WILMINGTON -A, B, C

PLAN ID: 2800 - RIGHT HAND - NORTH CAROLINA

DATE:	REVISION:
09/18/2017	INITIAL RELEASE OF PLANS
10/20/2017	CLIENT REVISIONS
11/01/2017	REMOVED PORCH RAILING FROM ELEVATION 'C' FLATTENED BAR TOP AT KITCHEN REVISED SIZE OF WINDOW AT BASE OF STAIRS REVISED MASTER BEDROOM TO OWNER'S BEDROOM
02/07/2018	ELECTRICAL REVISIONS
06/11/2018	CLIENT REVISIONS
11/14/2018	CLIENT REVISIONS
01/09/2019	REVISED CODE REFERENCES
07/23/2019	CLIENT REVISIONS
12/13/2019	CLIENT REVISIONS
02/28/2020	CLIENT REVISIONS

ARCHITECTURALS - ELEVATIONS A BE ARCHITECTURALS - ELEVATIONS B C ARCHITECTURALS - ELEVATIONS C BA ARCHITECTURALS - FLOOR PLANS A BE ARCHITECTURALS - FLOOR PLANS B C ARCHITECTURALS - FLOOR PLANS C	cs	ARCHITECTURALS - COVERSHEET
ARCHITECTURALS - ELEVATIONS B C ARCHITECTURALS - ELEVATIONS C ARCHITECTURALS - FLOOR PLANS A B ARCHITECTURALS - FLOOR PLANS B C ARCHITECTURALS - FLOOR PLANS C	0	ARCHITECTURALS - QUICK VIEW
ARCHITECTURALS - ELEVATIONS C ARCHITECTURALS - FLOOR PLANS A BB ARCHITECTURALS - FLOOR PLANS B ARCHITECTURALS - FLOOR PLANS C	1A	ARCHITECTURALS - ELEVATIONS A
ARCHITECTURALS - FLOOR PLANS A BB ARCHITECTURALS - FLOOR PLANS B BC ARCHITECTURALS - FLOOR PLANS C	1B	ARCHITECTURALS - ELEVATIONS B
BB ARCHITECTURALS - FLOOR PLANS B C ARCHITECTURALS - FLOOR PLANS C	1C	ARCHITECTURALS - ELEVATIONS C
BC ARCHITECTURALS - FLOOR PLANS C	3A	ARCHITECTURALS - FLOOR PLANS A
	3B	ARCHITECTURALS - FLOOR PLANS B
ELECTRICAL - FLOOR PLANS	3C	ARCHITECTURALS - FLOOR PLANS C
	4	ELECTRICAL - FLOOR PLANS

REVIEWERS STAM	P LOCATION	_

MODEL 'WILMI	NGTON' SQUARE FOC	DTAGES
AREA		ELEV 'C'
lst FL <i>OO</i> R		1225 SF
2nd FLOOR		1595 SF
TOTAL LIVING		2824 SF
GARAGE		411 SF
PORCH	٠.	72 SF

Mason Ridge Lot 31 55 Fair Child Road Spring Lake, NC 28390



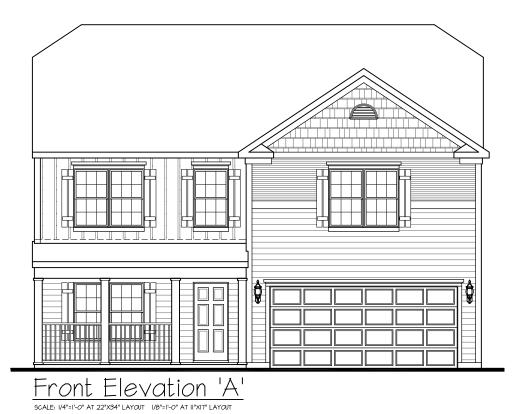
WILMINGTON

COVERSHEET

PLAN REV DATE

COPYRIGHT PROPERTY OF DR
HORTON NOT TO BE REPRODUCE

SHEET NUMBER





Front Elevation 'B' SCALE: I/4"=I'-0" AT 22"X34" LAYOUT |/8"=I'-0" AT II"XI7" LAYOUT



'WILMINGTON'

D-R-HORTON

America's Builder

HOMES

PLAN REV DATE 02.28.20

SHEET NUMBER

QUICK VIEW

N.C ATTIC VENT CALCULATION FOR MODEL 'WILMINGTON': 1:150 RATIO B" TYP EAVE HE NET FREE VENTILATING AREA SHALL NOT DE LESS THAN 150 OF THE AREA OF THE SPACE VISHTILATED, PROVIDED WITH AT LECATE OF PRECISIT AND WITH MADE THAN BO FRECISIT WITH AT LECATE OF THE UPPER PORTION OF THE SPACE OF WITH LATORS LOCATED IN THE UPPER PORTION OF THE SPACE OF WITH LATOR AT LEAST 3 THEFT ADON'T THE EARLY OR ORNICE VENTS WITH THE BALANCE OF THE ROOT EMPLICATION OF THE STANDARD OF THE SPACE ORNICE VENTS WITH THE BALANCE OF THE ROOT EMPLICATION OF THE STANDARD OF THE SPACE ORNICE VENTS WITH THE BALANCE OF THE ROOT EMPLICATION OF THE STANDARD OF THE SPACE ORNICE VENTS WITH THE BALANCE OF THE ROOT EMPLICATION OF THE STANDARD OF THE STANDARD OF THE SPACE OF THE STANDARD OF THE (PER NCRC SECTION R806.2) I SQUARE INCH VENT FOR EVERY ISO SQUARE INCHES OF CEILING *I44 SQ. IN. = I SQ. FT. BLD6. CEILING (SF) X I44 = BLD6 (SQ. IN.) 9LDG, (5Q, IN) / 150 = 5Q, IN, OF VENT REQUIRED 5Q, IN, OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW. EXCEPTIONS I. EXCLOSED ATTIC/RAFTER SPACES REQUIRING LESS THAN I. SQ FT OF VENTILATION MAY BE VENTED WITH CONTINUOUS SOFFIT VENTILATION ONLY. ROOF AREA Is = 1787 SF 1636 SQ, FT, X 144 = 235584 SQ, IN, 235584 SQ, IN, / ISO = ISTO.56 SQ, IN, OF VENT REQID P. ENGLOSED ATTIC/RAFTER SPACES OVER UNCONDITIONED SPACE MAY BE VENTED WITH CONTINUOUS SOFFIT VENT ON 1570.56 SQ. IN. / 2 = 785.28 SQ. IN 785.28 SQ. IN. 0F VENT AT HIGH & 785.28 SQ. IN. 0F VENT AT LOW REGUIRED. SPACE PAY BE VERIFOR SHALL VERIFY THE NET PREE WHITLAND OF THE VERIT PRODUCT SELECTED BY OWNER WERFIY WHIT MAPACHIERS OF HICH AND LOW VERIFS TO BE USED FOR HIMMAN CALCULATED VERIFS REGUIRED. THE REGUIRED VERIFICATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SUCH THAT INSULATION DOCUMENT THE AND AND VERY BE ADMINISTRATION. ROOF AREA 2: = 12 SF 72 SQ. FT. X 144 = 10368 SQ. IN. 10368 SQ. IN. / 150 = 64.12 SQ. IN. OF VENT REQ'D 69.12 5Q. IN. / 2 = 34.56 5Q. IN 34.56 5Q. IN. OF VENT AT HIGH & 34.56 5Q. IN. OF VENT AT LOW REQUIRED. ZES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED. THE BULLIONS OFFICIAL. L OVERLAP FRAMED ROOF AREAS SHALL HAVE ENOUGH THE ADJACHT ATTICS IN THE ROOF EATHING ENTERS THE ADJACHT ATTICS IN THE ROOF EATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER) ALLOW PASSACE AND ATTIC SYNLATION ALLOW PASSACE AND ATTIC SYNLATION THE TWO OR ISOLATED ATTIC SYNLATE VENTED INDEPENDENT. TO GE REQUIREMENTS. ER DEVELOPER, AT ALL CANTILEVERED FLOORS, ANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE RAMING PROJECTIONS THAT ARE SEPARATED FROM THE ENTING CALCULATIONS SHOWN ABOVE, PROVIDE A OWTHINGUS 2" CORROSION RESISTANT SOFFIT VENT AT WERSIDE OF FRANKED LEIDHENT. Left Elevation 'C' OTFS. AREA I ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY. TRIJSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DR TO THE BUILDIES'S SENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS. drainage facility. Dashed Lines indicate Wall Below. Locate gutter and downspouts per builder Pitched Roofs as Noted. ALL PLIMBING VENTS SHALL BE COMBINED INTO A MINIMA AMOUNT OF ROOF PENETRATIONS, ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE. N.C ATTIC VENT CALCULATION FOR MODEL 'WILMINGTON': 1:300 RATIC AS AN ALTERNATE TO THE I/ISO RATIO LISTED ABOVE, HE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO I/300 NEMA CLASS I OF II VAPOR RETARDER IS INSTALLE ON THE WARM - IN - WINTER SIDE OF THE CEILING. (PER NCRC SECTION R806.2) I SQUARE INCH VENT FOR EVERY 300 SQUARE INCHES OF CEILING *144 SQ. IN. = 1 SQ. FT. BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.) SENERAL CONTRACTOR SHALL VERIET THE INT PREE WHITH LATION OF THE VIPOT THE INST PREE WHITH LATION OF THE VIPOT PRODUCT SELECTED BY ONER, WHITH LATION OF THE LATION OF THE LESS PRODUCT SELECTED BY ONER TO BE USED FOR MINIMA CALLULATED VERTIS REQUIRED. THE REQUIRED, VERTILATION SHALL BE HARMATICALLY DOES INTO OBSTRICT FREE ARE NOVEMENT AS REQUIRED BY THE BUILDING FORFICIAL. ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE PREMISED BY THE STRUCTURAL DEVINEED IN CONTRACT OF THE STRUCTURAL DEVI BLDG. (SQ. IN.) / 300 = SQ. IN. OF VENT REQUIRED SQ. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW. ROOF AREA I: = 1636 SF 6:12 SLOPE 1636 Sc. Ft. X 144 = 295564 Sc. IN. 235564 Sc. IN. 300 = 185.26 Sc. IN. OF VENT REQD 185.26 Sc. IN. 2 = 392.64 Sc. IN. OF VENT AT LOW REQUIRED. 342.64 Sc. IN. OF VENT AT HIGH & 342.64 Sc. IN. OF VENT AT LOW REQUIRED. SLOPE ROOF AREA 2: = 72 SF 72 5Q. FT. X 144 = 10368 5Q. IN. 10368 5Q. IN. / 300 = 34:56 5Q. IN. OF VENT REQTO 34:56 5Q. IN. / 2 = 17:28 5Q. IN SET FORM THE PROPERTY AT ALL CAMILLEVERED FLOORS, CAMILLEVERED ACCHITECTURAL POP-JOTS, AND ANY DOUBLE FROM THE CHARLEVERED ACCHITICATION THAT ARE SEPARATED FROM THE VEHING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2° CORROSION RESISTANT SOFFIT VEHT AT MORESSIDE OF FRAMED ELEMENT. 17.28 SQ. IN. OF VENT AT HIGH & 17.28 SQ. IN. OF VENT AT LOW REQUIRED. Right Elevation 'C' OPTIONAL 2868 OTES: AVAILABLE WITH OPTIONAL GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS. WINDOW HEAD HEIGHTS: IST FLOOR = $6-8^\circ$ U.N.O. ON ELEVATIONS. 2ND FLOOR = $7-0^\circ$ U.N.O. ON ELEVATIONS. 9'-1" FIRST FLOOR PLATE AT SINGLE FAMILY DETACHED PLANS: PREFINISHED VENTED SOFFIT AT EAVE PER MANUFACTURER. (VERIEY FIRE SEPARATION DISTANCE FOR SOFFIT PROTECTION PER NCRC SCETION R302.1.1 AND TABLE R302.1) ROOFING: PITCHED SHINGLES PER DEVELOPER NOTES AT OPT 9'-1" PLT: WINDOWS: MANUFACTURER PER DEVELOPER, DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS - WDW HT SET AT 7'-6" ENTRY DOOR: AS SELECTED BY DEVELOPER. GARAGE DOORS: AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN. - INTERIOR SOFFITS AT 8'-0" ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. - EXTERIOR SOFFITS AT 8'-0' PROTECTION AGAINST DECAY: (ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF THE HEADER DOWN, INCLIDING POST, RAILS, PICKETS, STEPS AND FLOOR STRUCTURE.) INGULATION: PER TABLE NIO2.1.2. EXTERIOR WALLS: CELING WITH ATTIC ABOVE: FLOOR OVER GARAGE: R-49 BATTS MINIMM. VERIFY R-49 BATTS MINIMM. VERIFY AREA 2 . 12:12 PITCH 4XI2 BRACKETS ATTIC KNEEWALL: R-I9 BATTS MINIMUM, VERIFY CRAWL SPACE FLOORING: R-I9 BATTS MINIMUM, VERIFY Roof Plan 'C' **KEY NOTES:** MASONRY: ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED. TRUSS MANUFACTURE TO MASONRY FULL STONE AS SELECTED BY DEVELOPER, HEIGHT AS NOTED. VERIFY HEFI S PER COMMUNITY STANDARDS, BUILDER TO VERIFY PRIOR TO CONSTRUCTION 8" SOLDIER COURSE. ROWLOCK COURSE TYPICALS: MDM HD CORROSION RESISTANT SCREEN LOWERED VENTS, SIZE AS NOTED. 6" PEDIMENT CODE APPROVED TERMINATION CHIMNEY CAP. 17 12X6O CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING PER NCRC R405.2.8.3 16 IX4 O STANDING SEAM METAL ROOF, INSTALL PER MANUFCATURER'S WRITTEN INSTRUCTIONS. DECORATIVE WROUGHT IRON, SEE DETAILS. SIDING: VINYL SHAKE SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. 9-/ (AT SPECIFIED LOCATIONS: FIBER CEMENT SHAKE SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.) VINYL LAP SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT LAP SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.) WDW HD VINYL WAVY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT WAVY SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.) VINYL BOARD AND BATT SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS; FIBER CEMENT PANEL SIDING W IX3 BATTS AT 12° O.C. PER DEVELOPER W IX4 CORNER TRIM BOARD.) VINYL TRIM SIZE AS NOTED (AT SPECIFIC LOCATIONS: IX FIBER CEMENT TRIM OR EQUAL, UN.O. SIZE AS NOTED PYPON SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED. (AT SPECIFIC LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.) Rear Elevation 'C' ALL MINDOMS MHOSE OPENING IS LESS THAN 24" ABOVE HE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 12" ABOVE THE CUTSIDE WALKING SURFACE MUST HAVE WINDOM OPENING LIMITING DEVICES COMPLYING WITH THE ICRC SECTION R312.21 AND R312.22. Front Elevation

