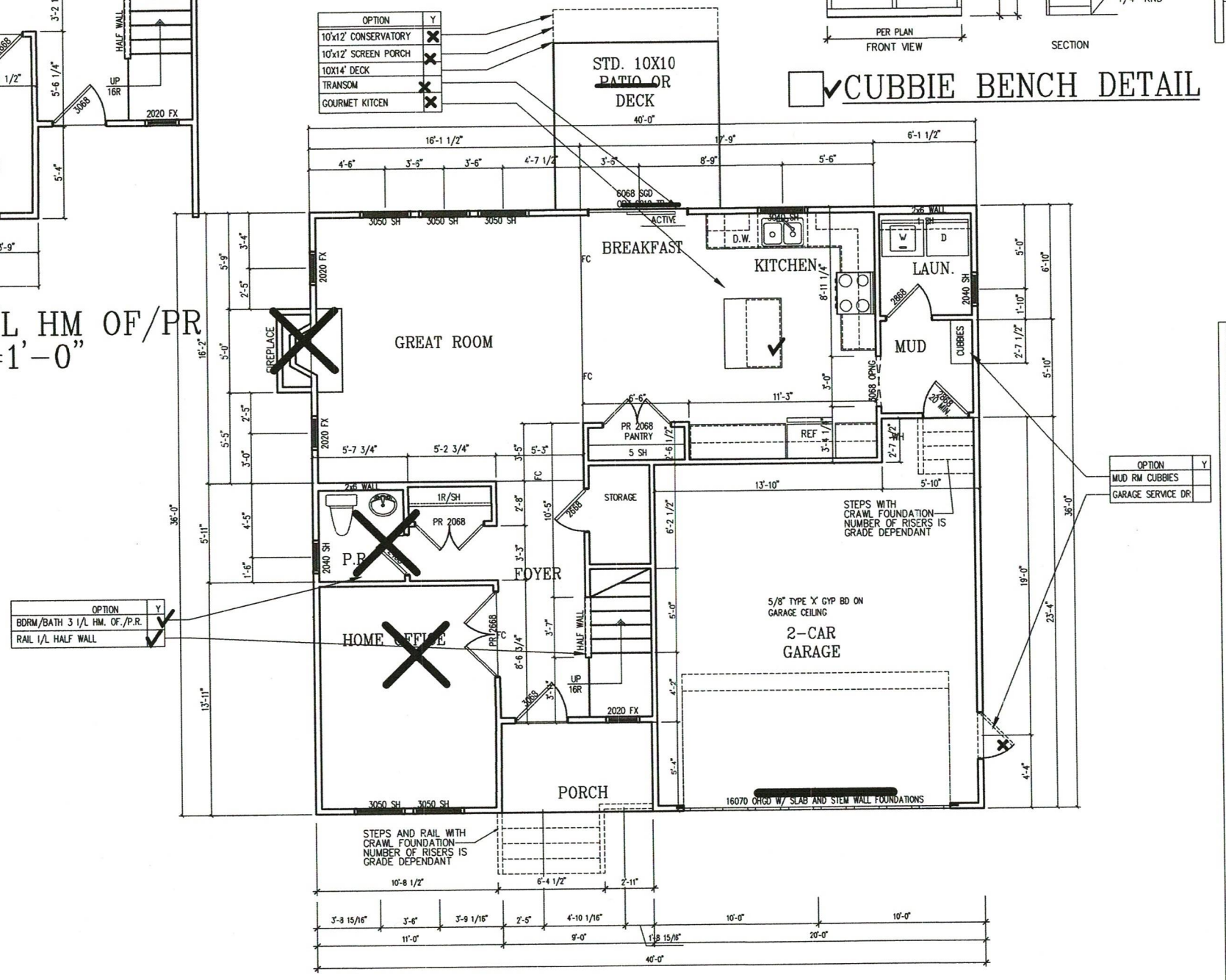
13. **Garage Ceilings,** 5/8" type "X" gypsum board on the garage ceilings when heated space is above.




☑ BDRM/BA3 I/L HM OF/PR
SCALE: 1/8"=1'-0"




☑ CUBBIE BENCH DETAIL




FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

MASTER ISSUE DATE: 4/02/2020

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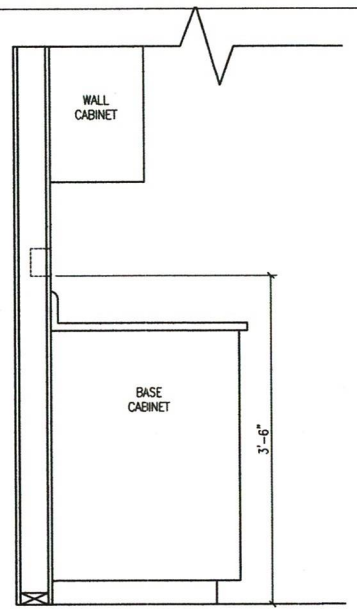
LATEST REVISION DATE:

GAR RIGHT

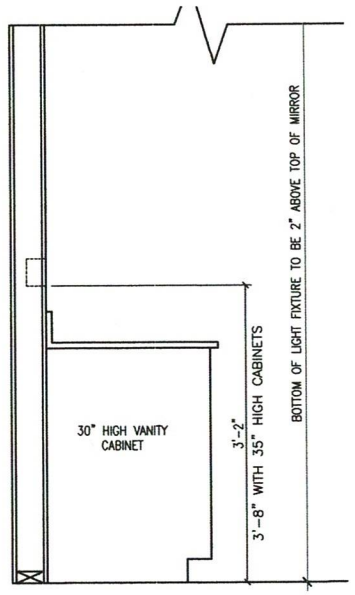
DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
1ST FLOOR PLAN - ELEVATION "A"

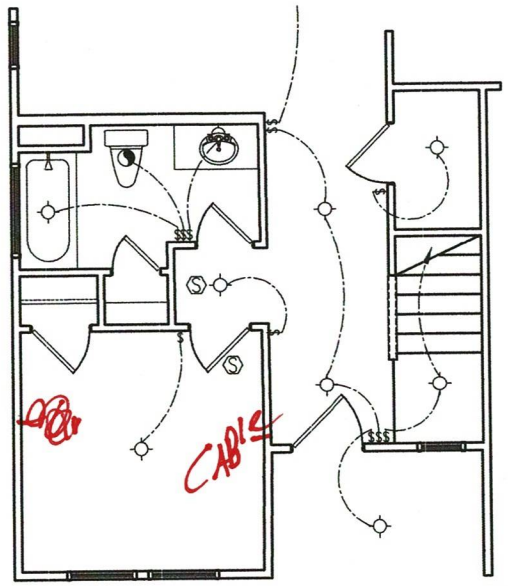
SHEET #
6.00



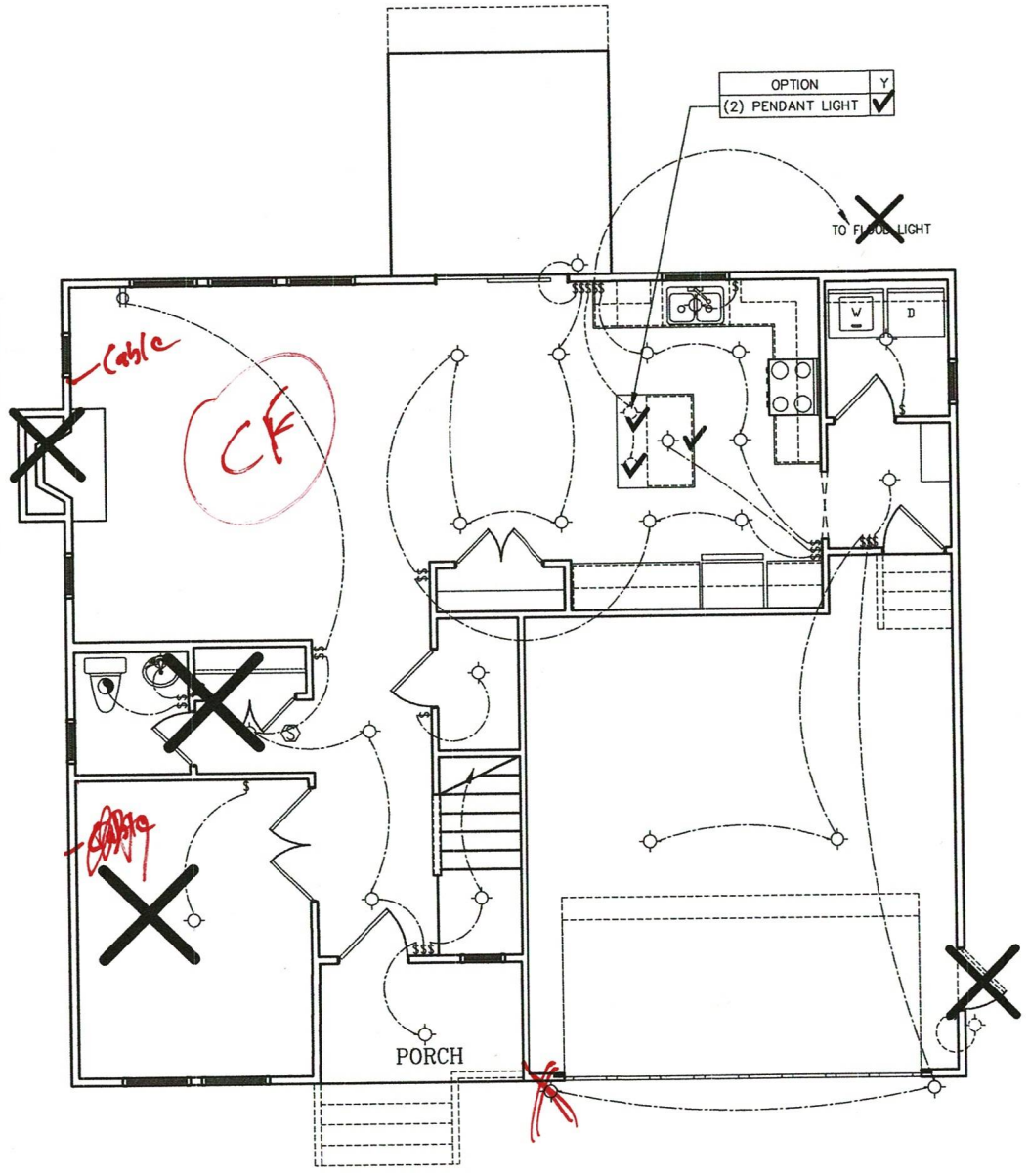

SWITCH & RECEPTACLE BOXES OVER KITCHEN CABINETS




SWITCH & RECEPTACLE BOXES OVER BATH CABINETS




☑ BDRM/BA3 I/L HM OF/PR
SCALE: 1/8"=1'-0"




FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"

## ELECTRICAL LEGEND

OUTLET & SWITCH LOCATION WILL BE PER CODE AND MAY VARY FROM LOCATIONS

| | |
|---|---|
| | STANDARD SWITCH |
| | 3 WAY SWITCH |
| | 4 WAY SWITCH |
| | 110 VOLT OUTLET |
| | CEILING FAN PREWIRE |
| | CEILING MOUNTED LIGHT FIXTURE |
| | WALL MOUNTED LIGHT FIXTURE |
| | 2 WAY FLOOD LIGHT |
| | EXHAUST FAN |
| | SMOKE DETECTOR |

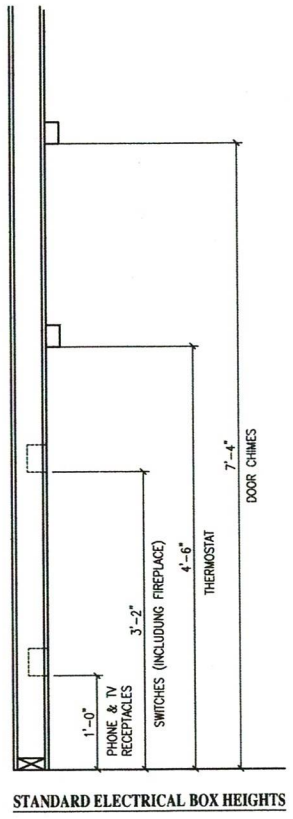
NOTE:
THIS PLAN SHOWS LIGHTING AND LIFE SAFETY ITEMS ONLY. CONVENIENCE OUTLETS ARE PLACED IN FIELD BY ELECTRICAL CONTRACTOR BASED ON REQUIREMENTS OUTLINED IN THE NATIONAL ELEC CODE.

GENERAL POWER AND LIGHTING NOTES:

GENERAL POWER AND LIGHTING NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON PLANS. ALL WORK SHALL BE INSTALLED PER THE 2018 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 SLEEPING 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 ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS. SMOKE ALARMS SHALL BE HARD WIRED TO PERMANENT POWER AND SHALL HAVE BATTERY BACK-UPS.

