



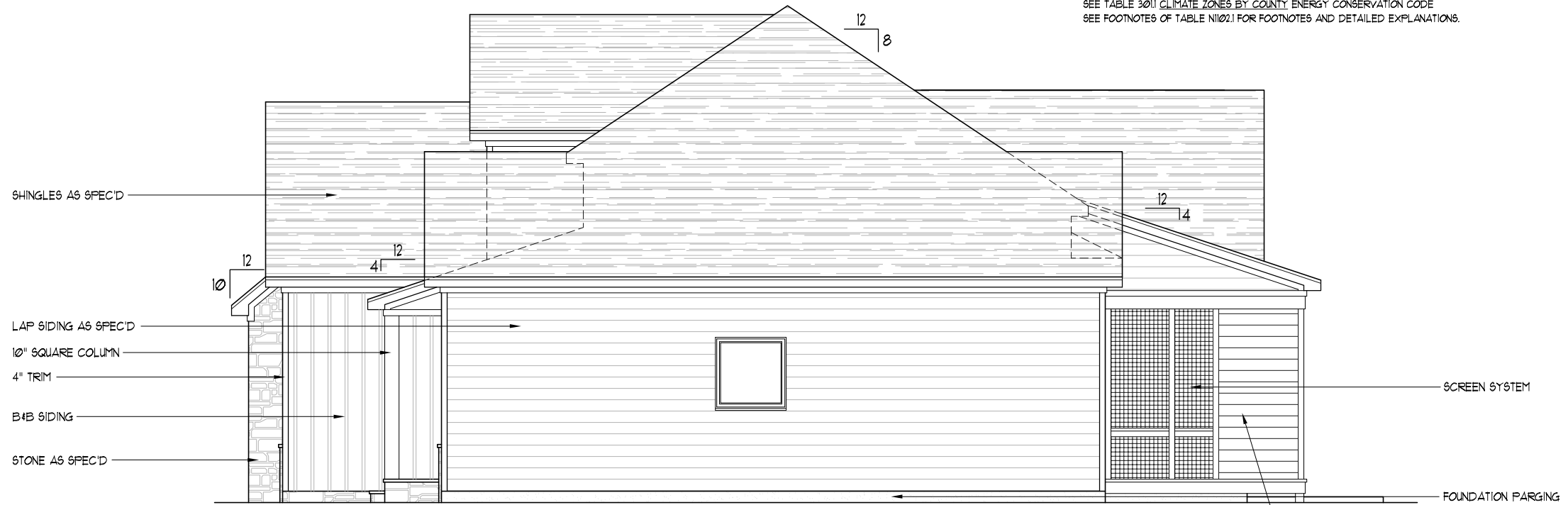
FRONT ELEVATION
 SCALE: 1/8" = 1'-0"

THIS PLAN CONFORMS TO THE 2012 EDITION OF THE I.R.C. / NORTH CAROLINA RESIDENTIAL CODE.

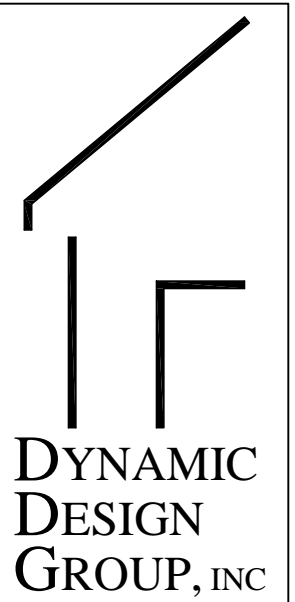
TABLE 402.1.1 ENERGY CONSERVATION CODE INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT

CLIMATE ZONE	FENS. U-FAC	SKY-LIGHT U-FAC	GLAZED FENS. SHGC	MINIMUM INSULATION R-VALUE						
				CEILING	WOOD WALL	MASS WALL	FLOOR	BSMT WALL	SLAB DEPTH	CRAWL SPACE
3	0.35	0.65	0.30	30	13	5/10	19	10/13	0	5/13
4	0.35	0.60	0.30	38 or 30 cont.	15 or 13.2.5	5/10	19	10/13	10	10/13
5	0.35	0.60	NR	38 or 30 cont.	19 13.2.5 or 15.3	13/11	30	10/13	10	10/13

SEE TABLE 301 CLIMATE ZONES BY COUNTY ENERGY CONSERVATION CODE
 SEE FOOTNOTES OF TABLE N102.1 FOR FOOTNOTES AND DETAILED EXPLANATIONS.



RIGHT SIDE ELEVATION
 SCALE: 1/8" = 1'-0"



DYNAMIC DESIGN GROUP, INC
 David D Grorud
 (919) 601-1406
 DynamicDesignGroup@gmail.com
 www.DDGhomeplans.com

The drawings and specifications (plans) contained on these pages are the property of Dynamic Design Group and are offered to the named client or contractor for a conditional one time use. The conditional use is limited to the lot and subdivision specified herein, and only for said location. COPYRIGHT 2018
 Contractor shall verify all conditions and dimensions prior to construction. Any error or omissions shall be reported to Dynamic Design Group for corrections or justification. Once construction has commenced, the contractor shall assume all responsibility. Dimensions govern over scale, code governs over dimensions.

PROJECT FOR: ICG
 LOCATION: FUQUAY-VARINA
 LOT: 113
 SUBDIVISION: SERENITY
 COUNTY: WAKE

COLTAN
 PLAN NAME rev 10-12-22
B1-3251-58GL 11-15-21
 PLAN I.D. DATE

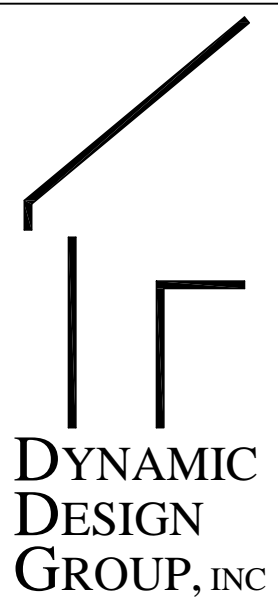
A-1A
 SHEET



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



LEFT SIDE ELEVATION
 SCALE: ----- 1/8" = 1'-0"



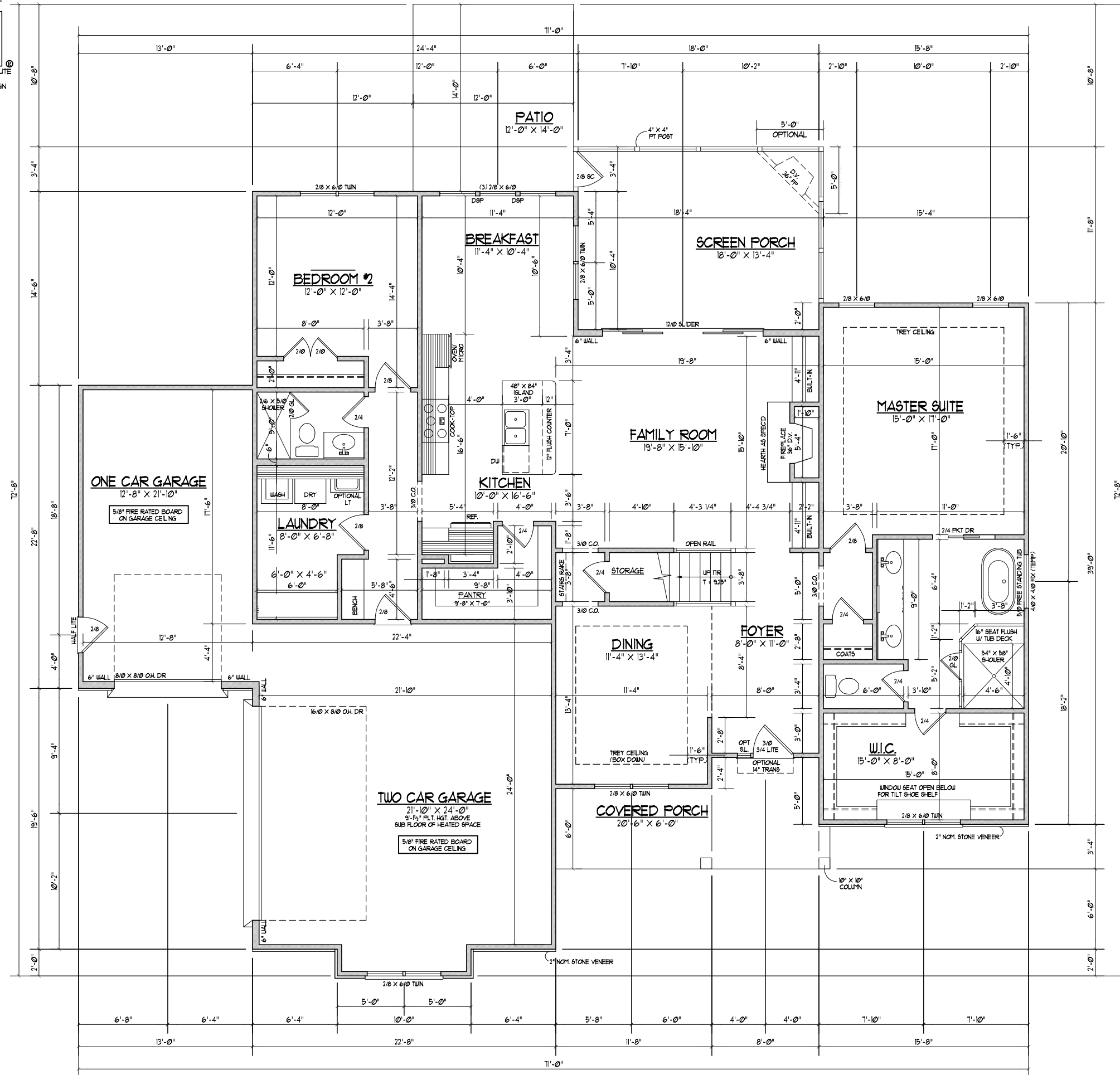
David D Grorud
 (919) 601-1406
 DynamicDesignGroup@gmail.com
 www.DDGhomeplans.com

