1 1a **FRONT ELEVATION**
1/8" = 1'-0 WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

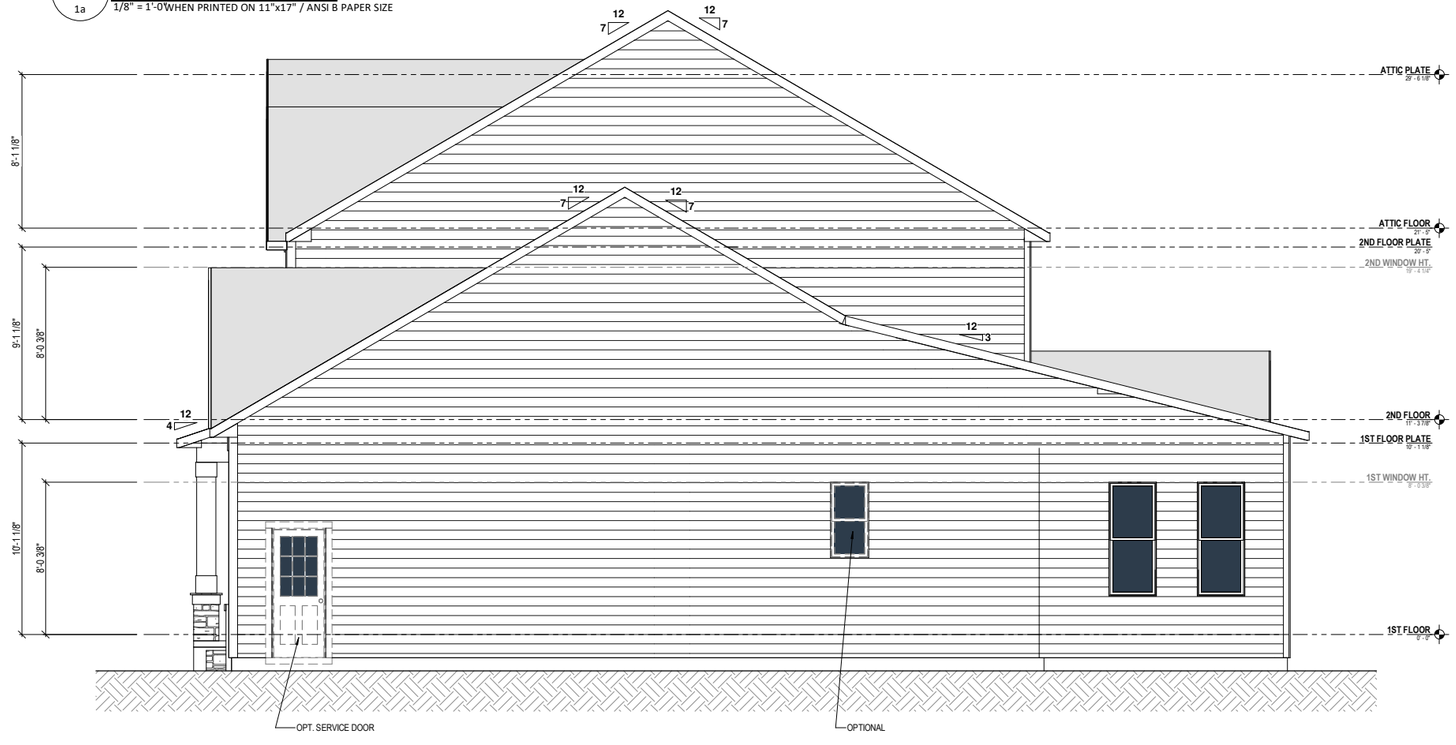
NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
10/24/2022
Harnett COUNTY NORTH CAROLINA

MEAN ROOF HGT = 29'-0"

ENERGY COMPLIANCE MINIMUMS
MAX GLAZING U-FACTOR = 0.35
WALL R-VALUE = 15
CEILING R-VALUE = 38
FLOOR R-VALUE = 19

Heated SQFT Elev. 1	
Description	Area
1st Floor Livable	2216 SF
2nd Floor Livable	1344 SF
Grand total	3560 SF

Unheated SQFT Elev. 1	
Description	Area
Front Porch	127 SF
Garage	453 SF
Screened Porch	188 SF
Deck	163 SF



2 1a **RIGHT ELEVATION**
1/8" = 1'-0 WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