2. SWITCHES – FOR LIGHTING , FANS, ETC. SHALL BE INSTALED AT HEIGHTS ILLUSTRATED ON THIS PAGE AND SHALL BE LOCATED A MINIMUM OF 4 $\frac{1}{2}$" FROM DOOR OPENINGS TO ALLOW FOR THE PROPER INSTALLATION OF DOOR CASINGS. SWITHES, 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.




STANDARD ELECTRICAL BOX HEIGHTS

ELECTRICAL OUTLETS ARE NOT SHOWN UNLESS SPECIFICALLY CALLED FOR TO BE SWITCHED. PROVIDE OUTLETS IN REQUIRED VOLTAGES TO MEET PLAN REQUIREMENTS AND TO MEET ALL APPLICABLE CODES AND NATIONAL ELECTRICAL CODE CURRENT EDITIONS AND REQUIRED SPACING..

MASTER ISSUE DATE:
4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR RIGHT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

1ST FLOOR ELECTRICAL PLAN - ELEV "A"

SHEET # 7.00

## General Floor Plan Notes

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

1. **Wall Heights:** Typically 9'–1–1/2" first floor and 8'–1–1/2" second floors 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. **Header height** shall be 7'–11" AFF at 9' plate height and 6'–11" at 8' plate height, unless noted otherwise.

4. **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.

5. **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.

6. **Windows:** Shall have at least (1) window in each sleeping room, that meets egress. Shall be provided with tempered glass at hazardous glazing areas. Windows used at unfinished attic spaces as elevation decorative elements only shall have obscure glazing.

7. **Closets** for clothing or coat storage shall be equipped with 1 rod/shelf. Closets for linen shall have 5. Closets for pantries shall have 5 shelves. Consult spec level for solid or wire shelves.

8. **Stairs** shall have a minimum width dimensioned as 3'–7", treads shall be 10" deep, risers shall be a maximum of 7–3/4", unless noted otherwise.

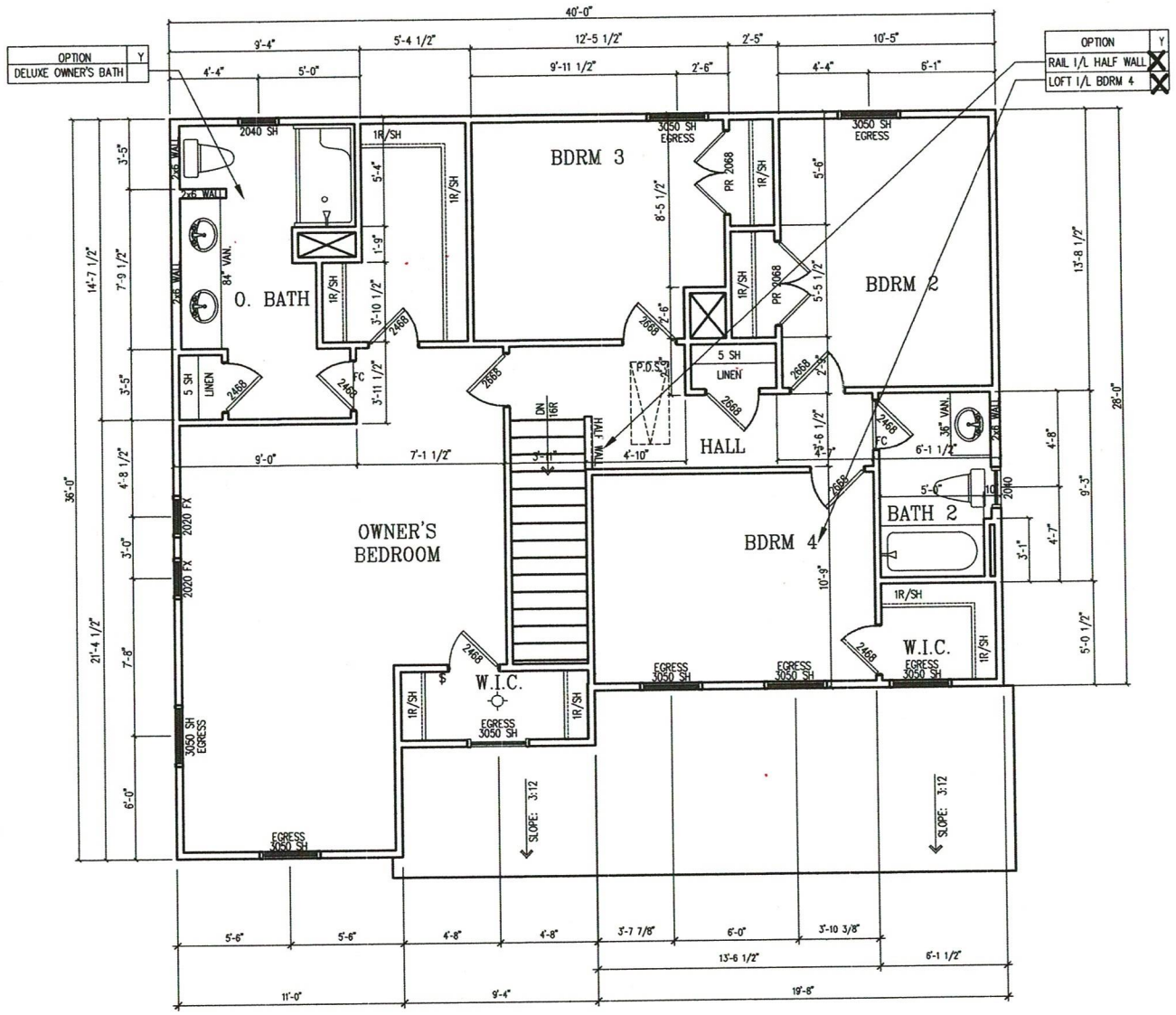
9. **Handrails and Guards** at stairs shall be 34" above the finished surface of the ramp surface of the stair. Handrails at landings and overlooks of multilevel spaces shall be 42" above finished floor. Guards (pickets or balusters) shall be spaced with no more than 4" between guards.

10. **Attic Access** shall be provided to attic areas that exceed 400 square feet and have a vertical height of 60" or greater. Minimum clear attic access shall be 20" x 30". Pull down stairs and access doors in knee walls meeting minimum criteria are also acceptable.

11. **Garage Door to Living Space** shall be 2'–8" x 6'–8" minimum size and shall be 20 minute fire rated and weather sealed.

12. **Garage Walls,** as a minimum, shall be separated from living space and living space attic by installing 1/2" gypsum board on the garage side of the wall.

13. **Garage Ceilings,** 5/8" type "X" gypsum board on the garage ceilings when heated space is above.




SECOND FLOOR PLAN
SCALE: 1/8"=1'–0"

MASTER ISSUE DATE: 4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

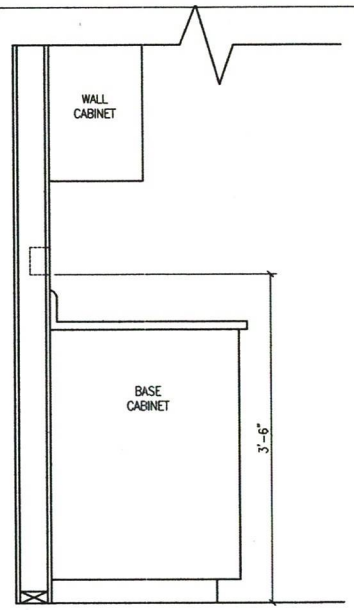
LATEST REVISION DATE:

GAR RIGHT

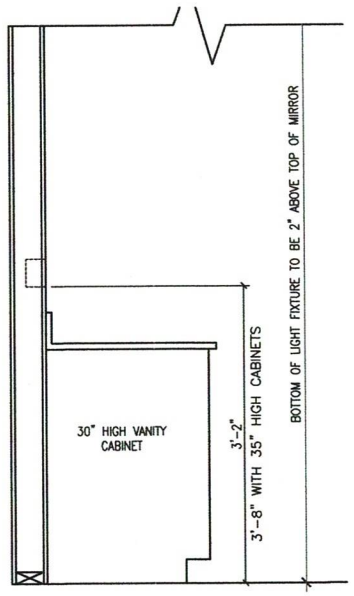
DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY
2ND FLOOR PLAN - ELEVATION "A"

SHEET #
8.00




SWITCH & RECEPTACLE BOXES OVER KITCHEN CABINETS




SWITCH & RECEPTACLE BOXES OVER BATH CABINETS

## ELECTRICAL LEGEND

| OUTLET & SWITCH LOCATION WILL BE PER CODE AND MAY VARY FROM LOCATIONS | |
|---|---|
| | STANDARD SWITCH |
| | 3 WAY SWITCH |
| | 4 WAY SWITCH |
| | 110 VOLT OUTLET |
| | CEILING FAN PREWIRE |
| | CEILING MOUNTED LIGHT FIXTURE |
| | WALL MOUNTED LIGHT FIXTURE |
| | 2 WAY FLOOD LIGHT |
| | EXHAUST FAN |
| | SMOKE DETECTOR |

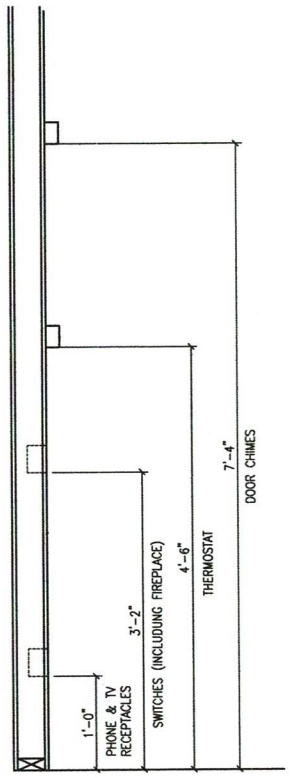
NOTE:
THIS PLAN SHOWS LIGHTING AND LIFE SAFETY ITEMS ONLY. CONVENIENCE OUTLETS ARE PLACED IN FIELD BY ELECTRICAL CONTRACTOR BASED ON REQUIREMENTS OUTLINED IN THE NATIONAL ELEC CODE.

GENERAL POWER AND LIGHTING NOTES:

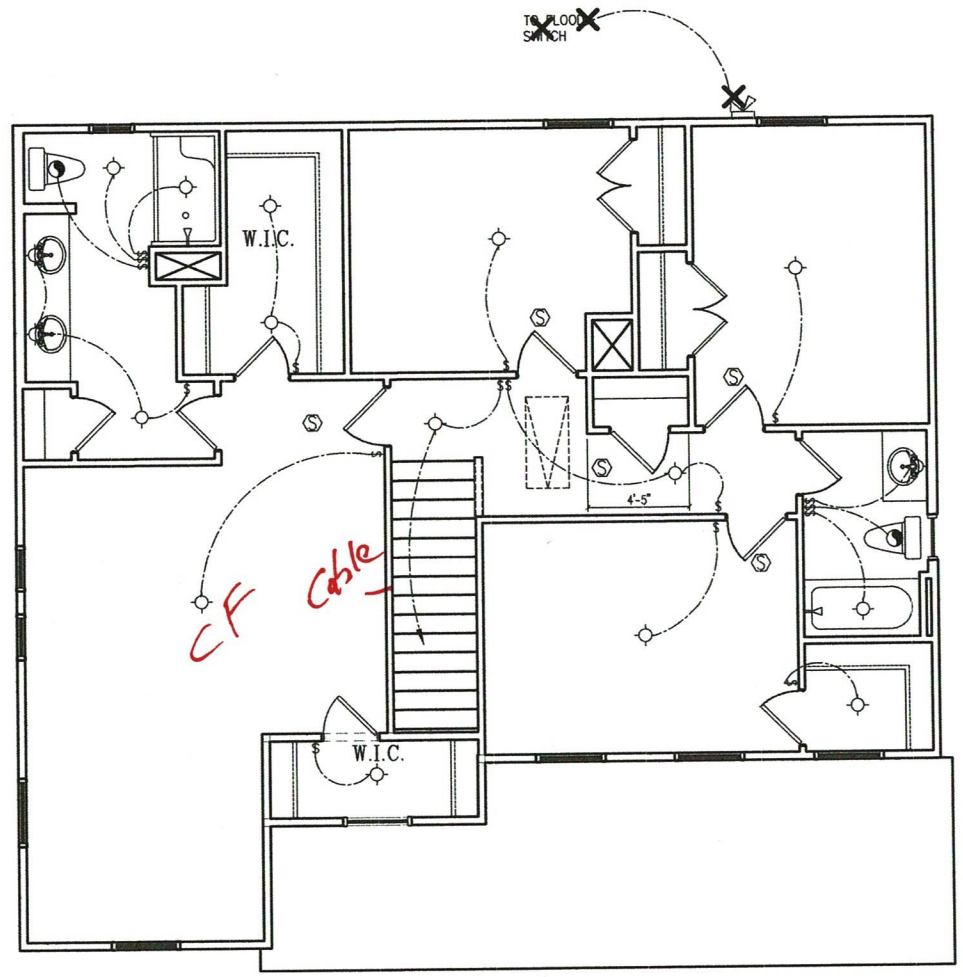
GENERAL POWER AND LIGHTING NOTES SHALL APPLY UNLESS NOTED OTHERWISE ON PLANS. ALL WORK SHALL BE INSTALLED PER THE 2018 NC RESIDENTIAL BUILDING CODE, AND THE NATIONAL ELECTRIC CODE. ALARM DEVICES SHALL MEET NFPA 72.