The drawings and specifications (plans) contained on these pages are the property of Dynamic Design Group and are offered to the named client or contractor for a conditional one time use. The conditional use is limited to the lot and subdivision specified herein, and only for said location. COPYRIGHT 2018
 Contractor shall verify all conditions and dimensions prior to construction. Any error or omissions shall be reported to Dynamic Design Group for corrections or justification. Once construction has commenced, the contractor shall assume all responsibility. Dimensions govern over scale, code governs over dimensions.

PROJECT FOR: ICG
 LOCATION: FUQUAY-VARINA
 LOT: 113
 SUBDIVISION: SERENITY
 COUNTY: WAKE

COLTAN
 PLAN NAME rev 10-12-22
 B1-3251-58GL 11-15-21
 PLAN I.D. DATE

A-1B
 SHEET

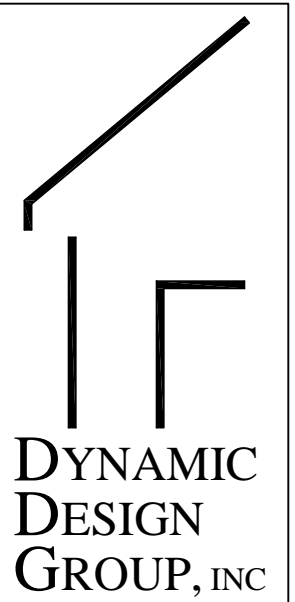


**FIRST FLOOR PLAN
 WITH 3RD CAR OPTION**

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

2022 HEATED SQ. FT.
50 SQ. FT. GARAGE 803
139 SQ. FT. COVERED PORCH
251 SQ. FT. SCREEN PORCH
168 SQ. FT. PATIO

- NOTES:
- 1) 10'-0" CLG. HGT. (10' - 1 1/2" FLT. HGT.) UNLESS OTHERWISE NOTED.
 - 2) ALL WALLS FIGURED AT 4" WIDTHS
 - 3) SET WINDOWS AT 8'-0" A.S.F. UNLESS OTHERWISE NOTED.
 - 4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
 - 5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPENINGS.
 - 6) ELECTRICAL LAYOUT BY BUILDER



**DYNAMIC
 DESIGN
 GROUP, INC**

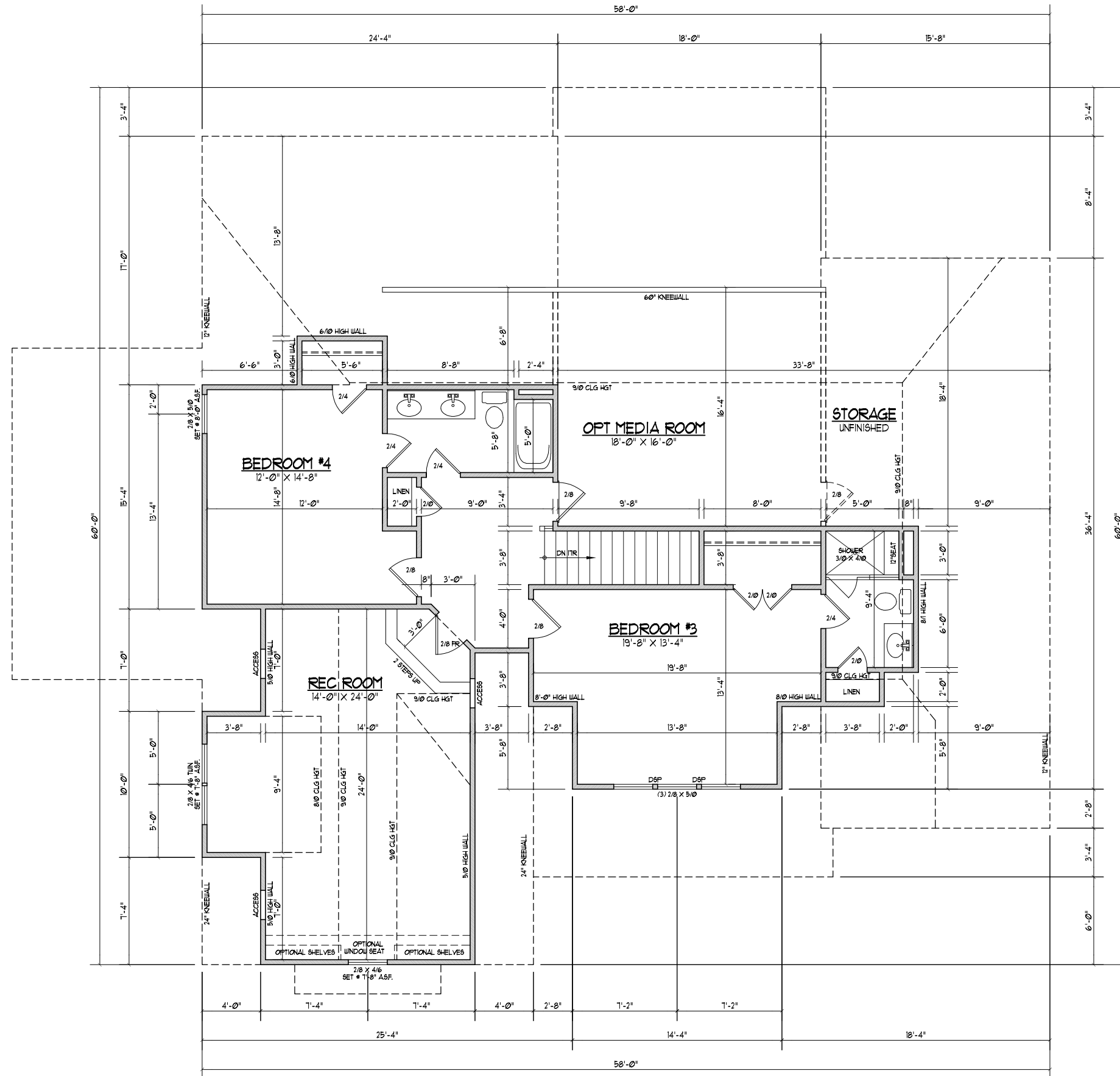
David D Grorud
 (919) 601-1406
 DynamicDesignGroup@gmail.com
 www.DDGhomeplans.com

The drawings and specifications (plans) contained on these pages are the property of Dynamic Design Group and are offered to the named client or contractor for a conditional one time use. The conditional use is limited to the lot and subdivision specified herein, and only for said location. COPYRIGHT 2018
 Contractor shall verify all conditions and dimensions prior to construction. Any error or omissions shall be reported to Dynamic Design Group for corrections or justification. Once construction has commenced, the contractor shall assume all responsibility. Dimensions govern over scale, code governs over dimensions.

