GENERAL STRUCTURAL NOTES
BUILDING DESIGN

ALL WORK TO CONFORM TO THE REQUIREMENTS OF THE FOLLOWING:

(A) INTERNATIONAL RESIDENTIAL CODE - 2015 (IRC-2015) W/ GA AMENDMENTS
(B) STANDARD FOR RESIDENTIAL CONSTRUCTION IN HIGH-WIND REGIONS (ICC-600)
(C) WOOD FRAME CONSTRUCTION MANUAL FOR ONE & TWO FAMILY DWELLINGS (SBSC HIGH-WIND EDITION)

DESIGN CRITERIA

MINIMUM UNIFORMLY DISTRIBUTED LOADS

USE	LIVE LOAD IN PSF	DEAD LOAD IN PSF
UNINHABITABLE ATTICS WITHOUT STORAGE	10	20
UNINHABITABLE ATTICS WITH LIMITED STORAGE	20	20
HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS	30	30
BALCONIES (EXTERIOR) AND DECKS	40	45
FIRE ESCAPES	40	30
GUARDS AND HANDRAILS	200 lbs	
PASSENGER VEHICLE GARAGES	50	8000 lbs
ROOMS OTHER THAN SLEEPING ROOMS	40	30
SLEEPING ROOMS	40	30
STAIRS	40	30

ROOF DEAD LOAD: 20 PSF
ROOF LIVE LOAD: 50 PSF

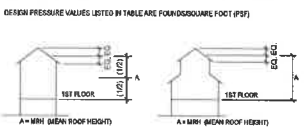
WIND ZONE - INLAND
135 MPH (B EXPOSURE)
BASIC WIND SPEED - MPH 3 SECOND GUST

MRH	ZONE(4)	ZONE(5)
15'	DP35	DP45
20'	DP35	DP45
25'	DP35	DP45
30'	DP35	DP45
35'	DP35	DP45
40'	DP40	DP45
45'	DP40	DP50
50'	DP40	DP50

WIND ZONE - OCEANFRONT
135 MPH (C EXPOSURE)
BASIC WIND SPEED - MPH 3 SECOND GUST

MRH	ZONE(4)	ZONE(5)
15'	DP40	DP50
20'	DP45	DP55
25'	DP45	DP55
30'	DP50	DP60
35'	DP50	DP60
40'	DP50	DP65
45'	DP55	DP65
50'	DP55	DP65

DESIGN PRESSURE VALUES LISTED IN TABLE ARE POUNDS/SQUARE FOOT (PSF)



6. SEISMIC CRITERIA: (2015 IRC - SECTION 1613)

SITE CLASSIFICATION: SITE CLASS 'D'
AVERAGE "N" VALUES: BETWEEN 15 TO 50
SPECTRAL RESPONSE ACCELERATION: Ss = 0.310, S1 = 0.120
SITE COEFFICIENT VALUE: Fa = 1.552, Fv = 2.321
BUILDING DESIGN CATEGORY "C"

STRUCTURAL STUD LEGEND

LUMBER SPECIES: #2 S.Y.P. K.D. MEDIUM GRAIN
WIND SPEED: 135 MPH

WALL LOCATION	CEILING HEIGHT	STUD SIZE	O.C. SPACING	[illegible]
EXTERIOR	8'-0"	2 x 4	[illegible]	[illegible]
[illegible]	9'-0"	2 x 4	16"	[illegible]
EXTERIOR	10'-0"	2 x 6	16"	
EXTERIOR	12'-0"	2 x 6	[illegible]	
EXTERIOR	14'-0"	2 x 6	12" & DBL. @ 36"	
EXTERIOR	16'-0"	2 x 6	16"	
INTERIOR	8'-0"	2 x 4	16"	
[illegible]	9'-0"	2 x 4	16"	
INTERIOR	[illegible]	2 x 4	16"	
INTERIOR	12'-0"	2 x 6	16"	
INTERIOR	14'-0"	2 x 6	12"	

* STUDS MAY BE USED AT HEIGHTS AND DISTANCES OTHER THAN WHAT IS LISTED ON THIS CHART IF SHOWN ON THESE PLANS.

GENERAL CONSTRUCTION NOTES:

ALL WORK UNDER THIS CONTRACT SHALL CONFORM TO ALL CODES, ORDINANCES, AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION OVER THIS WORK WHETHER SHOWN IN THESE DOCUMENTS OR NOT.

CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS.

CONTRACTOR SHALL SECURE AND PAY FOR ALL INSURANCE CALLED FOR BY LAW AND AS DIRECTED BY FUNDING INSTITUTION. COPIES OF INSURANCE CERTIFICATES SHALL BE FILED WITH THE ARCHITECT.

GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL WORK WITH ALL TRADES INVOLVED.

GENERAL CONTRACTOR SHALL VERIFY ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF EXISTING FEATURES BEFORE STARTING WORK; NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH IRC 2015 CODE, OSHA, ACI, AISC AND AITC CODES AND REQUIREMENTS AND ALL APPLICABLE STANDARDS.

GENERAL CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND VENDOR DRAWINGS FOR COORDINATION OF EQUIPMENT IN AND/OR BENEATH SLABS.

CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY BRACING FOR STRUCTURE AND ITS INDIVIDUAL MEMBERS SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE IS DESIGNED FOR A COMPLETED CONDITION ONLY AND THEREFORE REQUIRES ADDITIONAL TEMPORARY SUPPORTS TO MAINTAIN STABILITY BEFORE COMPLETION. ROOF DECKING AND WALL SHEATHING WILL BE INSTALLED AND ALL JOISTS AND GIRDERS SECURED PRIOR TO TEMPORARY BRACING REMOVAL.

TEMPORARY BRACING DESIGN, INSTALLATION AND MAINTENANCE WILL BE AT ALL TIMES THE RESPONSIBILITY OF THE CONTRACTOR AND/OR ERECTOR. TEMPORARY BRACING IS NOT A DESIGN FUNCTION OF THE STRUCTURAL ENGINEER.

SUBGRADE PREPARATION NOTES:

REFER TO GEOTECHNICAL REPORT FOR SOIL INVESTIGATIONS RESULTS AND SOIL PREPARATION REQUIREMENTS.

PRIOR TO CONSTRUCTION, ALL BUILDING AREA, PLUS APPROX. 5 FEET ON EACH SIDE, SHOULD BE STRIPPED OF ALL VEGETATION, TOP SOIL, ROOT SYSTEMS, ANY EXISTING PAVEMENTS, FOREIGN OBJECTS AND DEBRIS.

SITE DRAINAGE SHOULD BE ESTABLISHED TO PREVENT WATER PONDING WITHIN THE CONSTRUCTION AREA AND TO FACILITATE THE STORM WATER RUN-OFF.

IF NECESSARY, THE SITE DEWATERING WILL BE EMPLOYED UNTIL THE FOUNDATIONS AND UTILITIES ARE IN PLACE. DEWATERING METHODS WILL BE SELECTED BY CONTRACTOR AND APPROVED BY ARCHITECT/ENGINEER.