Express D.R.HORTON America's Builder

ELEVATIONS WILMINGTON'

IX6 RAKE

FASCIA

-[13]

IX6 16

FRIEZE 16

–[12]

PLAN REV DATE

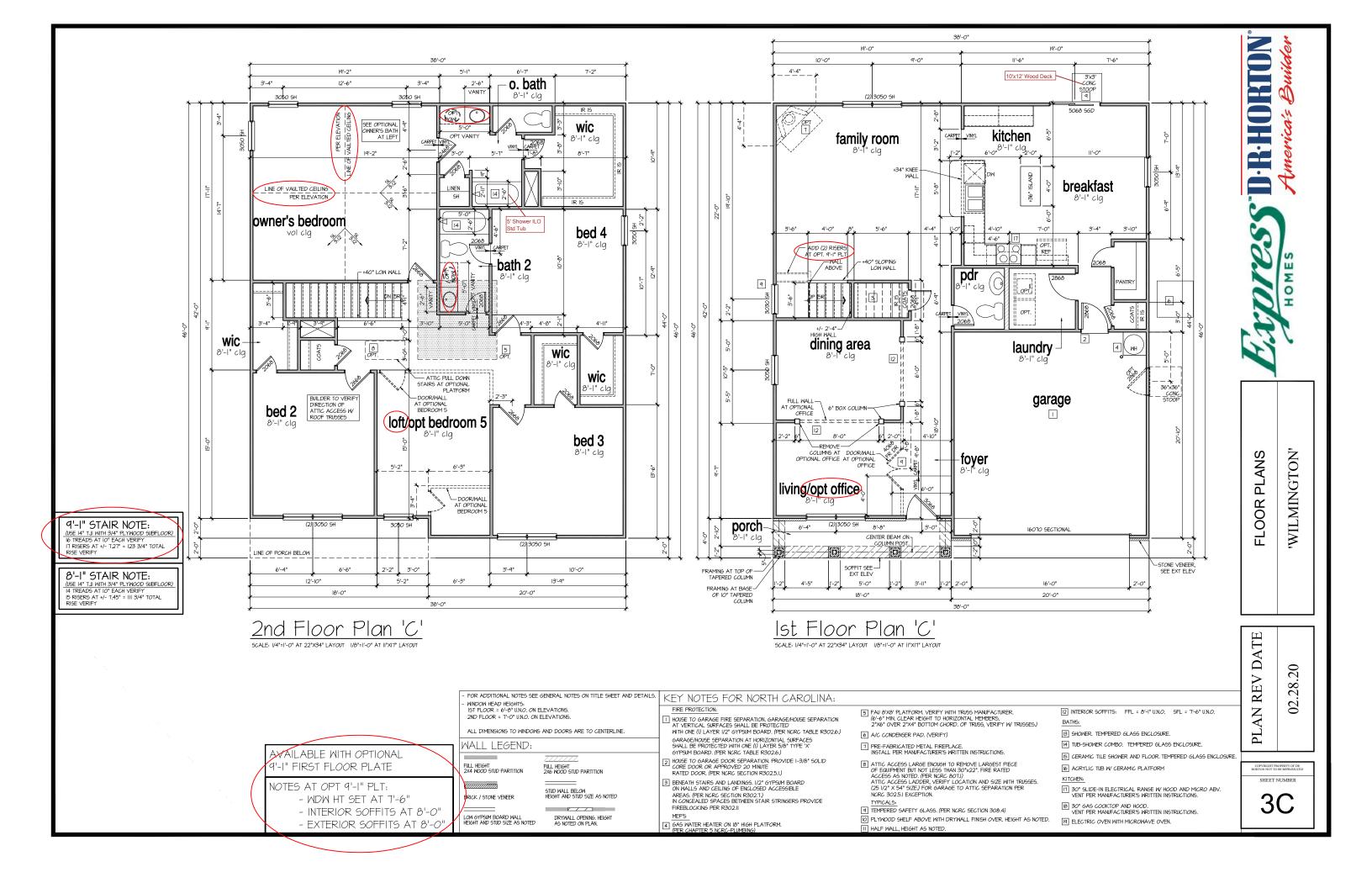
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02

SHEET NUMBER



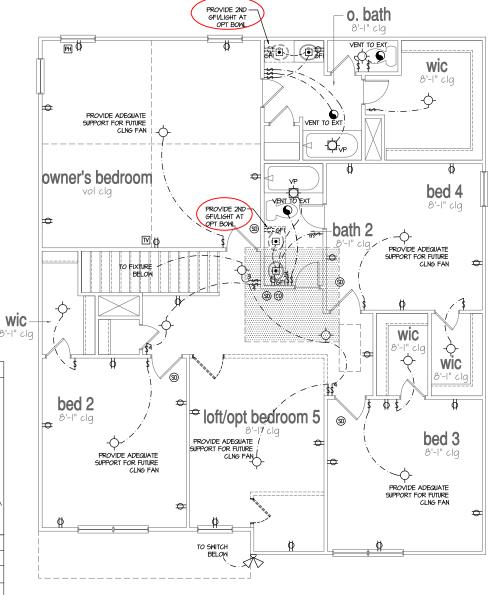


'WILMINGTON' FLOOR PLANS

PLAN REV DATE .28.20 02.

SHEET NUMBER

4



PH O GFI kitchen family room Defi BELOW FOR DEFN breakfast PROVIDE ADEQUATE SUPPORT FOR FUTURE CLNG FAN T<u>₽</u>6FI | D ABOVE FOR HOOD/ MICRO pdr 50 **⊕** 220V A/C DISCONNECT, 30" MIN. CLEAR \$\$ & **b** dining area laundry 8'-1" clq garage KEYLESS -KEYLESS O PREWIRE ONLY foyer living/opt office NOTE: SIZE SERVICE PANEL PER BUILDERS SPECIFICATIONS AND LOCAL CODES ф \$ \$\$\$ ф -wP/6Fi porch-**→** COACH LIGHT, CENTERLINE 6'-0" A.F.F. COACH LIGHT TO FLOOD ABOVE

2nd Floor Plan 'A'
scale. 1/4'=1'-0" AT 22"x34" LAYOUT 1/8'-1'-0" AT 11"x17" LAYOUT

Ist Floor Plan 'A'

ALL ELEVATIONS ARE SIMILAR

- PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES.
- PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS.
- FAWLIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS.
- ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT
- PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.
- ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS. HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.
- ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PITS, DRAIN TILE SUMP, AND WATER HEATERS) ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS.
- PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

LEGEND:

ф	DUPLEX OUTLET	ф	CEILING MOUNTED INCANDESCENT LIGHT FIXTURE
фир/бы	WEATHERPROOF GFI DUPLEX OUTLET	ф	WALL MOUNTED INCANDESCENT
∯ 6FI	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	- :	LIGHT FIXTURE RECESSED INCANDESCENT LIGHT FIXTURE
ф	HALF-SMITCHED DUPLEX OUTLET	ф	(VP) = VAPOR PROOF
Ф 220√	220 VOLT OUTLET	•	CEILING MOUNTED LED LIGHT FIXTURE (VP) = VAPOR PROOF
0	REINFORCED JUNCTION BOX	•	EXHAUST FAN (VENT TO EXTERIOR)
\$	WALL SWITCH	-💝-	EXHAUST FAN/LIGHT COMBINATION (VENT TO EXTERIOR)
\$3	THREE-WAY SWITCH		FLUORESCENT LIGHT FIXTURE
\$4	FOUR-WAY SWITCH		TEOPEOCHT EIGHT TIAINE
CH	CHIMES		TECH HUB SYSTEM
9	PUSHBUTTON SWITCH	X	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
<u>so</u>	IIOV SMOKE ALARM W BATTERY BACKUP		CEILING FAN WITH INCANDESCENT
€	IIOV SMOKE ALARM CO2 DETECTOR COMBO	XX	LIGHT FIXTURE (PROVIDE ADEQUATE SUPPORT)
Ð	THERMOSTAT	⊢⊗	GAS SUPPLY WITH VALVE
PH	TELEPHONE		
TV	TELEVISION	→	HOSE BIBB
₽	ELECTRIC METER	→ _{CM}	I/4" WATER STUB OUT
	ELECTRIC PANEL	vi	
-	DISCONNECT SWITCH	- 9	WALL SCONCE

DESIGN SPECIFICATIONS:

Construction Type: Commerical \square Residential \boxtimes

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:

l.	Koot	Live Loads	
	1.1.	Conventional 2x	20 P
	1.2.	Truss	20 P
		1.2.1. Attic Truss	60 F
2.	Roof	Dead Loads	
	2.1.	Conventional 2x	10 PS
	2.2.	Truss	20 P
3.	Snow		15 PS
	3.1.	Importance Factor	1.0
4.	Floor	Live Loads	
	4.1.	Typ. Dwelling	40 F
	4.2.	Sleeping Areas	30 F

4.3. Decks . 4.4. Passenger Garage 5. Floor Dead Loads 10 PSF 5.1. Conventional 2x

6. Ultimate Design Wind Speed (3 sec. gust) 130 MPH 63. Wind Base Shear

6.3.1. Vx = 6.32. Vy = onent and Cladding (in PSF)

component at	ia ciadaing i	1111 017		
MEAN ROOF HT.	UP TO 30'	30'1"-35'	35'1"-40'	40'1"-45'
ZONE I	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-20.7	20.4,-21.3
ZONE 5	18.224.0	19.225.2	19.926.1	20.4,-26.9

8. Seismic

-	OCIOIIII	-	
	8.1.	Site Class	D
		Design Category	С
	8.3.	Importance Factor	lØ
	8.4.	Seismic Use Group	1
	8.5.	Spectral Response Acceleration	
		251 Gmc - %a	

8.5.1. 5ms = %g 8.5.2. 5ml = %g 8.6. Seismic Base Shear 8.6.1. Vx = 8.6.2. Vy =

87. Basic Structural Sustem (check one)

□ Dual w/ Special Moment Frame □ Dual w/ Intermediate R/C or Special Steel ☐ Inverted Pendulum

Wind 🖂



STRUCTURAL PLANS PREPARED FOR:

WILMINGTON - RH

PROJECT ADDRESS:

DR Horton, Inc. 8001 Arrowridge Blvd. Charlotte, NC 28273

DESIGNER: GMD Design Group 102 Fountain Brook Circle Suite C Cary, NC 27511

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 4 Testing, P.C. before construction begins.

PLAN ABBREVIATIONS

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	R9	ROOF SUPPORT
CJ	CEILING JOIST	6C	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
ΕW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
P6F	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
P5I	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 4 Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed prior to the initial design, inerelore, truss and joist directions were assumed based on the information provided by <u>DR Horton</u>, line, 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:

Sheet No.	Description	
CSI	Cover Sheet, Specifications, Revisions	
51.Øm	Monolithic Slab Foundation	
S1.Øs	Stem Wall Foundation	
51.0c	Crawl Space Foundation	
S1.Ø6	Basement Foundation	
52.Ø	Basement Plan	
S3.Ø	First Floor Plan	
54.0	Second Floor Plan	
95.Ø	Roof Framing Plan	

DR HORTON PROJECT SIGN-OFF:

Manager	Signature
Operations	
Operations System	
Operations Product Development	

SUMMIT

Date	Project No.	Description
5,16,17	1261IR	Revised garage slab note. Revised roof overframing. Verified roof truss layouts provided by 84 Lumber on 32811. Verified floor joist layouts provided by 84 Lumber on 8215
6.14.17	12611R2	Added stem wall foundation plan
4.23.18	17862	Added crawl space foundation plan
7.10.18	17862R	Revised per new architectural files dated 6.12.18
8.30.18	17862R2	Added dimensions at taped porch columns
10.5.18	17862R3	Included stick framing option at extended porch
11.30.18	17862R4	Revised NC version only for 2018 NCRC
3.1.21	TØØ91	Added OX-15 Structural Insulated Sheating Option
6.29.21	TØØ91	Updated OX-15 chart and Stud Change
	5.16.17 6.14.17 4.23.18 7.10.18 8.30.18 10.5.18 11.30.18 3.121	614/11 126/1R2 423/8 17862 11,0/8 17862 83,0/8 17862R3 10,5/8 17862R3 10,5/8 17862R3 13,0/8 17862R4 3,121 170091

REVISION LIST:

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 unitien 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.
 The structure is only stable in its completed form. The contractor shall provide all required temporary bracing during construction to stabilize the structure.

 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.
- Anu structural elements or details not fully developed on the Any structural elements or details not fully developed on the construction dralungs shall be completed under the direction of a licensed professional engineer. These shop dralungs shall be submitted to SUMMIT for review before any construction begins. The shop dralungs 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.

 Verification of assumed field conditions is not the responsibilit of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before construction begins.

 The SER is not responsible for any secondary structural elements
- or non-structural elements, except for the elements specifically noted on the structural drawings.

 This structure and all construction shall conform to all

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

FOUNDATIONS:

I. 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.

- 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. Any fill shall be placed under the direction or recommendation of a licensed professional engineer.
- The resulting soil shall be compacted to a minimum of 95%
- maximum dry density.

 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
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material

STRUCTURAL STEEL:

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. Structural steel shall receive one coat of shop applied

- rust-inhibitive paint. All steel shall have a minimum yield stress (F,,) of 36 ksi unless
- otherwise noted.

 Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AWS D.I. Electrodes for shop and field welding shall be class ETOXX. All welding shall be performed by a certified welder per the above

NCMC III:
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.

- 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
- 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 42% of
- target values as follows:
 3.I. Footings: 5%
 3.2. Exterior Glabs: 5%
- No admixtures shall be added to any structural concrete without written permission of the SER.

- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.IR-96: "Guide for Concrete Slab and Slab
- 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.
 - 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.
 - Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
 - nforcing 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:

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

- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement
- manulactured for use as concrete secondary reinforcement. Application of filloemesh per cubic yard of concrete shall equal a minimum of 0% by volume (15 pounds per cubic yard) Filloemesh shall comply with ASTM CIIIs, and Jocal building code requirements, and shall meet or exceed the current industry
- Steel reinforcing bars shall be new billet steel conforming to
- ASTM A615, grade 60.

 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"

 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 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.