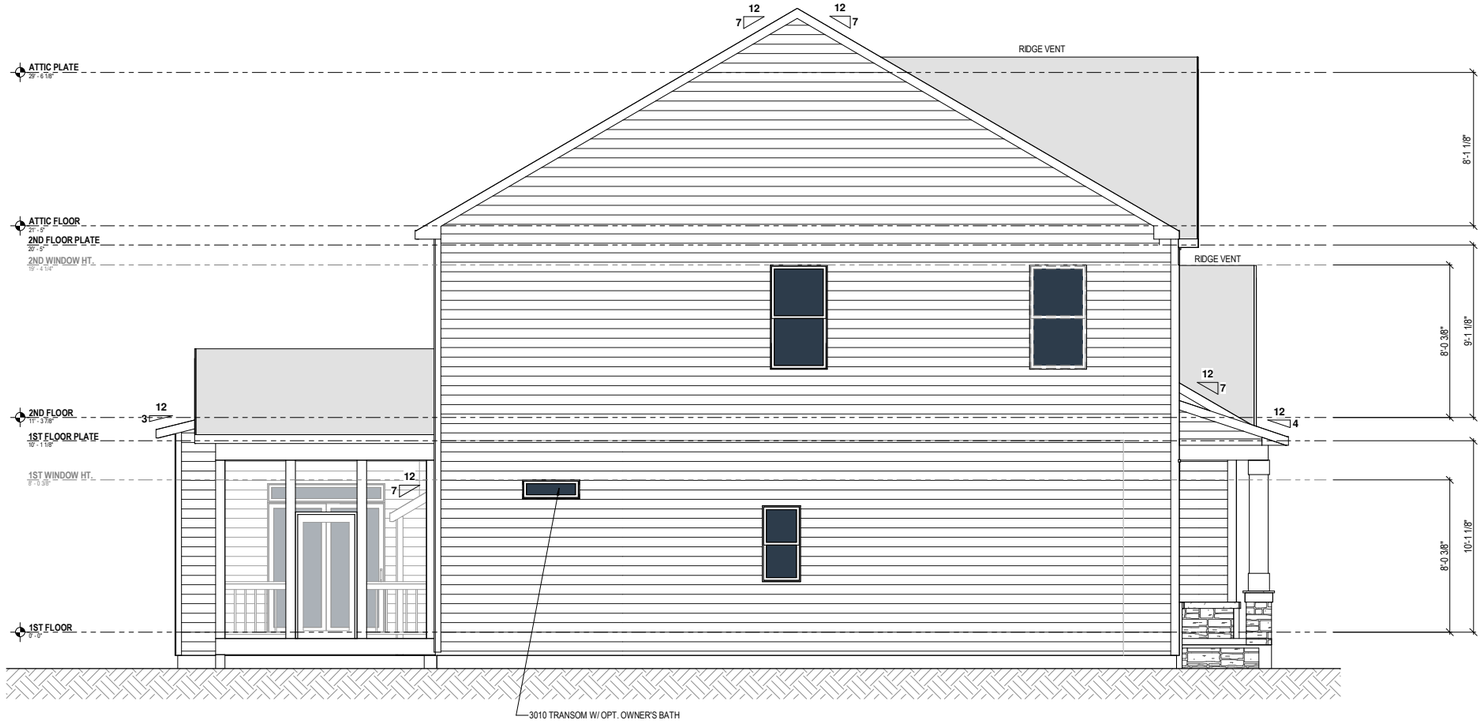
Front and Left Elevation 1

Date: 2/29/22

Drawn By: RDC

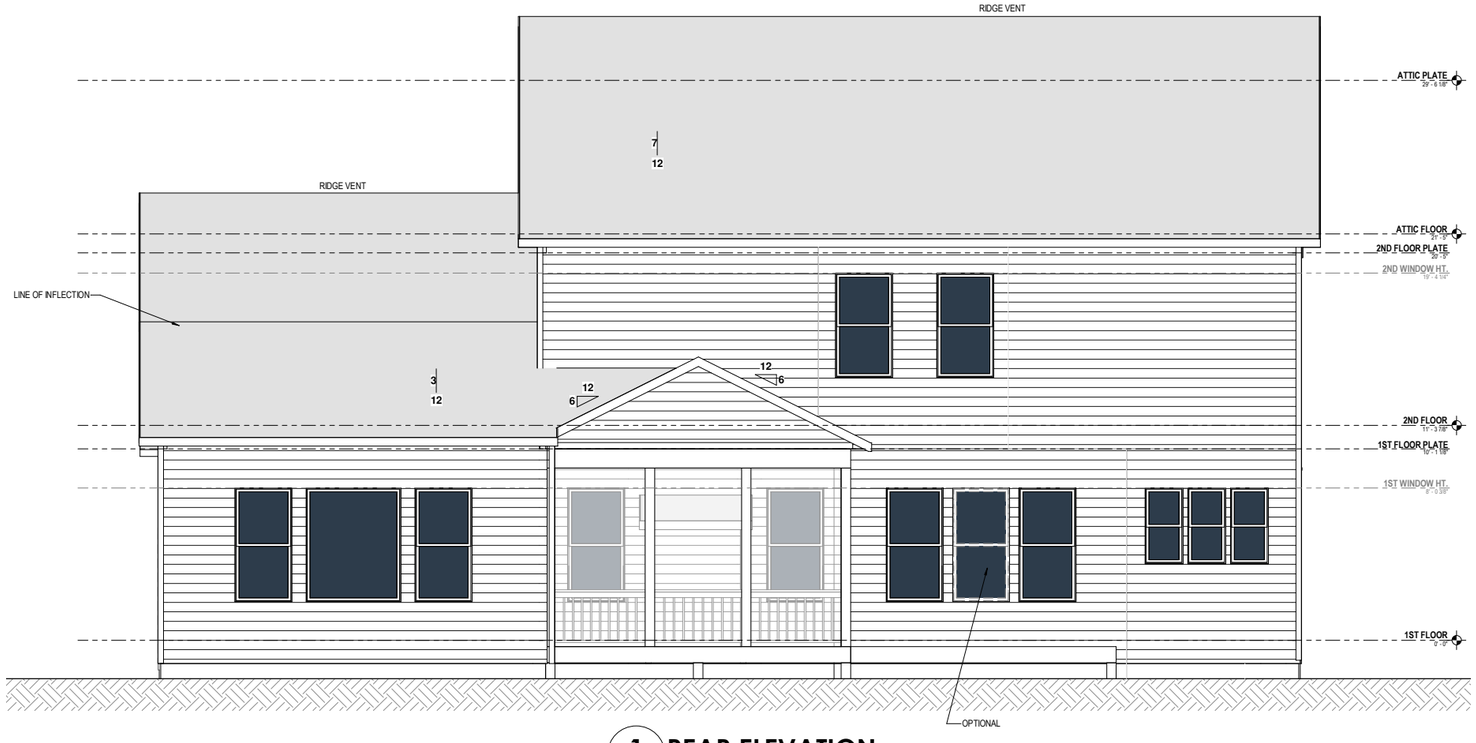
Checked By: SGM

1a



3 2a **LEFT ELEVATION**

1/8" = 1'-0"WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE



1 2a **REAR ELEVATION**

1/8" = 1'-0"WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

Right and Rear Elevations

Date: 2/29/22

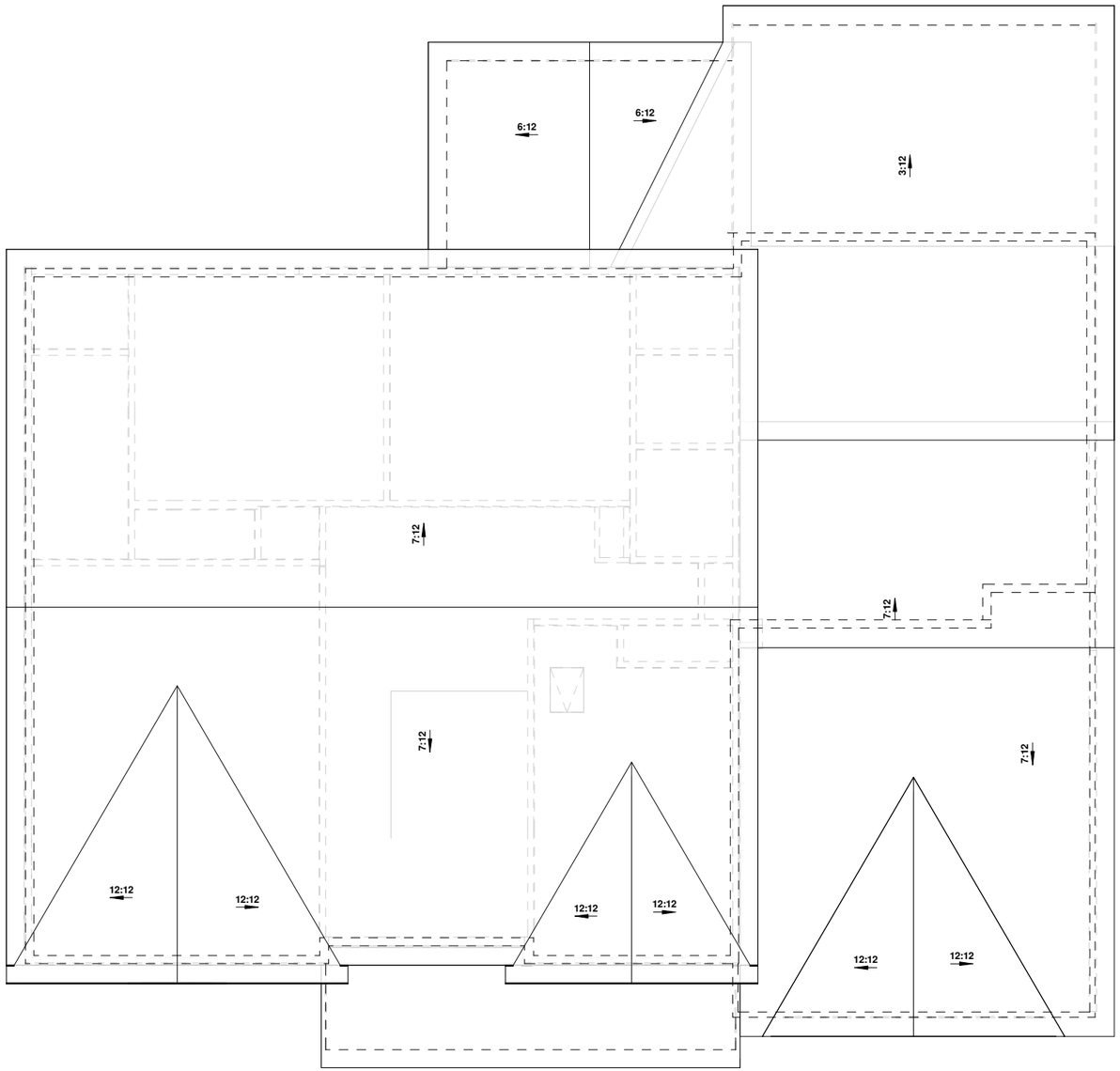
Drawn By: RDC

Checked By: SGM

2a

Roof Vent Calculations

SQFT. REQUIRED 2,560 /150 = 17.07 SQFT.



1 3a **Roof Plan**
1/8" = 1'-0 WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

Roof Plan Elevation 1

Date: 2/29/22

Drawn By: RDC

Checked By: SGM

3a

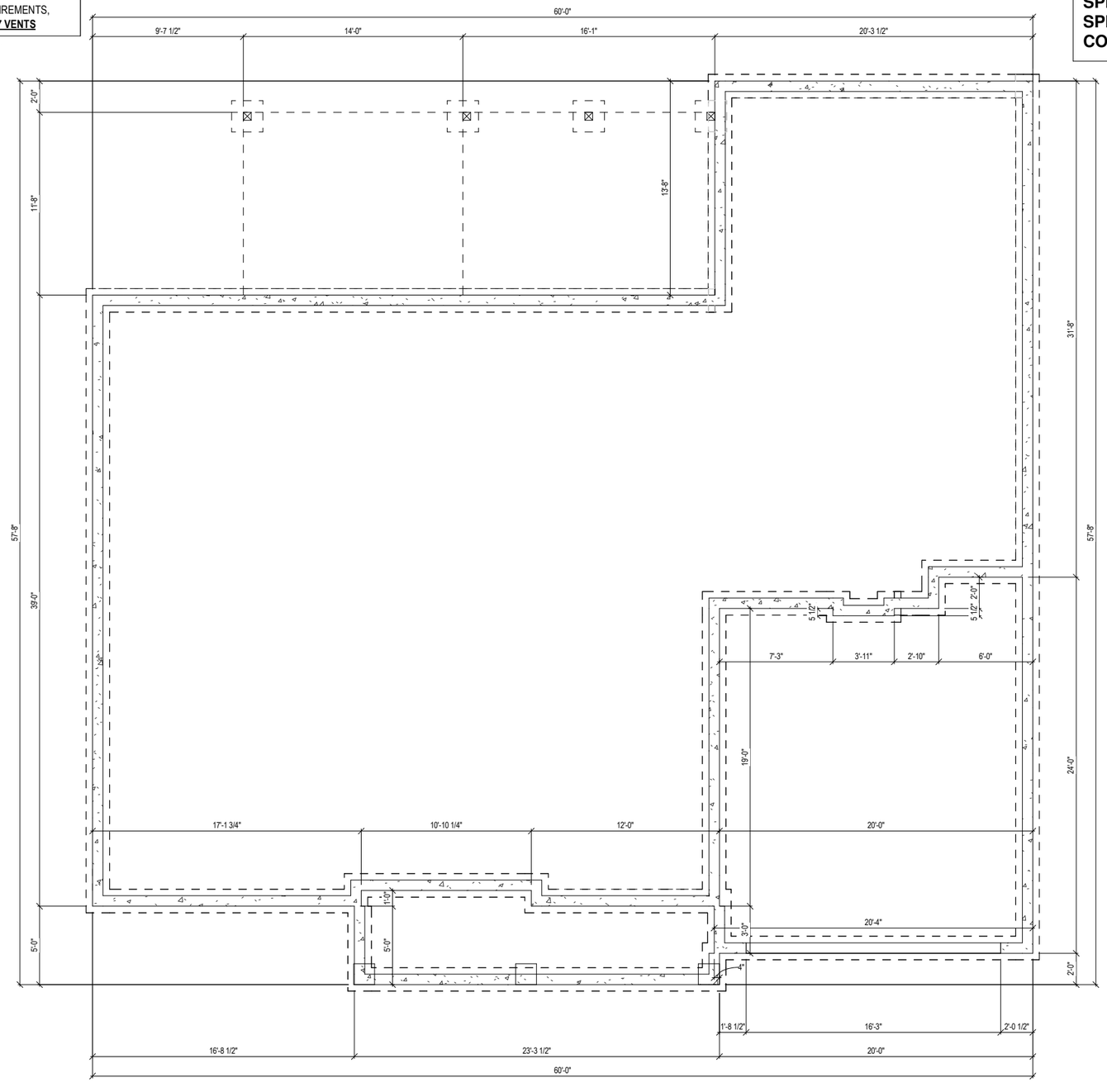
Crawl Vent Calculations

SQFT. OF VENTILATION REQ'D =	2216 CRAWL SQFT. /1500 =	1.48 SQFT.
NUMBER OF VENTS REQ'D =	1.48 / 0.45 SQFT. PER VENT	4 VENTS
VENT SHALL BE PLACED WITHIN AT LEAST 3'-0" FROM EACH FOUNDATION CORNER.		
# OF CORNERS EFFECTED =	7	
NUMBER OF CORNERS IS GREATER THAN SQUARE FOOTAGE REQUIREMENTS, THEREFORE THE NUMBER OF FOUNDATION VENTS REQUIRED IS = **7 VENTS**		

BASED ON TYPICAL AUTOMATIC FOUNDATION VENT HAVING 65 SQ. INCHES OF VENTING.
CONTRACTOR TO CONFIRM ACTUAL VENTS USED AND ADJUST AS NEEDED IN FIELD.

NOTE: THIS SHEET IS AN ARCHTIECTURAL FOUNDATION SHEET INTENDED ONLY FOR EXTERIOR DIMENSIONS AND/OR VENTILATION REQUIREMENTS/SPECIFICATIONS.