PROJECT FOR: ICG
 LOCATION: FUQUAY-VARINA
 LOT: 113
 SUBDIVISION: SERENITY
 COUNTY: WAKE

COLTAN
 PLAN NAME rev 10-12-22
B1-3251-58GL 11-15-21
 PLAN I.D. DATE

A-2
 SHEET



**SECOND FLOOR PLAN
 WITH 3RD CAR OPTION**

SCALE 1/8"=1'-0"

1190 HEATED SQ. FT.
 302 OPTIONAL MEDIA ROOM

- NOTES:
- 1) 9'-0" CLG. HGT. (9' - 1 1/2" PLT. HGT.) UNLESS OTHERWISE NOTED.
 - 2) ALL WALLS FIGURED AT 4" WIDTHS UNLESS OTHERWISE NOTED.
 - 3) SET WINDOWS AT 1'-4" A.S.F. UNLESS OTHERWISE NOTED.
 - 4) DIMENSIONS ARE TO FRAMING UNLESS OTHERWISE NOTED.
 - 5) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPENINGS.
 - 6) ELECTRICAL LAYOUT BY BUILDER

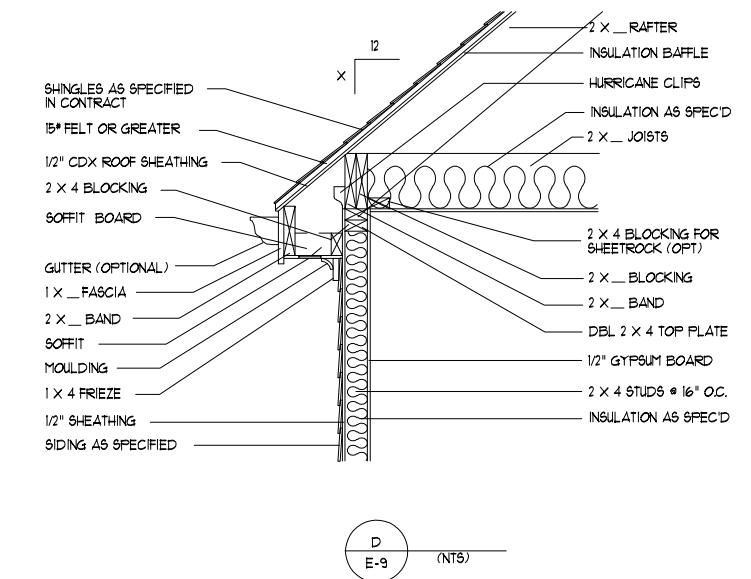
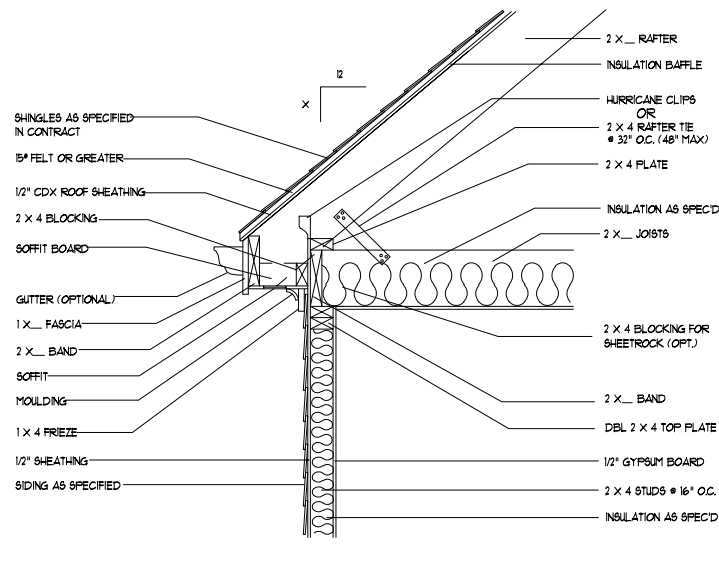
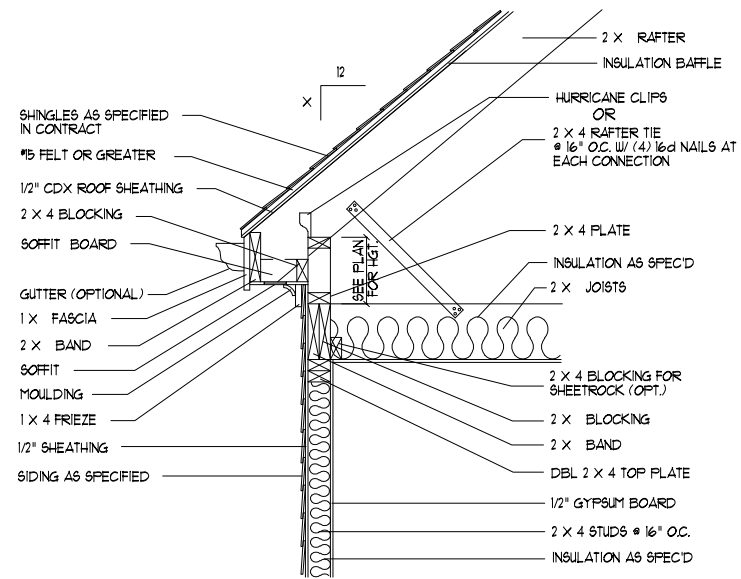
**DYNAMIC
 DESIGN
 GROUP, INC**

David D Grorud
 (919) 601-1406
 DynamicDesignGroup@gmail.com
 www.DDGhomeplans.com

The drawings and specifications (plans) contained on these pages are the property of Dynamic Design Group and are offered to the named client or contractor for a conditional one time use. The conditional use is limited to the lot and subdivision specified herein, and only for said location. COPYRIGHT 2018
 Contractor shall verify all conditions and dimensions prior to construction. Any error or omissions shall be reported to Dynamic Design Group for corrections or justification. Once construction has commenced, the contractor shall assume all responsibility. Dimensions govern over scale, code governs over dimensions.

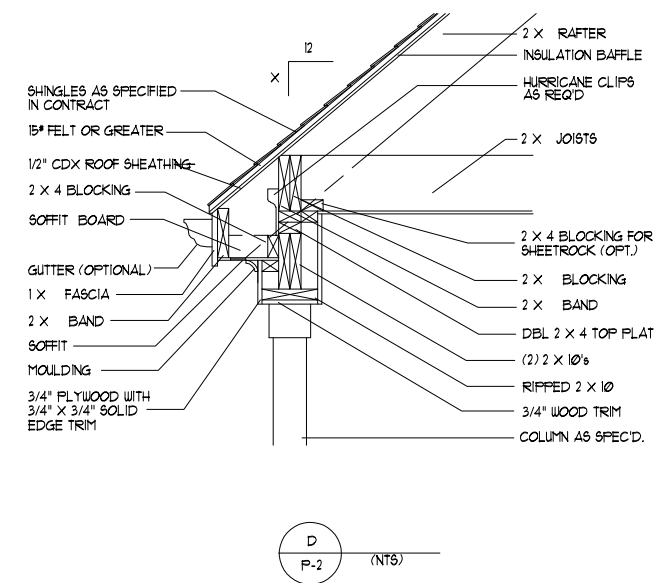
PROJECT FOR: ICG
 LOCATION: FUQUAY-VARINA
 LOT: 113
 SUBDIVISION: SERENITY
 COUNTY: WAKE

COLTAN
 PLAN NAME rev 10-12-22
B1-3251-58GL 11-15-21
 PLAN I.D. DATE

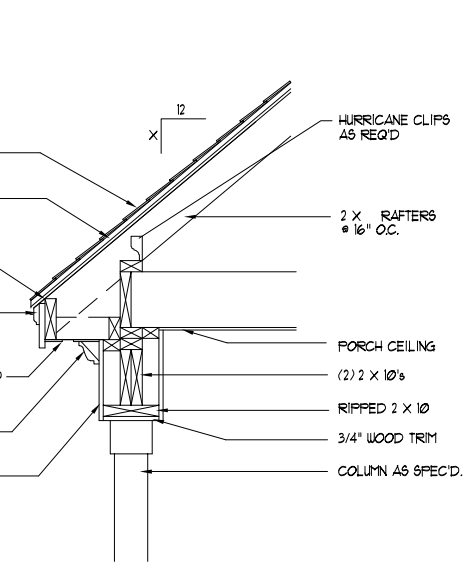


D
E-9 (NTS)

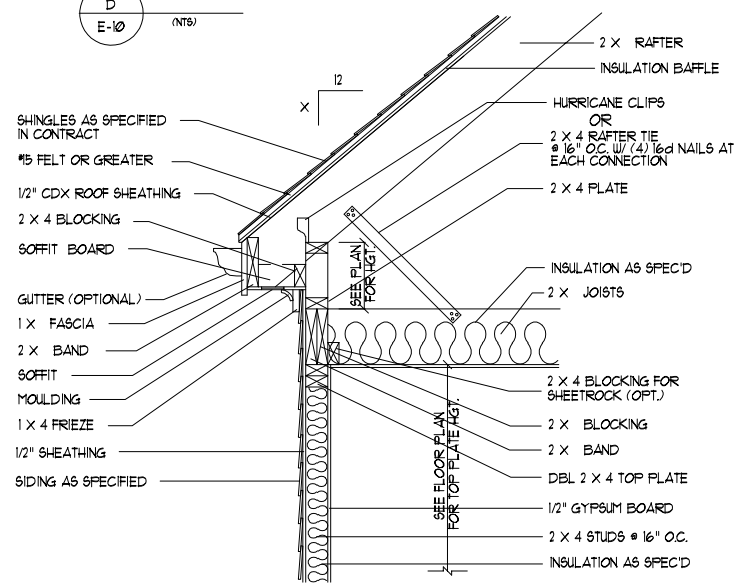
D
E-10 (NTS)



