

Wellers Knoll Lot 76

WILLOW ELEVATION - B



FRONT DOOR
STYLE PER
PURCHASE
ORDER

INCLUDED OPTIONS:

1st FLOOR
DECK (standard)
OPEN RAIL
GUEST SUITE ILO STUDY

2nd FLOOR
OWNERS SPA SHOWER
2ND SINK @ BATH 2

| BASE HOUSE SQUARE FOOTAGE CALCULATIONS | | | | | | TOTAL UNDER ROOF |
|--|------------|------------|------------|-------------|----------|------------------|
| ELEVATIONS | 1st FLOOR | 2nd FLOOR | TOTAL FIN. | FRONT PORCH | GARAGE | ROOF |
| ELEV. B | 1,053 s.f. | 1,287 s.f. | 2,340 s.f. | 159 s.f. | 466 s.f. | 2,965 s.f. |
| OPTIONS SQUARE FOOTAGE CALCULATIONS | | | | | | |
| OPTIONS: | | | | | | 1st FLOOR |
| GUEST SUITE | | | | | | +80 s.f. |

GENERAL NOTES:

SITE CONSTRUCTION:

- SOIL BEARING CALCULATIONS BASED ON 2000 PSF MIN. REFER TO THE FOUNDATION/FOOTING SCHEDULE.
- BACK FILL SHALL BE FREE FROM VEGETATION AND CONSTRUCTION DEBRIS.
- BACK FILL SHALL BE PLACED IN LIFTS AND COMPACTED IN SUCH A MANNER AS TO NOT DAMAGE THE FOUNDATION WALLS OR ANY WATERPROOFING/ DAMP PROOFING MATERIALS.

FRAMING:

- ALL DIMENSIONS ARE FROM FACE OF STUD TO FACE OF STUD. ALL STUDS ARE 3 1/2" UNLESS NOTED. ALL DIMENSIONS PRESENTED HERE ARE FRAME DIMENSIONS ONLY.
- PROVIDE 1x BLOCKING UNDER ALL EXTERIOR SLIDING DOORS.
- JOIST HANGERS, WHERE REQUIRED, SHALL BE USED WITHOUT ANGLES.
- INSTALL FIRE STOPPING AND/ OR DRAFT STOPPING AS REQUIRED.
- PROVIDE CUTTING, NOTCHING, NAILING REQUIREMENTS PER 2009-IRC SECTIONS R502.8 R602, R802.7.

THERMAL & MOISTURE PROTECTION:

- INSTALL FIRE STOPPING AND/ OR DRAFT STOPPING AS REQUIRED.
- ATTIC VENTILATION SHALL BE PROVIDED AT 1/150th OF THE AREA OF THE SPACE VENTILATED. CROSS VENTILATION WITH HALF OF THE VENTILATED AREA SHALL BE PROVIDED BY RIDGE OR GABLE VENTS AND THE OTHER HALF BY EAVE OR CORNICE VENTS. VENTS SHALL BE PLACED SO AS TO NOT ALLOW INFILTRATION OF RAIN OR SNOW.
- PROVIDE APPROVED TILE BACKER BOARD FOR ALL SHOWER AND BATH SPACE.
- PROVIDE ICE-SHIELD PER CODE.
- ROOF VENTING TO BE PROVIDED AS SHOWN. SOFFIT, RIDGE, AND OTHER ROOF VENTS TO BE INSTALLED AS NOTED ON THE DRAWINGS & AS PER MANUFACTURERS RECOMMENDATIONS.

DOORS & WINDOW:

- WINDOW CALL OUT PER PLAN. VERIFY WINDOW MANUFACTURER WITH PROJECT MANAGER.
- REVIEW ALL WINDOW HEADER HEIGHTS PER PLATE HT. AND VERIFY W/ ELEVATIONS AND CORNICE DETAILS.
- TEMPERED GLASS SHALL BE USED IN ALL HAZARDOUS AREAS.
- FRONT DOOR WIDTH AS REQUIRED BY CODE.
- GARAGE DOOR AS REQUIRED BY CODE.
- EMERGENCY - SLEEPING ROOMS SHALL HAVE AT LEAST ONE EGRESS OPENING OF NOT LESS THAN 5.7 SF AND A CLEAR OPENING OF NOT LESS THAN 20" WIDE X 24" HIGH AND SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR.

INSULATION:

EXTERIOR WALLS ZONE 3:
R-13 BATTS MINIMUM. VERIFY

CEILING WITH ATTIC ABOVE COMPRESSED INSULATION:
R-38 BATTS MINIMUM. VERIFY

CEILING WITH ATTIC ABOVE UNCOMPRESSED INSULATION (HEELS IN TRUSSES):
R-30 BATTS MINIMUM. VERIFY

FLOOR OVER GARAGE:
R-19 BATTS MINIMUM. VERIFY

ATTIC KNEEWALL:
R-19 BATTS MINIMUM. VERIFY

- THE ATTACHED PLANS & SPECIFICATIONS ARE THE SOLE PROPERTY OF DAVIDSON HOMES. ANY UNAUTHORIZED USE OF THESE PLANS WITHOUT PRIOR WRITTEN CONSENT OF DAVIDSON HOMES IS STRICTLY PROHIBITED.
- MAIN STREET DESIGNS OF GEORGIA, LLC DESIGNS HOUSING AS SET FORTH BY THE FORMAT AND PROVISIONS OF THE INTERNATIONAL RESIDENTIAL CODE (IRC), AND THE NATIONAL ELECTRIC CODE (NEC).
- THESE PLANS ARE SUBJECT TO MODIFICATIONS TO MEET CODE REQUIREMENTS AND/OR TO FACILITATE MECHANICAL/ ELECTRICAL/ PLUMBING INSTALLATION AND/ OR TO IMPLEMENT DESIGN IMPROVEMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AFFECTING CONTRACTOR'S PRODUCTS, INSTALLATIONS, OR FABRICATIONS IN THE FIELD PRIOR TO EXPEDITING THE CONSTRUCTION OF SUCH WORK. FIELD VERIFY ALL DIMENSIONS - DO NOT SCALE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR SURVEYING THE PROJECT AND BECOMING FAMILIAR WITH THE EXISTING CONDITIONS AND SCOPE OF WORK INCLUDING BUT NOT LIMITED TO SITE AND SOIL BEARING CONDITIONS.
- ERRORS AND OMISSIONS WHICH MAY OCCUR IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF MAIN STREET DESIGNS OF GEORGIA, LLC IN WRITING, AND WRITTEN INSTRUCTION SHALL BE OBTAINED PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY ERRORS, DISCREPANCIES, OR OMISSIONS FOR WHICH THE CONTRACTOR FAILED TO NOTIFY MAIN STREET DESIGNS OF GEORGIA, LLC PRIOR TO CONSTRUCTION AND/ OR FABRICATION OF THE WORK.
- FLAME SPREAD AND SMOKE DENSITY NOTES:

WALLS AND CEILING:

WALL AND CEILING FINISHES SHALL HAVE A FLAME - SPREAD CLASSIFICATION OF NOT GREATER THAN 200. WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450.

INSULATION:

IF BATT OR BLANKET INSULATION, INCLUDING FACINGS SUCH AS VAPOR RETARDERS OR OTHER VAPOR PERMEABLE MEMBRANES ARE LEFT EXPOSED (IN AREAS LIKE UNFINISHED BASEMENTS), THE MATERIAL SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPMENT RATING OF 450 OR LESS. FLAME-SPREAD AND SMOKE-DEVELOPMENT LIMITATIONS DO NOT APPLY TO FACINGS THAT IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR, OR WALL FINISH.

EXCEPT WHERE OTHERWISE NOTED IN SECTION R314.2, ALL FOAM PLASTIC OR FOAM PLASTIC CORES IN MANUFACTURED ASSEMBLIES USED IN BUILDING CONSTRUCTION SHALL HAVE A FLAME-SPREAD RATING OF NOT MORE THAN 75 AND SHALL HAVE A SMOKE-DEVELOPMENT RATING OF NOT MORE THAN 450 WHEN TESTED IN THE MAXIMUM THICKNESS INTENDED FOR USE IN ACCORDANCE WITH ASTM E 84.

R314.1.2 THERMAL BARRIER. FOAM PLASTIC, EXCEPT WHERE OTHERWISE NOTED, SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY MINIMUM 1/2-INCH (12.7 MM) GYPSUM BOARD OR AN APPROVED FINISH MATERIAL EQUIVALENT TO A THERMAL BARRIER TO LIMIT THE AVERAGE TEMPERATURE RISE OF THE UNEXPOSED SURFACE TO NO MORE THAN 250°F(121°C) AFTER 15MINUTES OF FIRE EXPOSURE TO THE ASTM E 119 STANDARD TIME TEMPERATURE CURVE. THE GYPSUM BOARD SHALL BE INSTALLED USING A MECHANICAL FASTENING SYSTEM IN ACCORDANCE WITH SECTIOR702.3.5. RELIANCE ON ADHESIVES TO ENSURE THAT THE GYPSUM BOARD WILL REMAIN IN PLACE WHEN EXPOSED TO FIRE SHALL BE PROHIBITED.

BUILDING CODE ANALYSIS

| | |
|---|---|
| APPLICABLE CODES | 2018 NCRC/ 2018 IBC |
| USER GROUP: | SINGLE FAMILY |
| CONSTRUCTION CLASS: | UNPROTECTED |
| HEIGHT LIMITATION: | N/A |
| EMERGENCY ESCAPE: | EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOM SHALL HAVE A MINIMUM OF 5.7 SQ. FT. |
| GARAGE / HOUSE CEILING/ HOUSE ASSEMBLY: | 1/2" GYPSUM BD. WALL & 5/8"TYPE "X" GYPSUM BD. CEILING W/ 20 MINUTE GARAGE/HOUSE DOOR |

| | |
|--------------|--|
| DESIGN LOAD: | LIVE LOAD: |
| | SLEEPING = 30 PSF |
| | NON-SLEEPING = 40 PSF |
| | DECKS = 40 PSF |
| | DEAD LOAD = 10 PSF |
| | BASIC WIND SPEED = 115 MPH |
| | EXPOSURE B (CHARLOTTE) |
| | STAIR LOAD = 40 PSF |
| | ROOF LIVE LOAD = 20 PSF |
| | LATERAL SOIL PRESSURE = 30 PCF (ASSUMED) |

NOTE: VERIFY ALL APPLICABLE BUILDING CODES WITH STATE AND LOCAL JURISDICTION PRIOR TO CONSTRUCTION

| CRAWL VENTING | |
|---|----|
| 1053 SQ FT OF FOUNDATION TO BE VENTED | |
| 150 SQ FT / 1 SQ FT = 7.02 SQ FT VENTILATION | |
| VENTS 128 SQ IN = (0.8889 SQ FT) | |
| CRAWL VENT | |
| 7.020 SQ FT = 25.3 VENTS REQUIRED | |
| 0.2778 SQ FT | |
| ACTUAL CRAWL VENTS PROVIDED | 26 |
| NOTE: WHERE AN APPROVED VAPER BARRIER IS INSTALLED OVER GROUND SURFACE THE REQUIRED VENTILATION MAY BE REDUCED BY 50% | |

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1/8" = 1'-0"

