

GENERAL NOTES

- 1. THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
3. ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
4. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE S- DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
5. SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.
6. PROVIDE AND INSTALL NECESSARY MATERIAL TO CONNECT ELEVATOR SUPPORT BEAMS AND GUIDE RAILS. LOCATION AND SIZE OF MEMBERS AND ANY INSERTS REQUIRED SHALL BE DETERMINED BY THE ELEVATOR MANUFACTURER.
7. THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF SHORING, AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT AND ENGINEER. FOR SHOP DRAWINGS AND SUBMITTALS REQUIRED, REFERENCE THE PROJECT SPECIFICATION.
8. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
9. IN ACCORDANCE WITH THE MAINE UNIFORM BUILDING AND ENERGY CODE/INTERNATIONAL BUILDING CODE (2009 EDITION, SECTION 1704.1), A STATEMENT OF SPECIAL INSPECTIONS IS REQUIRED AS A CONDITION FOR PERMIT ISSUANCE BY THE LOCAL CODE OFFICIAL. THIS STATEMENT SHALL INCLUDE A COMPLETE LIST OF MATERIALS AND WORK REQUIRING SPECIAL INSPECTIONS, THE INSPECTIONS TO BE PERFORMED AND A LIST OF THE INDIVIDUALS, APPROVED AGENCIES AND FIRMS INTENDED TO BE RETAINED FOR CONDUCTING SUCH INSPECTIONS.
10. REFERENCE THE PROJECT SPECIFICATIONS FOR ALL TESTING REQUIREMENTS.

DESIGN LOADS

- 1. BUILDING CODE: MAINE UNIFORM BUILDING AND ENERGY CODE, INTERNATIONAL BUILDING CODE, 2009 EDITION, INTERNATIONAL EXISTING BUILDING CODE, 2009 EDITION, ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
2. DESIGN FLOOR LIVE LOADS: PRIVATE ROOMS AND CORRIDORS SERVING THEM: 40 PSF, PUBLIC ROOMS AND CORRIDORS SERVING THEM: 100 PSF, DINING ROOMS AND RESTAURANTS: 100 PSF, STAIRS AND EXITWAYS: 100 PSF.
3. DESIGN ROOF SNOW LOAD: GROUND SNOW LOAD (Pg): 60 PSF, SNOW EXPOSURE FACTOR (Ce): 1.0, SNOW LOAD IMPORTANCE FACTOR (Is): 1.0, SNOW LOAD THERMAL FACTOR (Ci): 1.1, FLAT ROOF SNOW LOAD (P): 46 PSF + DRIFT.
4. DESIGN WIND LOAD: BASIC WIND SPEED: 100 MPH, WIND LOAD IMPORTANCE FACTOR (Iw): 1.0, WIND EXPOSURE: C, INTERNAL PRESSURE COEFFICIENT: 0.8, COMPONENTS & CLADDING PER ASCE 7-05.
5. DESIGN SEISMIC LOADS: EQUIVALENT LATERAL FORCE PROCEDURE, SEISMIC OCCUPANCY CATEGORY: II, SEISMIC IMPORTANCE FACTOR (Ie): 1.0, MAPPED SPECTRAL RESPONSE ACCELERATIONS: Ss: 0.314, S1: 0.077, SEISMIC SITE CLASS: D, SPECTRAL RESPONSE COEFFICIENTS: Sds: 0.334, Sd1: 0.123, SEISMIC DESIGN CATEGORY: B, BASIC STRUCTURAL SYSTEM: BUILDING FRAME SYSTEM, BASIC SEISMIC FORCE RESISTING SYSTEM: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE, RESPONSE MODIFICATION FACTOR (R): X: 3.0, Y: 3.0, Z: 0.06, Y: 0.06, SEISMIC RESPONSE COEFFICIENT (Cs): Y: 0.06.

