ABBREVIATIONS INDEX L LENGTH LA LAUNDRY LAY LAYATORY LYR LOUVER MAX MAXIMIM MECH MECHANICAL MER. MANUFACTURER MINIMUM MISC MISCELLANEOUS AD. AREA DRAIN AD.J ADJUSTABLE ALT ALTERNATE ALIMINM ARCH. ARCHITECTURAL BA BATHROOM BD BOARD BF BI-FOLD (DOOR) FRONT ELEVATION 'K' TITLE SHEET / COVER SHEET ΙK 0 0.1 QUICK VIEW I.I K ROOF PLAN 'K' SIDE AND REAR ELEVATIONS 'K' 0.2 QUICK VIEW 2K MECELLANGUS NORTH NT.5. NOT TO SCALE NOT TO SCALE OF THE NOT BLOCK (CMUs) BLING BLK BLOCK (CMUs) BLM BELOW BM BEAM BP BI-PASS (DOOR) FRONT FLEVATION 'A' SIDE AND REAR ELEVATIONS 'K'-ΙA 2.I K I.I A ROOF PLAN 'A' W CRANL SPACE DE BEANGE (DOOR) BOT BOTTOM BINN BETWEEN BOT BOTTOM BINN BETWEEN CAB CABNET CAB CABNET CAB CARNOL JOINT OR CONSTRUCTION JOINT CL (LOSET OR CENTER LINE CL COLLEGE CALL COMMETE MASOINTY UNIT CAN COMMETE CAN COMME SIDE AND REAR ELEVATIONS 'A' SIDE AND REAR ELEVATIONS 'K'-2 A SIDE AND REAR ELEVATIONS 'A'-W/ BASEMENT 2.I A W CRAWL SPACE MONOLITHIC SLAB PLAN 'K' SIDE AND REAR ELEVATIONS 'A'-2.2 A STEM WALL PLAN 'K' 3 SW K W/ BASEMENT 3 (SK CRAWL SPACE PLAN K 3 MS A MONOLITHIC SLAB PLAN 'A' BASEMENT PLAN 'K' STEM WALL PLAN 'A' 4 K IST FLOOR PLAN 'K' 3 SW A CRAWL SPACE PLAN 'A' 3 CS A 5 K 2ND FLOOR PLAN 'K' C.I. CERAMIC IILE D PRYTER DBL DOUBLE DH DOUBLE HANS DIM DINENSION DISP DISPOSAL DN DOON DR DOON DR DOON DS DOWNSPOUT DW DISH MASHER DWG DRAWING E EAST EA EACH BUY ELEVATION REG. REGUIRED SOUTH 59 SUTH 59 SUTH 59 SUTH 50 SHAKE PETEL DOOR 51 SURVER PETEL DOOR 51 SURVER PETEL DOOR 51 SURVER PUT SURVER 54 SURVER PUT SURVER 55 SURVER 56 SURVER 57 SURVER 50 SURV BASEMENT PLAN 'A' 3 BS A 4 A IST FLOOR PLAN 'A' ΙP FRONT ELEVATION 'P' 2ND FLOOR PLAN 'A' 5 A 1.1 P ROOF PLAN 'P' SIDE AND REAR ELEVATIONS 'P' ΙB FRONT ELEVATION 'B' SIDE AND REAR ELEVATIONS 'P'-E AOJ EA EACH ELV ELVATION FALL FORCED AIR UNIT F.C. FLOOR CHAINE F.D. FLOOR CHAINE F.D. FLOOR CHAINE F.C. FINISH FLOOR LINE F.C. FRIED CHAINE ELVATION I.I B ROOF PLAN 'B W/ CRAWL SPACE 2 B SIDE AND REAR ELEVATIONS 'B' SIDE AND REAR ELEVATIONS 'P'-2.I B SIDE AND REAR ELEVATIONS 'B' W/ BASEMENT W CRAWL SPACE 3 MS P MONOLITHIC SLAB PLAN 'P' 2.2 B SIDE AND REAR ELEVATIONS 'B'-3 SW P STEM WALL PLAN 'P' UNA. UNLESS NOTED OTHERWISE W/ BASEMENT CRAWL SPACE PLAN 'P' V.B. VAPOR BARRIER VERT VERTICAL V.T.R. VENT THRU ROOF 3 (SP 3 MS B MONOLITHIC SLAB PLAN 'B' 3 BS P BASEMENT PLAN 'P' V.T.R. VENT THRU ROOF IN MASHING MACHINE ND MOOD NDM INIDOM NH MATER HEATER IN WOOD NIC MALK-IN CLOSET W WO WITH OR NITHOUT NP MATERREPROOF(ING) WHM MELDED MIRE MESH 3 SW B STEM WALL PLAN 'B' 4 P IST FLOOR PLAN 'P' CRAWL SPACE PLAN 'B' 2ND FLOOR PLAN 'P' 3 (SB 5 P 3 BS B BASEMENT PLAN 'B' IST FLOOR PLAN 'B' 4 B ΙR FRONT ELEVATION 'R' GL GLASS OR GLAZING OFF PD GYSPAN BOARD HB HOSE DIBB HD HEAD OR HARD HDR HEADER HCT HEADER HAVAC HEATING/VENTILATING/AIR COND. HBT INTERIOR JUNI JUNI KIT KITCHEN #L PROPERTY LINE Ø ROUND / DIAMETER 2ND FLOOR PLAN 'B' 5 B IJ₽ ROOF PLAN 'R' SIDE AND REAR ELEVATIONS 'R' 2R FRONT ELEVATION 'F' ΙF SIDE AND REAR ELEVATIONS 'R'-ROOF PLAN 'F' LLE W/ CRAWL SPACE SIDE AND REAR ELEVATIONS 'F' 2 F SIDE AND REAR ELEVATIONS 'R'-2.I F SIDE AND REAR ELEVATIONS 'F'-W/ BASEMENT BUILDING CODE COMPLIANCE / W/ CRAWL SPACE MONOLITHIC SLAB PLAN 'R' 3 MS R 2.2 F SIDE AND REAR ELEVATIONS 'B'-STEM WALL PLAN 'R' 3 SW R PROJECT INFORMATION W/ BASEMENT CRAWL SPACE PLAN 'R' 3 (5 R ALL CONSTRUCTION TO COMPLY WITH LOCAL CODES AND ORDINANCES MONOLITHIC SLAB PLAN 'F' BASEMENT PLAN 'R' 3 MS F 3 BS R CURRENTLY IN USE WITH THE LOCAL JURISDICTION. STEM WALL PLAN 'F' IST FLOOR PLAN 'R' 3 SW F 4 R CRAWL SPACE PLAN 'F' 2ND FLOOR PLAN 'R' 3 CS F 5 R FOLLOW ALL APPLICABLE STATE AND LOCAL CODES. 2018 NORTH CAROLINA STATE SUPPLEMENTS AND AMENDMENTS BASEMENT PLAN 'E' 3 BS F 4 F IST FLOOR PLAN 'F' IAS BUILDING SECTIONS 2ND FLOOR PLAN 'F' CONTRACTOR AND BUILDER SHALL REVIEW ENTIRE PLAN TO VERIFY CONFORMANCE WITH ALL CURRENT APPLICABLE CODES IN EFFECT AT TIME OF CONSTRUCTION. BY USING THESE DRAWINGS FOR CONSTRUCTION IT IS UNDERSTOOD THAT CONFORMANCE WITH ALL APPLICABLE CODES IS THE RESPONSIBILITY OF THE BUILDER AND CONTRACTOR. 5 F BUILDING SECTIONS LLAS I.I.2 A S BUILDING SECTIONS I.I.3 A S BUILDING SECTIONS BASEMENT UTILITY PLAN SINGLE FAMILY RESIDENCE IST FLOOR UTILITY PLAN 2ND FLOOR UTILITY PLAN OCCUPANCY CLASSIFICATION ARCHITECTURAL SHEETS RESIDENTIAL R-3 CONSTRUCTION TYPE ALL CONSULTANT DRAWINGS ACCOMPANYING THESE ARCHITECTURAL DRAWINGS HAVE NOT BEEN PREPARED BY OR UNDER THE DIRECTION OF GMD DESIGN GROUP, INC. GMD DESIGN GROUP INC. THEREFORE ASSUMES NO LIABILITY FOR THE COMPLETENESS OR CORRECTNESS OF THESE DRAWINGS

EXPRESS HOMES 40' SFRIFS MODEL 'HAYDEN' - RH

WOODGROVE LOT 220 PINK DOGWOOD WAY PIN 0653-76-2468.000 **FUQUAY VARINA, NC 27526**



NO: DATE: REVISION: A 04.15.21 PROFESSIONAL SEAL

PROJECT TITLE: PLAN CHANGES: 40' Series DESCRIPTION: 02.22.21 INITIAL PLAN RELEASE 03.10.21 CLIENT REVISIONS 04.14.21 CLIENT REVISIONS 04 15 21 CLIENT REVISIONS

Ist FLOOR

2nd FLOOR

GARAGE

TOTAL LIVING

OPT. BASEMENT

OPT. COVERED PORCH

CONSULTANTS:

FOR CONSTRUCTION

GENERAL NOTES DESIGNER NORTH CAROLINA:

THESE DOCUMENTS ARE THE PROPERTY OF THE DESIGNER AND SHALL NOT BE COPIED, DUPLICATED, ALTERED, MODIFIED OR REVISED IN ANY WAY WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE DESIGNER.

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 OMISSIONS FOUND IN THESE DRAWINGS SHALL BE BROUGHT TO

DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED

ALL DIMENSIONS ARE TO FACE OF STUD OR TO FACE OF FRAMING UNLESS

ALL TRUSS DRAWINGS TO BE REVIEWED AND APPROVED BY THE STRUCTURAL ALL OR EQUAL SUBSTITUTIONS MUST BE SUBMITTED 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 VERIFY.

PROVIDE BLOCKING AND/OR BACKING AT ALL TOWEL BAR, TOWEL RING AND/OR TOILET PAPER HOLDER LOCATIONS, AS SHOWN PER PLAN. TYPICAL AT ALL BATHROOMS AND POWDER ROOMS. VERIFY LOCATIONS AT FRAMING WALK.

ELASTOMERIC SHEET WATERPROOFING: FURNISH AND INSTALL ALL WATERPROOFING ASPHALT INTEGRALLY BONDED TO POLYETHYLENE 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. RESPONSIBILITY OF THE GENERAL CONTRACTOR, UNLESS DIRECTED OTHERWISE

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 GENERAL 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
GEOTECHNICAL ENGINEER (SOILS REPORT), ON THE STUDY OF THE PROPOSED SITE,
TO THE DESIGNES, STRUCTRAL ENGINEER, AND GENERAL CONTRACTOR. IN THE
EVENT THE GEOTECHNICAL REPORTS DO NOT EXIST, THE SOILS CONDITION SHALL
BE ASSIMED TO BE A MINIMAL DESIGNS SOIL PRESSURE STATED BY THE
STRUCTURAL ENGINEER OF RECORD FOR THE PURPOSE OF STRUCTURAL DESIGN. GENERAL CONTRACTOR SHALL ASSURE THE SOIL CONDITIONS MEET OR EXCEED

ALL WORK PERFORMED BY THE GENERAL CONTRACTOR SHALL COMPLY AND CONFORM WITH LOCAL AND STATE BUILDING CODES, ORDINANCES AND THE REPORT OF THESE REQUIREMENTS. AND GOVERNING REGULATIONS.

PROVIDE AN APPROVED WASHER DRAIN PAN AT SECOND FLOOR ONLY

WINDOM SUPPLIER TO VERIFY AT LEAST ONE WINDOM IN ALL BEDROOMS TO HAVE A CLEAR OPENABLE AREA OF 4,0 SQ FT. THE MINIMM NET CLEAR OPENING HEIGHT SHALL BE 22" AND THE MINIMM NET CLEAR OPENING HEIGHT SHALL BE 22" AND THE MINIMM NET CLEAR OPENING WIDTH SHALL BE 20". GLAZING TOTAL AREA OF NOT LESS THAN 5,0 SQ FT IN THE CASE OF A GROUND MINDOM AND NOT LESS THAN 5,7 SQ FT IN THE CASE OF A GROUND MINDOM AND NOT LESS THAN 5,7 SQ FT IN THE CASE OF AN UPPER STORY WINDOW, (PER NORG SECTION R3)

ALL HANDRAIL BALLUSTERS TO BE SPACED SUCH THAT A 4" SPHERE CANNOT PASS PROVIDE STAIR HANDRAILS AND GUARDRAILS PER

BUILDER SET:

THE SCOPE OF THIS SET OF PLANS IS TO PROVIDE A "BUILDER'S SET" OF CONSTRUCTION DOCUMENTS AND GENERAL NOTES HEREINAFTER REFERRED TO AS "PLANS" THIS SET OF PLANS IS SUFFICIENT TO OBTAIN A BUILDING PERMIT, HOWEVER, ALL MATERIALS AND METHODS OF CONSTRUCTION NECESSARY TO COMPLETE THE PROJECT ARE NOT AND HELPOUS OF CONSTRUCTION INCLESSANT TO COMPLETE HE PROJECT ARE NOT NECESSANTLY PESCRIBED. THE PLANS DELINEATE AND DESCRIBE ONLY LICATIONS, 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 THROROUGHLY KNOWLEDGEABLE WITH THE APPLICABLE BUILDING CODES. AND METHODS OF CONSTRUCTION SPECIFIC TO THIS PRODUCT TYPE AND TYPE OF CONSTRUCTION

CONSTRUCTION REQUIREMENTS AND QUALITY: PROVIDE WORK OF THE SPECIFIC QUALITY WHERE QUALITY LEVEL IS NOT INDICATED, PROVIDE WORK OF QUALITY CUSTOMARY IN SIMILAR TYPES OF WORK. WHERE THE PLANS AND SPECIFICATIONS, CODES, LAWS, REGULATIONS, THESE OF MORN. THERE THE FLAND AND SPECIFICATIONS, CODIES, LAND, RESULATIONS, MANUFACTURERS RECOMMENDATIONS OR INDUSTRY STANDARDS REQUIRE WORK OF HIGHER QUALITY OR PERFORMANCE, PROVIDE WORK COMPLYING WITH THOSE REQUIREMENTS AND QUALITY WERER TWO OR MORE QUALITY PROVISIONS OF THOSE REQUIREMENTS COMFLICT WITH THE MOST STRINGENT REQUIREMENTS, WHERE REQUIREMENTS ARE DIFFERENT BUT APPARENTLY EQUAL, AND HEREE IT IS UNCERTAIN MICH REQUIREMENT IS MOST STRINGENT, OBTAIN CLARIFICATION FROM THE 6MD DESIGN GROUP BEFORE PROCEEDING.