ANY UTILITIES THAT UNDERLIE THE SITE, SHOULD BE RELOCATED AND THE TRENCHES BACK FILLED WITH APPROVED SUITABLE BACKFILL SOIL. THE BACKFILL SHOULD BE PLACED IN SIX INCHES THICK LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM-D-1557.

THE EXPOSED SUBGRADE UNDER FOUNDATIONS AND SLABS WILL BE THEN LEVELED AND COMPACTED.

ALL OF THE EXPOSED SUBGRADE SHOULD BE COMPACTED BY REPEATED PASSES OF A VIBRATORY ROLLER. COMPACTION EFFORT SHOULD CONTINUE UNTIL THE SOIL UNDER FOOTINGS AND SLABS REACHED DENSITY OF 95% IN ACCORDANCE WITH ASTM D-1557 FOR A MINIMUM DEPTH OF 12 INCHES BELOW BOTTOM OF THE FOOTINGS AND SLABS.

ANY AREAS THAT BECOME UNSTABLE BENEATH COMPACTION EQUIPMENT SHOULD BE EXAMINED TO DETERMINE THE CAUSE. IF DUE TO UNSUITABLE SOIL, SUCH AS CLAY OR HIGHLY ORGANIC SOIL, THE AREA SHOULD BE UNDERCUT TO FIRM SOIL AND THE EXCAVATION BACKFILLED WITH APPROVED FILL COMPACTED TO 95% OF ITS DENSITY (IN ACCORDANCE WITH ASTM D-1557). IF THE INSTABILITY IS DUE TO EXCESS MOISTURE IN OTHERWISE ACCEPTABLE SOIL, THE AREA SHALL BE AERATED OR OTHERWISE DRIED AND RECOMPACTED TO THE SPECIFIED DENSITY.

ALL OF THE FILL FOR THIS PROJECT SHOULD CONSIST OF A CLEAN, FREE DRAINING SAND WITH A MAXIMUM OF 15% FINES. THE FILL WILL BE FREE OF ROOTS, CLAY LUMPS AND ANY DEBRIS. ALL OF THE FILL FOR THIS PROJECT WILL BE PLACED IN 12 INCH THICK LOOSE LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM-D-1557.

THE DESIGN SOIL BEARING PRESSURE IS PSF 1500.

CAST IN PLACE CONCRETE, FOUNDATIONS AND FLOOR SLAB NOTES:

ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS, UNLESS NOTED OTHERWISE. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 318.

MIXING AND PLACING OF CONCRETE SHALL BE PROVIDED WITH CONSIDERATION TO WEATHER CONDITIONS AT THE TIME OF CONSTRUCTION. FOR COLD WEATHER IN ACCORDANCE WITH ACI 306; FOR HOT WEATHER IN ACCORDANCE WITH ACI 305.

CURING METHODS SHALL BE SELECTED BY CONTRACTOR AND ARCHITECT/ENGINEER APPROVED TO SUIT WEATHER CONDITIONS AT THE TIME OF CONSTRUCTION.

WEATHER CONDITIONS SHALL NOT BE ACCEPTED AS A VALID REASON FOR INCORRECT OR OTHERWISE POOR QUALITY OF CONCRETE OR CONCRETE SURFACES.

CONCRETE FINISHES SHALL BE SELECTED TO ACCOMMODATE FLOOR COVERINGS. SCRATCHED FINISH FOR SURFACES INTENDED TO RECEIVE BOND APPLIED CEMENTIOUS APPLICATIONS. TROWELED FINISH FOR EXPOSED INTERIOR SURFACES. NONSLIP, LIGHT BROOM FINISH FOR EXTERIOR EXPOSED SURFACES.

ALL FINISHES SHALL BE MINIMUM CLASS B TOLERANCES, EXCEPT FOR EXPOSED CONCRETE SURFACES WHICH SHALL MEET CLASS A REQUIREMENTS IN ACCORDANCE WITH ACI 301.

GENERAL CONTRACTOR SHALL INVESTIGATE ACTUAL LOCATIONS OF UNDERGROUND LINES AND UTILITIES BEFORE EXCAVATING. ALL EXCAVATIONS NEAR THESE LINES SHALL BE CARRIED OUT WITH EXTREME CAUTION.

CAST IN PLACE CONCRETE, FOUNDATIONS AND FLOOR SLAB NOTES (CONTINUED):

UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI SP-66, LATEST EDITION.

ALL BAR SPLICES SHALL BE CLASS C TENSION LAP SPLICES, UNLESS OTHERWISE SHOWN. PROVIDE STD. CORNER BARS AT ALL CORNERS.

PROVIDE MINIMUM OF 3" OF CONCRETE COVER FOR REINFORCING STEEL WHEN THE CONCRETE IS PLACED DIRECTLY AGAINST GROUND.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

WELDED WIRE FABRIC REINFORCEMENT MUST LAP ONE FULL MESH AT SIDE AND END LAPS AND BE WIRED TOGETHER.

ALL SLAB AND FOUNDATION REINFORCEMENT SHALL BE TIED IN PLACE PRIOR TO PLACING CONCRETE.

HOLD UP REINFORCING WITH TYPICAL STANDARD CHAIRS.

REINFORCEMENT SHOWN SHALL BE USED AS DETAILING GUIDE. PROVIDE RE-BARS AS REQUIRED TO SUIT SPECIAL CONDITIONS.

CONTRACTOR SHALL COORDINATE EXACT ANCHOR BOLT LOCATIONS AND LAYOUT WITH BUILDING CODE REQUIREMENTS AND THESE DRAWINGS

FLOOR JOINTS SHALL BE LOCATED AS RECOMMENDED BY ACI 318. CONSTRUCTION JOINTS SHALL BE LOCATED AS REQUIRED FOR WORK SEQUENCE .

WALLS, FLOORS AND ROOF FRAMING GENERAL NOTES:

COORDINATE LAYOUT OF FRAMING MEMBERS WITH ALL TRADES TO INSURE THAT JOISTS, RAFTERS AND PLATES ARE NOT EXTENSIVELY NOTCHED, CUT OR BORED. REFER TO IRC 2012 CODE, ICC-600 AND AITC MANUAL FOR ALLOWABLE CUTTING NOTCHING AND BORING OF FRAMING MEMBERS. TRUSSES SHALL NOT BE CUT, NOTCHED OR BORED WITHOUT ARCHITECTS APPROVAL.

THE ENGINEERING OF FRAMING MEMBERS IS BASED ON # 2 SPRUCE OR #2 S.Y.P. FB = 1200 PSI, E = 1,200,000 PSI. SUBSTITUTION MUST BE APPROVED BY THE ARCHITECT BEFORE USING.

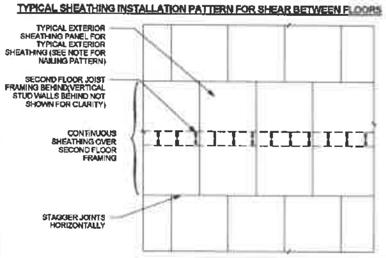
ALL CONNECTION STEEL ANGLES, PLATES AND BOLTS AT MASONRY WALLS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A-153.

ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY, GROUND OR OTHERWISE NOTED ON THE DRAWINGS WILL BE PRESSURE TREATED IN ACCORDANCE WITH AWPI STANDARD LP-2.

ALL PLYWOOD SHEATHING WILL BEAR THE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION AND WILL MEET THE REQUIREMENTS OF PS1-83 OR APA PRP-108. ALL PANELS PERMANENTLY EXPOSED TO THE WEATHER WILL BE CLASSIFIED "EXTERIOR". APPLICATION WILL BE IN ACCORDANCE WITH RECOMMENDATIONS PLYWOOD ASSOCIATION. ALL OSB BOARD SHEATHING WILL BE "EXTERIOR GRADE" EXCEPT ON INTERIOR WALLS.

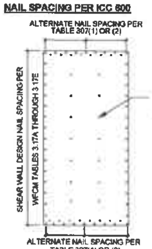
WALL AND ROOF SHEATHING WILL BE NAILED WITH 8D NAILS (TWISTED SHANK) 3" O.C. AROUND EDGES AND 6" O.C. IN FIELD.

TYPICAL SHEATHING INSTALLATION PATTERN FOR SHEAR BETWEEN FLOORS

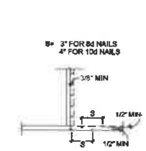


IF SHEATHING IS NOT INSTALLED VERTICALLY BETWEEN FLOORS USE VERTICAL SIMPSON STRAPS @ 32" O.C. (EVERY OTHER STUD)

NAIL SPACING PER ICC 600



DOUBLE EDGE NAIL SPACING



SHEET LIST

SHEET NUMBER	SHEET NAME
S2.1	ROOF DETAILS
S3.0	SECTION DETAILS
S1.0	GENERAL NOTES
S2.0	FOUNDATION PLAN

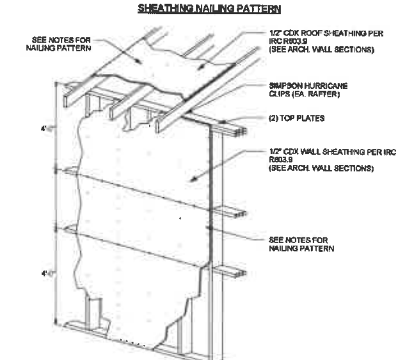
SOIL BEARING PRESSURE ASSUMED AT 1500 P.S.F. OWNER DID NOT FURNISH TESTS TO ESTABLISH S.B.P.OWNER ASSUMES ANY AND ALL RESPONSIBILITY FOR ANY & ALL FOUNDATION SETTLEMENT AND HOLDS HARMLESS ENGINEER.

NAILING SCHEDULE

(PER ICC-600)
APPLIES UNLESS NOTED OTHERWISE ON DRAWINGS

CONNECTION	FASTENER	NUMBERS OR SPACING
JOIST TO BAND JOIST, FACE NAIL	16D COMMON	3
JOIST TO SILL OR GIRDER, TOE-NAIL	8D COMMON	3
BRIDGING TO JOIST, TOENAIL EACH END	8D COMMON	2
LEDGER STRIP	16D COMMON	3 @ EACH JOIST
1x6 OR LESS SUB FLOOR TO EACH JOIST, FACE NAIL	8D COMMON	2
OVER 1x6 SUB FLOOR TO EACH JOIST, FACE NAIL	8D COMMON	3
2" SUB FLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	16D COMMON	2
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D COMMON	16" O.C.
TOP OR SOLE PLATE TO STUD, END NAIL	16D COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8D COMMON	4
DOUBLE STUDS, FACE NAIL	10D COMMON	24" O.C.
DOUBLE TOP PLATES, FACE NAIL	10D COMMON	16" O.C.
TOP PLATES, LAP AND INTERSECTIONS FACE NAIL		2-16D OR 3-10D COMMON
CONTINOUS HEADER, TWO PIECES	16D COMMON	16" O.C. ALONG EACH EDGE
CEILING JOIST TO PLATE, TOENAIL	8D COMMON	3
CONTINOUS HEADER TO STUD, TOE NAIL	8D COMMON	3
CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL		3-16D OR 4-10D COMMON
CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL		3-16D OR 4-10D COMMON
RAFTER TO PLATE, TOENAIL	8D COMMON	3
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	8D COMMON	2
1x8 OR LESS SHEATHING TO EACH BEARING, FACE NAIL	8D COMMON	2
BUILT-UP CORNER STUDS	16D COMMON	3
BUILT-UP GIRDERS AND BEAMS, OF THREE MEMBERS	20D COMMON	24" O.C.
STUDS TO SOLE PLATE, END NAIL	16D COMMON	16D COMMON

SHEATHING NAILING PATTERN



NOTE
WALL AND ROOF SHEATHING WILL BE NAILED WITH 8d NAILS 3" O.C. AROUND EDGES AND 6" O.C. IN FIELD OR WALL AND ROOF SHEATHING WILL BE NAILED WITH 10d NAILS 4" O.C. AROUND EDGES AND 12" O.C. IN FIELD PROVIDE SHEATHING SPLICES OVER BLOCKING OR FRAMING THE SHEATHING MAY BE PLACED EITHER HORIZONTALLY OR VERTICALLY

NAILS IN ANY SINGLE ROW SHALL NOT BE SPACED CLOSER THAN 3" O.C.

EXTERIOR WINDOW AND DOOR PROTECTION

WINDOWS, GLASS DOORS & SKYLIGHTS SHALL BE APPROVED AND INSTALLED TO COMPLY WITH BOTH NEGATIVE AND POSITIVE PRESSURES AS REQUIRED BY ICC-600. DOCUMENTATION OF COMPLIANCE SHALL BE AVAILABLE ON SITE FOR EACH WINDOW, DOOR OR SKYLIGHT AT THE FRAMING INSPECTION. (ICC-600)

ALL GAZING IN DOORS, WINDOWS, OR SKYLIGHTS SHALL BE TESTED FOR 'LARGE MISSILE IMPACT RESISTANCE' AS NOTED BELOW. OPTION: PROVIDE WOOD STRUCTURAL PANELS FOR EACH OPENING. PANELS WILL HAVE A MINIMUM THICKNESS OF 7/16 INCHES AND A MAXIMUM SPAN OF 8'. PANELS MUST BE PRECUT TO SIZE, AND ATTACHMENT HARDWARE PROVIDED, (3" LONG, 1/4" DIAMETER SIMPSON SCREWS AT 12" O.C. AT PERIMETER OF PANEL). EACH PANEL SHALL BE NUMBERED OR MARKED TO INDICATE WHICH WINDOW IT SHALL BE INSTALLED OVER. (IRC 301.2.1.2 AND (ICC-600))

THE DOOR AND WINDOW UNITS WILL HAVE MIN. 5/16" LAMINATED GLASS IN COMPLIANCE WITH AAMA 101/I.S.2.97 TESTING SPECIFICATIONS AND LARGE MISSILE RESISTANCE IN ACCORDANCE WITH ASTM E1886/E1996, UNLESS PROTECTED WITH WOOD STRUCTURAL PANELS FASTENED IN ACCORDANCE WITH THE FOLLOWING DETAILS

DO NOT SCALE THE DRAWINGS. THE DESIGNER WILL NOT ACCEPT RESPONSIBILITY FOR CONSTRUCTION ERRORS DUE TO SCALING OF THE DRAWINGS. VERIFY ALL DIMENSIONS, FINISHES, FIXTURES, ETC. BEFORE BEGINNING CONSTRUCTION. IF DIMENSIONS OR DETAILS ARE OMITTED, INCORRECT, OR NOT CLEAR, THE CONTRACTOR SHALL CONSULT WITH THE DESIGNER FOR CLARIFICATION.