FOUNDATION NOTES (SOIL SUPPORTED)

- 1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH A REPORT ENTITLED "GEOTECHNICAL REPORT, PROPOSED APARTMENT BUILDING, 221 CONGRESS STREET, PORTLAND, MAINE," PREPARED BY SUMMIT GEOTECHNICAL SERVICES, DATED 06/22/2017. THE RECOMMENDATIONS OF THE REPORT ARE PART OF THIS WORK. REFER TO THIS REPORT FOR SPECIFIC RECOMMENDATIONS.
2. FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL PER THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. REFER TO THIS REPORT FOR SPECIFIC BEARING RECOMMENDATIONS.
3. ALLOWABLE BEARING CAPACITY 4,000 PSF.
4. EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.0 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.
5. NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL UPGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
6. REFERENCE THE GEOTECHNICAL REPORT FOR ALL EXCAVATION, BACKFILL, COMPACTION, CONSTRUCTION DEWATERING AND PERMANENT DRAINAGE REQUIREMENTS.
7. SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHALL BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHALL BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.
8. EXCAVATIONS FOR BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE. DO NOT UNDERMINE EXISTING FOUNDATIONS OF ANY ADJACENT STRUCTURES. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL AND/OR MORE SPECIFIC REQUIREMENTS.

METAL DECK

- 1. THE METAL ROOF AND FLOOR DECK SHALL BE FORMED OF STEEL SHEETS CONFORMING TO THE FOLLOWING STANDARDS:
A. FLOOR DECKING: ASTM A1008, GRADE C, D OR ASTM A653, STRUCTURAL QUALITY, GRADE 40 OR HIGHER
B. ROOF DECKING: ASTM A1008, GRADE C, D OR ASTM A653, STRUCTURAL QUALITY, GRADE 33 OR HIGHER
2. FLOOR AND ROOF DECK SHALL BE AS NOTED ON THE DRAWINGS (OR EQUIVALENT).
3. FOR DECK ATTACHMENTS, PENETRATIONS AND ACCESSORIES REFER TO SPECIFICATIONS.

CONCRETE NOTES

- 1. CONCRETE WORK SHALL CONFORM TO "ACI MANUAL OF CONCRETE PRACTICE", LATEST EDITION. THIS PUBLICATION IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
2. CONCRETE FOUNDATIONS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,500 PSI. CONCRETE SLABS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. UNLESS OTHERWISE NOTED, CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC., HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
3. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
4. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE, OR SLABS.
5. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
7. FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1119.
8. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3"0"
B. FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER #5 BARS, 5/8" DIAMETER WIRE AND SMALLER, 1.5" #6 THROUGH #11 BARS, 2"0"
C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER WALLS, SLABS, JOISTS #11 BARS AND SMALLER, 1"0" REINFORCEMENT, 1.5" BARS, GIRDBERS, AND COLUMNS, ALL REINFORCEMENT, 1.5"
9. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. PROVIDE TENSION LAP SPLICES PER THE SCHEDULE THIS DRAWING, FOR ALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN.
10. WELDING OF REINFORCEMENT IS NOT PERMITTED.
11. FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS TYPICAL DETAILS. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM ENGINEER.
12. CONSTRUCTION JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER, WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND CONCRETE BEAMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STRUCTURAL BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.
13. SPACING OF CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
A. FOOTINGS AND WALLS MAX LENGTH 40'-0" OR 15'-0" FROM ANY CORNER**
B. SLABS ON GRADE SEE FOUNDATION PLAN
** EXCEED ONLY WHERE INTERMEDIATE CONTRACTION JOINTS ARE PROVIDED. MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
14. ANCHOR RODS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.
15. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "S-STAR" 5000-PSI NON-SHRINK GROUT BY U.S. GROUT CORP.
16. SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.
17. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.
18. ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPERATURE REINFORCEMENT TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "NET SETTING" OF EMBEDMENTS INTO CONCRETE IS STRICTLY PROHIBITED. EMBEDMENTS INCLUDE, BUT NOT BY LIMITATION, REINFORCEMENT, REINFORCING DOWELS, EMBEDDED PLATES, ANCHOR RODS, ANCHOR INSERTS, SLEEVES, LOAD TRANSFER PLATES, DIAMOND DOWELS, AND SHELF BULK HEADS.