AREA CALCULATIONS:

MODEL 'HAYDEN' SQUARE FOOTAGES

BASEMENT AREA IS TAKEN TO INSIDE OF CONCRETE WALL



ELEV 'F', 'K

1066 SF

1445 SF

2511 SF

422 SF

109 SF

PROJECT NO: GMD17049

TITLE SHEET

January 22, 2021

N



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'-0"

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN, BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS, INIDION HEAD HEIGHTS, IST FLOOR = 6-6* UNJO, ON LEVATIONS, 2ND FLOOR = 1**0* UNJO, ON LEVATIONS, 2ND FLOOR = 1**0**UNJO, ON LEVATIO

- WINDOWS: MANUFACTURER PER DEVELOPER, DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS

- 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.)

KEY NOTES:

MASONRY:

ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.

2 MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.

MASONRY FULL STONE AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.

4 8" SOLDIER COURSE. 5 ROWLOCK COURSE

 N/A
 TYPICALS:
 CORROSION RESISTANT SCREEN LOWERED VENTS, SIZE AS NOTED. [8] CODE APPROVED TERMINATION CHIMNEY CAP.

[4] CORROSION RESISTANT ROOF TO WALL FLASHING, CODE COMPLIANT FLASHING PER NCRC R405.2.8.3

O STANDING SEAM METAL ROOF, INSTALL PER MANUFCATURER'S WRITTEN INSTRUCTIONS. DECORATIVE WROUGHT IRON, SEE DETAILS.

ALL INIDON'S MADE CIPIENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND MADSE OPENING IS GREATER THAN 12" ABOVE THE OUTSIDE MALKING SURFACE MAST HAVE NINDOW OPENING LIMING DEVICES COMPLYING WITH THE NORC SECTION R312.21 AND R312.22.

SIDING.

IZ VINTL SHAKE SIDING FER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER.

AT SPECIFIED LOCATIONS.

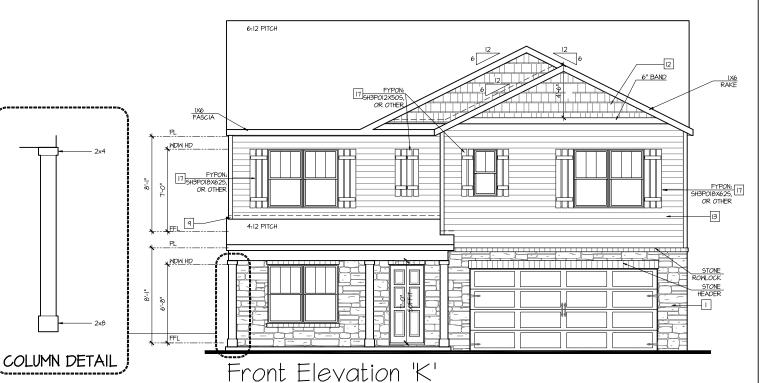
FIBER CEMENT SHAKE SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.) 3 VINYL LAP SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT LAP SIDING PER DEVELOPER W/ IX4 CORNER TRIM BOARD.) 4 VINYL WAVY SIDING PER DEVELOPER WITH VINYL CORNER TRIM PER DEVELOPER. (AT SPECIFIED LOCATIONS: FIBER CEMENT WAYY SIDING PER DEVELOPER W IX4 CORNER TRIM BOARD.) FIBER CEPERI PAVY SUINDS PER DEVELOPER WI NA CORNER IRIN PER DÉVELOPER.

(AT SPECIFIED LOCATIONS,
FIBER CEPERI PARALE SIDINS WI NS BATTS AT 12° O.C. PER DÉVELOPER WI NA CORNER TRIM BOARD.)

(B) VINVL TRIM SIZE AS NOTED

(AT SPECIFIC LOCATIONS,
IX FIBER CEPERIT TRIM OR EQUAL, UN.O. SIZE AS NOTED FYPON SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.

(AT SPECIFIC LOCATIONS: FALSE VINYL SHUTTERS, TYPE AS SHOWN, SIZE AS NOTED.)



NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION



PROJECT NO: 6MD17049

SHEET TITLE: 'HAYDEN' **EXTERIOR ELEVATIONS**

PRINT DATE: January 22, 2021

'4EPF-K'

1K

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

THE NET FREE VENTILATING AREA SHALL NOT BE LESS THAN I/I50 OF THE AREA OF THE SPACE VENTILATED, PROVIDED THAT AT LEAST 50 PERCENT AND NOT MORE THAN 80 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE THE FAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.

EXCEPTIONS:

1. EXCLOSED ATTIC/RAFTER SPACES REQUIRING LESS THAN
1.5Q FT OF VENTILATION MAY BE VENTED WITH CONTINUOUS
SOFFIT VENTILATION ONLY.

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 WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIOWN CALCULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION STOP SICH THAT INSULATION DOES NOT OBSTRUCT FREE AIR MOVEMENT AS REQUIRED BY THE BILLING OFFICIAL. BY THE BUILDING OFFICIAL.

BY THE BUILDING OFFICIAL.

ALL OVERLAP FRAMED ROOF AREAS SHALL HAVE OPENINGS BETWEEN THE ADJACENT ATTICS IN THE ROOF SHEATHING KAS ALLOWED BY THE STRUCTURAL ENGINEER) TO ALLOW PASSAGE AND ATTIC VENTILATION BETWEEN THE TWO OR ISOLATED ATTIC SPACES SHALL BE VENTED INDEPENDENTLY TO CAS CREQUIREMENTS.

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 *144 SQ IN = 1 SQ FT

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

BLDG. (SQ. IN.) / ISO = SQ. IN. OF VENT REQUIRED

ROOF AREA I:= 1488 5F 1488 50, FT. X 144 = 214272 50, IN. 214272 50, IN. / 150 = 1428.48 50, IN. OF VENT REQID

ROOF AREA 2:= 34 SF 34 SQ, FT, X I44 = 56I6 SQ, IN, 56I6 SQ, IN, / I50 = 31.44 SQ, IN, *O*F VENT REQ'D

ROOF AREA 3:= 180 SF 180 SQ, FT. X 144 = 25420 SQ, IN. 25420 SQ, IN. / 150 = 172.80 SQ, 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.

- TRUSS MANUFACTURER SHALL SUBMIT STRUCTURAL CALCS AND SHOP DRAWINGS TO THE BUILDER'S GENERAL CONTRACTOR AND BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATIONS.
- ALL PLUMBING 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 1/150 RATIO LISTED ABOVE, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM - IN - WINTER SIDE OF THE CEILING.

GENERAL CONTRACTOR SHALL VERIFY THE NET FREE VENTILATION OF THE VENT PRODUCT SELECTED BY OWNER. VERIFY WITH MANUFACTURER OF HIGH AND LOW VENTS TO BE USED FOR MINIMM ACLULATED VENTS REQUIRED. THE REQUIRED VENTILATION SHALL BE MAINTAINED. PROVIDE INSULATION 5TOP SUCH THAT INSULATION DOES NOT OBSTRUCT FREE AIR 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 CANTILLEYEREU AKCHITECTURAL POP-COUTS, AND ANT USE 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 300 SQUARE INCHES OF CEILING *144 SQ. IN. = 1 SQ. FT.

*144 904, IN. = 1 904, F1.

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

BLDG, (SQ. IN.) / 300 = SQ. IN. OF VENT REQUIRED

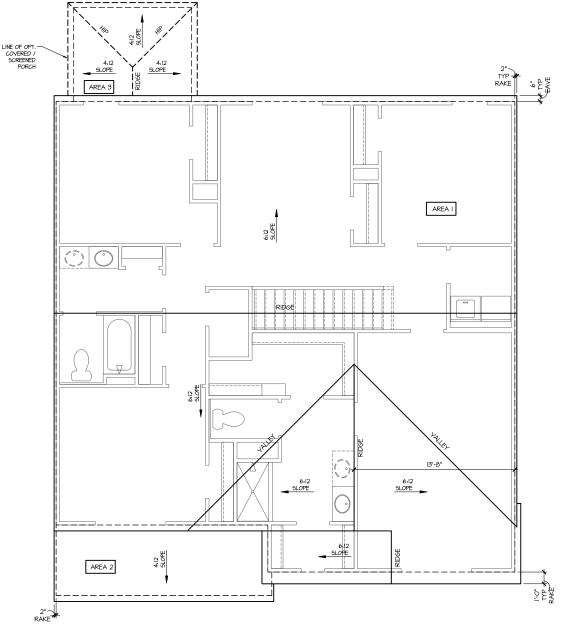
SQ. IN. OF VENT REQUIRED / 2 = 50% AT HIGH & 50% AT LOW.

ROOF AREA I: =

A1: ### A1: ### A2: ### A2

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)





NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

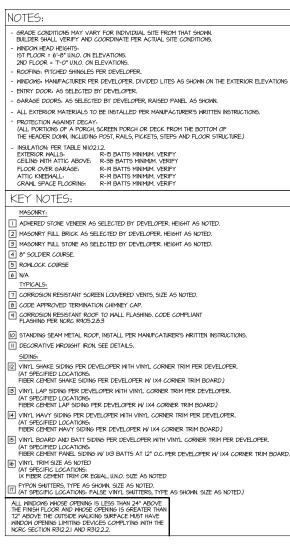


PROJECT NO: GMD17049

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

January 22, 2021

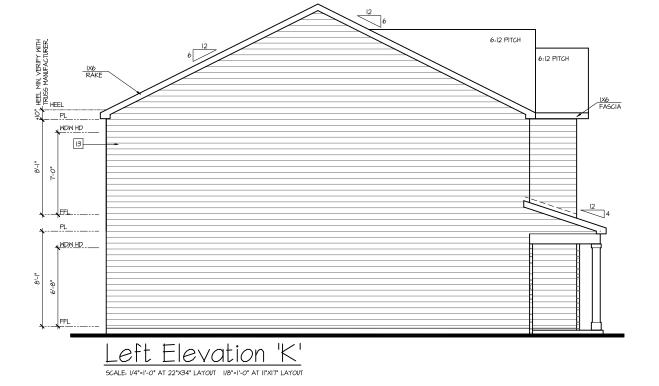
1.1 K



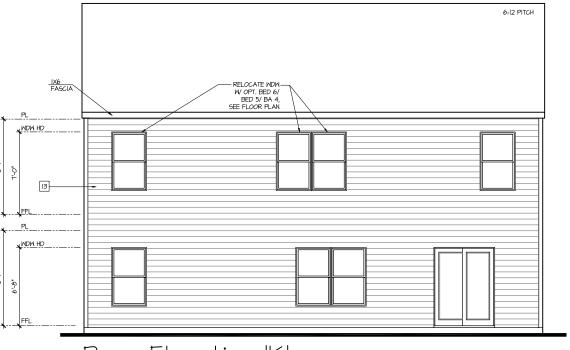
AVAILABLE WITH OPTIONAL 9'-I" FIRST FLOOR PLATE

NOTES AT OPT 9'-1" PLT:

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



6:12 PITCH — RELOCATE WDW— W OPT. BED 6/ BED 5/ BA 4, SEE FLOOR PLAN FASCIA WDW HD 13 WDW HD



Rear Elevation 'K SCALE: I/4"=I'-0" AT 22"X34" LAYOUT I/8"=I'-0" AT II"XIT" LAYOUT



PROJECT TITLE:

40' Series

FOR CONSTRUCTION

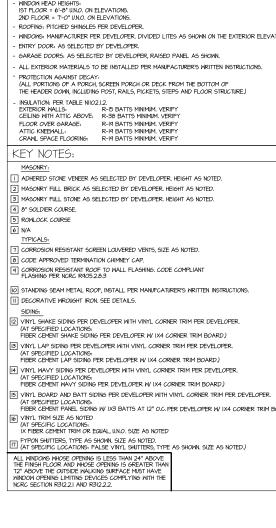


PROJECT NO: GMD17049

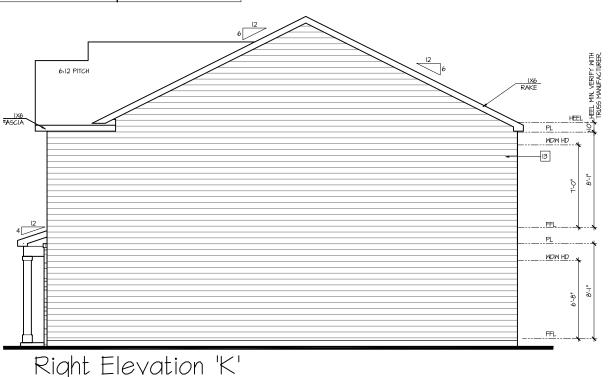
'HAYDEN' **EXTERIOR ELEVATIONS** '4EPF-K'

PRINT DATE: January 22, 2021

2 K



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





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.