1. **SMOKE ALARMS** – SHALL BE PROVIDED AS A MINIMUM OF (1) PER FLOOR, INCLUDING BASEMENTS (IF APPLICABLE), (1) IN EACH SLEEPING 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 ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS. SMOKE ALARMS SHALL BE HARD WIRED TO PERMANENT POWER AND SHALL HAVE BATTERY BACK-UPS.

2. **SWITCHES** – FOR LIGHTING , FANS, ETC. SHALL BE INSTALED AT HEIGHTS ILLUSTRATED ON THIS PAGE AND SHALL BE LOCATED A MINIMUM OF 4 ½" FROM DOOR OPENINGS TO ALLOW FOR THE PROPER INSTALLATION OF DOOR CASINGS. SWITHES, 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.




STANDARD ELECTRICAL BOX HEIGHTS




ELECTRICAL OUTLETS ARE NOT SHOWN UNLESS SPECIFICALLY CALLED FOR TO BE SWITCHED. PROVIDE OUTLETS IN REQUIRED VOLTAGES TO MEET PLAN REQUIREMENTS AND TO MEET ALL APPLICABLE CODES AND NATIONAL ELECTRICAL CODE CURRENT EDITIONS AND REQUIRED SPACING..

SECOND FLOOR PLAN
SCALE: 1/8"=1'-0"

MASTER ISSUE DATE: 4/02/2020

DO NOT SCALE PRINTS! CONSTRUCTION SHALL BE PER INDICATED DIMENSIONS ONLY

LATEST REVISION DATE:

GAR RIGHT

DOVE HOMES, LLC
RALEIGH, NC
919-427-6991

AUBREY

2ND FLOOR ELECTRICAL PLAN - ELEV "A"

SHEET # 9.00

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

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

Design Loads:
1. Roof Live Loads
   - 1.1. Conventional 2x ..... 20 PSF
   - 1.2. Truss ..... 20 PSF
     - 1.2.1. Attic Truss ..... 60 PSF
2. Roof Dead Loads
   - 2.1. Conventional 2x ..... 10 PSF
   - 2.2. Truss ..... 20 PSF
3. Snow ..... 15 PSF
   - 3.1. Importance Factor ..... 1.0
4. Floor Live Loads
   - 4.1. Typ. Dwelling ..... 40 PSF
   - 4.2. Sleeping Areas ..... 30 PSF
   - 4.3. Decks ..... 40 PSF
   - 4.4. Passenger Garage ..... 50 PSF
5. Floor Dead Loads
   - 5.1. Conventional 2x ..... 10 PSF
   - 5.2. I-Joist ..... 15 PSF
   - 5.3. Floor Truss ..... 15 PSF
6. Ultimate Wind Speed (3 sec. gust) .....130 MPH
   - 6.1. Exposure ..... B
   - 6.2. Importance Factor ..... 1.0
   - 6.3. Wind Base Shear
     - 6.3.1. Vx =
     - 6.3.2. Vy =
7. Component and Cladding (in PSF)

| MEAN ROOF HT. | UP TO 30' | 30'1"-35' | 35'1"-40' | 40'1"-45' |
|---|---|---|---|---|
| ZONE 1 | 16.7,-18.0 | 17.5,-18.9 | 18.2,-19.6 | 18.7,-20.2 |
| ZONE 2 | 16.7,-21.0 | 17.5,-22.1 | 18.2,-22.9 | 18.7,-23.5 |
| ZONE 3 | 16.7,-21.0 | 17.5,-22.1 | 18.2,-22.9 | 18.7,-23.5 |
| ZONE 4 | 18.2,-19.0 | 19.2,-20.0 | 19.9,-20.7 | 20.4,-21.3 |
| ZONE 5 | 18.2,-24.0 | 19.2,-25.2 | 19.9,-26.1 | 20.4,-26.9 |

8. Seismic
   - 8.1. Site Class ..... D
   - 8.2. Design Category ..... C
   - 8.3. Importance Factor ..... 1.0
   - 8.4. Seismic Use Group ..... 1
   - 8.5. Spectral Response Acceleration
     - 8.5.1. Sms = %g
     - 8.5.2. Sm1 = %g
   - 8.6. Seismic Base Shear
     - 8.6.1. Vx =
     - 8.6.2. Vy =
   - 8.7. Basic Structural System (check one)
     - ☒ Bearing Wall
     - ☐ Building Frame
     - ☐ Moment Frame
     - ☐ Dual w/ Special Moment Frame
     - ☐ Dual w/ Intermediate R/C or Special Steel
     - ☐ Inverted Pendulum
   - 8.8. Arch/Mech Components Anchored ..... No
   - 8.9. Lateral Design Control: Seismic ☐ Wind ☒
9. Assumed Soil Bearing Capacity ..... 2000psf

SUMMIT
ENGINEERING LABORATORY TESTING

STRUCTURAL PLANS PREPARED FOR:

# AUBREY

PROJECT ADDRESS:
TBD

OWNER:
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

DESIGNER:
Mike Majewski, architect, PLLC
8227 Hillside Drive
Raleigh, NC 27612

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory and Testing, P.C. before construction begins.

PLAN ABBRIVATIONS:

| | | | |
|---|---|---|---|
| AB | Anchor Bolt | OC | On Center |
| ACI | American Concrete Institute | PCF | Pounds per Cubic Foot |
| ASCE | American Society of Civil Engineers | PCI | Pounds per Cubic Inch |
| AFA | American Fiberboard Association | PSF | Pounds per Square Foot |
| AFF | Above Finished Floor | PSI | Pounds per Square Inch |
| AISC | American Institute for Steel Construction | PT | Pressure Treated |
| APA | American Plywood Association | SC | Stud Column |
| AWS | American Welding Society | SER | Structural Engineer of Record |
| CJ | Ceiling Joist | SJ | Single Joist |
| CLR | Clear | SPF | Spruce Pine Fir |
| DBL | Double | SST | Simpson Strong Tie |
| DJ | Double Joist | ST | Single Truss |
| DSP | Double Stud Pocket | STD | Standard |
| EA | Each | SYP | Southern Yellow Pine |
| EE | Each End | TJ | Triple Joist |
| EOS | Edge of Slab | TOF | Top of Footing |
| EW | Each Way | TSP | Triple Stud Pocket |
| HDG | Hot Dipped Galvanized | TYP | Typical |
| NDS | Nation Design Spec. for Wood | UNO | Unless Noted Otherwise |
| NTS | Not to Scale | WWF | Welded Wire Fabric |

SHEET LIST:




SUMMIT
ENGINEERING LABORATORY TESTING
3070 HAMMOND BUSINESS
PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE: 919.380.9991
FAX: 919.380.9993
WWW.SUMMIT-COMPANIES.COM


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

PROJECT
Aubrey RH
Coversheet

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS1

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

GENERAL STRUCTURAL NOTES:

1. The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise, alter, or delete any structural aspects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT shall be considered the same entity.
2. The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.
3. The SER is not responsible for construction sequences, methods, or techniques in connection with the construction of this structure. The SER will not be held responsible for the contractor's failure to conform to the contract documents, should any non-conformities occur.
4. Any structural elements or details not fully developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT.
5. Verification of assumed field conditions is not the responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.
6. The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically noted on the structural drawings.
7. This structure and all construction shall conform to all applicable sections of the international residential code.
8. All structural and all construction shall conform to all applicable sections of the 2018 North Carolina Residential Code (NCRC) and any local codes or restrictions.

FOUNDATIONS:

1. Foundations shall be constructed in accordance with chapter 4 of the 2018 NC Residential Code (Special consideration shall be given to chapter 45 in wind zones 130 mph and above.)
2. Footing sizes are based on a presumptive soil bearing capacity of 2000 PSF. The contractor is solely responsible for verifying the suitability of the site soil conditions at the time of construction.
3. Maximum depth of unbalanced fill against masonry walls to be as specified in section R404.1 of the 2018 NCRC.
4. The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.
5. The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade.
6. Any fill shall be placed under the direction or recommendation of a licensed professional engineer. The resulting soil shall be compacted to a minimum of 95% maximum dry density.
7. Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
8. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.
9. Each crawl space pier shall bear in the middle third of its respective footing and each girder shall bear in the middle third of the pier. Pilasters to be bonded to the perimeter foundation wall.
10. Crawl space to be graded level and clear of all debris.
11. Proved foundation waterproofing and drain with positive slope to outlet as required by site conditions.
12. Energy efficiency compliance and insulation of the structure to be in accordance with chapter 11 of the 2018 NCRC.

STRUCTURAL STEEL:

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

CONCRETE:

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

CONCRETE REINFORCEMENT:

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

WOOD FRAMING:

1. Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National Design Specification for Wood Construction" (NDS). Unless otherwise noted, all wood framing members are designed to be Southern-Yellow-Pine (SYP) #2.
2. LVL or PSL engineered wood shall have the following minimum design values:
   - 2.1. E = 1,900,000 psi
   - 2.2. Fb = 2600 psi
   - 2.3. Fv = 285 psi
   - 2.4. Fc = 700 psi
3. Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other moisture exposed wood shall be treated in accordance with AWPA standard C-2
4. Nails shall be common wire nails unless otherwise noted.
5. Lag screws shall conform to ANSI/ASME standard B18.2.1-1981. Lead holes for lag screws shall be in accordance with NDS specifications.
6. All beams shall have full bearing on supporting framing members unless otherwise noted.
7. Exterior and load bearing stud walls are to be 2x4 SYP #2 @ 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. King studs shall be continuous.
8. Individual studs forming a column shall be attached with one 10d nail @ 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer.
9. Multi-ply beams shall have each ply attached with (3) 12d nails @ 12" O.C.
10. Flitch beams, 4-ply beams and 3-ply side loaded beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 24" O.C. unless noted otherwise. Min. edge distance shall be 2" and (2) bolts shall be located a min. 6" from each end of the beam.

WOOD TRUSSES:

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses. SUMMIT shall be notified by the truss manufacturere/fabricator or the client of any discrepancies between the truss/joist layouts and the sealed structural plans prior to the start of construction.
2. The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE 7-10), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to the trusses.
3. All girder truss to girder truss connections, truss to top plate connections and uplift connections are the responsibility of the wood truss manufacturer/fabricator.
4. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
5. The truss manufacturer shall provide adequate bracing information in accordance with "Commentary and Recommendations for Handling, Installing, and Bracing Metal Plate Connected Wood Trusses" (HIB-91). This bracing, both temporary and permanent, shall be shown on the shop drawings. Also, the shop drawings shall show the required attachments for the trusses.
6. Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

1. Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

WOOD STRUCTURAL PANELS:

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

STRUCTURAL FIBERBOARD PANELS:

1. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards.
2. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.
3. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.

6/25/2020

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

PROJECT
Aubrey RH
Coversheet

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS2

REVISION LOG:

| DATE: | SHEET: | REVISION: |
|---|---|---|
| | | |
| | | |
| | | |

FOUNDATION NOTES:

1. FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NC RESIDENTIAL BUILDING CODE.
2. STRUCTURAL CONCRETE TO BE $F_c$ = 3000 PSI, PREPARED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318.
3. FOOTINGS TO BE PLACED ON UNDISTURBED EARTH, BEARING A MINIMUM OF 12" BELOW ADJACENT FINISHED GRADE, OR AS OTHERWISE DIRECTED BY THE CODE ENFORCEMENT OFFICIAL.
4. FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION.
5. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
6. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
7. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NC RESIDENTIAL BUILDING CODE.
8. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
9. PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
10. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NC RESIDENTIAL BUILDING CODE.
11. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
12. CRAWL SPACE TO BE GRADED LEVEL & CLEARED OF ALL DEBRIS.
13. FOUNDATION ANCHORAGE SHALL BE A MIN. OF 1/2" DIA. ANCHOR BOLTS AND SHALL EXTEND A MIN. OF 7" INTO MASONRY OR CONCRETE. BOLTS SHALL BE 6'-0" O.C. AND WITH IN 12" OF ALL PLATE SPLICES. MIN. (2) ANCHOR BOLTS PER PLATE SECTION.
14. ALL PIERS TO BE 16"x16" MASONRY AND ALL PILASTERS TO BE 8"x16" MASONRY, TYPICAL. (UNO)
15. WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
16. A FOUNDATION EXCAVATION OBSERVATION SHOULD BE CONDUCTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER, OR HIS QUALIFIED REPRESENTATIVE. IF ISOLATED AREAS OF YIELDING MATERIALS AND/OR POTENTIALLY EXPANSIVE SOILS ARE OBSERVED IN THE FOOTING EXCAVATIONS AT THE TIME OF CONSTRUCTION, SUMMIT MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
17. ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REINFORCE GARAGE PORTAL WALLS PER FIGURE R602.10.4.3 OF THE 2018 NCRC

NOTE: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, U.N.O.