- 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. Where reinforcing steel is required vertically, dowels shall be
- provided unless otherwise noted. WOOD FRAMING:

 I. 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 or Southrn-Spruce Pine (SPF) 2. LVL or PSL engineered wood shall have the following minimum
- design values:

 21. E = 1,900,000 psi

 22. Fb = 2600 psi
- 2.4.Fc = 700 psi
- 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 AUPA standard C-2
- Nails shall be common wire nails unless otherwise noted.

 Lag screws shall conform to ANSI/ASME standard B182.1-1981 Lead holes for lag screws shall be in accordance with NDS specifications.

 All beams shall have full bearing on supporting framing members
- unless otherwise noted.
- Exterior and load bearing stud walls are to be 2x4.57P *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 minimu of one king stud shall be placed at each end of the header. King studs shall be continuous.
- Ring stude shall be continuous. Individual stude forming a column shall be attached with one 10d nail 6 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. Multi-ply beams shall have each ply attached with (3) lød nails (
- 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:

- 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.
- 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 1-10), 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 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 Blood Trusses
- 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 fo
- the trusses, 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:

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:

- 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.
- All structurally required wood sheathing shall bear the mark of

- 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.

 Roof sheathing shall be APA rated sheathing exposure 1 or 2.
- Roof sheathing shall be an A taked sheathing 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.

 Wood floor sheathing shall be APA rated sheathing exposure I or 2. Attach sheathing to its supporting framing with (I)-8d CC ringshark rail at 6°o/c at panel edges and at 2°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, like suitable edge support by use of T4G 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.
 Sheathing shall have a 1/8" gap at panel ends and edges as
- recommended in accordance with the APA.

STRUCTURAL FIBERBOARD PANELS:

- Terrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards. All structurally required fiberboard sheathing shall bear the mark of the AFA.
- mark or the AFA.

 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
- Sheathing shall have a 1/8" gap at panel ends and edges are recommended in accordance with the AFA.

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STRUCTURAL MEMBERS ONLY

DATE: 6/29/2021 9CALE: 22x34 |/4"+|"-@" |bd|| |/8"+|"-@" PROJECT 4 528-06R: 11862R4 DRAWN BY: JOEF

CHECKED BY: CTB DATE

REFER TO COVER SHEET FOR A



FOUNDATION NOTES:

- FOUNDATIONS TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 4 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
- STRUCTURAL CONCRETE TO BE Fc = 3000 PSI, PREPARED AND PLACED IN
- ACCORDANCE WITH ACI STANDARD 318.
 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.
 FOOTING SIZES BASED ON A PRESUMPTIVE SOIL BEARING CAPACITY OF 2000 PSF. CONTRACTOR IS SOLELLY RESPONSIBLE FOR VERRYING THE SUITABILITY OF THE SITE SOIL CONDITIONS AT THE TIME OF CONSTRUCTION. FOOTINGS AND PIERS SHALL BE CENTERED UNDER THEIR RESPECTIVE
- ELEMENTS. PROVIDE 2" MINIMUM FOOTING PROJECTION FROM THE FACE OF MASONRY.

 MAXIMUM DEPTH OF UNBALANCED FILL AGAINST MASONRY WALLS TO BE 46
- SPECIFIED IN SECTION R404.1 OF THE 2018 NORTH CAROLINA RESIDENTIAL
- SPECIFIED IN SECTION RAIGHTOF THE ZOB NORTH CAROLINA RESIDENTIAL BUILDING CODE.

 PILASTERS TO BE BONDED TO PERIMETER FOUNDATION WALL.

 PROVIDE FOUNDATION WATERPROOFING, AND DRAIN WITH POSITIVE SLOPE TO OUTLET AS REQUIRED BY SITE CONDITIONS.

 PROVIDED PERIMETER INSULATION FOR ALL FOUNDATIONS PER 2018 NORTH
- CAROLINA RESIDENTIAL BUILDING CODE.
- 10. CORBEL FOUNDATION WALL AS REQUIRED TO ACCOMMODATE BRICK VENEERS.
- CRAWL SPACE TO BE GRADED LEVEL, AND CLEARED OF ALL DEBRIS.
- CRAIL SPACE OF BE GRADE LEVEL, AND LEARED OF ALL DEBRIS. FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2016 NORTH CAROLINA RESIDENTIAL CODE SECTION R403.16, MINIMUM 1/2" DIA, BOLTS SPACED AT 6'-0" ON CENTER WITH A "I" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE, ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION, MINIMUM (2) ANCHOR BOLTS FER PLATE SECTION, ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- 9. ABBREVIATIONS:
- DJ = DOUBLE JOIST SJ = SINGLE JOIST FT = FLOOR TRUSS GT = GIRDER TRUSS SC = STUD COLUMN EE = EACH END DR = DOUBLE RAFTER
 TR = TRIPLE RAFTER TJ = TRIPLE JOIST OC = ON CENTER
- 10. ALL PIERS TO BE 16 "X16" MASONRY AND ALL PILASTERS TO BE 8 "X16"
- MASONRY, TYPICAL. (UNO)
 WALL FOOTINGS TO BE CONTINUOUS CONCRETE, SIZES PER STRUCTURAL PLAN.
- 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 4 TESTING, P.C. MUST BE PROVIDED THE OPPORTUNITY TO REVIEW THE FOOTING DESIGN PRIOR TO CONCRETE PLACEMENT.
- ALL FOOTINGS & SLABS ARE TO BEAR ON UNDISTURBED SOIL OR 95% COMPACTED FILL, VERIFIED BY ENGINEER OR CODE OFFICIAL.

REFER TO BRACED WALL PLAN FOR PANEL LOCATIONS AND ANY REQUIRED HOLDOWNS, ADDITIONAL INFORMATION PER SECTION R602:10.8 AND FIGURES R602:10.6.5, R602,10,7, R602,10,8(1) AND R602,10,8(2) OF THE 2015 IRC

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 LIPER TABLE R4051

REINFORCE GARAGE PORTAL WALLS PER FIGURE R602.10.9 OF THE 2015 IRC.

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.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON
COMPLETED/REVISED ON 02/28/2020, IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTITY SUMMIT ENGINEERING, LABORATORY 4
TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL
PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

ENGINEERING 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 SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

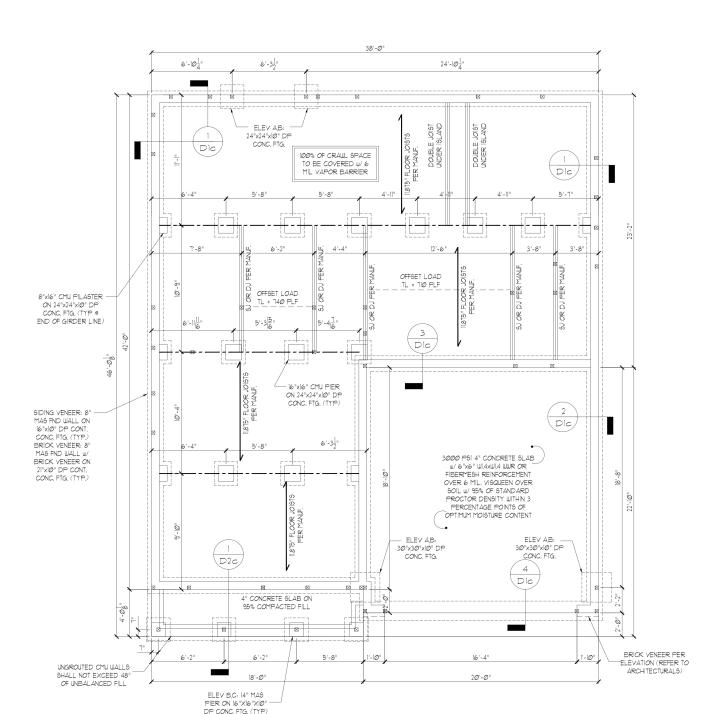
CRAWL SPACE FOUNDATION PLAN

9CALE: 1/4"=1'-@" ON 22"x34" OR 1/8"=1'-@" ON 11"x17"

18"x24" MIN. CRAWL SPACE ACCESS DOOR TO BE

DECK FLOOR JOISTS SHALL BE SPACED AT MAX. 12" ON CENTER WHEN DECKING INSTALLED DIAGONALLY

LOCATED IN FIELD PER BUILDER PROVIDE MIN. (2) 2x10 HEADER OVER DOOR W/ MIN. 4" BEARING EACH END. AVOID SHOWN POINT LOADS.



CRAWL SPACE FOUNDATION - ALL ELEVATIONS

SUMMIT

SUMMIT

CLIENT: DR Horton, Inc. 8001 Arrowidge Blvc Charlotte, NC 28213

10 0) ¥ 8



STRUCTURAL MEMBERS ONLY

DRAWNG DATE: 6/29/2021 8CALE: 22x34 |/4"+|'-0" |kr| |/8"+|'-0" PROJECT 4 528-66R: 11862R4 DRAWN BY: JCEF CHECKED BY: CTB

> RIGNAL INFORMATION PROJECT * DATE ØV3I/2ØI

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



REQUIRED BRACED WALL PANEL CONNECTIONS						
			REQUIRED CONNECTION			
METHOD	MATERIAL	MIN. THICKNESS	@ 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.		
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602.10.6.4	PER FIGURE R602.10.6.4		
"OR EQUIVALENT PER TABLE R1023.5						

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING
- CODE WITH ALL LOCAL AMENDMENTS,
 CONTRACTOR SHALL VERIEY 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.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED.

- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL FORCES ENCOUNTERED DURING ERECTION.
 PROPERTIES USED IN THE DESIGN ARE AS FOLLOUS:
 MICROLLAM (LYL), F_B = 2600 PSI, Fv = 285 PSI, E = 1.9x10° PSI
 PARALLAM (PSL), F_B = 2900 PSI, Fv = 290 PSI, E = 1.9x10° PSI
 ALL WOOD MEMBERS SHALL BE "\$ 5YP", SPF (MLESS NOTED ON PLAN, ALL STUD COLUMN AN JOINT SHALL BE "\$ 5YP", SPF (MLESS NOTED ON PLAN, ALL STUD COLUMN SHALL BE SUPPORTED WITH A (2) 2x4 "\$ 5YP, P. SPF (SUD).
- EACH END UNLESS NOTED OTHERWISE.
 ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615
 AND SHALL HAVE A MINIMUM COVER OF 3".
 FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH FOUNDATION AND CONTROLLED E CONTROLLED FOR THE 2009 NORTH CAROLINA RESIDENTIAL CODE SECTION RADISLA MINIMUM I/II" DIA BOLTS SPACED AT 6'-0" ON CENTER WITH A T" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE
- SECTION MINIMM (2) ANCHOR BOLTS PER PLATE SECTION, ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE. CONTRACTOR TO PROVIDED LOOKOUTS WHEN CEILING JOISTS SPAN PERPENDICULAR TO RAFTERS.
- PERFENDICULAR TO RAFIERS. FLITCH BEAMS, 4-PLY LVIS AND 3-PLY SIDE LOADED LVLS SHALL BE BOLTED TOGETHER WITH 1/2" DIA THRI BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS FER DETAIL 1/D31. MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2'x4 STP "2'SFF" "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 2'x4 SYP #2/SPF #2, DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

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

DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE, PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL.

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

INSTALL ANY REQUIRED HOLDOWNS PER SECTION R602.10.8 AND FIGURES R602.10.6.5, R602.10.1, R602.10.8(1) AND R602.10.8(2) OF THE 2015 IRC

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON COMPLETED/REVISED ON 02/20/020, 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 ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE APPLICATION. OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE

NOTE: MEMBER NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER PROVIDED THE ENTIRETY OF THE MEMBER IS WRAPPED

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

STRUCTURAL MEMBERS ONLY

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FOR 2000# (MIN, T)

TO HEADER III/ SST

(4) 16d NAILS AND FOUNDATION W/ S

FIRST FLOOR BRACING (FT)

CONTINUOUS SHEATHING METHOD

REQUIRED

4.8

BWL 1-3

BWL 1-A

PROVIDED

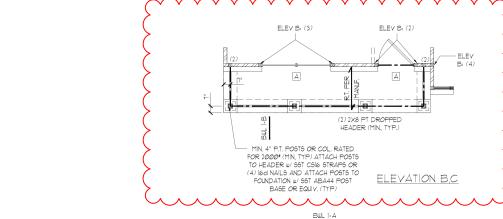
26.5

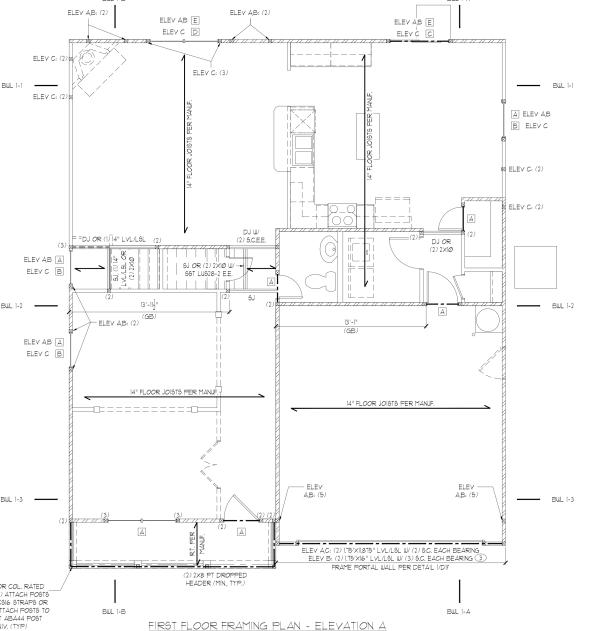
41.0

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

9CALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"





		ELEV C: (3)			
BWL 1-1	X /				
ELEV C: (2)	· ×	щ.		E	
		FLOOR JOIGTS FER MANUE	FLOOR JOIGTS FER MANE		A ELEV AB
		0. 0.			B ELEV C
		818	80	É	
		S)			
		001	## ## ## ## ## ## ## ## ## ## ## ## ##	8	ELEV C: (2)
		<u>4</u>			
				8 T T T T	ELEV C: (2)
			1		ELEV O: (2)
		V DJW/ F		(2)	
(3)	= =DJ OR (1) 4" LVL/L9L (2)	(2) S.C.E.E.		DJOR DJXIØ	
ELEV A,B (A)	7 (1) 14" 1.15L OR 2) 2x[Ø	1 OP (2) 2 Y I I I I I I			
ELEV C B	8) (1) (2) (3) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	3J OR (2) 2XIO W/			
	T N				
BWL 1-2	(2) 13'-11 ¹ / ₂ "	(2) 5J (2)		- <u>-</u> — — — — — — — — — — — — — — — — — — —	BWL 1-2
	ELEV AB: (2)	₽′	13'-1"		
			(GB)		
ELEV A.B (A) ELEV C (B)		ii		_>	
	/				
	14" FLOOR JOISTS	PER MANUF.			
			14" FLOOR JOISTS PER MANUF.		
		ii			
		>-			
			ELEV	ELEV —	
BWL 1-3			AB: (5)	A,B: (5)	
	(3) (3)	(2) (2)		V	
(2)		1 (2)		1	
		번 j	_8		
1	<u> </u>	Σ. Δ.	ELEV A.C: (2) 1.75"X11.875" LVL/L9L W/ (2) S.C. ELEV B: (2) 1.75"X16" LVL/L9L W/ (3) S.C. EA	ACH BEARING (3)	
9		(2) 2X8 PT DROPPED	FRAME PORTAL WALL PER DETAIL	I/DIf	
IN. 4" P.T. POSTS OR COL. RATED		HEADER (MIN., TYP.)			
R 2000° (MIN, TYP) ATTACH POSTS HEADER W/ SST CSIG STRAPS OR				l	
16d NAILS AND ATTACH POSTS TO OUNDATION w/ 9ST ABA44 POST	BWL I-B			BWL 1-A	
BASE OR EQUIV. (TYP)	FIRST	<u>-LOOR FRAMING PL</u>	<u>an - Elevation a</u>		

TAG	SIZE	JACKS (EACH END)
А	(2) 2x6	(1)
В	(2) 2x8	(2)
С	(2) 2xlØ	(2)
D	(2) 2×12	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(1)
G	(3) 2x8	(2)
Н	(3) 2xlØ	(2)
1	(3) 2xl2	(2)

HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. SC NOTED ON PLAN OVERRIDE SC LISTED ABOVE.