SEE SEALED STRUCTURAL PAGE FOR INFORMATION REGARDING, BUT NOT LIMITED TO, FOOTING LOCATIONS AND SPECIFICATIONS, PIER LOCATIONS AND SPECIFICATIONS, DECK FRAMING, AND COMPACTION



1 4a **Crawl Foundation**
1/8" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

NOTE: PLANSOURCE DESIGNS IS NOT RESPONSIBLE FOR THE STRUCTURAL CALCULATIONS FOR THIS CONSTRUCTION PLAN SET. ALL STRUCTURAL DESIGN ELEMENTS, INCLUDING BUT NOT LIMITED TO, BEAM SIZES, FLOOR SPANS, STUD COLUMNS AND FOOTING SIZES, ARE TO BE VERIFIED BY THE BUILDER AND/OR ENGINEER

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

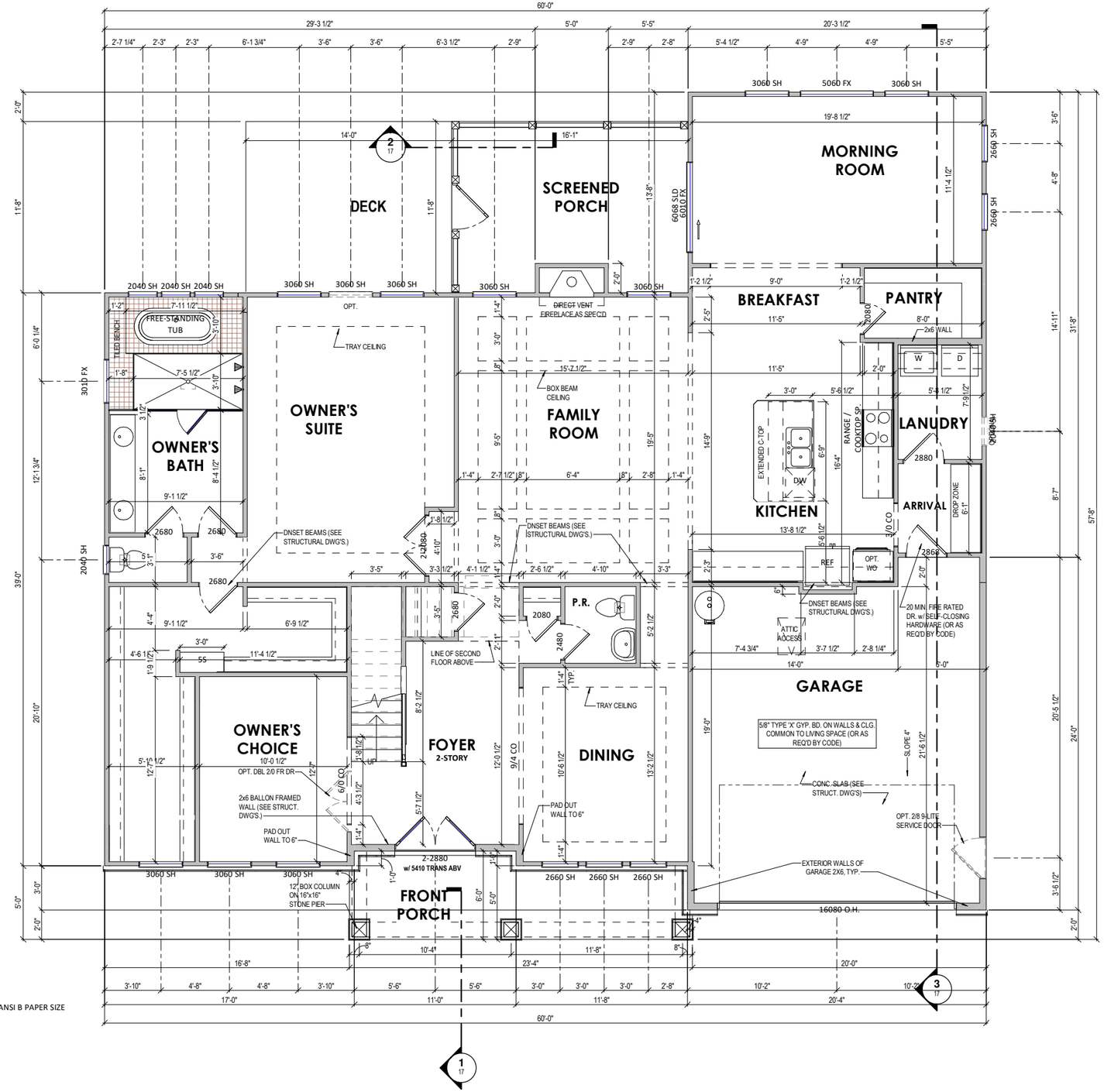
Crawl Foundation

Date: 2/29/22

Drawn By: sgm

Checked By: sgm

4a



1 5a **1st Floor Plan**
1/8" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