NOTE: BEAM POCKETS MAY BE SUBSTITUTED FOR 8"x16" CMU PIERS AT GIRDER ENDS. BEAM POCKETS SHALL HAVE A MIN. OF 4" SOLID MAS. BEARING.

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

CRAWL SPACE VENTILATION:
875 SQ. FT. / 150 = 5.8 SQ. FT. REQ'D.
5.8 SQ. FT. / 0.45 PER VENT = 13 VENTS REQ'D.

NOTE: WHERE AN APPROVED VAPOR BARRIER IS INSTALLED OVER GROUND SURFACE, THE REQ'D. VENTILATION MAY BE REDUCED BY 50%.

36"x24" MIN. CRAWL SPACE ACCESS DOOR LOCATED BY BUILDER. PROVIDE MIN. (2) 2x10 HEADER OVER DOOR W/ MIN 4" BEARING EE

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLD-DOWNS. ADDITIONAL INFORMATION PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: FOUNDATION ANCHORAGE HAS BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE MAJEWSKI, AIA COMPLETED/REVISED ON 5/5/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

## STRUCTURAL MEMBERS ONLY

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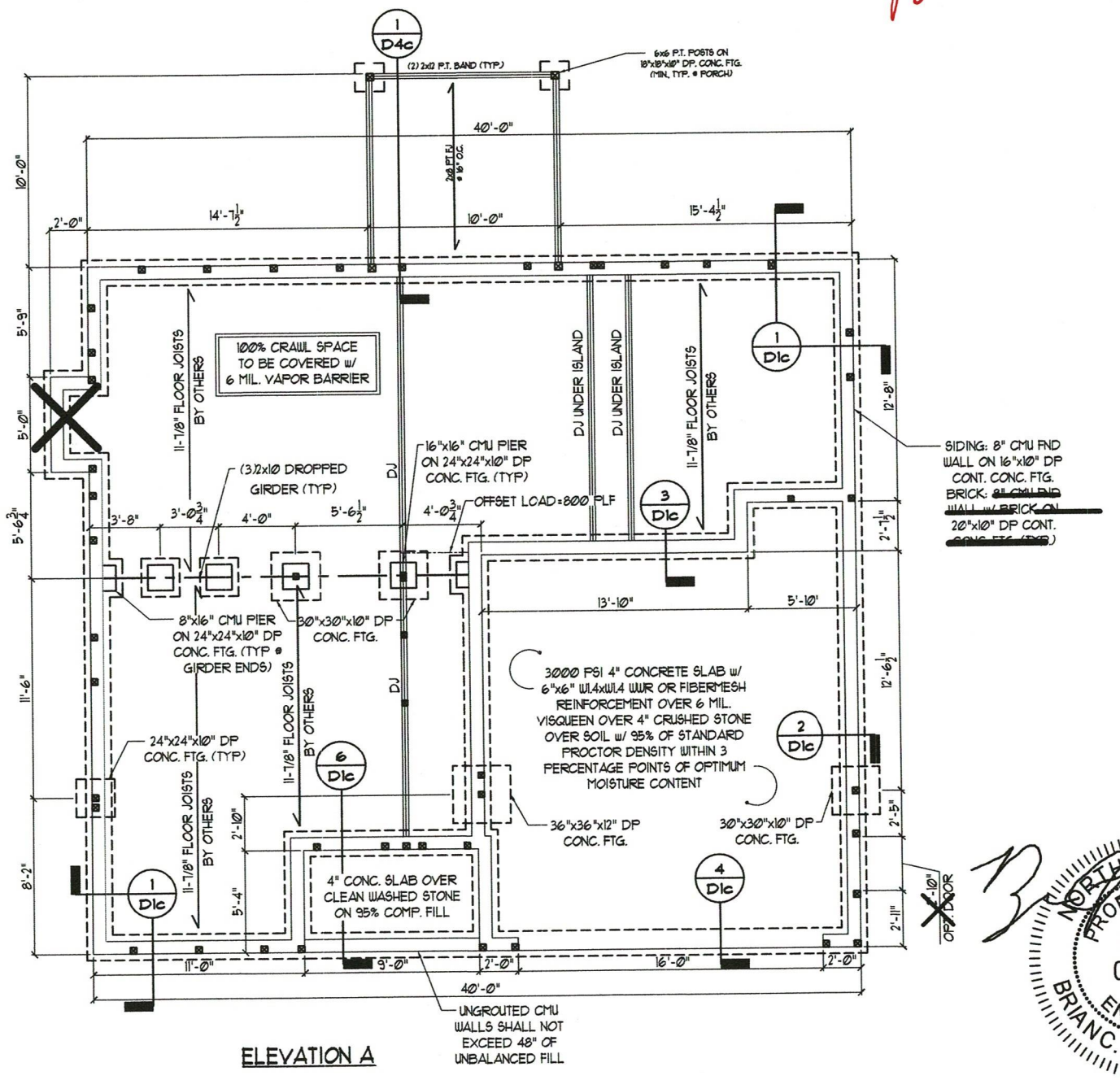
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

## CRAWL SPACE FOUNDATION

SCALE: 1/8"=1'

Crawl Foundation
Brick Front
8" Parged Block
For Sides/Rear




ELEVATION A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PROJECT
Aubrey RH
Crawl Space Fnd.
CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020

STRUCTURAL MEMBERS ONLY

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GENERAL STRUCTURAL NOTES:

1. CONSTRUCTION SHALL CONFORM TO 2018 NC RESIDENTIAL BUILDING CODE.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS. CONTRACTOR SHALL COMPLY WITH THE CONTENTS OF THE DRAWING FOR THIS SPECIFIC PROJECT. ENGINEER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THIS PLAN.
3. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
4. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:
   MICRO=LAM (LVL): $F_b$ = 2600 PSI, $F_v$ = 285 PSI, E = 1.9x10$^6$ PSI
   PARALLAM (PSL): $F_b$ = 2900 PSI, $F_v$ = 290 PSI, E = 1.25x10$^6$ PSI
5. ALL WOOD MEMBERS SHALL BE #2 SYP UNLESS NOTED ON PLAN. ALL STUD COLUMNS AND JOISTS SHALL BE #2 SYP (U.N.O.).
6. ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SYP STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
7. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER NC RESIDENTIAL BUILDING CODE 2018 SECTION 403.1.6. 1/2" DIA. BOLTS SPACED AT 6'-0" CENTERS WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION.
8. POSITIVE AND NEGATIVE WALL CLADDING DESIGN VALUES FOR 100 MPH, CATEGORY B, AND MRH 30 FEET OR LESS ARE 18.2 AND 24.0 RESPECTIVELY.
9. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
10. FLITCH BEAMS, 4-PLY LVLS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED A MINIMUM 6" FROM EACH END OF THE BEAM. EQUIVALENT SCREWS MAY BE SUBSTITUTED PER MANUFACTURER'S SPECIFICATIONS.
11. ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2x4 SYP #2, DROPPED. FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" IN WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2x4 SYP #2, DROPPED (U.N.O.).

ALL HEADERS WHERE BRICK IS USED, TO BE:
(1) LINTEL (U.N.O.)

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MIN. 4" BEARING ONTO BRICK AT EACH END.

(1) L3x3x1/4"
(2) L5x3"x1/4"
(3) L5x3-1/2x5/16"
(4) L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

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

NOTE: SHADED WALLS INDICATED LOAD BEARING WALLS.

TWO STORY WALL NOTE (BALLOON FRAMING):
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. W/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE MAJEWSKI, AIA COMPLETED/REVISED ON 5/5/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

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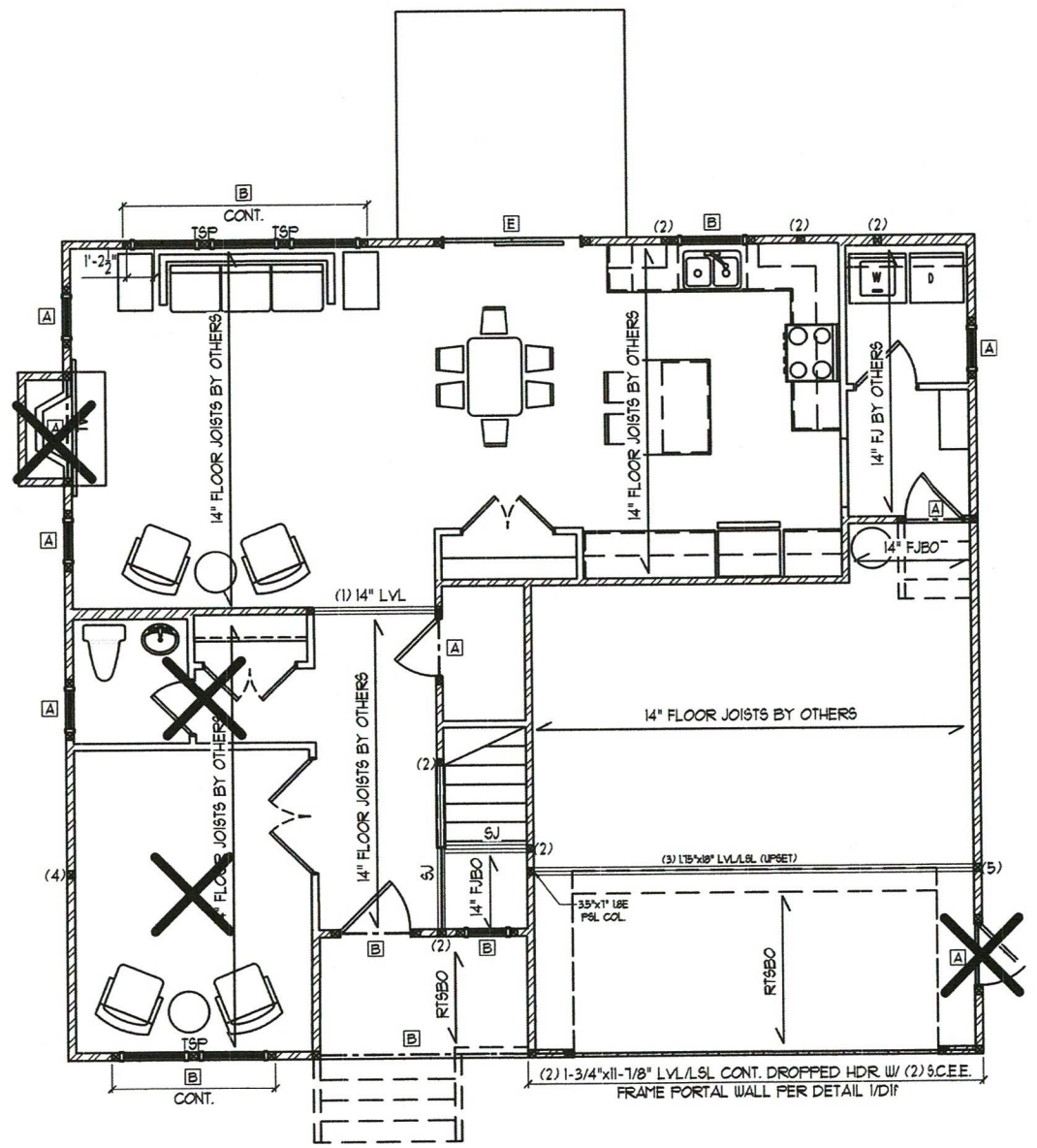
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

## FIRST FLOOR FRAMING PLAN

SCALE: 1/8"=1'

| HEADER SCHEDULE | | |
|---|---|---|
| TAG | SIZE | JACKS (EE) |
| A | (2) 2x6 | (1) |
| B | (2) 2x8 | (2) |
| C | (2) 2x10 | (2) |
| D | (2) 2x12 | (2) |
| E | (2) 9-1/4" LSL/LVL | (3) |
| F | (3) 2x6 | (1) |
| G | (3) 2x8 | (2) |
| H | (3) 2x10 | (2) |
| I | (3) 2x12 | (3) |

NOTES:
1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.
2. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE.
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE UNLESS NOTED OTHERWISE.
4. KING STUDS SHALL BE FRAMED PER TABLE R602.3(5) SUBNOTE d UNLESS NOTED OTHERWISE.