LI	_E		
TAG	SIZE	OPENING SIZE	
\odot	L3x3x1/4"	LESS THAN 6'-0"	
2	L5x3x1/4"	6'-0" TO 10'-0"	
3	L5x3-1/2"x5/16"	GREATER THAN 10'-0"	
4	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS	

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

ALL HEADERS WHERE BRICK IS USED, TO BE: (UNO)

WALL STUD SCHEDULE

| 151 # 2ND FLOOR LOAD BEARING STUDS: 2x4 STUDS @ 16" OC. OR 2x6 STUDS @ 24" OC. | 151 FLOOR LOAD BEARING STUDS @ 16" OC. 2x4 STUDS @ 12" OC. OR 2x6 STUDS @ 16" OC. 2x4 STUDS @ 12" OC. OR 2x6 STUDS @ 16" OC. 2x4 STUDS @ 12" OC. OR 2x6 STUDS @ 16" OC. NON-LOAD BEARING STUDS (ALL FLOORS) 2x4 STUDS @ 24" O.C. TWO STORY WALLS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED w/ CROSS BRACING @ 6'-0" O.C. VERTICALLY

KING STUD R	FOLIREMENTS
OPENING WIDTH	KINGS (EACH END.
LESS THAN 3'-0"	(1)
3'-Ø TO 4'-Ø"	(2)
4'-0" TO 8'-0"	(3)
8'-0" TO 12'-0"	(5)
12'-0" TO 16'-0"	(6)
KING STUD PEQUIPEM	TENTS ABOVE DO NO

APPLY TO PORTAL FRAMED OPENINGS

BRACED WALL NOTES:

- 1) WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10
- FROM THE 2015 INTERNATIONAL RESIDENTIAL CODE AS ALLOWED PER SECTION RE0210 OF THE 2018 NO RESIDENTIAL CODE. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND SPEEDS UP TO 130 MPH.
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING
- 3. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN
- ACCORDANCE WITH IRC TABLE R602/04.

 4. ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED IO FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- MINIMUM PANEL LENGTH SHALL BE PER TABLE R602105 THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIMUM 1/2" GYPSUM BOARD (UNO)
- 1/27 31 FBUH BUARD (MO).
 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.
- FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND THE FOUNDATION OR BEARING WALL BELOW WITHOUT ADDITIONAL ENGINEERING CALCULATIONS.
- A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF EACH END OF A BRACED WALL LINE.

 10. THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS
- SHALL NOT EXCEED 20 FEET. MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R602.10.9 OF THE 2015 IRC.
- 12. BRACED WALL PANEL CONNECTIONS TO FLOOR/CEILING SHALL BE
- CONSTRUCTED IN ACCORDANCE WITH SECTION R602/03 BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R602/03/2 AND
- FIGURES R602.10.8(1)4(2)4(3). 14. CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10.11
 15. PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE
- R6021064 (INO)
- ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS. ABBREVIATIONS:

CS-XXX = CONT. SHEATHED ENG = ENGINEERED SOLUTION
PF = PORTAL FRAME PF-ENG = ENG, PORTAL FRAME



SUMMIT

CLIENT: DR Horton, Inc. 8001 Arrowidge Blvc Charlotte, NC 28213

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STRUCTURAL MEMBERS ONLY

DATE: 6/29/2021 8CALE: 22x34 |/4"*|"-0" |k/| |/8"*|"-0" PROJECT 4 528-66R: 11862R4 DRAWN BY: JOEF CHECKED BY: CTB

DATE ØV3I/2ØI

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

	REQUIRED	BRACED W	ALL PANEL CONNEC	CTIONS		
			REQUIRED CONNECTION			
METHOD	MATERIAL	MIN. THICKNESS	@ PANEL EDGES	@ INTERMEDIATE SUPPORTS		
C5-W5P	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS 8 6" O.C.	6d COMMON NAILS © 12" O.C.		
GB	GYPSUM BOARD	1/2"	5d COOLER NAILS** ⊕ 1" O.C.	5d COOLER NAILS** © 7" O.C.		
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS 8 6" O.C.	6d COMMON NAILS © 12" O.C.		
PF	WOOD STRUCTURAL PANEL	7/16"	PER FIGURE R602,10.6.4	PER FIGURE R602.10.6.4		
**OR EQUIVALENT PER TABLE RT02.3.5						

GENERAL STRUCTURAL NOTES:

- CONSTRUCTION SHALL CONFORM TO 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE WITH ALL LOCAL AMENDMENTS.
 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

- 2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY BRACING REQUIRED TO RESIST ALL PORCES ENCOUNTERED DURING ERECTION.

 4. PROPERTIES USED IN THE DESIGN ARE AS FOLLOWS:

 MICROLLAM (FL), F_B = 2000 PSI, F_V = 205 PSI, E = 1.9x/0⁶ PSI

 5. ALL WOOD MEMBERS SHALL BE *0. SYP/1⁰. SFF UNLESS NOTED ON PLAN, ALL STUD COLUMNS AND JOISTS SHALL BE *0. SYP/1⁰. SFF UNLESS NOTED ON PLAN, ALL STUD COLUMNS AND JOISTS SHALL BE *0. SYP/1⁰. SFF UNLESS NOTED ON PLAN, ALL STUD COLUMNS AND JOISTS SHALL BE *0. SYP/1⁰. SFF UNLESS NOTED OTHERWISE.

 6. ALL BEAMS SHALL BE SUPPORTED WITH A *(2) 2x4 *0. SYP/1⁰. SFF STUD COLUMN AT EACH END UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL BE GRADE 60 BARS CONFORMING TO ASTM A615
 AND SHALL HAVE A MINIMUM COVER OF 3".
 FOUNDATION ANCHORAGE SHALL BE CONSTRUCTED PER THE 2018 NORTH
- CAROLINA RESIDENTIAL CODE SECTION RADSIG, MINIMUM 1/2" DIA, BOLTS SPACED AT 6'-0" ON CENTER WITH A 1" MINIMUM EMBEDMENT INTO MASONRY OR CONCRETE. ANCHOR BOLTS SHALL BE 12" FROM THE END OF EACH PLATE SECTION, MINIMUM (2) MACHOR BOLTS SEPER PLATE SECTION, ANCHOR BOLTS SHALL BE LOCATED IN THE CENTER THIRD OF THE PLATE.
- 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 12" DIA THRU BOLTS SPACED AT 24" O.C. (MAX) STAGGERED OR EQUIVALENT CONNECTIONS PER DETAIL 1/D37, MIN. EDGE DISTANCE SHALL BE 2" AND (2) BOLTS SHALL BE LOCATED MINIMUM 6" FROM EACH END OF THE BEAM.
- ALL NON-LOAD BEARING HEADERS SHALL BE (1) FLAT 2'X4 STP "1/5FF" 1/2, DROPPED, FOR NON-LOAD BEARING HEADERS EXCEEDING 8'-0" N WIDTH AND/OR WITH MORE THAN 2'-0" OF CRIPPLE WALL ABOVE, SHALL BE (2) FLAT 2'X4 SYP #2/SPF #2. DROPPED. (UNLESS NOTED OTHERWISE)
- ABBREVIATIONS:

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

DESIGNATES JOIST SUPPORTED LOAD BEARING WALL ABOVE, PROVIDE BLOCKING UNDER JOIST SUPPORTED LOAD BEARING WALL

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

INSTALL ANY REQUIRED HOLDOWNS PER SECTION R602.10.8 AND FIGURES R602.10.6.5, R602.10.1, R602.10.8(1) AND R602.10.8(2) OF THE 2015 IRC

NOTE: MEMBER NOTED AS PRESSURE TREATED MAY BE FRAMED WITH NON-PRESSURE TREATED LUMBER
PROVIDED THE ENTIRETY OF THE MEMBER IS WRAPPED
TO PREVENT MOISTURE INTRUSION.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON
COMPLETED/REVISED ON 02/02/02/0. IT IS THE RESPONSIBILITY OF
THE CLENT TO NOTIFY SUMIT ENGINEERING, LABORATORY &
TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

STRUCTURAL MEMBERS ONLY

ENGINEERING 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 SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

SECOND FLOOR BRACING (FT)

CONTINUOUS SHEATHING METHOD

REQUIRED

6.8

6.8

BUL 2-

BWL 2-2

BWL 2-B

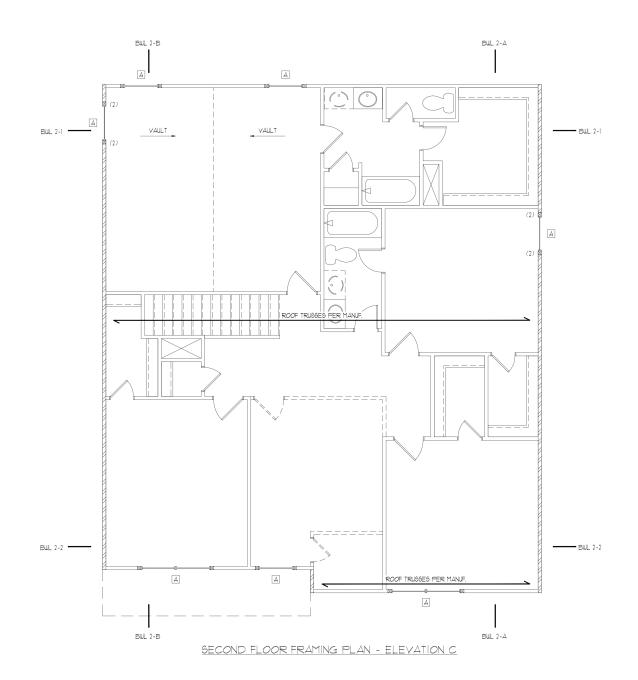
PROVIDED

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

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



TAG	SIZE	JACKS (EACH END
А	(2) 2x6	(1)
В	(2) 2x8	(2)
С	(2) 2xlØ	(2)
D	(2) 2xl2	(2)
E	(2) 9-1/4" LSL/LVL	(3)
F	(3) 2x6	(D)
G	(3) 2x8	(2)
Н	(3) 2xlØ	(2)
	(3) 2x12	(2)

HEADER SIZES MAY BE USED FOR EASE OF CONSTRUCTION. ALL HEADERS TO BE DROPPED UNLESS NOTED OTHERWISE. SC NOTED ON PLAN OVERRIDE SC LISTED ABOVE.

LINTEL SCHEDULE						
TAG	SIZE	OPENING SIZE				
	L3x3x1/4"	LESS THAN 6'-0"				
2	L5x3x1/4"	6'-0" TO 10'-0"				
3	L5x3-1/2"x5/16"	GREATER THAN 10'-0"				
4	L5x3-1/2"x5/16" ROLLED OR EQUIV.	ALL ARCHED OPENINGS				

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

ALL HEADERS WHERE BRICK IS USED, TO BE: (1) (UNO)

WALL STUD SCHEDULE

191 & 2ND FLOOR LOAD BEARING STUDS: 2x4 STUDS @ 16" O.C. OR 2x6 STUDS @ 24" O.C. |ST FLOOR LOAD BEARING STUDS W/ WALK-UP ATTIC: 2x4 STUDS @ 12" OC. OR 2x6 STUDS @ 16" OC. BASEMENT LOAD BEARING STUDS: 2x4 STUDS @ 12" OC. OR 2x6 STUDS @ 16" OC. NON-LOAD BEARING STUDS (ALL FLOORS) 2x4 STUDS @ 24" O.C. TWO STORY WALLS: 2x4 STUDS @ 12" O.C. OR 2x6 STUDS @ 16" O.C. BALLOON FRAMED W/ CROSS BRACING @ 6'-0" O.C. VERTICALLY

KING STUD RI	EQUIREMENTS
OPENING WIDTH	KINGS (EACH END)
LESS THAN 3'-Ø"	(1)
3'-0 TO 4'-0"	(2)
4'-0" TO 8'-0"	(3)
8'-0" TO 12'-0"	(5)
12'-0" TO 16'-0"	(6)
KING STUD REQUIREM APPLY TO PORTAL	ENTS ABOVE DO NO FRAMED OPENINGS

BRACED WALL NOTES

- 1) WALLS SHALL BE DESIGNED IN ACCORDANCE WITH SECTION R602.10 FROM THE 2015 INTERNATIONAL RESIDENTIAL CODE AS ALLOWED PER SECTION R602.10 OF THE 2018 NC RESIDENTIAL CODE. WALLS ARE DESIGNED FOR SEISMIC ZONES A-C AND ULTIMATE WIND
- REFER TO ARCHITECTURAL PLAN FOR DOOR/WINDOW OPENING
- 3. BRACING MATERIALS, METHODS AND FASTENERS SHALL BE IN
- ACCORDANCE WITH IRC TABLE R602/0/4.