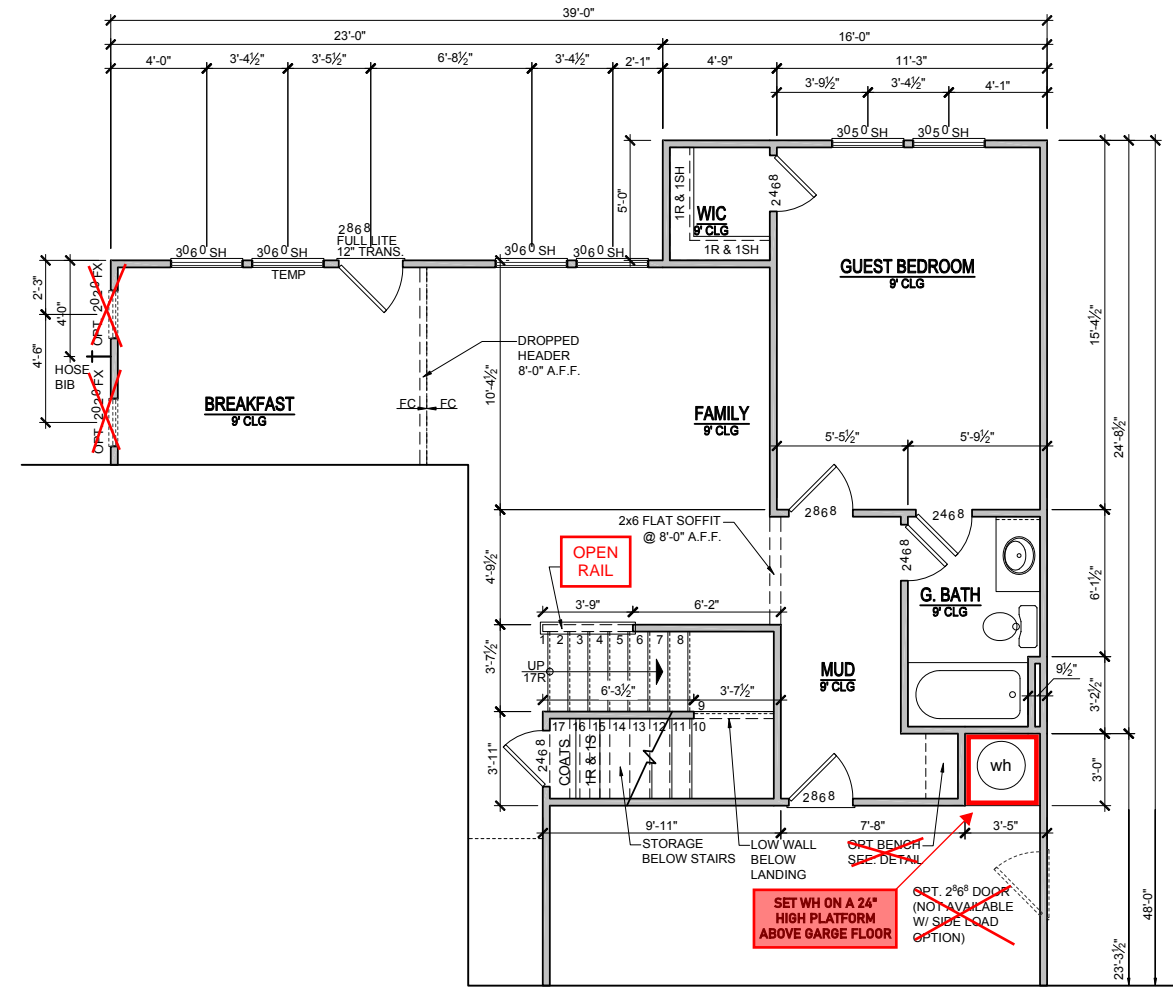
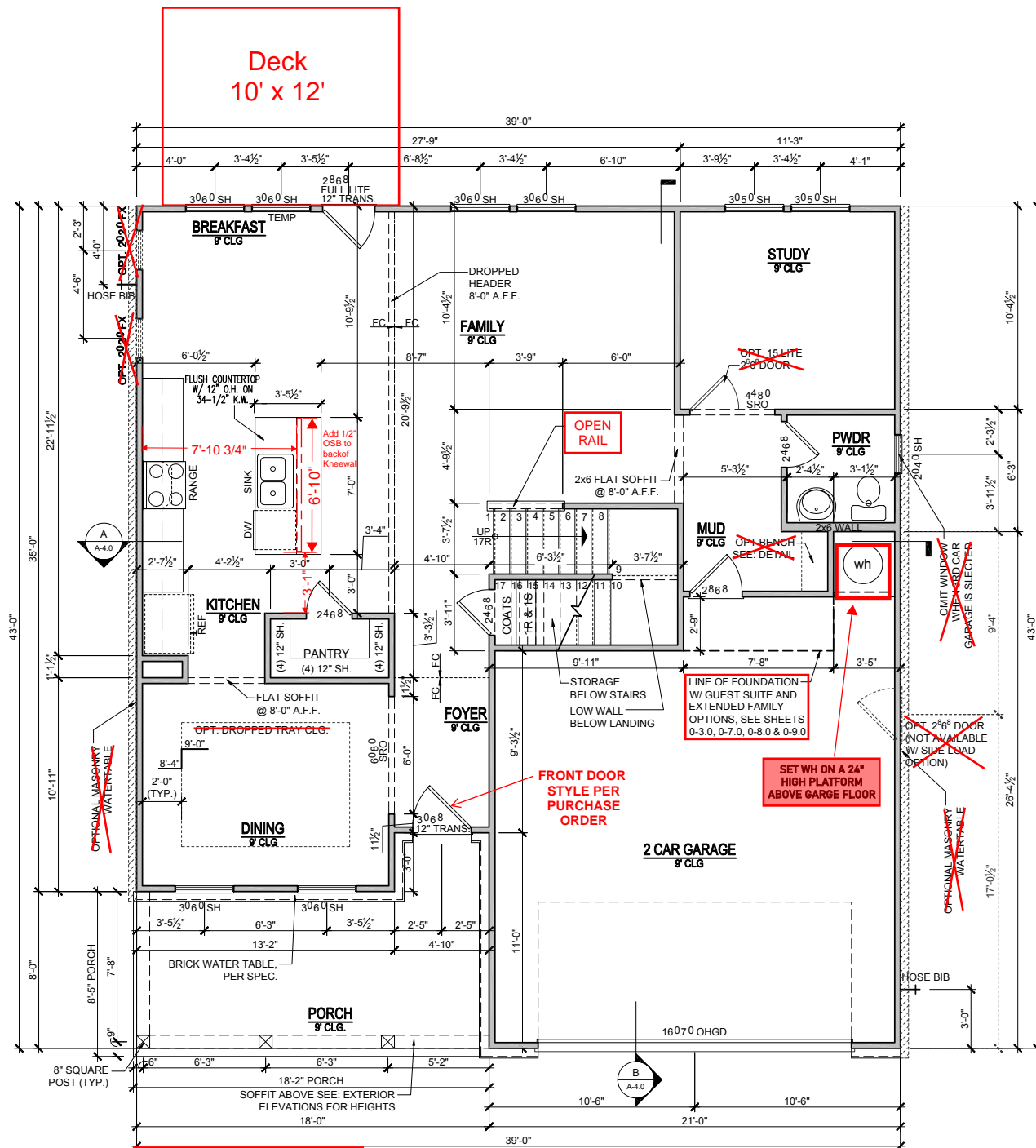
| | |
|----------------|------------|
| RELEASE DATE | 08-21-2019 |
| PROJECT NUMBER | --- |
| OPTION NO. | --- |

| | |
|--------------------|-------------|
| MODEL | WILLOW |
| DRAWING TITLE | COVER SHEET |
| OPTION DESCRIPTION | |

SHEET NO.
CS-1.0

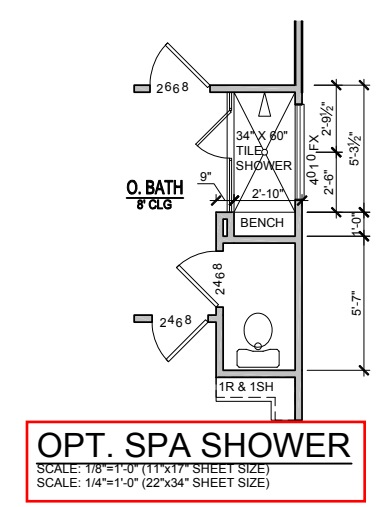
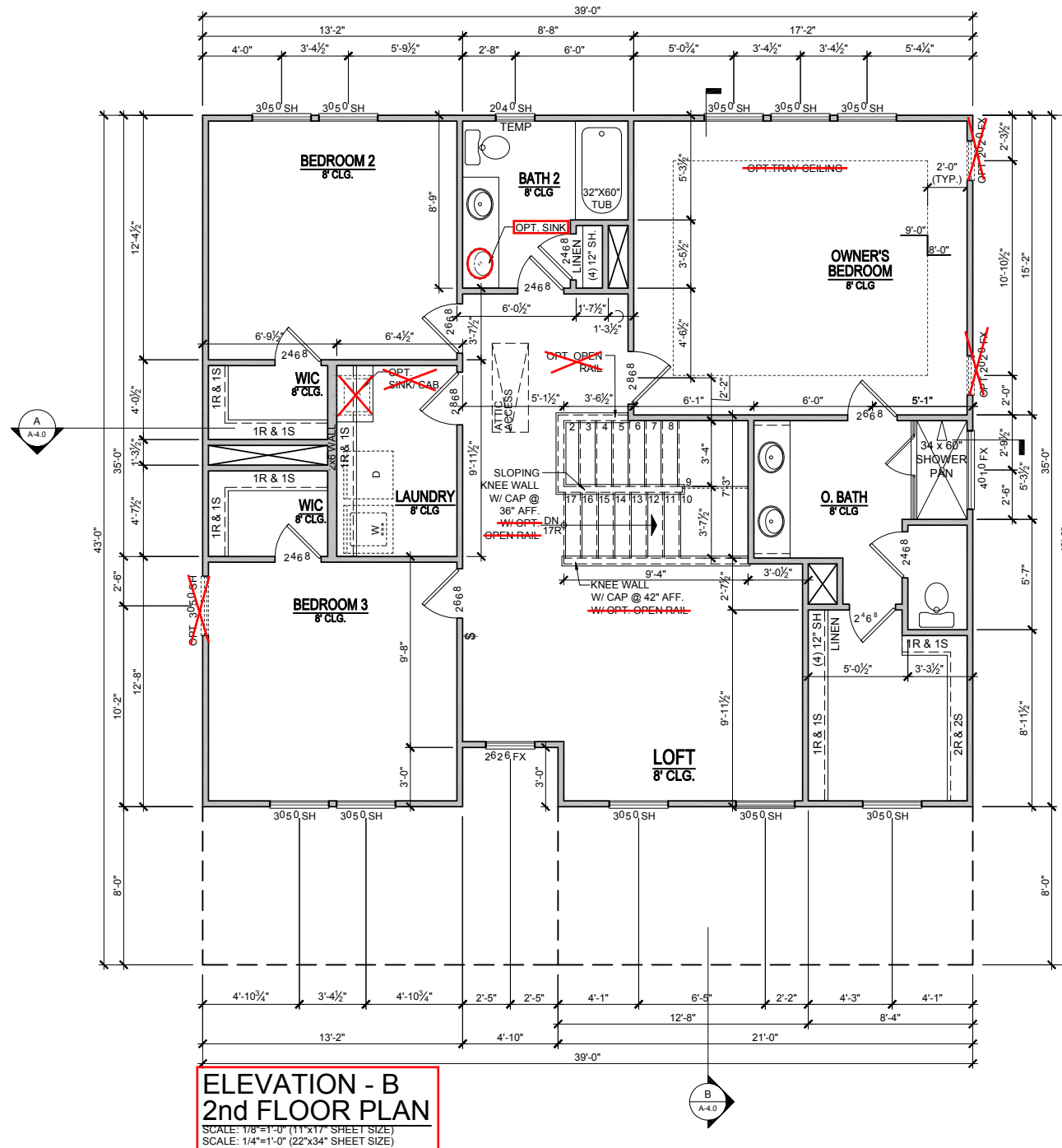
| | |
|-----------------|-----------------------------------|
| REVISION NUMBER | |
| 03/05/2020 | ADDED BASEMENT FOUNDATIONS |
| 7/1/2020 | UPDATED SHOWER OPTIONS |
| 10/23/2020 | ADDED GAR SVR DR & OPT EXT FAMILY |
| 11/6/2020 | ADD OPT PORCHS TO OPT EXT FAMILY |
| 3/30/2021 | REVISION TO WH & GARAGE DOORS |
| 02/24/2022 | FIX WINDOW SIZE TO 2626 FX ON D |

Wellers Knoll Lot 76



| | | | |
|---|--|-------------------------|---------------------|
| WILLOW MODEL WILLOW DRAWING TITLE FIRST FLOOR PLAN OPTION DESCRIPTION ELEVATION - B | RELEASE DATE 08-21-2019 | PROJECT NUMBER ----- | OPTION NO. ----- |
| | 1/8" = 1'-0" | | |
| | REVISION NUMBER 03/05/2020 ADDED BASEMENT FOUNDATIONS 7/1/2020 UPDATED SHOWER OPTIONS 10/23/2020 ADDED GAR SVR DR & OPT EXT FAMILY 11/6/2020 ADD OPT PORCHS TO OPT EXT FAMILY 3/30/2021 REVISION TO WH & GARAGE DOORS 02/24/2022 FIX WINDOW SIZE TO 2626 FX ON D | | |
| | | | |
| | MAIN STREET DESIGN Main Street Designs of Georgia, LLC www.MainStreetDesigns.com 3650 Royal Blvd. South, Suite 135 Alpharetta, GA 30022 O. (404) 996-5722 | | |
| SHEET NO. A-1.0B | | | |

Wellers Knoll Lot 76



| REVISION NUMBER | DESCRIPTION |
|-----------------|-----------------------------------|
| 03/05/2020 | ADDED BASEMENT FOUNDATIONS |
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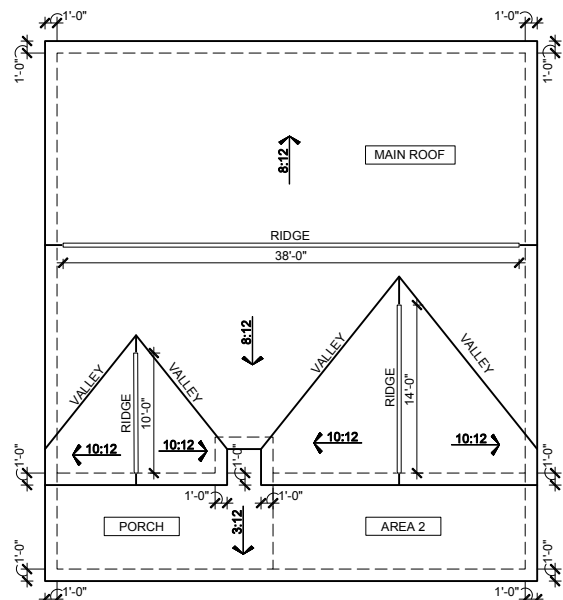
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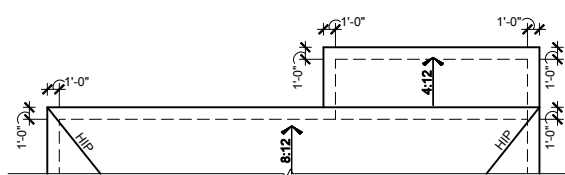
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| 1/8"=1'-0" |
| RELEASE DATE 08-21-2019 |
| PROJECT NUMBER ----- |
| OPTION NO. ----- |
| MODEL WILLOW |
| DRAWING TITLE SECOND FLOOR PLAN |
| OPTION DESCRIPTION ELEVATION - B |

