

EXPRESS HOMES 40' SERIES MODEL 'HAYDEN' - I H

WOODGROVE LOT 230 RED CEDAR WAY PIN 0653-65-9954.000 FUQUAY VARINA, NC 27526

NOTICE TO CONTRACTOR APPROVED Harnett COUNTY 10/12/2021

NO:	DATE:	REVISION:
Δ	04.5.21	
		1.3

40' Series

MODEL HOME

DATE	DESCRIPTION:	
02.22.21 03.10.21 04.14.21 04.15.21	Initial Plan Release Client Revisions Client Revisions Client Revisions	
	NSULTANTS:	

FOR CONSTRUCTION

GENERAL NOTES DESIGNER NORTH CAROLINA:

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE SITE AND ALL INCONSISTENCES SHALL BE BROUGHT TO THE ATTENTION OF THE DEVELOPER AND THE DESIGNER BEFORE PROCEEDING WITH WORK.

ANY ERRORS OR CHISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO DEVELOPERS AND DESIGNERS ATTENTION IMMEDIATELY.

DO NOT SCALE DRAWINGS, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED

ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS OTHERWISE NOTED.

ALL TRUSS DRAWINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO ISSUANCE OF BUILDING PERMIT.

ALL OR EGUAL SUBSTITUTIONS MUST BE SUB-HITTED TO AND APPROVED BY CITY BUILDING OFFICIAL PRIOR TO INSTALLATION.

ALL ANGLED PARTITIONS ARE 45 DEGREES UNLESS OTHERWISE NOTED. PROVIDE FIREBLOCKING. (PER LOCAL CODES)

ALL ELECTRICAL AND MECHANICAL EQUIPMENT AND METERS ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS, CONTRACTOR TO YERIPY.

THESE DOCUMENTS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED,
DURLICATED, ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED
VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED, WAS PROVIDED ROOMS, VERY THE LOCATIONS, AS SHOWN PER PLANT TYPICAL AT ALL.
ALLERED VIRTIDIA APPRAYALO, OF THE DESIGNER.
ALLERED VIRTIDIA APPRAYALO, OF

ELASTOMERIC SHEET MATER-ROOFINS, FURNISH AND INSTALL ALL MATER-ROOFINS COMPLETE. A 40 MILL SELF-ADHERING MEDERANG OF RUBBERIZED ASPHALT INTEGRALLY BONDED TO POLYFIRM LIBE SHEETING, OR EQUAL, INSTALL PER MANUFACTURE'S AND TRADE ASSOCIATION'S PRINTED INSTALLATION INSTRUCTIONS, 6° MINIMUM LAP AT ALL ADJACENT WALL SURFACES,

TO THE BEST OF THE DESIGNER'S KNOWLEDGE THESE DOCUMENTS ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE BUILDING AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY,

SHOP DRAWING REVIEW AND DISTRIBUSTION, ALONG WITH PRODUCT SUBMITTALS, REGUESTED IN THE CONSTRUCTION DOCUMENTS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR, WILESS DIRECTED OTHERWISE UNDER A SEPARATE AGREEMENT.

DEVIATIONS FROM THESE DOCUMENTS IN THE CONSTRUCTION PHASE SHALL BE REVIEWED BY THE DESIGNER AND THE OWNER PRIOR TO THE START OF WORK IN QUESTION. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT PRIOR REVIEW, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR THE SENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK AND

MATERIALS REPRESENTED ON THESE DOCUMENTS INCLUDING THE WORK AND MATERIALS FURNISHED BY SUBCONTRACTORS AND VENDORS,

THE BUILDER SHALL FURNISH ANY AND ALL REPORTS RECEIVED FROM THE INCE BULLION SPAIL FUNDMENT AND ALL RECYCLIS RECEIVED PROFIT THE GEOTICCHICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE, TO THE DESIGNER, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR. IN THE EVENT THE GEOTICCHICAL REPORTS DO NOT EXIST, THE SOILS CONDITION SHALL BE ASSUMED TO BE A MINIMAM DESIGN SOIL PRESSURE STATED BY THE STRUCTURAL BENIETER OF RECORD FOR THE PROPOSE OF STRUCTURAL DESIGN, GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED THE CRITERIA.

ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND ACL TORK PERFORMED BY THE SENSON. CONTINUE SHALL COMPLY AND CONFORM HITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND REGULATIONS, ALONG HITH ALL OTHER AUTHORITIES HAVING JURISDICTION. THE GENERAL CONTRACTOR IS RESPONSIBLE TO BE AWARE OF THESE REGUIREMENTS AND GOVERNING REGULATIONS.

PROVIDE AN APPROVED HASHER DRAIN PAN AT SECOND FLOOR ONLY

WINDOW SUPPLIER TO VERIEY AT LEAST ONE WINDOW IN ALL BEDROOMS TO HAVE A CLEAR OPENABLE AREA OF 4.0 SQ FT. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 22' AND THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20", GLAZING TOTAL AREA OF NOT LESS THAN 5.0 SQ FT IN THE CASE OF A GROUND WINDOW AND NOT LESS THAN 5.7 SQ FT IN THE CASE OF AN UPPER STORY WINDOW. (PER NCRC SECTION R310.1.1)

ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS BETWEEN BALLUSTERS. (PER LOCAL CODES) PROVIDE STAIR HANDRAILS AND GUARDRAILS PER

BUILDER SET:

THE SCOPE OF THIS SET OF PLANS IS TO PROVIDE A "BUILDER'S SET" THE SOUTH OF THIS SET OF FUND IS TO PROVIDE A BUILDING SET.

THIS SET OF PLANS IS SUFFICIENT TO OBTAIN A BUILDING PERMIT, HOWEVER, ALL MATERIALS.

AND METHODS OF CONSTRICTION NECESSARY TO COMPLETE THE PROJECT ARE NOT NECESSARILY DESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LOCATIONS DIMENSIONS, TYPES OF MATERIALS, AND GENERAL METHODS OF ASSEMBLING OR FASTENING. THEY ARE NOT INTENDED TO SPECIFY PARTICULAR PRODUCTS OR OTHER METHODS OF ANY SPECIFIC MATERIALS, PRODUCT OR METHOD. THE IMPLEMENTATION OF THE PLANS REQUIRES A CLIENT / CONTRACTOR THOROUGHLY KNOWLEDGEABLE WITH THE APPLICABLE BUILDING CODE AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PRODUCT TYPE AND TYPE OF CONSTRUCTION

CONSTRUCTION REQUIREMENTS AND QUALITY: PROVIDE WORK OF THE SPECIFIC QUALITY; EMBERGIALITY LEVEL IS NOT INDICATED, PROVIDE WORK OF GUALITY CUSTOMARY IN SIMILAR TYPES OF MORK IN THERE THE FLAX AND SPECIFICATIONS, CODES, LAMS, REGULATIONS, MANUFACTURER'S RECOMPEDIATIONS OR INDUSTRY STANDARDS REGULATIONS, MINUSTRY STANDARDS REGULATIONS, MINUSTRY STANDARDS REGULATIONS, ON MINUSTRY STANDARDS REGULAR WORK OF MINUSTRY STANDARDS REGULATIONS WORK OF MINUSTRY STANDARDS REGULAR WORK FOR MINUSTRY STANDARDS REGULAR WORK OF MINUSTRY STANDARDS REGULAR PENTS COMPLICT WITH THE MOST STRINGENT REGULAR PENTS ARE DIFFERENT BUT APPARENTLY EQUILA, NOW MERCE IT IS UNCERTAIN MINISTER REGULAR PENTS IN MORE IN THE MORE THAN THE MOST STRINGENT, OBTAIN CLARIFICATION FROM THE 6MD DESIGN GROUP BEFORE PROCEEDING.

AREA CALCULATIONS:

MODEL 'HAYDEN' SQUA	ARE FOOTAGES
AREA	ELEV , K'
lst FLOOR	1066 SF
2nd FLOOR	1445 SF
TOTAL LIVING	25II SF
GARAGE	422 SF
PORCH	109 SF
OPT. COVERED PORCH	
OPT. BASEMENT	

PROJECT NO: GMD17049

Express

TITLE SHEET

BINT DATE January 22, 2021

0

AVAILABLE WITH OPTIONAL 9'-I" FIRST FLOOR PLATE

NOTES AT OPT 9'-1" PLT:

- WDW HT SET AT 7'-6"
- INTERIOR SOFFITS AT 8'-0"
- EXTERIOR SOFFITS AT 8'-0"

NOTES:

- GRADE CONDITIONS HAY YARY FOR INDIVIDUAL SITE FROM THAT SHOWN.
 BUILDER SHALL YERRY AND COORDINATE FER ACTUAL SITE CONDITIONS.
 INDIVIDING PLANTING.
 SIT FLOOR = 0.4° UNLO, ON ELEVATIONS.
 2ND FLOOR = 7-0° UNLO, ON ELEVATIONS.

- ROOFING PITCHED SHINGLES FER DEVELOPER.
 HINDORS, MANUFACTURER PER DEVELOPER, DIVIDED LITTES AS SHOWN ON THE EXTERIOR BLEVATIONS.
- ENTRY DOOR, AS SELECTED BY DEVELOPER. GARAGE DOORS, AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- ALL EXTERIOR MATERIALS TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PROTECTION AGAINST DECAY:
 (ALL PORTIONS OF A PORCH, SCREEN PORCH OR DECK FROM THE BOTTOM OF
 THE HEADER DOWN, INCLUDING POST, RAILS, PICKETS, STEPS AND FLOOR STRUCTURE.)

- IRL REVOEX LOWN, MEALING POST, MEALS, PILKETS, SIEPS

 MEALTAIN FER TABLE NIOZJ.

 MEALTAIN FER TABLE NIOZJ.

 MEALTAIN HINHM. VERIFY

 FLOOR OVER GARAGE.

 RH BATTS HINHM. VERIFY

 RH BATTS HIN

KEY NOTES:

- ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
- 2 HASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
- 3 MASONRY FILL STONE AS SELECTED BY DEVELOPER, HEIGHT AS NOTED,
- 4 8' SOLDIER COURSE. 5 ROWLOCK COURSE

6 N/A TYPICALS

- TO CORROSION RESISTANT SCREEN LOUVERED VENTS, SIZE AS NOTED.
- 6 CODE APPROVED TERHINATION CHIMNEY CAP.
- CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING PER NORC RIOS2233
- 10 STANDING SEAM METAL ROOF, INSTALL PER HANG-CATURER'S HRITTEN INSTRUCTIONS

III DECORATIVE HROUGHT IRON, SEE DETAILS.

- SIDING.

 VINTL SHAKE SIDING PER DEVELOPER NITH VINTL CORNER TRIM PER DEVELOPER.
 (AT SPECIFIED LOCATIONS.
 FIERC CONTRICT SHAKE SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.)
- VINT. LAP SIDNIS PER DEVELOPER WITH VINTL CORNER TRIM PER DEVELOPER.
 (AT SPECIFIED LOCATIONS.
 FIBER CEMENT LAP SIDNIS PER DEVELOPER IV IX4 CORNER TRIM BOARD.)
- IF VINTL WAYY SIDING PER DEVELOPER WITH VINTL CORNER TRIM PER DEVELOPER
- (AT SPECIFIED LOCATIONS. FIBER CEMENT WAYY SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.)
- D VINTL BOARD AND BATT SIDING PER DEVELOPER WITH VINTL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS. FIBER CEPTIF PAME, SIDING W US BATTS AT 12° O.C. PER DEVELOPER W US CORNER TRIM BOAR.
- (AT SPECIFIC LOCATIONS: IX FIBER CEMENT TRIM OR EQUAL, UN.O. SIZE AS NOTED
- TYPON SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.

 (AT SPECIFIC LOCATIONS, FALSE VINTL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.)
- ALL MINDONS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND NHOSE OPENING IS GREATER THAN 12" ABOVE THE CUTSIDE MALKING SURFACE MOT MAYE MINDON OPENING LIMITING DEVICES COMPLYING NITH THE NICRO SECTION 1912.21 AND 1912.22.2.





PROJECT TITLE:

6:12 PITCH

FASCIA

FYPON: 17

9

COLUMN DETAIL

OR OTHER

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMD17049

'HAYDEN' **EXTERIOR ELEVATIONS** '4EPF-K'

PRINT DATE: January 22, 2021

1K

ATTIC VENT CALCULATION FOR PLAN 'HAYDEN': 1:150 RATIO.

THE NET FREE VENTILATING AREA SHALL NOT BE LEGG THAN 1/150 OF THE AREA OF THE SPACE VENTILATED, PROVIDED THAT AT LEAGT 50 PERCENT AND NOT MORE THAN 80 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATOR'S LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE THE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.

2. ENCLOSED ATTIC/RAFTER SPACES OVER UNCONDITIONED SPACE MAY BE VENTED WITH CONTINUOUS SOFFIT VENT ONLY

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY MITH MANUFACTURE OF HIGH AND LOW VENTS TO BE USED FOR MINIMA CALLULATED VENTS REGUIRED. THE REGUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION SHOULD BE VICENTIAL TO SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BURNE CERTIFICATION. BY THE BUILDING OFFICIAL.

ALL OVERLIANS CETTICAL.
ALL OVERLIAN FRAMED ROOF AREAS SHALL HAVE
OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF
SHEATHING KG ALLOWED BY THE STRUCTURAL ENGINEER)
TO ALLOM PASSASE AND ATTIC VENTILATION
BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL
BE VENTED INDEPENDENTLY TO CASC REGUIREMENTS.

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE FRAMING PROJECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2" CORROSION RESISTANT SOFFIT VENT AT UNDERSIDE OF FRAMED ELEMENT.

(PER SECTION R806.2)

I SQUARE INCH VENT FOR EVERY 150 SQUARE INCHES OF CEILING

¶44 SQ. IN. = 1 SQ. FT. BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.)