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

PROJECT
Aubrey RH
First Floor Framing

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

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S3.0

| HEADER SCHEDULE | | |
|---|---|---|
| TAG | SIZE | JACKS (EE) |
| A | (2) 2x6 | (1) |
| B | (2) 2x8 | (2) |
| C | (2) 2x10 | (2) |
| D | (2) 2x12 | (2) |
| E | (2) 9-1/4" L&L/LVL | (3) |
| F | (3) 2x6 | (1) |
| G | (3) 2x8 | (2) |
| H | (3) 2x10 | (2) |
| I | (3) 2x12 | (3) |

NOTES:
1. HEADER SIZES SHOWN ON PLANS ARE MINIMUMS. GREATER HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION.
2. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE.
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE UNLESS NOTED OTHERWISE.
4. KING STUDS SHALL BE FRAMED PER TABLE R602.3(5) SUBNOTE d UNLESS NOTED OTHERWISE.

ALL HEADERS WHERE BRICK IS USED, TO BE:
(1) LINTEL (U.N.O.)

LINTEL SCHEDULE:

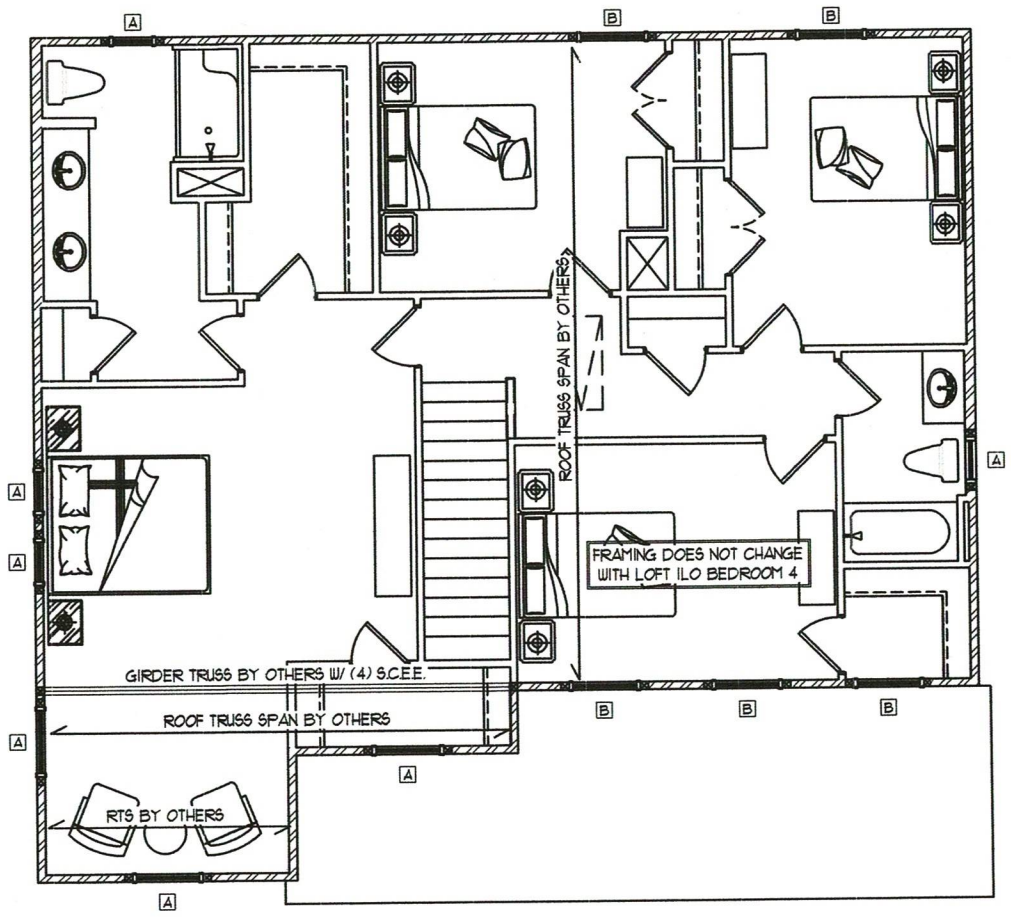
STEEL ANGLES TO HAVE MIN. 4" BEARING ONTO BRICK AT EACH END.

(1) L3x3x1/4"
(2) L5x3"x1/4"
(3) L5x3-1/2x5/16"
(4) L5x3-1/2"x5/16" ROLLED OR EQUAL ARCHED COMPONENT.

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

NOTE: SHADED WALLS INDICATED LOAD BEARING WALLS.

TWO STORY WALL NOTE (BALLOON FRAMING):
2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. W/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.




ELEVATION A

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE MAJEWSKI, AIA COMPLETED/REVISED ON 5/5/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

## STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

## SECOND FLOOR FRAMING PLAN

SCALE: 1/8"=1'


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

PROJECT
Aubrey RH
Second Floor Framing

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

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S4.0

NOTE: 1ST PLY OF ALL SHOWN GIRDER TRUSSES TO ALIGN WITH INSIDE FACE OF WALL (UNO)

NOTE: ROOF TRUSSES SHALL BE SPACED TO SUPPORT FALSE FRAMED DORMER WALLS (UNO)

| MAX. GIRDER TRUSS REACTION (LBS) | | |
|---|---|---|
| NO TBE, SYP #2 TOP PLATE | | |
| # OF PLYS | 2x4 WALL | 2x6 WALL |
| 2 | 5134 | 7013 |
| 3 | 7702 | 10519 |
| 4 | 10269 | 14025 |
| WITH TBE, SYP #2 TOP PLATE | | |
| 2 | 7045 | 8933 |
| 3 | 9622 | 12439 |
| 4 | 12199 | 15945 |

GIRDER TRUSS PLYS SHOWN ARE FOR ILLUSTRATION ONLY. PLEASE REFER TO TRUSS LAYOUT DRAWINGS PROVIDED BY TRUSS MANUF. FOR ACTUAL NUMBER OF PLYS REQ'D.

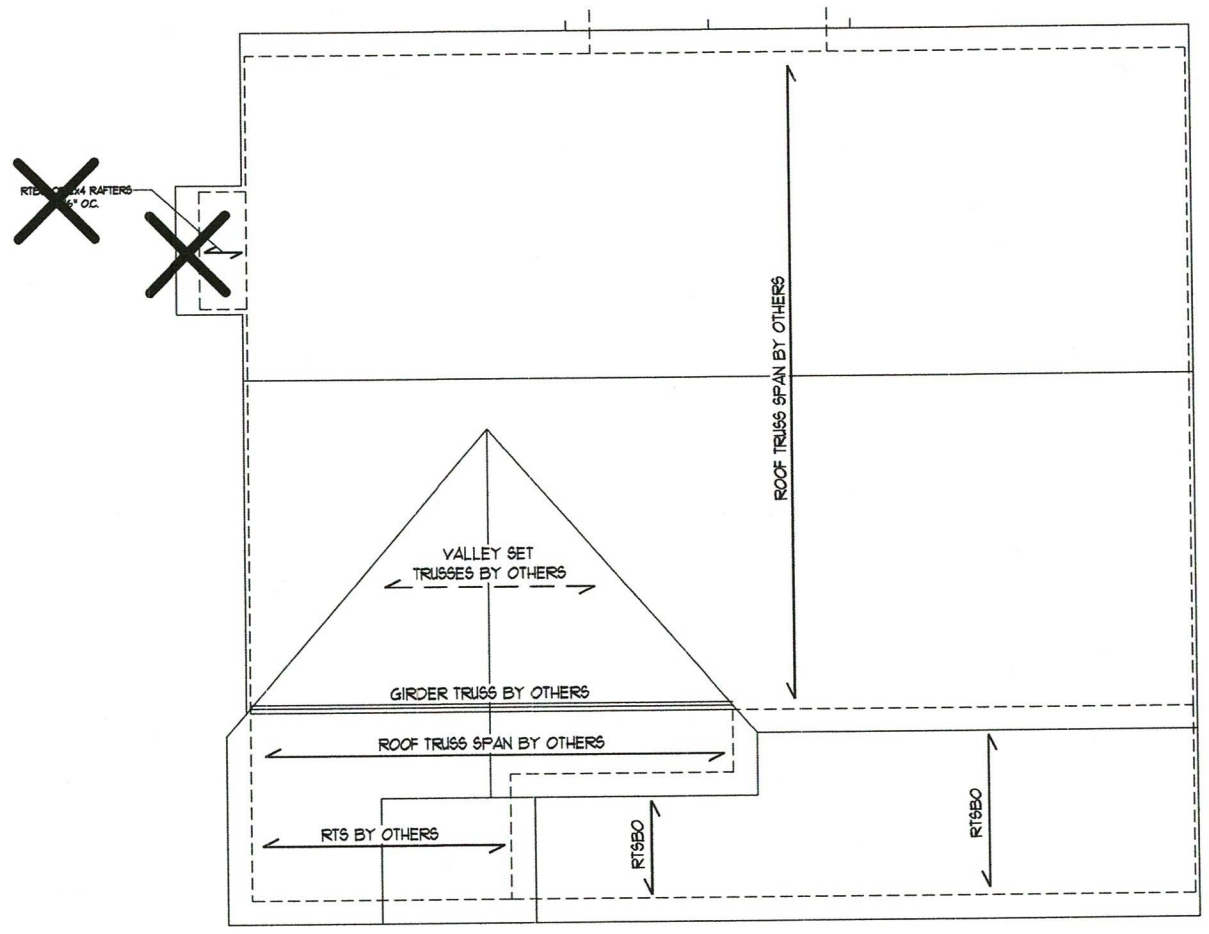
## TRUSS UPLIFT CONNECTOR SCHEDULE

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

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

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.11. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.3 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.

REFER TO DETAIL 5/DSF FOR EYEBROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS. (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)




ELEVATION A

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN

SCALE: 1/8"=1'


6/25/2020

STRUCTURAL MEMBERS ONLY

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OFFICE: 919.380.9991
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WWW.SUMMIT-COMPANIES.COM

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

PROJECT
Aubrey RH
Roof Framing Plan

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S5.0

| REQUIRED BRACED WALL PANEL CONNECTIONS | | | | |
|---|---|---|---|---|
| METHOD | MATERIAL | MIN. THICKNESS | REQUIRED CONNECTION | |
| | | | @ PANEL EDGES | @ INTERMEDIATE SUPPORTS |
| CS-WSP | WOOD STRUCTURAL PANEL | 3/8" | 6d COMMON NAILS @ 6" O.C. | 6d COMMON NAILS @ 12" O.C. |
| GB | GYPSUM BOARD | 1/2" | 5d COOLER NAILS** @ 7" O.C. | 5d COOLER NAILS** @ 7" O.C. |
| WSP | WOOD STRUCTURAL PANEL | 3/8" | 6d COMMON NAILS @ 6" O.C. | 6d COMMON NAILS @ 12" O.C. |
| FF | WOOD STRUCTURAL PANEL | 7/16" | PER FIGURE R602.10.1 | PER FIGURE R602.10.1 |
| **OR EQUIVALENT PER TABLE R702.3.5 | | | | |

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5.

INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

REAR / LEFT / HOUSE / RIGHT / FRONT

| FIRST FLOOR BRACING (FT) | | |
|---|---|---|
| CONTINUOUS SHEATHING METHOD - OPT. CONSERVATORY | | |
| | REQUIRED | PROVIDED |
| FRONT SIDE | 14.6 | 19.6 |
| LEFT SIDE | 12.9 | 27.1 |
| REAR SIDE | 14.6 | 27.4 |
| RIGHT SIDE | 12.9 | 31.1 |

BRACED WALL NOTES:

1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE WITH AMENDED PERMANENT RULES.
2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS OF 130 MPH.
3. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1
4. ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
5. REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
6. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
7. FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETWEEN BRACED WALL PANELS, ABOVE AND BELOW WALL OPENINGS, AND ON GABLE END WALLS.
8. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
10. CORNERS AND BRACED WALL LINE INTERSECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.3(5)
11. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH CORNER OF EACH ELEVATION VIEW OF THE HOUSE OR EACH END OF THE CIRCUMSCRIBED RECTANGLES.
12. THE EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
13. ADEQUATE CONTINUOUS LOAD PATHS FOR TRANSFER OF BRACING LOADS AND UPLIFT LOADS SHALL COMPLY WITH SECTION R602.10.4
14. MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.4.3
15. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4.
16. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5 .
17. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
18. BALLOON FRAMED WALLS SHALL DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.8 WITH A MAXIMUM LENGTH OF 20 FEET.
19. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
20. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
21. ABBREVIATIONS:

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

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY MIKE MAJEWSKI, AIA COMPLETED/REVISED ON 5/5/20. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

## STRUCTURAL MEMBERS ONLY

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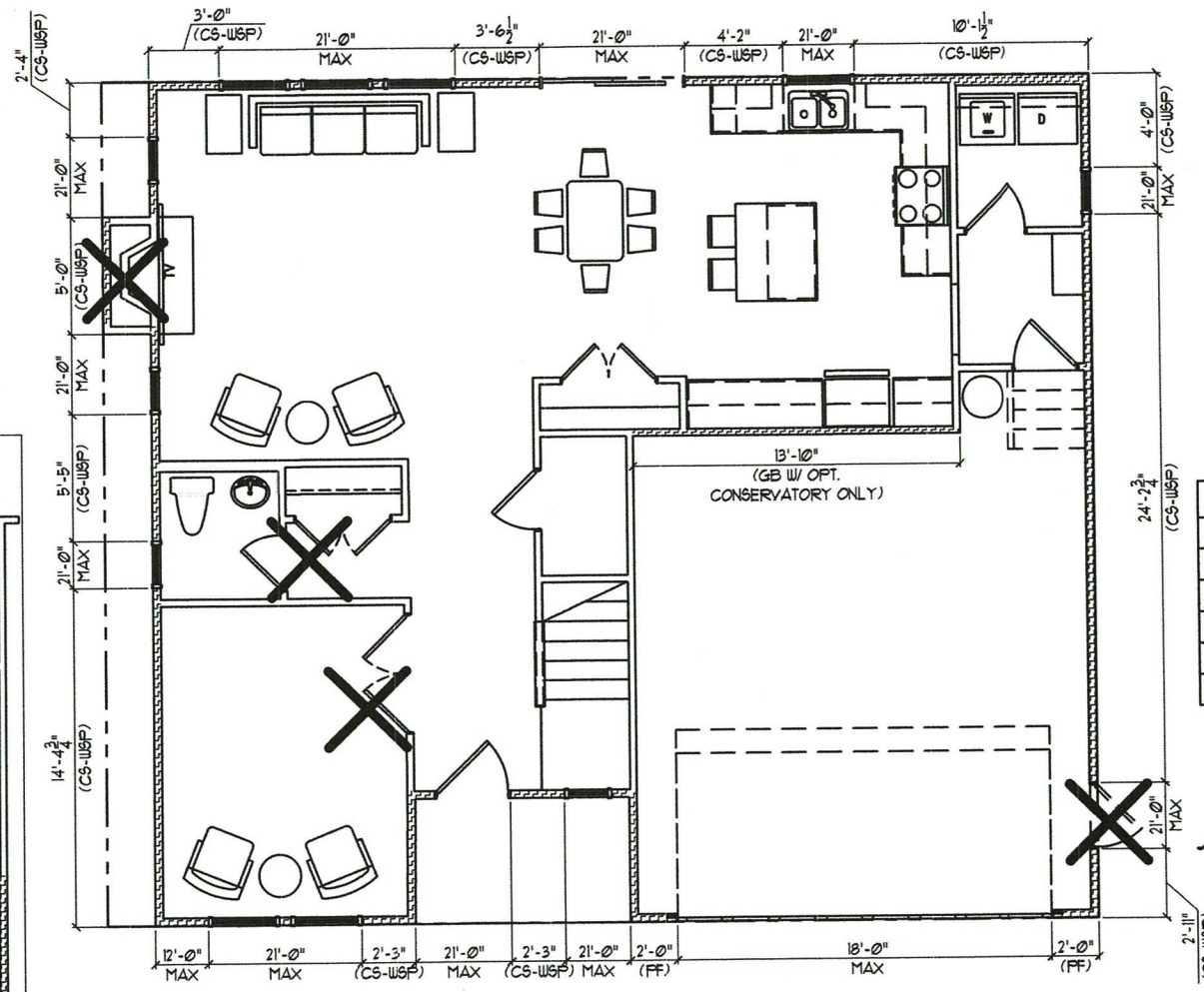
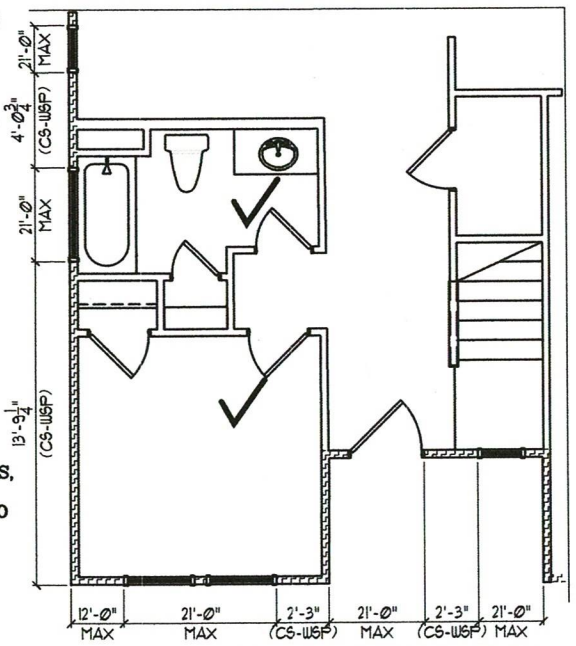
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR BRACING PLAN

SCALE: 1/8"=1'

| FIRST FLOOR BRACING (FT) | | |
|---|---|---|
| CONTINUOUS SHEATHING METHOD - OPT. BEDROOM ILO HOME OFFICE | | |
| | REQUIRED | PROVIDED |
| FRONT SIDE | 11.2 | 12.7 |
| LEFT SIDE | 12.9 | 25.1 |
| REAR SIDE | 11.2 | 20.8 |
| RIGHT SIDE | 12.9 | 31.1 |




OPT. BEDROOM ILO HOME OFFICE

| FIRST FLOOR BRACING (FT) | | |
|---|---|---|
| CONTINUOUS SHEATHING METHOD | | |
| | REQUIRED | PROVIDED |
| FRONT SIDE | 11.2 | 12.7 |
| LEFT SIDE | 12.9 | 27.1 |
| REAR SIDE | 11.2 | 20.8 |
| RIGHT SIDE | 12.9 | 31.1 |

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020

STRUCTURAL MEMBERS ONLY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SUMMIT Engineering, Laboratory & Testing, P.C.
C-4361

PROJECT
Aubrey RH
First Floor Bracing

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

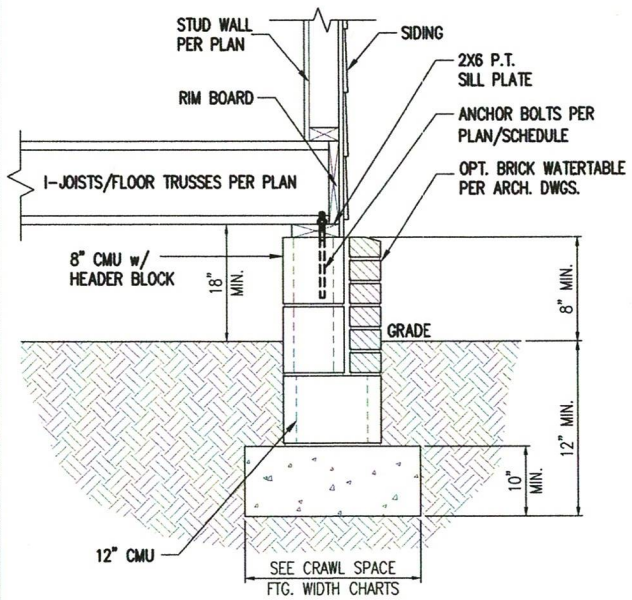
CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

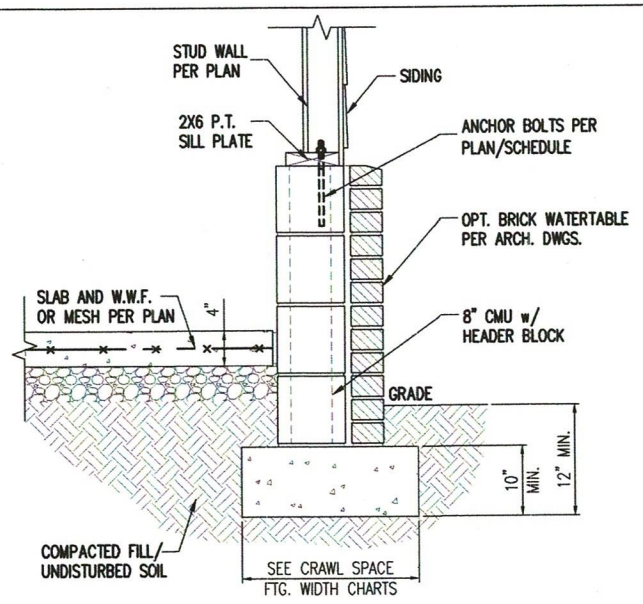
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S7.0



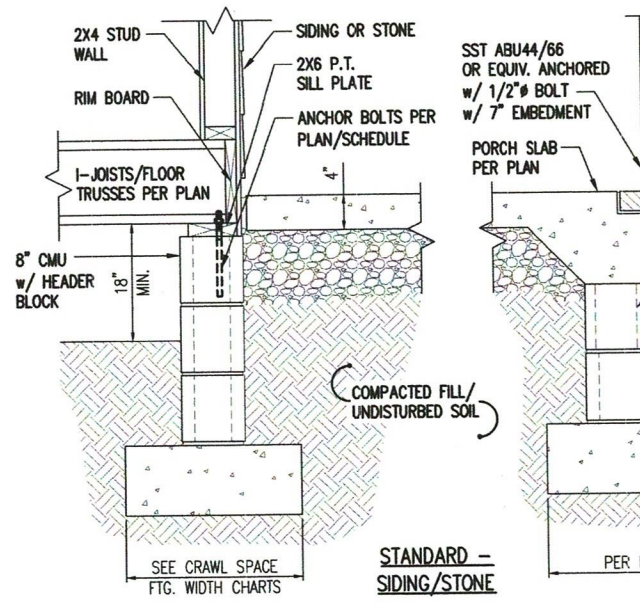

STANDARD - SIDING

## 1 D1c TYP. FOUNDATION WALL DETAIL
N.T.S.

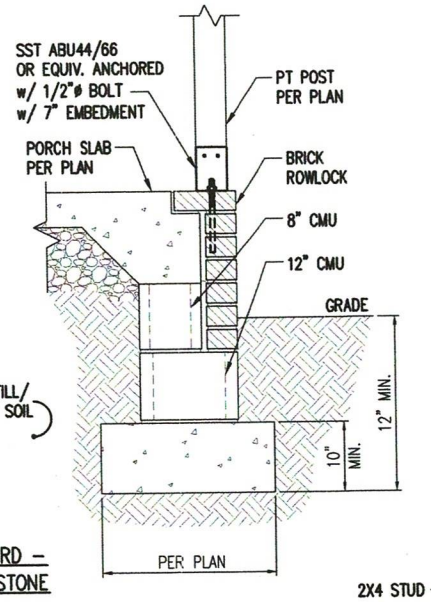



STANDARD - SIDING

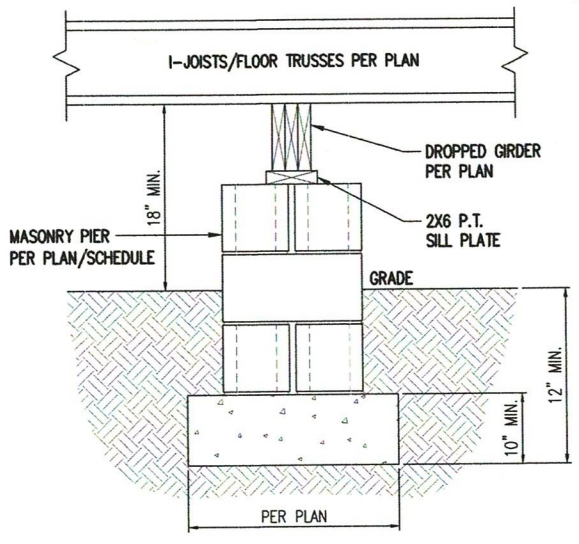
## 2 D1c TYP. GARAGE CURB DETAIL
N.T.S.