 4. ALL BRACED WALL PANELS SHALL BE FULL WALL HEIGHT AND SHALL NOT EXCEED 10 FEET FOR ISOLATED PANEL METHOD AND 12 FEET FOR CONTINUOUS SHEATHING METHOD WITHOUT ADDITIONAL
- EMSINEERING CALCULATIONS.

 MINIMUM PANEL LENGTH SHALL BE PER TABLE R602/05.
 THE INTERIOR SIDE OF EXTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS AND BOTH SIDES OF INTERIOR WALLS SHALL BE SHEATHED CONTINUOUSLY WITH MINIM
- FOR CONTINUOUS SHEATHING METHOD, EXTERIOR WALLS SHALL BE SHEATHED ON ALL SHEATHABLE SURFACES INCLUDING INFILL AREAS BETUEEN BRACED WALL PANELS, ABOVE AND BELOW WALL
 OPENINGS, AND ON GABLE END WALLS.

 FLOORS SHALL NOT BE CANTILEVERED MORE THAN 24" BEYOND
 THE FOUNDATION OR BEARNG WALL BELOW WITHOUT ADDITIONAL
- ENGINEERING CALCULATIONS.

 A BRACED WALL PANEL SHALL BE LOCATED WITHIN 10 FEET OF
- EACH END OF A BRACED WALL LINE.
- ID. THE MAXIMUM EDGE DISTANCE BETWEEN BRACED WALL PANELS SHALL NOT EXCEED 20 FEET.

 II. MASONRY OR CONCRETE STEM WALLS WITH A LENGTH OF 48" OR
- LESS SUPPORTING A BRACED WALL PANEL SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE R6021/09 OF THE 2015 IRC. BRACED WALL PANEL CONNECTIONS TO FLOORICELING SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION R6021/09
- BRACED WALL PANEL CONNECTIONS TO ROOF SHALL BE
 CONSTRUCTED IN ACCORDANCE WITH SECTION R6021082 AND
 FIGURES R602108(1)4(2)4(3).

 CRIPPLE WALLS AND WALK OUT BASEMENT WALLS SHALL BE
- DESIGNED IN ACCORDANCE WITH SECTION REØZIÐII PORTAL WALLS SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE
- R602.10.6.4 (UNO) 16. ON SCHEMATIC, SHADED WALLS INDICATE BRACED WALL PANELS.
- IT. ABBREVIATIONS: GB = GYPSUM BOARD | WSP = WOOD STRUCTURAL PANEL

SUMMIT

SUMMIT

CLIENT: DR Horton, Inc. 8001 Arrowidge Blvc Charlotte, NC 28213

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STRUCTURAL MEMBERS ONLY

DATE: 6/29/2021 8CALE: 22x34 |/4"+|'-0" |kr| |/8"+|'-0" PROJECT 4 528-66R: 11862R4 DRAWN BY: JOEF CHECKED BY: CTB

RIGINAL INFORMATION PROJECT • 12611 DATE ØV3I/2ØI

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS



THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON COMPLETED/REVISED ON \$21.80-2010. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY (4 TESTING, PC. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY 4 TESTING, PC. CANNOT GLARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WHEN USED WITH ARCHITECTURAL PLANS DATED DIFFERENTLY THAN THE DATE LISTED ABOVE.

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

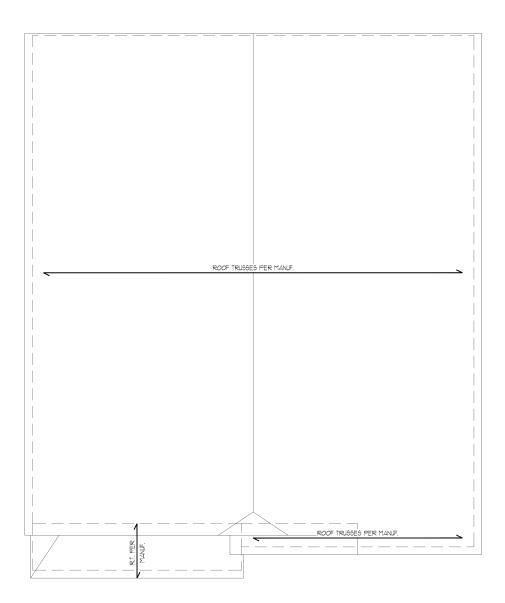
NOTE: ROOF TRUSSES SHALL BE SPACE TO SUPPORT FALSE FRAMED DORMER WALLS (TYP, UNO)

STRUCTURAL MEMBERS ONLY

ENGINEERING 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 SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

ROOF FRAMING PLAN 9CALE: 1/4"=1'-0" ON 22"x34" OR 1/8"=1'-0" ON 11"x17"



ROOF FRAMING PLAN - ELEVATION C





PROJECT: Winington - RH First Floor Framing F



STRUCTURAL MEMBERS ONLY

DRAWING DATE: 6/29/2021 9CALE: 22x34 |/4**|'-@* |k/1 |/8**|'-@* PROJECT * 528-Ø6R: 11862R4 DRAWN BY: JCEF CHECKED BY: CTB

ORIGINAL INFORMATION
PROJECT * DATE
12611 Ø131/2011

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

DESIGN SPECIFICATIONS:

Construction Tube: Commercial ☐ 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

1.	Roof	Live L	oads					
			entional					
	1.2.	Trus s			 	 	 20	PS
		1.2.1.	Attic T	uss .	 	 	 60	P
2.	Roof	Dead	Loads					
			entional					
	2.2.	Truse		,	 	 	 20	P
3.	Snow				 	 	 15 f	-SF
	3.1.	Imp <i>o</i> rt	ance Fa	c tor	 ····	 	 IØ	
4.	Floor	Live L	oads					
	4.1.	Typ. I	Dwelling		 	 	 40	P

42. Sleeping Areas 43. Decks 4.4. Passenger Garage 50 PSI 5.1. Conventional 2x .. 52 I-Joist

6.I. Exposure ... 6.2. Importance Factor... 6.3. Wind Base Shear

632.Vy = 7. Component and Cladding (in PSF)

63.l. Vx =

	-			
MEAN ROOF HT.	UP TO 30'	3 Ø'l"-35'	35'1"-40'	40'1"-45'
ZONE 1	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 4	18.2,-19.0	19,2,-20.0	19.9,-2 0 .7	20.4,-21.3
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.1	20.4,-26.9

Seismi	C	
8.1.	Site Class	D
8.2.	Design Category	С
	Importance Factor	IØ
8.4.	Seismic Use Group	1
85	Spectral Response Acceleration	

85.1. Sms = %g 85.2. Sml = %g 86. Seismic Base Shear 861. Vx =

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 ... 8.9. Lateral Design Control: Seismic

9. Assumed Soil Bearing Capacity Wind ⊠ SUMMIT

STRUCTURAL PLANS PREPARED FOR

STANDARD DETAILS

PROJECT ADDRESS:

OWNER:

DR Horton Carolinas Division 8001 Arrowridge Blvd Charlotte, NC 28273

ARCHITECT/DESIGNER

GMD Design Group 1845 Satellite Blvd

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:

ANCHOR BOLT	PT	PRESSURE TREATED
ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CEILING JOIST	SC	STUD COLUMN
CLEAR	SJ	SINGLE JOIST
OUBLE JOIST	SPF	SPRUCE PINE FIR
OUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
ACH END	S YP	SOUTHERN YELLOW PINE
EACH WAY	ŤJ	TRIPLE JOIST
IOT TO SCALE	TSP	TRIPLE STUD POCKET
ON CENTER	TYP	TYPICAL
POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC
	EILING JOIST LEAR OUBLE JOIST OUBLE STUD POCKET ACH END ACH WAY OF TO SCALE N CENTER OUNDS PER SQUARE FOOT	EILING JOIST SC LEAR SJ OUBLE JOIST SPF OUBLE STUD POCKET SST ACH END SYP ACH WAY TJ OT TO SCALE TSP N CENTER TYP OUNDS PER SQUARE FOOT UNO

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 <u>DR Horton. Inc.</u> 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 **SUN**THIT immediately.

SHEET LIST:

REVISION LIST

Date

EIIII

7,12,17

3 2.15.18

4 2.28.18

5 12.19.18

6 2.19.19

8 3.6.19

9 3220

10 3.18.20 102020

13 5.18.21

14 @2.14.23

3.121

Revision

No.

Project No.

Sheet No.	Description
CSI	Cover Sheet, Specifications, Revisions
Dlm	Monolithic Slab Foundation Details
Dls	Stem Wall Foundation Details
Dlc	Crawl Space Foundation Details
Dlb	Basement Foundation Details
DIf	Framing Details

Added box bay detail (2/D2f). Added deck

stem wall and crawl space foundations

Revised garage door detail, NC only

Revised per Mecklenburg County Comments Revised stem wall deck attachment and i

Corrected dimensions at perimeter footings

Added alternate two-pour detail for slab and added note for crawl girder above grade

Added 4/D2m - Tall Slab Detail w/ Siding

Added high-wind foundation details

Revised stem wall insulation note

Revised per 2018 NCRC

sheathing on wall sections.

Added tall turndown detail

Added OX-19 Standard Details

Updated OX-IS Standard Details

options with basement. Revised deck options with

DR HORTON PROJECT SIGN-OFF: Manager Operations Operations Sustem Operations Product Development

SUMMIT



PROJECT: Standard I COVE

CARO 053883 TUEHR NO

STRUCTURAL MEMBERS ONL DATE: Ø2/14/2023

9CALE: 22±34 V4"+1'-**8**" NeT V8"+1'-**6**" PROJECT 5 528-06R DRAWN BY: JOEF CHECKED BY: BCP

REFER TO GOVER SHEET FOR A COMPLETE LIST OF REVISIONS

CSI

GENERAL STRUCTURAL NOTES:

- 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 of couments without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For th purposes of these construction documents the SER and SUMMIT
- shall be considered the same entity.

 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.

 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,
- the stop crasmings for diminishings of the accurations, is not the responsibility of the SER or SUMMIT. 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.

 The SER is not responsible for any secondary structural elements or non-structural elements, except for the elements specifically
- noted on the structural drawings.

 This structure and all construction shall conform to all applicable sections of the international residential code.
- applicable sections of the international residential code.

 This structure and all construction shall conform to all applicable sections of local building codes.

 All structural assemblies are to meet or exceed to requirements of the current local building code.

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.

- 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. Any fill shall be placed under the direction or recommendation
- maximum dry density.

 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.
- 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.

- accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
- 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.

- of a licensed professional engineer.
 The resulting soil shall be compacted to a minimum of 95%

- - Structural steel shall receive one coat of shop applied
- rust-inhibitive paint.

 3. All steel shall have a minimum yield stress (F_m) of 36 kg unless
- otherwise noted.

 Welding shall conform to the latest edition of the American Welding Society's Structural Welding Code AUS DII. Electrodes for shop and field welding shall be class ETOXX. All welding shall be performed by a certified welder per the above

- NUMBELIE:
 Concrete shall have a normal weight aggregate and a minimum compressive strength (Fe) at 28 days of 3000 psi, unless otherwise noted on the plan.
 Concrete shall be proportioned, mixed, and placed in
- 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:

- Concrete slabs-on-grade shall be constructed in accordance Construction"
 - 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.

 Control or saw cut joints shall be spaced in interior
 - slabs-on-arade at a maximum of 15'-0" O.C. and in exterior slabs-on-grade at a maximum of 10'-0" unless otherwise noted.
 - Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished
 - process within 4 to 12 hours after the slab has been rimined.

 Reinforcing steel may not extend through a beau cut joint.

 Reinforcing steel may extend through a sew cut joint.

 10. All welded wire fabric (www.) 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 congrete 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.
 - Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
 - Application of fibermesh per cubic yard of concrete shall equal a minimum of 01% by volume (15 pounds per cubic yard) fibermesh shall comply with ASTM CIII6, any local building code requirements, and shall meet or exceed the current industry
 - standard.
 Steel reinforcing bars shall be new billet steel conforming to
 - office reinforcing bars shall be new brillet steet combining to ASTM Abig grade 60.

 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"

 Horizontal footing and wall reinforcement shall be continuous and shall have 30" bends, or corner bars with the same size/spacing as the horizontal reinforcement with a class B
 - tension splice.
 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.

- 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: 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
 - Spruce-Yellow-Pine (SYP) 2.

 LVL or PSL engineered wood shall have the following minimum ign values: 2.1. E = 1,900,000 psi

 - 2.2.F_b = 26000 psi 2.3.F_v = 285 psi
 - 2.4.Fc = 100 psi 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
- with a varication of the Nails shall be common wire nails unless otherwise noted.

 Lag screws shall conform to ANSI/ASME standard B182.1-1981.

 Lead holes for lag screws shall be in accordance with NDS standard B182.1-1981.
- specifications.
- All beams shall have full bearing on supporting framing members unless otherwise noted.

 Exterior and load bearing stud walls are to be 2x4 SYP *2 * 16"
- O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header. of one king stud shall be placed at each end of the header. King studs shall be continuous. Individual studs forming a column shall be attached with one lod nall % 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.
- Multi-ply beams shall have each ply attached with (3) 10d nails @ 24" O.C.
- 10. Flitch beams, 4-ply beams and 3-ply side loaded beams shall be bolted together with (2) rous of 1/2" diameter through bolts staggered \$ 16" O.C. unless noted otherwise. Min. edge distance shall be 2" and (2) bolts shall be located a min. 6" from each

WOOD TRUSSES:

- 200 TRUSCES.

 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, shall be designed for all required loadings as a neptifical in the local building roots the ASES Standard.
- Ins wood trusses shall be designed for all required loadings as specified in the local building code, the AGCE Standard "Minimum Design Loads for Buildings and Other Structures."

 (ASCE 1-05), 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 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 Wetal 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
- EXTERIOR WOOD FRAMED DECKS:
- 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:

 I. 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
- All structurally required wood sheathing shall bear the mark of

- 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.

 Roof sheathing shall be APA rated sheathing exposure I 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
- 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.

 Wood floor sheathing to its supporting framing with (1)-bd CC ringshank nail at 6"0/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 to use of TKG bluecod or lumber tolocking unless support by use of T4G plywood or lumber blocking unless otherwise note. Panel and joints shall occur over framing. Apply building paper over the sheathing as required by the
- state Building Code.

 Sheathing shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA.