SHEET NO.
A-2.0B

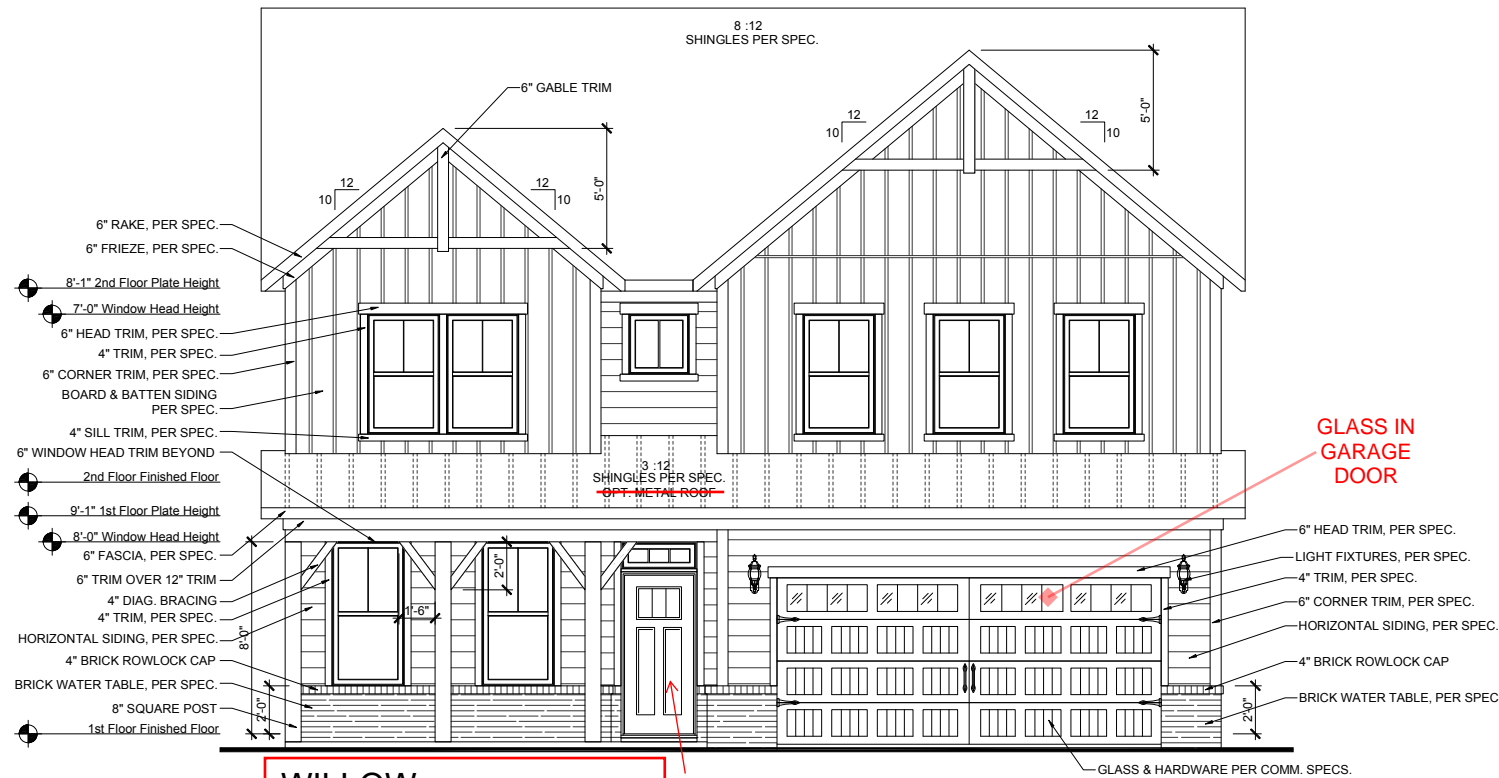
Wellers Knoll Lot 76



**WILLOW
ELEVATION -B- ROOF PLAN**
SCALE: 1/16"=1'-0" (11"X17" SHEET SIZE)
SCALE: 1/8"=1'-0" (22"X34" SHEET SIZE)



**OPT. GUEST SUITE
ROOF PLAN**
SCALE: 1/16"=1'-0" (11"X17" SHEET SIZE)
SCALE: 1/8"=1'-0" (22"X34" SHEET SIZE)



**WILLOW
FRONT ELEVATION - 'B'**
SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)

**FRONT DOOR
STYLE PER
PURCHASE
ORDER**

**GLASS IN
GARAGE
DOOR**



**OPT. GUEST SUITE
REAR ELEVATION**
SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)

BRICK FOUNDATION
PER. COMM. SPECS.

ATTIC VENT CALCULATIONS

- NOTES:**
- GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMUM CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BUILDING OFFICIAL.
 - ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC REQUIREMENTS.
 - PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.
 - ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.
 - DASHED LINES INDICATE WALL BELOW.
 - LOCATE GUTTER AND DOWNSPOUTS PER BUILDER.
 - PITCHED ROOFS AS NOTED.
 - TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAWINGS TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.
 - ALL PLUMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE

| MAIN ROOF AREA 1 | |
|--|--|
| 1350 SQ FT UNDER ROOF ATTIC | 300 SQ FT / 1 SQ FT = 4.50 SQ FT VENTILATION |
| RIDGE VENTS 18 SQ IN = (.125 SQ FT) | SOFFIT VENTS 9 SQ IN = (.0625 SQ FT) |
| BOX VENTS 50 SQ IN = (.347 SQ FT) | |
| 4.50 SQ FT x 50% = 2.250 SQ FT OF RIDGE | 2.250 SQ FT OF SOFFIT |
| 4.50 SQ FT x 50% = 2.250 SQ FT OF SOFFIT | |
| RIDGE VENT | 2.250 SQ FT = 18.0 FEET OF RIDGE VENT |
| SOFFIT VENT | 0.125 SQ FT |
| SOFFIT VENT | 2.250 SQ FT = 36.0 FEET OF SOFFIT VENT |
| 0.0625 SQ FT | |
| ACTUAL RIDGE VENT PROVIDED | 62 FEET |
| ACTUAL SOFFIT VENT PROVIDED | 50 FEET |
| NUMBER OF BOX VENTS NEEDED | -15.3 COUNT (NEGATIVE = 0) |
| (REQ - ACTUAL x .347) | |
| AREA 2 | |
| 168 SQ FT UNDER ROOF | 150 SQ FT / 1 SQ FT = 1.12 SQ FT VENTILATION |
| SOFFIT VENTS 9 SQ IN = (.0625 SQ FT) | ASSUME 100% VENTING @ SOFFIT |
| SOFFIT VENT | 1.120 SQ FT = 17.9 FEET OF SOFFIT VENT |
| 0.0625 SQ FT | |
| ACTUAL SOFFIT VENT PROVIDED | 22 FEET |
| PORCH ROOF | |
| 159 SQ FT UNDER ROOF | 150 SQ FT / 1 SQ FT = 1.06 SQ FT VENTILATION |
| SOFFIT VENTS 9 SQ IN = (.0625 SQ FT) | ASSUME 100% VENTING @ SOFFIT |
| SOFFIT VENT | 1.060 SQ FT = 17.0 FEET OF SOFFIT VENT |
| 0.0625 SQ FT | |
| ACTUAL SOFFIT VENT PROVIDED | 19 FEET |

ATTIC VENT CALCULATIONS

| MAIN ROOF | |
|--|--|
| 1518 SQ FT UNDER ROOF ATTIC | 300 SQ FT / 1 SQ FT = 5.06 SQ FT VENTILATION |
| RIDGE VENTS 18 SQ IN = (.125 SQ FT) | SOFFIT VENTS 9 SQ IN = (.0625 SQ FT) |
| BOX VENTS 50 SQ IN = (.347 SQ FT) | |
| 5.06 SQ FT x 50% = 2.530 SQ FT OF RIDGE | 2.530 SQ FT OF SOFFIT |
| 5.06 SQ FT x 50% = 2.530 SQ FT OF SOFFIT | |
| RIDGE VENT | 2.530 SQ FT = 20.2 FEET OF RIDGE VENT |
| SOFFIT VENT | 0.125 SQ FT |
| SOFFIT VENT | 2.530 SQ FT = 40.5 FEET OF SOFFIT VENT |
| 0.0625 SQ FT | |
| ACTUAL RIDGE VENT PROVIDED | 40 FEET |
| ACTUAL SOFFIT VENT PROVIDED | 140 FEET |
| NUMBER OF BOX VENTS NEEDED | -6.9 COUNT (NEGATIVE = 0) |
| (REQ - ACTUAL x .347) | |
| GUEST SUITE ROOF | |
| 80 SQ FT UNDER ROOF | 150 SQ FT / 1 SQ FT = 0.53 SQ FT VENTILATION |
| SOFFIT VENTS 9 SQ IN = (.0625 SQ FT) | ASSUME 100% VENTING @ SOFFIT |
| SOFFIT VENT | 0.533 SQ FT = 8.5 FEET OF SOFFIT VENT |
| 0.0625 SQ FT | |
| ACTUAL SOFFIT VENT PROVIDED | 18 FEET |

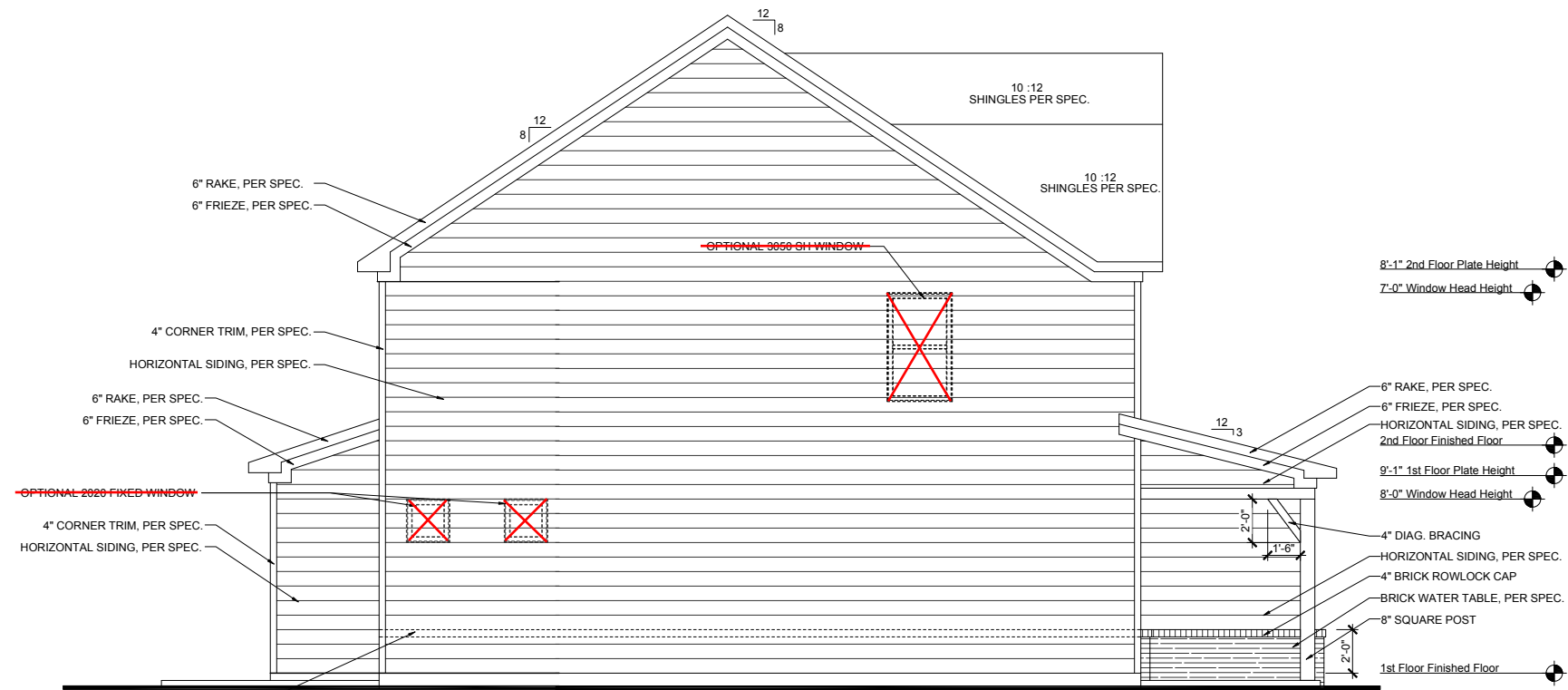
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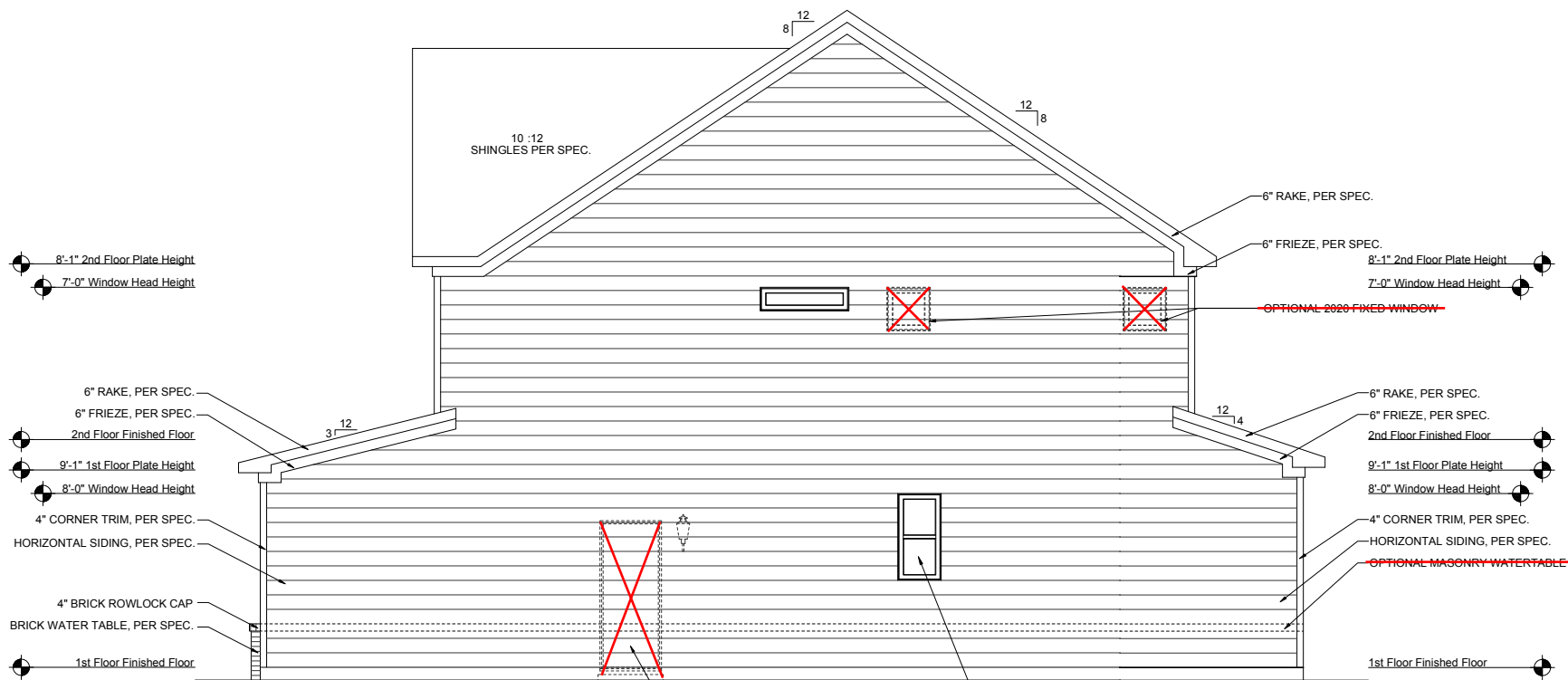
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|----------------------------|
| 1/8"=1'-0" |
| RELEASE DATE 08-21-2019 |
| PROJECT NUMBER ----- |
| OPTION NO. ----- |
| WILLOW |
| EXT. ELEV/ ROOF PLAN |
| ELEVATION - B |
| SHEET NO. A-3.0B |

