HICKORY ELEVATION E



PRINCE PLACE LOT 50







Z 00 _SI ΩΣ

1/8"=1'-0' -29-

03

SHEET

HICKOR

CS-1.0

COVER

GENERAL NOTES:

NOTE: WHERE AN APPROVED VAPER BARRIER IS

INSTALLED OVER GROUND SURFACE THE REQUIRED VENTILATION MAY BE REDUCED BY 50%

CRAWL VENTING 1277 SQ FT OF FOUNDATION TO BE VENTED

150 SQ FT / 1 SQ FT = 8.51 SQ FT VENTILATION VENTS 128 SQ IN = (0.8889 SQ FT) 8.513 SQ FT = 30.6 VENTS REQUIRED ACTUAL CRAWL VENTS PROVIDED

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

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

THERMAL & MOISTURE PROTECTION:

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

DOORS & WINDOW

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

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

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

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

FLOOR OVER GARAGE R-19 BATTS MINIMUM. VERIFY

ATTIC KNEEWALL R-19 BATTS MINIMUM. VERIFY

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

WALLS AND CEILING:

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

INSULATION:

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

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

R314.1.2 THERMAL BARRIER. FOAM PLASTIC, EXCEPT WHERE OTHERWISE NOTED, SHALL BE SEPARATED FROM THE INTERIOR OF A BUILDING BY MINIMUM1/2-INCH (12.7 MM) GYPSUM BOARD OR AN APPROVED FINISH MATERIAL EQUIVALENT TO A THERMAL BARRIER TO LIMIT THE AVERAGE TEMPERATURE RISE OF THE UNEXPOSED SURFACE TO NO MORE THAN 250°F(121°C) AFTER 15MINUTES OF FIRE EXPOSURE TO THE ASTM E 119 STANDARD TIME TEMPERATURE CURVE. THE GYPSUM BOARD SHALL BE INSTALLED USING A MECHANICAL FASTENING SYSTEM IN ACCORDANCE WITH SECTIOR702 3.5. RELIANCE ON ADHESIVES TO ENSURE THAT THE GYPSUM BOARD WILL REMAIN IN PLACE WHEN EXPOSED TO FIRE SHALL BE PROHIBITED

BUILDING CODE ANALYSIS

SINGLE FAMILY

APPLICABLE CODES CONSTRUCTION CLASS: HEIGHT LIMITATION EMERGENCY ESCAPE

UNPROTECTED EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOM SHALL HAVE A MINIMUM OF 5.7 SQ. FT.

GARAGE / HOUSE CEILING/ HOUSE ASSEMBLY:

DESIGN LOAD:

 $rac{1}{2}$ " GYPSUM BD. WALL $rac{1}{2}$ "TYPE "X" GYPSUM BD. CEILING W/ 20 MINUTE GARAGE/HOUSE DOOR

LIVE LOAD: SLEEPING = 30 PSF NON-SLEEPING = 40 PSF DECKS = 40 PSF DEAD LOAD = 10 PSF BASIC WIND SPEED = 115 MPH EXPOSURE B (CHARLOTTE) STAIR LOAD = 40 PSF ROOF LIVE LOAD = 20 PSF

LATERAL SOIL PRESSURE = 30 PCF

(ASSUMED) VERIFY ALL APPLICABLE BUILDING CODES WITH STATE AND LOCAL JURISDICTION PRIOR TO CONSTRUCTION

INCLUDED OPTIONS: 1st FLOOR **COVERED PORCH GOURMET KITCHEN FIREPLACE BOX OAK STAIRS OPEN RAIL GUEST SUITE ILO STUDY** 2nd FLOOR **OPEN RAIL OWNERS SPA SHOWER** 2ND SINK @ BATH 2 LAUNDRY SINK 3rd FLOOR **MEDIA ROOM**

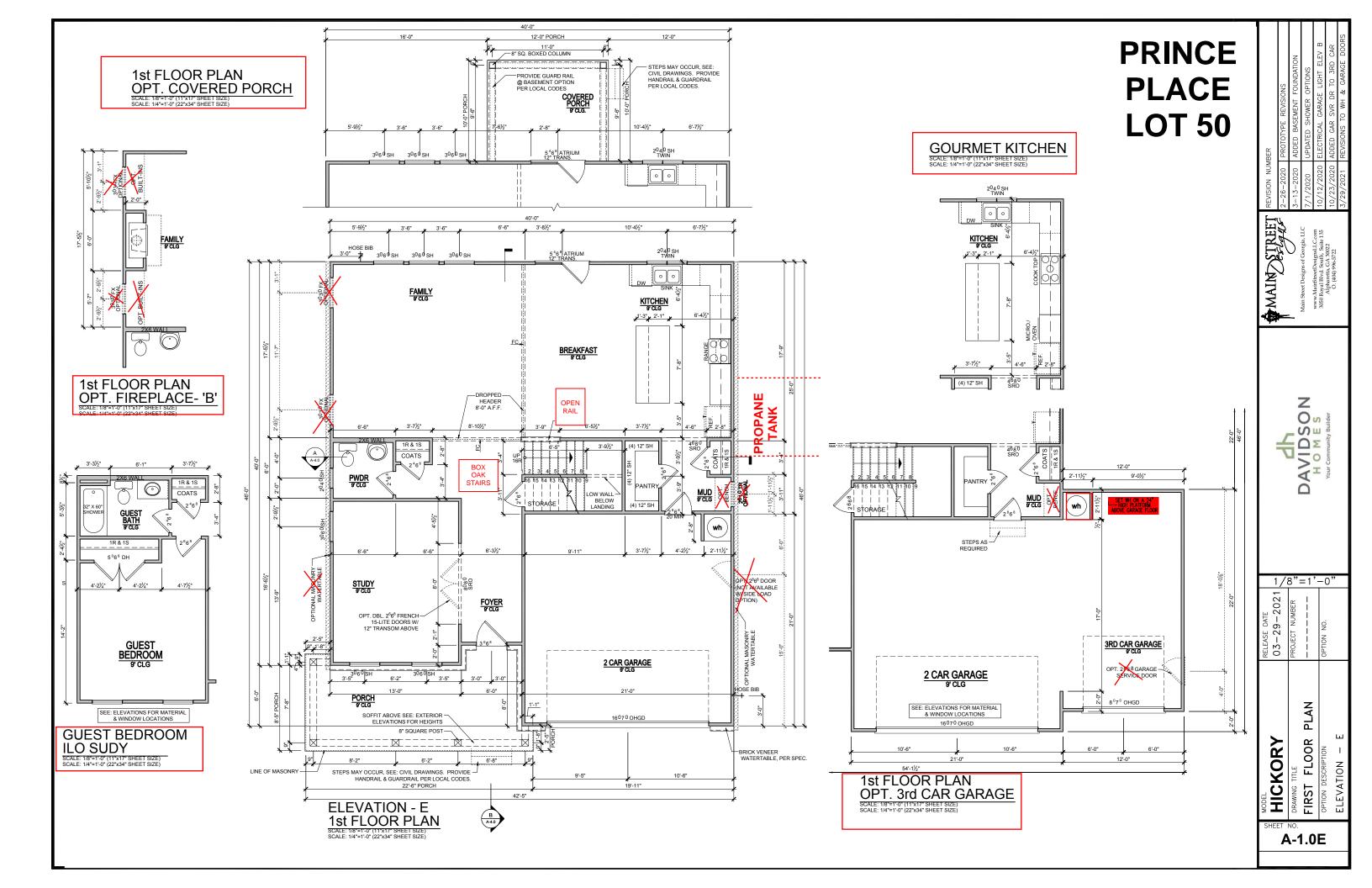
BASE HOUSE SQUARE FOOTAGE CALCULATIONS						
ELEVATION		1st FLOOR	2nd FLOOR	TOTAL FIN.	FRONT PORCH	GARAGE
ELEV. E		1,277 s.f.	1,458 s.f.	2,735 s.f.	183 s.f.	437 s.f.
OPTIONS:		-	1st FLOOR			
3rd CAR GARAGE			+264 s.f.			
3rd FLOOR			+369 s.f.			
COVERED PORCH			+115 s.f.			

