

1. DESIGN AND CODE INFORMATION

- BUILDING STRUCTURE HAS BEEN DESIGNED TO THE FOLLOWING BUILDING CODES: IBC 2012 EDITION W/ 2015 GA BUILDING AMENDMENTS.
- ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE LOCAL BUILDING CODE.
- VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY CONDITIONS WHICH DO NOT COMPLY WITH PLANS AND SPECIFICATIONS. STRUCTURAL DRAWINGS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS BY THE CONTRACTOR.
- CONTRACT DOCUMENTS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS.
- THE STRUCTURE IS UNSTABLE UNTIL ALL LOAD BEARING WALLS ARE ERECTED AND STEEL MEMBERS ARE ERECTED. CONNECTIONS ARE COMPLETELY BOLTED AND/OR WELDED AND INSPECTED. THE PLYWOOD/DECK ATTACHED TO THE WOOD FRAMING (ROOF AND SHEAR WALLS), AND THE CONCRETE FLOORS PLACED AND 75% OF 20-DAY STRENGTH TEMPORARY BRACING IS REQUIRED. THE DESIGN ADEQUACY OF TEMPORARY BRACING AND SHORING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- FOR LOCATION OF MISCELLANEOUS ITEMS (OPENINGS, BENT PLATES, INSERTS, ETC.) AFFECTING STRUCTURAL WORK, SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.

7. STRUCTURAL DESIGN LOADS:

LOCAL REQUIREMENTS: IBC 2012 EDITION W/ 2015 GA AMENDMENTS

ROOF DEAD LOAD: 17 PSF - MAIN ROOF
ROOF LIVE LOADS: 20 PSF FLAT

SNOW LOADS:

GROUND SNOW LOAD: 5 PSF
C_s = 0.9 C_w = 1.0 I_s = 1.0
BALANCED SNOW LOAD = 10 PSF

WIND LOADS:

3 SECOND GUST WIND SPEED: 115 MPH (ULTIMATE)
I_s = 1.0

EXPOSURE: B
INTERNAL PRESSURE COEFFICIENT (GCPI): +/- 0.18
COMPONENTS AND CLADDING PRESSURE: SEE SCHEDULE

SEISMIC LOADS:

OCCUPANCY CATEGORY II S_s = 0.200g S_v = 0.093g
SITE CLASS = D S_u = 0.214g S_w = 0.149g
SEISMIC DESIGN CATEGORY = B
SEISMIC IMPORTANCE FACTOR = 1.0
BASIC SEISMIC FORCE RESISTING SYSTEM: BEARING WALLS WITH LIGHT-FRAMED WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
RESPONSE MODIFICATION COEFFICIENT, R = 6 1/2
SEISMIC RESPONSE COEFFICIENT (CS) = 0.033; DESIGN BASE SHEAR = 6 K

2. SPECIAL INSPECTIONS AND TESTING

- THE OWNER SHALL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE FOLLOWING:
 - SHALLOW FOUNDATIONS:
 - INSPECT SOILS BELOW FOOTINGS FOR ADEQUATE BEARING CAPACITY AND CONSISTENCY WITH GEOTECHNICAL REPORT.
 - INSPECT REMOVAL OF UNSUITABLE MATERIAL AND PREPARATION OF SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL.
 - CONTROLLED STRUCTURAL FILL:
 - PERFORM SIEVE TESTS (ASTM D422 & D1140) AND MODIFIED PROCTOR TESTS (ASTM D1557) ON EACH SOURCE OF FILL MATERIAL.
 - INSPECT PLACEMENT, LIFT THICKNESS & COMPACTION OF CONTROLLED FILL.
 - TEST DENSITY OF EACH LIFT OF FILL BY NUCLEAR METHODS (ASTM D2922).
 - VERIFY EXTENT AND SLOPE OF FILL PLACEMENT.
 - STRUCTURAL STEEL:
 - REVIEW SHOP FABRICATION AND QUALITY CONTROL PROCEDURES.
 - REVIEW CERTIFIED MILL TEST REPORTS & IDENTIFICATION MARKINGS ON HSS SHAPES.
 - INSPECT INSTALLATION AND TIGHTENING OF HIGH-STRENGTH BOLTS. VERIFY THAT SPLINES HAVE SEPARATED FROM TENSION CONTROL BOLTS. VERIFY PROPER TIGHTENING SEQUENCE.
 - INSPECT STEEL FRAME FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATIONS AND CONNECTION DETAILS.
 - WOOD CONSTRUCTION:
 - INSPECT SHOP FABRICATION AND QUALITY CONTROL PROCEDURES FOR WOOD BRUSS PLANT.
 - INSPECT SIZE, CONFIGURATION, BLOCKING AND FASTENING OF SHEAR WALLS AND DIAPHRAGMS. VERIFY PANEL GRADE AND THICKNESS.
 - DRILL & EPOXY BOLTS:
 - PERFORM OR CONTINUOUS INSPECTIONS PER THE REQUIREMENTS OF THE ICC-ES REPORT FOR THE EPOXY MATERIAL USED.
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO DEMONSTRATES COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, IN INSPECTING THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
 - THE SPECIAL INSPECTOR SHALL SUPERVISE THE WORK ASSIGNED FOR COMPLIANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY REJECT, ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
 - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
 - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THE WORK REQUIREMENTS SPECIAL INSPECTION VISITED TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
- STRUCTURAL OBSERVATION BY THE INSPECTOR IS NOT REQUIRED.
- WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTS, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.