STRUCTURAL STEEL NOTES

- 1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATIONS, AND ERECTION OF STRUCTURAL STEEL" LATEST EDITION, AND THE "CODE OF STANDARD PRACTICE", LATEST EDITION.
2. STRUCTURAL STEEL, STEEL PLATES, SHAPES, AND BARS, CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE (U.N.O.). STRUCTURAL STEEL SHAPES DESIGNATED ON THE DRAWINGS FOR WIDE-FLANGE SECTIONS; ASTM A992 (ASTM A572 GRADE 50 WITH SPECIAL REQUIREMENTS PER AISI TECHNICAL BULLETIN #3 DATED MARCH, 1997)
3. STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B46 KSI.
4. CONNECTION DESIGN FOR THIS PROJECT IS THE RESPONSIBILITY OF THE FABRICATOR. CONNECTION CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE SHALL BE SUBMITTED WITH THE SHOP DRAWINGS FOR THIS PROJECT. SEE THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
5. FIELD CONNECTIONS SHALL BE BOLTED USING ASTM A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND AS OTHERWISE NOTED. USE A490 BOLTS WHERE INDICATED.
6. WHERE WELDING IS INDICATED, ALL WELDING SHALL CONFORM TO AWS D1.1 LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN).
7. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION, TYP. PROVIDE 3/8" MINIMUM STIFFENER PLATES EACH SIDE OF BEAM WEB AT BEAMS FRAMING OVER COLUMNS AND AT BEAMS SUPPORTING COLUMNS ABOVE.
8. PROVIDE 1/4" THICK LEVELING PLATE UNDER ALL COLUMN BASE PLATES UNLESS OTHERWISE NOTED. LEVELING PLATES SHALL BE SET AND GROUDED PRIOR TO ERECTING COLUMNS.
9. PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BLOTS ETC. SHOWN ON ARCHITECTURAL DRAWINGS FOR SUPPORT OF BLOCKING, PARAPETS, FINISHES, ETC. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.
10. PROVIDE L 4 x 4 x 1/4 SLAB SUPPORT ANGLE AS REQUIRED AT COLUMNS WHERE STRUCTURAL MEMBERS DO NOT FRAME IN AT ALL FOUR SIDES.