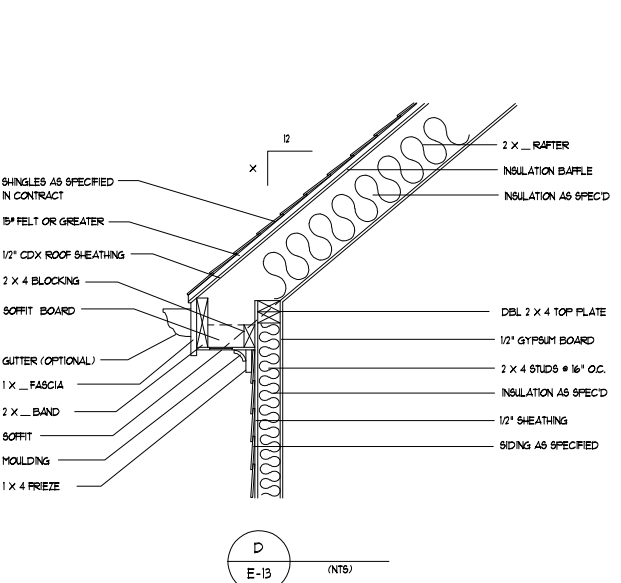
D
E-11 (NTS)



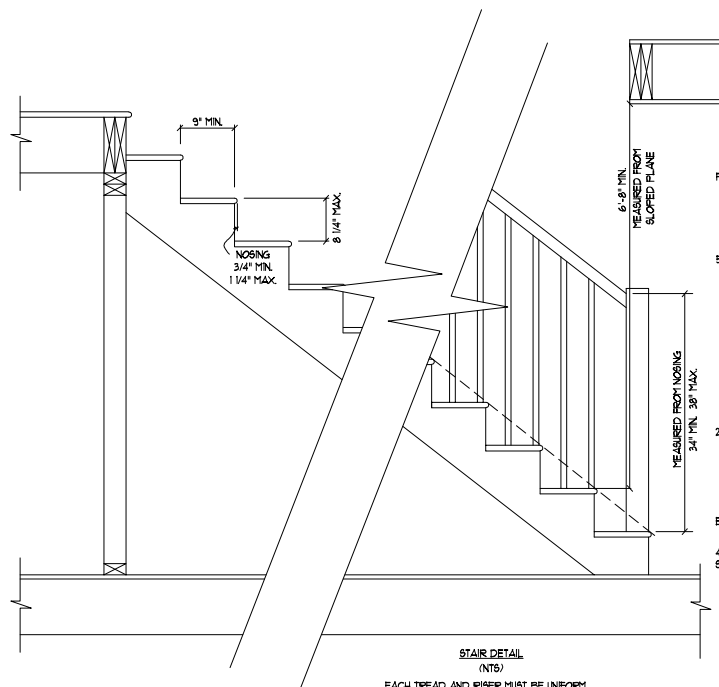
D
P-1 (NTS)



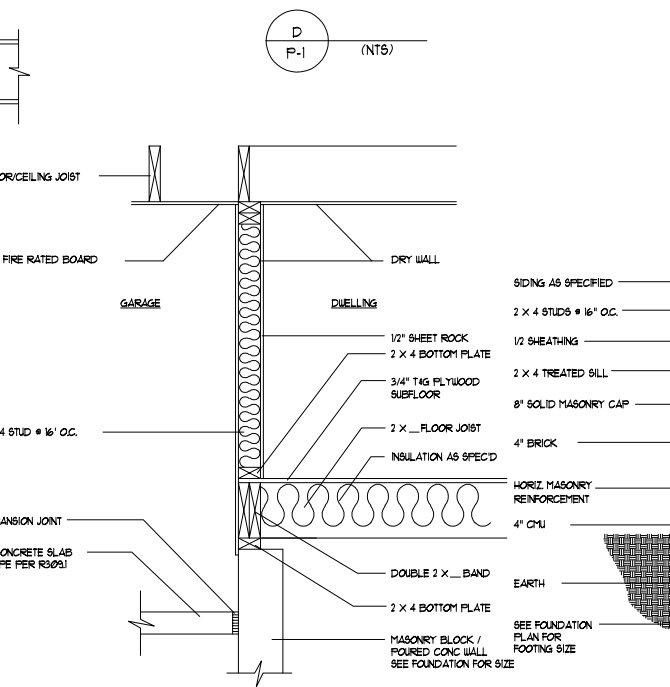
D
E-11A (NTS)



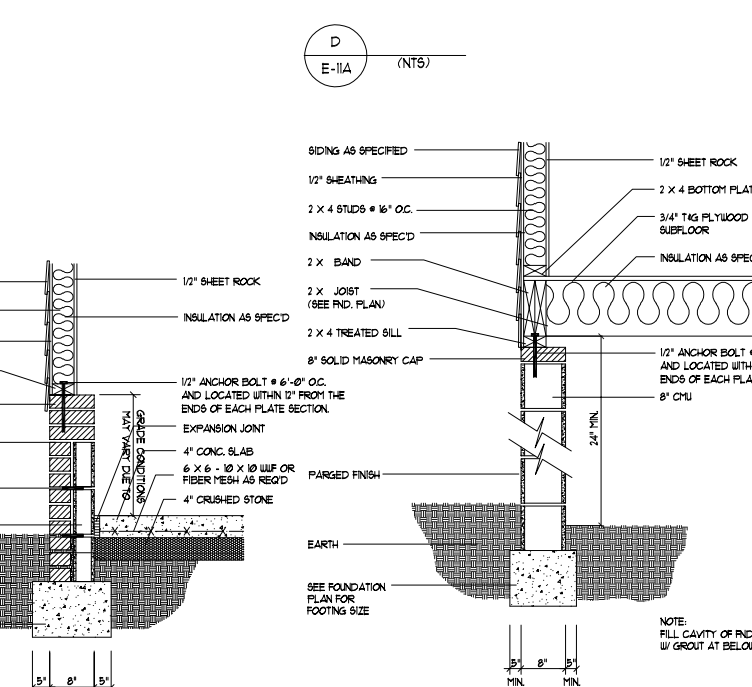
D
E-13 (NTS)



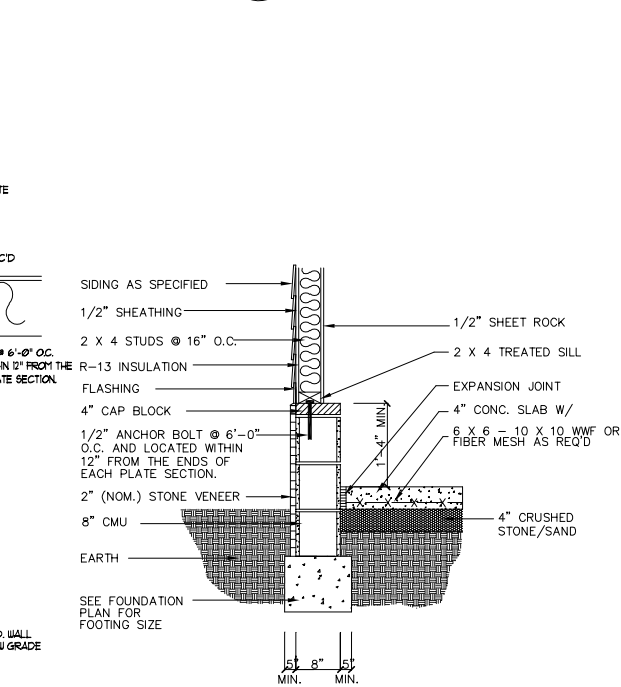
STAIR DETAIL (NTS)
 EACH TREAD AND RISER MUST BE UNIFORM. THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE GREATEST TREAD DEPTH SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE TOP AND BOTTOM RISER OF INTERIOR STAIRS SHALL NOT EXCEED THE SMALLEST RISER BY MORE THAN 3/4".
 SEE FLOOR PLAN FOR ACTUAL SPECIFICATIONS.