BLDG. (5Q. IN.) / 150 = 5Q. IN. OF VENT REQUIRED

ROOF AREA I.= 1466 SF 1486 SQ. FT. X 144 = 214272 SQ. IN. 214272 SQ. IN. / ISO = 1426.48 SQ. IN. OF VENT REQ'D

ROOF AREA 2:= 34 SF 34 SQ. FT. X 144 = 5616 SQ. IN. 5616 SQ. IN. / 150 = 31.44 SQ. IN. OF VENT REQ'D

ROOF AREA 3.= 180 5F 180 5Q. FT. X 144 = 25420 5Q. IN. 25420 5Q. IN. / 150 = 172.80 5Q. IN. OF VENT REQ'D

- ALL ROOF DRAINAGE SHALL BE PIPED TO STREET OR APPROVED DRAINAGE FACILITY.
- DASHED LINES INDICATE WALL BELOW. - LOCATE GUTTER AND DOWNSPOUTS PER BUILDER.
- PITCHED ROOFS AS NOTED.

- TRISS MANUFACTURER SHALL SUBHIT STRUCTURAL CALCS AND SHOP DRAMINGS TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.
- ALL PLIMBING VENTS SHALL BE COMBINED INTO A MINIMUM AMOUNT OF ROOF PENETRATIONS, ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE MAIN RIDGE.

ATTIC VENT CALCULATION FOR PLAN 'HAYDEN': 1:300 RATIO.

AS AN ALTERNATE TO THE I/ISO RATIO LISTED ABOVE, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO I/300 M/EN A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE NARM - IN - MINTER SIDE OF THE CELLING.

GENERAL CONTRACTOR SHALL VERIEY THE NET FREE GENERAL COMTRACTOR SHALL VERIFY THE NET FREE
VENTILLATION OF THE VENT PROPIDLY SELECTED BY OWNER.
VERIFY WITH MANIFACTURER OF HIGH AND LOW YENTS
TO BE USED FOR MINIMAY CALCULATED VENTS REQUIRED,
THE REQUIRED VENTILLATION SHALL BE MAINTAINED,
PROVIDE INSULATION STOP SUCH THAT INSULATION
DOES NOT OBSTRUCT REVEAUR MOVEMENT AS REQUIRED
BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING (AS ALLOWED BY THE STRUCTURAL ENGINEER)
TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CBC REQUIREMENTS,

PER DEVELOPER, AT ALL CANTILEVERED FLOORS, CANTILEVERED ARCHITECTURAL POP-OUTS, AND ANY DOUBLE CANTILLEVERY, NO ANTICO THAT ARE SEPARATED FROM THE YEARING FRO LECTIONS THAT ARE SEPARATED FROM THE VENTING CALCULATIONS SHOWN ABOVE, PROVIDE A CONTINUOUS 2' CORROSION RESISTANT SOFFIT VENT AT INDERSIDE OF FRAMED ELEMENT.

(PER SECTION R806.2)

I SOWARE INCH VENT FOR EVERY 300 SOWARE INCHES OF CEILING "144 SQ. IN. = 1 SQ. FT.

BLDG. CEILING (SF) X 144 = BLDG (SQ. IN.)

BLDG. (5Q. IN.) / 300 = 5Q. IN. OF VENT REQUIRED

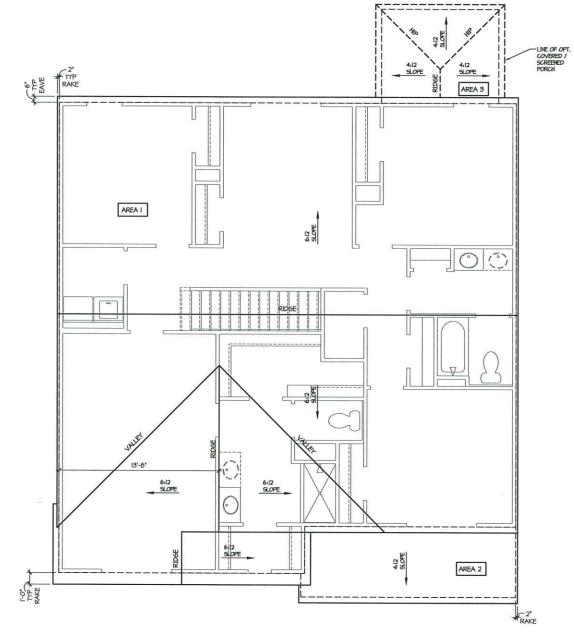
SQ. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

ROOF AREA I: = 1480 SF 1460 SQ. FT. X 144 = 214212 SQ. IN. 242712 SQ. FT. / 300 = 114.24 SQ. IN. OF VENT REQTO 114.24 SQ. IN. / 2 = 35112 SQ. IN. 35112 SQ. IN. OF VENT AT LOW REQUIRED.

ROOF AREA 2; 34 54. FT. X 144 = 34 5F. 5616 50. IN. 0F VENT REQID 15.12 50. IN. 0F VENT REQID 15.12 50. IN. 0F VENT AT HIGH 14 356 50. IN. 0F VENT AT LOW REQUIRED.

BUILDER TO PROVIDE (2) LAYERS OF UNDERLAYMENT AT ANY ROOF W/ A SLOPE FROM 2:12 TO LESS THAN 4:12

> AT SINGLE FAMILY DETACHED PLANS: PREFINISHED VENTED SOFFIT AT EAVE PER MANUFACTURER. (VERIFY FIRE SEPARATION DISTANCE FOR SOFFIT PROTECTION PER NCRC SECTION R302.1.1 AND TABLE R302.1)



SCALE: 1/4"=1"-0" AT 22"X34" LAYOUT 1/8"=1"-0" AT 11"X17" LAYOUT

NO: DATE: REVISION: PROFESSIONAL SEAL:

40' Series

PROJECT TITLE:

FOR CONSTRUCTION

CLIENTS NAME:

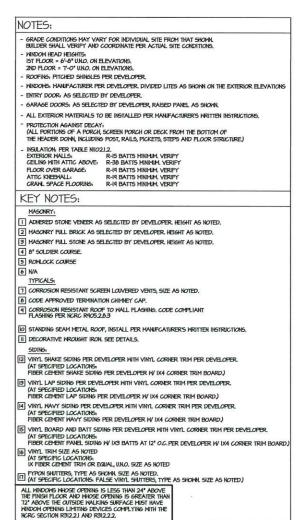


PROJECT NO: GMD17049

'HAYDEN' **ROOF PLAN** '4EPF-K'

PRINT DATE: January 22, 2021

1.1 K



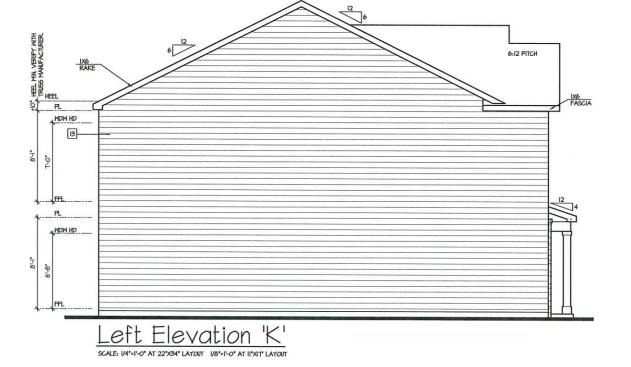
Right Elevation 'K'

SCALE: 174"=1'-0" AT 22"X34" LAYOUT 1/8"=1'-0" AT 11"X17" LAYOUT

AVAILABLE WITH OPTIONAL 9'-1" FIRST FLOOR PLATE

NOTES AT OPT 9'-1" PLT:

- WDW HT SET AT 7'-6"
- INTERIOR SOFFITS AT 8'-0"
- EXTERIOR SOFFITS AT 8'-O"





PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME

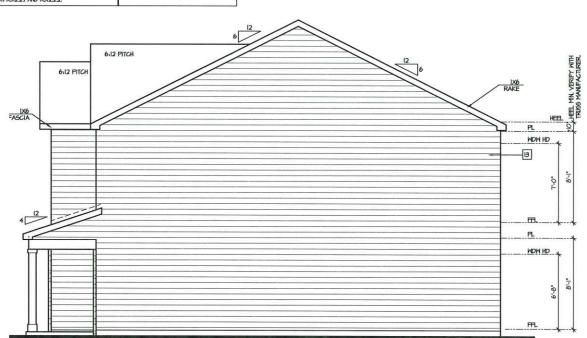


PROJECT NO: 6MD17049

'HAYDEN'
EXTERIOR
ELEVATIONS
'4EPF-K'

PRINT DATE: January 22, 2021

2 K





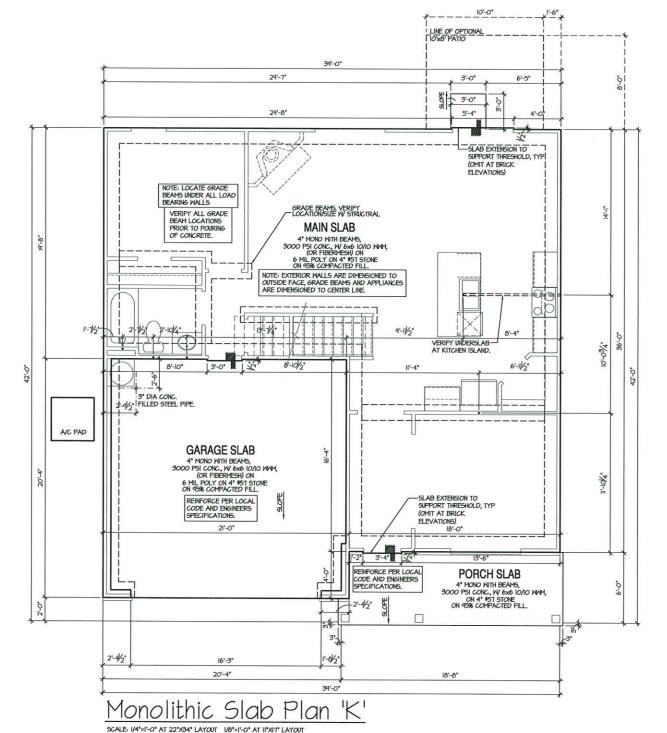


- IRRIGATION SYSTEM SHALL BE DESIGNED TO PREVENT THE SATURATION OF SOIL ADJACENT TO BUILDING.
 THIS PERIMETER DIMENSION PLAN IS FOR DIMENSIONAL INFORMATION ONLY.
- SLOPE ALL STOOPS AND HARDSCAPE MATERIAL AWAY FROM BUILDING TYPICAL.
- SLOPE GARAGE FLOOR I/8" PER FOOT TO GARAGE DOOR OPENING.
- VERIFY CURB CUT BLOCKOUT WITH GARAGE DOOR MANUFACTURER.
- REFER TO CIVIL DRAWINGS FOR FINISH SURFACE ELEVATIONS.
- FINISH GRADE SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING, REFER TO SOILS REPORT FOR ANY SPECIFIC REQUIREMENTS
- REFER TO STRUCTURAL DRAWINGS FOR HOLDDOWNS, FOOTING DETAILS, CURB THICKNESS, AND INFORMATION NOT SHOWN ON THIS PLAN.
- PLIMBING FIXTURES, VENT LOCATIONS, ETC. ARE APPROXIMATE. CONTRACTOR TO VERIFY COUNT AND LOCATION
- YERIFY THE SUPPLY FOR SEPARATE CONDUITS TO ANY ISLAND FOR GAS, WATER OR ELECTRIC. - VERIFY ALL DOOR THRESHOLD HEIGHTS TO HARD SURFACES, B 1/4" MAX AT INSHING DOORS, (FER NORG SECTION R31(3.1.)
- TYP STOOP AT INSHING/SLIDER DOORS; 36" DEEP BY THE HIDTH OF THE DOOR SERVED, MINIMM. (PER NORG SECTION R3113.) PROVIDE A SLIP-RESISTANT FINISH.
- FOR THE USE OF EXPOSED GAS MATER HEATERS IN THE GARAGE, PROTECT THE WATER HEATER WITH 3* DIA CONCRETE FILLED STEEL PIPE EMBEDDED INTO CONCRETE FOOTING.
- S DIA CONCRETE FILLED STEEL FIFE EMBEDZED INTO CONCRETE POOTING.

 SOILS TREATMENT:
 BORACARE TERMITE TO BE APPLIED TO FRAMING PER PRODUCT SPECIFICATIONS.

 (PROVIDE CHEMICAL TREATMENT FOR PROTECTION FROM TERMITE INVESTATION ACCORDING TO THE STANDARDS OF THE NC DEPT OF AGRICULTURE).

 MODD CONTRACTING CONCRETE OR IMPRONEY OR LESS THAN CODE REQUIRED SEPARATION TO GRADE SHALL BE PRESEDUE TREATED OR FOUNDATION GRADE REDWOOD, SET ALL EXTERIOR WALL SILLS IN MASTIC.