PLUMBING FIXTURES, VENT LOCATIONS, ETC. ARE APPROXIMATE. CONTRACTOR TO VERIFY COUNT AND LOCATION. VERIFY THE SUPPLY FOR SEPARATE CONDUITS TO ANY ISLAND FOR GAS, WATER OR ELECTRIC.

· VERIFY ALL DOOR THRESHOLD HEIGHTS TO HARD SURFACES, δ 1/4" MAX AT INSMING DOORS, (PER NORG SECTION R311,3.1,)

- TYP STOOP AT INSWING/SLIDER DOORS: 36" DEEP BY THE WIDTH OF THE DOOR SERVED, MINIMUM. (PER NORG SECTION R311.3.) 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.

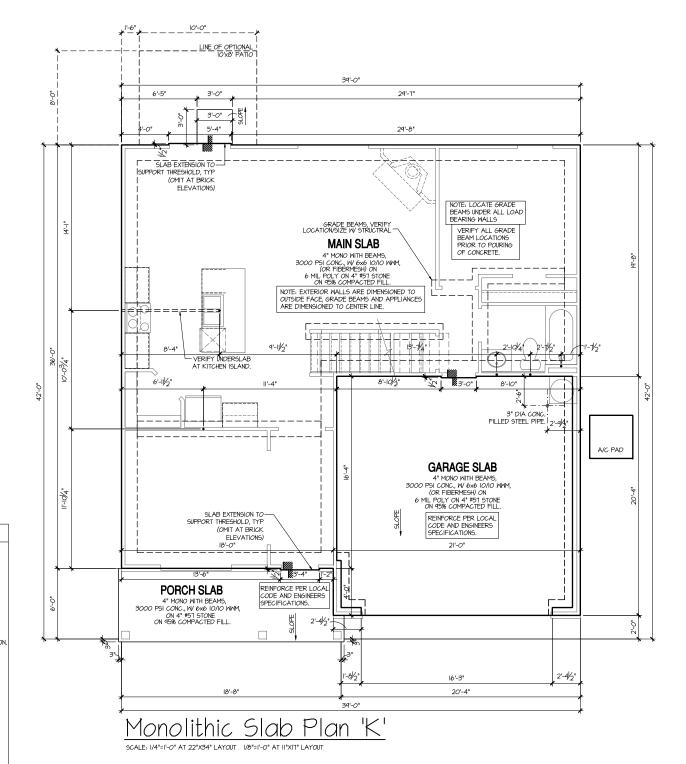
S DIA CONCRETE FILLED STEEL FIFE EMBEDDED INTO CONCRETE FOOTING.

SOLA STREATMENT:

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).

HOOD CONTACTING CONCRETE OR MASONRY OR LESS THAN CODE REQUIRED SEPARATION TO GRADE SHALL BE PRESEQUE TREATED OR FOUNDATION GRADE REDWOOD. SET ALL EXTERIOR WALL SILLS IN MASTIC.



NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION



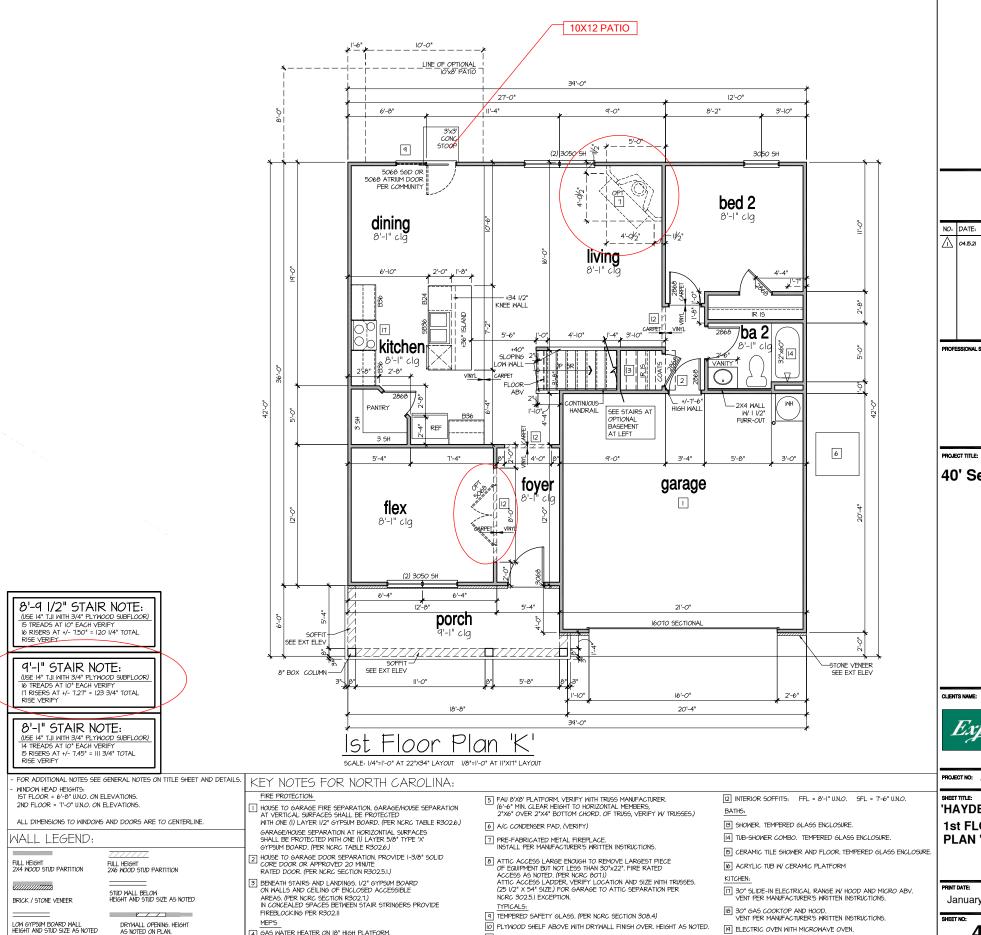
PROJECT NO: GMD17049

'HAYDEN' MONOLITHIC SLAB

PLAN '4EPF-K'

January 22, 2021

3 MS K



II HALF WALL, HEIGHT AS NOTED.

NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

40' Series

FOR CONSTRUCTION

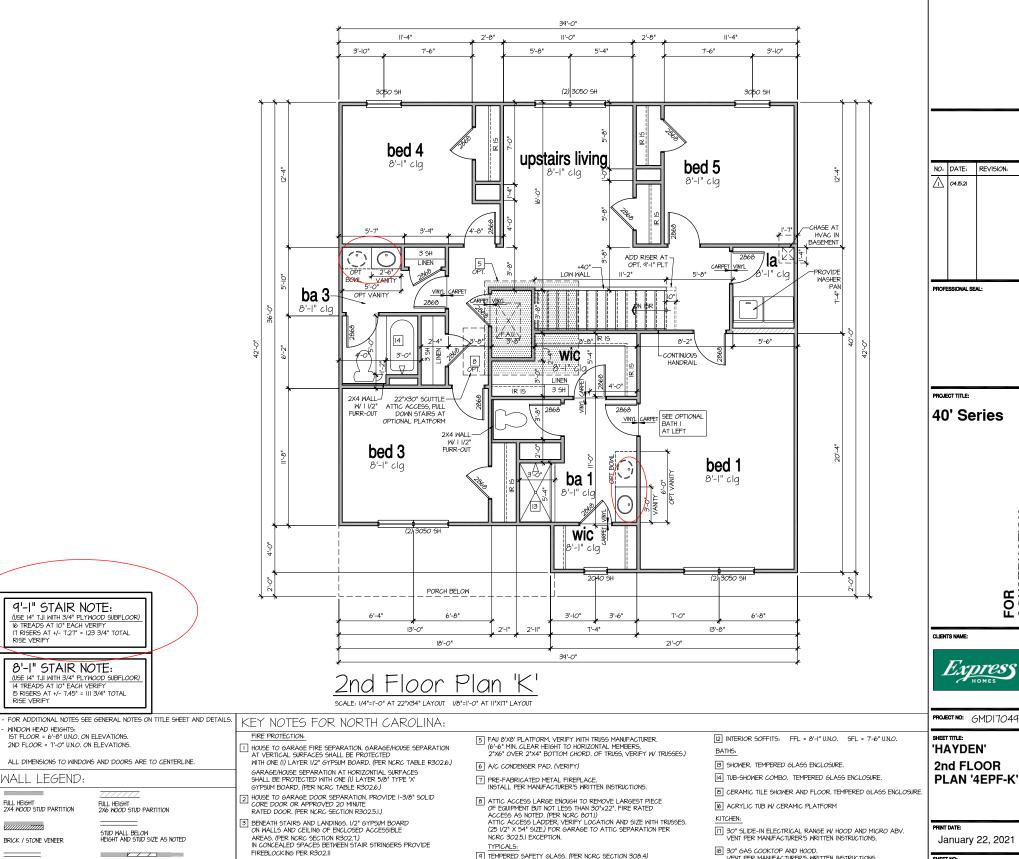


PROJECT NO: GMD17049

'HAYDEN' 1st FLOOR PLAN '4EPF-K'

January 22, 2021

4 K



NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

40' Series

FOR CONSTRUCTION



PROJECT NO: GMD17049

'HAYDEN' 2nd FLOOR

PLAN '4EPF-K'

B 30" GAS COOKTOP AND HOOD.

VENT PER MANUFACTURER'S WRITTEN INSTRUCTIONS. 19 ELECTRIC OVEN WITH MICROWAVE OVEN.

5 K

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

II HALF WALL, HEIGHT AS NOTED.

FIREBLOCKING PER R302.II MEP'S DRYWALL OPENING. HEIGHT AS NOTED ON PLAN.

LOW GYPSUM BOARD WALL HEIGHT AND STUD SIZE AS NOTED

9'-1" STAIR NOTE:

(USE 14" T.JI WITH 3/4" PLYWOOD 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.JI WITH 3/4" PLYWOOD SUBFLOOR)
14 TREADS AT 10" EACH VERIFY
15 RISERS AT +/- 7.45" = III 3/4" TOTAL
RISE VERIFY

- 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 DRAWINGS, TRUSS DRAWINGS, STRUCTURAL DETAILS AND CALCULATIONS BY OTHER FOR ALL STRUCTURAL INFO.

 ROOFING: PITCHED SHINGLE ROOF, REFER TO ROOF PLAN FOR TYPICALS.