DO NOT REPRODUCE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THOMAS & REEL ENGINEERING CONSULTANTS, INC.

COPYRIGHT © 2009 THOMAS-REEL ENGINEERING CONSULTANTS, INC.

ISSUE FOR REVIEW

STRUCTURAL

Thomas & Reel
Engineering Consultants, Inc.
trec | STRUCTURAL | MEP | FORENSICS
www.thomasreel.com
912-920-0950
9100 WHITE BLUFF RD, SUITE 906, SAVANNAH GEORGIA 31406
PO BOX 15818 SAVANNAH, GEORGIA 31416

EAGLE

LOT# 35 THE GLEN PHASE 2
HILTON HEAD ISLANS, SC

HABITAT FOR HUMINITY PHASE II

GENERAL NOTES

REVISIONS		
MARK	DATE	DESCRIPTION

TREC No.	1609-1588-06
Date Printed	10/29/2018 9:34:48 AM
Date Issued	10/16/2018
Designed By	HC
Checked by	DR/CR
Approved by	MT

S1.0

As indicated

GENERAL NOTES

VAPOR BARRIER NOTE

INSTALL 6 MIL VAPOR BARRIER IN CRAWL SPACE. ALL SEAMS MUST BE TAPED AND SEALED PROPERLY. VAPOR BARRIER MUST EXTEND AT LEAST 12" UP EACH PIER AND STEM WALL.

CONCRETE NOTES

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
2. ALL CONCRETE WORK SHOULD BE IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
3. ALL REINFORCING STEEL TO BE NEW DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60 EXCEPT THAT TIES MAY BE DOMESTIC STEEL CONFORMING TO ASTM A-615 GRADE 60.
4. WELDED WIRE FABRIC SHALL CONFORM TO A-185. POLYPROPYLENE FIBERMESH OR FIBER STRANDS MAY BE SUBSTITUTED FOR WELDED WIRE FOR NON STRUCTURAL SLAB REINFORCEMENT.
5. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS, ETC. AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED. NO SLEEVES, OPENINGS OR INSERTS MAY BE PLACED IN BEAMS OR SLABS UNLESS APPROVED BY THE ENGINEER AND SHOWN ON SHOP DRAWINGS.
6. ALL REINFORCING DETAILS TO CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, ACI 315," UNLESS DETAILED OTHERWISE ON STRUCTURAL DRAWINGS.
7. PROVIDE SPACERS, CHAIRS, BOLTERS, ETC. AS REQUIRED TO ASSEMBLE, PLACE AND SUPPORT ALL REINFORCING IN PLAN.
8. PROVIDE CORNER BARS FOR ALL FOOTINGS, ALL FOOTING DOWEL BARS SHALL HAVE A STANDARD 90 DEGREE HOOK AND SHALL BE EMBEDDED 5" INTO INTERIOR FOOTINGS AND A MINIMUM OF 7" INTO ALL OTHERS. DOWEL BARS LAP VERTICAL WALL REINFORCEMENT A MINIMUM OF 25".
9. ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED.
10. SOIL UNDER SLAB TO BE PRETREATED FOR TERMITES AS PER THE 2012 INTERNATIONAL BUILDING CODE.
11. ALL FOOTINGS TO BE DESIGNED FOR AN ASSUMED SOIL PRESSURE OF 2000 P.S.F. OWNER & CONTRACTOR TO HAVE SOIL PRESSURE VERIFIED AND IF CONTACT PRESSURE IS LESS THAN 2000 P.S.F. FOUNDATION SHALL BE REDESIGNED. COMPACT FILL SOIL TO 95% STANDARD PROCTOR DENSITY DOWN TO 2'-0" BELOW ALL SLABS & FOOTINGS.
12. PLUMBING WASTE PIPE PENETRATING FOOTING SHALL BE CAST IRON OR SCH 40 PVC. GROUT WORK AS PER ASTM C47613. MASONRY WORK AS PER ACI 530.1-02

STRUCTURAL STEEL COMPONENTS FASTENERS & TIE DOWNS

1. SHAPES, ANGLES, CHANNELS: ASTM A 36 Fy =36KSI ROUND AND SQUARE METAL PIPE; ASTM A 53 GRADE B Fy = 36 KSI; SQUARE METAL TUBING: ASTM A 500, GRADE B Fy = 36 KSI
2. FASTENERS AND TIE DOWNS SHALL CONSIST OF BUT ARE NOT LIMITED TO:
   HIGH STRENGTH BOLTS: ASTM A325
   MACHINE BOLTS: GALVANIZED ASTM A 307
3. SHEET METAL ACCESSORIES SHALL CONFORM TO: ASTM A446 OR ASTM A 526 Fy = 33 KSI WITH G90 GALVANIZED COATING IN ACCORDANCE WITH ASTM A 525.
4. NAILS SHALL CONSIST OF RING SHANK NAILS WITH MINIMUM DIAMETER AS FOLLOWS: 8D = .131", 10D = .148", 16D = .162"
5. ALL FASTENERS AND TIE DOWNS EMBEDDED IN CONCRETE OR USED IN AN EXTERIOR APPLICATION ARE TO RECEIVE AN ANTI-CORROSIVE COATING PRIOR TO INSTALLATION.
6. ALL FASTENERS AND TIE DOWNS ARE TO PROVIDE THE UPLIFT CAPACITY CALLED FOR IN THE PLANS AS A MINIMUM.
7. ALL FASTENER TIE DOWNS, BEAM HANGERS, JOIST HANGERS, AND FLOOR TRUSS STRAPPING ARE TO BE INSTALLED IN ACCORDANCE WITH THE PLANS AND MANUFACTURERS SPECIFICATIONS.
8. CONCRETE EMBEDDED "J" BOLTS USED FOR UPLIFT ARE TO BE WET SET PRIOR TO INITIAL SET OF THE CONCRETE SPACING AND ALIGNMENT ARE TO BE IN ACCORDANCE WITH THE DESIGN PLANS.
9. CONCRETE EMBEDDED TIE DOWNS USED FOR TRUSS AND WALL UPLIFT ARE TO BE PLACED AROUND EMBEDDED REINFORCING PRIOR TO PLACING GROUT/CONCRETE.
10. FASTENERS ARE TO BE GALVANIZED ROOFING NAILS WITH A MINIMUM OF 12 GUAGE SHANK AND A MINIMUM 3/8" DIA. HEAD.
11. FASTENERS ARE TO BE LONG ENOUGH TO PENETRATE THE SHINGLES AND STILL PROTRUDE AT LEAST 3/4" INTO OR THROUGH THE ROOF SHEATHING, USE 1" NAILS MIN.