MASONRY NOTES

- 1. ALL MASONRY CONSTRUCTION SHALL CONFORM TO ACI 530.1-LATEST.
2. ALL CONCRETE MASONRY UNITS SHALL BE ASTM C90 GRADE N, TYPE I STANDARD WEIGHT BLOCKS INCLUDING STRETCHERS AND CORNER BLOCKS. MINIMUM PRISM STRENGTH OF BLOCK SHALL BE FM = 1500 PSI IN 28 DAYS.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C270, TYPE M OR S.
4. GROUT SHALL CONFORM TO ASTM-C476.
5. REINFORCING FOR BOND BEAMS, LINTEL BLOCKS AND VERTICAL WALL REINFORCING SHALL BE BILLET STEEL, CONFORMING TO ASTM A615, GRADE 60 HORIZONTAL JOINT REINFORCING SHALL BE DUR-O-WALL TRUSS DESIGN.
6. STANDARD CLASS MILL GALVANIZED WITH #1 DIAMETER SIDE RODS AND 9 GAUGE CROSS TIES, U.N.O. REINFORCING SHALL BE PLACED IN MASONRY WALLS AT EVERY SECOND BLOCK COURSE.
7. CONCRETE MASONRY UNITS SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE NOTED. PROVIDE FULL MORTAR COVERAGE ON ALL WEBS AND FACE SHELLS. PROVIDE CORNER BLOCKS AND END BLOCKS TO FINISH ALL 90 DEGREE CORNERS AND WALL OPENINGS.
8. PROVIDE LINTELS AT WALL PENETRATIONS AS SHOWN IN THE LINTEL SCHEDULE.
9. STANDARD LAP LENGTH OF GRADE 60 MASONRY REINFORCING BARS SHALL BE 48 BAR DIAMETERS FOR BARS #5 AND SMALLER. PROVIDE MECHANICAL SPLICES RATED FOR 125% THE BAR YIELD STRENGTH FOR BARS #6 AND LARGER. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCEMENT.
10. CELLS TO BE GROUDED SHALL BE 2-CELL BLOCK. ALIGN CELLS TO MAINTAIN A CLEAR UNOBSTRUCTED, CONTINUOUS VERTICAL CHASE. CELLS MUST BE KEPT CLEAN OF PROTRUSIONS OR FINIS OF MORTAR. FILL CELLS OF MASONRY UNITS AND WALL CAVITIES WHERE INDICATED WITH 2500 PSI GROUT. MAXIMUM GROUT LIFT WITHOUT CLEAN-OUTS SHALL BE 4'-0". HIGH LIFT GROUTING SHALL CONFORM TO CODE REQUIREMENTS WITH A MINIMUM CEMENT CONTENT OF 8 SACKS PER CUBIC YARD. SUPPORT ALL VERTICAL BARS IN CENTER OF GROUDED CELLS WITH VERTICAL BAR POSITIONER.
11. FIELD PENETRATIONS THROUGH BLOCK WALLS SHALL NOT BE MADE THROUGH BOND BEAMS, LINTELS OR GROUDED CELLS.

LINTELS

- 1. THE FOLLOWING LINTELS SHALL BE USED FOR MASONRY OPENINGS, U.N.O. ON DRAWINGS:
MASONRY OPENING LINTEL SIZE UP TO 3'-0" L 3 1/2 x 1/2 x 5/16 3'-1" TO 4'-6" L 4 x 3 1/2 x 5/16 (LLV) 4'-7" TO 6'-0" L 5 x 3 1/2 x 5/16 (LLV) 6'-1" TO 8'-0" L 6 x 3 1/2 x 5/16 (LLV)
2. PROVIDE ONE ANGLE FOR EACH 4" WALL THICKNESS. FOR 6" WALL THICKNESS, PROVIDE WT OR BUILT-UP SECTION WITH PROPERTIES EQUAL TO OR GREATER THAN 1 1/2 TIMES THE ANGLE PROPERTIES FOR A 4" WALL THICKNESS.
3. PROVIDE 8" OF BEARING AT EACH END OF ALL LINTELS.
4. ALL EXTERIOR LINTELS SHALL BE HOT-DIPPED GALVANIZED.