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

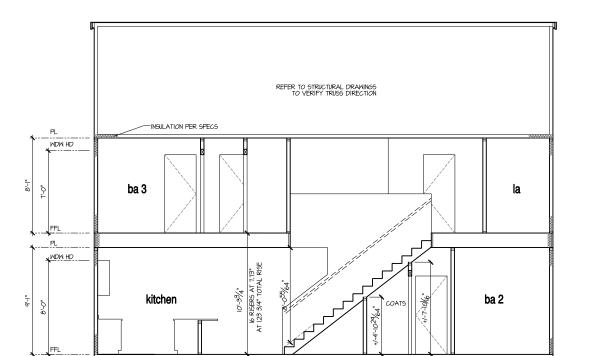
- WOOD FLOORS: FLOOR SHEATHING OVER FLOOR JOIST. REFER TO STRUCTURAL AND TRUSS DRAWINGS BY OTHERS.
- VERIFY STAIRS MINIMUM AND MAXIMUM REQUIREMENTS FOR CONSTRUCTION CLEARANCES WITH LOCAL CODES,
- INSULATION:

- INSULATION:
EXTERIOR MALLS ZONE 3: R-13 BATTS MINIMM. VERIFY
EXTERIOR WALLS ZONE 4: R-15 BATTS MINIMM. 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
R-30 BATTS MINIMM. VERIFY

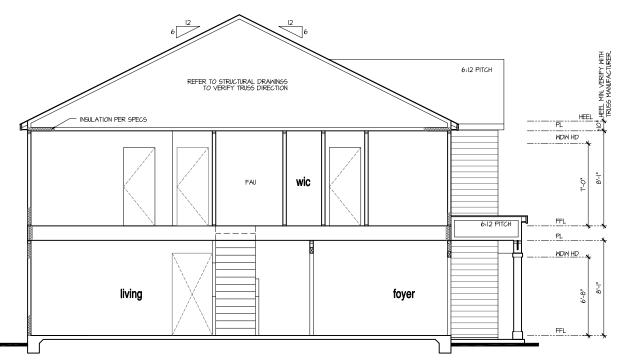
FLOOR OVER GARAGE: R-19 BATTS MINIMUM, VERIFY

ATTIC KNEEWALL: CRAWL SPACE FLOORING:

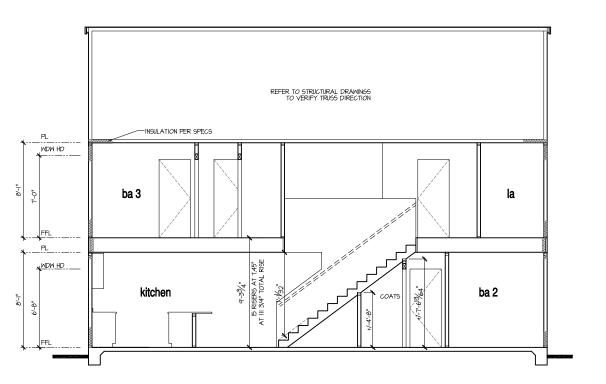
WINDOW GLAZING "U" FACTOR: 0.35



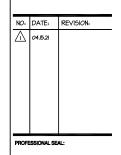
Building Section 2 at Optional 9' PID



Building Section Lat Monolithic Slab



Building Section 2 at Monolithic Slab



PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAME:



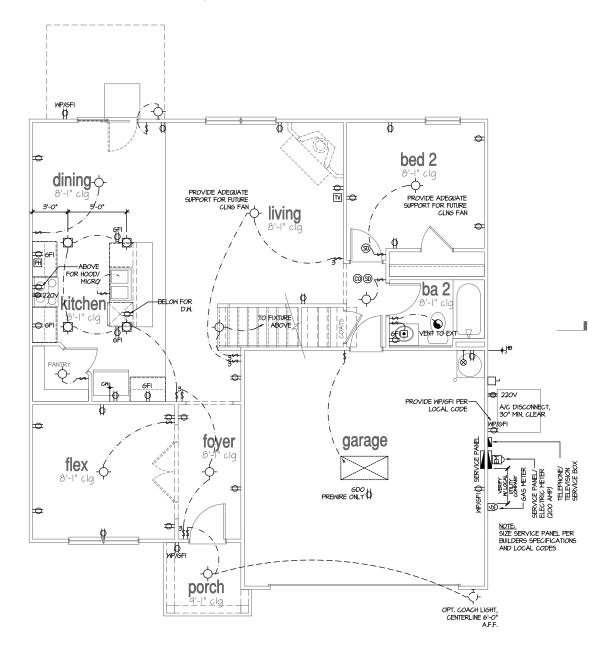
PROJECT NO: GMD17049

'HAYDEN' **BUILDING SECTIONS**

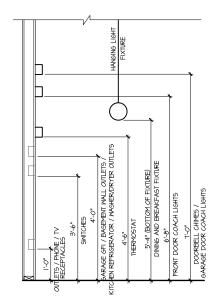
January 22, 2021

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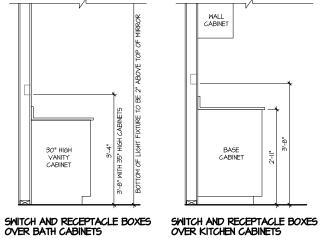








STANDARD ELECTRICAL BOX HEIGHTS



- ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOUSE-UP-S/CUTOPES.

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

- PROVIDE PORER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURES WRITTEN INSTRUCTIONS.

t Floor Plan 'A	<u>Ist</u> Flo
E: /4"= '-0" AT 22"X34" LAYOUT /8"= '-0" AT "X 7" L	SCALE: I/4"=I'-O" AT

NOTES:	LEGEND:			
- PROVIDE GRONDING ELECTRICAL ROD PER LOCAL CODES. - PROVIDE AND INSTALL ARC FAULT CIRCUIT-INTERRUPTERS (AFCI) AS REQUIRED BY NATIONAL ELECTRICAL CODE NEC) AND MEETING THE REQUIRENTS OF ALL GOVERNING CODES.	DUPLEX OUTLET		DH CHIMES	
ALL EXHAUST FANS SHALL HAVE BACKDRAFT DAMPERS.	ØWP/GFI WEATHERPROOF GFI DUPLEX OUTLET	-H- HANGING FIXTURE	PUSHBUTTON SWITCH	
- FANLIGHTS IN WET/DAMP LOCATIONS SHALL BE LABLED "SUITABLE FOR WET OR DAMP LOCATIONS." - ELECTRICAL SYSTEMS ARE SHOWN FOR INTENT ONLY. THESE SYSTEMS SHALL BE ENGINEERED BY OTHERS. THE	GFI GROUND-FAULT CIRCUIT-INTERRUPTER DUPLEX OUTLET	FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)	(S) IIOV SMOKE DETECTOR W BATTERY BACKUP	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND PLACEMENT. PROVIDE AND INSTALL LOCALLY CERTIFIED SMOKE DETECTORS AND CO2 DETECTORS AS REQUIRED BY		2 2-LIGHT VANITY FIXTURE	(ii) CO2 DETECTOR	-
NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. PROVIDE AND INSTALL GROUND FAULT CIRCUIT-INTERRUPTERS (GFI) AS REQUIRED BY NATIONAL ELECTRICAL	220V 220 VOLT OUTLET	,	① THERMOSTAT	⊗ GAS SUPPLY WITH VALVE
CODE (NEC) AND MEETING THE REQUIREMENTS OF ALL GOVERNING CODES. ELECTRICAL CONTRACTOR TO PROVIDE REQUIRED DIRECT HOOK-UPS/CUTOFFS.	REINFORCED JUNCTION BOX	-(3) 3-LIGHT VANITY FIXTURE	PH TELEPHONE	→ HB HOSE BIBB
HVAC CONTRACTOR TO VERIFY THERMOSTAT LOCATIONS.	\$ MALL SMITCH	- 4 4-LIGHT VANITY FIXTURE	TELEVISION -	
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 SWITCH	- WALL MOUNT FIXTURE	ELECTRIC METER ELECTRIC PANEL	CM 01 MAINT STOP OUT
PROVIDE POWER, LIGHT AND SWITCH AS REQUIRED FOR ATTIC FURNACE PER CODE AND MANUFACTURER'S WRITTEN INSTRUCTIONS.	\$4 FOUR-WAY SMITCH	EXHAUST FAN (VENT TO EXTERIOR)	DISCONNECT SWITCH	- WALL SCONCE

NO: DATE: REVISION: 04.15.21 PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

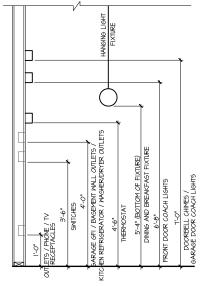
FOR CONSTRUCTION



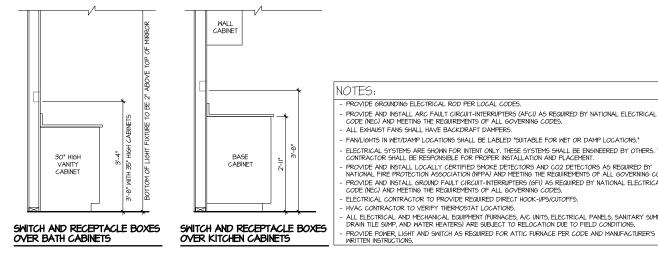
PROJECT NO: GMD17049

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

January 22, 2021



STANDARD ELECTRICAL BOX HEIGHTS



bed 4 upstairs living PROVIDE ADEQUATE BOTH SUPPORT FOR FUTURE CLING FAN 8'-1" 519 PROVIDE ADEQUATE SUPPORT FOR FUTURE CLING FAM PROVIDE ADEQUATE SUPPORT FOR FUTURE CLNG FAN (SD) PROVIDE 2ND GFI/LIGHT AT OPTIONAL BOWL la ba 3 8'-1" clq (SD) VENT TO EXT (SD) VENT TO EXT PROVIDE ADEQUATE SUPPORT FOR FUTURE CLNG FAN PROVIDE 2ND GFI/LIGHT AT OPTIONAL BOWL bed 3 -VENT TO EXT bed 1 **ba 1** 8'-1" clg **** WIC,

2nd Floor Plan 'A' scale: 1/4"=1"-0" at 22"x34" layait 1/8"=1"-0" at 11"x1t" layait

35/ALL: 1/1-10 /1 22/01 ENGOT 1/0-10 /1 1//11 E

	LEGEND:						
7	DUPLEX OUTLET	ф-	FLUSH-MOUNT LED CEILING FIXTURE	CH	CHIMES		
Ī	ØWP/GFI WEATHERPROOF GFI	DUPLEX OUTLET	HANGING FIXTURE	9	PUSHBUTTON SWITCH		
5. THE	GFI GROUND-FAULT CIRC DUPLEX OUTLET	CIT-INTERRUPTER	FLUSH-MOUNT LED CEILING FIXTURE (PROVIDE CEILING FAN SUPPORT)	99	IIOV SMOKE DETECTOR W BATTERY BACKUP	1 💥	CEILING FAN (PROVIDE ADEQUATE SUPPORT)
	HALF-SWITCHED DUF	PLEX OUTLET		60	CO2 DETECTOR		
CODES.	₽220V 220 VOLT OUTLET	-\$	2-LIGHT VANITY FIXTURE	T)	THERMOSTAT	 	GAS SUPPLY WITH VALVE
CAL	REINFORGED JUNGTI	он вох -Ф	3-LIGHT VANITY FIXTURE	PH	TELEPHONE	— ∳ HB	HOSE BIBB
ŀ	\$ WALL SWITCH	-4	4-LIGHT VANITY FIXTURE	TV	TELEVISION		
MP PITS,	\$ 3 THREE-WAY SWITCH	Ą	WALL MOUNT FIXTURE		ELECTRIC METER	TCM	I/4" WATER STUB OUT
5	1				ELECTRIC PANEL	- К	
9	\$4 FOUR-WAY SMITCH	•	EXHAUST FAN (VENT TO EXTERIOR)	-	DISCONNECT SWITCH	7	WALL SCONCE

NO: DATE: REVISION:

O4.15.21

PROFESSIONAL SEAL:

PROJECT TITLE:

40' Series

FOR CONSTRUCTION

CLIENTS NAM



PROJECT NO: GMD17049

SHEET TITLE:
'HAYDEN'

2nd FLOOR UTILITY PLAN

> DATE: anuary 22

January 22, 2021

8

DESIGN SPECIFICATIONS:

Construction Type: Commerical □ Residential ☑

Applicable Building Codes:

2/2/8 North Carolina Residential Building Code with All Local Amendments

ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

T1.	Roof Live Loads	
	I.I. Conventional 2x	2Ø PSF
	12. Truss	20 PSF
	12.1. Attic Truss	60 PSI
2.	Roof Dead Loads	
	2.l. Conventional 2x	
	2.2. Truee	2Ø PSF
3.	Snow	15 PSF
	3.1. Importance Factor	lØ
4.	Floor Live Loads	
	11 10	1

4.1. Typ. Dwelling 4.2. Sleeping Areas ... 4.3. Decks 4.4. Passenger Garage 5. Floor Dead Loads 50 PSF Conventional 2x

 Ultimate Design Wind Speed (3 sec. gust)
 Exposure 62. Importance Factor. 63. Wind Base Shear

631 Vx =

52. I-Joist

Somponant and Cladding (in 1 or 2						
MEAN ROOF HT.	UP TO 30°	30"1"-35"	35'1"-40'	40'1"-45'		
ZONE I	16.7,-18.0	17.6,-18.9	18.3,-19.7	18.8,-202		
ZONE 2	16.7,-21Ø	∏.6,-22.l	18.3,-22.9	18.8,-23.6		
ZONE 3	16.7,-21 <i>©</i>	I7. 6 ,-22.l	18.3,-22.9	18.8,-23.6		
ZONE 4	182,-19.0	19.2,-20.0	19.9,-20.8	20.4,-21.3		
ZONE 5	18.2,-24.0	19.2,-25.2	19.9,-26.2	20.4,-26.9		

... 15 PSF

SCISMI	C	
8.1.	Site Class D	
8.2.	Design CategoryC	
8.3.	Importance Factor	
8.4.	Seismic Use Group1	
8.5.	Spectral Response Acceleration	
	8.5.1. Sms = %q	

8.52.5ml = %d 8.6. Seismic Base Shea

862.Vg =
862.Vg =
8.1. Basic Structural System (check one)

| Basic Structural Fame
| Moment, Frame

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

8.8. Arch/19ch Components Anchored _____
8.9. Lateral Design Control: Seismic ____
9. Assumed Soil Bearing Capacity _______ Wind ⊠

HAYDEN

OWNER:

PROJECT ADDRESS:

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

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

These drawings are to be coordinated with the architectural mechanical plumbing Interes crailings are to be coordinated with reference true, mechanical, plumbin electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory & Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
CJ	CEILING JOIST	5C	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SFF	SPRUCE PINE FIR
DSP	DOUBLE STUD POCKET	96T	SIMPSON STRONG-TIE
EE	EACH END	SYP	SOUTHERN YELLOW PINE
EW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oc	ON CENTER	TYP	TYPICAL
PSF	POUNDS PER SQUARE FOOT	uno	UNLESS NOTED OTHERWISE
PSI	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory 4 Testing, P.C. (SUMMIT) prior to the linitial 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:

Sheet No.	Description
CSI	Cover Sheet, Specifications, Revisions
SI.Øm	Monolithic Slab Foundation
51.Øs	Stem Wall Foundation
51.Øc	Crawl Space Foundation
SI.Øb	Basement Foundation
52.Ø	Basement Framing Plan
53.Ø	First Floor Framing Plan
54.Ø	Second Floor Framing Plan
95.Ø	Roof Framing Plan
56.Ø	Basement Bracing Plan
61Ø	First Floor Bracing Plan
58.Ø	Second Floor Bracing Plan

Revision No.	Date	Project No.	Description
1	4.19.21	TØITT	Updated elevation names
			Added Stem Wall, Crawlspace, and Basement Foundations
			<u> </u>

DR HORTON PROJECT SIGN-OFF:

Manager	Signature
Operations	
Operations System	
Operations Product Development	

summit



SCALE THAN MARKET DRAIN SY: JOS



PROFES TO COVER SHEET FOR A CONFILETE LIST OF PRIVISIONS

CSI

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise alter, or delete any structural aspects of these construction 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 SUMMIT shall be considered the same attitute.
- 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, method 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 tuly developed on the construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUM*III for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions, the state the reconstibilities of the SEPS or SUMMIT.
- 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 spe 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 meet or exceed to requirem of the current local building code.