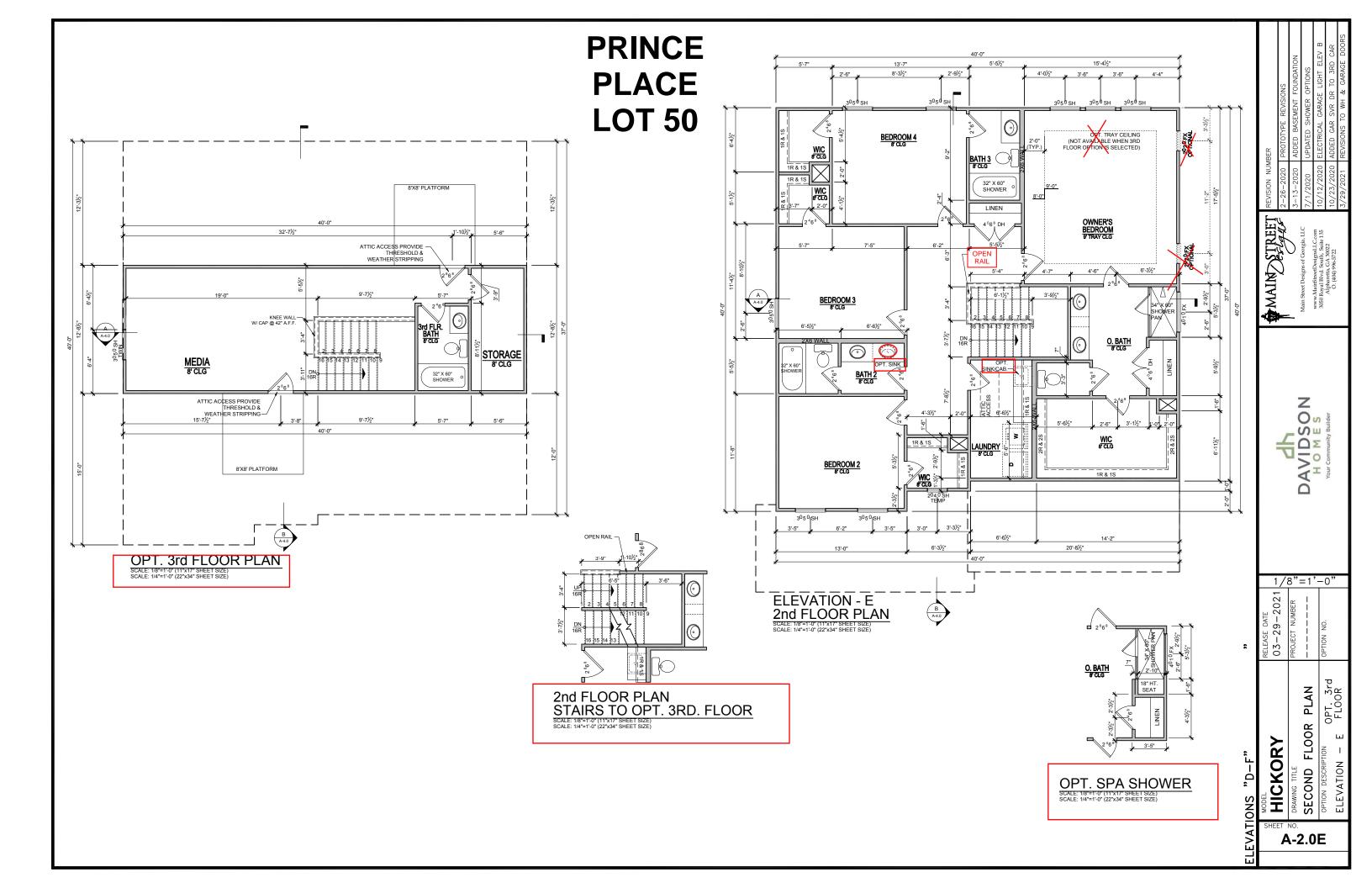
BASE HOUSE SQUARE FOOTAGE CALCULATIONS						TOTAL UNDER	
ELEVATION		1st FLOOR	2nd FLOOR	TOTAL FIN.	FRONT PORCH	GARAGE	ROOF
LEV. E		1,277 s.f.	1,458 s.f.	2,735 s.f.	183 s.f.	437 s.f.	3,355 s.f.
PTIONS:			1st FLOOR				
Brd CAR GARAGE			+264 s.f.				
Brd FLOOR			+369 s.f.				