D
GW-1 (NTS)

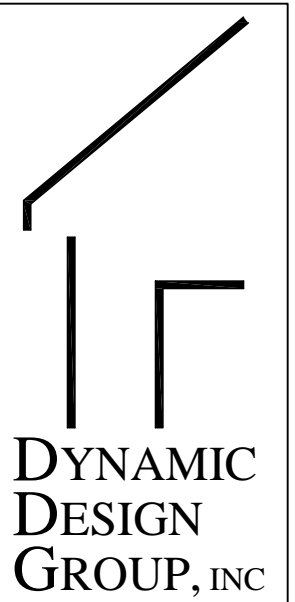


D
F-16 (NTS)



D
F-10A (NTS)

D
F-25 (NTS)



DYNAMIC DESIGN GROUP, INC

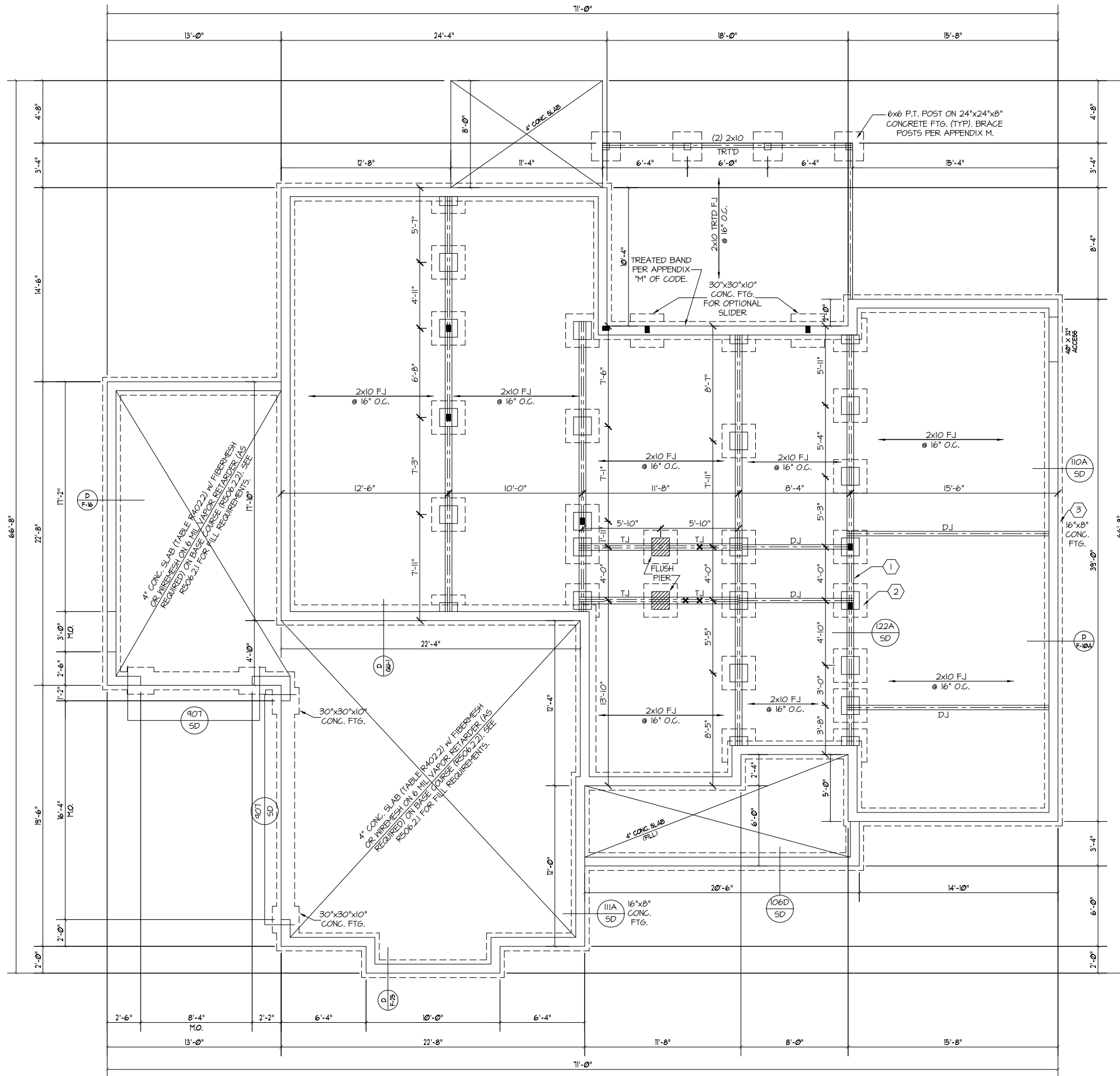
David D Grorud
 (919) 601-1406
 DynamicDesignGroup@gmail.com
 www.DDGhomeplans.com

The drawings and specifications (plans) contained on these pages are the property of Dynamic Design Group and are offered to the named client or contractor for a conditional one time use. The conditional use is limited to the lot and subdivision specified herein, and only for said location. COPYRIGHT 2018

Contractor shall verify all conditions and dimensions prior to construction. Any error or omissions shall be reported to Dynamic Design Group for corrections or justification. Once construction has commenced, the contractor shall assume all responsibility. Dimensions govern over scale, code governs over dimensions.

PROJECT FOR: ICG
 LOCATION: FUQUAY-VARINA
 LOT: 113
 SUBDIVISION: SERENITY
 COUNTY: WAKE

COLTAN
 PLAN NAME rev 10-12-22
B1-3251-58GL 11-15-21
 PLAN I.D. DATE



FOUNDATION STRUCTURAL NOTES

NC (2018 NCR): Wind: 115-120 mph - GRAWL

- ① (3) 2x10 SYP#2 OR SFF#2 GIRDER, TYPICAL UNO.
- ② CONCRETE BLOCK PIER SIZE SHALL BE:
 - SIZE HOLLOW SOLID
 - 8x16 UP TO 32" UP TO 5'-0"
 - 12x16 UP TO 48" UP TO 9'-0"
 - 16x16 UP TO 64" UP TO 12'-0"
 - 24x24 UP TO 96"
 - WITH 30" x 30" x 10' CONCRETE FOOTING, UNO.
- ③ WALL FOOTING AS FOLLOWS
 - DEPTH: 8" - UP TO 2 STORY
 - 10" - 3 STORY
 - WIDTH: 16" - UP TO 2 STORY
 - 20" - 3 STORY
 - BRICK: 16" - 1 STORY
 - 20" - 2 STORY
 - 24" - 3 STORY
- FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO CODE TABLE R404.11 (1 THRU 4) NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.
- ④ (4) 2x10 SFF #2 OR SYP #2 GIRDER
- ⑤ (2) 1.75x9.25 LVL OR LSL GIRDER
- ⑥ (3) 1.75x9.25 LVL OR LSL GIRDER
- 7. "■" DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FND, TYPICAL.
- 8. ABBREVIATIONS:
 - "S.J." = SINGLE JOIST
 - "D.J." = DOUBLE JOIST
 - "T.J." = TRIPLE JOIST
- 9. ADJUST SUBFLOOR THICKNESS OR JOIST SPACING AS REQ'D FOR FLOOR FINISH MATERIALS.

WALL VENTED CRAWL SPACE	
REQUIRED	
1877	SQ. FT. / 150 = 1251 SQ. FT. OF VENTILATION

CLOSED CRAWL SPACE VENTILATION METHODS	
(SEE REFERENCED SECTIONS IN CODE BOOK FOR DETAILED INSTRUCTIONS)	
(R409.5.1) DEHUMIDIFIER	
A PERMANENTLY INSTALLED DEHUMIDIFIER SHALL BE PROVIDED IN THE CRAWL SPACE WITH THE MINIMUM RATED CAPACITY OF 8 PINTS PER DAY.	
(R409.5.2) SUPPLY AIR	
1877	SQ. FT. / 30 = 64 CFM
(R409.5.3) HOUSE AIR	
1877	SQ. FT. / 50 = 38 CFM
(R409.5.4) EXHAUST FAN	
1877	SQ. FT. / 50 = 38 CFM
(R409.5.5) CONDITIONED SPACE	
THE CRAWL SPACE SHALL BE DESIGNED AS A HEATED AND COOLED CONDITIONED SPACE WITH WALL INSULATION INSTALLED AS PER THE REQUIREMENTS OF SECTION R409.8.1.	