- STRUCTURAL FIBERBOARD PANELS:

 I. Fabrication and placement of structural fiberboard sheathing shall be in accordance with the applicable AFA standards All structurally required fiberboard sheathing shall bear the mark of the AFA.
- 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
- Sheathing shall have a 1/8" gap at panel ends and edges are



CLIENT: DR Horton Carolina Divis 8001 Arrowridge Blvd. **Charlotte, NC 282**13

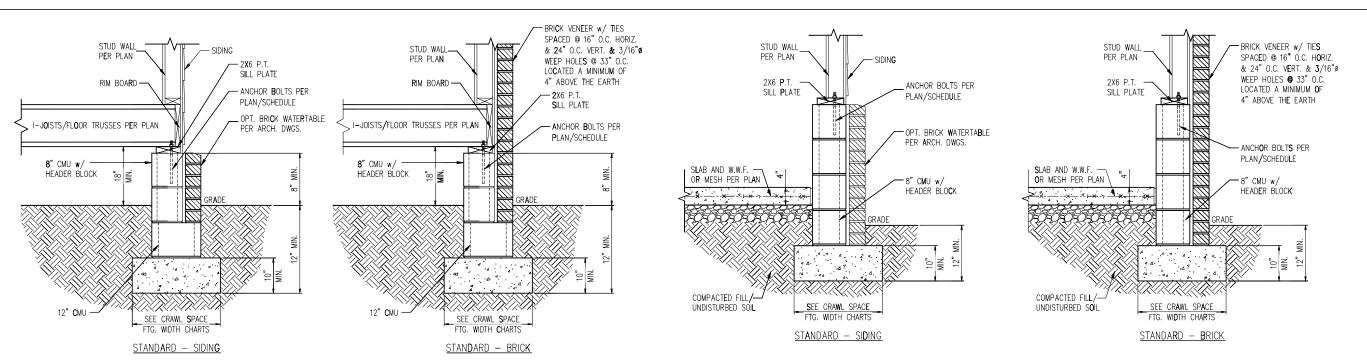
Details Foundation Space 1 PROJECT: Standard D Crawl



RAUNG DATE: Ø2/14/2023 9CALE: 22x34 V4"+1'-6" lbtT V8"+1'-6" PROJECT 4 528-66R DRAWN BY: JOEF CHECKED BY: BCP

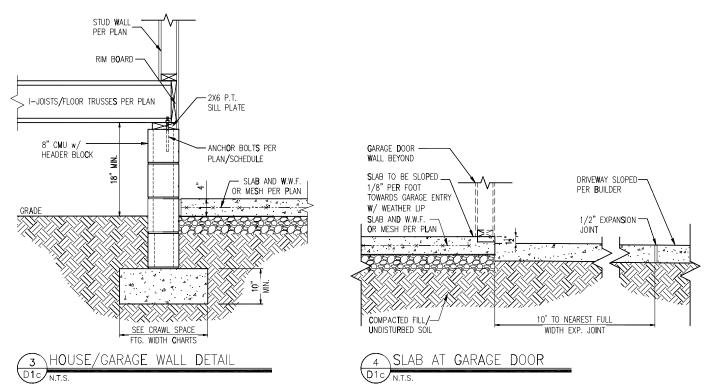
REFER TO GOVER SHEET FOR A COMPLETE LIST OF REVISIONS

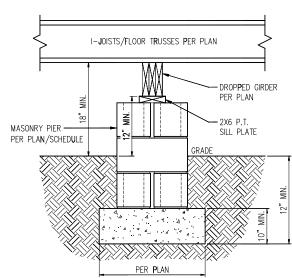
Dlc



TYP. FOUNDATION WALL DETAIL

TYP. GARAGE CURB DETAIL





TYP. PIER & GI**R**DER DETAIL

PIER SIZE AND HEIGHT SCHEDULE

	HOLLOW	SOLID		
	UP TO 32" HEIGHT	UP TO 5'-0" HEIGHT		
1 2 "X16"	UP TO 48" HEIGHT	UP TO 9'-0" HEIGHT		
1 6 "X16"	UP TO 64" HEIGHT	UP TO 12'-0" HEI G HT*		
24"X24"	UP TO 96" HEIGHT	UP TO 12'-0" HEIGHT*		
*(4) #4 CONT. REBAR w/ #3 STIRRUPS @ 16" O.C.				
AND 24" MIN. LAP JOINTS				

CRAWL SPACE FOOTING WIDTH

# OF STO R IES	WIDTH BASED ON SOIL BEARING CAPACITY				
	150 0 PSF	2000 PSF	2500 PSF		
1 STORY - STD.	16"	16"	16"		
1 STORY - BRICK VENEER	21"*	21"*	21"*		
2 STORY - STD.	16"	16"	16"		
2 STORY - BRICK VENEER	21"*	21"*	21"*		
3 STORY - STD.	23"	18"	18"		
3 STORY - BRICK VENEER	32"*	24"*	24"*		
*5" BRICK LEDGE HAS BEEN ADDED TO THE CRAWL SPACE					
FOOTING WINTH FOR RRICK SUPPORT					

WALL ANCHOR SCHEDULE

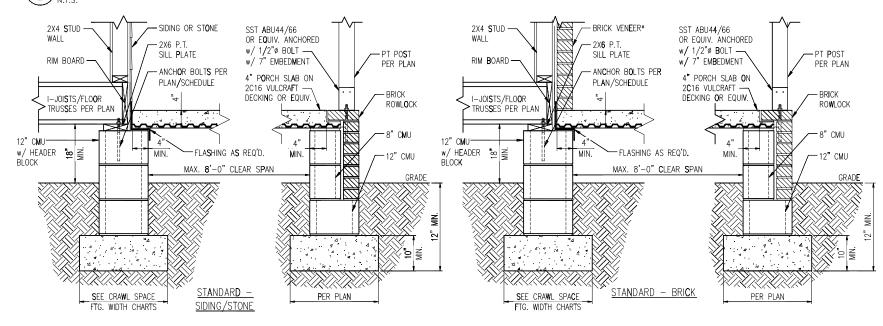
MIN. CONC.	SPACING	INTERI O R	EXTERIOR
EMBED M ENT	EMBEDMENT	WALL	WALL
7"	6'-0"	YES	YES
4"	5'-0"	NO	YES
2-1/4"	6'-0"	YES	NO
7"	6'-0"	YES	YES
	EMBEDMENT 7"	7" 6'-0" 4" 5'-0" 2-1/4" 6'-0"	EMBEDMENT EMBEDMENT WALL 7" 6'-0" YES 4" 5'-0" NO 2-1/4" 6'-0" YES

NOTE: INSTALL ALL ANCHORS 12" MAX. FROM ALL BOTTOM PLATE ENDS AND JOINTS.

- NOTES:

 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
 SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- 5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC





10 FRONT PORCH DETAIL W/ SUSPENDED SLAB

DECK ATTACHMENT SCHEDULE (ALL STRUCTURES EXCEPT BRICK)

FAST E NERS	MAX. 8'-0" JOIST	MAX. 16'-0" JOIST
	SPAN	SPAN
5/8" GALV. BOLTS w/ NUT & WASHER	(1) @ 3'-6" O.C.	(1) @ 1'-8" O.C.
AND	AND	AND
12d COMMON GALV. NAILS C	(2) @ 8" O.C.	(3) @ 6° O.C.

- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS $2\frac{1}{2}$ ".
- c. NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 11/2"

DECK ATTACHMENT SCHEDULE (BRICK STRUCTURES)

FA:	ST E NERS			MAX. 8'-0"	JOIST	MAX. 16'-0"	JOIST
				SPAN		SPAN	
5/	8" GALV. B OLT:	S w/ NUT &	k WASHER ^b	(1) @ 2'-4"	0.C.	(1) @ 1'-4"	0.C.

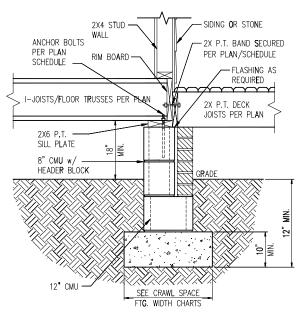
- a. ATTACHMENT INTERPOLATION BETWEEN 8' AND 16' JOIST SPANS IS ALLOWED.
- b. MINIMUM EDGE DISTANCE FOR BOLTS IS $2\frac{1}{2}$ ".

CRAWL SPACE FOOTING WIDTH

FOOTING WIDTH FOR BRICK SUPPORT

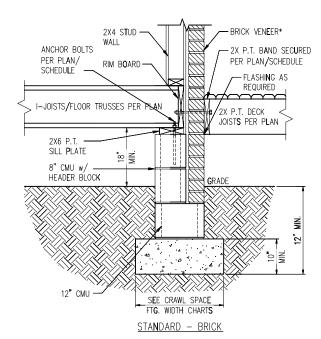
# OF STORIES	WIDTH BASED ON SOIL BEARING CAPACITY			
	1500 PSF	2000 P SF	2500 P \$ F	
1 STORY - STD.	16"	16"	16"	
1 Story – Brick V eneer	21"*	21"*	21"*	
2 STORY - STD.	16"	16"	16"	
2 Story – Brick V eneer	21"*	21"*	21"*	
3 STORY - STD.	23"	18"	18"	
3 STORY - BRICK VENEER	32"*	24"*	24"*	
*5" BRICK LEDGE HAS BEEN A	ADDED TO THE	CRAWL SPACE		

*BRICK TIES SPACED @ 16" Q.C. HORIZ. & 24" O.C. VERT. AND 3/16" WEEP HOLES @ 33" O.C. LOCATED A MINIMUM OF 4" ABOVE THE EARTH



STANDARD - SIDING/STONE

\DECK ATTACHMENT DETAIL



DECK ATTACHMENT DETAIL W/ BRICK

- NOTES:

 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. . SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.
- 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- 5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC





CLIENT: DR Horton Carolina DIVI 8001 Arrowrldge BIVd. **Charlotte, NC 282**73

Details Foundation Space 1 PROJECT: Standard Di Crawl

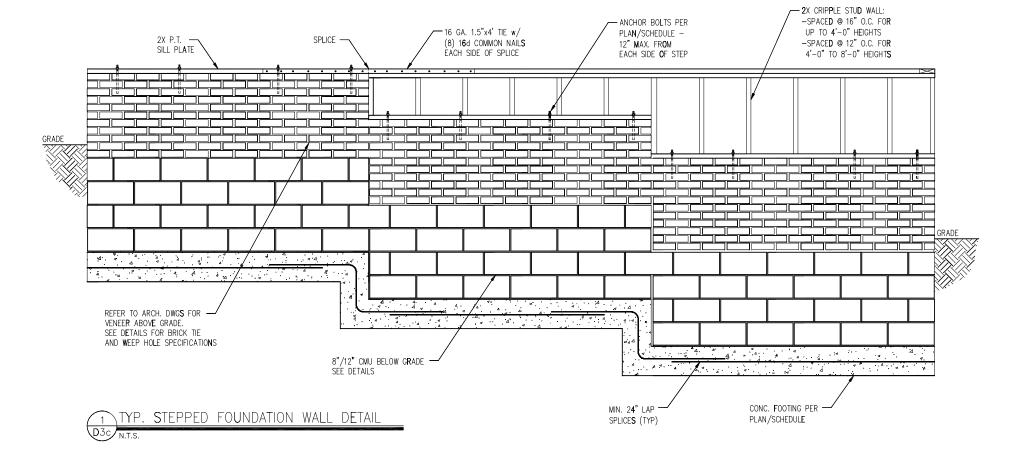


DATE: Ø2/4/2023 9CALE: 22x34 1/4"+1"-6" lbcT 1/8"+1"-6" PROJECT 4 528-66R DRAWN BY: JOEF CHECKED BY: BCP

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2c





- NOTES: 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.
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- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

Details PROJECT. Standard Details (0x-16) Crawl Space Foundation D



DRAUNG DATE: 02/14/2023 8CALE: 22x34 V4"+1"-6" lbtT V8"+1"-6" PROJECT & 528-696R DRAWN BY: JCEF CHECKED SY: BCP

ORIGINAL INFORMATION
PROJECT DATE
1/31/2011

REFER TO GOVER SHEET FOR A COMPLETE LIST OF REVISIONS

D3c



CLIENT: DR Horton Carolina Divis 8001 Arrowridge Blvd. **Charlotte, NC 282**13

Details Foundation | Space | PROJECT: Standard D Crawl



RAUNG DATE: Ø2/14/2023 9CALE: 22x34 V4"+1"+0" lbtT V8"+1"+0" PROJECT 1 528-66R DRAWN BY: JOEF CHECKED BY: BCP

NOTES:

1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET

SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.

4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR

5. REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE 2018 NCRC

PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE.

BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND

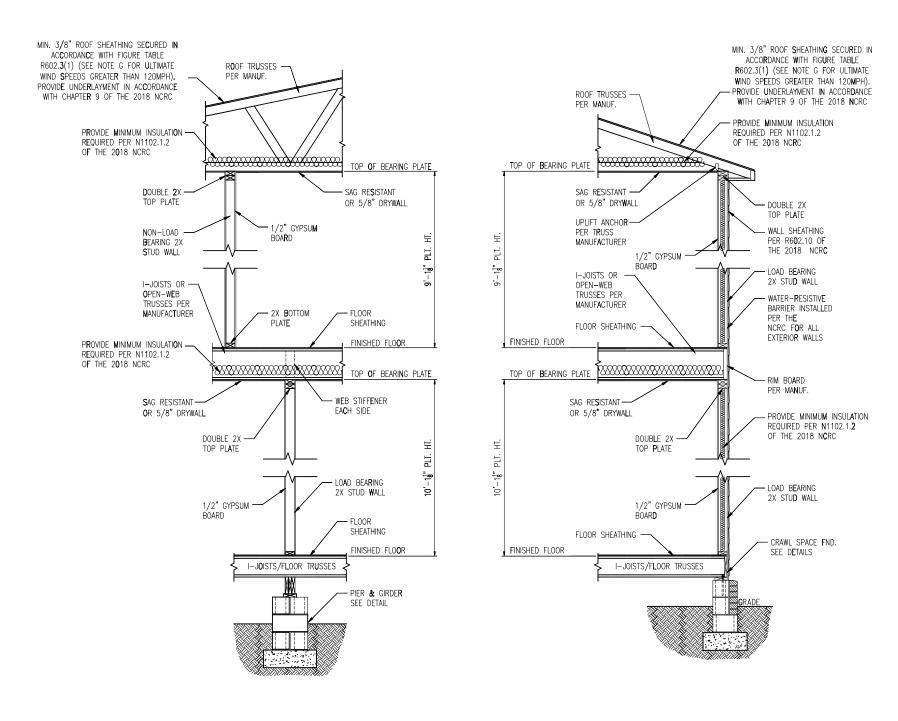
FOR ADDITIONAL INFORMATION.