NO: DATE: REVISION: A 04.52 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:

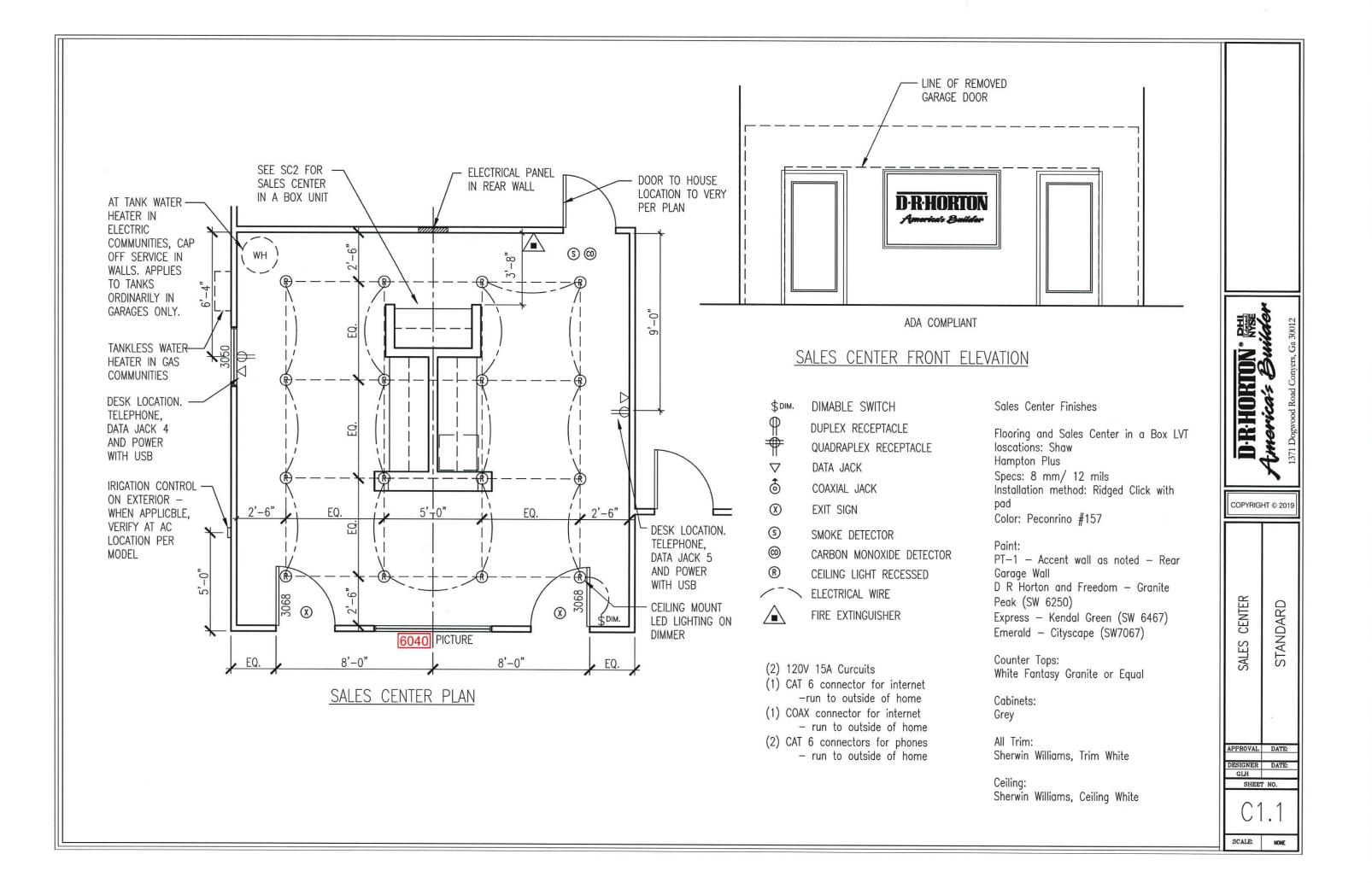


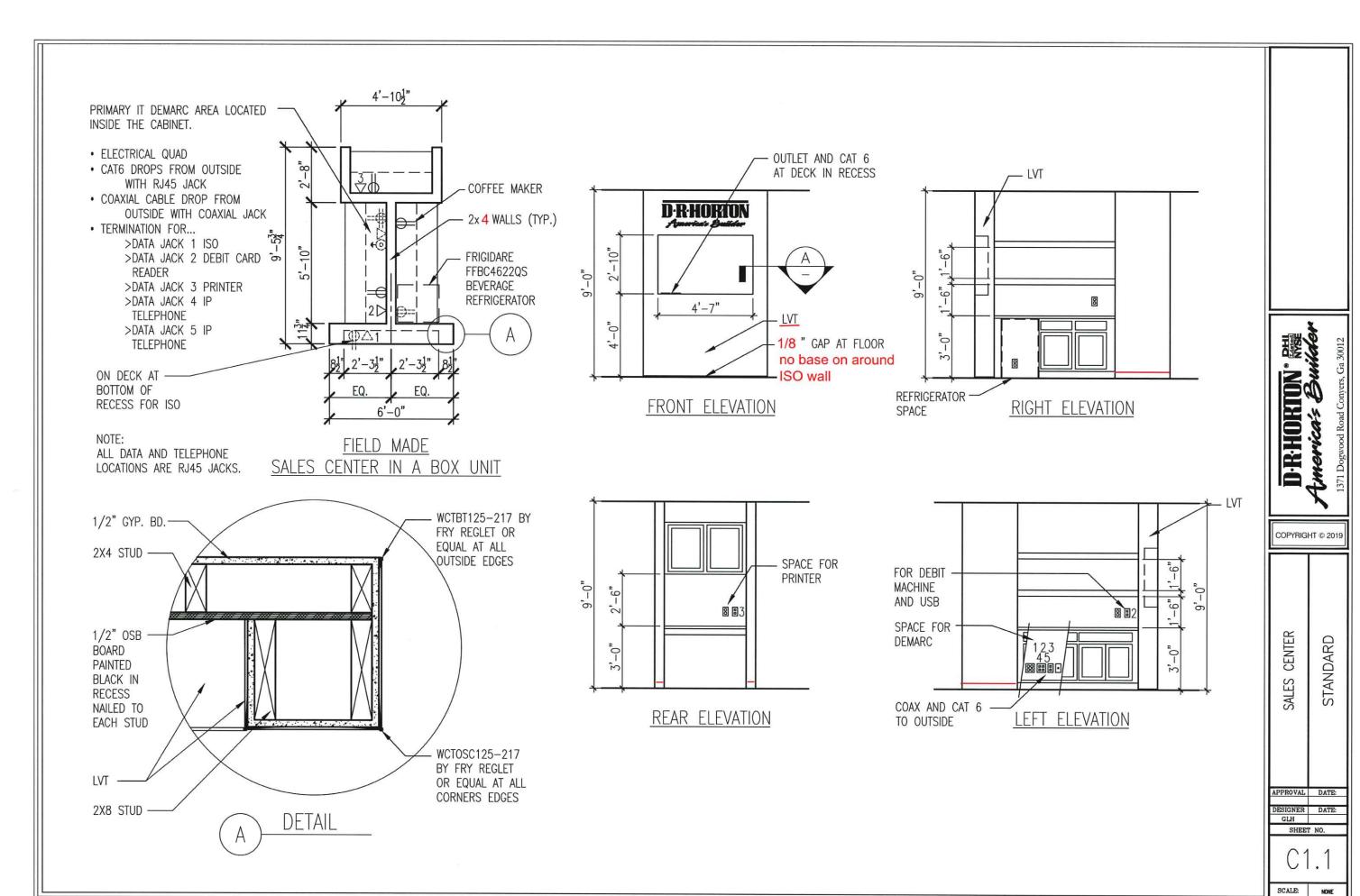
PROJECT NO: GMD17049

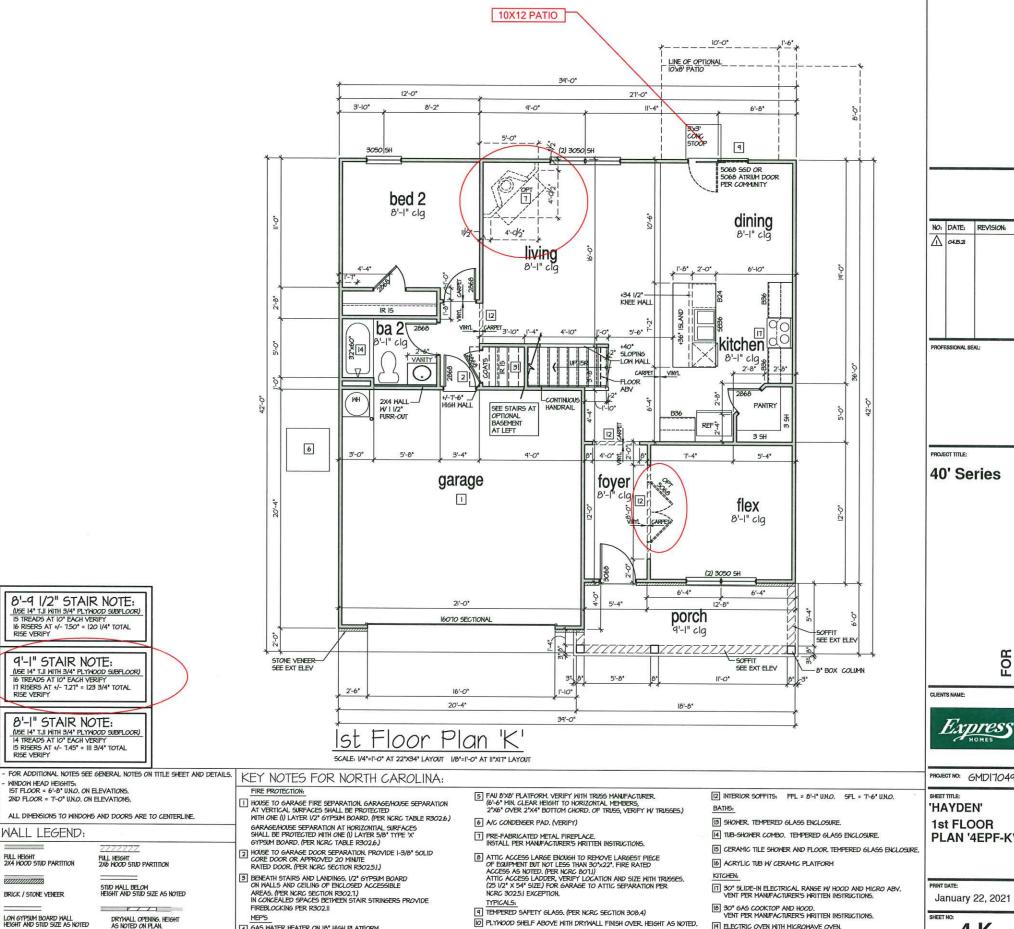
'HAYDEN' MONOLITHIC SLAB PLAN '4EPF-K'

PRINT DATE: January 22, 2021

3 MS K







GAS WATER HEATER ON 18" HIGH PLATFORM.
(PER CHAPTER 5 NCRC-PLIMBING)

PLYWOOD SHELF ABOVE WITH DRYWALL FINISH OVER, HEIGHT AS NOTED,

III HALF WALL, HEIGHT AS NOTED.

NO: DATE: REVISION: PROFESSIONAL SEAL:

40' Series

FOR CONSTRUCTION



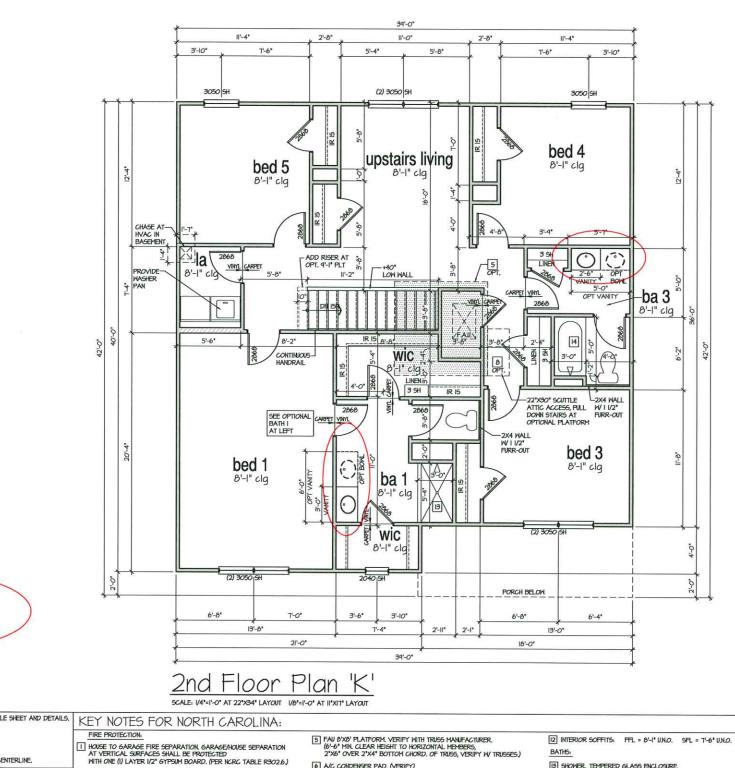
РИОЈЕСТ NO: 6MD17049

'HAYDEN'

1st FLOOR PLAN '4EPF-K'

14 ELECTRIC OVEN WITH MICROWAVE OVEN.

4 K



NO: DATE: REVISION: 04.52 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



PROJECT NO: GMDI7049

'HAYDEN'

2nd FLOOR PLAN '4EPF-K'

PRINT DATE: January 22, 2021

5 K

9'-I" STAIR NOTE:

(ISE 14" T.J.I WITH 3/4" PLTYWOOD SUBFLOOR)

16 TREADS AT 10" EACH VERIFY
17 RISERS AT +/- 1.27" = 123 3/4" TOTAL
RISE VERIFY

8'-I" STAIR NOTE:

(USE 14" T.J.I WITH 3/4" PLYWOOD SUBFLOOR)

14 TREADS AT 10" EACH VERIPY

15 RISERS AT +/- 1.45" = III 3/4" TOTAL

RISE VERIPY

FOR ADDITIONAL NOTES SEE GENERAL NOTES ON TITLE SHEET AND DETAILS. WINDOW HEAD HEIGHTS: IST FLOOR = 6'-8" U.N.O. ON ELEVATIONS.

2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS

ALL DIMENSIONS TO WINDOWS AND DOORS ARE TO CENTERLINE,

WALL LEGEND:

BRICK / STONE VENEER

FULL HEIGHT 2X6 WOOD STUD PARTITION

STUD WALL BELOW HEIGHT AND STUD SIZE AS NOTED

V// DRYWALL OPENING, HEIGHT AS NOTED ON PLAN. LOW GYPSIM BOARD WALL HEIGHT AND STUD SIZE AS NOTED

GARAGE/HOUSE SEPARATION AT HORIZONTIAL SURFACES SHALL BE PROTECTED WITH ONE (I) LAYER 5/8° TYPE 'X' GYPSUM BOARD, (PER NCRC TABLE R3026.)