TIMBER NOTES

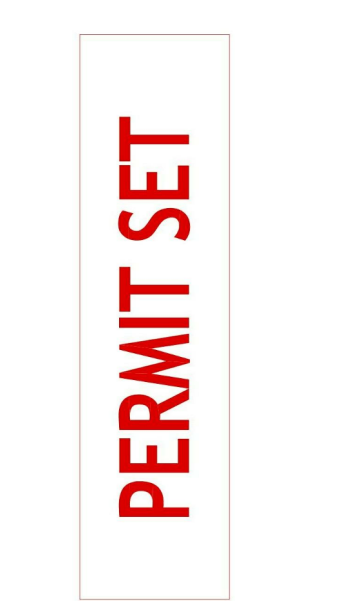
- 1. ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE AITC TIMBER CONSTRUCTION MANUAL, LATEST EDITION, AND THE AF & PA NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) LATEST EDITION.
2. INDIVIDUAL TIMBER FRAMING MEMBERS SHALL BE VISUALLY GRADED. MINIMUM GRADE NO.1ND SPRUCE-PINE-FIR KLN DRIED TO 19% MAXIMUM MOISTURE CONTENT UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
3. ENGINEERED WOOD PRODUCTS SHALL BE AS SPECIFIED ON THE DRAWINGS, REFER TO MANUFACTURER'S LITERATURE FOR PROPER HANDLING AND INSTALLATION GUIDELINES. MANUFACTURER AND PRODUCT SHALL BE:
I-LEVEL: I-JOIST (TJI), PARALLAM (PSL), MICROLAM (LVL)
BOISE: VERSALAM (LVL)
4. PRESSURE TREATED LUMBER SHALL BE USED FOR SILL MEMBERS, EXTERIOR EXPOSURE, OR WHERE SHOWN ON THE DRAWINGS. TIMBER SHALL BE SOUTHERN YELLOW PINE TREATED WITH CCA OR ACQ TO 0.4 WCF IN ACCORDANCE WITH AWPA C-18. ACZA IS STRICTLY PROHIBITED.
5. ALL ROOF AND WALL SHEATHING SHALL BE APA PERFORMANCE-RATED. SHEATHING SHALL BE NAILED TO THE FRAMING AS FOLLOWS, U.N.O.:
A. ROOFS: 8d NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
B. WALLS: 8d NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
6. FLOOR SHEATHING SHALL BE 3/4" APA RATED TONGUE AND GROOVE PANELS. GLUE AND NAIL TO FLOOR FRAMING WITH 8d BRG SHANK NAILS AT 6" O.C. AT SUPPORTED PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. HUBER ADVANTECH TONGUE AND GROOVE PANELS MAY BE SUBSTITUTED ONLY WITH WRITTEN PERMISSION FROM THE ARCHITECT.
7. ALL BUILT-UP BEAMS AND COLUMNS SHALL BE NAILED AS FOLLOWS (FASTENING IN EACH PLY):
UNIFORMLY LOADED BEAMS: BEAM DEPTH <16" - 2 ROWS OF 16d NAILS AT 12" O.C., STAGGERED BEAM DEPTH >=16" - 3 ROWS OF 16d NAILS AT 12" O.C. STAGGERED NOTE: SIDE LOADED BEAMS REQUIRE ADDITIONAL FASTENING. SEE DETAILS.
COLUMNS: 2-10d NAILS AT 6" O.C.
8. FASTENING NOT SPECIFIED SHALL CONFORM WITH IBC 2009 TABLE 2304.9.1. NAIL FASTENERS SHALL MEET THE REQUIREMENTS OF ASTM F1667, UNLESS NOTED OTHERWISE. NAILS REFERENCED ON DRAWINGS ARE TO BE COMMON NAILS WITH DIMENSIONS AS FOLLOWS:
6d: 2" LONG BY 0.113" DIAMETER SHANK WITH 0.266" DIAMETER HEAD
8d: 2 1/2" LONG BY 0.131" DIAMETER SHANK WITH 0.281" DIAMETER HEAD
10d: 3" LONG BY 0.148" DIAMETER SHANK WITH 0.312" DIAMETER HEAD
12d: 3 1/4" LONG BY 0.148" DIAMETER SHANK WITH 0.312" DIAMETER HEAD
16d: 3 1/2" LONG BY 0.162" DIAMETER SHANK WITH 0.344" DIAMETER HEAD
20d: 4" LONG BY 0.192" DIAMETER SHANK WITH 0.406" DIAMETER HEAD
30d: 4 1/2" LONG BY 0.207" DIAMETER SHANK WITH 0.438" DIAMETER HEAD
9. ALL TIMBER CONNECTION HARDWARE (JOIST HANGERS, POST BASES, SHEARWALL HOLDOWNS, ETC) SHALL BE AS INDICATED ON THE DRAWINGS AND MANUFACTURED BY SIMPSON STRONG-TIE. ALL CONNECTION HARDWARE SHALL BE HOT-DIPPED GALVANIZED G-90 (U.N.O.). CONNECTION HARDWARE USED IN CONJUNCTION WITH PRESERVATIVE TREATMENT SHALL BE GALVANIZED G185 (ZMAX) USE FASTENERS AND HANGERS OF SAME MATERIAL & COATING. REFER TO MANUFACTURER'S LITERATURE FOR PROPER HANDLING AND INSTALLATION GUIDELINES.
10. FASTENERS USED IN CONJUNCTION WITH PT LUMBER, BUT NOT AT TIMBER CONNECTION HARDWARE REFERENCED IN NOTE ABOVE, SHALL BE POST HOT-DIPPED GALVANIZED (ASTM A153).