FOUNDATION DESIGN ASSUMPTIONS

THE FOUNDATION SHALL BE PLACED ON UNDISTURBED SOIL OR ROCK WITH A BEARING CAPACITY WITH A SAFE WORKING ZONE DESIGNATED BY GEOTECHNICAL ENGINEER. IF PORTIONS OF THE SLAB OR FOUNDATION IS ON PREPARED FILL, A REGISTERED GEOTECHNICAL ENGINEER SHALL VERIFY SUITABILITY OF THE FILL FOR USE AND ITS FOUNDATION BEARING CAPACITY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CONDITIONS OF THE SOIL AND/OR SITE LOCATION PRIOR TO COMMENCING WORK AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES IN THIS DESIGN IMMEDIATELY.

SOIL BEARING CAPACITY

SOIL BEARING PRESSURE ASSUMED AT 1500 PSF OWNER DID NOT FURNISH TESTS TO ESTABLISH S.B.P. OWNER ASSUMES ANY AND ALL RESPONSIBILITY FOR ANY AND ALL FOUNDATION SETTLEMENT AND HOLD HARMLESS ENGINEER.

ENTRY STEP NOTE

GENERAL CONTRACTOR SHALL DETERMINE IN-FEILD THE LOCATIONS AND PLACEMENT OF ENTRY STAIR AND LANDINGS AS PER SITE CONDITIONS. THESE STAIRS AND LANDINGS SHALL COMPLY WITH THE IRC 2012.

DIMENSION NOTE

SEE ARCHITECTURAL PACKAGE FOR DIMENSIONS AND FINISH FLOOR ELEVATIONS NOT SHOWN HEREIN.

FRAMING SYSTEM NOTE

ALL FRAMING SYSTEMS ARE TO BE DESIGNED BY OTHER AND SUBMITTED FOR REVIEW BY ENGINEER UTILIZING L/480 DEFLECTION CRITERIA.

CONTROL JOINT NOTE

FOR A 4" THICK SLAB, JOINTS SHOULD BE SPACED 8-12 FEET APART AND CUT 1" DEEP.

MISCELLANEOUS NOTES

1. ALL EXTERIOR WALLS TO BE SHEAR WALLS WITH NAILING PATTERN: 1/2" CDX PLYWOOD W/ 3" MIN. CLEARANCE AT EDGE.
2. INSTALL SIMPSON (1) H10A OR (2) H2.5 @ EACH RAFTER TO TOP PLATE
3. CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY BRACING FOR STRUCTURE AND ITS INDIVIDUAL MEMBERS THAT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THIS STRUCTURE IS DESIGN FOR A COMPLETE CONDITION ONLY AND THEREFORE REQUIRES ADDITIONAL TEMPORARY SUPPORTS TO MAINTAIN STABILITY DURING CONSTRUCTION.

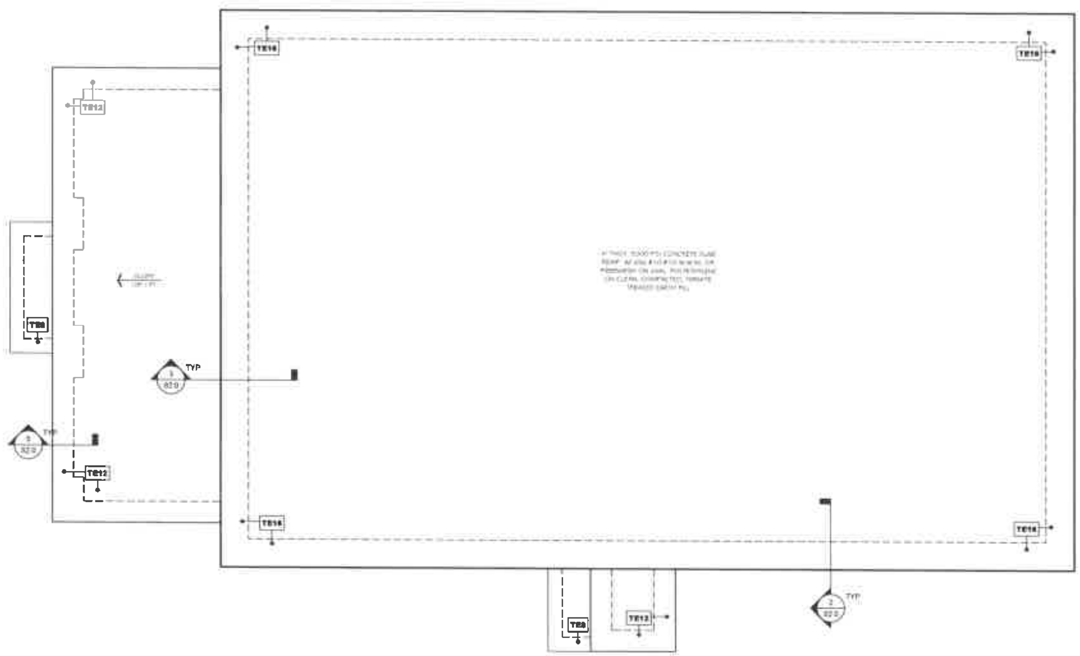
NOTE:

1)SEE ARCHITECTURAL DRAWINGS FOR DIMENSION(S) AND CONDITION(S) NOT SHOWN HEREIN.

2) FRAMING BY OTHERS, TO BE DESIGNED UTILIZING L/480 DESIGN CRITERA AND TO BE SUBMITTED TO ENGINEER FOR APPROVAL. SEE ARCHITECTURAL FOR DIMESIONS AND CONDITIONS NOT SHOWN HERIN.

3) SOIL BEARING PRESSURE ASSUMED AT 2000 P.S.F. OWNER DID NOT FURNISH TESTS TO ESTABLISH S.B.P.OWNER ASSUMES ANY AND ALL RESPONSIBILITY FOR ANY & ALL FOUNDATION SETTLEMENT AND HOLDS HARMLESS ENGINEER.