[2] HOUSE TO GARAGE DOOR SEPARATION, PROVIDE I-3/6" SOLID CORE DOOR OR APPROVED 20 MINUTE RATED DOOR, (PER NORC SECTION R3025.1.)

3 BENEATH STAIRS AND LANDINGS, 1/2° GYPSUM BOARD ON WALLS AND CEILING OF ENCLOSED ACCESSIBLE AREAS. (PER NORG SECTION R302.1.)
IN CONCEALED SPACES BETWEEN STAIR STRINGERS PROVIDE FIREBLOCKING PER R302,II

GAS WATER HEATER ON 18" HIGH PLATFORM.
(PER CHAPTER 5 NCRC-PLUMBING)

6 A/C CONDENSER PAD. (VERIFY)

T PRE-FABRICATED METAL FIREPLACE.
INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

 ATTIC ACCESS LARGE ENOUGH TO REMOVE LARGEST PIECE
OF EQUIPMENT BUT NOT LESS THAN 30'X22', FIRE RATED
ACCESS AS NOTED, (FER NORG 80TJ.)
ATTIC ACCESS LADDER, VERTIFY LOCATION AND SIZE WITH TRUSSES,
(25 I/2' X 54' SIZE) FOR GARAGE TO ATTIC SEPARATION PER NCRC 3025.I EXCEPTION.

TYPICALS:

TEMPERED SAFETY GLASS. (PER NCRC SECTION 308.4)

O PLYWOOD SHELF ABOVE WITH DRYWALL FINISH OVER, HEIGHT AS NOTED. III HALF WALL, HEIGHT AS NOTED.

13 SHOWER, TEMPERED GLASS ENCLOSURE.

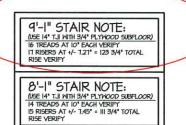
14 TUB-SHOWER COMBO. TEMPERED GLASS ENCLOSURE.

5 CERAMIC TILE SHOWER AND FLOOR, TEMPERED GLASS ENCLOSURE.

16 ACRYLIC TUB W CERAMIC PLATFORM

KITCHEN: 30" SLIDE-IN ELECTRICAL RANGE W HOOD AND MICRO ABV. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

| 30" GAS COOKTOP AND HOOD. VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. 19 ELECTRIC OVEN WITH MICROWAVE OVEN.



NOTES:

- REFER TO FLOOR PLAN NOTES FOR TYPICAL FIRE PROTECTION NOTES AND LOCATIONS.
- THESE BUILDING SECTIONS MAY VARY AT ALTERNATE ELEVATION STYLES AND AT "PLAN OPTION"

 CONDITIONS, REFER TO MAIN FLOOR PLAN AND ALTERNATE FLOOR PLANS FOR INFORMATION NOT SHOWN HERE.
- BUILDING SECTIONS SHOWN HERE DEPICT VOLUMN SPACES WITHIN THE STRUCTURE, REFER TO STRUCTURAL DRAYLINGS, TRUSS DRAYLINGS, STRUCTURAL DETAILS AND CALCULATIONS BY OTHER FOR ALL STRUCTURAL INFO.

PER STATE RESIDENTIAL CODE COMPLIANCE METHOD TO BE DETERMINED BY BUILDER.

- ROOFING: PITCHED SHINGLE ROOF, REFER TO ROOF PLAN FOR TYPICALS,
- WOOD FLOORS: FLOOR SHEATHING OVER FLOOR JOIST, REFER TO STRUCTURAL AND TRUSS DRAWINGS BY OTHERS.
- NETER TO STRUCTURAL AND TRUSS DRAVINGS BY OTHERS.

 VERRIY'S TAIRS MINIMUM AND MAXIMUM REGUIREMENTS FOR CONSTRUCTION CLEARANCES

 MINIMUM CONTROL CODES.

 INSULATION.

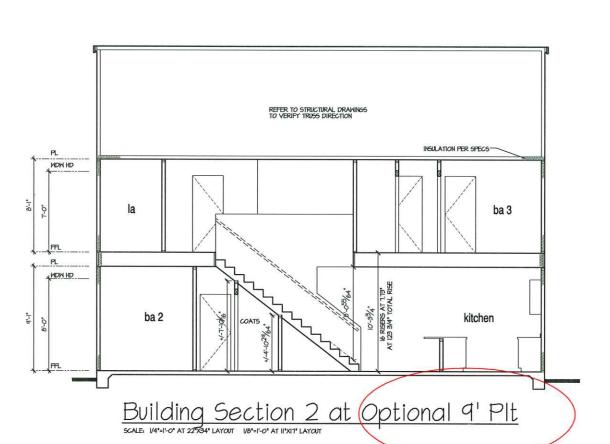
 EXITERIOR WALLS ZONE 3.

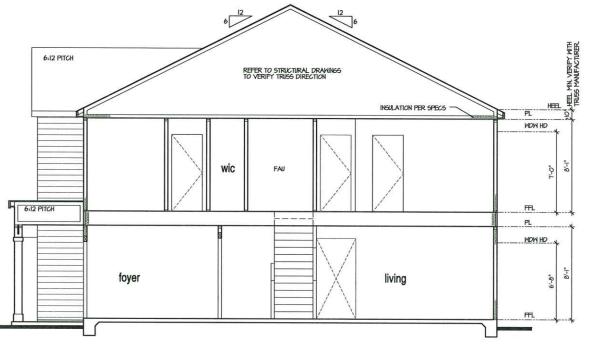
 R-15 BATTS MINIMUM, VERIFY

 EXTERIOR WALLS ZONE 4.

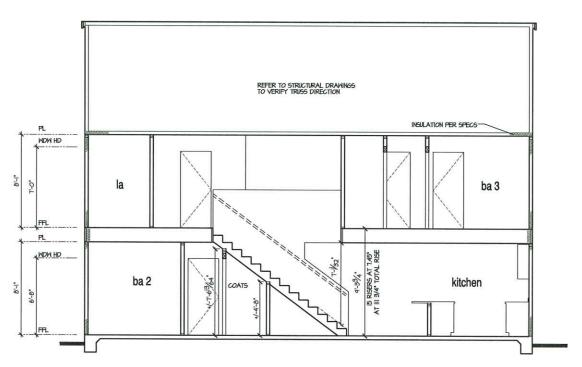
 R-15 BATTS MINIMUM, VERIFY
- CEILING WITH ATTIC ABOVE COMPRESSED INSULATION.
 R-30 BATTS MINIMM, VERIFY
 CEILING WITH ATTIC ABOVE UNCOMPRESSED INSULATION (HEELS IN TRUSSES).
 R-30 BATTS MINIMM, VERIFY
- FLOOR OVER GARAGE:
 ATTIC KNEEHALL:
 CRAIL SPACE FLOORING:
 R-14 BATTS MINIMUM, VERIFY
 R-14 BATTS MINIMUM, VERIFY

WINDOW GLAZING "U" FACTOR: 0.35





Building Section Lat Monolithic Slab



Building Section 2 at Monolithic Slab

NO: DATE: REVISION: 04.52

40' Series



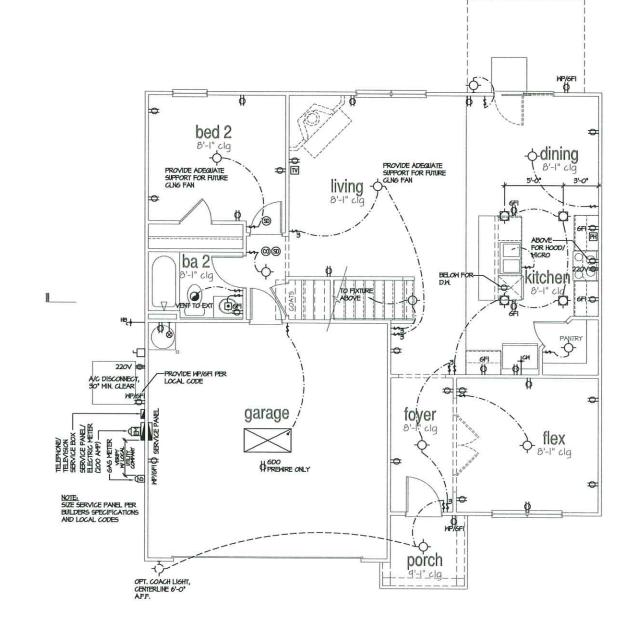
PROJECT NO: GMD17049

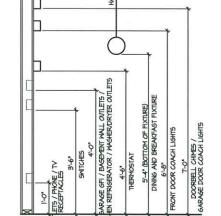
'HAYDEN' BUILDING **SECTIONS**

January 22, 2021

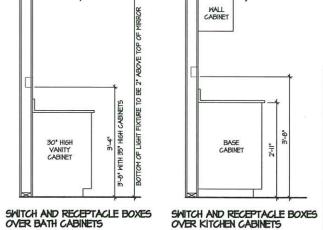
1AS







STANDARD ELECTRICAL BOX HEIGHTS



NOTES:	LEGI	END:		
- PROVIDE GROUNDING ELECTRICAL ROD PER LOCAL CODES PROVIDE AND INSTALL ARG FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREPORTS OF ALL GOVERNING CODES.	ø	DUPLEX CUTLET	φ-	FLUSH HOU
- ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS.	MP/GFI	WEATHERPROOF 6FI DUPLEX OUTLET	-ф-	HANGING FI
- FAVLIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS."	Ö 6FI	GROUND-FAULT CIRCUIT-INTERRUPTER		100 Sept. 15-50
- ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY, THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS, THE	Hou	DUPLEX OUTLET	4	FLUSH-MO (PROVIDE
CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT. - PROVIDE AND INSTALL LOCALLY CERTIFIED SHOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY	Ø	HALF-SHITCHED DUPLEX OUTLET	ur.	110100
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES,	Ø 220√	220 VOLT OUTLET	-ф	2-LIGHT V
 PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. 	0	REINFORCED JUNCTION BOX	-ф	3-LIGHT V
ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS, HYAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.	\$	WALL SMITCH	-49	4-LIGHT VA
 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. 	\$3	THREE-WAY SMITCH	4	HALL HOU
- PROVIDE POWER, LIGHT AND SMITCH AS REGUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.	\$4	FOUR-WAY SMITCH	•	EXHAUST

LEG	END:					
ø	DUPLEX OUTLET	-ф-	FLUSH-HOUNT LED CEILING FIXTURE	O	CHIMES	
MP/GF	HEATHERPROOF GFI DUPLEX OUTLET	-ф-	HANGING FIXTURE	P	PUSHBUTTON SWITCH	
∯ e⊟	GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	*	FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)	9	IIOV SHOKE DETECTOR W BATTERY BACKUP	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
Ø	HALF-SWITCHED DUPLEX OUTLET	-	1101000000	@	CO2 DETECTOR	
₫ 220V	220 VOLT OUTLET	-ф	2-LIGHT VANITY FIXTURE	O	THERMOSTAT	
0	REINFORCED JUNCTION BOX	-ф	3-LIGHT VANITY FIXTURE	H	TELEPHONE	HOSE BIBB
\$	WALL SWITCH	-49	4-LIGHT VANITY FIXTURE	TV	TELEVISION	
\$3	THREE-WAY SWITCH	4	HALL HOUNT FIXTURE	0	ELECTRIC METER	CH 1/4" WATER STUB OUT
1 -	INCL /VII STIGI	Y	PALE FEARI FIXING		ELECTRIC PANEL	.,
\$4	FOUR-WAY SMITCH	0	EXHAUST FAN (VENT TO EXTERIOR)		DISCONNECT SWITCH	→ WILL SCONCE

NO: DATE: REVISION: A 04.5.2l PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:

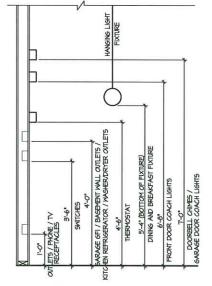


PROJECT NO: GMD17049

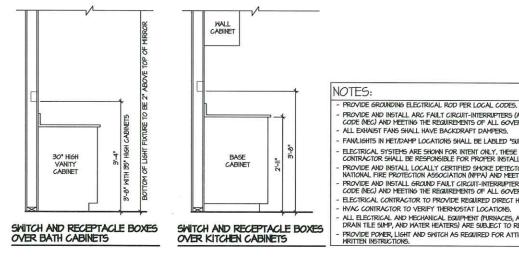
SHEET TITLE:

'HAYDEN' 1st FLOOR **UTILITY PLAN**

PRINT DATE: January 22, 2021



STANDARD ELECTRICAL BOX HEIGHTS



PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRIPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. DUPLEX OUTLET ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS. WP/GFI WEATHERPROOF GFI DUPLEX OUTLET FANVLIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS." 6FOUND-FAULT CIRCUIT-INTERRUPTER
DUPLEX CUTLET 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 CESTIFIED SHOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. FLUSH-MOUNT LED CEILING FIXTU (PROVIDE CEILING FAN SUPPORT 2-LIGHT VANITY FIXTURE 220V 220 VOLT OUTLET PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (FIT) AS REQUIRED BY NATIONAL ELECTRICAL CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES.

ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS, 3-LIGHT VANITY FIXTURE REINFORCED JUNCTION BOX - ELECTRICAL CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.

- ALL ELECTRICAL AND MECHANICAL EQUIPMENT (FURNACES, A/C UNITS, ELECTRICAL PANELS, SANITARY SUMP PIT DRAIN TILE SUMP, AND MATER HEATERS) ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS.