FOUNDATIONS:

1. The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be contacted before proceeding.

- The bottom of all footings shall extend below the frost line for the region in which the structure is to be constructed. However, the bottom of all footings shall be a minimum of 12" below grade. Any fill shall be placed under the direction or recommendation
- maximum dry density.

 Excavations of footings shall be lined temporarily with a 6 mil polyethylene membrane if placement of concrete does not occur within 24 hours of excavation.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

- STRUCTURAL STEEL:

 I. Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design" latest editions.
- Structural steel shall receive one coat of shop applied
- All steel shall have a minimum yield stress (F_u) 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

- NUMBELIE:
 Concrete shall have a normal weight aggregate and a minimum compressive strength (°L) at 28 days of 30000 psi, unless otherwise noted on the plan.
 Concrete shall be proportioned, mixed, and placed in accordance with the latest editions of ACI 318. "Building Code Requirements for Reinforced Concrete" and ACI 301:
 "Specifications for Structural Concrete for Buildings".
- Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to 42% of target values as follows: 31. Footings: 5% 32. Exterior Slabs: 5%

No admixtures shall be added to any structural concrete without written permission of the SER

- Concrete slabs-on-grade shall be constructed in accordance with ACI 302.IR-96: "Guide for Concrete Slab and Slab Construction"
- The concrete slab-on-grade has been designed using a of a licensed professional engineer.
 The resulting soil shall be compacted to a minimum of 95% subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from unreported
 - conditions not in accordance with the above assumptions Control or saw cut joints shall be spaced in interior slabs-on-grade at a maximum of 15'-0" O.C. and in exterior
 - slabs-on-grade at a maximum of 10°-20° unless otherwise noted.

 Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished

 - process within 4 to 12 hours after the siato has been infinited Reinforcing steel may oct 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 find-depth of slab. The WWF, shall be securely supported during the concrete pour.

- CONCRETE REINFORCEMENT:

 1. Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction, lowered water migration, an increase in impact capacity, increased
- abrasion resistance, and residual strength.
 Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforceme
- naminatures for use as concerns securitary removements Application of fill-emesh per cubic yard of concrete shall equal a minimum of 21% by volume (15 pounds per cubic yard) Filtermenh shall comply with ASTM Clift, and local building code requirements, and shall meet or exceed the current industry Steel reinforcing bars shall be new billet steel conforming to
- ASTM A615, grade 60.

 Detailing, fabrication, and placement of reinforcing steel shall be in accordance with the latest edition of ACI 315: "Manual of
- Standard Practice for Detailing Concrete Structures" Horizontal footing and wall reinforcement shall be continuous and shall have 30° bends, or corner bars with the same
- Lap reinforcement as required, a minimum of 40 bar diameters For tension or compression unless otherwise noted. Splices in masonry shall be a minimum of 48 bar diameters.

- 9. Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters
- into the footing.

 10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise noted.

- WOOD FRAMING: 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 22. Fb = 2600 psi
 - 2.4.Fc = 700 bsi
- Wood in contact with concrete, masonry, or earth shall be pressure treated in accordance with AWPA standard C-IS. All other moisture exposed wood shall be treated in accordance with AUPA standard C-2
- Nails shall be common wire nails unless otherwise noted.
 Lag screws shall conform to ANSI/ASME standard B182.1-1981. Lead holes for lag screws shall be in accordance with NDS
- specifications.

 All beams shall have full bearing on supporting framing members
- unless otherwise noted. Exterior and load bearing stud walls are to be 2x4 SYP 4 2 6 16. O.C. unless otherwise noted. Stude shall be continuous from the ole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header.
- of one king stud shall be placed at each end of the later. King stude shall be continuous. Individual stude forming a column shall be attached with one lød 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) lød nalls 6" 24" O.C.
- Four and five ply beams shall be boilted together with (2) rows of 1/2" diameter through boilts staggered * 16" O.C. unless

WOOD TRUSSES:

- The wood truss manufacturer/fabricator is responsible for the design of the wood trusses. Submit sealed shop drawings and supporting calculations to the SER for review prior to supporting dealerations to the SER for review prior to fabrication. The SER shall have a minimum of five (5) days for review. The review by the SER shall review for overall compliance with the design documents. The SER shall assume no responsibility for the correctness for the structural design for
- the wood trusses.

 The wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures." (ASCE T-I/D), 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.

 The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Desig Specification for Wood Construction." (NDS) and "Desig Specification for Metal Plate Connected Wood Trusses."
- The trues 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
- Any chords or truss webs shown on these drawings have been shown as a reference only. The final design of the trusses shall be per the manufacturer.

EXTERIOR WOOD FRAMED DECKS:

Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details

WOOD STRUCTURAL PANELS:

- Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide
 "Residential and Commercial," and all other applicable APA standards.
- All structurally required wood sheathing shall bear the mark of

Sheathinging shall have a 1/8" gap at panel ends and edges as recommended in accordance with the APA. STRUCTURAL 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. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information.

Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more

information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise.

Roof sheathing shall be APA rated sheathing exposure I or 2.

Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-8d CC nall at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with

the long direction perpendicular to framing, sheathing shall have a span rating consistent with the framing spacing. Use

have a span rating consistent with the framing spacing, Use suitable edge support by use of piguood clips or limber 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 framing with (I)-8d CC ingahank nail at 6"ofc at panel edges and at 12"ofc 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 said have a span rating consistent with the framing spacing. Use suitables edge

rating consistent with the framing spacing. Use suitable edge support by use of 74G 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 1/8" gap at panel ende and edges are recommended in accordance with the AFA.

ELEVATION B.F.K

OPT. SCREENED/COVERED

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

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

Summit
on ginear ing I sabor 2107 y I sati ing
3070 HAMMOND BUSINESS
PLACE, SUITE 171
RALEIGH, NC 27603
OFFICE 910, 380, 3991
FAX: 910, 380, 9993
FAX: 910, 380, 9993



DR Horton, Inc. 8001 Arrowrlage Blvd. Charlotte, NC 28713

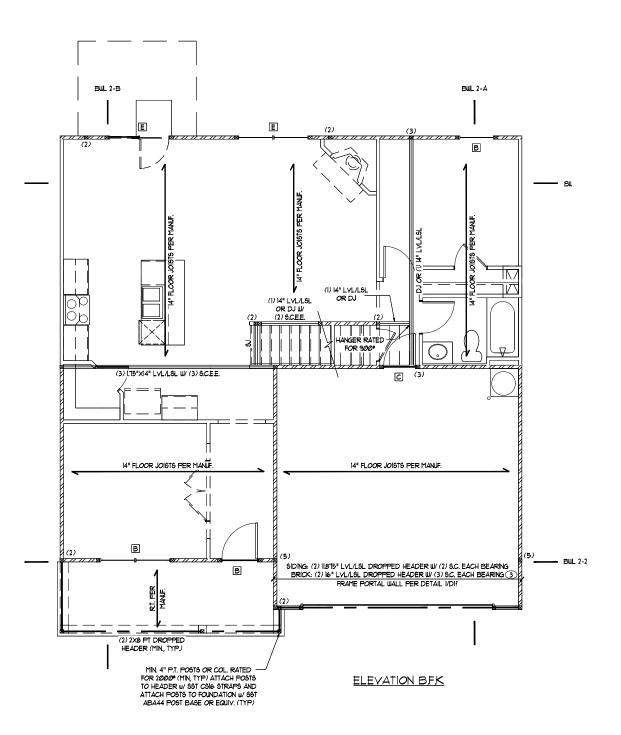
Hyden RH Monolithic Slab Foundation



DATE 40001 BCALS 2204 WP-1-9* Bill 10*4-0* PROJECT 4 800-0406 22006 DRAM SYL JEST GREGORD SYL SCP

NAMES TO COVER GREET FOR COTTLETE LIST OF PRIVATE

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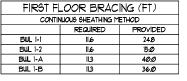
STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

FIRST FLOOR FRAMING PLAN

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





UK HOTON, INC. 8001 Arounidge Blvo Charlotte, NC 28273

Hayden Ret First Floor Framing Plan



DATE 48881 SCALE 2004 MP-1-8F BAT MP-1-8F PROJECT 4 900-6046 20046 DRAIN SY: JCEF GRECKED SY: SCP

PETER TO COVER SHEET FOR COTPLETE LIST OF PRIVATE

S3.1



Framing



SCALE 2504 WHITE BAT 18-4-8 DRAWEN JOS GROED SY: SOP

BWL 2-A BWL 2-13 ---- BUL 2-1 TRUSS PER MANUF. W/ (5) S.C.E.E. D ROOF TRUSSES PER MANUF.

ELEVATION BEK

STRUCTURAL MEMBERS ONLY

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STRUCTURAL ANALYSIS BASED ON 2018 NCRC.

SECOND FLOOR FRAMING PLAN

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

SECOND FLOOR BRACING (FT)					
CONTIN	NUOUS SHEATHING M	ETHOD			
	REQUIRED	PROVIDED			
BWL 2-1	6.0	27.Ø			
EWL 2-2	6.0	25.Ø			
BWL 2-A	5.8	400			
BWL 2-B	5.8	36.0			

TRUSS UPLIFT CONNECTOR SCHEDULE						
MAX. UPLIFT	ROOF TO WALL	FLOOR TO FLOOR	FLOOR TO PND			
600 LBS	H2.5A	PER WALL SHEATHIN	IG 4 FASTENERS			
1200 LBS	(2) H2.5A	C516 (END = 11")	DTT2Z			
145Ø LBS	HT52Ø	CSI6 (END = II")	DTT2Z			
2000 LBS	(2) MTS2Ø	(2) CSI6 (END = II")	DTT2Z			
2900 LBS	(2) HT92Ø	(2) C\$16 (END = 11")	HTT4			
3685 LB6	LGT3-5D525	MSTC52	HTT4			

3695 LB6 | LGT3-8D525 | MSTC52 | HTT4

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

2. UPLIFT VALUES LISTED ARE FOR SYP 92 GRADE MEMBERS.

3. REFER TO TRUSS LAYOUT PER MANUF. FOR UPLIFT VALUES AND
TRUSS TO TRUSS CONNECTIONS. CONNECTORS SPECIFIED BY TRUSS
MANUFACTURER OVERRIDE THOSE LISTED ABOVE.

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

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

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

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

NOTE: TRUSS UPLIFT LOADS SHALL BE DETERMINED PER TRUSS HANLFACTURER IN ACCORDANCE WITH SECTION REWOULD WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION REWOLDS OF THE WIND UPLIFT LOAD PATH IN ACCORDANCE WITH METHOD 3 OF SECTION REWOLDS OF THE WIND WAS FASTENER FECTION REWOLDS.