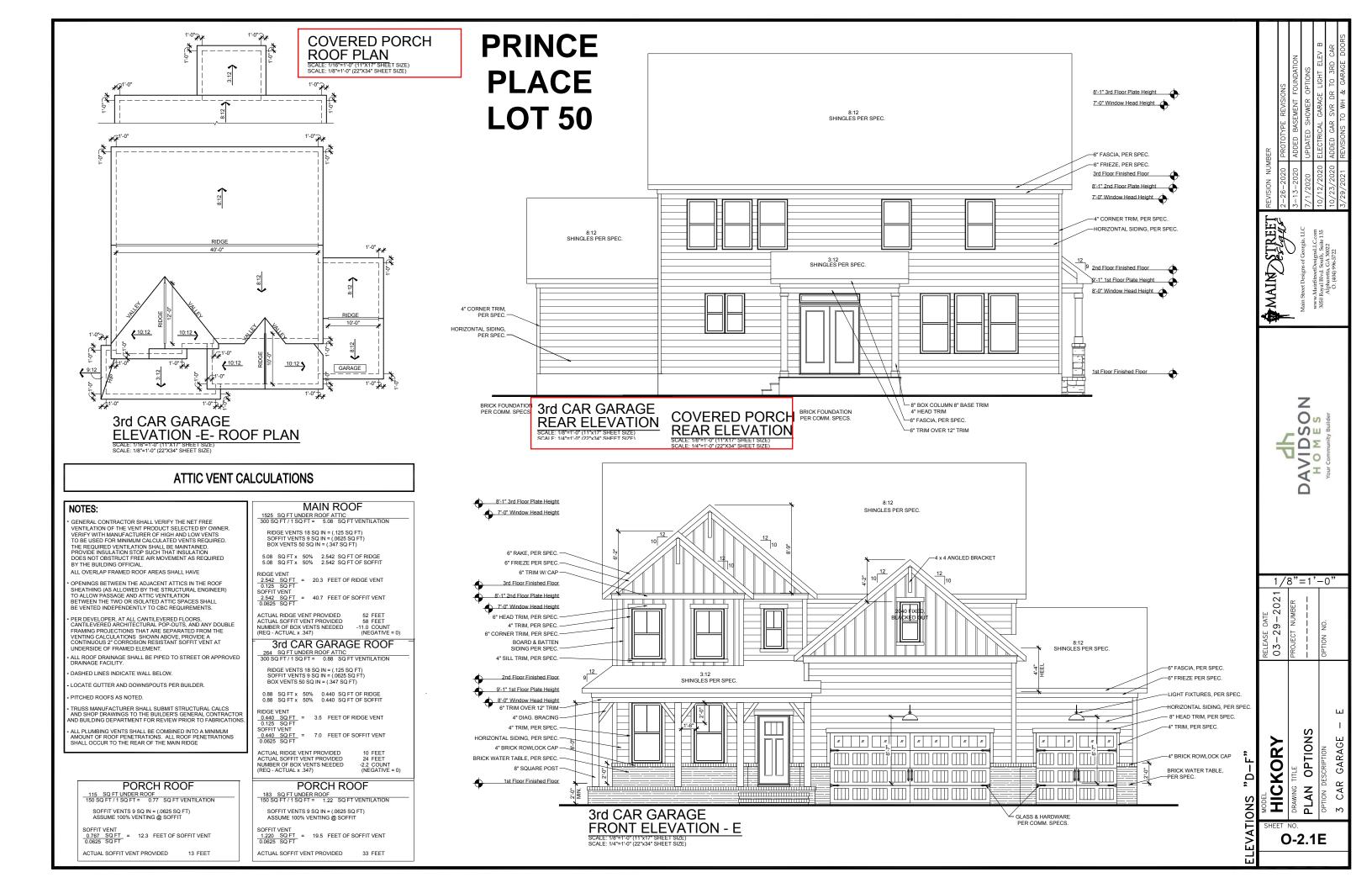
3-CAR

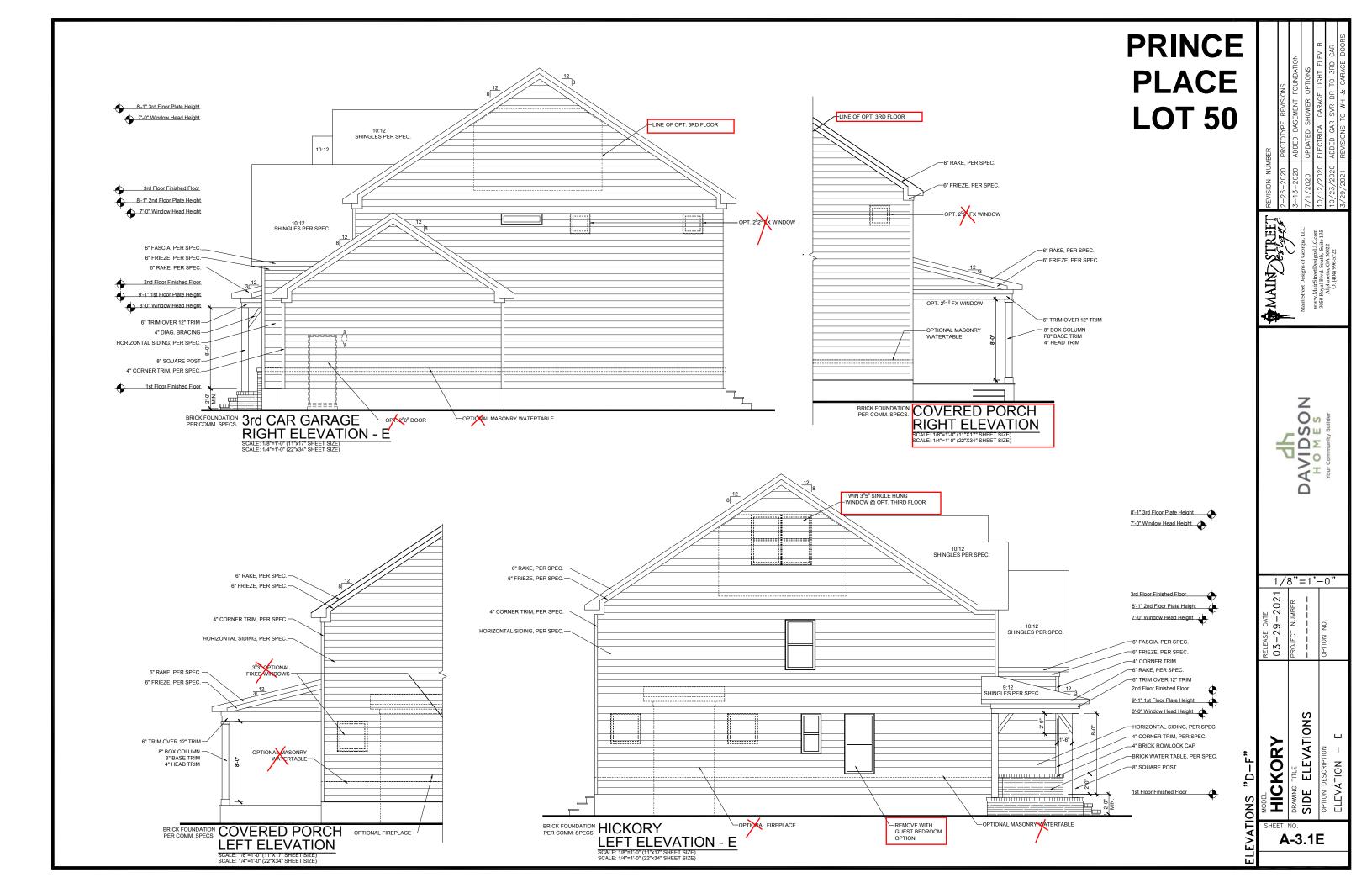
FRONT LOAD

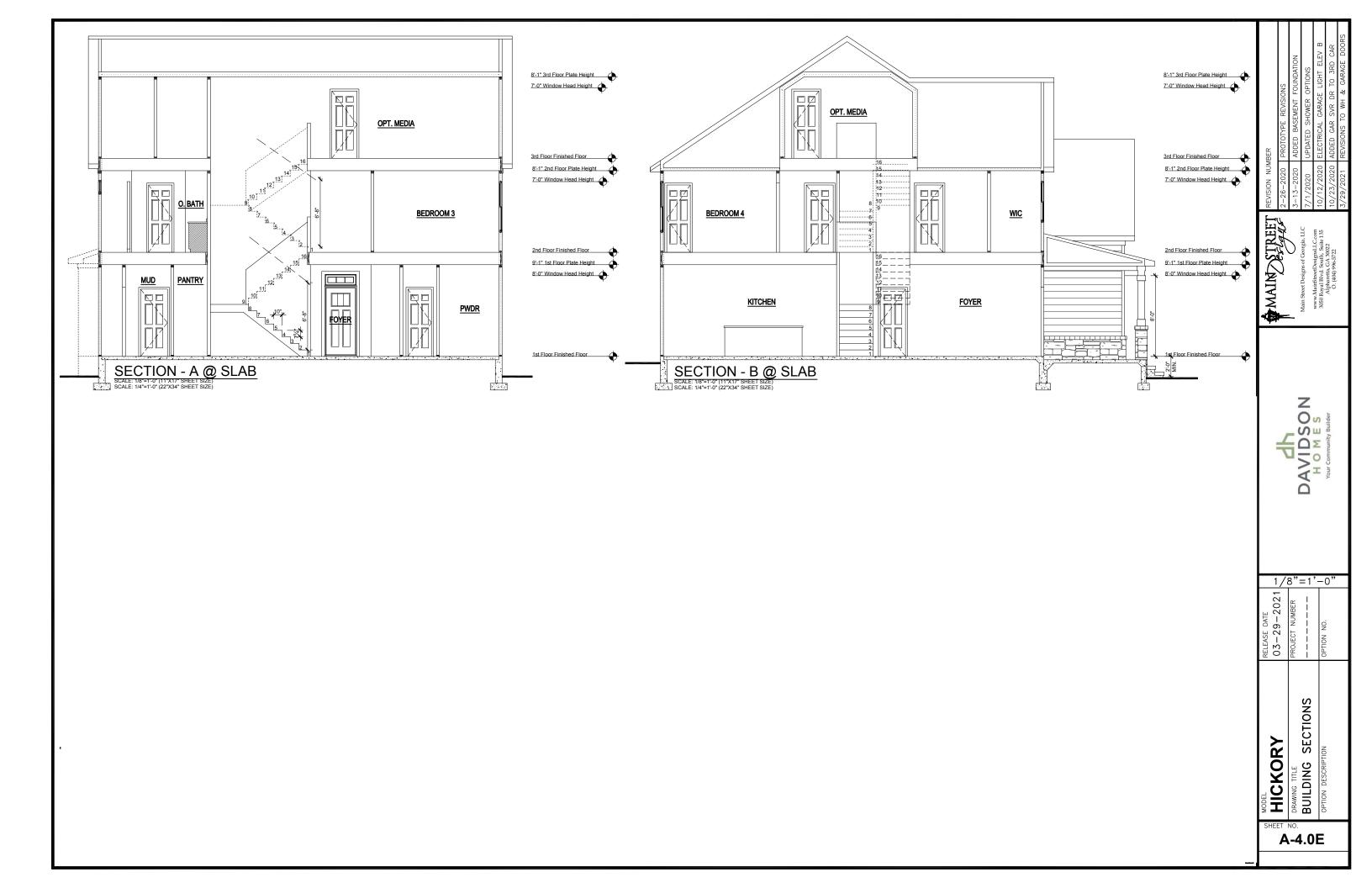
OPTION

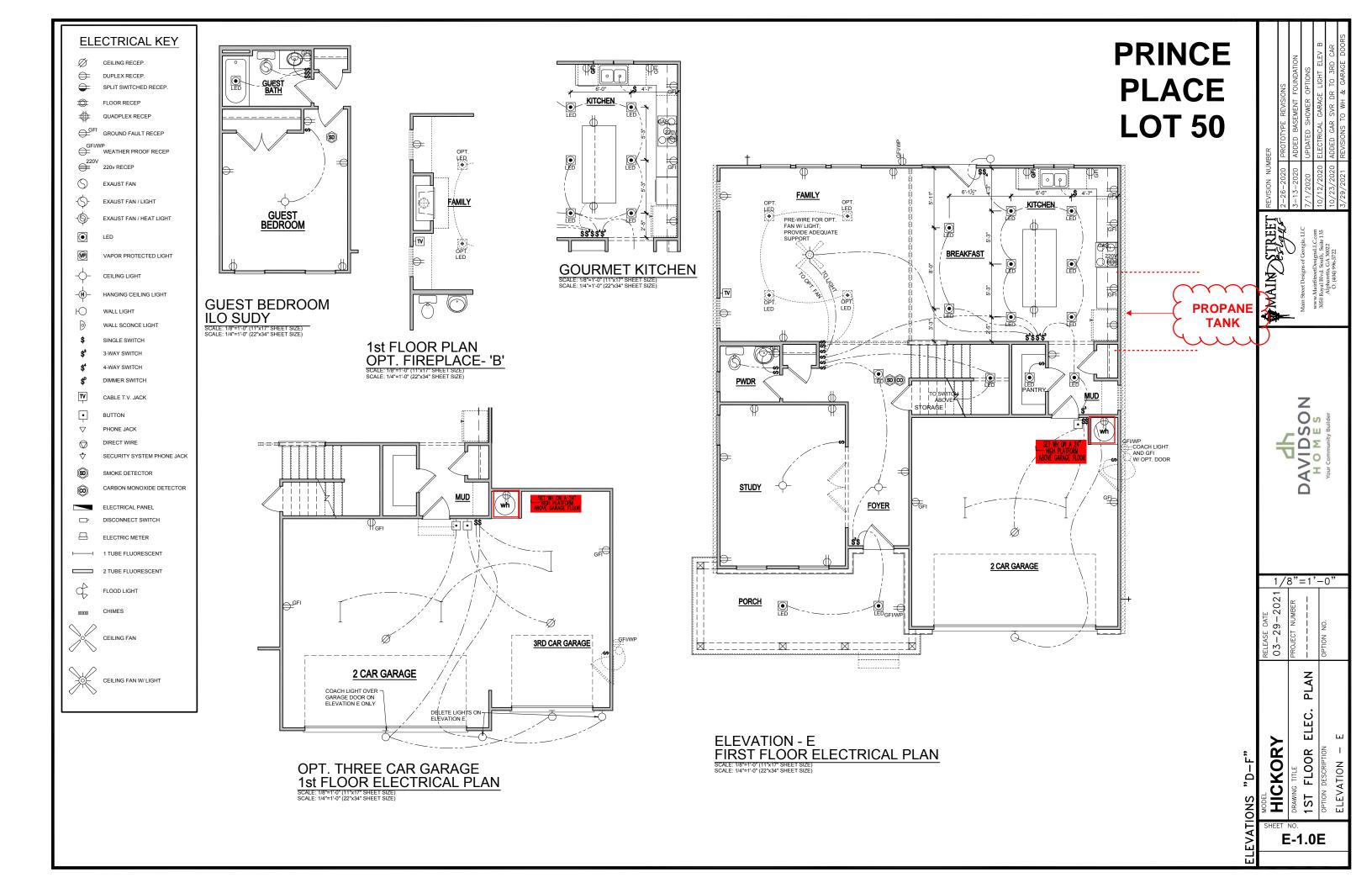