- PROVIDE PORER, LIGHT AND SMITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S MRITTEN INSTRUCTIONS. 4-LIGHT VANITY FIXTURE WALL SWITCH THREE-WAY SWITCH FOUR-WAY SHITCH EXHAUST FAN (VENT TO EXTERIO

LEGEND:

bed 4 PROVIDE ADEQUATE
SUPPORT FOR FUTURE DEG 5 upstairs living 8,000 8'-1" clg PROVIDE ADEQUATE SUPPORT FOR FUTURE CLING FAN PROVIDE ADEQUATE SUPPORT FOR FUTURE CLNG FAN 9 -ba 3 VENT TO EXT PROVIDE ADEQUATE SUPPORT FOR FUTURE CLING FAN PROVIDE 2ND — GFILIGHT AT OPTIONAL BOAL COST ϕ bed 3 bed PROVIDE ADEQUATE 81-1" clg SUPPORT FOR FUTURE CLING FAN ba 1 B'-1" clg .WiC

- C- FLUSH-HOUNT LED CEILING FIXTURE

	Dlan IXI	
<u> </u>	Plan 'A'	
OUT	I/B"=I'-O" AT II"XI7" LAYOUT	
	od chimes	
	PUSHBUTTON SHITCH	
	IIOV SHOKE DETECTOR W BATTERY BACKUP	CELLING FAN (PROVIDE ADEQUATE SUPPORT)
	① THERMOSTAT	
	™ TELEPHONE	HD HOSE BIBB
	TELEVISION	
	☐ ELECTRIC METER	CH 1/4" WATER STUB OUT
	BLECTRIC PANEL	→ WALL SCONCE

NO: DATE: REVISION: 04.52 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

CLIENTS NAME:



PROJECT NO: GMD17049

'HAYDEN' 2nd FLOOR UTILITY PLAN

PRINT DATE: January 22, 2021

8

DESIGN SPECIFICATIONS:

Construction Type: Commerical ☐ Residential ☒

Applicable Building Codes:

2018 North Carolina Residential Building Code with All Local Amendments
 ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

ian L	.0805:		
l	Roof Liv	re Loads	
	U. Co	onventional 2x	20 PSF
	12. Tru	U55	2Ø PSF
	1	21 Attic Truss	60 PSF
2.	Roof De	ad Loads	
	2.1. Co	onventional 2x	1Ø PSF
	22, Tru	U55	20 PSF
3.	Snow	Alexandra Section 1991	15 PSF
	3.1. lmp	portance Factor	lø
4.	Floor Liv	re Loads	
	41. Tu	p. Dwelling	40 PSF
	42. 51	eeping Areas	3Ø PSF
	43. De		
	11 0		to por

5. Floor Dead Loads 5.l. Conventional 2x 6. Ultimate Design Wind Speed (3 sec. qust) ____

6.1. Exposure ______ 62. Importance Factor_ 63. Wind Base Shear 63.1 Vx =

63.2.Vy : 7. Component and Cladding (in PSF)

UP TO 30'	30'1"-35'	35'1"-40'	40'1"-45'
16.7,-18.0	17.6,-18.9	183,-19.7	18.8,-202
16.7,-210	17.6,-22.1	183,-22,9	18.8,-23.6
16.7,-210	17.6,-22.1	183,-22.9	18.8,-23.6
182,-130	192,-200	19.9,-20.8	20.4,-213
182,-240	192,-252	19.9,-26.2	20.4,-26.9
	16.1,-18.0 16.1,-21.0 16.1,-21.0 16.2,-19.0	UP TO 30' 30'1"-35' 16.1,-18.0 17.6,-18.0 16.1,-21.0 17.6,-22.1 16.1,-21.0 17.6,-22.1 18.2,-19.0 19.2,-20.0	UP 10 30' 30'1-35' 35'1-40' 16.1-180 116189 183131 16.1-210 116221 18322.9 16.1-210 116221 18322.9 182130 132200 13.9208

0.00	Tanana arang	
81.	Site Class	
82.	Design Category	
83.	Importance Factor	1
8.4.	Seismic Use Group	1
	A	

8.5. Spectral Response Acceleration 85.1. Sms = %g 852. Sml = %g 8.6. Seismic Base Shear

8.6.1. VX = 8.62.V4 :

BDI. vg :

B.1. Basic Structural System (check one)

Bearing Wall

Building Frame

Moment Frame ☐ Dual w/ Special Monent Frame
☐ Dual w/ Intermediate R/C or Special Steel

☐ Inverted Pendulum engineering laboratory testing

HAYDEN

PROJECT ADDRESS:

OUNER: DR Horton, Inc. 8001 Arrouridae Blvd. Charlotte, NC 28213

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

These drawings are to be coordinated with the architectural mechanical plumbing rese daming a few De Coordinated with the activities with intervalinal, pindle 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	R5	ROOF SUPPORT
CJ	CEILING JOIST	5C	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ DOUBLE JOIST		SFF	SPRUCE PINE FIR
D5P	DOUBLE STUD POCKET	55T	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
EW EACH WAY		TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
PSI POUNDS PER SQUARE INCH		WUF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMI 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 SUMMIT immediately

SHEET LIST:

REVISION LIST:

Date

4,19.21

Sheet No.	Description	
CSI	Cover Sheet, Specifications, Revisions	
51.Øm	Monolithic Slab Foundation	
51.Øs	Stem Wall Foundation	
SLØc	Crawl Space Foundation	
SIØb	Basement Foundation	
52.0	Basement Framing Plan	
53.Ø	First Floor Framing Plan	
540	Second Floor Franing Plan	
95.Ø	Roof Framing Plan	
56.0	Basement Bracing Plan	
\$1Ø	First Floor Bracing Plan	
58.0	Second Floor Bracing Plan	

Description

Updated elevation names

Added Stem Wall, Crawlspace, and Basement

DR HORTON PROJECT SIGN-OFF-

Manager	Signature
Operations	
Operations System	
Operations Product Development	

s u mmi 1

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 documents without written permission of SUMMIT Engineering, Laboratory 4 Testing, P.C. (SUMMIT) or the SER. For the
- purposes of these construction documents the SER and SIMMIT shall be considered the sane entity.

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

 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 SMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it. relates to the structural design of this project. Verification of
- the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMMIT. 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.
 This structure and all construction shall conform to all
- applicable sections of local building codes.

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

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 bottom of all robulings shall extend below the frost line for the region in which the siturcture is to be constructed. However, the bottom of all foolings 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% analysis and contesting.
- 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 materia

- STRUCTURAL STEEL:
 L Structural steel shall be l'abricated 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
- All steel shall have a minimum yield stress (Fg) 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 ETØXX. All welding shall be performed by a certified welder per the above

- <u>NORFIF:</u>

 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, nixed, 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 Air entrained Concrete must be used for all structural element exposed to freezea/that used t
- 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 pcl and a design loading of 200 psi. 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 finishe Reinforcing steel may not extend through a control joint.
- Reinforcing steel may extend through a saw out joint.
 All welded wire fabric (WWF) for concrete slabs-on-grade shall
 be placed at ind-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. Flicemesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olerin materials and specifically
- containing no reprocessed oletin 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 Cillia, any local building code requirements, and shall meet or exceed the current industry standard.
 Steel reinforcing bars shall be new billet steel conforming to
- ASTM A615, grade 60.
- ASTM A6I5, grade 60. Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 3I5: "Manual of Standard Practice for Detailing Concrete Structures" Horizontal footling and wall reinforcement, shall be continuous and shall have 30" bends, or comer 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:

- 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.
- LVL or PSL engineered wood shall have the following minimum
- design values: 21. E = 1,900,000 psi
- 23.Fv = 285 ps
- 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 AWPA standard C-2.
- Nails shall be common wire nails unless otherwise noted.

 Lag screws shall conform to ANSI/ASME standard BIB21-1981. 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 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.
- King stude shall be continuous.
 Individual stude forming a column shall be attached with one led nail • 6" O.C. staggered. The stud column shall be continuous to the foundation or beam. The column shall be properly blocked at all floor levels to ensure proper load transfer. Multi-ply beams shall have each ply attached with (3) lod nails e
- Four and five ply beans shall be bolted together with (2) rows of 1/2" diameter through bolts staggered • 16" O.C., unless noted otherwise.

- 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 ine wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimu 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
- tre trusses, The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction" (NDS) and "Design Specification for Metal Plate Connected Wood Trusses." 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.
- 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:

L. 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.

- 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
- information. Sheathing shall be applied with the long direction perpendicular to fraining, unless noted otheralise. 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 fraining with (I)-Bd CC rail 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 fraining. Sheathing shall have a span rating consistent with the fraining spacing, the suitable endes support for use of plannord claims or without sultable edge support by use of plysood 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 1 or 2. Attach sheathing to its supporting fraining with (1)-2d CC ringshark nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of 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 I/8" gap at panel ends and edges as
- recommended in accordance with the APA.

- FRUCTURAL FIBERBOARD PANELS:
 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.
- nark of the APA.

 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

SEAL PHILBRINATO STRUCTURAL MEMBERS ON 1

> 6CALS 20:04 WP-1-8" FRO.ECT 4 800-0009 200 DRAWN BY: ASS CHECKED BY BOT

REPER TO COVER SHEET FOR A

STRUCTURAL MEMBERS ONLY

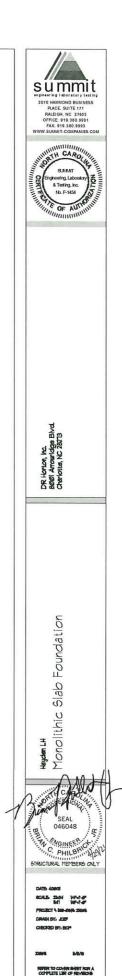
ENGINEERING SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS ON THIS DOCUMENT, SEAL DOES NOT INCLUDE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES OR SAFETY PRECAUTIONS. ANY DEVIATIONS OR DISCREPANCIES ON PLANS ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. FAILURE TO DO SO WILL VOID SUMMIT LIABILITY.

STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

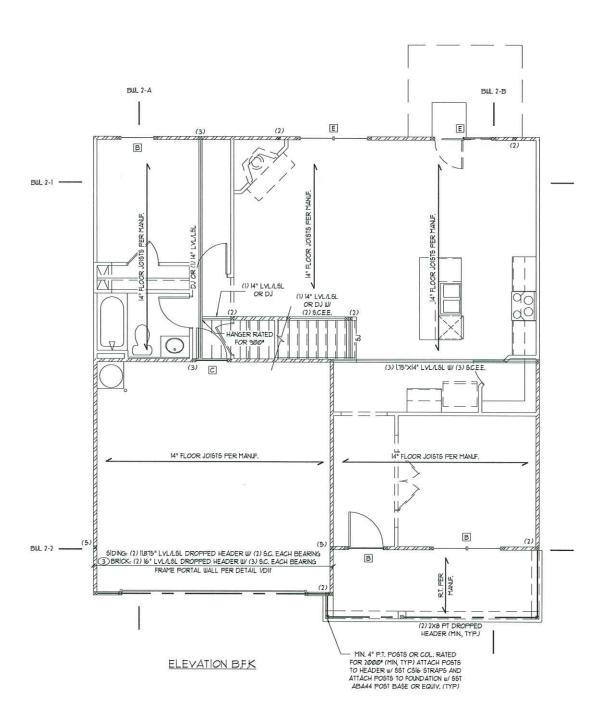
MONOLITHIC SLAB FOUNDATION PLAN

5CALE: I/4"+1"-0" ON 22"x34" OR I/8"+1"-0" ON 11"x11"

ELEVATION BFK



SI.lm



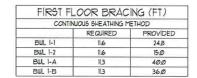
STRUCTURAL MEMBERS ONLY

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.

FIRST FLOOR FRAMING PLAN

5CALE: 1/4"+1"-0" ON 22"x34" OR 1/8"+1"-0" ON 11"x17"







 $\frac{\vec{a}}{\vec{a}}$ Framing Huyden LH First Floor B

DATE 40001

COLE. 2001 White Mill 101-1-07

PROJECT 1 100-0000 20000

CREATED BY BOP

B/8/8 REPER TO COMPRESSED FOR A COPPLETE LIST OF REVISIONS

ELEVATION BFK

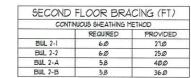
STRUCTURAL MEMBERS ONLY

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.

SECOND FLOOR FRAMING PLAN

SCALE: 1/4":1"-0" ON 22"x34" OR 1/8":1"-0" ON 11"x11"





DR Horton, Inc. 8001 Arrountidas Blvd.

Second Floor Framing Plan

STRUCTURAL HEPOBERS ONLY

DATE 400001

BOALD 2004 WHY-OP

PROJECT 4 800-0496 20096

DRAWN SIG. 2009

GROUND SIG. 2009

GROUND SIG. 2009

C PHILBRING

DESIGN TO COVER SHEET FOR A CONFILER LIST OF REVISIONS

0.11

MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO FND		
600 LBS	H2.5A	PER WALL SHEATHING 4 FASTENERS			
1200 LBS	(2) H25A	C5l6 (END = II")	DTT2Z		
1450 LBS	HTS2Ø	CSI6 (END = II")	DTT2Z		
2000 LBS	(2) MT52Ø	(2) CSI6 (END = II*)	DTT2Z		
2900 LBS	(2) HT52Ø	(2) CSI6 (END = II*)	HTT4		
3685 LBS	LGT3-5D525	MSTC52	HTT4		

L ALL PRODUCTS LISTED ARE SIMPSON STRONG-TIE. EQUIVALENT PRODUCTS MAY BE USED PER MANIFACTURER'S SPECIFICATIONS.

2. UPILIFT VALUES LISTED ARE FOR SYP 12 GRADE HEMBERS.

3. REFER TO TRUSS LAYOUT PER MANIF. FOR UPILIFT VALUES AND TRUSS TO TRUSS CONNECTIONS. CONNECTIONS SPECIFIED BY TRUSS MANIFACTURER OVERRIDE THOSE LISTED ABOVE.