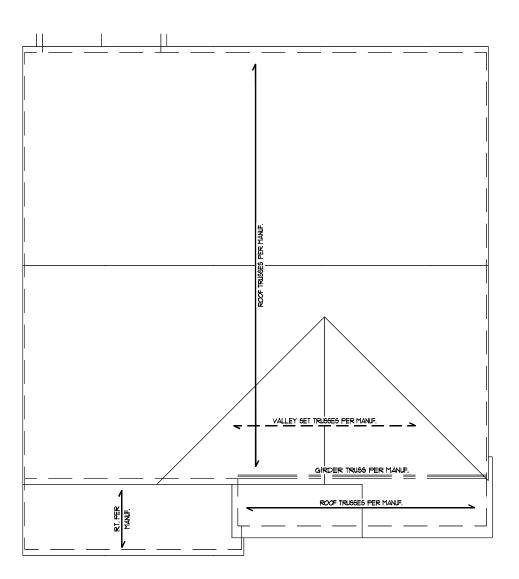
THESE PLANS ARE DESIGNED IN ACCORDANCE WITH ARCHITECTURAL PLANS PROVIDED BY <u>DR HORTON</u> COMPLETED/REVISED ON <u>1272</u>. IT IS THE RESPONSIBILITY OF THE CLIENT TO NOTIFY SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. IF ANY CHANGES ARE MADE TO THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. SUMMIT ENGINEERING, LABORATORY & TESTING, P.C. CANNOT GUARANTEE THE ADEQUACY OF THESE STRUCTURAL PLANS WIEN 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"x34" OR 1/8"-1"-0" ON 11"x1T"









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

Roof Framing Plan



DATE 40001 COLE 2004 WHILE BUT WHILE PROJECT 100-000 2006 DRAIN BY: JCF

NAME TO COVER BUILT TO

COMPLETE LIST OF REMIS

S5.1

Applicable Building Codes:

• 2018 North Carolina Residential Building Code with All Local Amendments

• ASCE 7-10: Minimum Design Loads for Buildings and Other Structures

an ∟	oaas:		
٦.	Roof	Live Loads	
	1.1.	Conventional 2x	20 PS
	1.2.		
		12.1. Attic Truss	60 PS
2.	Roof	Dead Loads	
	2.1.	Conventional 2x	IØ PSF
	2.2.	Trus 6	20 PS
3.	Snow		15 PSF
	3.1.	Importance Factor	lø
4.	Floor	Live Loads	
	4.1.	Typ. Dwelling	40 PS
		Sleeping Areas	
		Decks	
		Passenger Garage	
5.		Dead Loads	
	5.1.	Conventional 2x	
	5.2.	I-Joist	15 PSF
		Floor Truss	
6.	Ultima	te Wind Speed (3 sec. gust)	PER F

Importance Factor 6.3. Wind Base Shear 6.3.l. Vx =

6.l. Exposure

٦.	Component	and	Cladding	(in	PSF)

MEAN ROOF HT.	UP T O 30'	3 Ø' "-35'	35' "-40'	40'1"-45'
ZONE I	16.7,-18.0	17.5,-18.9	18.2,-19.6	18.7,-20.2
ZONE 2	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 3	16.7,-21.0	17.5,-22.1	18.2,-22.9	18.7,-23.5
ZONE 4	18.2,-19.0	19.2,-20.0	19.9,-2 Ø .7	20.4,-21.3
ZONE 5	18.2,-24.Ø	19.2,-25.2	19.9,-26.1	20.4,-26.9

8 Seismic

	C	
8.1.	Site Class	D
8.2.	Design Category	С
	Importance Factor	Ø
8.4.	Seismic Use Group	I

8.5. Spectral Response Acceleration 85.1. Sms = %g 85.2. Sml = %g 8.6. Seismic Base Shear

861.Vx =

8.1. Basic Structural System (check one) ⊠ Bearing Wall

☐ Building Frame
☐ Moment Frame □ Dual w/ Special Moment Frame

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

8.8. Arch/Mech Components Anchored 8.9. Lateral Design Control: Seismic 🗆 llind 🖂

Assumed Soil Bearing Capacity ...



STRUCTURAL PLANS PREPARED FOR

STANDARD DETAILS

PROJECT ADDRESS:

DR Horton Carolinas Division

ARCHITECT/DESIGNER

These drawings are to be coordinated with the architectural, mechanical, plumbing, electrical, and civil drawings. This coordination is not the responsibility of the structural engineering of record (SER). Should any discrepancies become apparent, the contractor shall notify SUMMIT Engineering, Laboratory 4 Testing, P.C. before construction begins.

PLAN ABBREVIATIONS:

AB	ANCHOR BOLT	PT	PRESSURE TREATED
AFF	ABOVE FINISHED FLOOR	RS	ROOF SUPPORT
ÇJ	CEILING JOIST	5C	STUD COLUMN
CLR	CLEAR	SJ	SINGLE JOIST
DJ	DOUBLE JOIST	SPF	SPRUCE PINE FIR
D S P	DOUBLE STUD POCKET	SST	SIMPSON STRONG-TIE
ΕE	EACH END	SYP	SOUTHERN YELLOW PINE
ΕW	EACH WAY	TJ	TRIPLE JOIST
NTS	NOT TO SCALE	TSP	TRIPLE STUD POCKET
oс	ON CENTER	TYP	TYPICAL
P S F	POUNDS PER SQUARE FOOT	UNO	UNLESS NOTED OTHERWISE
P6I	POUNDS PER SQUARE INCH	WWF	WELDED WIRE FABRIC

Roof truss and floor joist layouts, and their corresponding loading details, were not provided to SUMMIT Engineering, Laboratory 4 Testing, P.C. (SUMMIT) prior to the initial design. Therefore, truss and joist directions were assumed 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 **5U**1111 immediately.

SHEET LIST:

REVISION LIST:

Date

FIII

T |2 |T

3 2.15.18

4 228.18

5 12.19.18

6 2.19.19

8 3.6.19

9 3220

Project No.

Revision

heet Na.	Description
CSI	Cover Sheet, Specifications, Revisions
D1m	Monolithic Slab Foundation Details
Dis	Stem Wall Foundation Details
Dlc	Crawl Space Foundation Details
Dlb	Basement Foundation Details
DIf	Framing Details

DR HORTON PROJECT SIGN-OFF: Operations Operations System

Operations Product Development

TH CAROUS SUMMIT SUMMIT Engineering, Laboratory & Testing, P.C.

SÜMMIT

PROJECT:

Standard Details

Coversheet



DATE: 3/2/2 8CALE: 22x34 V4"+1"-8" lbt1 V8"+1"-8" PROJECT 1 P-19Ø1-1Ø DRAWN BY: LAG

CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

CSI

GENERAL STRUCTURAL NOTES:

- The design professional whose seal appears on these drawings is the structural engineer of record (SER) for this project. The SER bears the responsibility of the primary structural elements and the performance of this structure. No other party may revise alter, or delete any structural appects of these construction documents without written permission of SUMMIT Engineering, Laboratory & Testing, P.C. (SUMMIT) or the SER. For the purposes of these construction documents the SER and SUMMIT
- shall be considered the same entity.

 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 construction drawings shall be completed under the direction of a licensed professional engineer. These shop drawings shall be submitted to SUMMIT for review before any construction begins. The shop drawings will be reviewed for overall compliance as it relates to the structural design of this project. Verification of the shop drawings for dimensions, or for actual field conditions,
- the shop drawings for dimensions, or for actual field conditions, is not the responsibility of the SER or SUMIT. 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.
- 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 meet or exceed to requirements.
- of the current local building code.

FOUNDATIONS:

The structural engineer has not performed a subsurface investigation. Verification of this assumed value is the responsibility of the owner or the contractor. Should any adverse soil condition be encountered the SER must be

- 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.
- of a licensed professional engineer.
 The resulting earl shall be compacted to a minimum of 95%
- maximum dry density.

 5. Excavations of footings shall be lined temporarily with a 6 mill polyetylene memorane if placement of concrete does not occur within 24 hours of excavation.
- No concrete shall be placed against any subgrade containing water, ice, frost, or loose material.

- STRUCTURAL STEEL:

 1. Structural steel shall be fabricated and erected in accordance with the American Institute of Steel Construction "Code of Standard Practice for Steel Buildings and Bridges" and the manual of Steel Construction "Load Resistance Factor Design latest editions.
 Structural steel shall receive one coat of shop applied
- rust-inhibitive paint.

 3. All steel shall have a minimum yield stress (F_a) of 36 kg unless
- otherwise noted
- Welding shall conform to the latest edition of the American weraing shall common to the latest edition of the American Welding Society's Structural Welding Code AUS DIJ. Electrodes for shop and field welding shall be class ETØXX. All welding shall be performed by a certified welder per the above

- NUMBEL II:

 Concrete shall have a normal weight aggregate and a minimum compressive strength (Fe) at 28 days of 3000 psi, unless otherwise noted on the plan.

 Concrete shall be proportioned, mixed, and placed in
- accordance with the latest editions of ACI 318: "Building Code Requirements for Reinforced Concrete" and ACI 301: "Specifications for Structural Concrete for Buildings".
- Air entrained concrete must be used for all structural elements exposed to freeze/thaw cycles and deicing chemicals. Air entrainment amounts (in percent) shall be within -1% to +2% of target values as follows:
 - 3.1. Footings: 5% 3.2. Exterior Slabs: 5%
- 4. No admixtures shall be added to any structural concrete without written permission of the SER.

- Concrete slabs-on-grade shall be constructed in accordance Construction" Any fill shall be placed under the direction or recomme
 - The concrete slab-on-grade has been designed using a subgrade modulus of k=250 pci and a design loading of 200 psf. The SER is not responsible for differential settlement, slab cracking or other future defects resulting from urreported conditions not in accordance with the above assumptions. Control or solu cut joints shall be spaced in interior slabs-on-grade at a maximum of 15-01 O.C. and in exterior
 - slabs-on-grade at a maximum of $|\mathcal{O}|$ unless otherwise noted. Control or saw cut joints shall be produced using conventional process within 4 to 12 hours after the slab has been finished

 - process within 4 to 12 hours after the state has been has been intered.

 9. Reinforcing steel may extend through a control joint.

 Reinforcing steel may extend through a saw cut joint.

 10. All welded wire fabric (WWF.) for concrete slabs-on-grade shall be placed at mid-depth of slab. The WWF. shall be securely supported during the concrete pour.

- CONCRETE REINFORCEMENT:

 I. Fibrous concrete reinforcement, or fibermesh, specified in concrete slabs-on-grade may be used for control of cracking due to shrinkage and thermal expansion/contraction lowered water migration, an increase in impact capacity, increased abrasion resistance, and residual strength.
- Fibermesh reinforcing to be 100% virgin polypropylene fibers containing no reprocessed olefin materials and specifically manufactured for use as concrete secondary reinforcement.
- Application of fibermesh per cubic yard of concrete shall equal a minimum of 0.1% by volume (15 pounds per cubic yard) Fibermesh shall comply with ASTM CIII6, any local building code requirements, and shall meet or exceed the current industry
- Steel reinforcing bars shall be new billet steel conforming to
- of the inferior of the state of 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.

- 9. Where reinforcing dowels are required, they shall be equivalent in size and spacing to the vertical reinforcement. The dowel shall extend 48 bar diameters vertically and 20 bar diameters
- into the Footing.

 10. Where reinforcing steel is required vertically, dowels shall be provided unless otherwise nated. 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 LVL or PSL engineered wood shall have the following minimum
 - sign values: 2.1. E = 1,900,000 psi
 - 2.2. F_b = 2600 psi 2.3. F_v = 285 psi
- 2.4.Fc = 100 psi 1.4.1°C incorption blood in contract with acontract 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 confrom to ANSI/ASME standard Bi82.1-1981.

 Lead holes for lag screws shall be in accordance with NDS specification.
- 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 $^{\circ}$ 2 = 16" O.C. unless otherwise noted. Studs shall be continuous from the sole plate to the double top plate. Studs shall only be discontinuous at headers for window/door openings. A minimum of one king stud shall be placed at each end of the header.
- of one king stud shall be placed at each end of the header. King stude shall be continuous, individual stude forming a column shall be attached with one lod nail e 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
- 10. Flitch beams, 4-ply beams and 3-ply side loaded beams shall be
- bolted together with (2) rous of 1/2" diameter through boilts 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/fabricator is responsible for the design of the wood truspes. 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.

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

stem wall and crawl space foundations

Revised garage door detail, NC only

Added high-wind foundation details

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

Corrected dimensions at perimeter footings

Revised stem wall insulation note

Revised per 2018 NCRC

sheathing on wall sections.

Added tall turndown detail

options with basement. Revised deck options with

- Ine wood trusses shall be designed for all required loadings as specified in the local building code, the ASCE Standard "Minimum Design Loads for Buildings and Other Structures."

 (ASCE 1-05), and the loading requirements shown on these specifications. The truss drawings shall be coordinated with all other construction documents and provisions provided for loads shown on these drawings including but not limited to HVAC equipment, piping, and architectural fixtures attached to
- The trusses shall be designed, fabricated, and erected in accordance with the latest edition of the "National Design Specification for Wood Construction" (NDS) and "Design Specification for 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:

Decks are to be framed in accordance with local building codes and as referenced on the structural plans, either through code references or construction details.

WOOD STRUCTURAL PANELS:

I. Fabrication and placement of structural wood sheathing shall be in accordance with the APA Design/Construction Guide "Residential and Commercial," and all other applicable APA

All structurally required wood sheathing shall bear the mark of

3. Wood wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more information. Sheathing shall be applied with the long direction perpendicular to framing, unless noted otherwise. Roof sheathing shall be APA rated sheathing exposure I or 2.