Wellers Knoll Lot 76



OPT. GUEST SUITE LEFT ELEVATION
 SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)

WILLOW LEFT ELEVATION - 'B'
 SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)



WILLOW RIGHT ELEVATION - 'B'
 SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)

OPT. GUEST SUITE RIGHT ELEVATION
 SCALE: 1/8"=1'-0" (11"X17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"X34" SHEET SIZE)

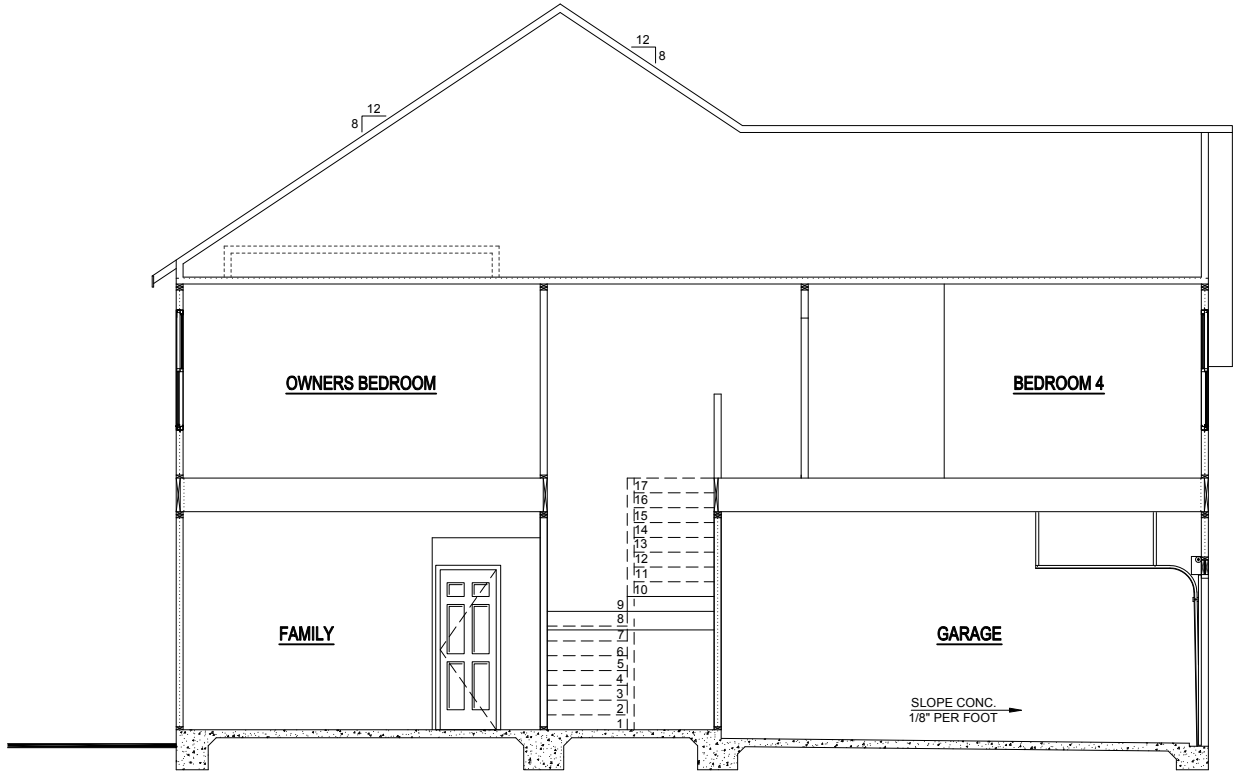
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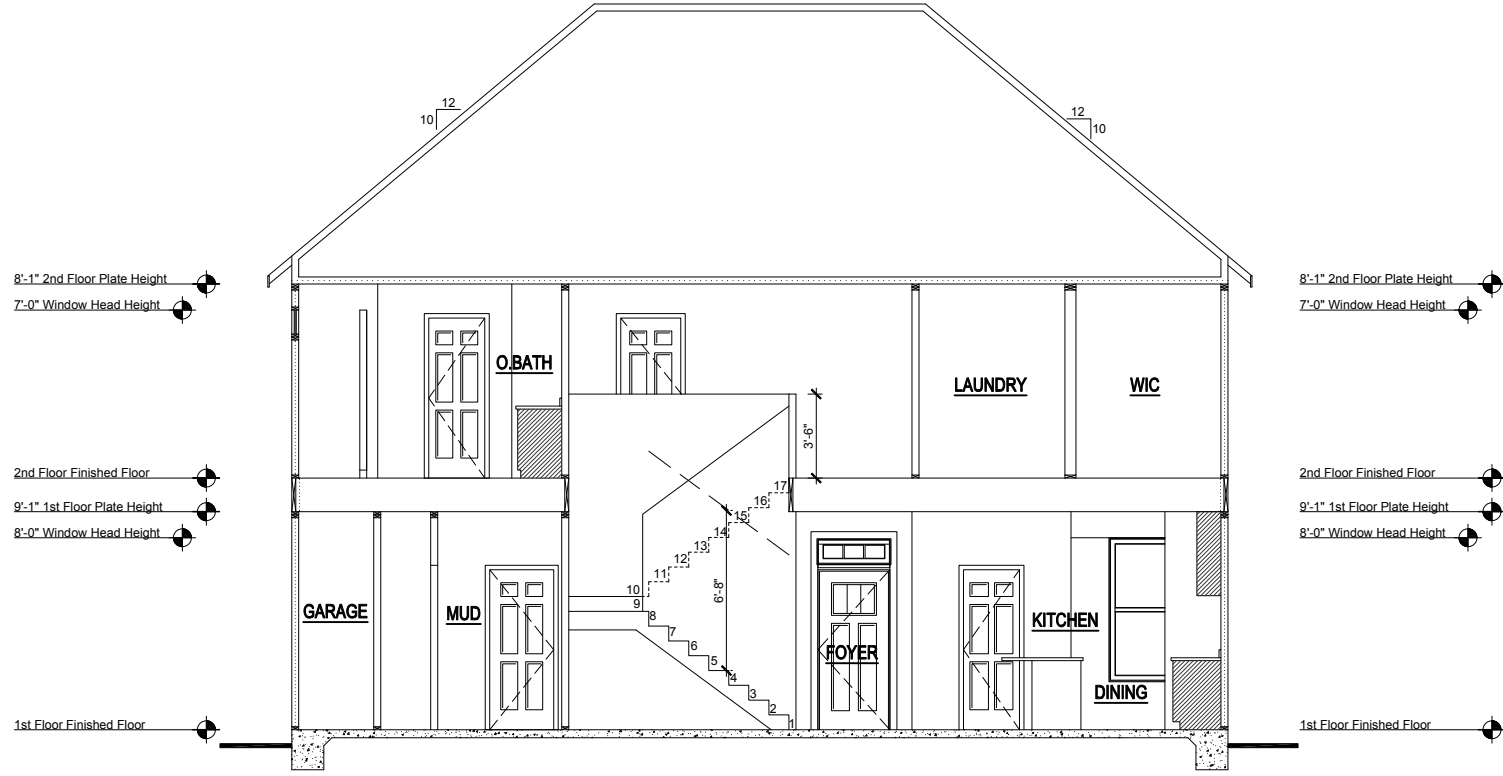
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| |
|---|
| 1/8" = 1'-0" |
| RELEASE DATE 08-21-2019 |
| PROJECT NUMBER ----- |
| OPTION NO. ----- |
| MODEL WILLOW |
| DRAWING TITLE SIDE ELEVATIONS |
| OPTION DESCRIPTION ELEVATION - B |
| SHEET NO. A-3.1B |

Wellers Knoll Lot 76



SECTION - B
 SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



SECTION - A
 SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
 SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

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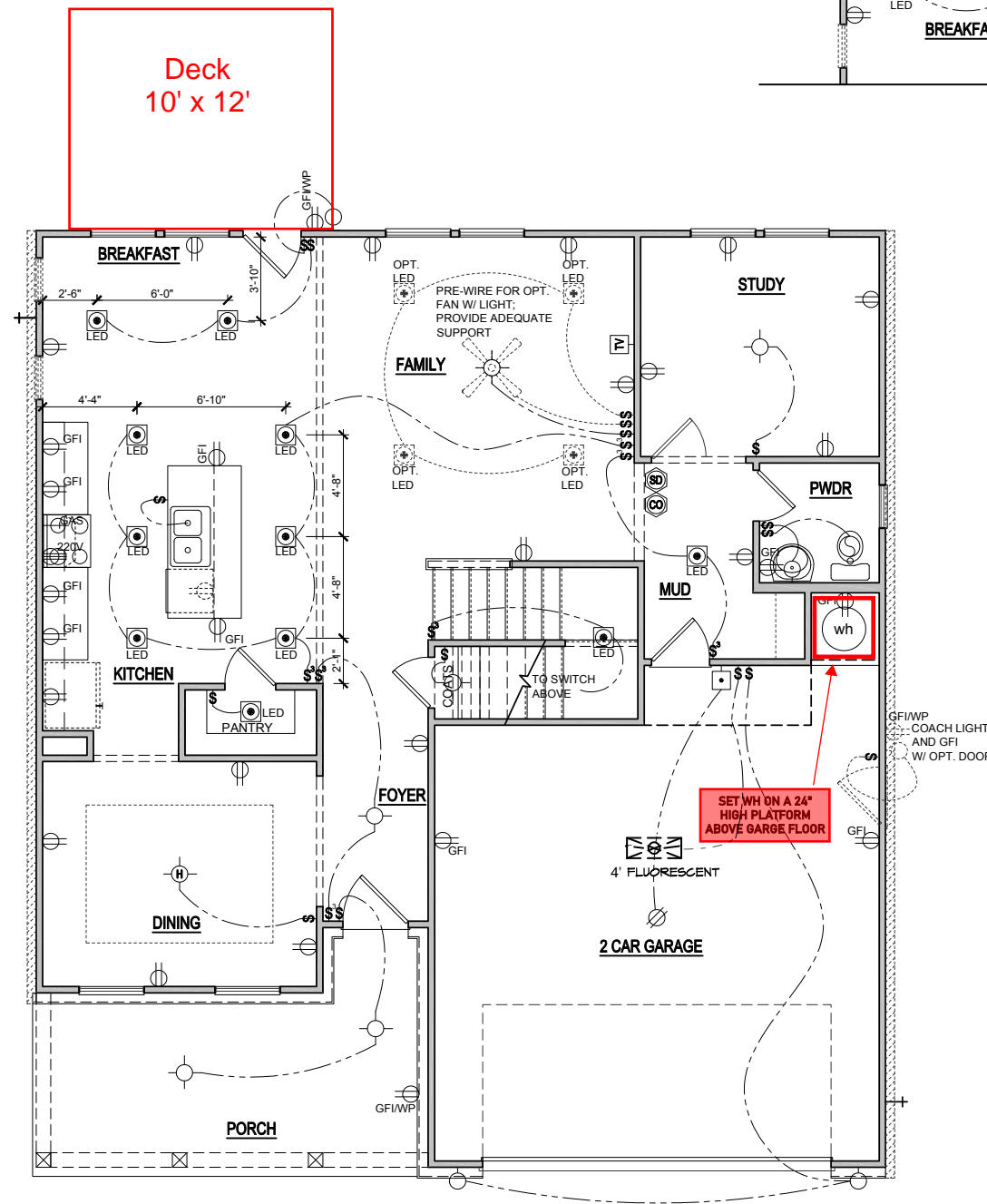
| | |
|--------------------|--------------------------|
| MODEL | WILLOW |
| DRAWING TITLE | BUILDING SECTIONS |
| OPTION DESCRIPTION | |
| RELEASE DATE | 08-21-2019 |
| PROJECT NUMBER | ----- |
| OPTION NO. | ----- |
| SHEET NO. | A-4.0B |

1/8" = 1'-0"

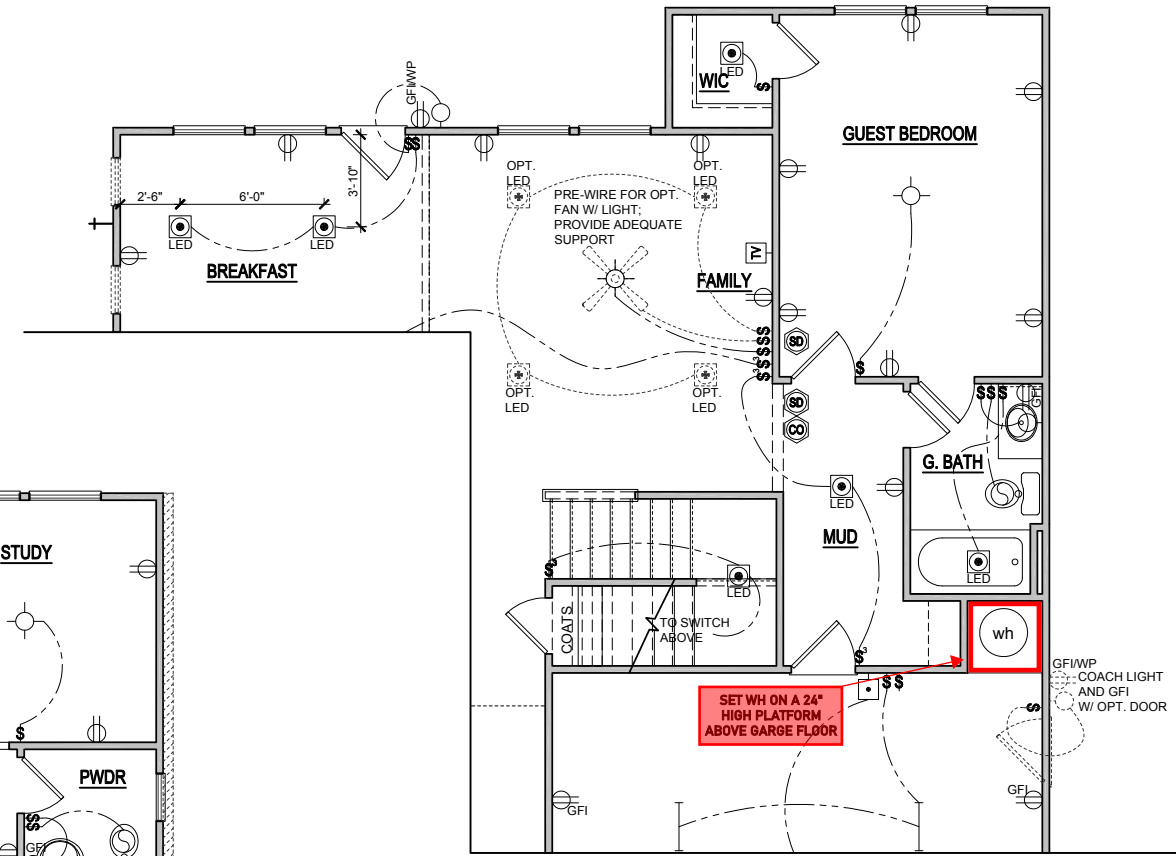
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ELECTRICAL KEY

- CEILING RECEP.
- DUPLEX RECEP.
- SPLIT SWITCHED RECEP.
- FLOOR RECEP.
- QUADPLEX RECEP.
- GFI GROUND FAULT RECEP.
- GFI/WP WEATHER PROOF RECEP.
- 220V RECEP.
- EXHAUST FAN.
- EXHAUST FAN / LIGHT.
- EXHAUST FAN / HEAT LIGHT.
- LED.
- VAPOR PROTECTED LIGHT.
- CEILING LIGHT.
- HANGING CEILING LIGHT.
- WALL LIGHT.
- WALL SCONCE LIGHT.
- SINGLE SWITCH.
- 3-WAY SWITCH.
- 4-WAY SWITCH.
- DIMMER SWITCH.
- CABLE T.V. JACK.
- BUTTON.
- PHONE JACK.
- DIRECT WIRE.
- SECURITY SYSTEM PHONE JACK.
- SMOKE DETECTOR.
- CARBON MONOXIDE DETECTOR.
- ELECTRICAL PANEL.
- DISCONNECT SWITCH.
- ELECTRIC METER.
- 1 TUBE FLUORESCENT.
- 2 TUBE FLUORESCENT.
- FLOOD LIGHT.
- CHIMES.
- CEILING FAN.
- CEILING FAN W/ LIGHT.