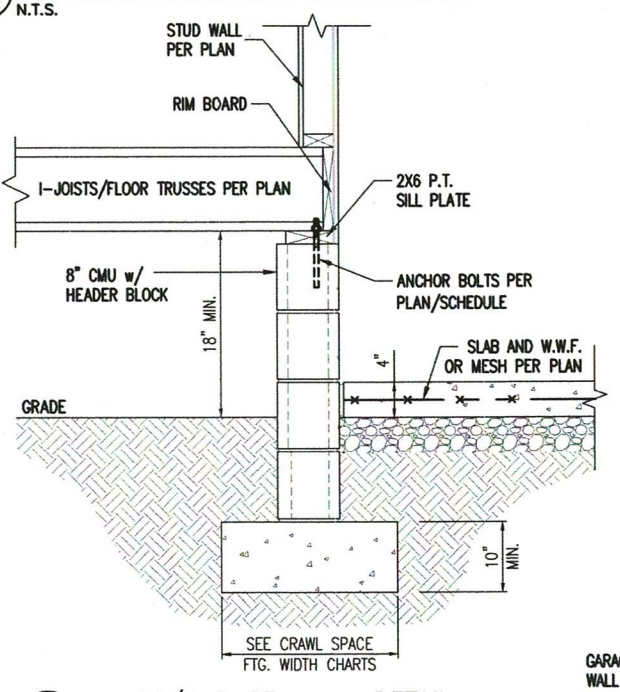



STANDARD - SIDING/STONE



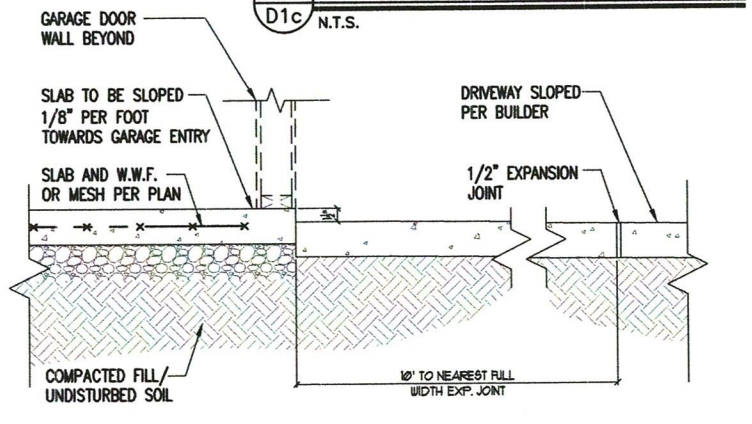

## 6 D1c TYP. FRONT PORCH DETAIL
N.T.S.




## 3 D1c HOUSE/GARAGE WALL DETAIL
N.T.S.

VERTICAL REBAR SHALL BE INSTALLED IN WALLS WITH GREATER THAN 4'-0" OF UNBALANCED FILLED SHALL HAVE VERTICAL REINFORCING BARS. REINFORCEMENT SHALL BE SIZED AND SPACED IN ACCORDANCE WITH TABLE 404.1.1(4) BASED ON SITE CONDITIONS. HORIZONTAL LADDER REINFORCEMENT SHALL BE INSTALLED BETWEEN CMU COURSES AS REQUIRED.




## 4 D1c SLAB AT GARAGE DOOR
N.T.S.

## 5 D1c TYP. PIER & GIRDER DETAIL
N.T.S.

PIER SIZE AND HEIGHT SCHEDULE

| SIZE | HOLLOW | SOLID |
|---|---|---|
| 8"X16" | UP TO 32" HEIGHT | UP TO 5'-0" HEIGHT |
| 12"X16" | UP TO 48" HEIGHT | UP TO 9'-0" HEIGHT |
| 16"X16" | UP TO 64" HEIGHT | UP TO 12'-0" HEIGHT* |
| 24"X24" | UP TO 96" HEIGHT | UP TO 12'-0" HEIGHT* |
| *(4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C. AND 24" MIN. LAP JOINTS | | |

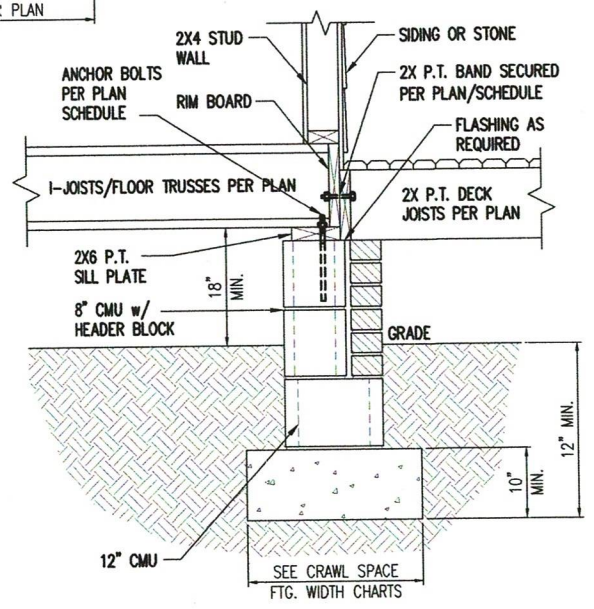
CRAWL SPACE FOOTING WIDTH

| # OF STORIES | WIDTH BASED ON SOIL BEARING CAPACITY | | |
|---|---|---|---|
| | 1500 PSF | 2000 PSF | 2500 PSF |
| 1 STORY - STD. | 16" | 16" | 16" |
| 1 STORY - BRICK VENEER | 21"* | 21"* | 21"* |
| 2 STORY - STD. | 16" | 16" | 16" |
| 2 STORY - BRICK VENEER | 21"* | 21"* | 21"* |
| 3 STORY - STD. | 23" | 18" | 18" |
| 3 STORY - BRICK VENEER | 32"* | 24"* | 24"* |
| *5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE FOOTING WIDTH FOR BRICK SUPPORT | | | |

WALL ANCHOR SCHEDULE

| TYPE OF ANCHOR | MIN. CONC. EMBEDMENT | SPACING EMBEDMENT | INTERIOR WALL | EXTERIOR WALL |
|---|---|---|---|---|
| 1/2"ø A307 BOLTS w/ STD. 90° BEND | 7" | 6'-0" | YES | YES |
| 1/2"ø THREADED ROD w/ w/ SST SET-XP EPOXY | 7" | 6'-0" | YES | YES |
| 1/2"ø SST TITEN HD | 4-1/2" | 4'-8" | YES | YES |

NOTE:
1) INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.
2) EQUIVALENT ANCHORS MAY BE USED. SIZE & SPACING PER MANUF. SPECS.




STANDARD - SIDING/STONE

## 4 D1c DECK ATTACHMENT DETAIL
N.T.S.

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SUMMIT Engineering, Laboratory & Testing, P.C.
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# Crawl Space Foundation Details

PROJECT
Aubrey RH

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

CURRENT DRAWING
DATE: 6/24/2020
SCALE: 1/8"=1'-0"
PROJECT #: 2672-12R:28266
DRAWN BY: LBV
CHECKED BY: LAG

ORIGINAL INFORMATION

| PROJECT # | DATE |
|---|---|
| 28266 | 6/23/20 |

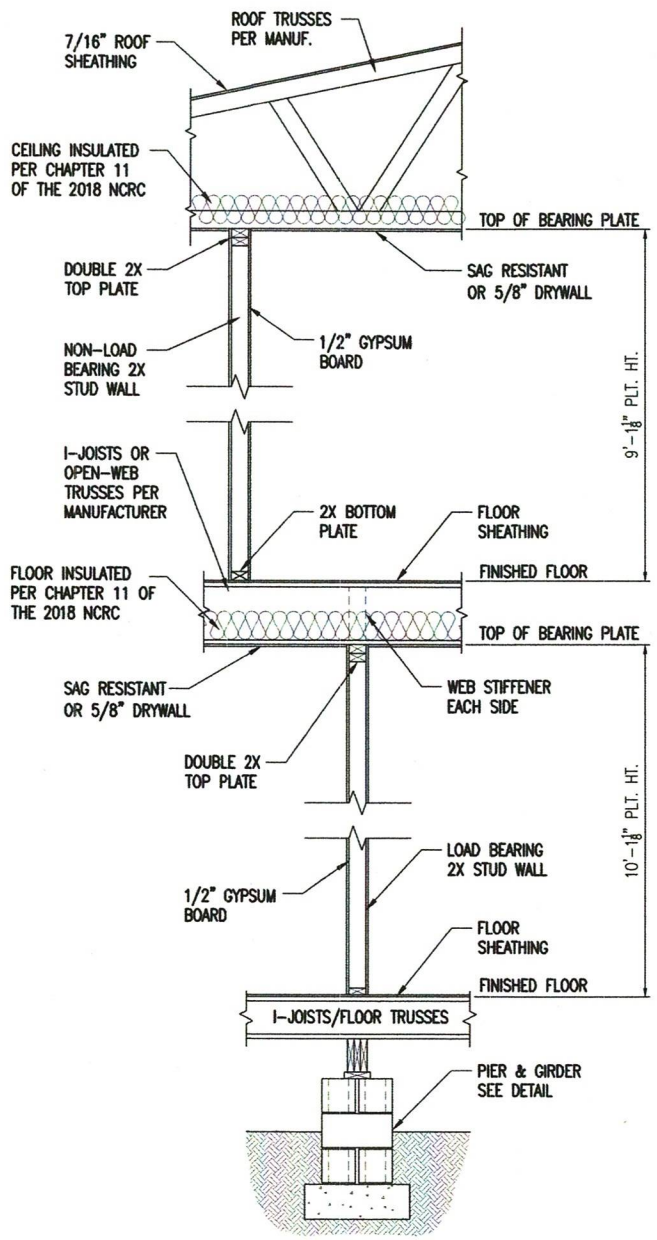
REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

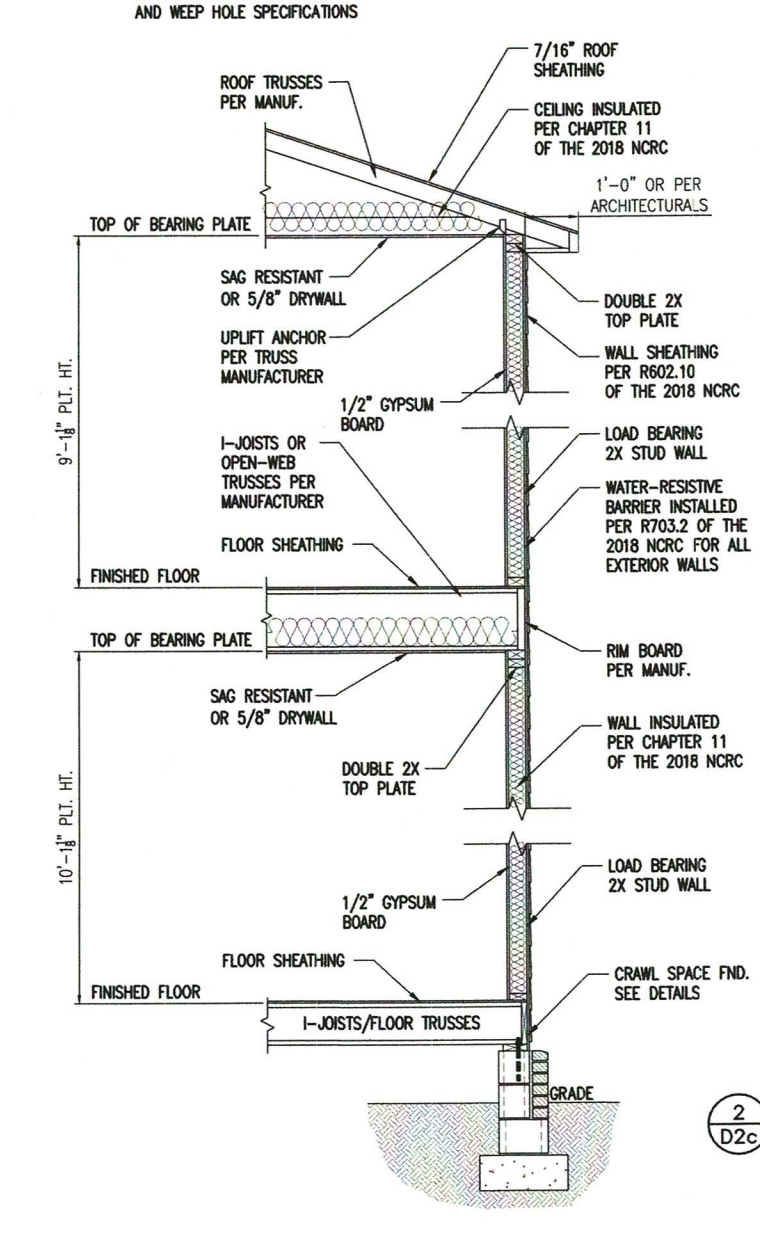
NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020
STRUCTURAL MEMBERS ONLY