4. CONTACT SUMMIT FOR REQUIRED CONNECTORS UHEN LOADS EXCEED THOSE LISTED ABOVE.

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

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

REFER TO DETAIL 5/D3F FOR EYEDROW, RETURN OR SHED ROOF FRAMING REQUIREMENTS, (TYP FOR ROOFS PROTRUDING MAXIMUM 24" FROM STRUCTURE)

NOTE: TRUSS UPLIFI LOADS SHALL BE DETERMINED PER TRUSS MANIFACTURER IN ACCORDANCE WITH SECTION REWEILL MALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFI LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION REGISTS OF THE 7018 NORC, REFER TO BRACED WALL PLANS POR SHEATHING AND FASTENER REQUIREMENTS.

THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY DR HORTON COMPLETED/REVISED ON 1920. 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 GUIRARATIES THE ADECULACY 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.

ROOF FRAMING PLAN

SCALE: 1/4"-1"-0" ON 22"/34" OR 105"-1"-0" ON 11"/1"

VALLEY SET TRUSSES PER MAN.F.

GIRDER TRUSSES PER MAN.F.

ROOF TRUSSES PER MAN.F.

BILLIANS AND TRUSSES PER MAN.F.

ELEVATION BFK





DR Horton, Inc. 8001 Arrounidge Bivd. Charlotts, NC 28273

Roof Framing Plan

SEAL OAGO48

OAGO48

OHILDE

DATE 40000 SCALE 2004 WHILE BUT VEHILOF PROJECT 4 800-0049 20000 DRAIN BY JEEP CHECKED BY BCP

2384 MA/S PERS TO COME SEET FOR A COTFLETE LIST OF REVISIONS

GE

35.1

631. Vx = 632.Vy = 1. Component and Cladding (in PSF) MEAN ROOF UP TO 30' 30'1"-35' 35'1"-40' 40'1"-45' ZONE I 16.1,-18.0 115,-18.9 182,-19.6 18.1,-20.2 ZONE 2 16.7,-21Ø 175,-22.1 182,-22.9 18.7,-23.5 ZONE 3 16.7.-21Ø 175.-221 182.-229 18.7.-235 ZONE 4 182,-19.0 192,-20.0 19.9,-20.1 20.4,-213 ZONE 5 182,-24Ø 192,-252 19.9,-261 20.4,-26.9

82. Design Category
83. Importance Factor
84. Seismic Use Group
85. Spectral Response Acceleration 851. Sms = %g 852. Sml = %g 86. Seismic Base Shea 861. VX = 862.Vy = 8.1. Basic Structural System (check one) Bearing Wall
 Building Frame
 Moment Frame

☐ Dual ш/ Special Moment Frame ☐ Dual w/ Intermediate R/C or Special Steel

| Inverted Pendulum

88. ArchMech Components Anchored |
89. Lateral Design Control: Seismic |

9. Assumed Soil Bearing Capacity .



STRUCTURAL PLANS PREPARED FOR:

STANDARD DETAILS

OUNER: DR Horton Carolinas Division 8001 Arrowridge Blvd Charlotte, NC 28213

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 SUPTHT Engineering, Laboratory 4 Testing,

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	R6	ROOF SUPPORT
W	CEILING JOIST	SC	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SFF	SPRUCE PINE FIR
D5P	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
P6I	POUNDS PER SQUARE INCH	WUF	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 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 50MMIT immediately.

REVISION LIST:

Date

7.12.17

2.15.18

12,19,18

3119

3.6.19

4 22818

6 2,19,19

9 3220

Revision

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

Description

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

options with basement. Revised deck opti stem wall and crawl space foundations

Revised per Mecklerburg County Comments

Corrected dimensions at perimeter footings

evised stem wall deck attachment and roof

rised stem wall insulation note

Revised garage door detail, NC only

Added high-wind foundation details

evised per 2018 NCRC

seathing on wall sections.

Added tall turndown detail

DR HORTON PROJECT SIGN-OFF: Signature Operations Operations Syste Operations Produc Development

SUMMIT



GENERAL STRUCTURAL NOTES:

- NERAL 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 after, or defecte any structural aspects of tress construction documents without written pernission of \$50HTI Engineering, Laboratory 4 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.

 Any structural elements or details not fully developed on the any structural elements or details not roug developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMIT for review before any construction begins. The shop drawings will be reviewed for overall compilance as it relates to the structural design of this project. Verification of the shop drawings for disease, so for saying field executions. 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 responsibility of the SER. The contractor shall verify the field conditions for accuracy and report any discrepancies to SUMMIT before
- accuracy and report any discrepancies to durini percre 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
- and a policios excitors 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.

investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any solverse soil condition be encountered the SER must be contacted before proceeding.

- 2. The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade. 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%
- The resulting soil shall be compacted to a liminary of 30% 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 shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design"
- latest editions.

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

 3. All steel shall have a minimum yield stress (F_u) of 36 ksl unless otherwise noted.

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

- CONCRETE:

 L. Concrets shall have a normal weight, aggregate and a minimum compressive strength (1°2) at 28 days of 3000 psi, unless otherwise noted on the plan.

 C. Concrete shall be proportioned, mixed, and placed in accordance with the lasts 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 resemble to the concrete must be used for all structural elements.
- an abundus de most be used to all solutions element exposed to freezet/hau cycles and delcing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
- 3J. Footings: 5% 32. Exterior Slabs: 5% 4. 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 pcl and a design loading of 200 psf. The SER is not responsible for differential settlement, slab par. The out is not responsible for differential settlement, cracking or other future defects resulting from urreported conditions not in accordance with the above assumptions. Control or saw out joints shall be spaced in interior
- slabs-on-grade at a maximum of IB*0° OC, and in exterior slabs-on-grade at a maximum of I0° 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.
- Reinforcing steel may not extend through a control joint.
- Reinforcing steel may extend through a saw cut Joint.

 All welded wire fabric (WWF) for concrete slabs-on-grade shall be placed at incl-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
- water nigration, an increase in impact capacity, increased abrasion resistance, and residual strength.
 Fibermesh reinforcing to be 100% virigin polypropylene fibers containing no reprocessed olefin naterials 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 Cillis, any local building code reculirements, and shall meet or exceed the current industry standard.
- Steel reinforcing bars shall be new billet steel conforming to
- Steel reinforcing pars shall be new billet steel conforming to ASTM A6I5, grade 60.

 Detailling, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 3I5: "Manual of Standard Fractice 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
- Lap reinforcement as required, a minimum of 40 bar diameters for tension or compression unless otherwise noted. Splices in masorry 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
- Solid sawn wood framing members shall conform to the specifications listed in the latest edition of the "National specifications insert in the insert equitor or many National Design Specification for Wood Construction* (NDS). Inless otherwise noted, all wood framing members are designed to be Spruce-Yellou-Pine (SPT) 7.

 LVL. or PSL engineered wood shall have the following minimum deaters are the services of the control of the cont
- design values: 21. E = 1,900,000 psi 22. F_b = 2600 psl 23. F_v = 285 psl
- 2.4.Fe = 700 psl Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-15. All other noisture exposed wood shall be treated in accordance
- with AWPA standard C-2 Nails shall be common wire nails unless otherwise noted. Lag screus shall conform to ANSI/ASTE standard BI821-1981. Lead holes for lag screus shall be in accordance with NDS
- All beams shall have full bearing on supporting framing members
- uniess ornemuse noted.

 Exterior and load bearing stud walls are to be 2x4 SYP 2 e 16*

 O.C. unless otherwise noted, Studs shall be continuous from the sole plate to the double top plate. Studs shall only be
- sole plate to the double top plate. Studs shall only be discontinuous at headers for windowldoor openings. A minimum 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 l@d 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) l@d nalls *6 24" O.C.
- 10. Flitch beams, 4-ply beams and 3-ply side loaded beams shall be bolted together with (2) rows 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:

- The wood truss manufacturer/labricator is responsible for the design of the wood trusses. Submit sealed shop drawings and 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."
- rimmun besign Loads for buildings and other structures, (ASCE 1-25), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to
- the trusses.

 3. The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction." (NDS) and "Design Specification for Metal Plate Connected Wood Trusses."
- specification for Metal Plate Connected Wood Trusses."
 The truss manufacture shall provide adequate bracing
 information in accordance with "Commentary and
 Recommendations for Handling, Installing, and Bracing Metal
 Plate Connected Wood Trusses" (HIB-9). This bracing, both
 temporary and pernament, shall be shown on the shop drawings.
 Also, the shop drawings shall show the required attachments for
- the trusses.

 Any chords or truss webs shown on these drawings have been shoun 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.
- 2. All structurally required wood sheathing shall bear the mark of

- 3. Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to fraining, 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 fraining with (1)-8d CC nall at 6°0/c at panel edges and at 12°0/c in panel field under some otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to fraining. Sheathing shall have a span rating consistent with the fraining spacing. Use suitable edge support by use of plyuood clips or inhore blocking unless otherwise noted. Panel and Joints shall occur
- over training, 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 fraining with (IV-8d CC Ingshark nail at 6°o/c at panel edges and at 12°o/c in panel field unless otherwise noted on the plane. Sheathing shall be nield unless outeruise noted on the plans, breathing shall be applied perpendicular to framing, Sheathing shall have a span rating consistent with the fraining spacing, Use suitable edge support by use of TMG plywood or lumber blocking unless otherwise noted. Panel and Joints shall occur over framing, Apply building paper over the sheathing as required by the state Building Code.

 Sheathing shall have a 18th gap at panel ends and edges as recommended in accordance with the APA.

- STRUCTURAL FIBEREDARD 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 VB" gap at panel ends and edges are recommended in accordance with the AFA.

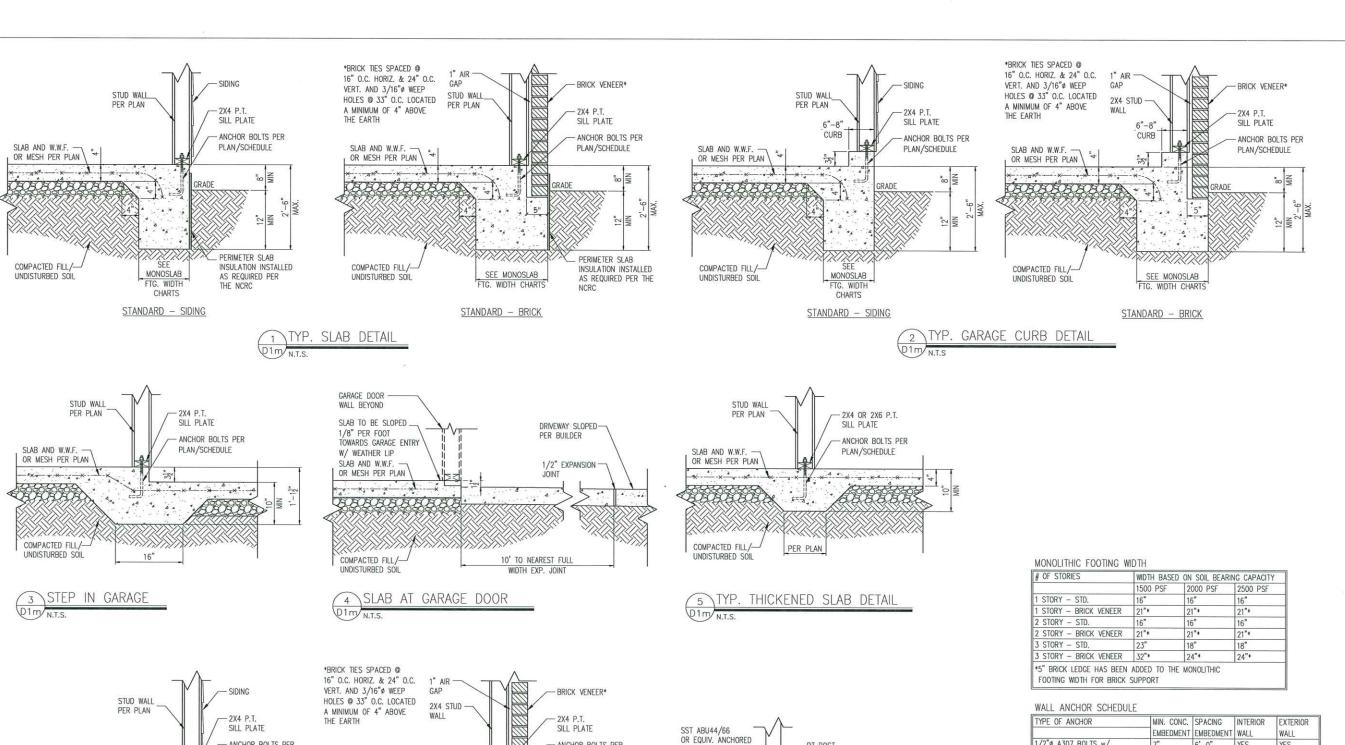


SCALE THAT WATER DRAIN BY: LAG

PROJECT *

RETER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

CSI



w/ 1/2"ø BOLT -

w / 7" EMBEDMENT

PATIO SLAB -PER PLAN

PER PLAN

OR CONTINUOUS

LUG FOOTING PER PLAN

PER PLAN

6A COVERED PATIO DETAIL

- COMPACTED FILL/

UNDISTURBED SOIL

- ANCHOR BOLTS PER

PERIMETER SLAB

AS REQUIRED PER

INSULATION INSTALLED

PLAN/SCHEDULE

PATIO SLAB

SEE MONOSLAB

FTG. WIDTH CHARTS

STANDARD - BRICK

- ANCHOR BOLTS PER

PERIMETER SLAB

AS REQUIRED PER

THE NCRC

INSULATION INSTALLED

PATIO SLAB

SEE

MONOSLAE

FTG. WIDTH

CHARTS

STANDARD - SIDING

PLAN/SCHEDULE 1/D1

SLAB AND W.W.F. -

COMPACTED FILL /-

UNDISTURBED SOIL

PATIO SLAB DETAIL

OR MESH PER PLAN

SLAB AND W.W.F.