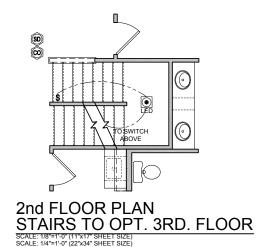




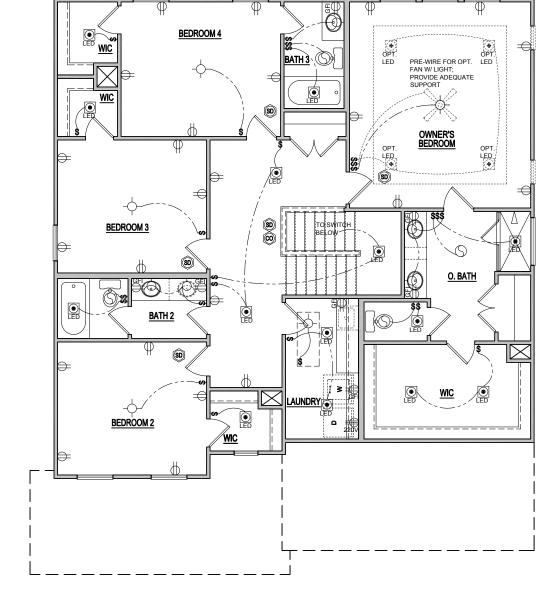




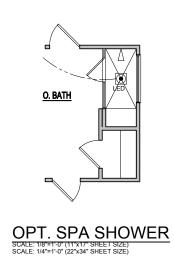
STORAGE **MEDIA**



PRINCE PLACE LOT 50

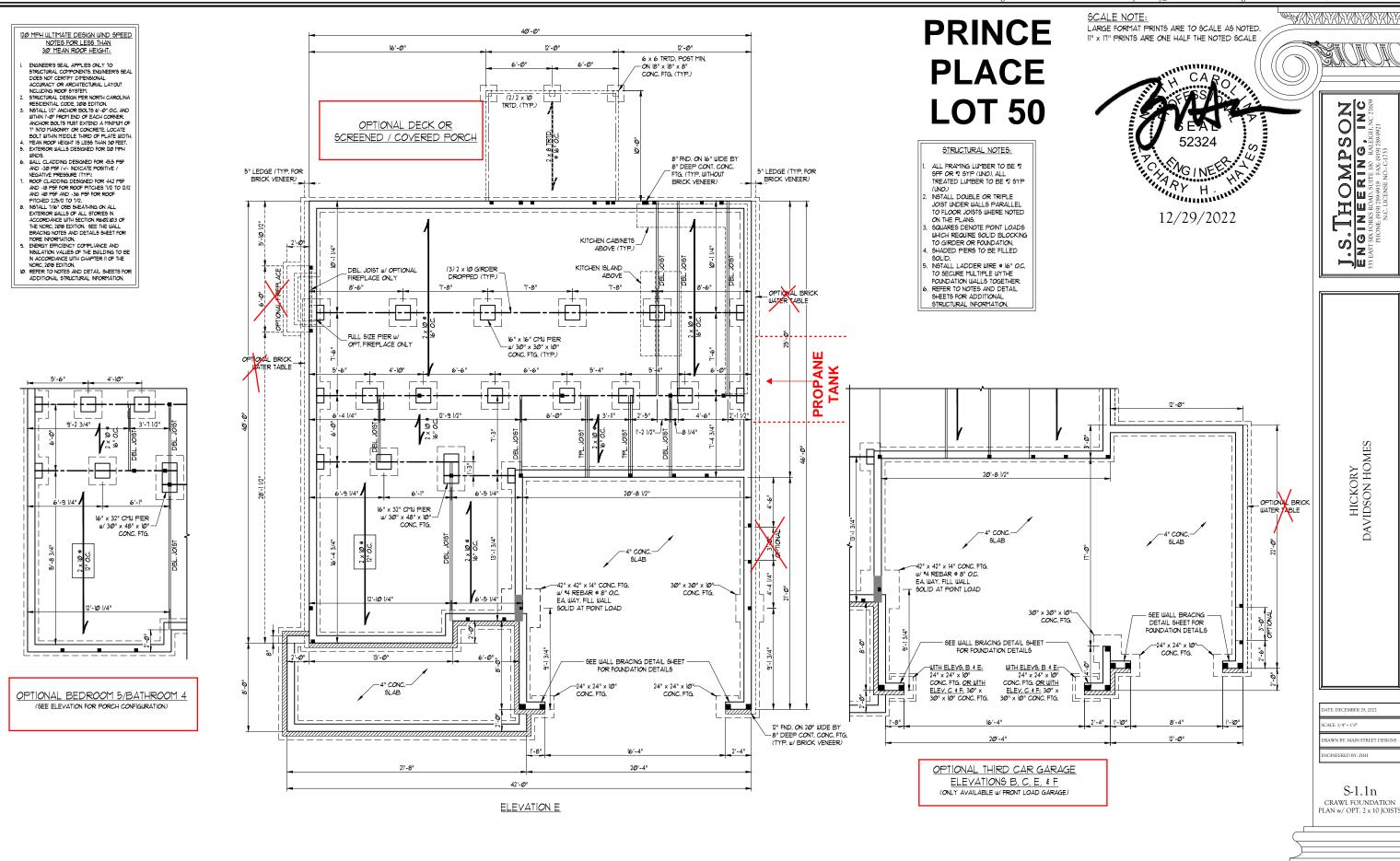