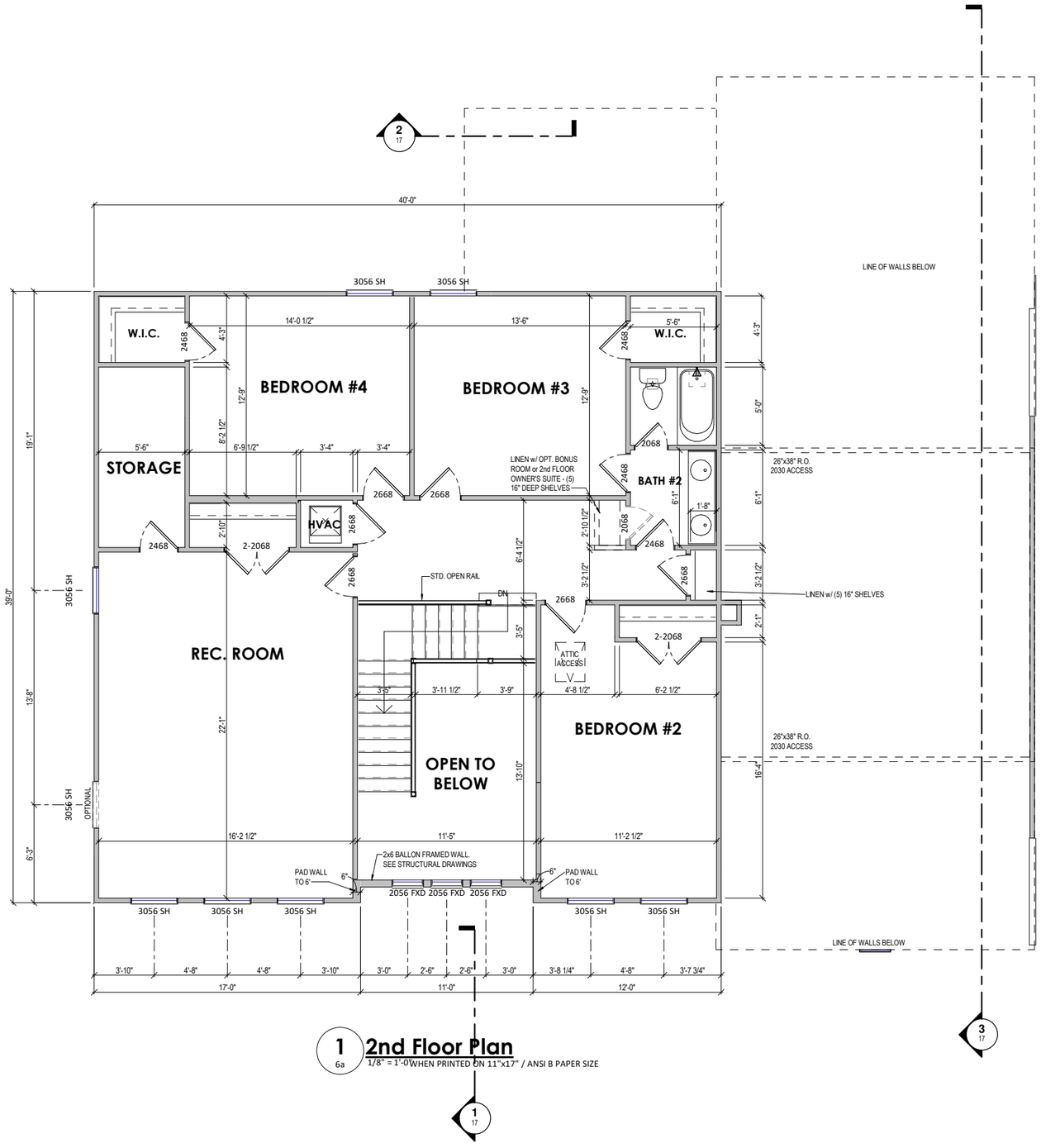
First Floor Plan Elevation 1

Date: 2/29/22

Drawn By: RDC

Checked By: SGM

5a



CARUSO Homes

Lexington II - NC1 79

Caruso Homes

Second Floor Plan

Date: 2/29/22

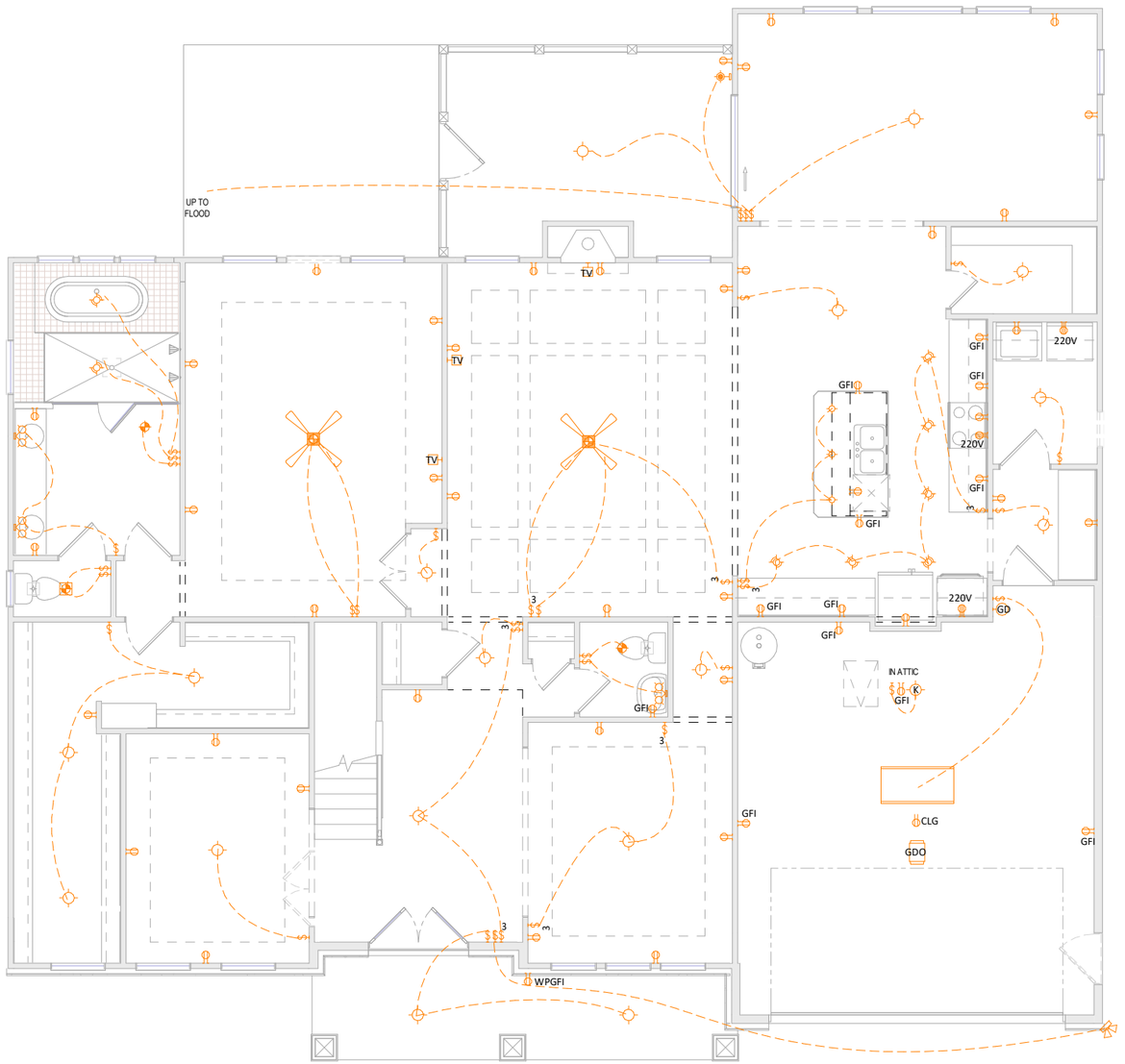
Drawn By: RDC

Checked By: SGM

6a

ELECTRICAL LEGEND

$	SINGLE POLE SWITCH	DB	DOOR BELL BUTTON
3	3-WAY SWITCH	CHIME	DOOR BELL CHIME
4	4-WAY SWITCH	GD	GARAGE DOOR BUTTON
D	DIMMER SWITCH	GDO	GARAGE DOOR OPENER
220	220 VOLT OUTLET	WPGFI	WEATHERPROOF OUTLET
	DUPLEX OUTLET	CLG	CEILING OUTLET
GFI	GROUND FAULT OUTLET	FLR	FLOOR OUTLET
S	SMOKE DETECTOR	CS	CARBON MONOXIDE & SMOKE DETECTOR COMBO
C	CARBON MONOXIDE DETECTOR	DATA	NETWORK OUTLET
TV	TELEVISION OUTLET	PH	TELEPHONE OUTLET
PANEL	SERVICE PANEL		GARBAGE DISPOSAL
M	SERVICE METER	ACCENT	ACCENT LIGHT
	WALL MOUNT LIGHT		SINGLE SCONCE
FLOOD	FLOOD LIGHT		DOUBLE SCONCE
3 BULB	STRIP LIGHT	STR	STAIR LIGHT
	BATH FAN & LIGHT		BATH FAN
CASTER	CLOSET CASTER LIGHT COMBO	UC	UNDER CABINET LIGHT
PC	PULL CHAIN LIGHT	K	KEYLESS LIGHT
	FLUSH MOUNT LIGHT	HANGING	HANGING LIGHT
PNDT	HANGING PENDANT	MINI	MINIATURE PUCK LIGHT
	RECESSED CAN LIGHT	EB	RECESSED EYEBALL LIGHT
	FLUORESCENT LIGHT RECTANGULAR	FR	FLUORESCENT LIGHT ROUND
CF	CEILING FAN		LIGHT w/ FAN ROUGH
LCF	LIGHTED CEILING FAN	LCF ROUGH	LIGHT & FAN ROUGH



1 15 **1st Floor Plan Electrical**
1/8" = 1'-0 WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

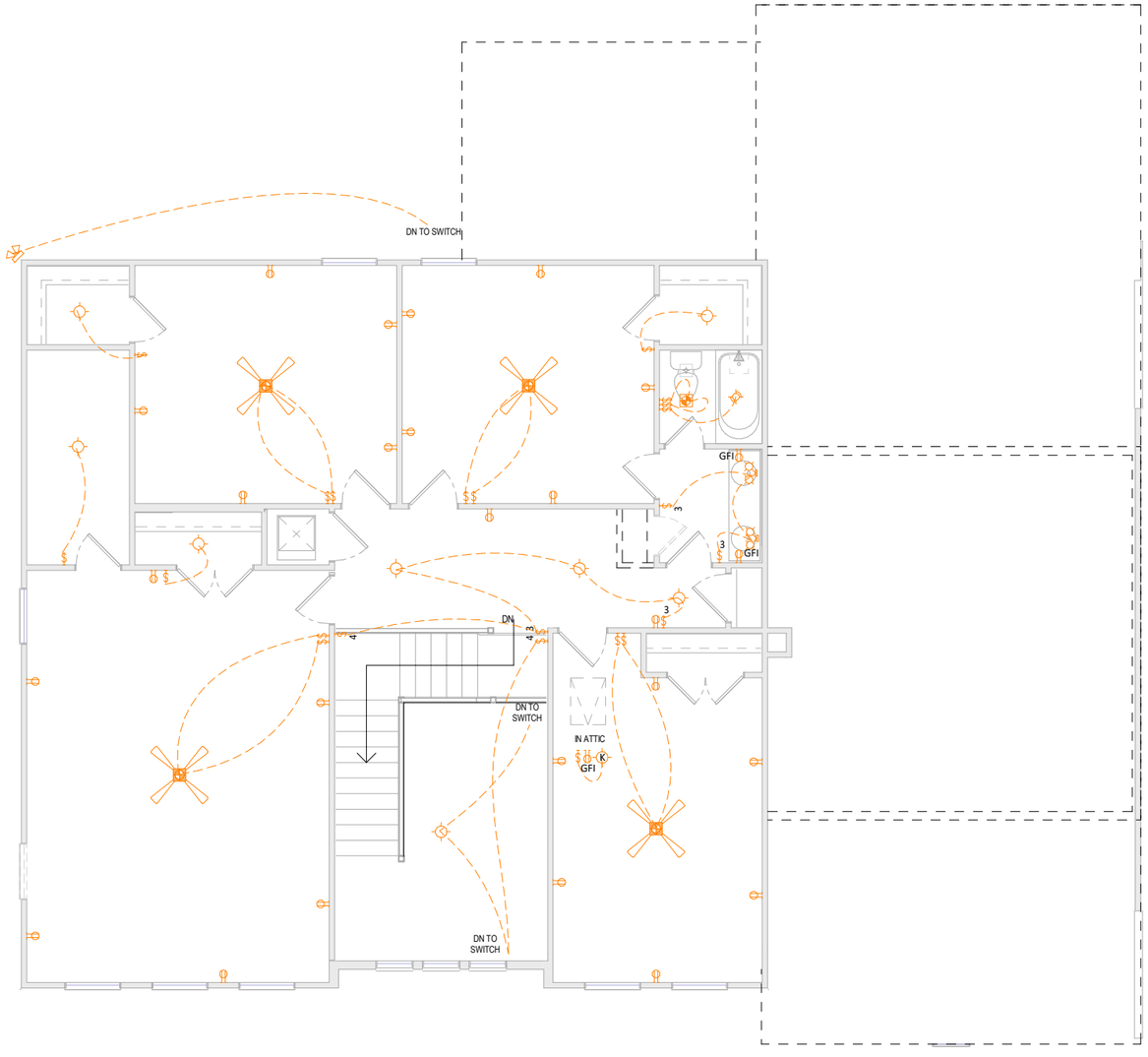
CARUSO Homes

Lexington II - NC1 79	Caruso Homes	First Floor Electrical
Date: 2/29/22	Drawn By: RDC	Checked By: SGM

15

ELECTRICAL LEGEND

$	SINGLE POLE SWITCH	DB	DOOR BELL BUTTON
$3	3-WAY SWITCH	CHIME	DOOR BELL CHIME
$4	4-WAY SWITCH	GD	GARAGE DOOR BUTTON
$D	DIMMER SWITCH	GDO	GARAGE DOOR OPENER
220	220 VOLT OUTLET	WPGFI	WEATHERPROOF OUTLET
	DUPLEX OUTLET	CLG	CEILING OUTLET
GFI	GROUND FAULT OUTLET	FLR	FLOOR OUTLET
S	SMOKE DETECTOR	CS	CARBON MONOXIDE & SMOKE DETECTOR COMBO
C	CARBON MONOXIDE DETECTOR	DATA	NETWORK OUTLET
TV	TELEVISION OUTLET	PH	TELEPHONE OUTLET
PANEL	SERVICE PANEL		GARBAGE DISPOSAL
M	SERVICE METER	ACCENT	ACCENT LIGHT
	WALL MOUNT LIGHT		SINGLE SCONCE
FLOOD	FLOOD LIGHT		DOUBLE SCONCE
3 BULB	STRIP LIGHT	STR	STAIR LIGHT
	BATH FAN & LIGHT COMBO		BATH FAN
CASTER	CLOSET CASTER LIGHT	UC	UNDER CABINET LIGHT
PC	PULL CHAIN LIGHT	K	KEYLESS LIGHT
	FLUSH MOUNT LIGHT	HANGING	HANGING LIGHT
PNDT	HANGING PENDANT	MINI	MINIATURE PUCK LIGHT
	RECESSED CAN LIGHT	EB	RECESSED EYEBALL LIGHT
	FLUORESCENT LIGHT RECTANGULAR	FR	FLUORESCENT LIGHT ROUND
CF	CEILING FAN		LIGHT w/ FAN ROUGH
LCF	LIGHTED CEILING FAN	LCF ROUGH	LIGHT & FAN ROUGH