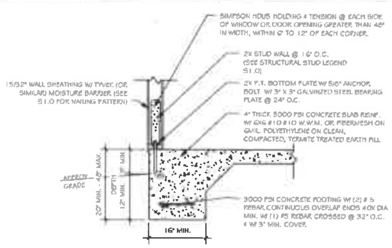
4) FOUNDATION DESIGN FOR TRUSSES ONLY



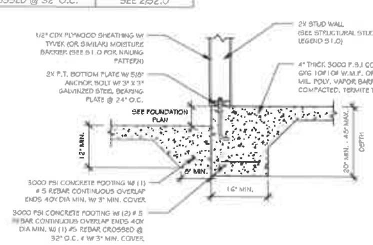
1 FOUNDATION PLAN
3/8" = 1'-0"

STRUCTURAL FOUNDATION SCHEDULE

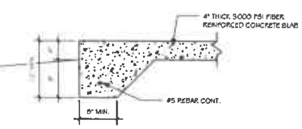
DESIGNATION	SIZE	REINFORCEMENT	REFERENCE
TE8	8" W X 12" D (MIN.)	#5 REBAR CONT. @ BOTTOM	SEE 4/S2.0
TE12	12" W X 12" D (MIN.)	(2) #5's REBAR CONT. @ BOTTOM	SEE 5/S2.0
TE16	16" W X DEPTH	(2) #5's REBAR CONT. @ BOTTOM W/ (1) #5 CROSSED @ 32" O.C.	SEE 2/S2.0



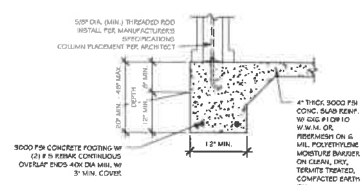
2 TYPICAL CONCRETE FOOTING DETAIL
3/4" = 1'-0"



3 TYPICAL FOUNDATION STEP DOWN
3/4" = 1'-0"



4 TYP. UTILITY/STAIR SLAB
1" = 1'-0"



5 TYP. PORCH FOUNDATION
3/4" = 1'-0"

DO NOT SCALE THE DRAWINGS. THE DESIGNER WILL NOT ACCEPT RESPONSIBITY FOR CONSTRUCTION ERRORS DUE TO SCALING OF THE DRAWINGS. VERIFY ALL DIMENSIONS, FINISHES, FIXTURES, ETC. BEFORE BEGINNING CONSTRUCTION. IF DIMENSIONS OR DETAILS ARE OMITTED, INCORRECT, OR NOT CLEAR, THE CONTRACTOR SHALL CONSULT WITH THE DESIGNER FOR CLARIFICATION.

DO NOT REPRODUCE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THOMAS & REEL ENGINEERING CONSULTANTS, INC.

ISSUE FOR REVIEW

COPYRIGHT © 2009 THOMAS-REEL ENGINEERING CONSULTANTS, INC.

STRUCTURAL

Thomas & Reel
Engineering Consultants, Inc.
trec | STRUCTURAL | MEP | FORENSICS
www.thomasreel.com
912-920-0950
9100 WHITE BLUFF RD, SUITE 306, SAVANNAH GEORGIA 31406
PO BOX 15819 SAVANNAH, GEORGIA 31416

EAGLE

LOT# 35 THE GLEN PHASE 2
HILTON HEAD ISLANS, SC

HABITAT FOR HUMINITY PHASE II

FOUNDATION PLAN

REVISIONS		
MARK	DATE	DESCRIPTION

TREC No.	1809-1586-06
Date Printed	10/29/2018 9:34:49 AM
Date Issued	10/16/2018
Designed By	HC
Checked by	DR/CR
Approved by	MT

S2.0

As indicated

FOUNDATION PLAN

HEADERS IN NON-LOAD BEARING WALLS & WINDOW SILL PLATES

FOR NON-LOAD BEARING WALLS AND WINDOW SILL PLATES, (2) 2X4 (FLAT) CAN BE SUBSTITUTED FOR (1) 2X6

HEADER SPAN (FT)	MINIMUM HEADER SIZE	REQUIREMENT AT EACH END OF HEADER		
		NUMBER OF FULL HEIGHT STUDS	UPLIFT (LB)	LATERAL (LB)
2	(2) 2 X 4 (FLAT)	1	60 lb	157 lb
3	(2) 2 X 4 (FLAT)	2	90 lb	235 lb
4	(2) 2 X 6	2	120 lb	314 lb
5	(2) 2 X 6	3	150 lb	393 lb
6	(2) 2 X 6	3	180 lb	471 lb
7	(2) 2 X 6	3	210 lb	550 lb
8	(2) 2 X 6	3	240 lb	628 lb
9	(2) 2 X 6	3	270 lb	707 lb
10	(2) 2 X 6	3	300 lb	785 lb
11	(2) 2 X 6	4	330 lb	864 lb

HEADERS IN LOAD BEARING WALLS

HEADER SPAN (FT)	MINIMUM HEADER SIZE	REQUIREMENT AT EACH END OF HEADER		
		NUMBER OF FULL HEIGHT STUDS	UPLIFT (LB)	LATERAL (LB)
2	(2) 2X4	1	364 lb	157 lb
3	(2) 2X4	2	546 lb	235 lb
4	(2) 2X6	2	728 lb	314 lb
5	(2) 2X6	3	910 lb	393 lb
6	(2) 2X6	3	1092 lb	471 lb
7	(2) 2X10	3	1274 lb	550 lb
8	(2) 2X10	3	1456 lb	628 lb
9	(2) 2X12	3	1638 lb	707 lb
10	(3) 2X12	4	1820 lb	785 lb

FULL HEIGHT STUDS

FULL HEIGHT STUDS SHALL MEET THE SAME REQUIREMENTS AS EXTERIOR WALL STUDS PER SEC. 4; TABLE 5 OF THE WOOD FRAME CONSTRUCTION MANUAL (180 MPH - EXPOSURE "B"). THE MINIMUM NUMBER OF FULL HEIGHT STUDS AT EACH END OF THE HEADER SHALL NOT BE LESS THAN HALF THE NUMBER OF STUDS REPLACED BY THE OPENING, IN ACCORDANCE WITH THE WOOD FRAME CONSTRUCTION MANUAL, SECTION 4.2; TABLE 9. FULL HEIGHT STUDS SHALL BE PERMITTED TO REPLACE AN EQUIVALENT NUMBER OF JACK STUDS, WHEN ADEQUATE GRAVITY CONNECTIONS ARE PROVIDED.

WINDOW SILL PLATES

MAXIMUM SPANS FOR WINDOW SILL PLATES USED IN EXTERIOR WALLS SHALL NOT EXCEED THE SPANS GIVEN IN WFCM - SEC. 4.2; TABLE 9.

HEADER AND/OR GIRDER TO STUD CONNECTIONS

HEADERS AND/OR GIRDER TO STUD CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS
GIVEN IN WFCM - SEC. 4.2; TABLE 9..
WINDOW SILL PLATE TO STUD CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN WFCM - SEC. 4.2; TABLE 8.

TOP AND BOTTOM PLATE TO FULL HEIGHT STUD

EACH FULL HEIGHT STUD SHALL BE CONNECTED IN ACCORDANCE WITH THE REQUIREMENTS GIVEN WFCM - SEC. 4.2; TABLE 9.