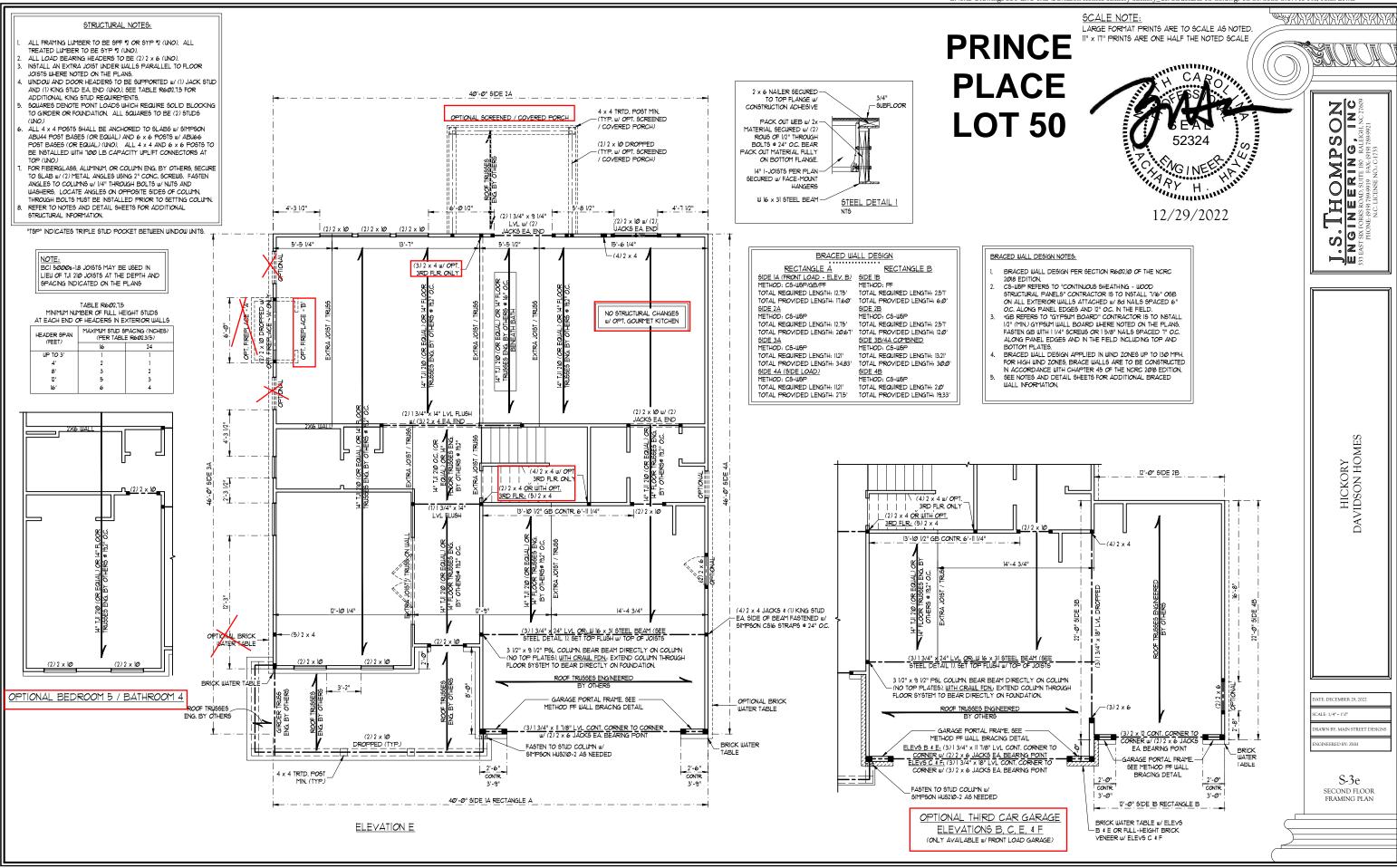




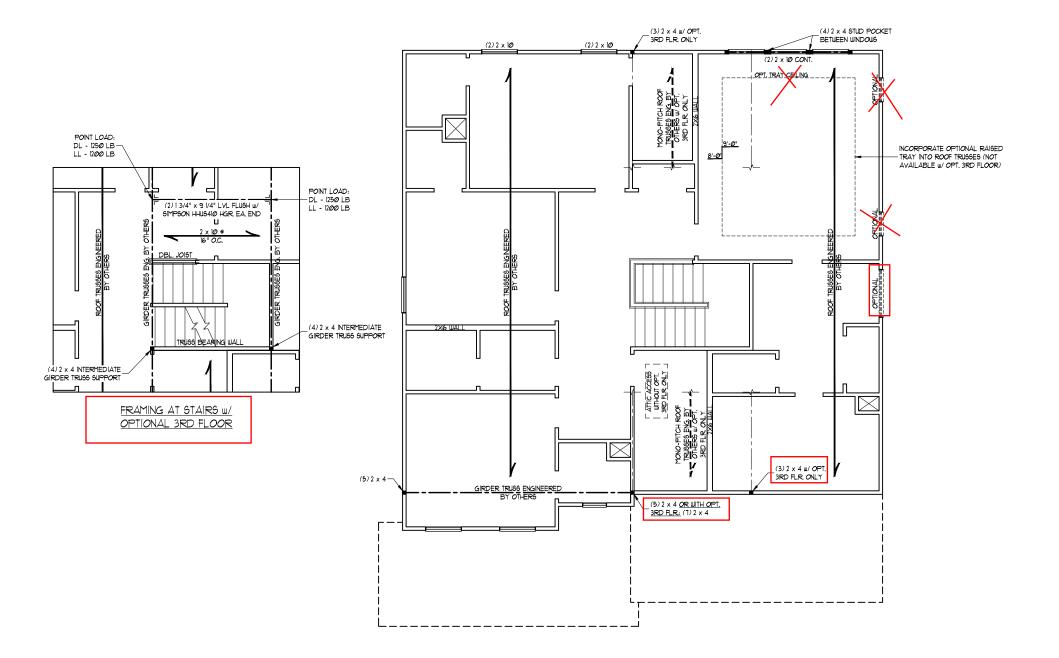
MAINSTREET DAVIDSON HOMES 1/8"=1'-0" RELEASE DATE 03-29-2021 PLAN SECOND FLOOR HICKORY