FOUNDATION STRUCTURAL PLAN

SCALE: 1/4"=1'-0" (22"x34") 1/8"=1'-0" (11"x17")
 REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

PROJECT #
 22-1881 (Lot 113)

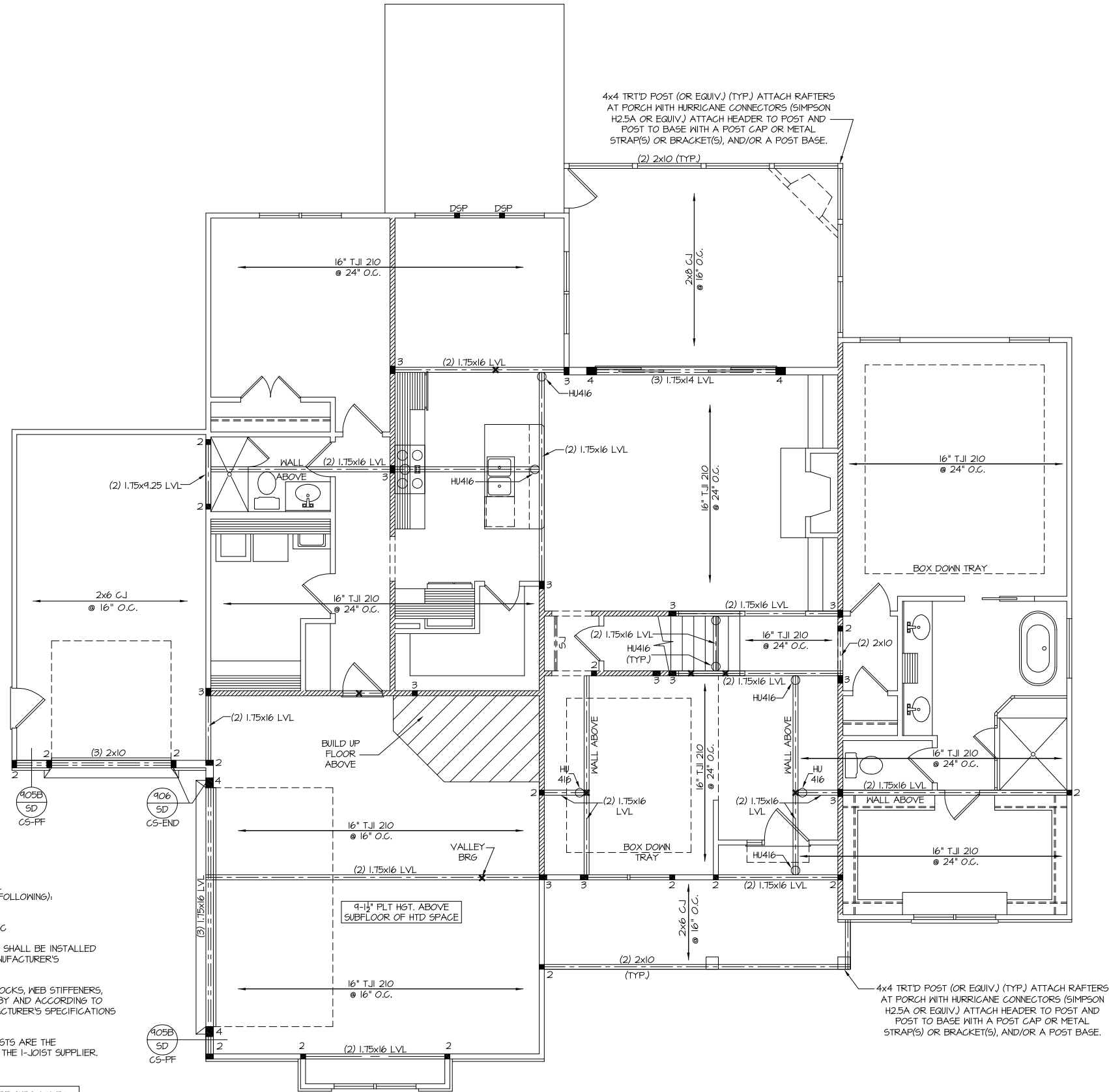
Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability. Seal is valid for projects permitted one year from date of seal. Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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

DYNAMIC DESIGN GROUP

Lot 113, Serenity
 Coltan-GL / Elevation "B"
 with 3rd Car Garage / Side-load
 ICG HOMES

S-1



WOOD I-JOISTS

(SHALL BE ONE OF THE FOLLOWING):

- TJI 210 BY I-LEVEL
- LPI 20 PLUS BY LP
- BC1 5000s I.B BY BC

- ALL WOOD I-JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I-JOIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.

NOTE: I-JOISTS MAY BE SUBSTITUTED WITH FLOOR TRUSSES DESIGNED BY SUPPLIER (SAME DEPTH AND LAYOUT).

LVL CONNECTION LEGEND

- (2) FLY 1.75" LVL BEAMS.
 - (3) ROWS OF 10d NAILS @ 12" O.C. OR
 - (2) ROWS OF SIMPSON SDW2233b (OR EQUAL) SCREWS @ 16" O.C.
- (3) FLY 1.75" LVL BEAMS.
 - (3) ROWS OF 10d NAILS @ 8" O.C. ON EACH SIDE OR
 - (2) ROWS OF SIMPSON SDW22500 (OR EQUAL) SCREWS @ 16" O.C.
- (4) FLY 1.75" LVL BEAMS.
 - (2) ROWS OF SIMPSON SDW22634 (OR EQUAL) SCREWS @ 16" O.C. FOR BEAMS UP TO 18"
 - (3) ROWS OF SIMPSON SDW22634 (OR EQUAL) SCREWS @ 16" O.C. FOR BEAMS GREATER THAN 18".

HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW.
 - UP TO 4' SPAN: (1) KING STUD
 - OVER 4' UP TO 8' SPAN: (2) KING STUDS
 - OVER 8' UP TO 11' SPAN: (3) KING STUDS
 - OVER 11' SPAN: (4) KING STUDS

FRAMING NOTES

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

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP. GS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16", EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6" X 12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- "HD" = HOLD-DOWN. HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
 - **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
 - **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 1" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.
- INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 3/4" WSP SHEATHING WITH 8d NAILS AT A 6" X 12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

FIRST FLOOR STRUCTURAL PLAN

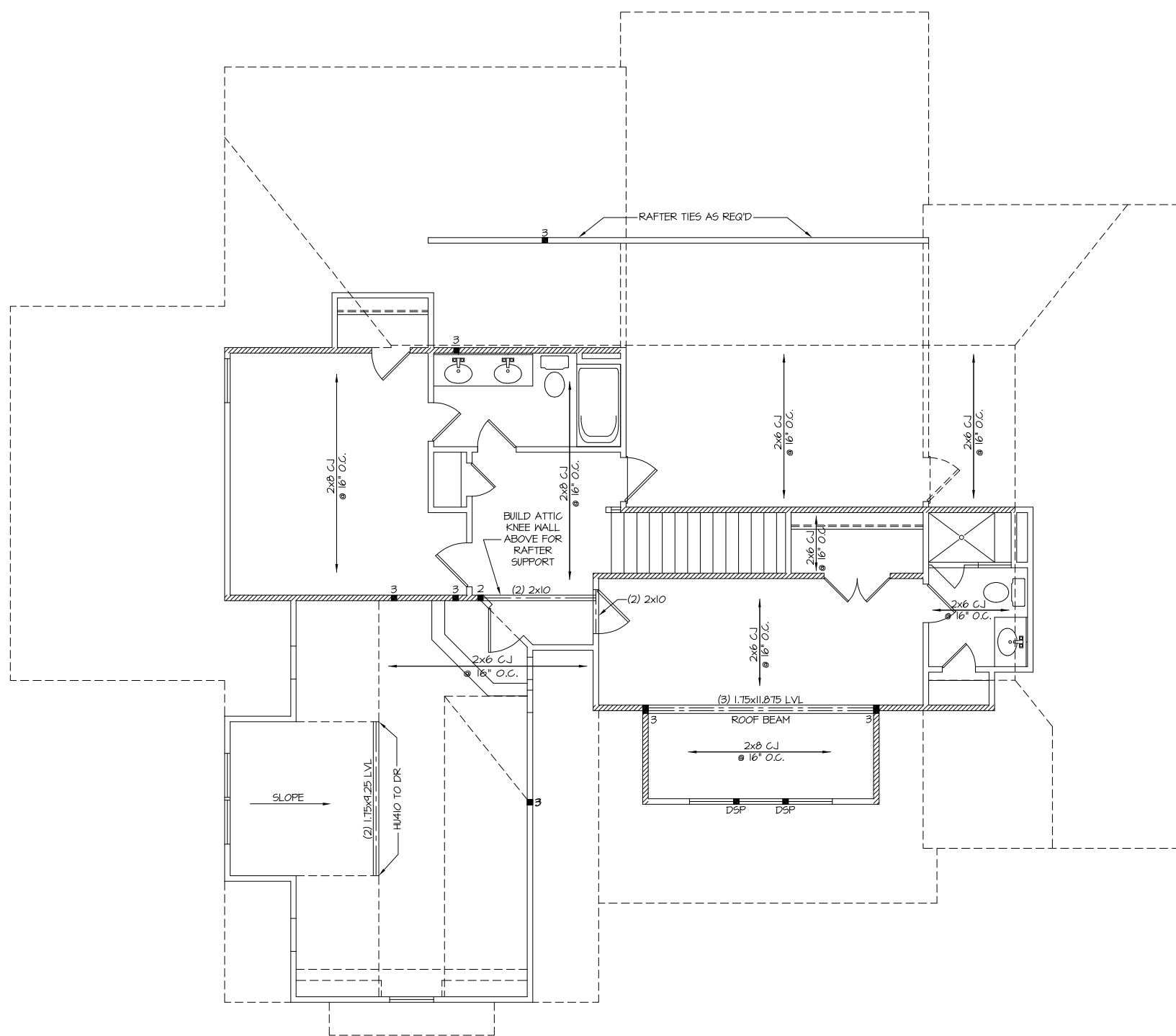
SCALE: 1/4"=1'-0" (22"x34") 1/8"=1'-0" (11"x17")
REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
Seal is valid for projects permitted one year from date of seal.
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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