CONNECTIONS

ORIGINAL INFORMATION
PROJECT DATE
1/31/2011

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

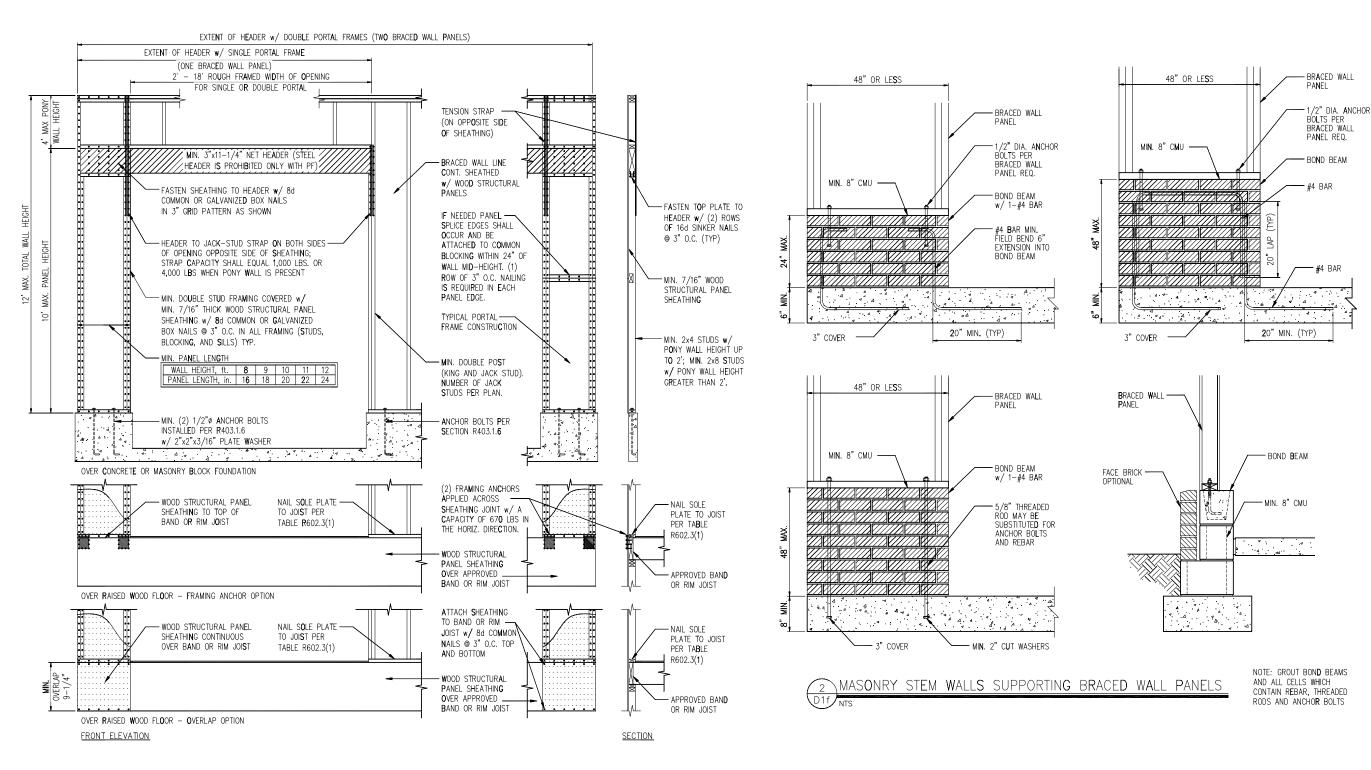
D4c



1 TYP. INTERIOR LOAD BEARING WALL SECTION

TYP. EXTERIOR LOAD BEARING WALL SECTION

-SIMILAR W/ BRICK AND STONE -BRICK TIES SPACED © 16" O.C. HORIZ. & 24" O.C. VERT. -MIN. 3/16"0 WEEP HOLES © 33" O.C.



1 METHOD PF: PORTAL FRAME DETAIL





CLIENT: DR Horton Carolina Division 8001 Arrowridge Bivd. Charlotte, NC 2013

PROJECT: Standard Details (0X-15) Framing Details

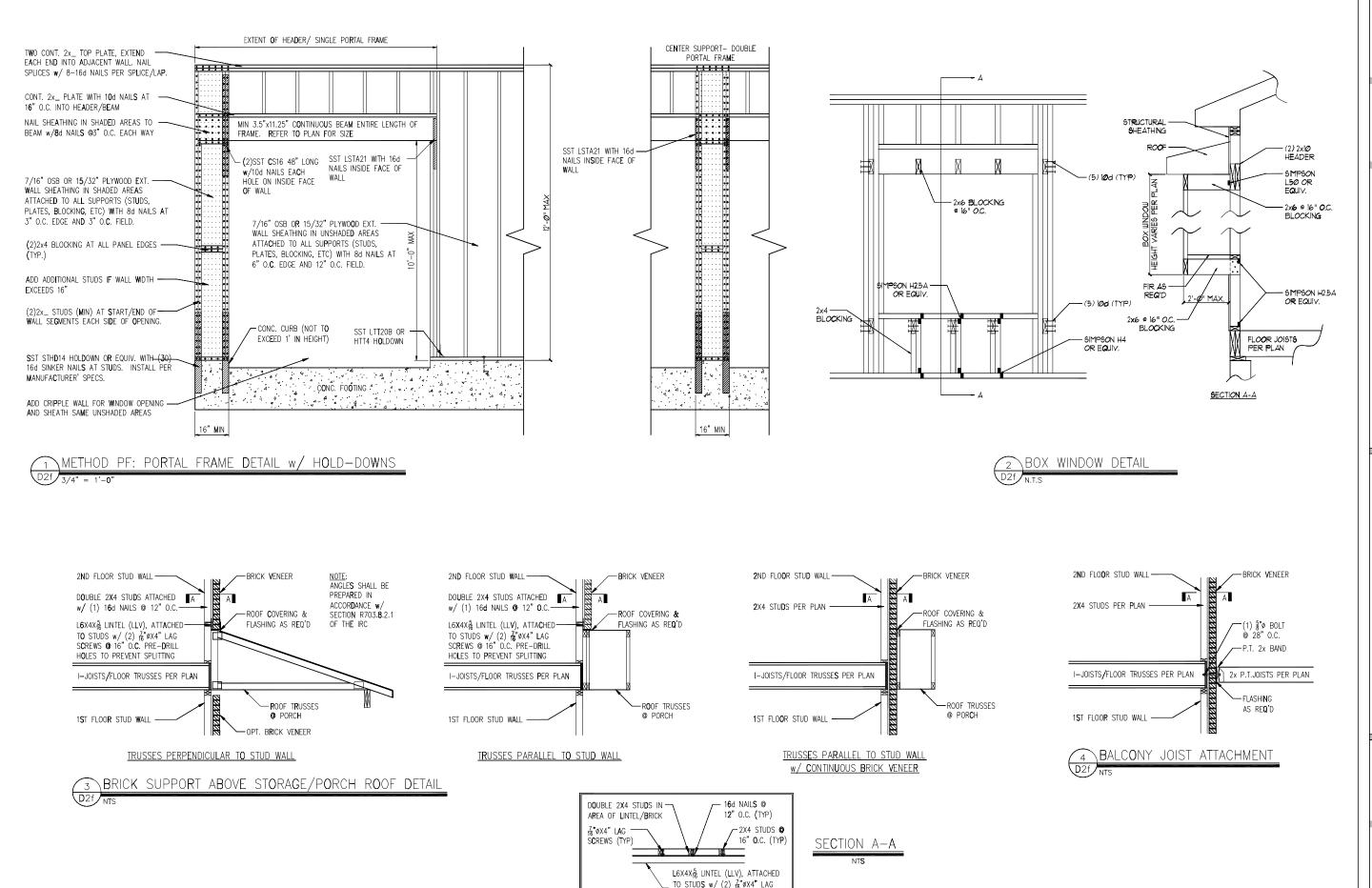


DRAUNG
DATE: 02/M/1023
6CALE: 22/04 V/4*1*-0*
INT V8*1*-0*
PROJECT * 5/28-06R
DRAUN BY: JCEF
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT DATE
1/31/201

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

Dlf



SCREWS @ 16" O.C. PRE-DRILL HOLES TO PREVENT SPLITTING SUMMIT

120 PSHMAC DR. SUIT 108

NAMED IN: 2725 08

OPTIC: 193.300.9993

FAX: 913.300.9993

WWW.SURPT-COMPARIES,COM



arolina Division dge Blvd. Jents

Project. Standard Details (0x-15) Framing Details



DRAUMS

DATE: 69/A9/023

SCALE: 22254 V4*11-69*

PROJECT *\ 528-96R

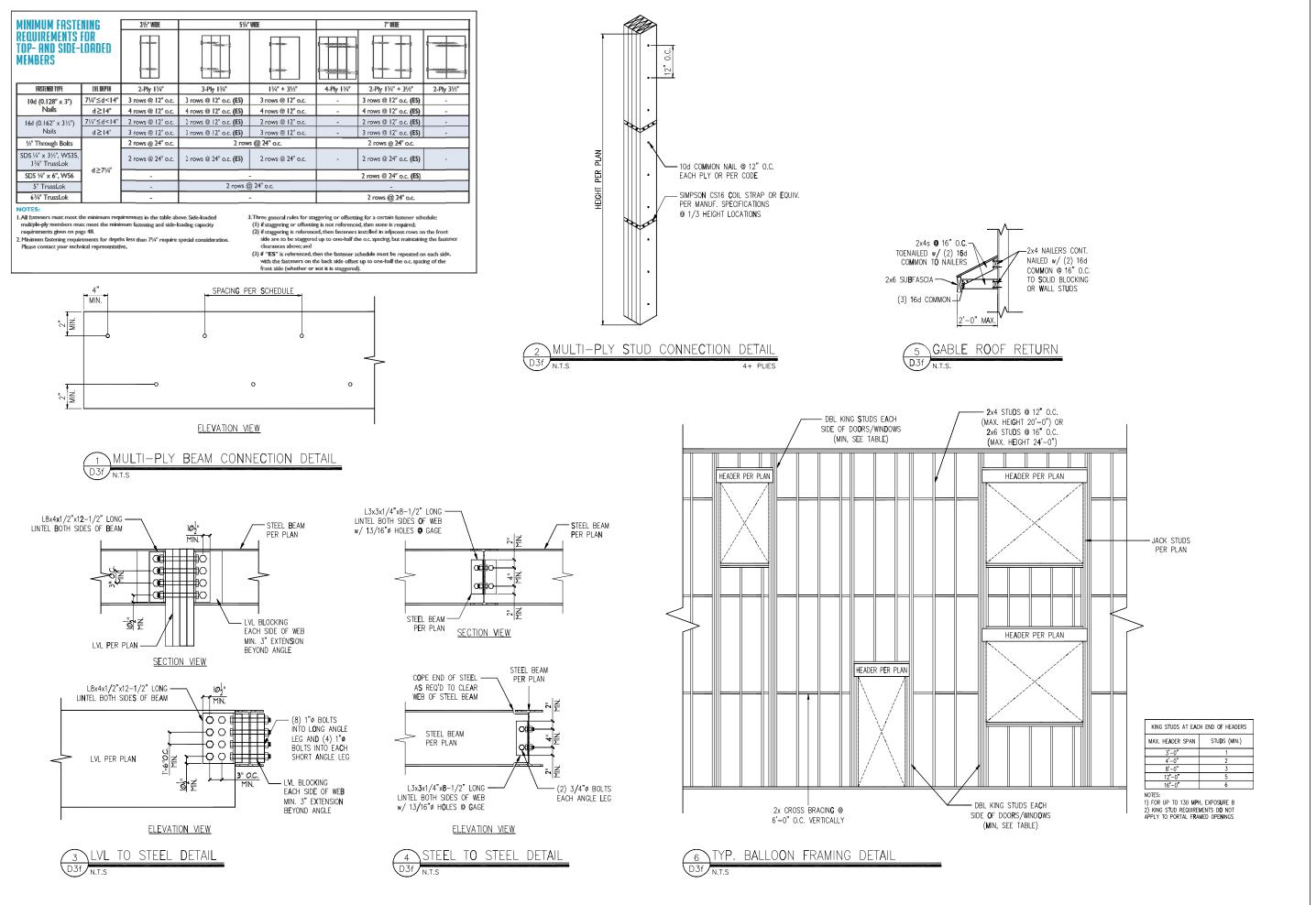
DRAUM BY: JCEF

CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT * DATE
1/31/2011

REFER TO **C**OVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2f







na Division Bivd.

CLIENT: DR Horton Carolin

PROJECT:
94andard Details (0x-16)
Framing Details



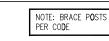
DRAUNG
DATE: 02/4/02/3
SCALE: 22/04 1/4**I*-9*
FROJECT 4 528-96R
DRAUN BY: JCEF
CHECKED BY: BCP

ORIGINAL INFORMATION
PROJECT DATE

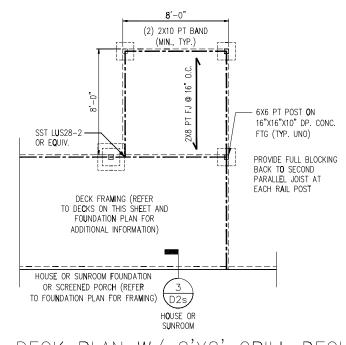
V3V2Ø11

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS ET

D3f

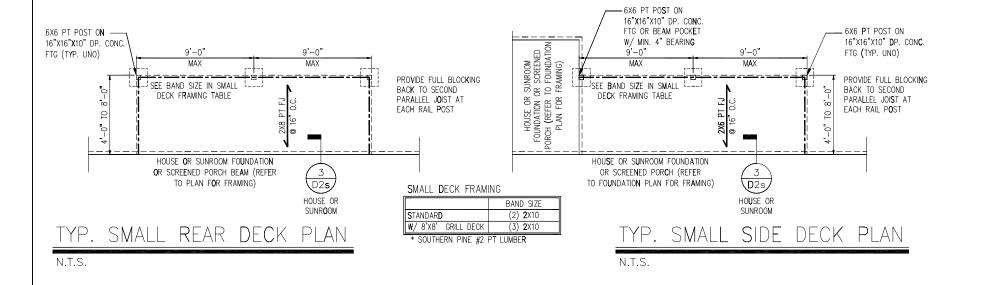


SÜMMIT



TYP. DECK PLAN W/ 8'X8' GRILL DECK

N.T.S.