1 16 **2nd Floor Plan Electrical**

1/8" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

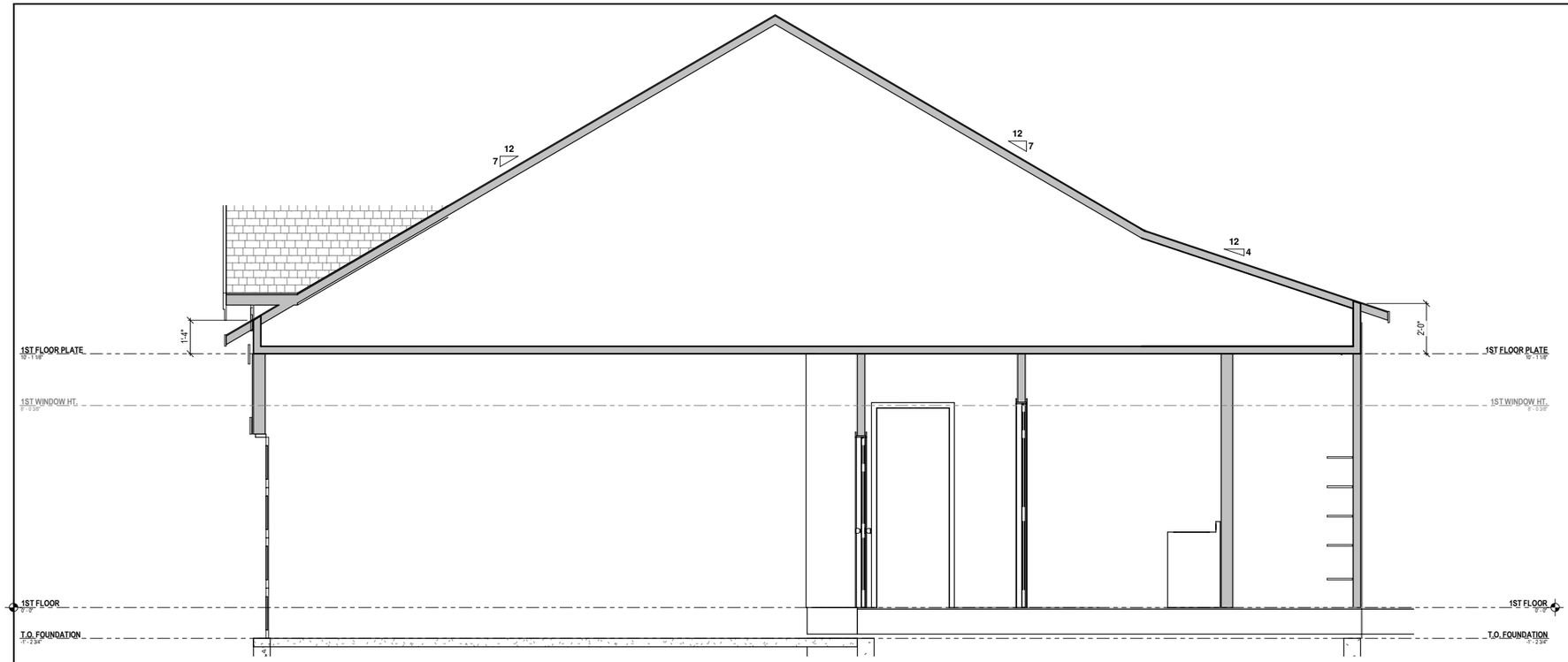
Second Floor Electrical

Date: 2/29/22

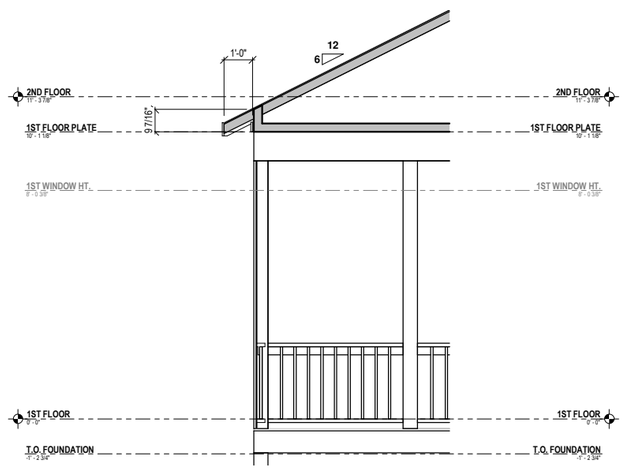
Drawn By: RDC

Checked By: SGM

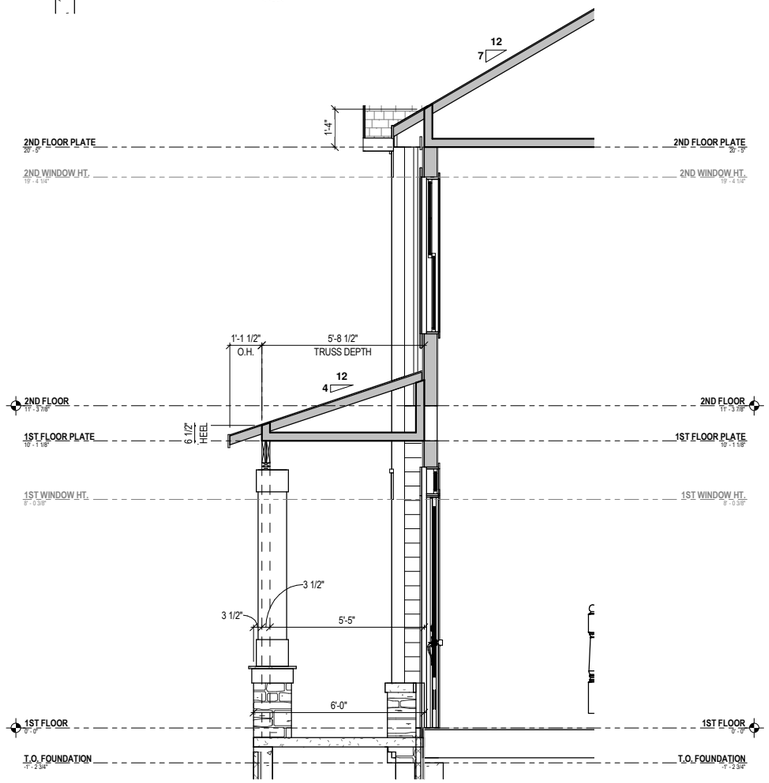
16



3 17 **Garage/House**
3/16" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE



2 17 **Screened Porch**
3/16" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE



1 17 **Front Porch**
3/16" = 1'-0" WHEN PRINTED ON 11"x17" / ANSI B PAPER SIZE

CARUSO Homes

Lexington II - NC1 79

Caruso Homes

Sections

Date: 2/29/22

Drawn By: sgm

Checked By: sgm

17

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

Applicable Building Codes:
- 2018 North Carolina Residential Building Code with All Local Amendments
- 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 Design 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	17.6,-18.9	18.3,-19.7	18.8,-20.2
ZONE 2	16.7,-21.0	17.6,-22.1	18.3,-22.9	18.8,-23.6
ZONE 3	16.7,-21.0	17.6,-22.1	18.3,-22.9	18.8,-23.6
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.8	20.4,-21.3
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.2	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 ____ I
   - 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
A Universal Engineering Sciences Company

STRUCTURAL PLANS PREPARED FOR:

NC179

PROJECT ADDRESS:
TBD

OWNER:
Caruso Homes
206 High House Road
Suite 205
Cary, NC 27511

DESIGNER:
TBD

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 & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
OC	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed based on the information provided by Caruso Homes. Subsequent plan revisions based on roof truss and floor joist layouts shall be noted in the revision list, indicating the date the layouts were provided. Should any discrepancies become apparent, the contractor shall notify SUMMIT immediately.

SHEET LIST:

REVISION LIST:

Revision No.	Date	Project No.	Description

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. This structure and all construction shall conform to all applicable sections of local building codes.
9. All structural assemblies are to meet or exceed to requirements of the current local building code.

FOUNDATIONS:

1. 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.
2. 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.
3. Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
4. The resulting soil shall be compacted to a minimum of 95% maximum dry density.
5. 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.
6. No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

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. Structural steel shall receive one coat of shop applied rust-inhibitive paint.
3. All steel shall have a minimum yield stress (F_y) of 36 ksi unless otherwise noted.
4. 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 otherwise noted 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 otherwise noted.
8. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
9. Reinforcing steel may not extend through a control joint. Reinforcing steel may extend through a saw cut joint.
10. All welded wire fabric (WWF) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF 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 C116, any local building code requirements, and shall meet or exceed the current industry standard.
5. Steel reinforcing bars shall be new billiet 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, unless noted otherwise.
2. LVL or PSL engineered wood shall have the following minimum design values:
   - 2.1. E = 1,900,000 psi
   - 2.2. F_b = 2600 psi
   - 2.3. F_v = 285 psi
   - 2.4. F_c = 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 SPF #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) 10d nails @ 24" O.C.
10. Four and five ply beams shall be bolted together with (2) rows of 1/2" diameter through bolts staggered @ 16" O.C. unless noted otherwise.

WOOD TRUSSES:

1. The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for the wood trusses.
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. 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."
4. 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.
5. 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 APA standards.
2. All structurally required fiberboard sheathing shall bear the mark of the APA.
3. 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.
4. Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the APA.

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CERTIFICATE OF LICENSURE

CLIENT:
CARUSO HOMES
206 HIGH HOUSE ROAD, SUITE 205
CARY, NC 27511

PROJECT:
NC179 (Lexington II I)

Coversheet

NORTH CAROLINA PROFESSIONAL SEAL 040218 ENGINEER CHRISTOPHER T. BLACKWELL
9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/02/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EMB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333 DATE 09/02/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
CS1

FOUNDATION NOTES:

1. FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
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. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE ELEMENTS, PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.
6. MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE AS SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
7. PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.
8. PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.
9. PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
10. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
11. CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
12. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
13. ABBREVIATIONS:

DJ = DOUBLE JOIST	SJ = SINGLE JOIST
GT = GIRDER TRUSS	FT = FLOOR TRUSS
SC = STUD COLUMN	DR = DOUBLE RAFTER
EE = EACH END	TR = TRIPLE RAFTER
TJ = TRIPLE JOIST	OC = ON CENTER
CL = CENTER LINE	PL = POINT LOAD

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 ENGINEERING, LABORATORY & TESTING, P.C. 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. (TYP.)

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: ALL EXTERIOR FOUNDATION DIMENSIONS ARE TO FRAMING AND NOT BRICK VENEER, UNO

NOTE: A 4" CRUSHED STONE BASE COURSE IS NOT REQUIRED WHEN SLAB IS INSTALLED ON WELL-DRAINED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1 PER TABLE R405.1

BEAM POCKETS MAY BE SUBSTITUTED FOR MASONRY PILASTERS AT GIRDER ENDS. BEAM POCKETS SHALL HAVE A MINIMUM 4" SOLID MASONRY BEARING.

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

18"x24" MIN. CRAWL SPACE ACCESS DOOR TO BE LOCATED IN FIELD PER BUILDER. PROVIDE MINIMUM (2) 2x10 HEADER OVER DOOR w/ MIN. 4" BEARING AT EACH END. AVOID SHOWN POINT LOADS.

DECK JOISTS SHALL BE SPACED AT A MAX. 12" O.C. WHEN DECK BOARDS ARE INSTALLED DIAGONALLY.