ABBREVIATIONS

Table listing abbreviations and their full names, including: A.B. ANCHOR BOLT, ABV ABOVE, ACI AMERICAN CONCRETE INSTITUTE, ACT ACOUSTICAL CEILING TILE, ADDL ADDITIONAL, AESS ARCHITECTURAL EXPOSED STRUCTURAL STEEL, A.F.F ABOVE FINISH FLOOR, ALT ALTERNATE, ALUM ALUMINUM, APA AMERICAN PL WOOD ASSOCIATION, APPROX APPROXIMATE, A.R ANCHOR ROD, ARCH ARCHITECT OR ARCHITECTURAL, BAL BALANCE, B.C.X BOTTOM CHORD EXTENSION, B.C. BRACE, B.F BRACED FRAME, BLDG BUILDING, BLKG BLOCKING, BM BEAM, BIT BITUMINOUS, B.O BOTTOM OF/ BY OTHERS, BOT BOTTOM, B.P BEAM POCKET, B.PL BRACE PLATE, BRG BEARING, B.S BOTH SIDES, BSMT BASEMENT, BTWN BETWEEN, C/C CENTER TO CENTER, CHWHL CHAIR WHEEL, CMF COLD FORM METAL FRAMING, C.I.P CAST IN PLACE, C.J CONTRACTION/CONST. JOINT, C.L CENTER LINE, CLG CEILING, CLR CLEAR, CMU CONCRETE MASONRY UNIT, COL COLUMN, CONC CONCRETE, CONN CONNECTION, CONST CONSTRUCTION, CONT CONTINUOUS, CONT CONTRACTOR, COORD COORDINATE, CTR(D) CENTER(ED), d PENNY, DBL DOUBLE, DIA OR D DIAMETER, DIAG DIAGONAL, DIM DIMENSION, DL DEAD LOAD, DN DOWN, DO/DO DRILL/DO OVER, DP DRILLED PIER OR DEEP, DTL(S) DETAIL(S), DWG(S) DRAWING(S), DWL(S) DOWEL(S), (E) OR EXIST EXISTING, EA EACH, E.E EACH END, E.F EACH FACE, E.J EXPANSION JOINT, EL ELEVATION, ELEV ELEVATOR, ELEC ELECTRICAL, EMBD EMBEDMENT, ENGR ENGINEER, E.O.P EDGE OF DECK, E.O.R EDGE OF RECORD, E.O.S EDGE OF SLAB, EQ EQUAL, EQ SP EQUALLY SPACED, EQP EQUIPMENT, ES EACH SIDE, E.S EACH WAY, E.W.B EACH WAY BOTTOM, EXP EXISTING, EXP ANCHOR EXP ANCHOR, EXT EXTERIOR, FB FLAT BAR, F.D FLOOR DRAIN, FDN FOUNDATION, FIN. FL FINISH FLOOR, F.F FINISH FLOOR/ FAR FACE, FLG FLANGE, FLR FLOOR, F.F.E FINISH FLOOR ELEVATION, F.O.B FACE OF BRICK, F.O.F FACE OF FRAMING, F.S FAR SIDE, F.T FOOT OR FEET, FTG FOOTING, GA GAGE/GAUGE, GALV GALVANIZED, GL LULLAM, G.B GRADE BEAM, G.C GENERAL CONTRACTOR, GR GRADE OR GRID, GWB GYPSUM WALL BOARD, H.D HOLDOWN, H.D. GALV HOT DIPPED GALVANIZED, HK