**DYNAMIC
DESIGN
GROUP**

Lot 113, Serenity
Coltan-GL / Elevation "B"
with 3rd Car Garage / Side-load
ICG HOMES



HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2)2x10 (4" WALL) OR (3)2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW:
 - UP TO 4' SPAN: (1) KING STUD
 - OVER 4' UP TO 8' SPAN: (2) KING STUDS
 - OVER 8' UP TO 11' SPAN: (3) KING STUDS
 - OVER 11' SPAN: (4) KING STUDS

FRAMING NOTES

- NC (2018 NRC): Wind: 115-120 mph
- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP. CS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.
 - EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16", EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"X12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
 - WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE, BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
 - "HD" = HOLD-DOWN. HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
 - **GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
 - **UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 1" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.
 - INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
 - INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 3/4" WSP SHEATHING WITH 8d NAILS AT A 6"X12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 1' O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

SECOND FLOOR STRUCTURAL PLAN

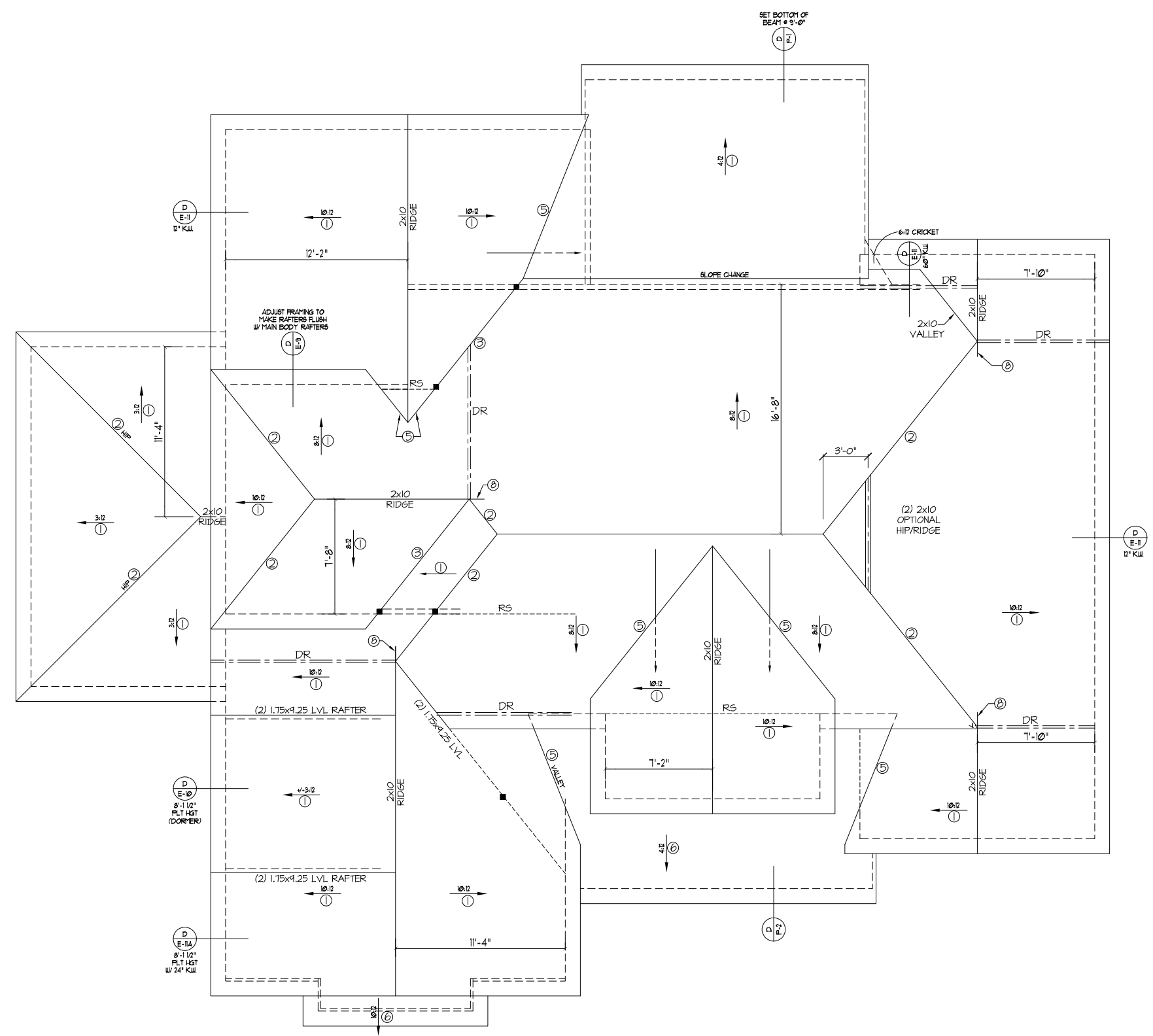
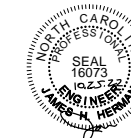
SCALE: 1/4"=1'-0" (22"x34") 1/8"=1'-0" (11"x17")
REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
Seal is valid for projects permitted one year from date of seal.
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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

**DYNAMIC
DESIGN
GROUP**

Lot 113, Serenity
Coltan-GL / Elevation "B"
with 3rd Car Garage / Side-load
ICG HOMES



- ROOF FRAMING NOTES:**
NC (2018 NGR): Wind: 115-120 mph
- ① 2x8 RAFTERS @ 16" O.C. WITH 2x10 RIDGE, UNO.
 - ② (2) 2x10 OR 1.75x11.875 LVL HIP, (2) 2x10 HIPs MAY BE SPLICED WITH A MIN. 6'-0" OVERLAP AT CENTER
 - ③ (2) 2x10 OR 1.75x9.25 LVL VALLEY. DO NOT SPLICE VALLEYS
 - ④ 1.75x11.875 LVL OR (2) 1.75x9.25 LVL VALLEY
 - ⑤ FALSE FRAME VALLEY ON 2x10 FLAT PLATE
 - ⑥ 2x6 RAFTERS @ 16" O.C. W/ 2x8 RIDGE, UNO.
 - ⑦ 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE, UNO.
 - ⑧ EXTEND RIDGE 12" BEYOND INTERSECTION
- "SR" = SINGLE RAFTER
 - "DR" = DOUBLE RAFTER
 - "TR" = TRIPLE RAFTER
 - "RS" = ROOF SUPPORT
 - "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2x6 STUDS OR 6x6 POST FOR SUPPORT OVER 10'-0" IN HEIGHT)
 - ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS, SIMPSON "H-2.5A" OR EQUIVALENT. TIES TO BE INSTALLED ON THE OUTSIDE FACE OF FRAMING.
 - INSTALL RAFTER TIES AND COLLAR TIES PER SECTION R802.3.1 OF THE 2018 NC RESIDENTIAL CODE.

ATTIC VENTILATION			
REQUIRED	3254 SQ. FT. OF ATTIC / 300 = 10.85 SQ. FT. OF INLET & OUTLET		
PROVIDED			
(INLET) SOFFIT	07	80. FT. PER x 132 LINEAR FT. = 924 SQ. FT. (TOTAL OF 41% OF VENT. INLET)	
(OUTLET) RIDGE	11	80. FT. PER x 122 LINEAR FT. = 1342 SQ. FT. (TOTAL OF 53% OF VENT. OUTLET)	
		2266	TOTAL SQ. FT. OF VENT.