E-2.0E





PRINCE PLACE LOT 50



SCALE NOTE:

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



12/29/2022

BRACED WALL DESIGN NOTES:

- BRACED WALL DESIGN PER SECTION R602.10 OF THE NORC
- 2016 EDITION.
 CS-USP REFERS TO "CONTINUOUS SHEATHING WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/16" OSB ON ALL EXTERIOR WALLS ATTACHED W/ 80 NAILS SPACED 6"
 O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

 'GB REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL
- 1/2" (MIN) GYPSUM WALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED T" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
 BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH.
- FOR HIGH WIND ZONES, BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED

NOTE:

- PER SECTION R602.10.3.2 OF THE 2018 NCRC, THE AMOUNT OF BRACING ON THE SECOND FLOOR EXCEEDS THE AMOUNT REQUIRED FOR THE FIRST FLOOR AND NO BRACED WALL ANALYSIS IS REQUIRED.

 2. SHEATH ALL EXTERIOR WALLS WITH 1/16" OSB SHEATHING.
- ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

STRUCTURAL NOTES:

- L ALL FRAMING LUMBER TO BE 12 SPF OR 12 SYP (UNO).

 ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).

 JUNDOW AND DOOR HEADERS TO BE SUPPORTED W. (I) JACK STUD AND (I) AND (II) AND (III) AND (III) AND (IIII) AND (IIII). KING STUD EA. END (UNO.), SEE TABLE

R602.15 FOR ADDITIONAL KING STUD

- REQUIREMENTS. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO.)
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS

HEADER SPAN	MAXIMUM STUD SPACING (INC (PER TABLE R6023(5)		
(1221)	16	24	
UP TO 3'	1	1	
4'	2	1	
8'	3	2	
12'	5	3	
16'	6	4	

TE: DECEMBER 29, 2022 RAWN BY: MAIN STREET DE GINEERED BY: ZHH

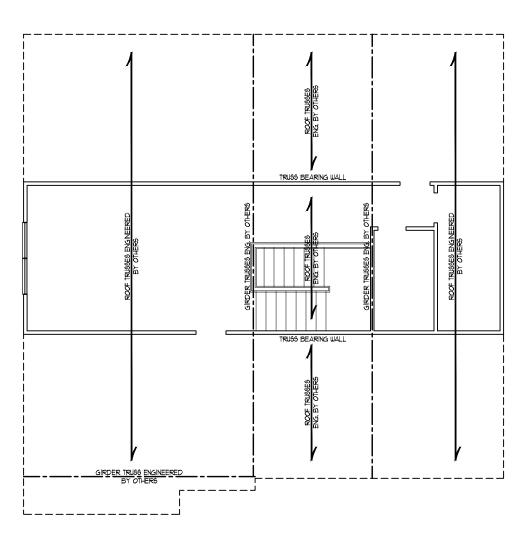
> S-4e ATTIC FLOOR FRAMING PLAN

 $\underline{\mathsf{ELEVATION}\;\mathsf{E}}$

ON .NC 27609 ത THOMPS INEERING, တ် 💆 🚡

HICKORY DAVIDSON HOMES

PRINCE PLACE LOT 50



OPTIONAL 3RD FLOOR (SHOWN WITH ELEVATION A - ALL OTHER ELEVATIONS SIMILAR)

SCALE NOTE:

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



12/29/2022

BRACED WALL DESIGN NOTES:

- BRACED WALL DESIGN PER SECTION R602.10 OF THE NORC
- 2016 EDITION.
 CS-USP REFERS TO "CONTINUOUS SHEATHING WOOD STRUCTURAL PANELS" CONTRACTOR IS TO INSTALL 1/16" OSB ON ALL EXTERIOR WALLS ATTACHED W/ 80 NAILS SPACED 6"
 O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

 'GB REFERS TO "GYPSUM BOARD" CONTRACTOR IS TO INSTALL
- 1/2" (MIN.) GYPSUM MALL BOARD WHERE NOTED ON THE PLANS. FASTEN GB WITH I I/4" SCREWS OR I 5/8" NAILS SPACED T" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
 BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH.
- FOR HIGH WIND ZONES, BRACE WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2018 EDITION. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED

- PER TABLE R602/03 OF THE 2016 NCRC, THE 3RD FLOOR IS CONTAINED WHOLLY WITHIN THE ROOF SYSTEM AND WALL BRACING ANALYSIS IS NOT REQUIRED ON THE 3RD FLOOR IN ADDITION, THE 3RD FLOOR NEED NOT BE CONSIDERED A STORY IN THE FIRST OR SECOND FLOOR WALL BRACING ANALYSIS.
- SIGKT IN THE FIRST OF BECAMP FLOOR WALL BRAILING ANALYSIS.

 2. SHEATH ALL EXTERIOR WALLS WITH 1/16" OSB SHEATHING ATTACHED WITH 8d NAILS AT 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD.

STRUCTURAL NOTES:

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

INFORMATION, TABLE R602.1.5 MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF HEADERS IN EXTERIOR WAL

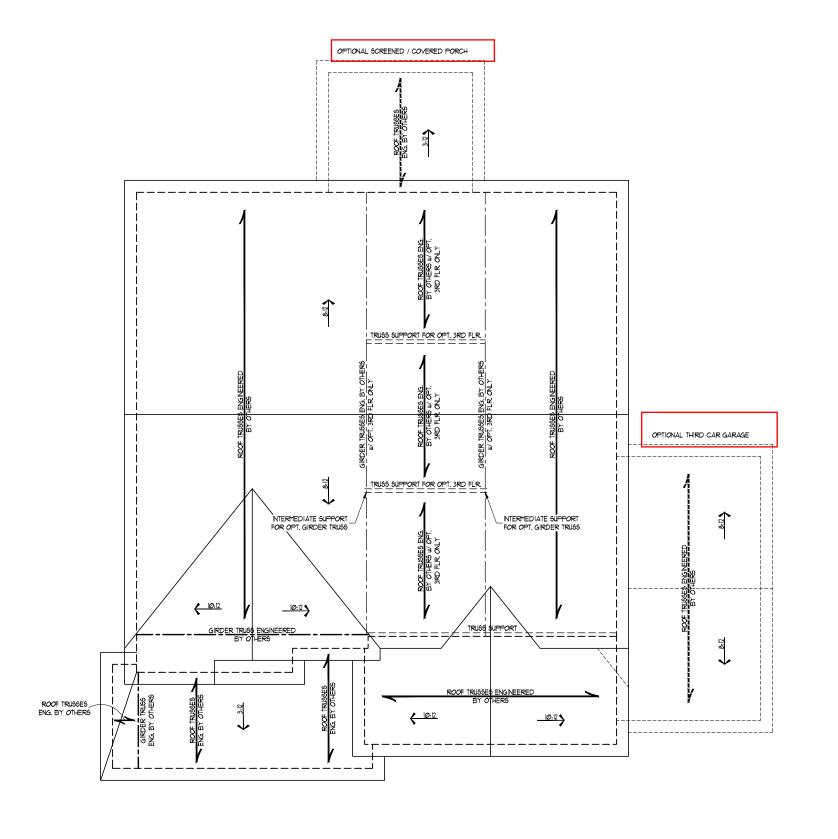
AT EACH END OF HEADERS IN EXTERIOR WALLS				
HEADER SPAN	MAXIMUM STUD SPACING (INCHES) (PER TABLE R6023(5)			
(1221)	16	24		
UP TO 31	1	1		
4'	2	1		
8'	3	2		
12'	5	3		
16'	6	4		
	HEADER SPAN (FEET) UP TO 3' 4' 8' 12'	HEADER SPAN (FEET) MAXIMUM STUD S (PER TABLI UP TO 3' 1 4' 2 8' 3 12' 5		