SHEET
D1c

## 1 / D2c TYP. INTERIOR LOAD BEARING WALL SECTION

3/4" = 1'-0"

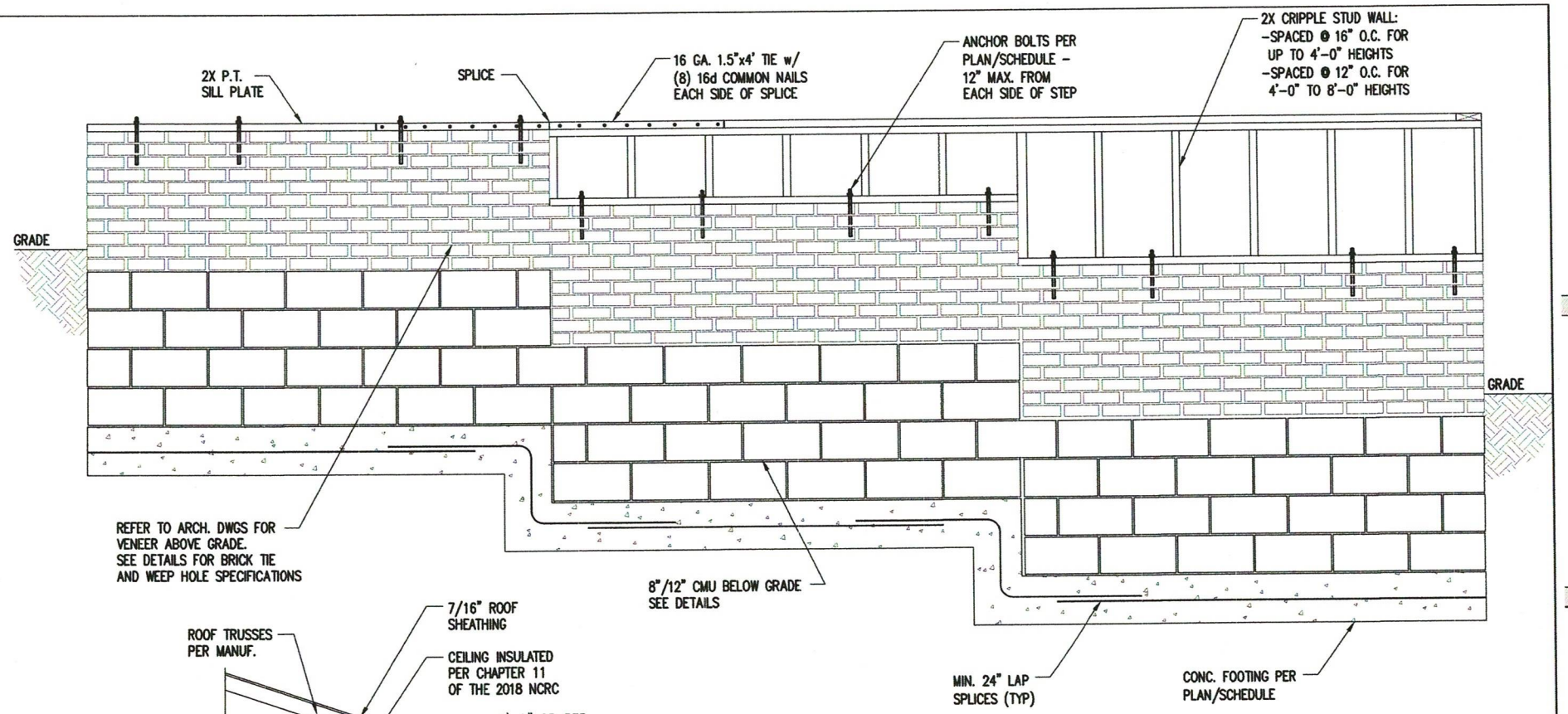



## 2 / D2c TYP. EXTERIOR LOAD BEARING WALL SECTION

3/4" = 1'-0"

-SIMILAR w/ BRICK AND STONE
-BRICK TIES SPACED @ 24" O.C. HORIZ. & 16" O.C. VERT.
-MIN. 3/16"ø WEEP HOLES @ 33" O.C.




## 3 / D2c TYP. STEPPED FOUNDATION WALL DETAIL

N.T.S.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PROJECT
Aubrey RH
Crawl Space Foundation Details

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John Dove
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Raleigh, NC 27606

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SHEET
D2c

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6/25/2020
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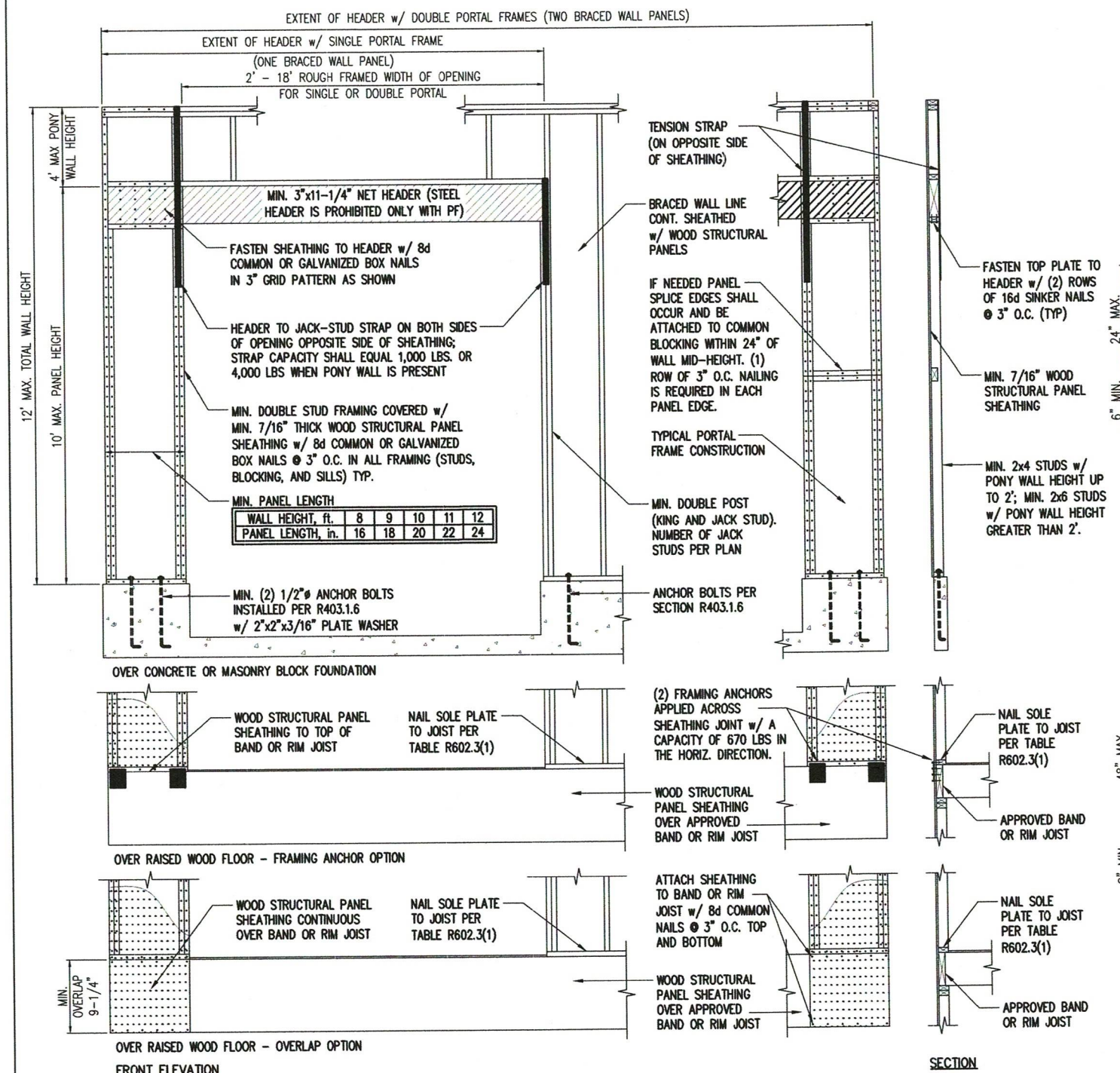
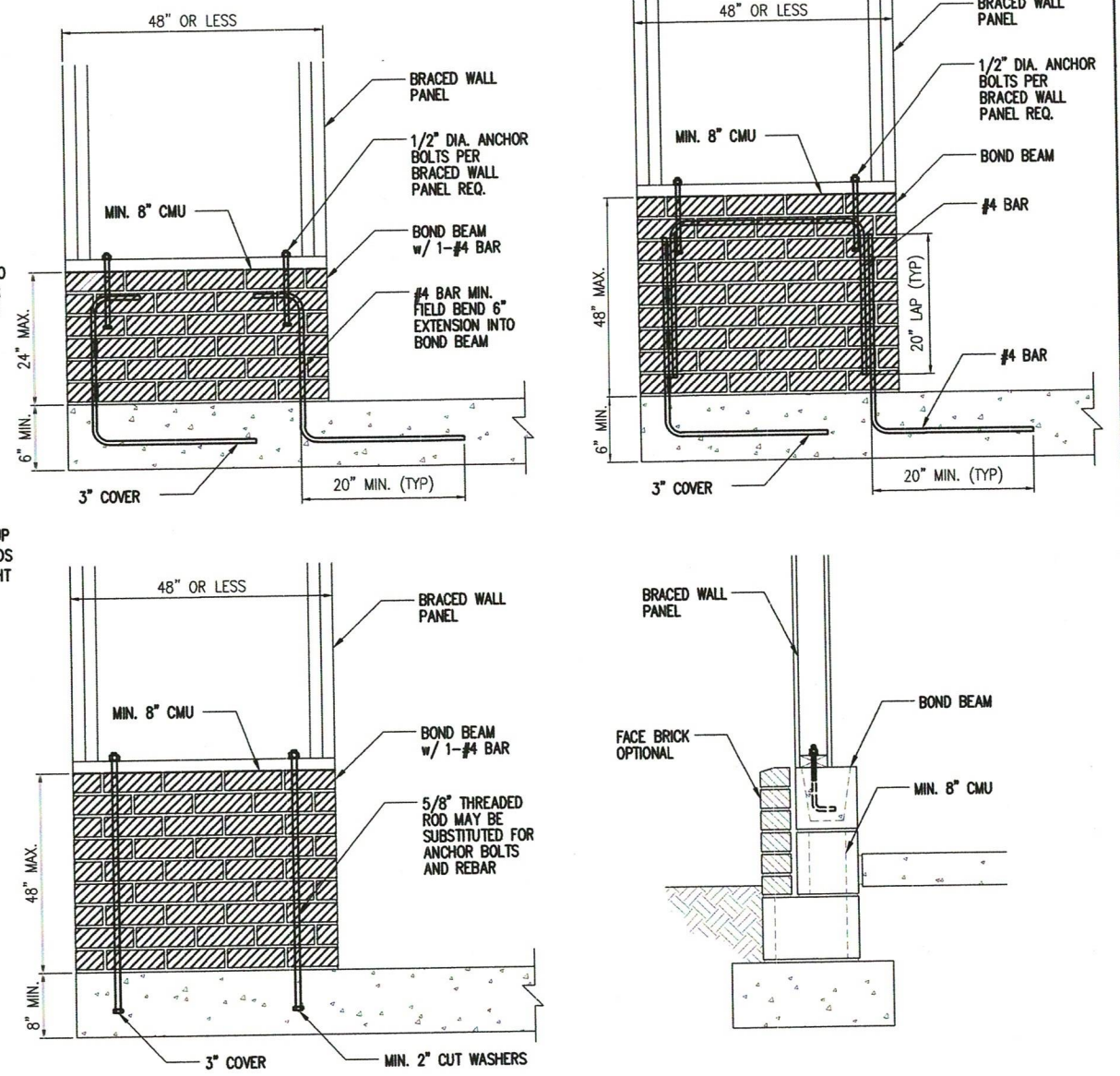



1 / D1f METHOD PF: PORTAL FRAME DETAIL
3/8" = 1'-0"




2 / D2f MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS
NTS

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

NORTH CAROLINA PROFESSIONAL SEAL 046048 ENGINEER BRIAN C. PHILBRICK, JR.
6/25/2020

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PROJECT
Aubrey RH
Framing Details

CLIENT
John Dove
2516 Brook Crossing Circle
Raleigh, NC 27606

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D1f