OR MESH PER PLAN

COMPACTED FILL /-

UNDISTURBED SOIL

TYPE OF ANCHOR	MIN. CONC.		INTERIOR	EXTERIOR
	EWREDWEN I	EMBEDMENT	WALL	WALL
1/2"ø A307 BOLTS w/ STD. 90' BEND	7"	6'-0"	YES	YES
- Indiana				
SST - MAS	4"	5'-0"	NO	YES
HILTI KWK BOLT KBI 1/2-2-3/4	2-1/4"	6'-0"	YES	NO
1/2"ø HILTI THREADED ROD w/ HIT HY150 ADHESIVE	7"	6'-0"	YES	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.
- 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 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



Details

Foundation

Slab

SUMMIT

DATE 1/20 BCALS 2204 WINTER PROJECT & P-PMT-ER CHECKED BY: ILW

ORISNAL INCREATED DATE USASET

REFER TO COVER SHEET FOR A CONFILETE LIST OF REVISIONS

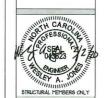
DIM

BRICK TIES SPACED @ 16" O.C. HORIZ. & 24" O.C. VERT. AND 3/16"Ø WEEP -BRICK VENEER HOLES @ 33" O.C. LOCATED STUD WALL A MINIMUM OF 4" ABOVE PER PLAN THE FARTH SILL PLATE 3" ANCHOR BOLTS SLAB AND W.W.F. -@ 6'-0" O.C. (MAX) OR MESH PER PLAN COMPACTED FILL/-UNDISTURBED SOIL #4 REBAR @ 24" O.C. HORIZ. #4 REBAR @ 36" O.C. VERT. PERIMETER SLAB (2) #4 REBAR -CONTINUOUS INSULATION INSTALLED PER PLAN AS REQUIRED PER TABLE N1102.1.2 OF THE NCRC

TALL SLAB DETAIL

Foundation <u>S</u> PROJECT: Standard Details Monolithic (

Det



SUMMIT

DATE: 3/1/20 SCALE THAN WATER PROJECT & P-PMT-KIR CHECKED BY: UN

RETER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2m

NOTES:

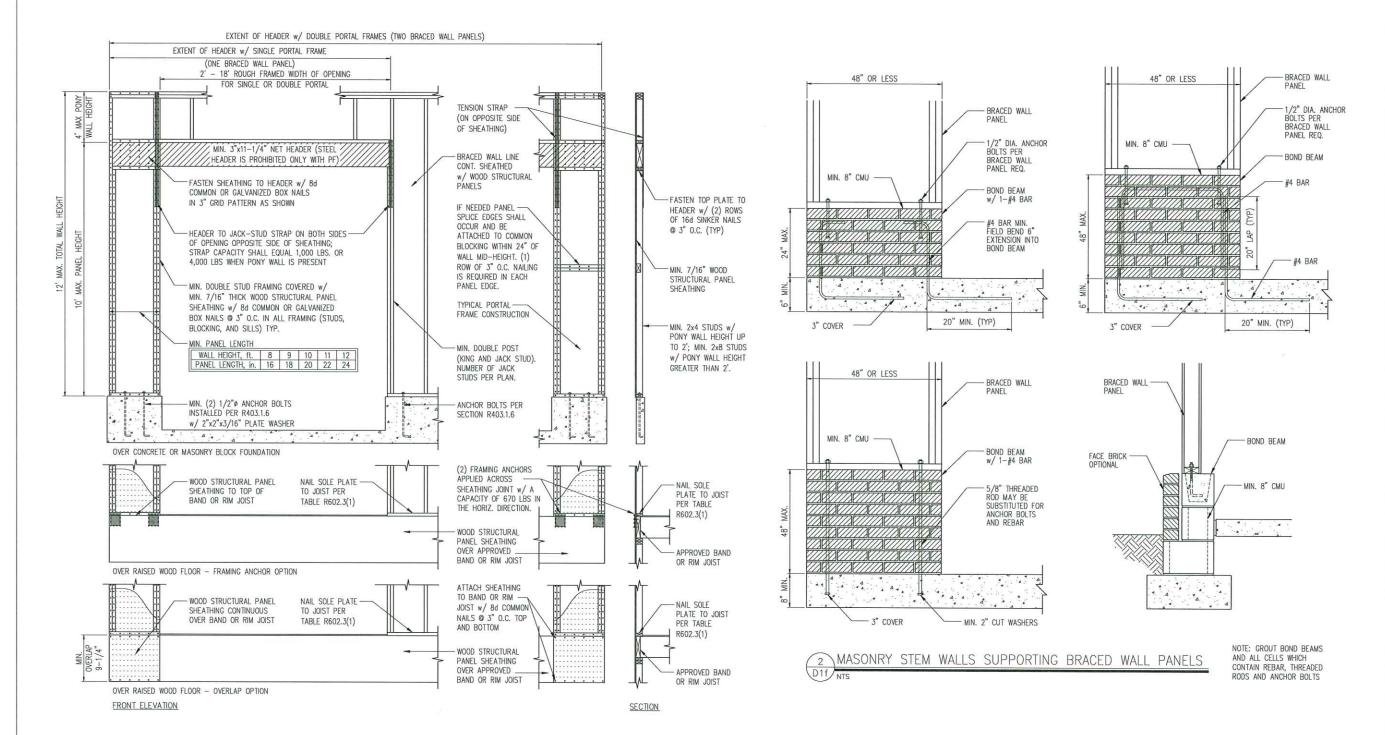
1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.

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 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



METHOD PF: PORTAL FRAME DETAIL







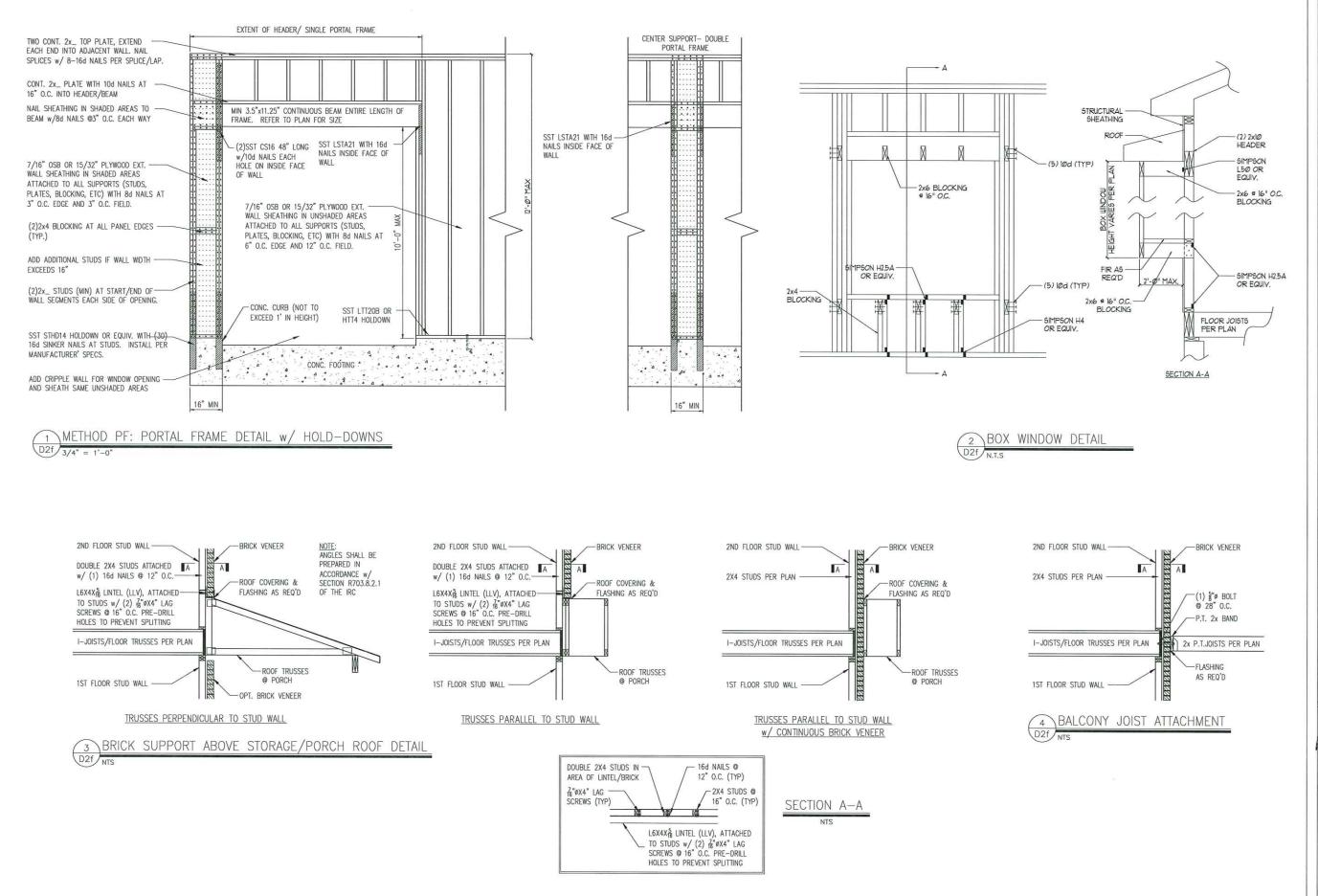
Det D 25 PROJECT: Standard | Framír



BCALB 7254 WINTER BOT 18917-89 GEORD BY: IN

REFER TO COVER BLEET FOR A COMPLETE LIST OF REVISIONS

DIF



SUMMIT





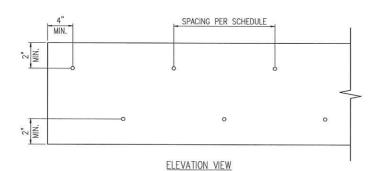
tails Det Ø



DATE: \$1/16 BOTH WHITE DRAIN BY: LAG GEORED BTI IN

RETER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2f



MINIMUM FASTE	NING [31/:" WIDE 51/:" WIDE				7° WIDE			
REQUIREMENTS Top- and side- Members									
FRSTENER TYPE	LVL DEPTH	2-Ply 13/4"	3-Ply 13/4"	13/4" + 31/2"	4-Ply 13/4"	2-Ply 1¾" + 3½"	2-Ply 31/2"		
10d (0.128" x 3") Nails	7¼"≤d<14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.		3 rows @ 12" o.c. (ES)			
	d≥14"	4 rows @ 12" o.c.	4 rows @ 12" o.c. (ES)	4 rows @ 12" o.c.		4 rows @ 12" o.c. (ES)			
16d (0.162" x 3½") Nails	7¼"≤d<14"	2 rows @ 12" o.c.	2 rows @ 12" o.c. (ES)	2 rows @ 12" o.c.		2 rows @ 12" o.c. (ES)			
	d≥14"	3 rows @ 12" o.c.	3 rows @ 12" o.c. (ES)	3 rows @ 12" o.c.		3 rows @ 12" o.c. (ES)			
1/2" Through Bolts		2 rows @ 24" o.c.	2 rows @ 24" o.c.		2 rows @ 24" o.c.				
SDS ¼" x 3½", WS35, 3½" TrussLok		2 rows @ 24" o.c.	2 rows @ 24" o.c. (ES)	2 rows @ 24" o.c.		2 rows @ 24" o.c. (ES)			
SDS 1/4" x 6", WS6	d≥7¼"	0.50				2 rows @ 24" o.c. (ES)			
5" TrussLok			2 rows @ 24" o.c.						
6¾" TrussLok					2 rows @ 24" o.c.				

NOTES:

1.All fasteners must meet the minimum requirements in the table above. Side-loaded multiple-ply members must meet the minimum fastening and side-loading capacity requirements given on page 48.

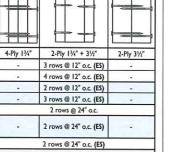
2. Minimum fastening requirements for depths less than 71/4" require special consideration Please contact your technical representative.

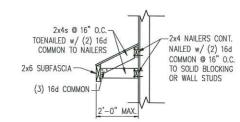
3. Three general rules for staggering or offsetting for a certain fastener schedule:

(1) if staggering or offsetting is not referenced, then none is required;

(2) if staggering is referenced, then fasteners installed in adjacent rows on the front side are to be staggered up to one-half the o.c. spacing, but maintaining the fastener clearances above; and

(3) if "ES" is referenced, then the fastener schedule must be repeated on each side, with the fasteners on the back side offset up to one-half the o.c. spacing of the front side (whether or not it is staggered).



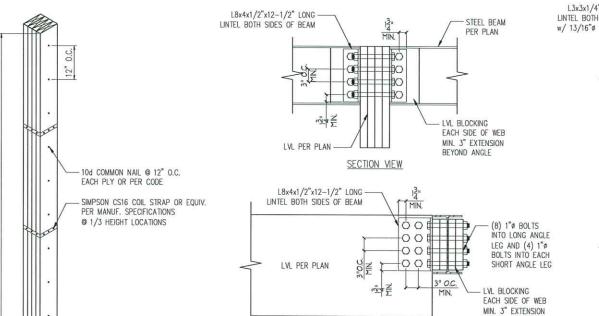


GABLE ROOF RETURN D3f N.T.S.