ATE: DECEMBER 29, 2022 RAWN BY: MAIN STREET DE NEERED BY: ZHH

> S-5 CEILING FRAMING PLAN

THOMPSON
SINEERING, INC S S

PRINCE PLACE LOT 50



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

12/29/2022

STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE *2 SPF OR \$2 SYP (UNO).
 STICK FRAME OVER-FRAMED
- STICK FRAME OVER-FRAMED
 ROOF SECTIONS W 2 x 8 RIDGES,
 2 x 6 RAFTERS Is "O.C. AND
 FLAT 2 x ID VALLEYS OR USE
 VALLEY TRUSSES.

 FASTEN FLAT VALLEYS TO
 RAFTERS OR TRUSSES WITH
 SIMPSON LESS AURRICANE TIES •
 32" O.C. MAX. PASS HURRICANE
 TIES THROUGH NOTCH IN ROOF
 SHEATHING. EACH RAFTER IS TO
 BE FASTENED TO THE FLAT
 VALLEY WITH A MIN. OF (6) 12d
 TOE NAILS.

 REFER TO SECTION REW2II OF THE
 2016 NCRC FOR REQUIRED UP-LIFT
 RESISTANCE AT RAFTERS AND
 TRUSSES.

 TRUSSES.
- TRUSSES.
 REFER TO NOTES AND DETAIL
 SHEETS FOR ADDITIONAL
 STRUCTURAL INFORMATION.

THOMPSON
SINEERING, INC

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DRAWN BY: MAIN STREET DES GINEERED BY: ZHH

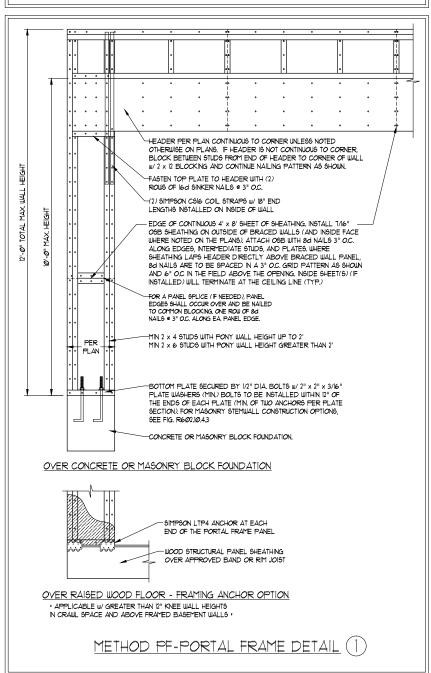
> S-6e ROOF FRAMING

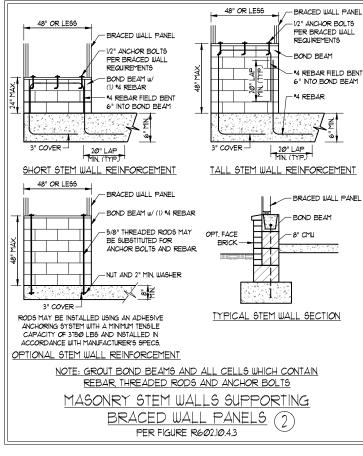
ELEVATION E

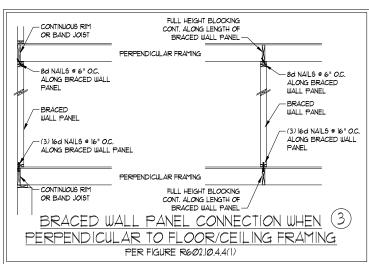
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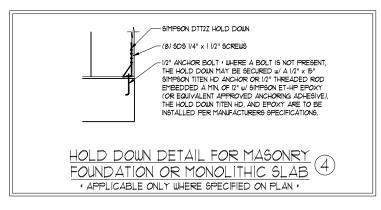
GENERAL WALL BRACING NOTES:

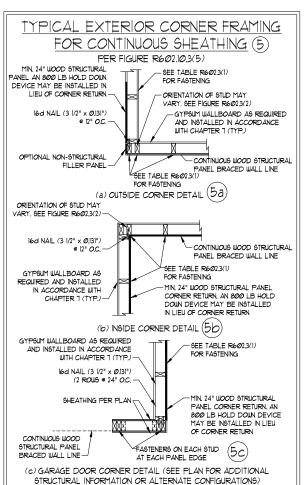
- WALL BRACING DESIGNED IN ACCORDANCE WITH CHAPTER 6 OF THE 2018 NC RESIDENTIAL BUILDING CODE (NCRC). TABLES AND FIGURES REFERENCED ARE FROM THE 2018 NORC.
 SEE THIS SHEET FOR GENERAL DETAILS, REFER TO THE 2018 NORC FOR ADDITIONAL INFORMATION AS NEEDED.
- BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN DESIGNED PER R602.3.5 (3), WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT
- AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERED PRACTICE. 4. SEE STRUCTURAL SHEETS FOR BRACED WALL LOCATIONS, DIMENSIONS, HOLD DOWN TYPE AND LOCATIONS, BRACED WALL LINE KEY WITH WALL DESIGN SUMMARY OF REQUIRED/PROVIDED TOTALS FOR EACH WALL LINE AND ANY SPECIAL NOTES OR REQUIREMENTS.
- ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS-WSP IN ACCORDANCE WITH SECTION R602.10.3 UNLESS NOTED OTHERWISE.
- 6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED, WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED PER TABLE R1023.5. METHOD GB TO BE FASTENED PER TABLE R602.10.1
- CS-USP REFERS TO THE "CONTINUOUS SHEATHING WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 1/16" OSB SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS ATTACHED W/ 6d COMMON NAILS OR 8d (2 1/2" LONG X Ø/13" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (UNO.).
- GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1/4" SCREWS OR 15/8" NAILS SPACED TO OC. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (UN.O.). YERRY ALL FASTENER OPTIONS FOR 1/2" AND 5/8' GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE RT02.35. FOR EXTERIOR FASTENER OPTIONS SEE TABLE R602.3(I). EXTERIOR GB TO BE INSTALLED VERTICALLY.
- REQUIRED BRACED WALL LENGTH FOR EACH SIDE OF THE CIRCUMSCRIBED RECTANGLE ARE INTERPOLATED PER TABLE READ. 103, METHOD CE-MEP CONTRIBUTES 115 ACTUAL LENGTH, METHOD GB CONTRIBUTES 5 115 ACTUAL LENGTH, AND METHOD PF CONTRIBUTES 15 IMPES 115 ACTUAL LENGTH.











PER FIG. R602 10 4 4(2)

- ADDITIONAL FRAMING

BRACED WALL PANEL

BRACED WALL PANEL

- BRACED WALL PANEL

-(3) 16d NAILS @ 16" O.C.