**ELEVATION - B
FIRST FLOOR ELECTRICAL PLAN**
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



**ELECTRICAL PLAN
OPT. GUEST SUITE**
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

| REVISION NUMBER | DATE | DESCRIPTION |
|-----------------|-----------------------------------|-------------|
| 03/05/2020 | ADDED BASEMENT FOUNDATIONS | |
| 7/1/2020 | UPDATED SHOWER OPTIONS | |
| 10/23/2020 | ADDED GAR SVR DR & OPT EXT FAMILY | |
| 11/6/2020 | ADD OPT PORCHS TO OPT EXT FAMILY | |
| 3/30/2021 | REVISION TO WH & GARAGE DOORS | |
| 02/24/2022 | FIX WINDOW SIZE TO 2626 FX ON D | |

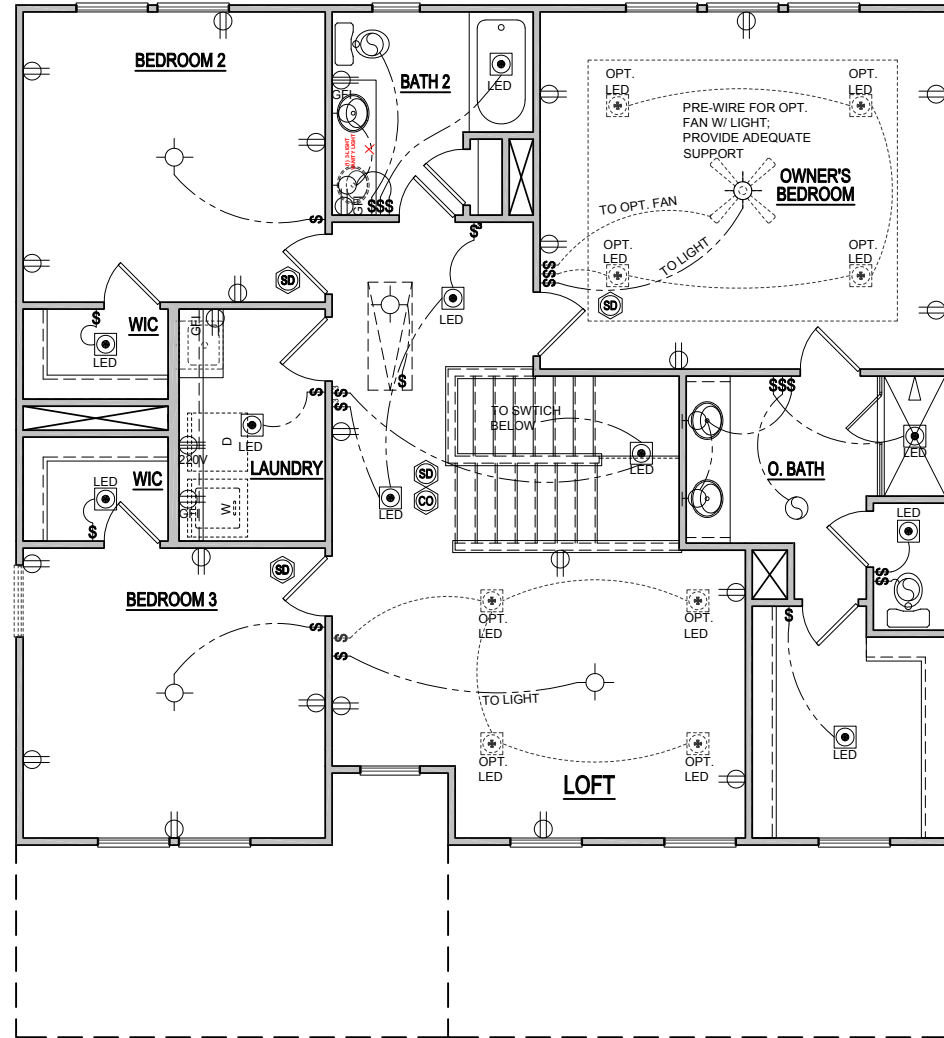
MAIN STREET DESIGN
Main Street Designs of Georgia, LLC
www.MainStreetDesigns.com
3650 Royal Blvd. South, Suite 135
Alpharetta, GA 30022
O. (404) 996-5722

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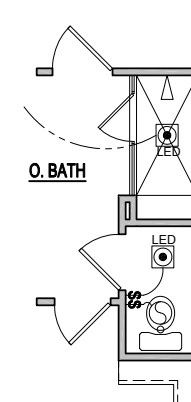
| |
|--|
| 1/8" = 1'-0" |
| RELEASE DATE 08-21-2019 |
| PROJECT NUMBER ----- |
| OPTION NO. ----- |
| MODEL WILLOW |
| DRAWING TITLE 1ST FLOOR ELEC. PLAN |
| OPTION DESCRIPTION ELEVATION - B |

SHEET NO.
E-1.0B

Wellers Knoll Lot 76



**ELEVATION - B
SECOND FLOOR ELECTRICAL PLAN**
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)



OPT. SPA SHOWER
SCALE: 1/8"=1'-0" (11"x17" SHEET SIZE)
SCALE: 1/4"=1'-0" (22"x34" SHEET SIZE)

| REVISION NUMBER | DESCRIPTION |
|-----------------|-----------------------------------|
| 03/05/2020 | ADDED BASEMENT FOUNDATIONS |
| 7/1/2020 | UPDATED SHOWER OPTIONS |
| 10/23/2020 | ADDED GAR SVR DR & OPT EXT FAMILY |
| 11/6/2020 | ADD OPT PORCHS TO OPT EXT FAMILY |
| 3/30/2021 | REVISION TO WH & GARAGE DOORS |
| 02/24/2022 | FIX WINDOW SIZE TO 2626 FX ON D |

MAIN STREET DESIGN
Main Street Designs of Georgia, LLC
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| | |
|----------------|------------|
| RELEASE DATE | 08-21-2019 |
| PROJECT NUMBER | ----- |
| OPTION NO. | ----- |

| | |
|--------------------|--------------------------|
| MODEL | WILLOW |
| DRAWING TITLE | SECOND FLOOR PLAN |
| OPTION DESCRIPTION | ELEVATION - B |