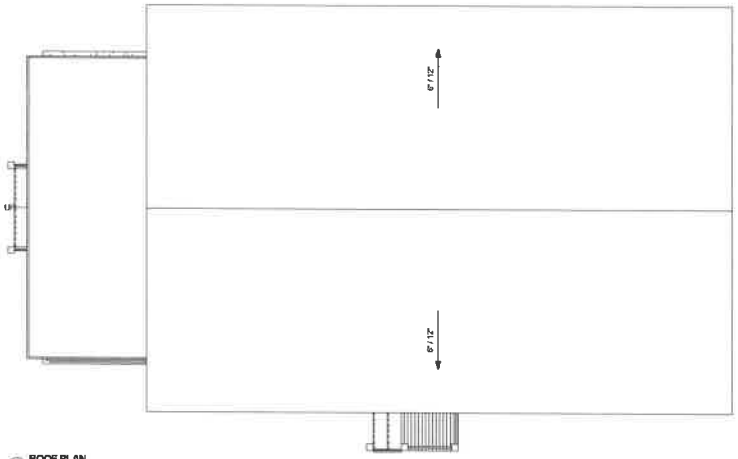
MISCELLANEOUS NOTES

1. ALL EXTERIOR WALLS TO BE SHEAR WALLS WITH NAILING PATTERN: 1/2" CDX PLYWOOD W/ 3" MIN CLEARANCE AT EDGE.
2. INSTALL SIMPSON (1) H10A OR (2) H2.5 @ EACH RAFTER TO TOP PLATE
3. CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY BRACING FOR STURCTURE AND ITS INDIVIDUAL MEMBERS THAT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THIS STRUCTURE IS DESIGN FOR A COMPLETE CONDITION ONLY AND THEREFORE REQUIRES ADDITIONAL TEMPORARY SUPPORTS TO MAINTAIN STABILITY DURING CONSTRUCTION.

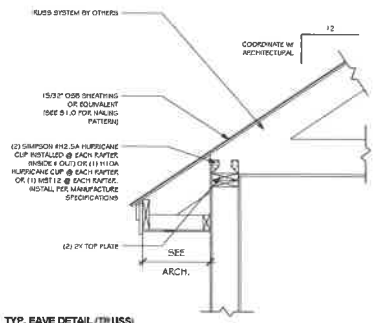
FLOOR JOIST SCHEDULE FOR SOUTHERN PINE #2 WITH A DEAD LOAD OF 20 PSF

PER IRC 2015 R502.3.1(2)

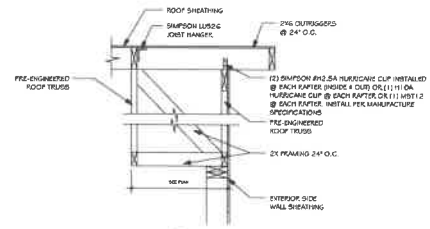
JOIST SPACING	2X	MAXIMUM SPAN
12" O.C.	2X6	9' 10"
12" O.C.	2X8	12' 6"
12" O.C.	2X10	14' 9"
12" O.C.	2X12	17' 5"
16" O.C.	2X6	8' 6"
16" O.C.	2X8	10' 10"
16" O.C.	2X10	12' 0"
16" O.C.	2X12	15' 1"



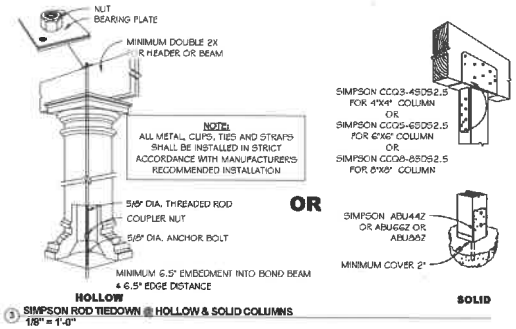
1 ROOF PLAN
1/4" = 1'-0"



2 TYP. EAVE DETAIL (TRUSS)
1" = 1'-0"



6 TYP. GABLE END FRAMING DETAIL @ TRUSS
3/4" = 1'-0"



3 SIMPSON ROD TIEDOWN @ HOLLOW & SOLID COLUMNS
1/8" = 1'-0"

GENERAL ROOF FRAMING NOTES

1. ALL RIDGE, HIP & VALLEY MEMBERS SHALL BE A 2X12 MINIMUM AND CONTINUOUS IN LENGTH. USE 1-3/4" MICROLAM FOR CONTINUOUS LENGTH, IF NECESSARY.
2. WEB PERMANENT DIAGONAL BRACING. 2X4 SYP, STUD GRADE OR BETTER.
3. DOUBLE ROOF RAFTERS @ ALL SIDE WALLS OF DORMERS.
4. DOUBLE ROOF RAFTERS & HEADER FRAMING @ CHIMNEY WELL W/ MIN 2" CLEARANCE.
5. GABLE ENDS ROOF FRAMING SHALL HAVE FULL DEPTH PERPENDICULAR BLOCKING @ 48" O.C. & 48" IN FROM GABLE END WALL (REF. S.B.B.C.C.I./ICC 600)
6. ALL TRUSSES, UNLESS OTHERWISE NOTED, SHALL BE 2X4 @ 16" O.C.
7. ALL RAFTERS TO BE STRUCTURALLY SUPPORTED BY SOLID BEARING AND/OR BEAM(S) DESIGNED BY OTHERS

ROOF RAFTER SCHEDULE

PER IRC 2015 TABLE R802.5.1(6)
#2 SOUTHERN PINE DEAD LOAD= 10 PSF

2 X 6's O.C. UP TO 9'-2" (UNSHORED) SPAN
2 X 8's O.C. UP TO 11'-7" (UNSHORED) SPAN
2 X 10's O.C. UP TO 13'-8" (UNSHORED) SPAN
2 X 12's O.C. UP TO 16'-0" (UNSHORED) SPAN

CEILING JOIST SCHEDULE (WITHOUT STORAGE)

PER IRC TABLE R 802.4

2 X 6's O.C. UP TO 16'-11" (UNSHORED) SPAN
2 X 8's O.C. UP TO 21'-7" (UNSHORED) SPAN
2 X 10's O.C. UP TO 25'-7" (UNSHORED) SPAN

CEILING JOIST SCHEDULE (WITH LIMITED STORAGE)

PER IRC TABLE R 802.4

2 X 6's O.C. UP TO 12'-0" (UNSHORED) SPAN
2 X 8's O.C. UP TO 15'-3" (UNSHORED) SPAN
2 X 10's O.C. UP TO 18'-1" (UNSHORED) SPAN

DO NOT SCALE THE DRAWINGS. THE DESIGNER WILL NOT ACCEPT RESPONSIBILITY FOR CONSTRUCTION ERRORS DUE TO SCALING OF THE DRAWINGS. VERIFY ALL DIMENSIONS, FINISHES, FIXTURES, ETC. BEFORE BEGINNING CONSTRUCTION. IF DIMENSIONS OR DETAILS ARE OMITTED, INCORRECT, OR NOT CLEAR, THE CONTRACTOR SHALL CONSULT WITH THE DESIGNER FOR CLARIFICATION.