ROOF STRUCTURAL PLAN

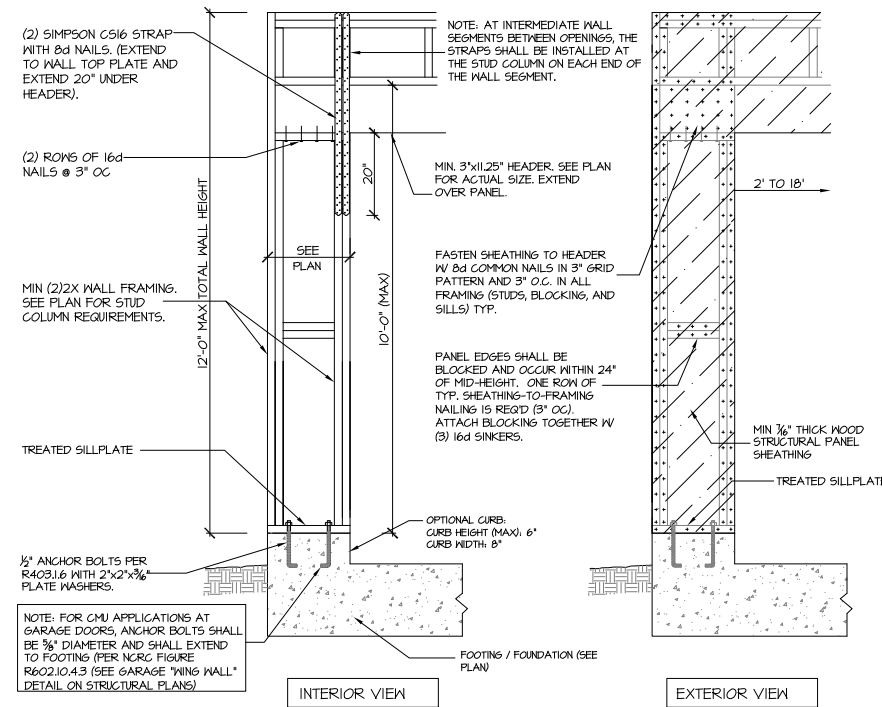
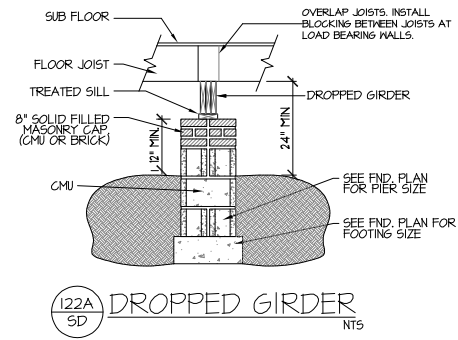
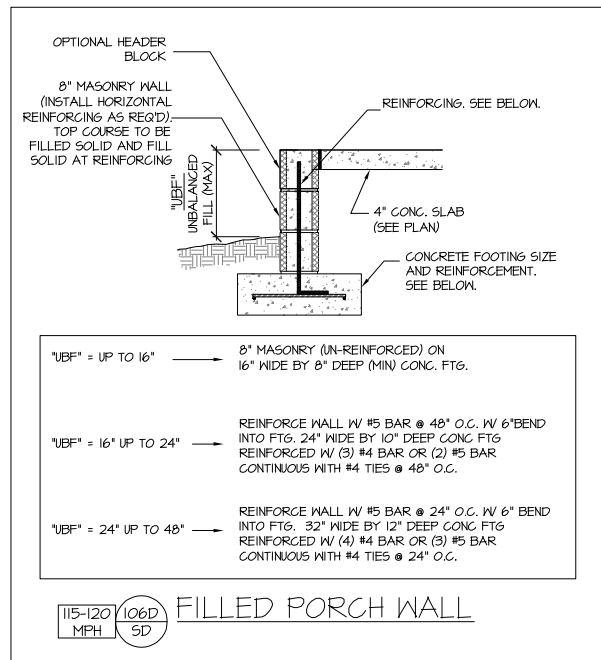
SCALE: 1/4"=1'-0" (22"x34") 1/8"=1'-0" (11"x17")
REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
Seal is valid for projects permitted one year from date of seal.
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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

DYNAMIC DESIGN GROUP

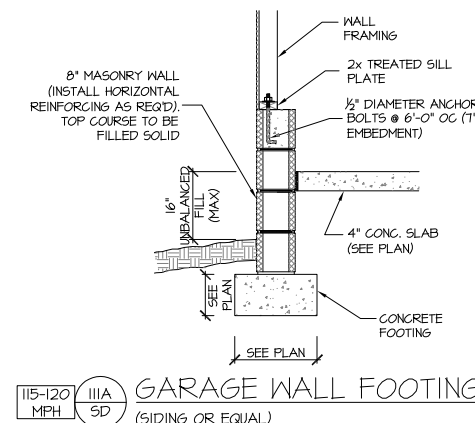
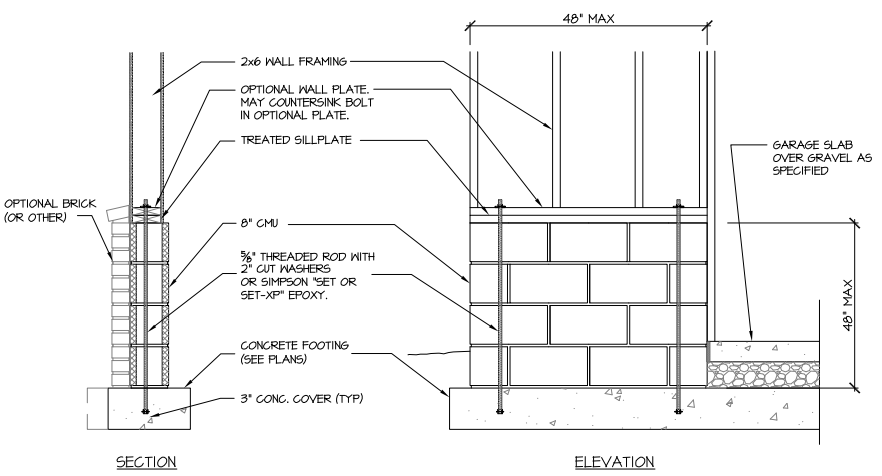
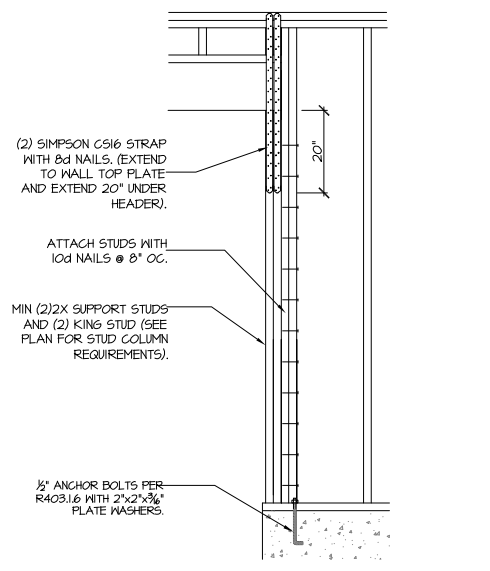
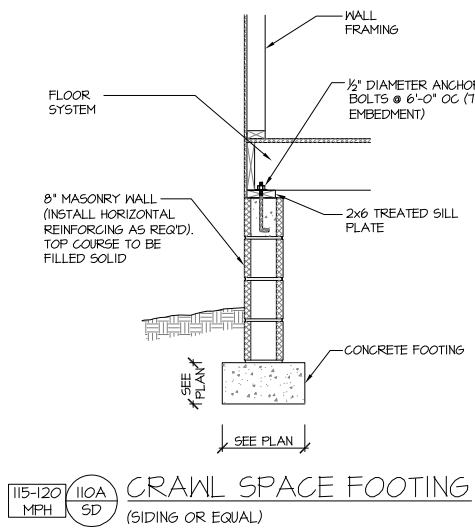
Lot 113, Serenity
Coltan-GL / Elevation "B"
with 3rd Car Garage / Side-load
ICG HOMES



STRUCTURAL NOTES

NC (2018 NCRG); Wind: 115-120 mph

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPs, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NC RESIDENTIAL CODE, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.
- DESIGN LOADS (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)
 - ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)
 - SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
 - ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)
 - ATTIC WITHOUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)
 - ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
 - STAIRS: (40 PSF, 10 PSF, L/360)
 - EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)
 - DECKS: (40 PSF, 10 PSF, L/360)
 - GUARDRAILS AND HANDRAILS: (200 LBS)
 - PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)
 - FIRE ESCAPES: (40 PSF, 10 PSF, L/360)
 - SNOW: (20 PSF)
- WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.
- SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP. CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF +30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SAWCUT TO A DEPTH OF 1/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +10'-0" x +10'-0" GRID).
- ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.
- ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2. PLATE MATERIAL MAY BE SYP #3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).
- L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10¹⁰ PSI.
 - P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2400 PSI, Fv=240 PSI, E=2.0x10¹⁰ PSI.
 - L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10¹⁰ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
- ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.
- REBAR SHALL BE DEFORMED STEEL, ASTM#615, GRADE 60.
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
- BRICK LINTELS (WHEN REQUIRED) SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS FOR SPANS OVER 9'-0". SEE ALSO SECTION RT03.B.3 LINTELS.



Engineers seal applies only to structural components on this document.
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineers' liability.
Seal is valid for projects permitted one year from date of seal.
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

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

DYNAMIC DESIGN GROUP

Lot 113, Serenity
Coltan-GL / Elevation "B"
with 3rd Car Garage / Sideload
ICG HOMES

SD