SHEET NO.
E-2.0B

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



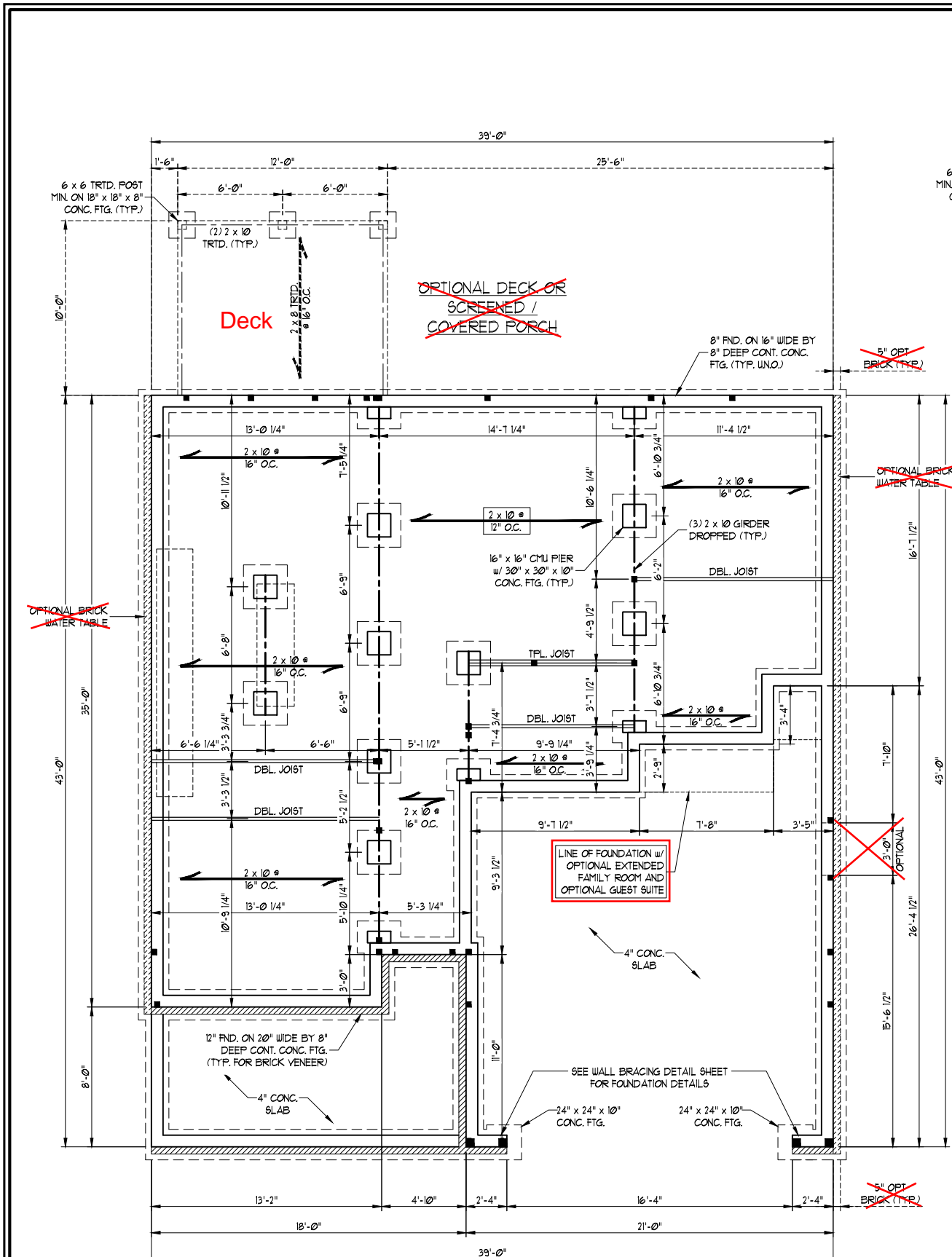
1/3/2023

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N.C. LICENSE NO.: C-1733

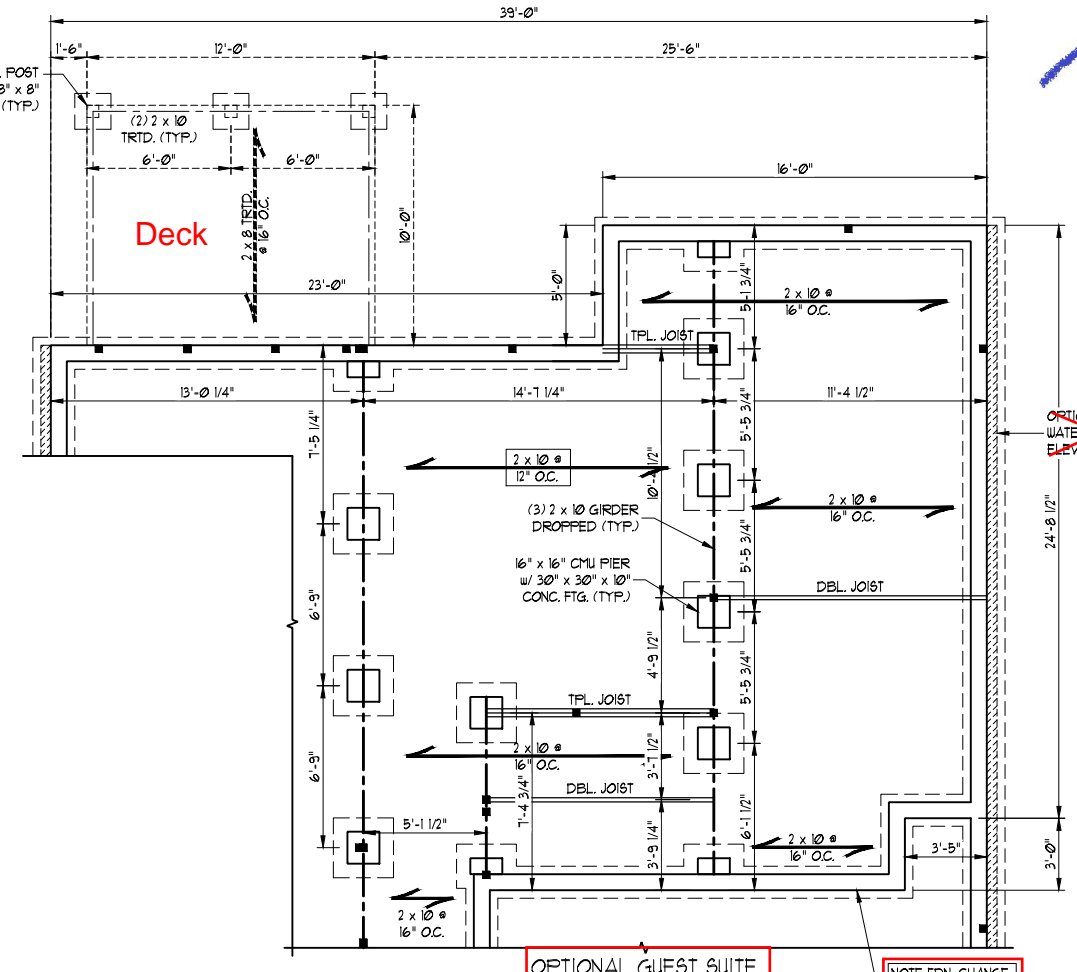
WILLOW HOMES
DAVIDSON HOMES

- 120 MPH ULTIMATE DESIGN WIND SPEED**
NOTES FOR LESS THAN
30' MEAN ROOF HEIGHT:
- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM.
 - STRUCTURAL DESIGN PER NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
 - INSTALL 1/2" ANCHOR BOLTS 6'-0" O.C. AND WITHIN 1'-0" FROM END OF EACH CORNER. ANCHOR BOLTS MUST EXTEND A MINIMUM OF 1" INTO MASONRY OR CONCRETE. LOCATE BOLT WITH MIDDLE THIRD OF PLATE WIDTH. MEAN ROOF HEIGHT IS LESS THAN 30 FEET.
 - EXTERIOR WALLS DESIGNED FOR 120 MPH WINDS.
 - WALL CLADDING DESIGNED FOR 45.5 PSF AND -18 PSF (+/-) INDICATE POSITIVE / NEGATIVE PRESSURE (TYP).
 - ROOF CLADDING DESIGNED FOR 44.2 PSF AND -18 PSF FOR ROOF PITCHES 1/2 TO 12/12 AND 40 PSF AND -36 PSF FOR ROOF PITCHES 225/12 TO 1/12.
 - INSTALL 1/8" OSB SHEATHING ON ALL EXTERIOR WALLS OF ALL STOREYS IN ACCORDANCE WITH SECTION R602.10.3 OF THE NRC, 2018 EDITION. SEE THE WALL BRACING NOTES AND DETAILS SHEET FOR MORE INFORMATION.
 - ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NRC, 2018 EDITION.
 - REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

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



ELEVATION B



OPTIONAL GUEST SUITE

Wellers Knoll Lot 76

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

Wellers Knoll Lot 76

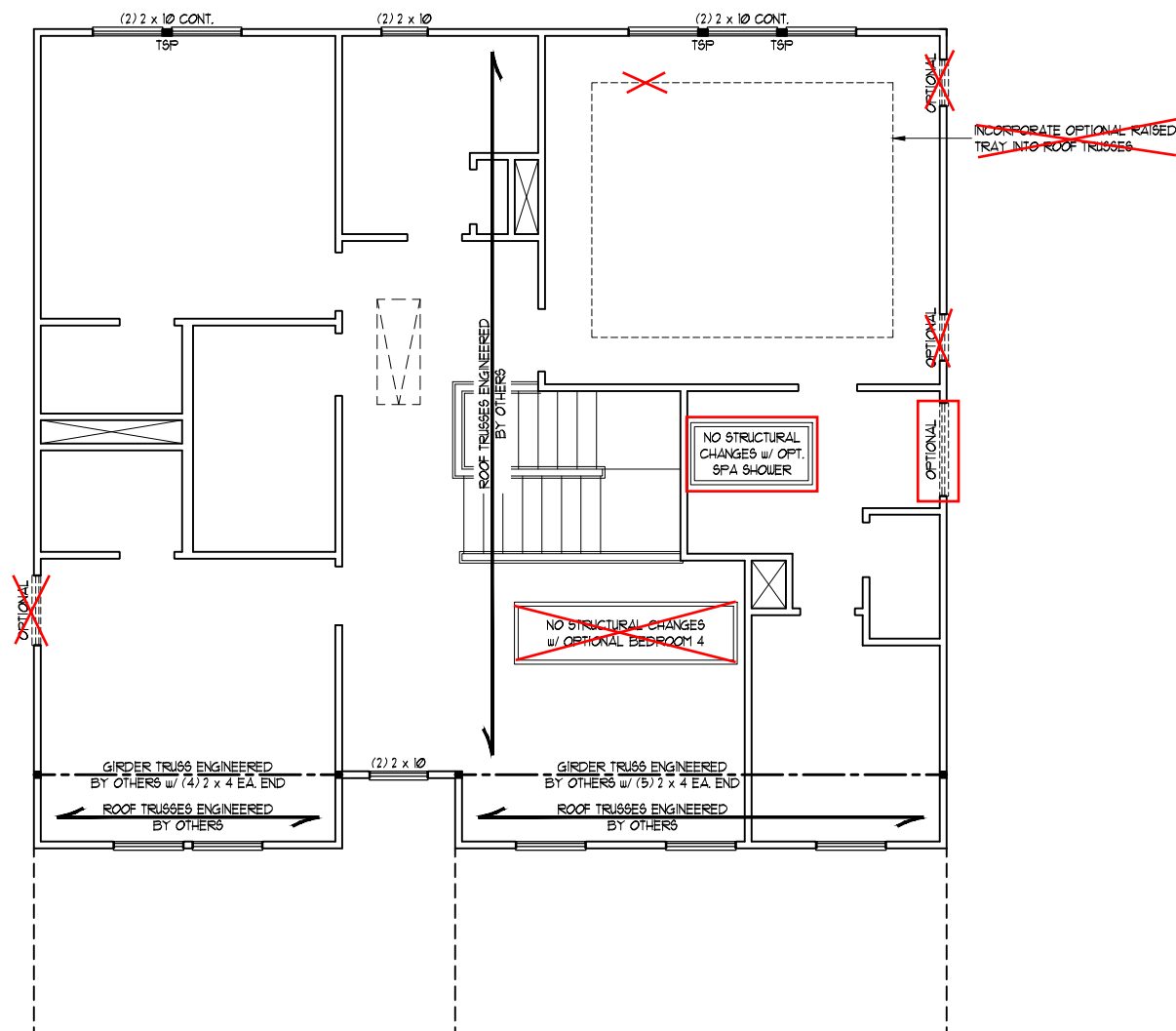
SCALE NOTE:
LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.
11" x 17" PRINTS ARE ONE HALF THE NOTED SCALE



1/3/2023

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N.C. LICENSE NO.: C-1733

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BRACED WALL DESIGN NOTES:

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

NOTE:

- PER SECTION R602.10.3.2 OF THE 2018 NRC, THE AMOUNT OF BRACING ON THE SECOND FLOOR EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.
- SHEATH ALL EXTERIOR WALLS WITH 1/16" OSB SHEATHING ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF OR #2 SYP (UNO).
- ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
- WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO). SEE TABLE R602.15 FOR ADDITIONAL KING STUD REQUIREMENTS.
- SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO).
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

"TSP" INDICATES TRIPLE STUD POCKET BETWEEN WINDOW UNITS.

TABLE R602.15
MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

| HEADER SPAN (FEET) | MAXIMUM STUD SPACING (INCHES) (PER TABLE R602.15) | |
|--------------------|---|----|
| | 16 | 24 |
| UP TO 3' | 1 | 1 |
| 4' | 2 | 1 |
| 8' | 3 | 2 |
| 12' | 5 | 3 |
| 16' | 6 | 4 |

ELEVATION B

DATE: JANUARY 3, 2023

SCALE: 1/4" = 1'-0"

DRAWN BY: MAIN STREET DESIGN

ENGINEERED BY: ZHH

S-4a
ATTIC FLOOR
FRAMING PLAN

Wellers Knoll Lot 76

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



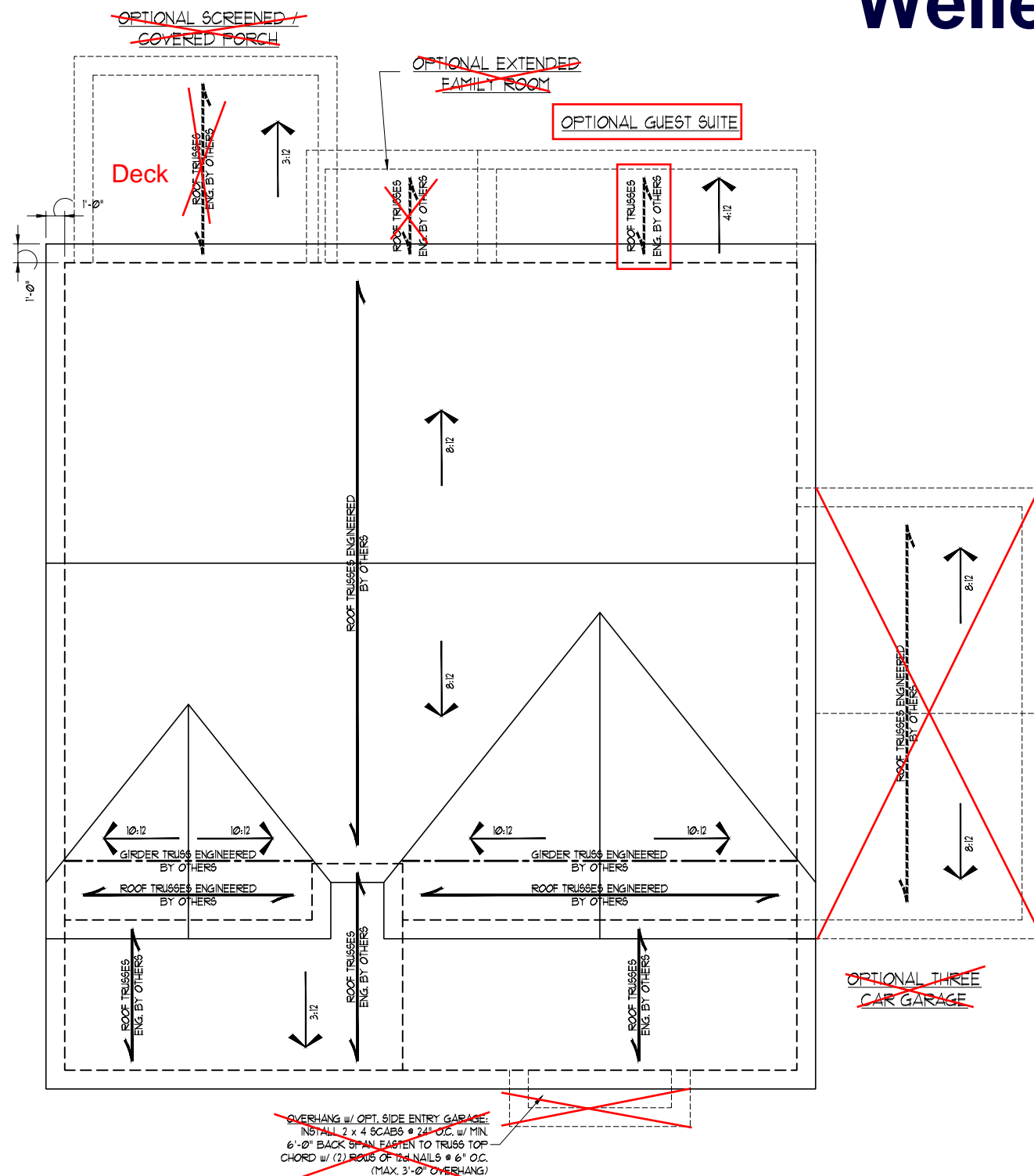
1/3/2023

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N.C. LICENSE NO.: C-1733

WILLOW
DAVIDSON HOMES

STRUCTURAL NOTES:

1. ALL FRAMING LUMBER TO BE #2 SPF OR #1 SYP (INO).
2. STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 8 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.
3. FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES WITH SIMPSON H25A HURRICANE TIES @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN. OF (6) 12d TOE NAILS.
4. REFER TO SECTION R202.11 OF THE 2018 NCRS FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.
5. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.



ELEVATION B

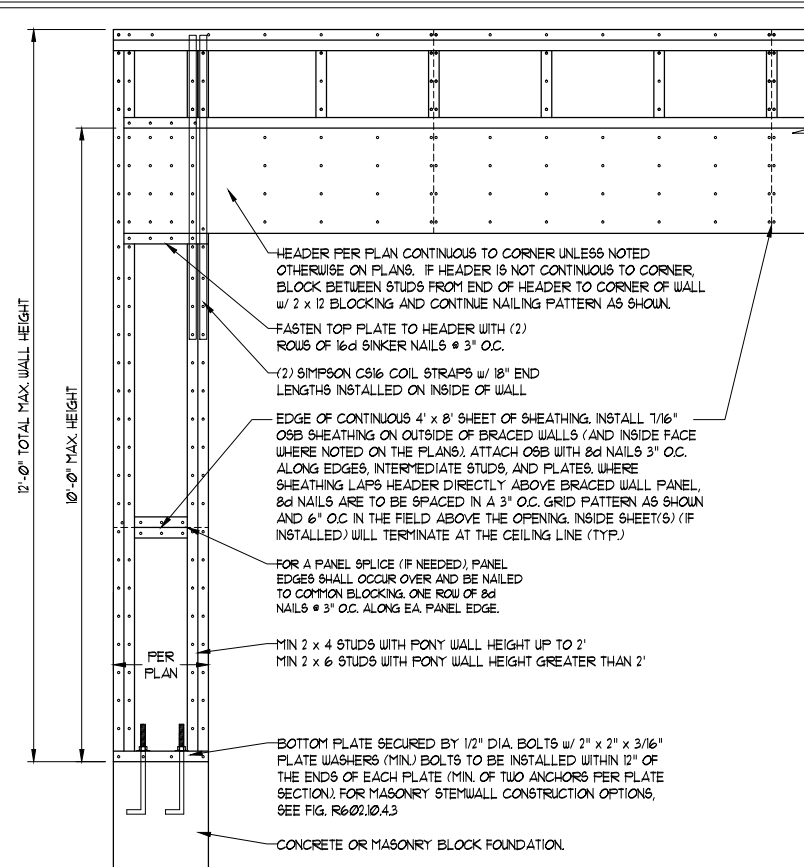
~~OVERHANG w/ OPT. SIDE ENTRY GARAGE
INSTALL 2 x 4 SCABS @ 24" O.C. w/ MIN
6'-0" BACK FROM FASTEN TO TRUSS TOP
CHORD w/ (2) ROWS OF 12d NAILS @ 6" O.C.
(MAX. 3'-0" OVERHANG)~~

DATE: JANUARY 3, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: MAIN STREET DESIGN
ENGINEERED BY: ZHH

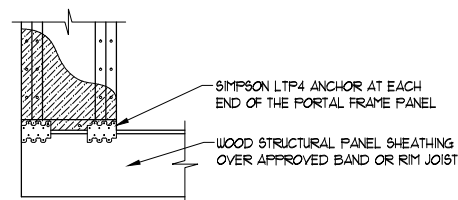
S-5a
ROOF FRAMING
PLAN

GENERAL WALL BRACING NOTES:

1. WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NRC.
2. SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2018 NRC FOR ADDITIONAL INFORMATION AS NEEDED.
3. BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN DESIGNED PER R602.3.5 (3). WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE.
4. SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, BRACED WALL LINE KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR REQUIREMENTS.
5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-WSP IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R102.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.
7. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING - WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED w/ 6d COMMON NAILS OR 8d (2 1/2" LONG x 0.13" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (UNO).
8. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 1" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (UNO). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R102.3.5. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). EXTERIOR GB TO BE INSTALLED VERTICALLY.
9. REQUIRED BRACED WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE R602.10.3. METHOD CS-WSP CONTRIBUTES ITS ACTUAL LENGTH, METHOD GB CONTRIBUTES 5 ITS ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 15 TIMES ITS ACTUAL LENGTH.