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 CARUSO HOMES COMPLETED/REVISED ON 08/23/2022. 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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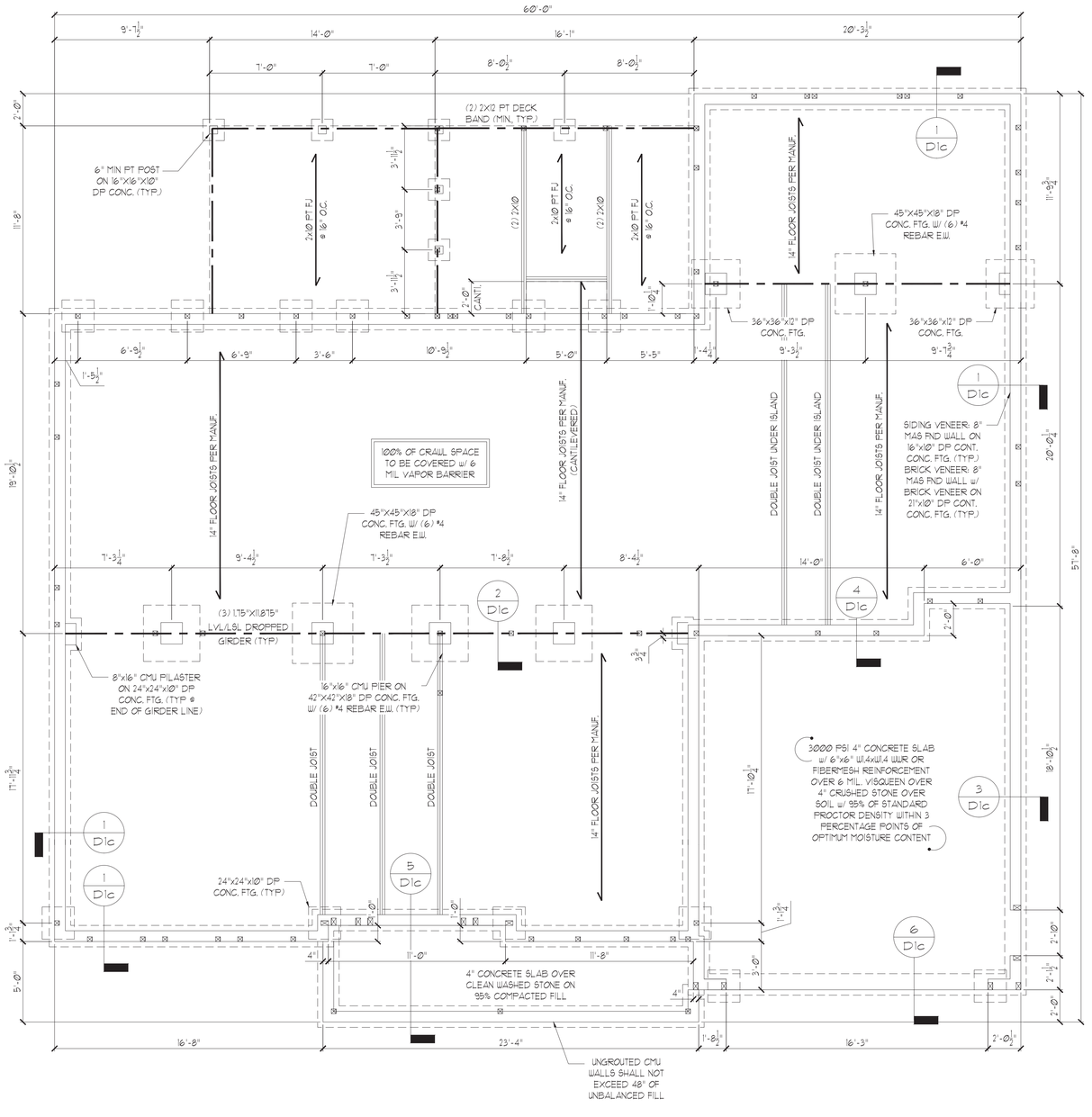
STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

CRAWL SPACE FOUNDAITON PLAN

SCALE: 1/4"=1'



ELEVATION 1

CRAWL SPACE VENTILATION:
2216 SQ. FT. / 150 = 14.8 SQ. FT. REQ'D.
14.8 SQ. FT. / Ø.45 PER VENT = 33 VENTS REQ'D.

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

STUD SPACED @ END CRIPPLE WALLS			
STUD SIZE	MAXIMUM STUD HEIGHT		
	UP TO 48"	4'-1" TO 6'-0"	6'-1" TO 8'-0"
2x4	16"	12"	N/A
2x6	16"	16"	12"

NOTES:
1. CRIPPLE STUDS EXCEEDING 48" IN HEIGHT SHALL BE CONSIDERED AN ADDITIONAL STORY. PER R602.9
2. CRIPPLE STUDS SHALL NOT BE FRAMED SMALLER THAN THE STUD SIZE FRAMED ABOVE.
3. SQUASH BLOCKING SHALL BE INSTALLED UNDER ALL SHOWN STUD COLUMNS.
4. CRIPPLE WALLS SHALL BE SHEATHED IN ACCORDANCE WITH SHEATHING METHOD DENOTED ON FLOOR ABOVE.

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CLIENT:
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PROJECT:
NC179 (Lexington II L)
Crawl Space Foundation

NORTH CAROLINA PROFESSIONAL SEAL 050713 ENGINEER CHRISTOPHER T. BLACKWELL
9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/07/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EMB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/07/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S1.0c

GENERAL STRUCTURAL NOTES:

1. CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
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 SHALL BE #2 SPF (UNO).
6. ALL BEAMS SHALL BE SUPPORTED WITH A (2) 2x4 #2 SPF STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
7. ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM COVER OF 3".
8. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.1.6. MINIMUM 1/2" DIA. BOLTS SPACED AT 6'-0" ON CENTER WITH A 7" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. MINIMUM (2) ANCHOR BOLTS PER PLATE SECTION AND (1) LOCATED NOT MORE THAN 12" FROM THE CORNER. ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
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 OR EQUIVALENT CONNECTIONS PER DETAIL 1/D3f. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
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. (UNLESS NOTED OTHERWISE)
12. ABBREVIATIONS:

DJ = DOUBLE JOIST	SJ = SINGLE JOIST
GT = GIRDER TRUSS	FT = FLOOR TRUSS
SC = STUD COLUMN	DR = DOUBLE RAFTER
EE = EACH END	TR = TRIPLE RAFTER
TJ = TRIPLE JOIST	OC = ON CENTER
CL = CENTER LINE	PL = POINT LOAD

WALL STUD SCHEDULE (10 FT HEIGHT)

STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

NOTES:
1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.
2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.
3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.
4. FOR STUDS GREATER THAN 10'-0" IN HEIGHT, REFER TO TWO STORY WALL NOTE FOR FRAMING REQUIREMENT.

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

LINTEL SCHEDULE:

STEEL ANGLES TO HAVE MINIMUM 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.

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR (3))

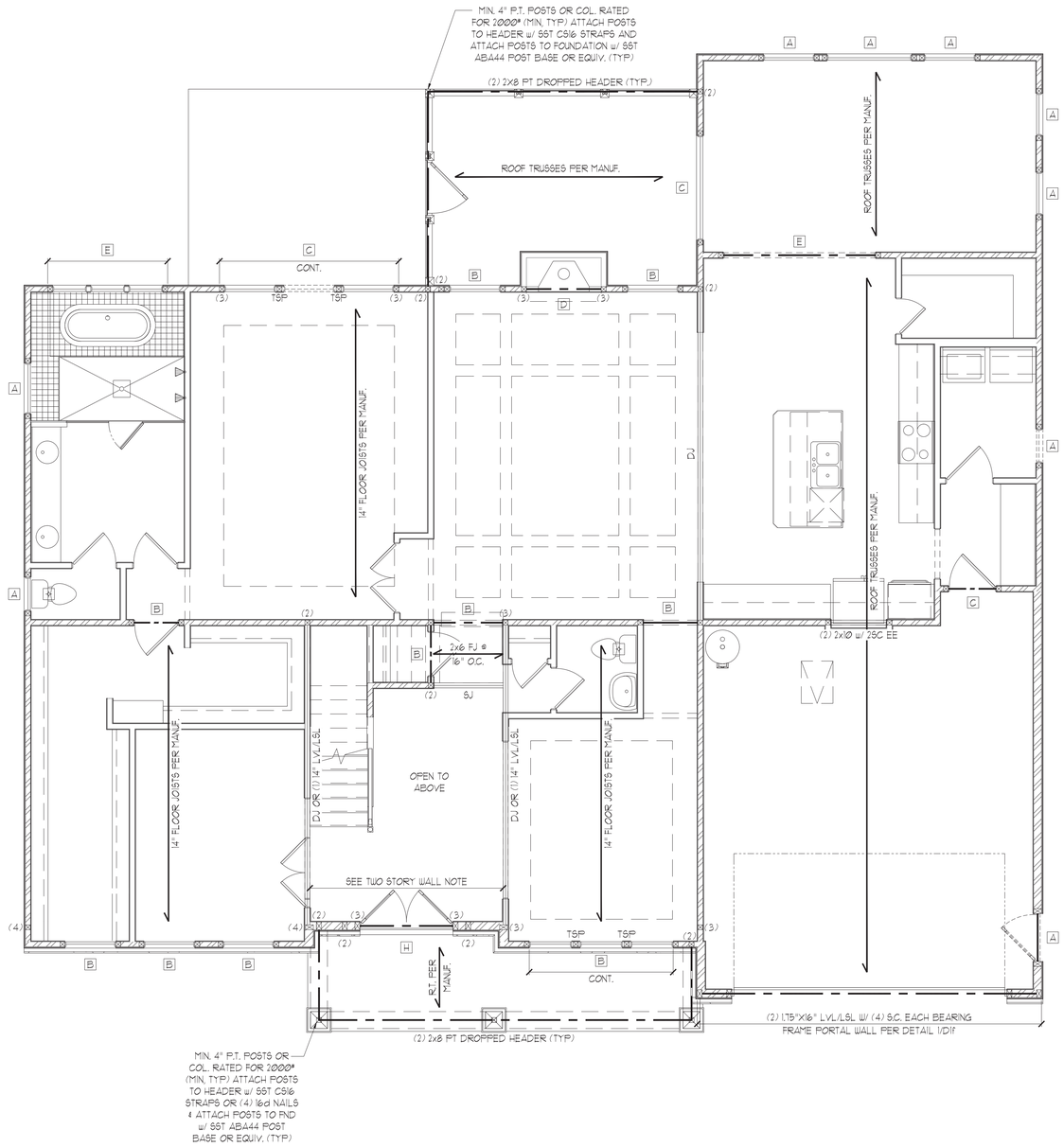
SHADE WALLS INDICATED LOAD BEARING WALLS

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

HEADER SCHEDULE

TAG	SIZE	JACKS (EACH END)
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 (U.N.O.).
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).