ADDITIONAL FRAMING

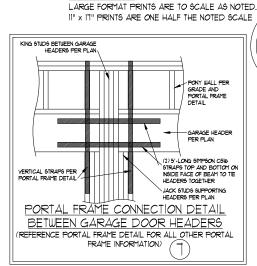
BRACED WALL PANEL

ALONG BRACED WALL PANEL

MEMBER DIRECTLY BELOW

MEMBER DIRECTLY ABOVE

8d NAILS # 6" O.C. ALONG



CONNECTION TO

PERPENDICULAR RAFTERS

PER FIGURE R602.10.4.5(1.

TOE NAIL (3) 8d NAILS AT

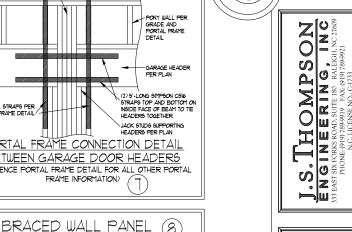
EA, BLOCKING MEMBER

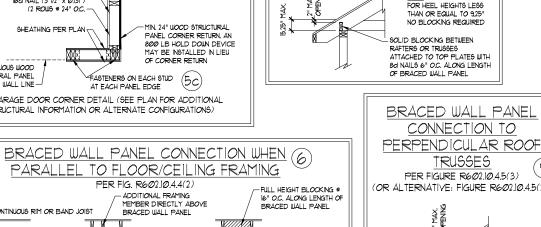
BRACED WALL PANEL

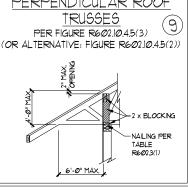
(3) 16d NAILS @ 16" O.C.

AT EA. BLOCKING

MEMBER









12/29/2022

TE: DECEMBER 29, 2022 RAWN BY: MAIN STREET DES INEERED BY: ZHI

HICKORY DAVIDSON HOMES

D-4 WALL BRACING NOTES AND DETAILS

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- CONTINUOUS RIM OR BAND JOIST

-8d NAILS @ 6" O.C. ALONG

BRACED WALL PANEL

BRACED WALL PANEL

-(3) l6d NAILS @ 16" O.C.

ALONG BRACED WALL PANEL

TINUOUS RIM W/ FINGER

JOISTS OR DBL. BAND JOIST

GENERAL NOTES

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO 1-JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
- 2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NCRC, 2018 EDITION (R301.4 R301.1)

DESIGN CRITERIA:	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (IN)
ATTIC WITH LIMITED STORAGE	20	10	L/240 (L/360 w/ BRITTLE FINISHES)
ATTIC WITHOUT STORAGE	10	10	L/360
DECKS	40	10	L/360
EXTERIOR BALCONIES	40	10	L/360
FIRE ESCAPES	40	10	L/360
HANDRAILS/GUARDRAILS	200 LB OR 50 (PLF)	10	L/360
PASSENGER VEHICLE GARAGE	50	10	L/360
ROOMS OTHER THAN SLEEPING ROOM	4Ø	10	L/360
SLEEPING ROOMS	3Ø	10	L/360
STAIRS	40	10	L/360
WIND LOAD	(BASED ON TABLE R3012(4) WIND ZONE AND EXPOSURE)		
GROUND SNOW LOAD: Pg	20 (PSF)		

- I-JOIST SYSTEMS DESIGNED WITH 12 PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
- FLOOR TRUSS SYSTEMS DESIGNED WITH 15 PSF DEAD LOAD
- 4. FOR 115 AND 120 MPH WIND ZONES, FOUNDATION ANCHORAGE 1S TO COMPLY WITH SECTION R403.1.6 OF THE NCRC, 2018 EDITION. FOR 130 MPH, 140 MPH, AND 150 MPH WIND ZONES, FOUNDATION ANCHORAGE 1S TO COMPLY WITH SECTION 4504 OF THE NCRC, 2018 EDITION.
- 5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER II OF THE NCRC, 2018 EDITION.

FOOTING AND FOUNDATION NOTES

- 1. FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- 2. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL-DRAIDED OR SAND-GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NCRC, 2018 EDITION.
- 3. PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE \$LAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" I" DEEP CONTROL JOINTS ARE TO BE SAWED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- 4. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC, 2018 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL. SHALL NOT BE LESS THAN 1 1/2" FOR 5" BARS OR SMALLER, AND NOT LESS THAN 2" FOR 6" BARS OR LARGER.
- 5. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.
- 6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS, PERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- 1. THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING, EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- 8. ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NCRC, 2018 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TRE6-A OR ACE 530/A5CE 5/M5 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.II.(1), R404.II.(2), R404.II.(3), OR R404.II.(4) OF THE NCRC, 2018 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.II.(5) OF THE NCRC, 2018 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" OC WHERE GRADE PERMITS (UNO)

FRAMING NOTES

- I. ALL FRAMING LUMBER SHALL BE 12 SPF (Fb = 815 P6), Fv = 315 P6), E = 1600000 P6) OR 12 SYP (Fb = 915 P6), Fv = 115 P6), E = 16000000 P6) MINIMUM UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE 12 SYP MINIMUM UNLESS NOTED OTHERWISE (UNO).
- 2. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2600 PSI, Fv = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2325 PSI, Fv = 310 PSI, E = 1550000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO T" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2500 PSI, E = 1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN T" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2900 PSI, E = 2000000 PSI, INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

 A.
 W AND WT SHAPES:
 ASTM A992

 B.
 CHANNELS AND ANGLES:
 ASTM A36

 C.
 PLATES AND BARS:
 ASTM A36

D. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B

E. STEEL PIPE: ASTM A53, GRADE B, TYPE E OR S

4. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (UNO), PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (UNO):

A. WOOD FRAMING

(2) 1/2" DIA. x 4" LONG LAG SCREWS

B. CONCRETE

(2) 1/2" DIA. x 4" WEDGE ANCHORS

C. MASONRY (FULLY GROUTED)

(2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF SELF TAPPING SCREWS @ I6" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ I6" O.C. IF I/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 9/16" DIAMETER HOLES @ I6" O.C.

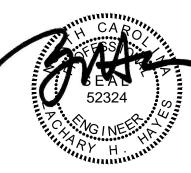
- SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION, SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- 6. ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.7(1) AND R602.7(2) OF THE NCRC, 2018 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (UNO), WHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO). INSTALL KING STUDS PER SECTION R602.7.5 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.
- 7. ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR LESS ARE TO HAVE 1 1/2" MINIMUM BEARING (NO.). ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY MORE THAN (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUIAL LENGTHS (UNO).
- 8. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A3Ø1) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- 9. ALL 1-JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- IØ. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R602.10.
- PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS, PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I-JOISTS PER MANUFACTURER'S SPECIFICATIONS. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- 12. FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT SIDES FOR BRICK SUPPORT (UN.O.). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED W/ (4) 12d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 12" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION RT03.82.1 OF THE NCRC, 2018 EDITION.
- 13. FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROUS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).
- 14. FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 × 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 × 8 RIDGES, 2 × 6 RAFTERS AT 16" O.C. AND FLAT 2 × 10 VALLEYS (UNO).
- IS. ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 100 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED USING ONE SIMPSON H6 OR LTSI2 UPLIFT CONNECTOR FASTENED TO THE BAND AT THE BOTTOM AND THE BEAM AT THE TOP OF EACH POST. ONE 16" SECTION OF SIMPSON CSI6 COIL STRAPPING WITH (8) 8d HDG NAILS AT EACH END MAY BE USED IN LIEU OF EACH TWIST STRAP IF DESIRED. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.

SCALE NOTE: LARGE FORMAT PRINTS ARE TO SCALE AS NOTED.

11" x IT" PRINTS ARE ONE HALF THE NOTED SCALE

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HICKORY DAVIDSON HOMES



12/29/2022

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DATE: DECEMBER 29, 2022

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

DRAWN BY: MAIN STREET DES

INEERED BY: ZHE

D-5 STANDARD STRUCTURAL NOTES