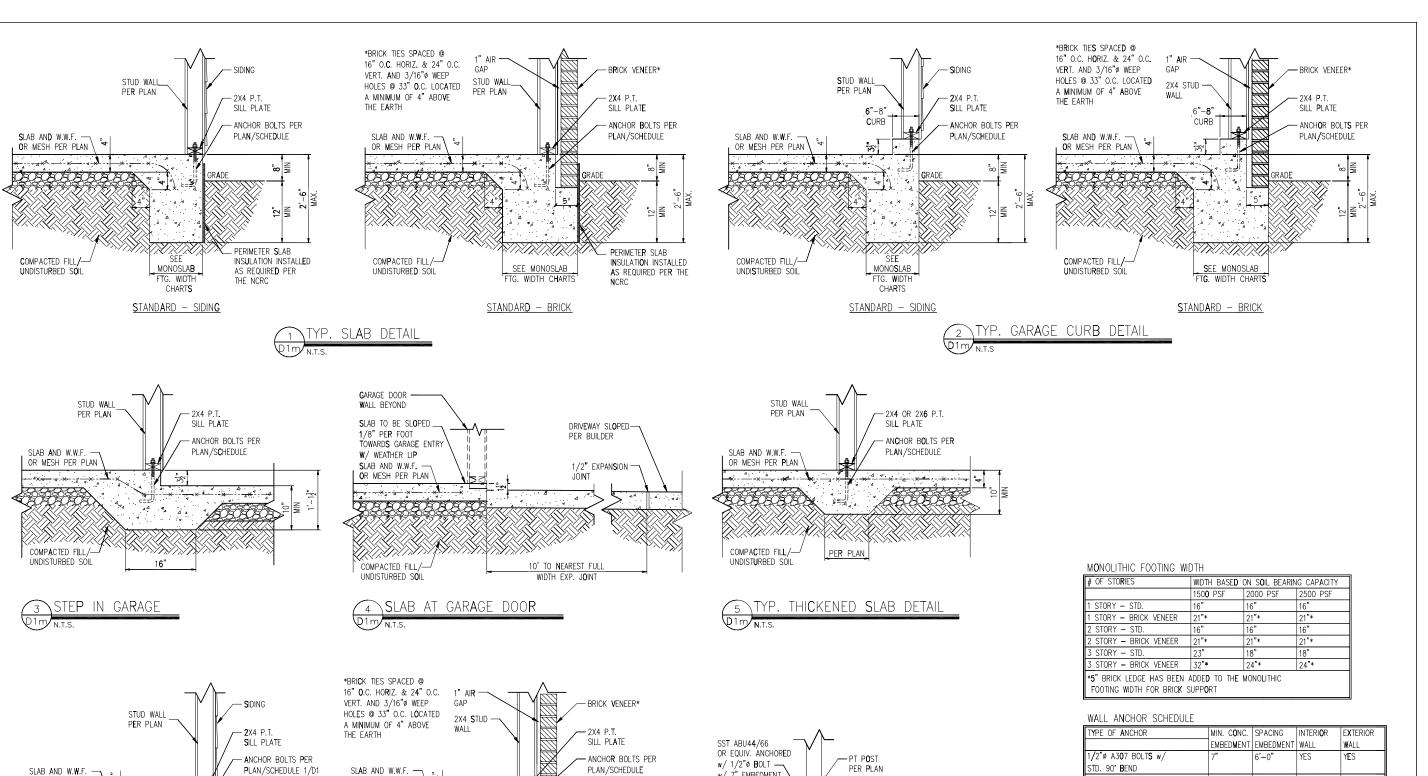
- Roof sheathing shall be continuous over two supports and attached to its supporting roof framing with (1)-2d CC nail at 6"o/c at panel edges and at 12"o/c in panel field unless otherwise noted on the plans. Sheathing shall be applied with the long direction perpendicular to framing. Sheathing shall have a span rating consistent with the framing spacing. Use suitable edge support by use of plywood clips or lumber blocking unless otherwise noted. Panel end joints shall occur
- blacking unless otherwise noted. Panel end joints shall occur over framing. Apply building paper over the sheathing as required by the state Building Code.

 Wood floor sheathing shall be APA rated sheathing exposure I or 2. Attach sheathing to its supporting framing with (I)-bd 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 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.
- state Building Code.

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

- STRUCTURAL FIBERBOARD PANELS:

 1. 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. 3. Fiberboard wall sheathing shall comply with the requirements of local building codes for the appropriate state as indicated on these drawings. Refer to wall bracing notes in plan set for more
- Sheathing shall have a 1/8" gap at panel ends and edges are



OR MESH PER PLAN

COMPACTED FILL/-

UNDISTURBED SOIL

OR MESH PER PLAN

COMPACTED FILL/-

UNDISTURBED SOIL

PATIO SLAB DETAIL

-∠PATIO SLAB4

SEE

MONOSI AF

FTG WIDTH

CHARTS

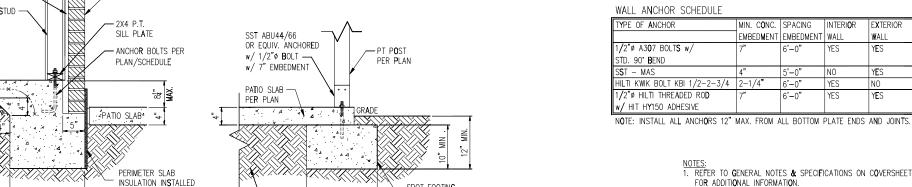
STANDARD - SIDING

- PERIMETER SLAB

AS REQUIRED PER

THE NCRC

I**n**sulati**o**n inst**a**lled



PER PLAN

6A COVERED PATIO DETAIL

- COMPACTED FILL/

UNDISTURBED SÓIL

AS REQUIRED PER

THE NCRC

SEE MONOSLAB

FTG. WIDTH CHARTS

STANDARD - BRICK

- SPOT FOOTING

OR CONTINUOUS

LUG FOOTING PER PLAN

- NOTES: 1. REFER TO GENERAL NOTES & SPECIFICATIONS ON COVERSHEET FOR ADDITIONAL INFORMATION.
- 2. PROVIDE 6 MIL VAPOR BARRIER UNDER ALL SLABS-ON-GRADE. SEE ARCH. DWGS. FOR ALL TOP OF THE SLAB ELEVATIONS, SLOPES AND DEPRESSIONS.

YES

NO

- 4. REFER TO STRUCTURAL PLANS AND FRAMING DETAILS FOR BRACED WALL PANEL LAYOUT, DIMENSIONS, ATTACHMENT AND CONNECTIONS
- 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

SÜMMIT

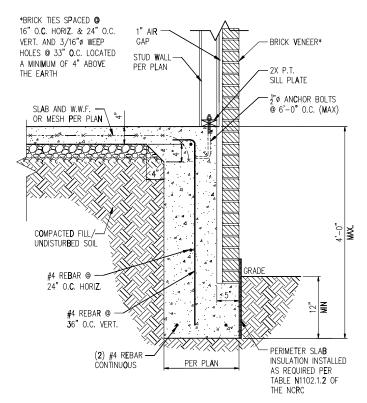
SUMMIT &

SUMMIT Engineering, Laboratory & Testing, P.C.

DATE: 3/2/2 8CALE: 27x34 1/4"+1"-**8"** 18x1 1/8":1"-**8"** PROJECT & P-19Ø1-1ØR DRAWN BY: LAG CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

Dlm



- NOTES:

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





Details Foundation Slab PROJECT:
Standard Details

Monolithic (



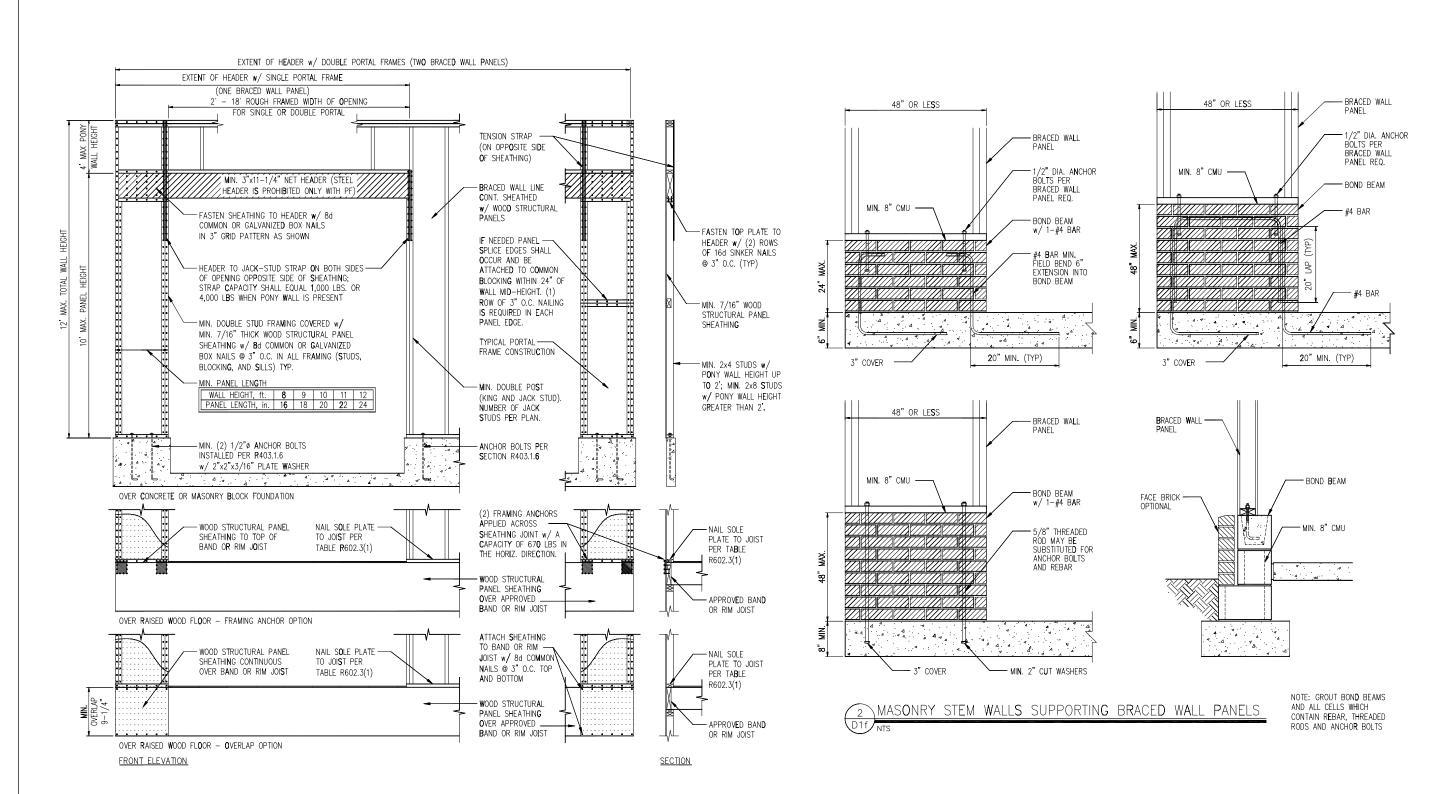
STRUCTURAL MEMBERS ONLY

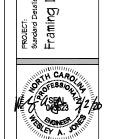
DATE: 3/2/28 8CALE: 22x34 1/4"+1-**6"** lbt1 1/8"+1-**6"** PROJECT 4 P-19Ø1-1Ø DRAWN BY: LAG

CHECKED BY: WAJ

REFER TO GOVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2m





STRUCTURAL MEMBERS ONLY

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SUMMIT Engineering, Laboratory & Testing, P.C.