1 MULTI-PLY BEAM CONNECTION DETAIL D3f N.T.S

MULTI-PLY STUD CONNECTION DETAIL

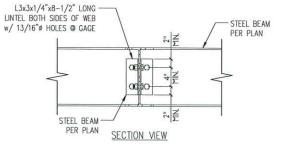
D3f N.T.S

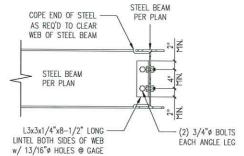




BEYOND ANGLE







ELEVATION VIEW



SUMMIT

PROJECT: Standard Details Framing Details

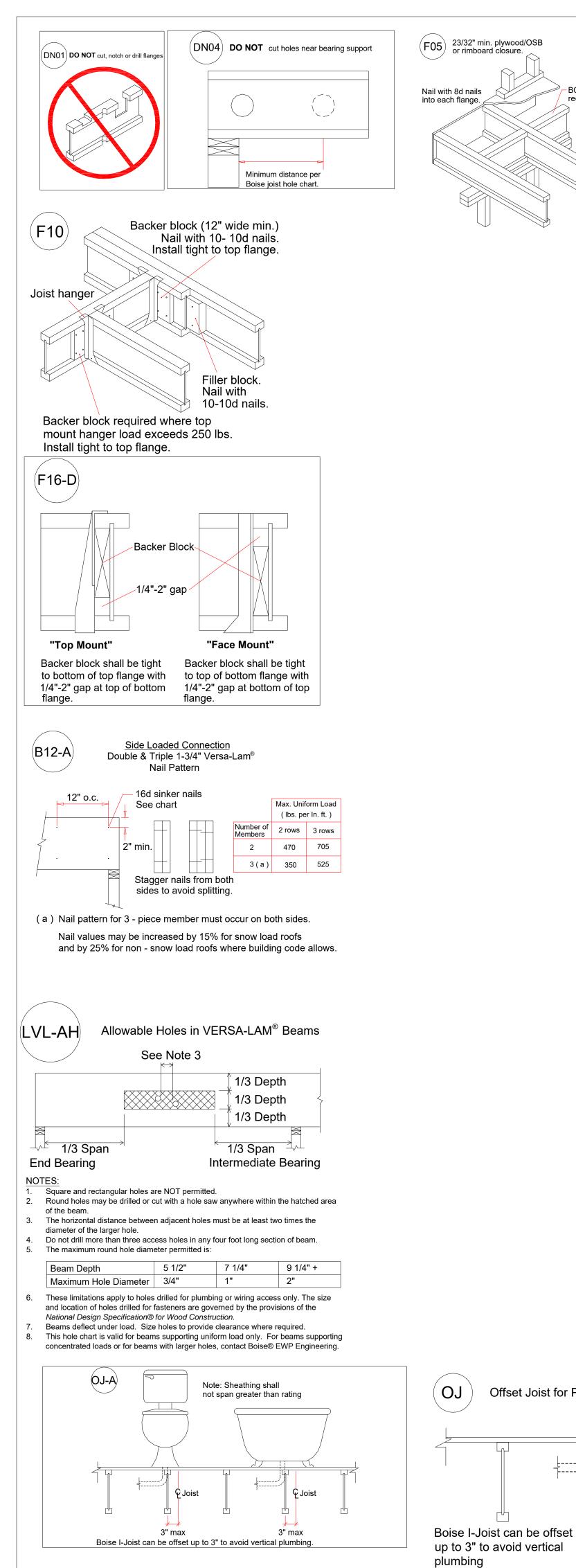


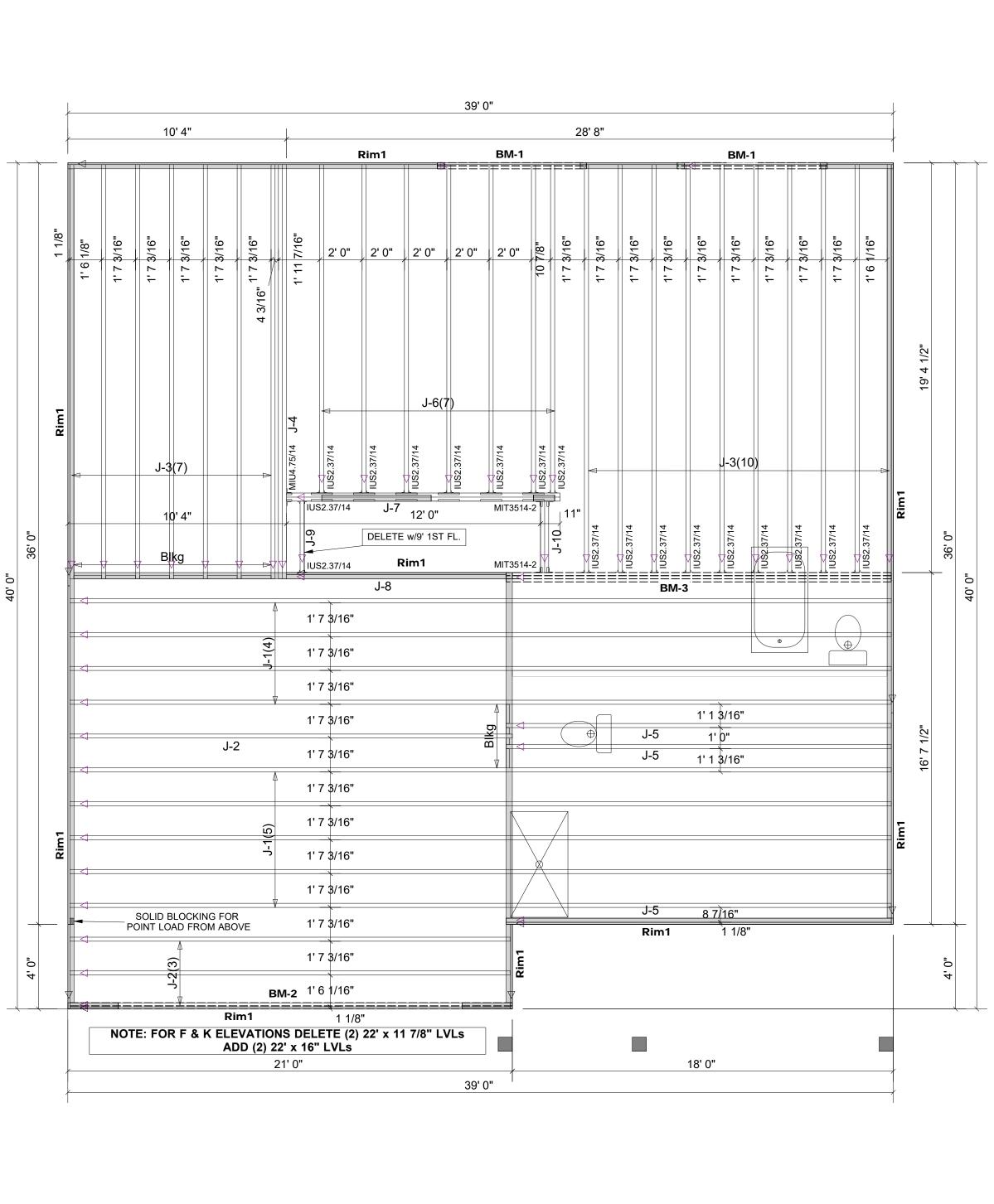
DATE 3/2/28 BOALD THAT WINTER PROJECT & P-RIGH-IGR DRAWN BY: LAG CAECKED BY: WA

PROJECT DATE UNCONT

REFER TO COVER SHEET FOR A CONFILETE LIST OF REVISIONS

D3f





PLUMBING SYMBOLS SHOWN ARE APPROXIMATE LOCATIONS ONLY.

CLEAR DISTANCE FOR FLOOR DECKING NOT TO EXCEED RATING.

*** I-JOIST FLANGES ARE NEVER TO BE CUT ***

BUILDER TO FIELD VERIFY ACTUAL LOCATIONS TO AVOID

NOTE PLUMBING DROPS:

POSSIBLE CONFLICTS WITH JOISTS.

♀ Joist

Note: Sheathing shall

not span greater than rating

See Boise literature for

vertical load capacity.

to BCI[®] joist with 8d nail into each flange.

See Boise literature for

(F07-A)

(F06)

BCI[®] Joist Blocking –

See Boise literature for

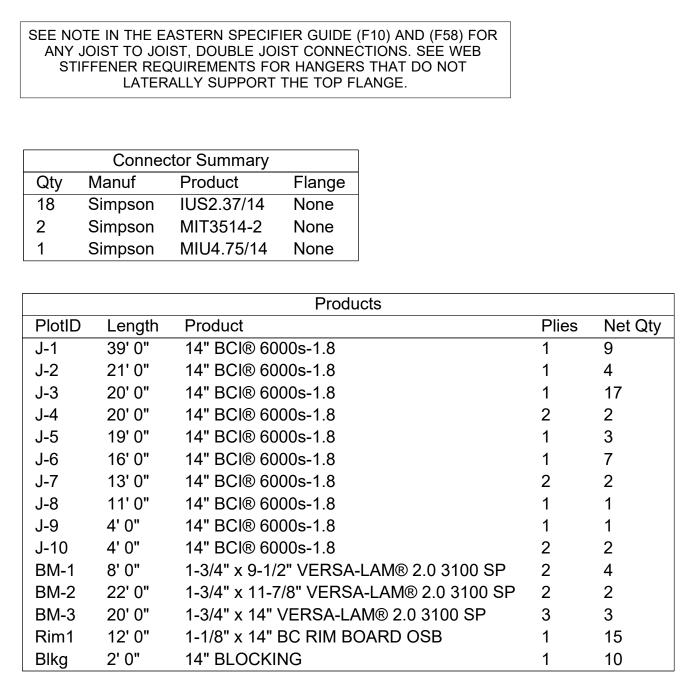
vertical load capacity.

-BCI[®] joist blocking

required for cantilever.

Load bearing wall above

(stacked over wall below)



Double BCI[®] Joist

Contact Boise EWP Engineering for specific conditions.

Filler Block (see literature)

Connection

Web-Filler

Nailing 12" OC

Connection valid for all applications.

Solid block all posts from

above to bearing below.

Refer to I-Joist manufacturer's product guide for additional details, such as squash blocks/blocking

for concentrated/line loads as required.

Solid block all posts from

above to bearing below.

NOT FOR CONSTRUCTION

Nail each end with 1 - 3" (10d) nail

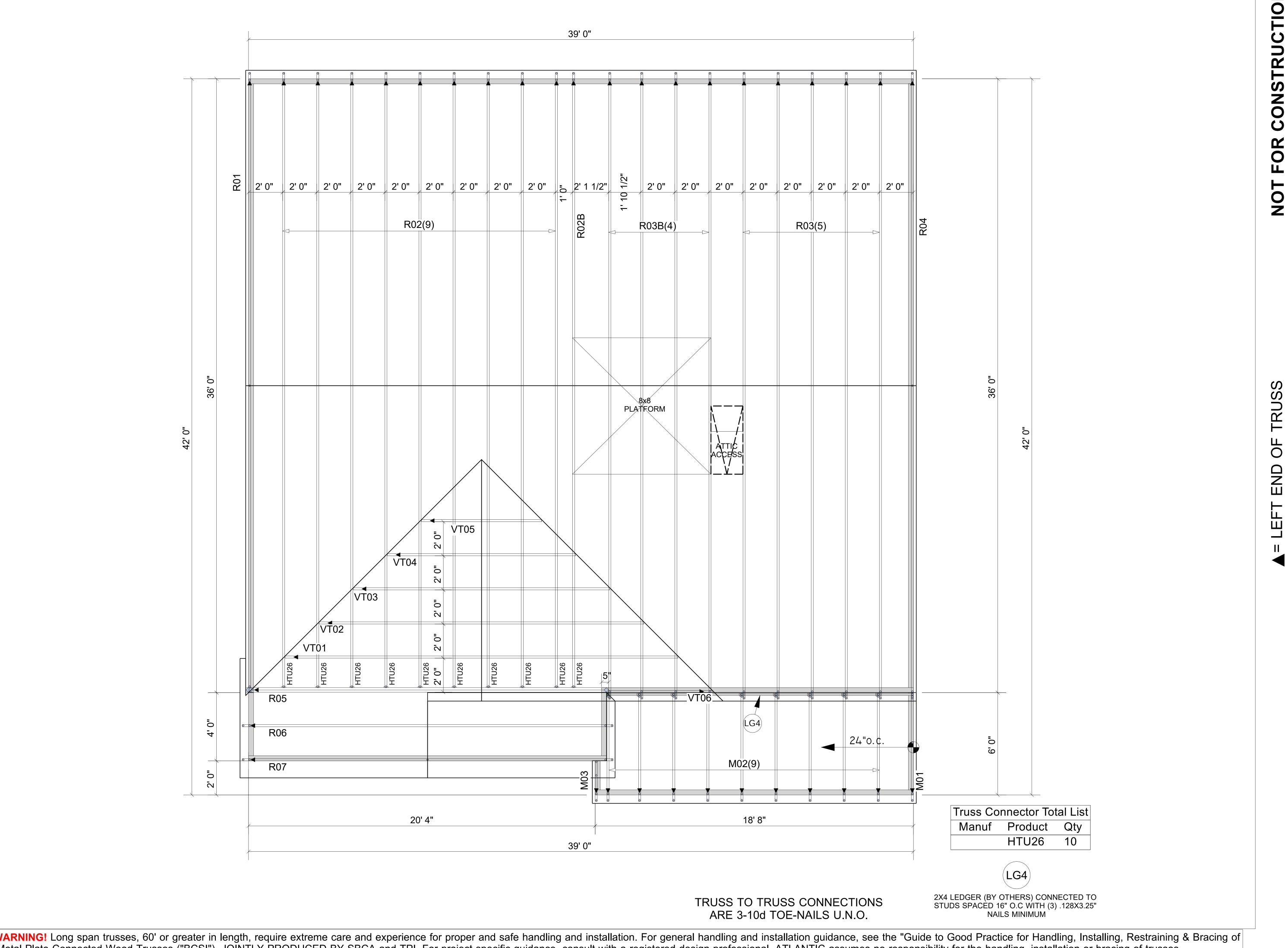
1½" minimum end bearing length

at all floor and roof details.

RALEIGH	49786-0230 WOODGROVE			Date: / /	
Client: DR HORTON-RALEIGH	Job: 49786-0230 V	Plan Information:	2512-K	NOT TO SCALE	Jrawn Ry.
<u> </u>		<u>L</u>			

I-JOISTS





LEVEL NOT FOR CONSTRUCTION DR HORTON-RALEIGH NOT TO SC Drawn By:



WARNING! Long span trusses, 60' or greater in length, require extreme care and experience for proper and installation. For general handling and installation guidance, see the "Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), JOINTLY PRODUCED BY SBCA and TPI. For project specific guidance, consult with a registered design professional. ATLANTIC assumes no responsibility for the handling, installation or bracing of trusses.