ELEVATION 1

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY CARUSO HOMES COMPLETED/REVISED ON 08/29/2022. 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 FRAMING PLAN

SCALE: 1/4"=1'

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CLIENT:
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2216 HIGH HOUSE ROAD, SUITE 205
CARY, NC 27511

PROJECT:
NC179 (Lexington II)
First Floor Framing Plan

NORTH CAROLINA PROFESSIONAL SEAL 050213 ENGINEER CHRISTOPHER T. BLACKWELL 9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/07/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: BTB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/07/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S3.0

HEADER SCHEDULE

TAG	SIZE	JACKS (EACH END)
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 (U.N.O.).
3. STUD COLUMNS NOTED ON PLAN OVERRIDE STUD COLUMNS LISTED ABOVE (U.N.O.).

KING STUD SCHEDULE

MAXIMUM HEADER SPAN	MINIMUM KING STUDS E.E.
3'-0"	(1)
4'-0"	(2)
8'-0"	(3)
12'-0"	(5)
16'-0"	(6)

WALL STUD SCHEDULE (10 FT HEIGHT)

STUD SIZE	STUD SPACING (O.C.)			
	ROOF ONLY	ROOF & 1 FLOOR	ROOF & 2 FLOORS	NON-LOAD BEARING
2x4	24"	16"	12"	24"
2x6	24"	24"	16"	24"

NOTES:
1. BRACED WALLS STUDS SHALL BE A MAX. OF 16" O.C.
2. STUDS SUPPORTS OPTIONAL WALK-UP ATTIC SHALL BE SPACED A MAX. OF 16" O.C.
3. TWO STORY WALLS SHALL BE FRAMED w/ 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY.
4. FOR STUDS GREATER THAN 10'-0" IN HEIGHT, REFER TO TWO STORY WALL NOTE FOR FRAMING REQUIREMENT.

ALL HEADERS WHERE BRICK IS USED, TO BE:

(1) LINTEL (U.N.O.)

LINTEL SCHEDULE:

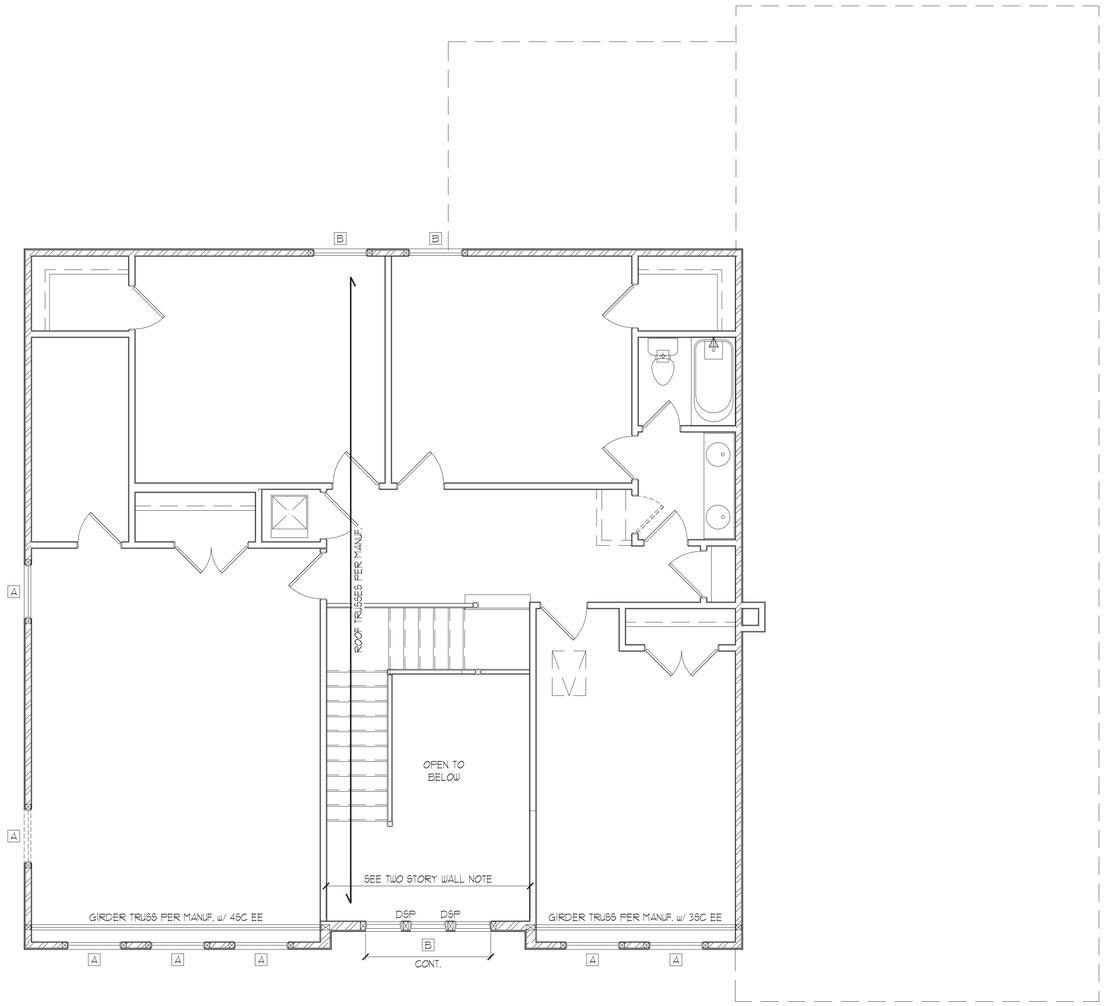
STEEL ANGLES TO HAVE MINIMUM 4" BEARING ONTO BRICK AT EACH END.

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

SECURE LINTEL TO HEADER w/ (2) 1/2" DIAMETER LAG SCREWS STAGGERED @ 16" O.C. (TYP FOR (3))

SHADE WALLS INDICATED LOAD BEARING WALLS

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



ELEVATION 1

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY CARUSO HOMES COMPLETED/REVISED ON 08/29/2022. 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: 1/4"=1'

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SUMMIT Engineering, Laboratory & Testing, Inc.
F-1454

CLIENT:
CARUSO HOMES
206 HIGH HOUSE ROAD, SUITE 205
CARY, NC 27511

PROJECT:
NC 79 (Lexington II)
Second Floor Framing Plan

NORTH CAROLINA PROFESSIONAL SEAL 049719 ENGINEER CHRISTOPHER T. BLACKWELL
9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/02/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EMB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/02/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S4.0

TRUSS UPLIFT CONNECTOR SCHEDULE

MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO END
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) MTS20	(2) CS16 (END = 11")	DTT2Z
2900 LBS	(2) HTS20	(2) CS16 (END = 11")	HTT4
3685 LBS	LGT3-SDS2.5	MSTC52	HTT4

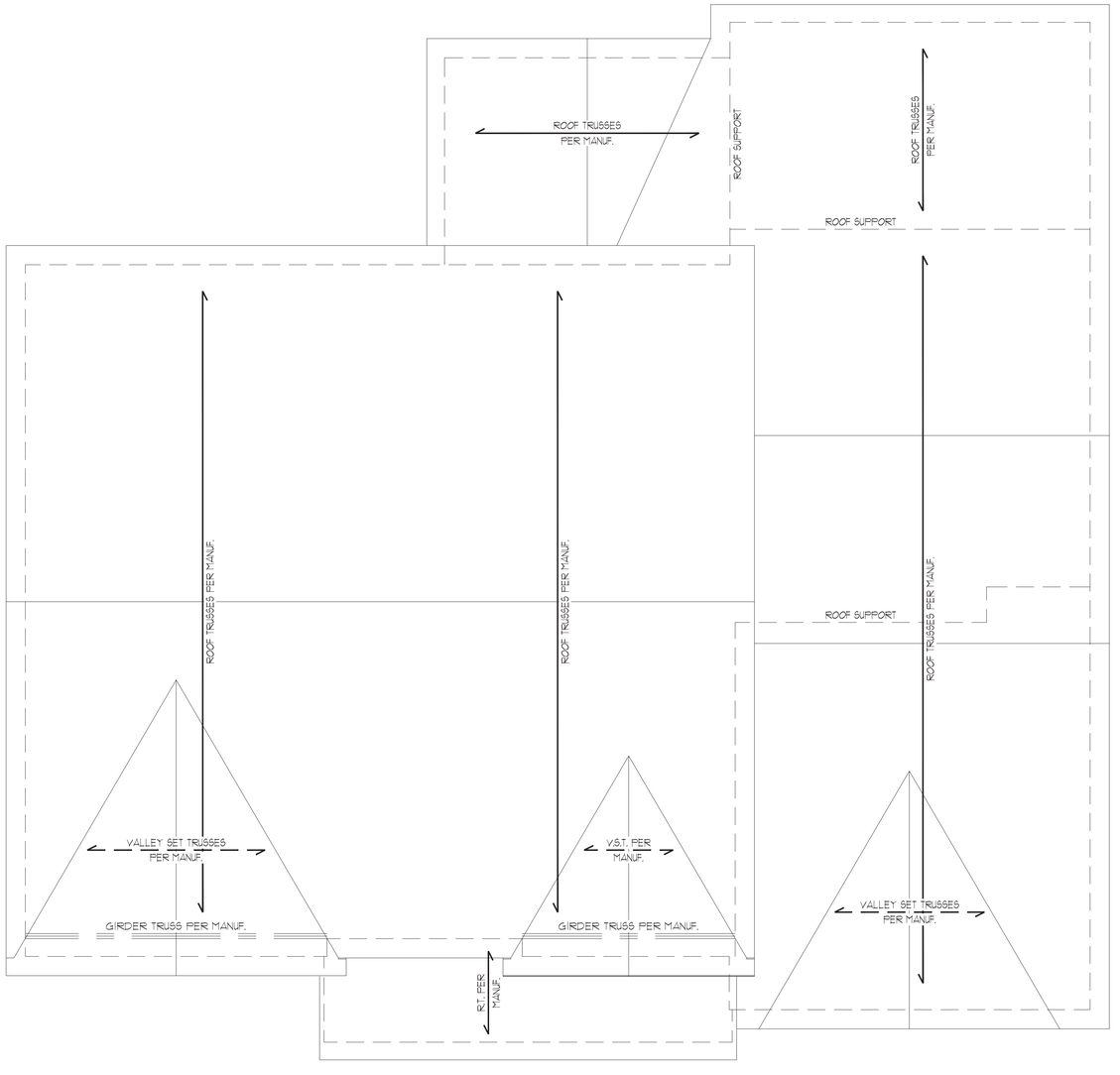
1. ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANUFACTURER'S SPECIFICATIONS.
2. UPLIFT VALUES LISTED ARE FOR SYP #2 GRADE MEMBERS.
3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS MANUFACTURER OVERRIDE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

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

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

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

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS MANUFACTURER IN ACCORDANCE WITH SECTION R802.11.1. WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC. REFER TO BRACED WALL PLANS FOR SHEATHING AND FASTENER REQUIREMENTS.