- SEE INT**E**RMEDIATE

FRAMING TABLE

MAX

DECK FRAMING TABLE

R SUNROOM
OR SCREENED
TO FOUNDATION
R FRAMING)

HOUSE OR FOUNDATION O ORCH (REFER T

INTERMIEDIATE FOOTING

16"x16"x10

24"x24"x10"

6X6 PT POST ON-

HOUSE OR S FOUNDATION OF ORCH (REFER TO PLAN FOR F

BAND SIZE* INTERMIEDIATE FOOTING

16**"x**16"x10

(2) 2X10

(**3**) 2X10

16"X16"X10" DP. CQNC.

FTG OR BEAM POCKET

W/ MIN. 4" BEARING

SEE BAND SIZE IN

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER

TO FOUNDATION PLAN FOR FRAMING)

N.T.S.

SEE BAND SIZE IN

DECK FRAMING TABLE

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER TO FOUNDATION PLAN FOR FRAMING)

N.T.S.

FOOTING IN LARGE DECK

MAX

D2s/

HOUSE OR

SUNR**O**OM

- SEE INTERMEDIATE

FOOTING IN DECK

D2s

HOUSE OR

SUNROOM

SIDE DECK PLAN

FRAMING TABLE

<u>- t---</u>-

LARGE SIDE DECK PLAN

- 6X6 PT POST ON

16"X16"X10" DP. CONC. FTG (TYP. UNO)

PROVIDE FULL BLOCKING BACK TO SECOND

- 6X6 PT POST ON

FTG (TYP. UNO)

BACK TO SECOND PARALLEL JOIST AT

EACH RAIL POST

16"X16"X10" **D**P. CON**C**.

PROVIDE FULL BLOCKI**N**G

PARALLEL JOIST AT

EACH RAIL POST

- SEE INTERMEDIATE

FRAMING TABLE

MAX

D2s

HOUSE OR

SUNROOM

SEE INTERMEDIATE

FOOTING IN DECK

MAX

HOUSE OR

FRAMING TABLE

PROVIDE FULL BLOCKING BACK TO SECOND

LARGE DECK FRAMING

W/ 8'X8' GRILL DECK

PROVIDE FULL BLOCKING

BACK TO SECOND

EACH RAIL POST

DECK FRAMING

W/ 8'X8' GRILL DECK

* SOUTHERN PINE #2 PT LUMBER

STANDARD

PARALLEL JOIST AT

PARALLEL JOIST AT

EACH RAIL POST

MAX

(MIN., TYP.)

2) **2**X12 PT BAND

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH (REFER

TO FOUNDATION PLAN FOR FRAMING)

LARGE REAR DECK PLAN

SEE BAND SIZE IN

DECK FRAMING TABLE

HOUSE OR SUNROOM FOUNDATION

OR SCREENED PORCH BEAM (REFER

TO PLAN FOR FRAMING)

REAR DECK PLAN

FTG (TYP. UNO)

N.T.S.

6X6 PT POST ON

FTG (TYP. UNO)

N.T.S.

16"X16"X10" DP. CONC.

FOOTING IN LARGE DECK



- $\underline{\text{NOTES:}}$ 1. Refer to general notes & Specifications on Coversheet FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. 3. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS,
- SLOPES AND DEPRESSIONS.

 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND
- REFER TO LOCAL AND STATEWIDE CODES FOR ADDITIONAL AMENDMENTS AND REQUIREMENTS NOT SHOWN
- 6. PERIMETER INSULATION SHOWN AS REQUIRED BY LOCAL CLIMATE ZONE. INSTALL PER TABLE N1102.1.2 OF THE IRC

PROJECT: Standard I Stem STRUCTURAL MEMBERS ONLY

Details

Foundation

Details Wall

CLIENT: DR Hort 8001 A

DATE: 3/2/2010 8CALE: 22±34 1/4"∗1"-**6**" Ibd1 1/8"∗1"-**6**" PROJECT & 528-Ø6R DRAWN BY: LAG

CHECKED BY: WAJ ORIGINAL INFORMATION
PROJECT * DATE
1/31/2011

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D3s

00/00/00 Name 00/00/00 Name 00/00/00 Name 00/00/00 Name 00/00/00 Name

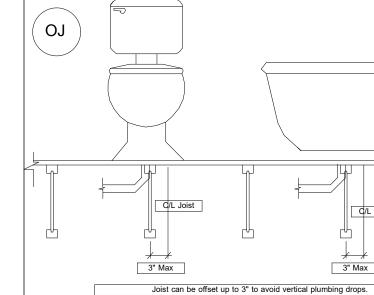
Revisions

31 Mason Ridge WILMINGTON C HOR Floor DR

Framin

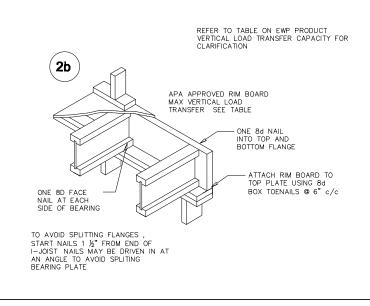
First

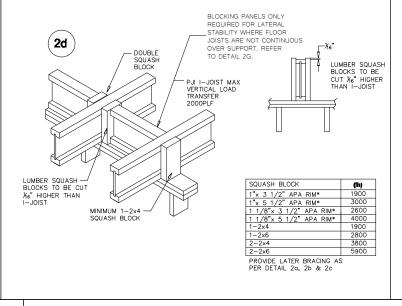
1ST FLOOR LAYOUT

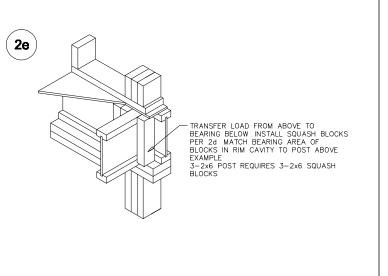


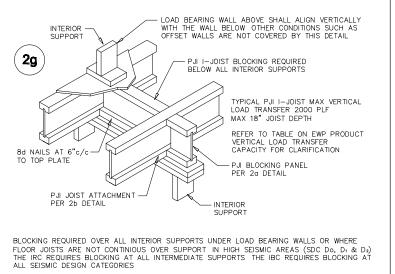
3" Max

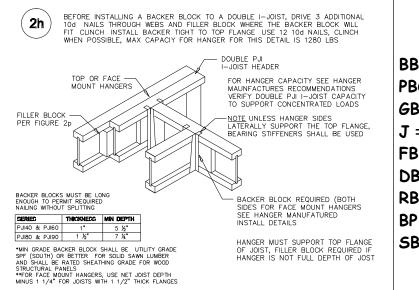
C1 ATTACH PJI I-JOISTS TO PLATE AT ALL SUPPORTS PER DETAIL 2B, ONE 8D FACE NAIL AT EACH SIDE OF BEARING











LABEL LEGEND BBO = Beam by Others **PBO** = Post by Others **GBO** = Girder by Others J = I-Joist **FB** = Flush Beam **DB** = Dropped Beam **RB** = Roof Beam **BP** = Blocking Panels SB = Squash Blocks

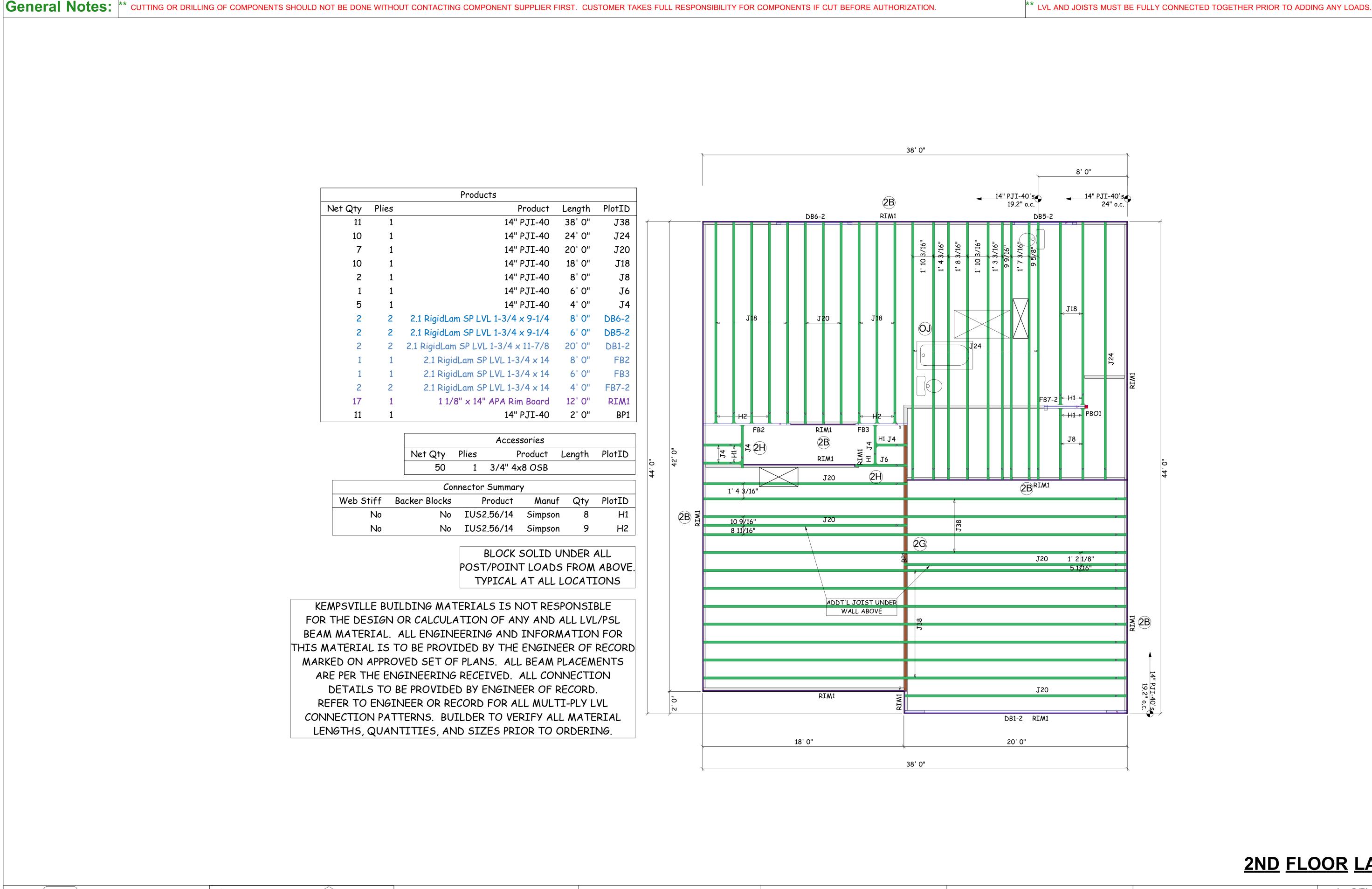
Scale: 1/4" = 1'-0" Date: 10/09/24 Designer: **DW** Project #: **24100078**

Sheet Number:

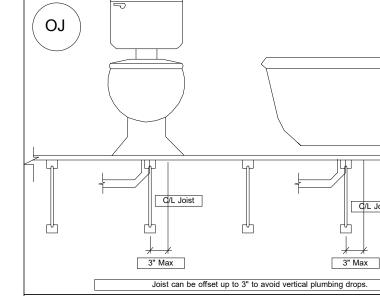
PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERY LOCATIONS BEFORE SETTING JOISTS.

 ** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

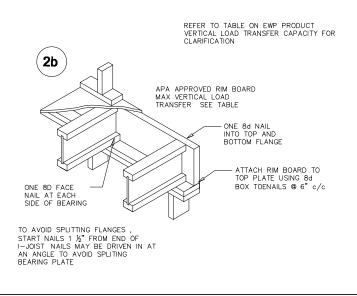


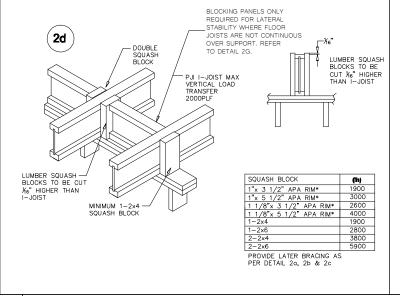
2ND FLOOR LAYOUT

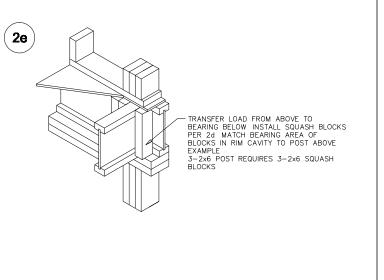


ATTACH PJI I-JOISTS TO PLATE AT ALL SUPPORTS PER DETAIL 2B, ONE 8D FACE NAIL AT EACH SIDE OF BEARING

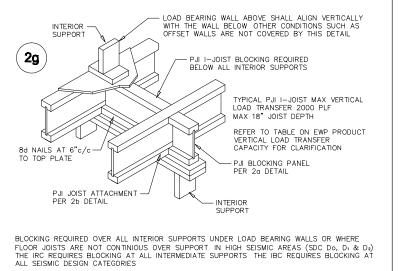
PLUMBING DROPS NOTED ARE IN APPROXIMATE LOCATIONS PER PLAN. BUILDER MUST VERY LOCATIONS BEFORE SETTING JOISTS.

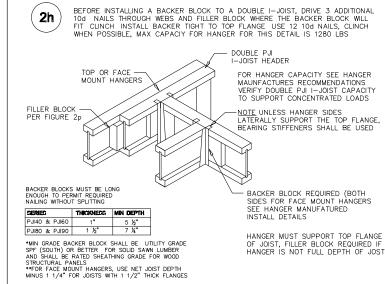






** ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.





** REFER TO INSTALLATION GUIDE FOR PLY TO PLY CONNECTIONS.

LABEL LEGEND **BBO** = Beam by Others **PBO** = Post by Others **GBO** = Girder by Others $\mathbf{J} = \mathbf{I} - \mathbf{Joist}$ FB = Flush Beam **DB** = Dropped Beam **RB** = Roof Beam

BP = Blocking Panels

SB = Squash Blocks

Designer: **DW** Project #: **24100078** Sheet Number:

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

Date: 10/09/24

Framin

Floor

Ridge TON C

31 Mason WILMINGT

HOR

DR

Revisions

Name

Name

Name

Name

Name

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