3. NAILING SCHEDULE STUDS, JOISTS, HEADERS, ETC.

NAILING SCHEDULE		
CONNECTION	FASTENER	NUMBER OR SPACING
BRIDGING TO JOIST TOE NAIL EACH END	8D COMMON	2
JOIST TO SILL OR GIRDER TOE NAIL	8D COMMON	3
1/4" SUBFLOOR OR LESS TO EACH JOIST FACE NAIL	8D COMMON	2
WIDER THAN 1/4" SUBFLOOR TO EACH JOIST FACE NAIL	8D COMMON	3
2-INCH SUBFLOOR TO GIRDER OR JOIST BLDG & 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 NAILED	16D COMMON	2
STUD TO SOLE PLATE, TOE NAIL	8D COMMON	4
DOUBLED STUDS, FACE NAIL	16D COMMON	24" O.C.
DOUBLED TOP PLATES, FACE NAIL	16D COMMON	16" O.C.
BLOCKING BETWEEN JOISTS TO TOP PLATE, TOE NAIL	8D COMMON	3
1/4" JOIST TO TOP PLATE, TOE NAIL	8D COMMON	8" O.C.
TOP PLATES, LAP AND INTERSECTIONS FACE NAIL	16D COMMON	3
CONTINUOUS HEADER TO STUD, END NAILED	16D COMMON	16" O.C. ALONG EACH EDGE
CEILING JOISTS TO PLATES, TOE NAIL	8D COMMON	3
CONTINUOUS HEADER TO STUD, TOE NAIL	8D COMMON	4
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	16D COMMON, MIN	3
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	16D COMMON, MIN	3
RAFTER TO PLATE, TOE NAIL	8D COMMON	3
1-INCH BRACE TO EACH STUD & PLATE, FACE NAIL	8D COMMON	2
1/4" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	8D COMMON	3
WIDER THAN 1/4" SHEATHING TO EACH BEARING, FACE NAIL	8D COMMON	3
BUILT-UP CORNER STUDS EACH BEARING, FACE NAIL	16D COMMON	24" O.C.
BUILT-UP GIRDER & BEAMS, FACE NAIL	20D COMMON	32" O.C. AT TOP & BOTTOM STUDS ON OPPOSITE SIDES
2-INCH PLANKS	16D COMMON	AT EACH BEARING
JOIST TO BAND JOIST, FACE NAIL	16D COMMON	2
LEADER STRIP, FACE NAIL	16D COMMON	16" O.C. AT JOIST

4. NAILING SCHEDULE SHEATHING @ NON-SHEAR WALL LOCATIONS

PLYWOOD AND GYP. BOARD WALL SHEATHING		
THICKNESS	FASTENER	NUMBER OR SPACING
OR LESS	8D COMMON	6" O.C. EDGES AND 12" O.C. INTERMEDIATE
1/2" - 1 1/2"	16 GA GALVANIZED WIRE STAPLES, 3/8" MINIMUM CROWN	6" O.C. EDGES AND 9" O.C. INTERMEDIATE