ELEVATION 1

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY CARUSO HOMES COMPLETED/REVISED ON 08/29/2022. 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.

ROOF FRAMING PLAN

SCALE: 1/4"=1'

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SUMMIT Engineering, Laboratory & Testing, Inc.
F-1454

CLIENT:
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206 HIGH HOUSE ROAD, SUITE 205
CARY, NC 27511

PROJECT:
NC179 (Lexington II)
Roof Framing Plan

NORTH CAROLINA PROFESSIONAL SEAL 040214 ENGINEER CHRISTOPHER T. BLACKWELL 9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/07/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EHB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/07/2022

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 R1703.3.5				

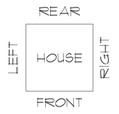
BRACED WALL NOTES:

1. WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2018 NORTH CAROLINA RESIDENTIAL CODE.
2. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
3. REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING SIZES.
4. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
5. 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.
6. MINIMUM PANEL LENGTH SHALL BE PER TABLE R602.10.1.
7. THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO).
8. 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.
9. FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
10. A BRACED WALL PANEL SHALL BE LOCATED WITHIN 12 FEET OF EACH END OF A BRACED WALL LINE.
11. THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 21 FEET.
12. 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 OF THE 2018 NCRC OR DETAIL 2//D2f.
13. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.4
14. BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602.10.4.5
15. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.4.6
16. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.1 (UNO)
17. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
18. ABBREVIATIONS:

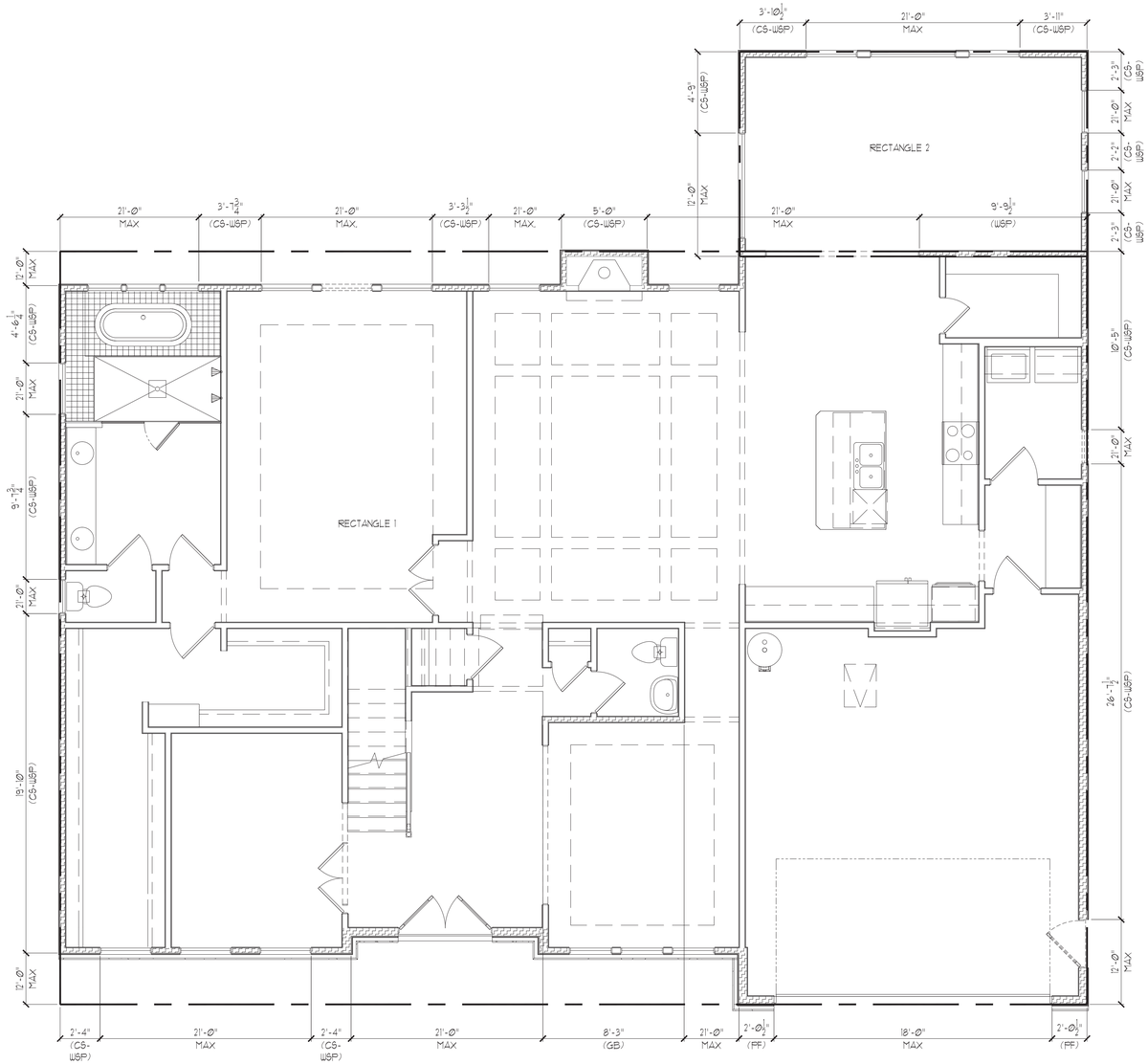
GB = GYPSUM BOARD
CS-XXX = CONT. SHEATHED
FF = PORTAL FRAME
WSP = WOOD STRUCTURAL PANEL
ENG = ENGINEERED SOLUTION
FF-ENG = ENG. PORTAL FRAME

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

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.



FIRST FLOOR BRACING (FT)		
RECTANGLE 1		
	REQUIRED	PROVIDED
FRONT SIDE	14.8	14.9
LEFT SIDE	19.6	34.0
REAR SIDE	14.8	14.9
RIGHT SIDE	19.6	37.0
RECTANGLE 2		
	REQUIRED	PROVIDED
FRONT SIDE	2.6	6.7
LEFT SIDE	3.4	4.7
REAR SIDE	2.6	7.7
RIGHT SIDE	3.4	6.6



ELEVATION 1

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STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR BRACING PLAN

SCALE: 1/4"=1'

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SUMMIT Engineering, Laboratory & Testing, Inc.
F-1454

CLIENT:
CARUSO HOMES
206 HIGH HOUSE ROAD, SUITE 205
CARY, NC 27511

PROJECT:
NC179 (Lexington II U)
First Floor Bracing Plan

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 050113 CHRISTOPHER T. BLACKWELL
9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/07/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EMB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/07/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
S7.0

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.
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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				

BRACED WALL NOTES:

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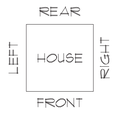
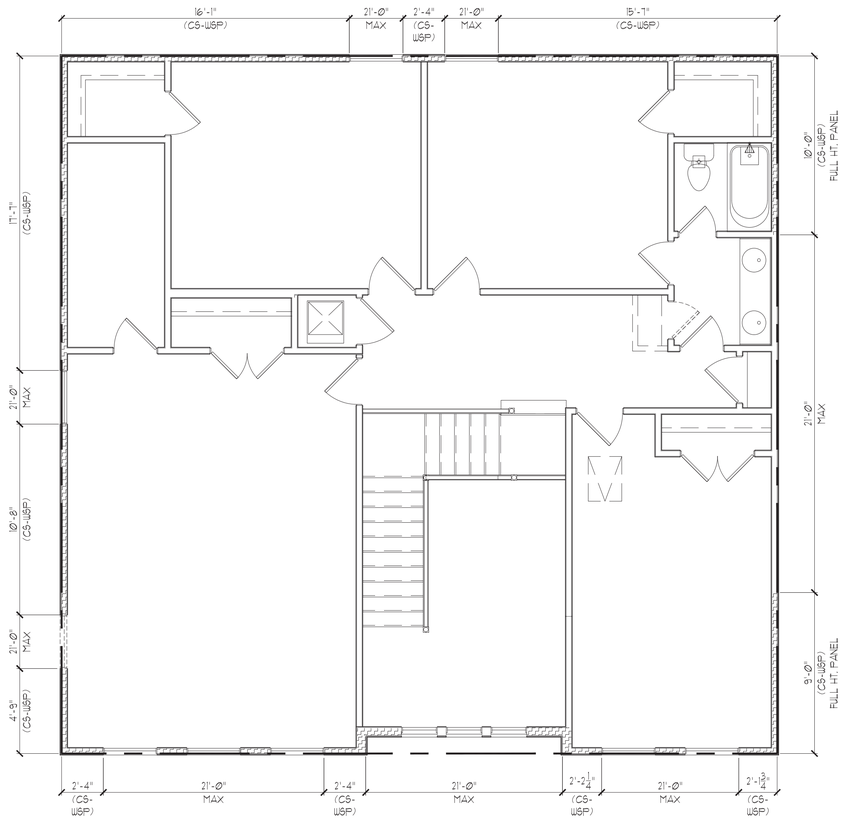


INSTALL HOLD-DOWNS FOR BRACED WALL END CONDITIONS PER SECTION R602.10.4 AND FIGURE R602.10.3(4) OF THE 2018 NCRC.

NOTE: WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE CONTINUOUS WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION R602.3.5 OF THE 2018 NCRC.

SECOND FLOOR BRACING (FT)

	CONTINUOUS SHEATHING METHOD	
	REQUIRED	PROVIDED
FRONT SIDE	5.1	8.9
LEFT SIDE	5.9	33.0
REAR SIDE	5.1	34.0
RIGHT SIDE	5.9	19.0



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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

SECOND FLOOR BRACING PLAN

SCALE: 1/4"=1'

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PROJECT:
NC1 76 (Lexington II I)
Second Floor Bracing Plan

NORTH CAROLINA PROFESSIONAL SEAL 050713 ENGINEER CHRISTOPHER T. BLACKWELL
9/6/22
STRUCTURAL MEMBERS ONLY

DRAWING
DATE: 09/07/2022
SCALE: 24x36 1/4"=1'-0"
8x11 1/8"=1'-0"
PROJECT #: 4231333
DRAWN BY: EMB
CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT # 4231333
DATE 09/07/2022

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

SHEET
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