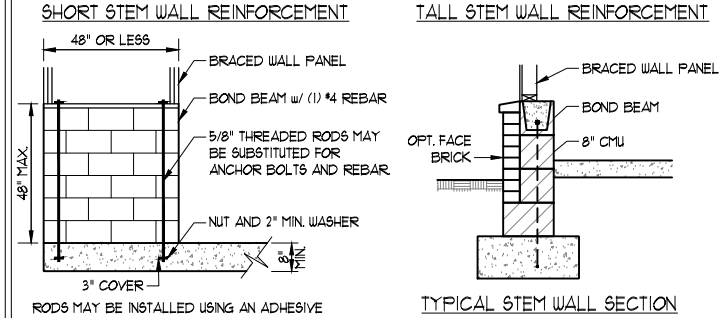
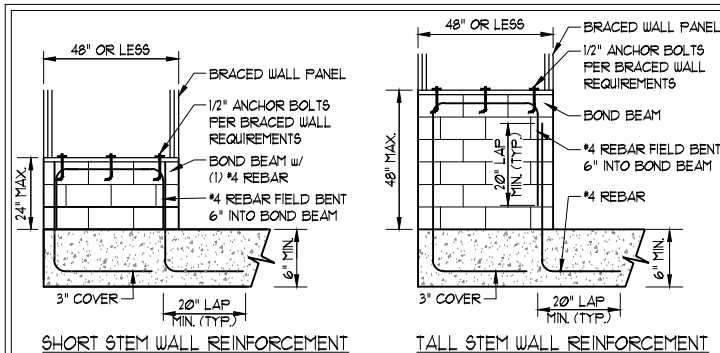


OVER CONCRETE OR MASONRY BLOCK FOUNDATION



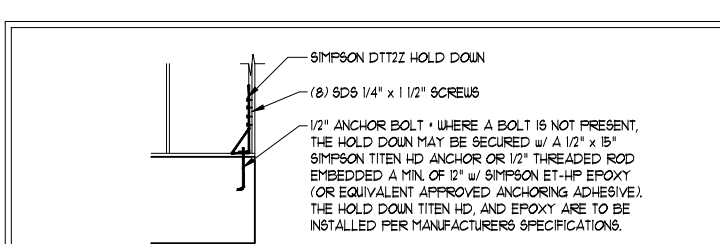
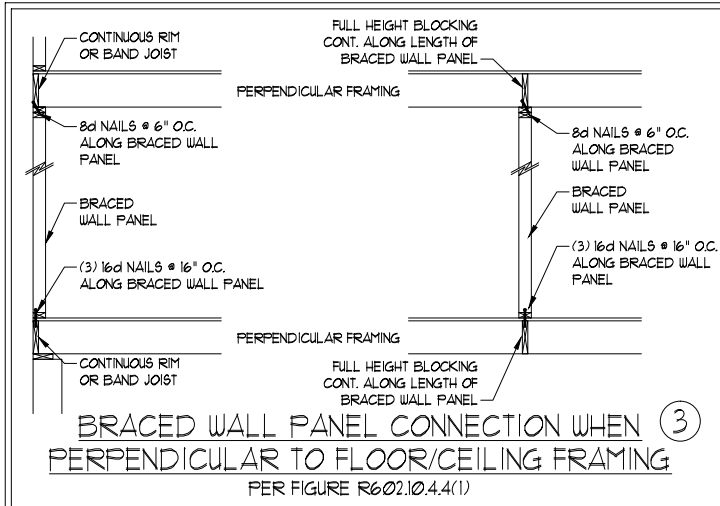
OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
 * APPLICABLE w/ GREATER THAN 12" KNEE WALL HEIGHTS IN CRAWL SPACE AND ABOVE FRAMED BASEMENT WALLS *

METHOD PF-PORTAL FRAME DETAIL ①



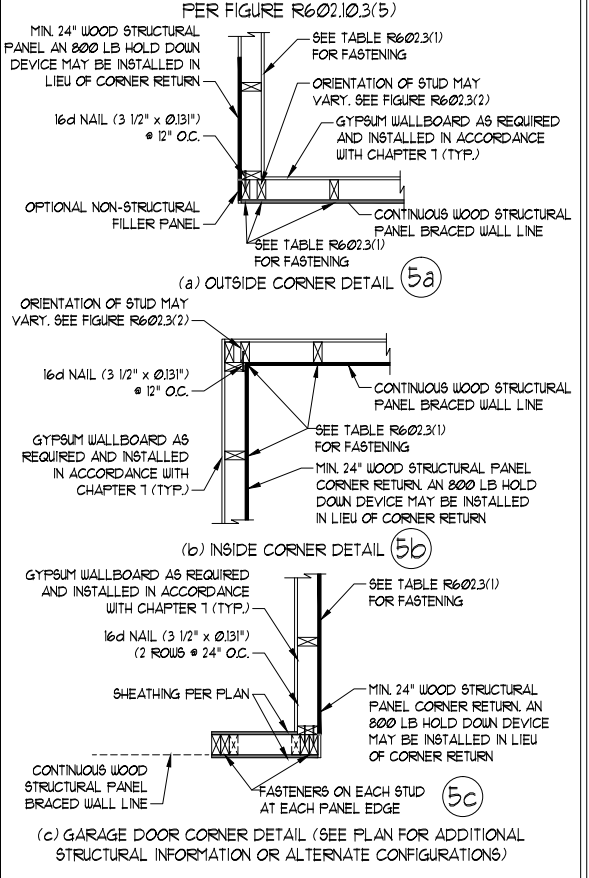
RODS MAY BE INSTALLED USING AN ADHESIVE ANCHORING SYSTEM WITH A MINIMUM TENSILE CAPACITY OF 3150 LBS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECS.
OPTIONAL STEM WALL REINFORCEMENT

NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS
MASONRY STEM WALLS SUPPORTING BRACED WALL PANELS ②
 PER FIGURE R602.10.4.3

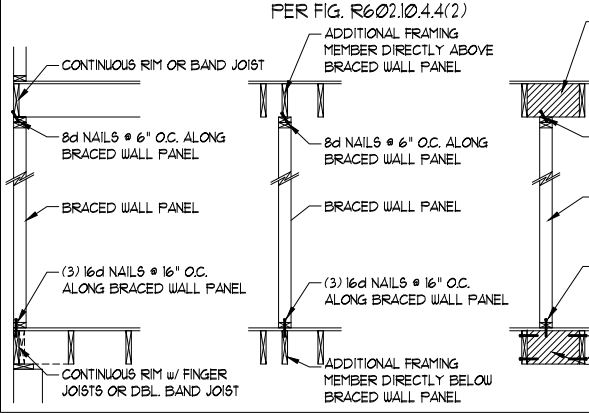


HOLD DOWN DETAIL FOR MASONRY FOUNDATION OR MONOLITHIC SLAB ④
 * APPLICABLE ONLY WHERE SPECIFIED ON PLAN *

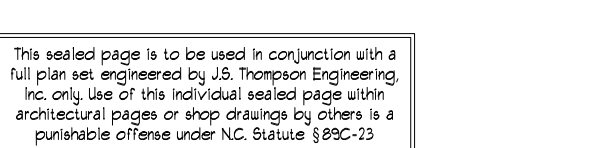
TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING ⑤



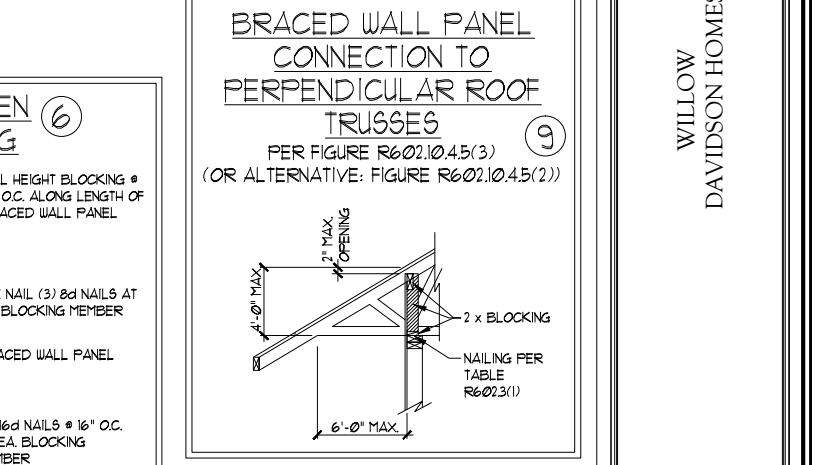
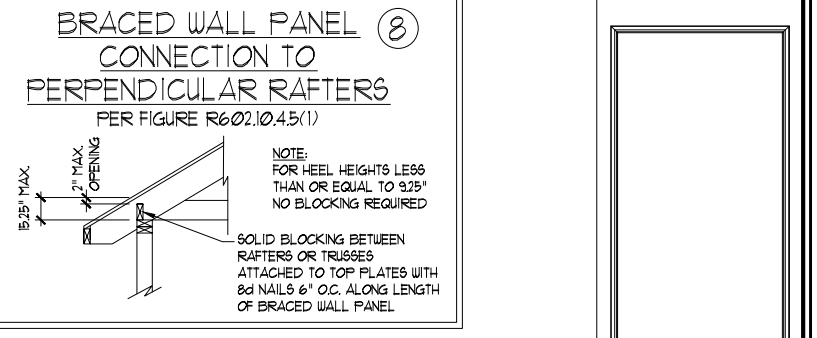
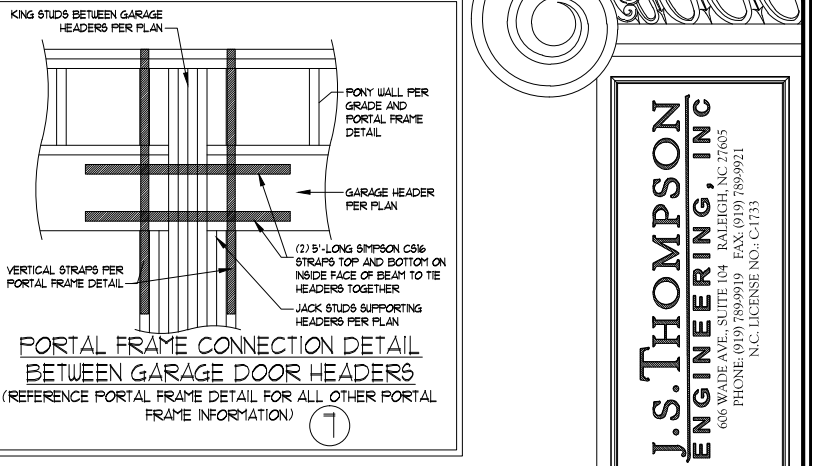
BRACED WALL PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING ⑥



BRACED WALL PANEL CONNECTION TO PERPENDICULAR RAFTERS ⑧



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



Wellers Knoll Lot 76

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WILLOW DAVIDSON HOMES

DATE: JANUARY 3, 2023
 SCALE: 1/4" = 1'-0"
 DRAWN BY: MAIN STREET DESIGN
 ENGINEERED BY: ZHH

D4
 WALL BRACING NOTES AND DETAILS

1/3/2023

GENERAL NOTES

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO I-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NRC, 2018 EDITION (R301.4 - R301.7)

| DESIGN CRITERIA: | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION (IN) |
|----------------------------------|---|-----------------|-----------------------------------|
| ATTIC WITH LIMITED STORAGE | 20 | 10 | L/240 (L/360 w/ BRITTLE FINISHES) |
| ATTIC WITHOUT STORAGE | 10 | 10 | L/360 |
| DECKS | 40 | 10 | L/360 |
| EXTERIOR BALCONIES | 40 | 10 | L/360 |
| FIRE ESCAPES | 40 | 10 | L/360 |
| HANDRAILS/GUARDRAILS | 200 LB OR 50 (PLF) | 10 | L/360 |
| PASSENGER VEHICLE GARAGE | 50 | 10 | L/360 |
| ROOMS OTHER THAN SLEEPING ROOM | 40 | 10 | L/360 |
| SLEEPING ROOMS | 30 | 10 | L/360 |
| STAIRS | 40 | 10 | L/360 |
| WIND LOAD | (BASED ON TABLE R302(4) WIND ZONE AND EXPOSURE) | | |
| GROUND SNOW LOAD: P _g | 20 (PSF) | | |

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

- FOR 15 AND 120 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.1.6 OF THE NRC, 2018 EDITION. FOR 130 MPH, 140 MPH, AND 150 MPH WIND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NRC, 2018 EDITION.
- ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER II OF THE NRC, 2018 EDITION.