DO NOT REPRODUCE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THOMAS & REEL ENGINEERING CONSULTANTS, INC.

ISSUE FOR REVIEW

COPYRIGHT © 2008
THOMAS&REEL ENGINEERING CONSULTANTS, INC.

STRUCTURAL

Thomas & Reel
Engineering Consultants, Inc.
trec | STRUCTURAL | MEP | FORENSICS
www.thomasreel.com
912-920-0950
9200 WESTON BLUFF RD, SUITE 304, SAVANNAH GEORGIA 31406
P.O. BOX 13687 SAVANNAH, GEORGIA 31416

EAGLE

LOT# 35 THE GLEN PHASE 2
HILTON HEAD ISLANS, SC

HABITAT FOR HUMINITY PHASE II

ROOF DETAILS

REVISIONS

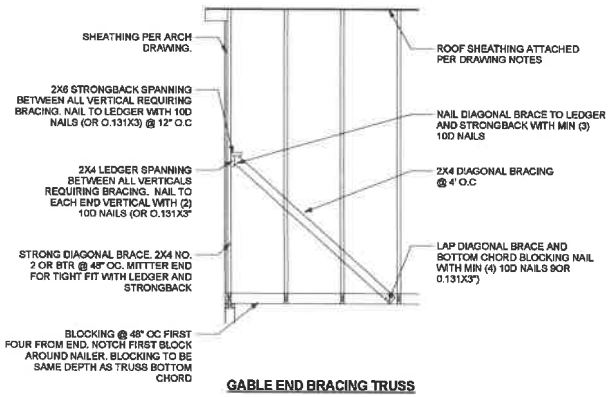
MARK	DATE	DESCRIPTION

TREC No.	1609-1586-06
Date Printed	10/29/2018 9:34:51 AM
Date Issued	10/16/2018
Designed By	CH
Checked by	DR
Approved by	MT

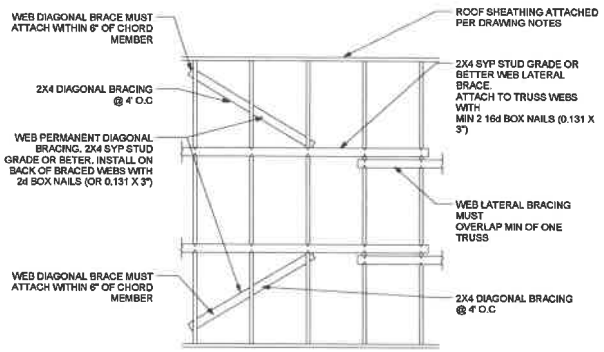
S2.1

As Indicated

ROOF DETAILS

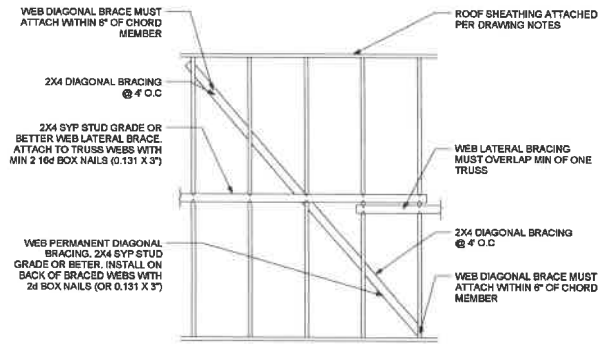


GABLE END BRACING TRUSS



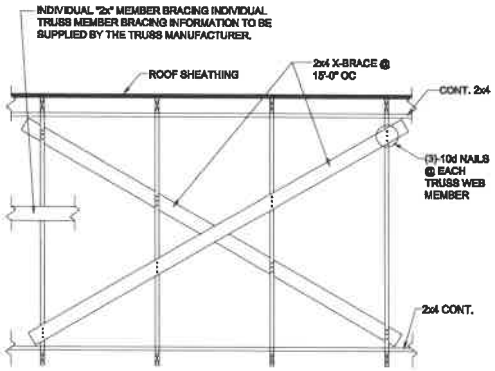
PIGGY BACK TRUSS

NOTE:
WEB PERMANENT DIAGONAL BRACE FOR SINGLE BRACED WEB MEMBERS

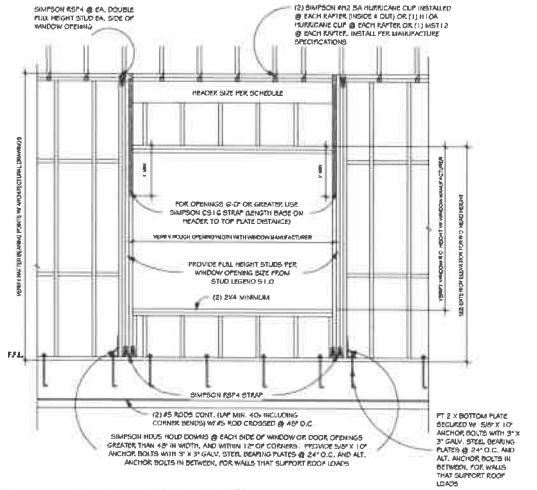


LATERAL TRUSS BRACING

1 TRUSS BRACING DETAILS
1/2" = 1'-0"



2 (ALTERNATE) PERMANENT TRUSS BRACING
3/4" = 1'-0"



3 WALL OPENING STRAP DETAIL (SIMPSON HDU5)
N.T.S.

DO NOT SCALE THE DRAWINGS. THE DESIGNER WILL NOT ACCEPT RESPONSIBILITY FOR CONSTRUCTION ERRORS DUE TO SCALING OF THE DRAWINGS. VERIFY ALL DIMENSIONS, LEVELS, AND CONDITIONS ON THE JOB SITE BEFORE STARTING CONSTRUCTION. IF DIMENSIONS OR DETAILS ARE OMITTED, INCORRECT, OR NOT CLEAR, THE CONTRACTOR SHALL CONSULT WITH THE DESIGNER FOR CLARIFICATION.

DO NOT REPRODUCE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THOMAS & REEL ENGINEERING CONSULTANTS, INC.

ISSUE FOR REVIEW

COPYRIGHT © 2008
THOMAS & REEL ENGINEERING CONSULTANTS, INC

STRUCTURAL

Thomas & Reel
Engineering Consultants, Inc.
trec | STRUCTURAL | MEP | FORENSICS
www.thomasreel.com
912-920-0950
5500 WHITE BLUFF RD. SUITE 305, SAVANNAH, GEORGIA 31405
210 EAST BAY STREET, SAVANNAH, GEORGIA 31401

EAGLE

LOT# 35 THE GLEN PHASE 2
HILTON HEAD ISLANS, SC

HABITAT FOR HUMINITY PHASE II

SECTION DETAILS

REVISIONS

MARK	DATE	DESCRIPTION

TREC No.	1609-1586-06
Date Printed	10/29/2018 9:34:52 AM
Date Issued	10/16/2018
Designed By	Designer
Checked by	Checker
Approved by	Approver

S3.0
As indicated

SECTION DETAILS