CLIENT:
DR Horton Carolina Divi
8001 Arrowridge Blvd.
Charlotte, NC 20213

DRAUMS

DATE: 32/30

SCALE: 22/24 14**1*6**
FROJECT + P-18/2T-6/R

DRAUM BY, LAG

CHECKED BY: UAJ

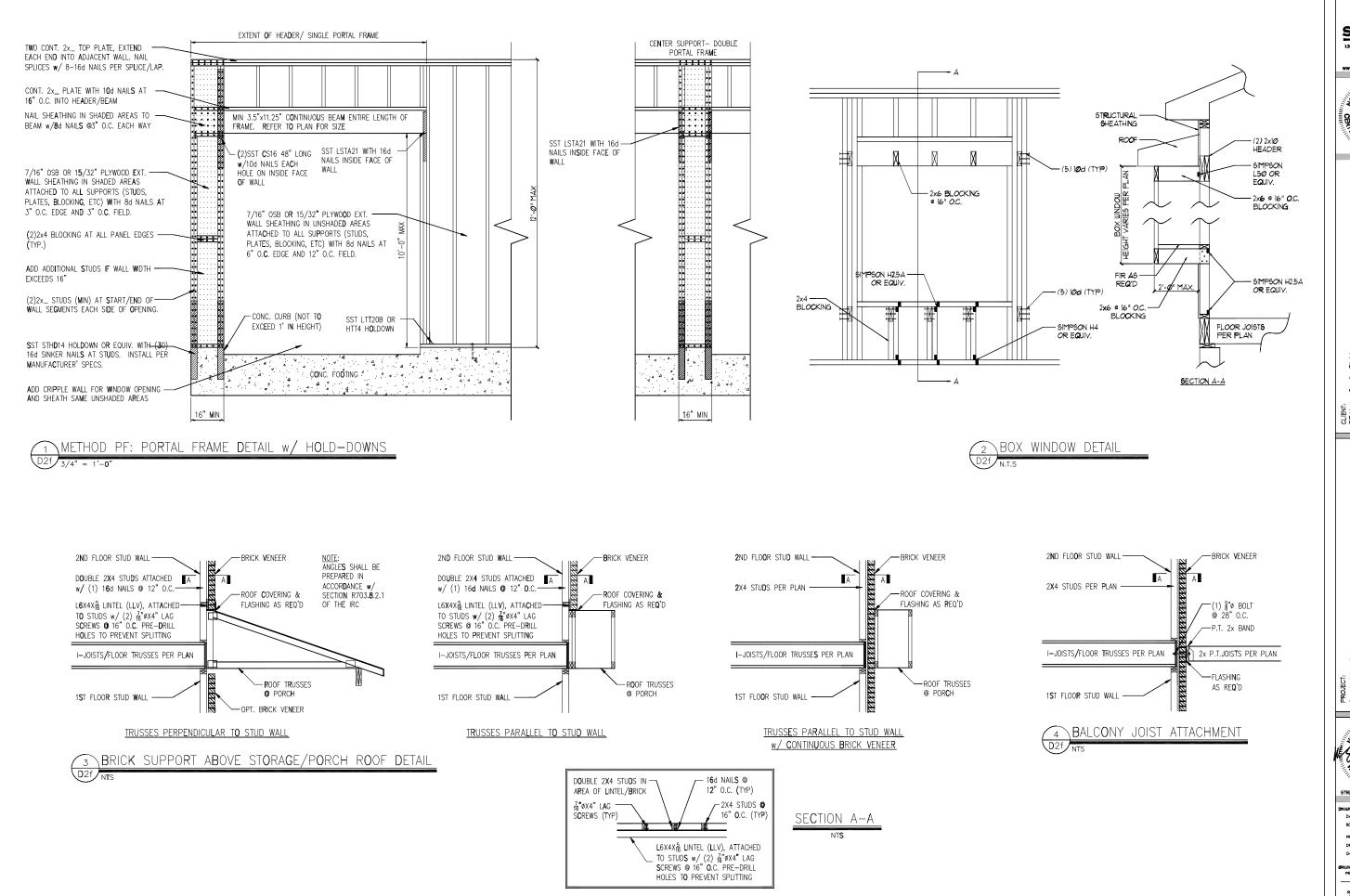
CRIGINAL INFORMATION
PROJECT P DATE
1/30

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

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METHOD PF: PORTAL FRAME DETAIL

D1f 3/8" = 1'-0"



SUMMIT





Detaí PROJECT: Standard Details Framing

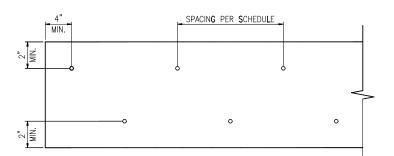


DATE: 3/2/2 8CALE: 22x34 1/4"∗T-**8"** bet 1/8"∗T-**8"** PROJECT & P-19Ø1-1ØR DRAWN BY: LAG

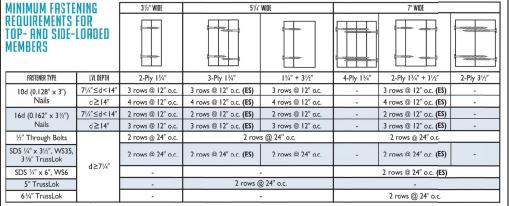
CHECKED BY: WAJ

REFER TO GOVER SHEET FOR A COMPLETE LIST OF REVISIONS

D2f



ELEVATION VIEW



NOTES:

- I.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 7½" 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, ther fasteners installed in adjacent rows on the front.

 - 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).

L3x3x1/4"x8-1/2" LONG -

LINTEL BOTH SIDES OF WEB

w/ 13/16" # HOLES @ GAGE

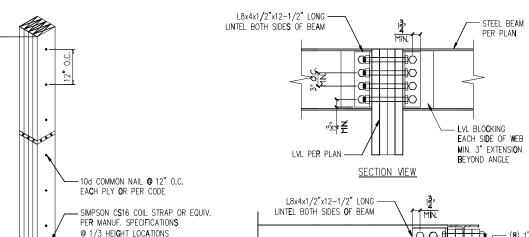
side are to be staggered up to one-hall the o.c. spacing, but maintaining the fastene-clearances above and

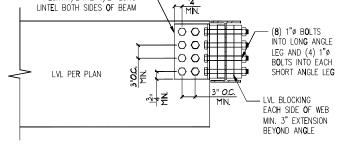
(3) if "ES" is referenced, then the fastener schedule must be repeated on each side,





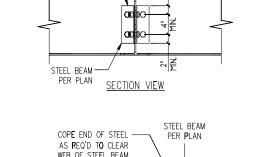
MULTI-PLY STUD CONNECTION DETAIL



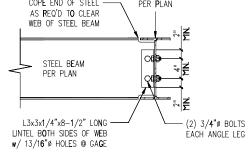


ELEVATION VIEW





- STEEL BEAM PER PLAN



ELEVATION VIEW







2x4s @ 16" O.C.-

TOENAILED w/ (2) 16d

COMM**O**N TÓ N**A**ÍLERS

(3) 16d COMMON -

2x6 SUBFASCIA -

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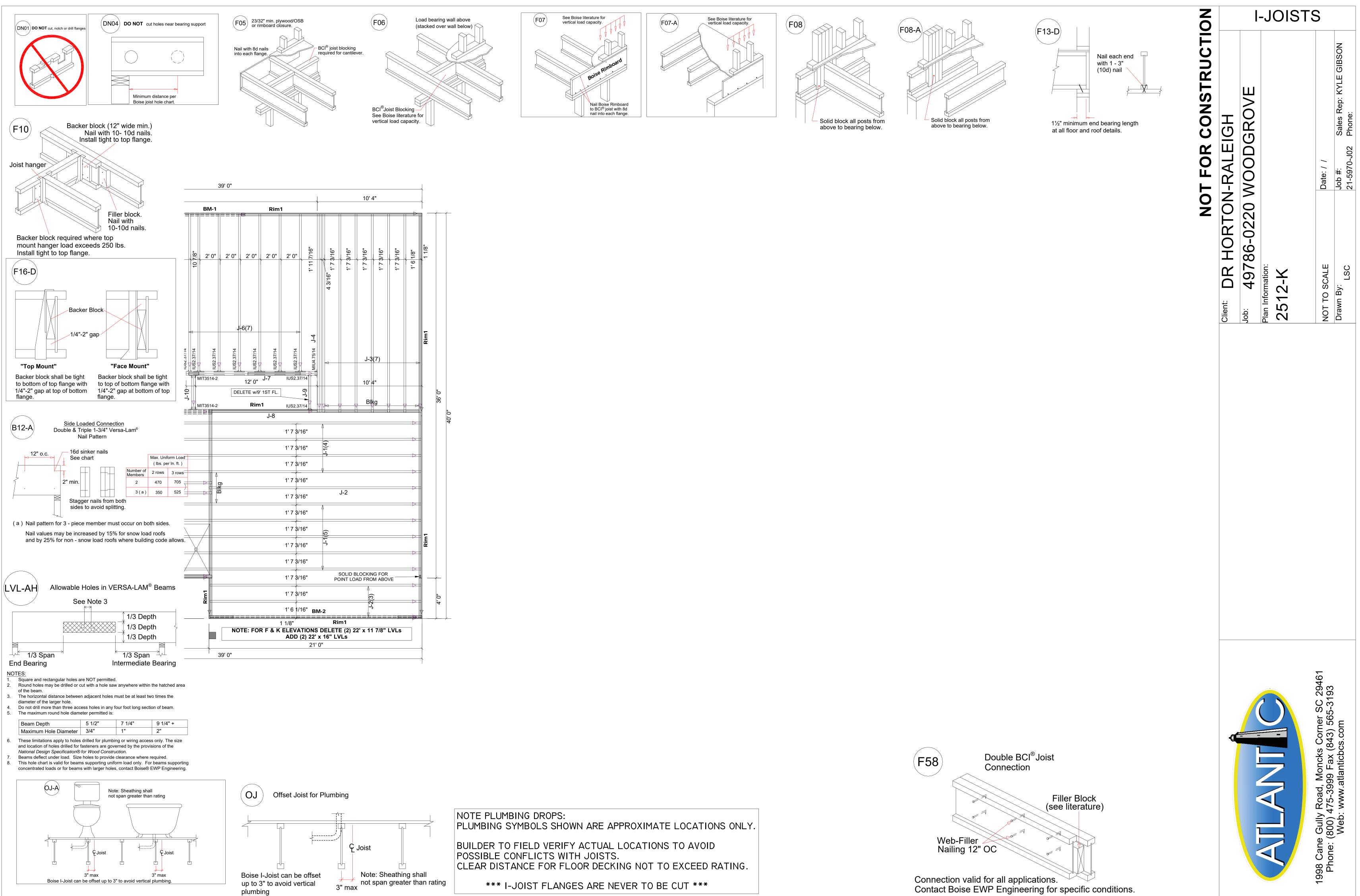
PROJECT: Standard Details Framing Details



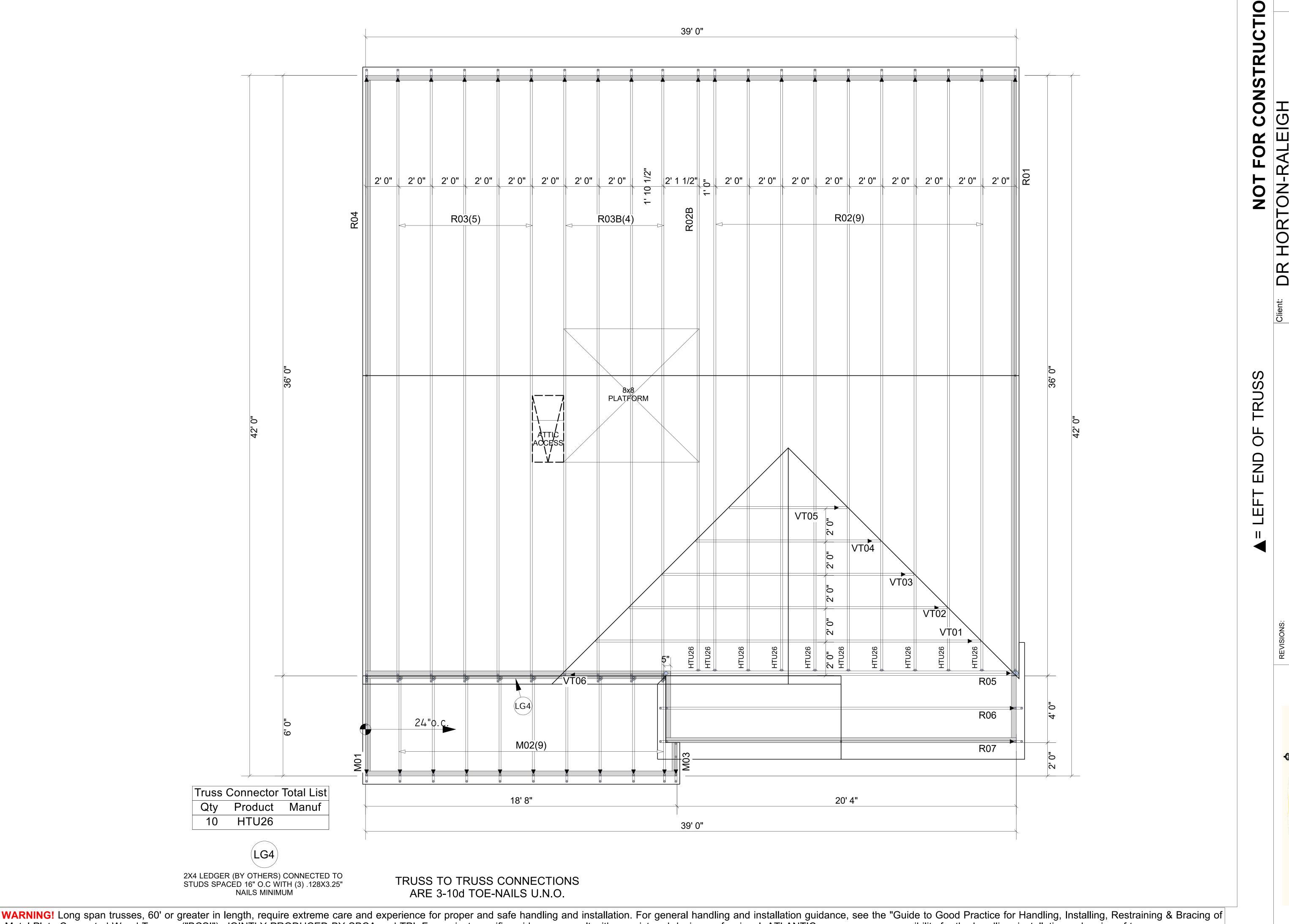
DATE: 3/2/2 8CALE: 22x34 1/4"∗1"-**6"** lbt1 1/8"∗1"-**6"** PROJECT 4 P-1907-10R DRAIIN BY: LAG CHECKED BY: WAJ

REFER TO COVER SHEET FOR A COMPLETE LIST OF REVISIONS

D3f



998 Cane Gully Road, Moncks Corner SC 29461 Phone: (800) 475-3999 Fax (843) 565-3193 Web: www.atlanticbcs.com



LEVEL FOR CONSTRUCTION

WARNING! Long span trusses, 60' or greater in length, require extreme care and experience for proper and safe 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.