FOOTING AND FOUNDATION NOTES

- FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NRC, 2018 EDITION.
- PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE SLAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" - 1" DEEP CONTROL JOINTS ARE TO BE SAWED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 1/2" FOR #5 BARS OR SMALLER, AND NOT LESS THAN 2" FOR #6 BARS OR LARGER.
- MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.
- THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PIERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TR68-A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(1), R404.1(2), R404.1(3), OR R404.1(4) OF THE NRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1(5) OF THE NRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

FRAMING NOTES

- ALL FRAMING LUMBER SHALL BE #2 SPF (F_b = 875 PSI, F_v = 375 PSI, E = 1600000 PSI) OR #2 SYP (F_b = 975 PSI, F_v = 175 PSI, E = 1600000 PSI) MINIMUM UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM UNLESS NOTED OTHERWISE (UNO).
- LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F_b = 2600 PSI, F_v = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F_b = 2325 PSI, F_v = 310 PSI, E = 1550000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F_c = 2500 PSI, E = 1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN 1" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: F_c = 2900 PSI, E = 2000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

| | |
|--------------------------------|--------------------------------|
| A. W AND WT SHAPES: | ASTM A992 |
| B. CHANNELS AND ANGLES: | ASTM A36 |
| C. PLATES AND BARS: | ASTM A36 |
| D. HOLLOW STRUCTURAL SECTIONS: | ASTM A500 GRADE B |
| E. STEEL PIPE: | ASTM A53, GRADE B, TYPE E OR S |
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (UNO). PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (UNO):

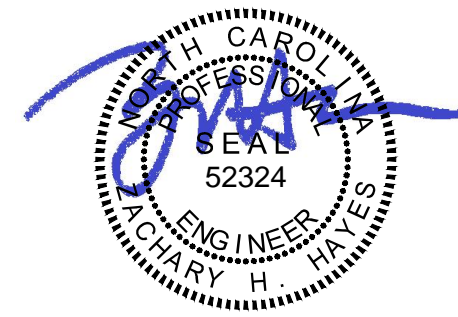
| | |
|----------------------------|--|
| A. WOOD FRAMING | (2) 1/2" DIA. x 4" LONG LAG SCREWS |
| B. CONCRETE | (2) 1/2" DIA. x 4" WEDGE ANCHORS |
| C. MASONRY (FULLY GROUTED) | (2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS |

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 9/16" DIAMETER HOLES @ 16" O.C.
- SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.1(1) AND R602.1(2) OF THE NRC, 2018 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (UNO), WHICHEVER IS GREATER. ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO). INSTALL KING STUDS PER SECTION R602.1.5 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (UNO). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- ALL I-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R602.10.
- PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT SIDES FOR BRICK SUPPORT (UNO). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED w/ (4) 12d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 12" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION R703.2.1 OF THE NRC, 2018 EDITION.
- FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).
- FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (UNO).
- ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO). POSTS MAY BE SECURED USING ONE SIMPSON H6 OR L7912 UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF SIMPSON CS16 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TWIST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.

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

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N.C. LICENSE NO.: C-1733

WILLOW
DAVIDSON HOMES



1/3/2023

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DATE: JANUARY 3, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: MAIN STREET DESIGN
ENGINEERED BY: ZHH

D-5
STANDARD
STRUCTURAL NOTES

Wellers Knoll Lot 76

Wellers Knoll Lot 76



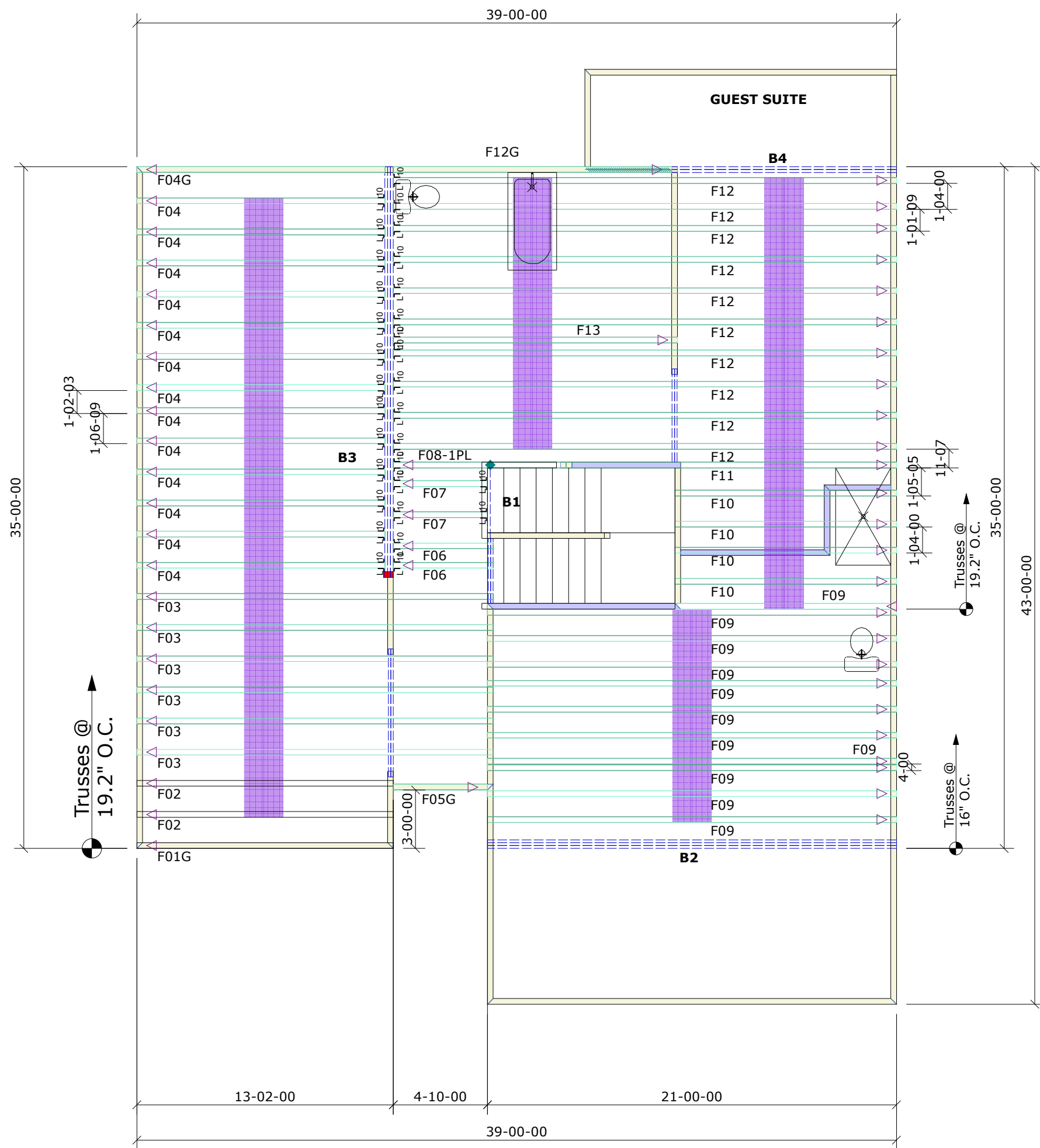
Builders First Source
 23 RED CEDAR WAY
 APEX, NC 27523
 Phone: (919)363-4956
 Fax: (919)387-8565
 http://www.blr.com

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



**9'-1-2" 1ST FLOOR
14" FLOOR**

NOTE: LEFT END OF TRUSS AS SHOWN ON TRUSS DETAIL DRAWINGS ARE INDICATED BY TRIANGLE ICONS.

- B1 = (1) 1-3/4" x 14" x 4' LSL**
- B2 = (3) 1-3/4" x 16" x 21' LVL**
- B3 = (3) 1-3/4" x 24" x 22' LVL**
- B4 = (2) 1-3/4" x 14" x 12' LVL**

| | | | |
|---------------------------|--------|----------------------------------|---------------------------|
| Hanger List | | All Tie Downs H2.5A Unless noted | |
| 31 | LUS410 | J L | Special Items List |
| Misc Material | | | |
| DAVIDSON | | | |
| WILLOW | Elev: | B | |
| WELLERS KNOLL | | | |
| HARNETT | NC | Lot: | 76 |
| GUEST SIUTE/RH | | Appwright # | |
| | | 4262217 | |
| | | Code: IRC 2015 | |
| | | Loading: | |
| | | T.C.L.L. | 40 |
| | | T.C.D.L. | 10 |
| | | B.C.L.L. | 0 |
| | | B.C.D.L. | 5 |
| Designed By: TG | | Wind: | |
| Layout: WK76 | | M.P.H. | 120 MPH |
| L/O Date: 10/14/24 | | Exposure Category | |
| | | EXPOSURE B | |
| Pick Ticket: - | | Job No.: | WK76 |
| Sales No.: - | | Acct No.: | - |

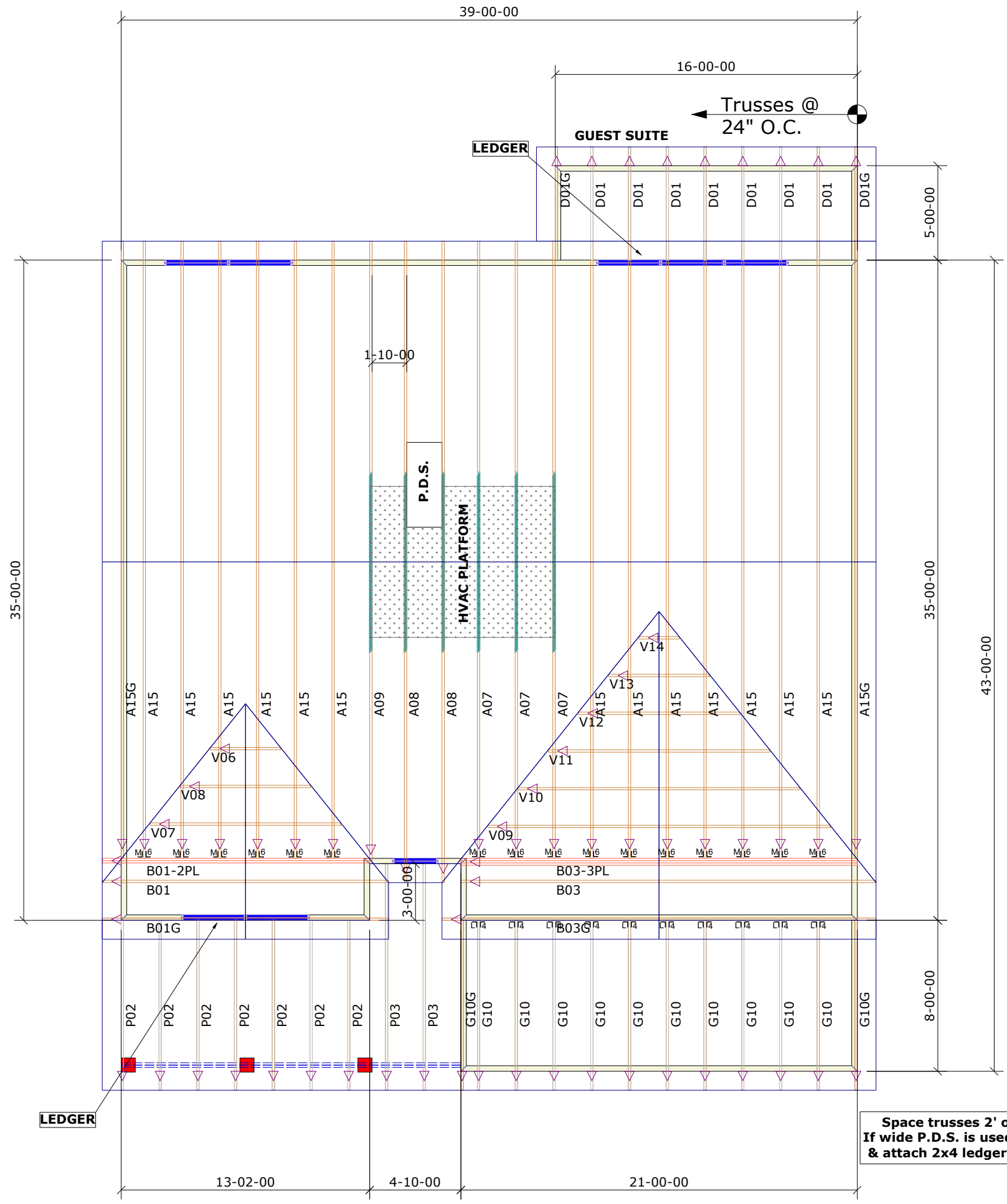
Hatch Legend

- Attic Room
- Volume Ceiling
- Stick Framing

Wellers Knoll Lot 76



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9'-1-2" 1ST FLOOR
 14" FLOOR
 8'-1-2" 2ND FLOOR

NOTE: LEFT END OF TRUSS AS SHOWN ON TRUSS DETAIL DRAWINGS ARE INDICATED BY TRIANGLE ICONS.

Space trusses 2' o.c. unless a wide P.D.S is going to be installed . If wide P.D.S. is used, follow special truss spacing as noted on layout, & attach 2x4 ledgers to Top & Bottom chords w/ 12d naild @ 16" o.c.

- 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.
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 - Immediately contact Builders FirstSource if trusses are damaged.
- Connection Notes:**
- All hangers are to be Simpson or equivalent U.N.O.
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 - 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

| Hanger List | | All Tie Downs H2.5A Unless noted | |
|---------------------------|----------|----------------------------------|---------------------------|
| 16 | HTU26 | MJ L8 | Special Items List |
| 10 | LUS24 | UL L4 | |
| Misc Material | | | |
| DAVIDSON | | | |
| WILLOW | Elev: | B | |
| WELLERS KNOLL | | | |
| HARNETT | NC | Lot: | 76 |
| GUEST SUITE/RH | | Appwright # | |
| | | 4262188 | |
| | | Code: IRC 2015 | |
| | | Loading: | |
| | | T.C.L.L. | 20 |
| Designed By: TG | | T.C.D.L. | 10 |
| Layout: WK76 | | B.C.L.L. | 0 |
| L/O Date: 10/14/24 | | B.C.D.L. | 10 |
| Revision History | | Wind: | |
| Rev1: | xx/xx/xx | M.P.H. | 120 MPH |
| Rev2: | xx/xx/xx | Exposure Category | |
| Rev3: | xx/xx/xx | EXPOSURE B | |
| Pick Ticket: | - | Job No.: | WK76 |
| Sales No.: | - | Acct No.: | - |

Hatch Legend

- Attic Room
- Volume Ceiling
- Stick Framing