FIBERBOARD AND GYPSUM WALL SHEATHING		
THICKNESS	FASTENER	NUMBER OR SPACING
1/2" FIBERBOARD SHEATHING	1 1/2" GALVANIZED ROOFING NAIL @ COMMON WALL	7" O.C. AT EDGES / 9" O.C. AT OTHER BEARING
1/2" GYPSUM SHEATHING	11 GA 1 1/2" GALVANIZED 3/16" HEAD	6" O.C. AT EDGES / 9" O.C. AT OTHER BEARING
1/2" GYPSUM WALLBOARD	1 3/8" DRY-WALL NAIL	7" O.C. ON CEILING / 9" O.C. ON WALLS

- NOTES:
- FOR ALL EXTERIOR WOOD STUD WALLS NOT DESIGNATED AS SHEAR WALLS PROVIDE 1/2" THICK STRUCT PLYWOOD SHEATHING W/ 8d NAILS @ 6" O.C. @ PANEL EDGES, AND @ 12" O.C. @ FIELD AT EXTERIOR FACES (INCLUDING CANOPIES).
 - FOR ALL EXTERIOR METAL STUD WALLS NOT DESIGNATED AS SHEAR WALLS ATTACH PANELS W/ 8d SCREWS @ 6" O.C. @ PANEL EDGES, AND @ 12" O.C. @ FIELD AT EXTERIOR FACES (INCLUDING CANOPIES). SEE ARCH FOR PANEL MATERIAL.
 - PROVIDE 1/2" THICK STRUCT PLYWOOD SHEATHING W/ 8d NAILS @ 6" O.C. @ PANEL EDGES, AND @ 12" O.C. @ FIELD FOR EAVES AND CANOPY CEILING.

COMPONENTS & CLADDING WORKING EXTERNAL PRESSURE LOADS (PSF)

WL = 90 MPH ASD

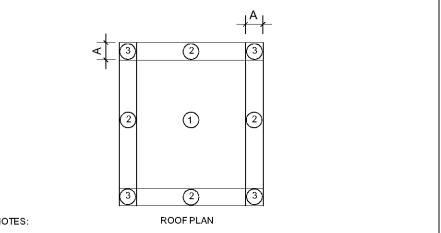
IBC 2006: LOCATION PER ASCE 7-05: FIGURE 6-3

Design Wind Pressure (psf)		Effective Wind Area (sqft)				
Area	Exposure	10	20	30	40	50
Interior	Area 1	19.1	16.5	13.6	10.9	8.0
	Area 2	-22.1	-18.6	-15.9	-13.4	-10.6
Edge	Area 3	11.1	10.6	10.6	10.9	10.0
	Area 4	-14.6	-13.9	-12.9	-12.6	-11.9

WL = 115 MPH ULTIMATE

IBC 2012: LOCATION PER ASCE 7-10: TABLE 30.7-2

Design Wind Pressure (psf)		Effective Wind Area (sqft)				
Area	Exposure	10	20	30	40	50
Interior	Area 1	16.0	13.2	10.4	7.9	5.8
	Area 2	-18.7	-15.2	-12.5	-9.8	-7.6
Edge	Area 3	13.0	12.2	12.4	12.9	12.0
	Area 4	-16.0	-15.1	-14.1	-13.7	-13.0



- NOTES:
- A = 4'-0"
 - POSITIVE PRESSURE VALUES REFER TO FORCES ACTING TOWARD BUILDING, NEGATIVE PRESSURE VALUES REFER TO FORCES ACTING AWAY FROM BUILDING.
 - EACH COMPONENT MUST BE DESIGNED FOR MAXIMUM POSITIVE AND NEGATIVE FORCES.
 - FOR COMPONENTS HAVING EFFECTIVE AREAS IN BETWEEN TABULATED VALUES, DESIGN LOADS MAY BE INTERPOLATED. OTHERWISE DESIGN LOAD MUST BE TAKEN FROM THE NEXT LOWEST EFFECTIVE AREA.



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REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

CONSULTANT PROJECT # 170944
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DATE September 21, 2017
DRAWN BY NJ
DESIGNED BY WBU

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SHEET STRUCTURAL NOTES

SHEET NUMBER **S-001**

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