HOOK, HORIZ HORIZONTAL, HT HEIGHT, HVAC HEATING VENTILATION & COOLING, HSS HOLLOW STRUCTURAL SHAPE, I.D INSIDE DIAMETER, INFO INFORMATION, I.F INSIDE FACE, IN INCH, INSUL INSULATION, INT INTERIOR, JT JOIST, JT JOINT, K KIPS (1K=1000LS), L ANGLE, LG LENGTH, LB(S) POUNDS(S), LPS LOAD, LLB LONG LEGS BACK TO BACK, LLH LONG LEG HORIZ, LLV LONG LEG VERT, LCO(S) LOCATION(S) OR LOCATE, LONG LONGITUDINAL, LSL LAMINATED STRAND LUMBER, LT LIGHT, LTL TENSION LAP SPLICE LENGTH, LWT LIGHTWEIGHT, LEVEL OR LAMINATE VENEER LUMBER, MACH MACHINE, MACH RM MACHINE ROOM, MAS MASONRY, MATL MATERIAL, MAY MECHANICAL, MECH MECHANICAL/ELECTRICAL/PLUMBING, M.E.P MANUF MANUFACTURER, MISC MISCELLANEOUS, ML MICRO-LAM, M.O MASONRY OPENING, MTL METAL, N NORTH, NI C NOT IN CONTRACT, NO OR # NUMBER, NOM NOMINAL, NORTH-SOUTH N-S, NAR SIDE N.S., NOT TO SCALE N.T.S., ON CENTER O.C., O.D OUTSIDE DIAMETER, O.F OUTSIDE FACE, O.H OPPOSITE HAND, OPP OPPOSITE, P.A.F POWDER ACTUATED FASTENER, P.C PILE CAP, PCA PORTLAND CONCRETE ASSOCIATION, PEN PENETRATION, PERP PERPENDICULAR, PLATE PLATE, PLS PLACES, PWF POUNDS PER LINEAR FOOT, PSF POUNDS PER SQUARE FOOT, PSI POUNDS PER SQUARE INCH, PREFAB PREFABRICATED, PRELIM PRELIMINARY, PRESUR PRESSURE TREATED, POLYWINYL CHLORIDE, QTY QUANTITY, RADIUS, RE OR REF REFER TO REFERENCE, ROOF DRAIN, REINFB REINFORCE(ING)(D)(MENT), REQD REQUIRED, REQMNTS REQUIREMENT(S), ROUGH OPENING, RTO ROOF TOP UNIT, S.C SLIP CRITICAL, SCHED SCHEDULE, SECT SECTION, SFT SQUARE FOOT, S.F SHEET, SHT SHEET, SIM SIMILAR, SLH SHORT LEG HORIZONTAL, SLV SHORT LEG VERTICAL, SOUTH, SP AT SPACE AT, SP SPACE(S), SPECS SPECIFICATIONS, S.K SHEAR KEY, S.L SHEAR LUG, S.S STAINLESS STEEL, SSSL SHORT SLOT STANDARD, STL STEEL, STRUCT STRUCTURAL, STIFFN STIFFENER, S.W SHEARWALL SYMMETRICAL, T TOP, T&B TOP AND BOTTOM, T.C.F TOP CHORD EXTENSION, THK THICK, TL TOTAL LOAD, T.J THE JOIST, T.O. OR T/ TOP OF, T.O.S. T/STL TOP OF STEEL etc, TRANS TRANSVERSE, TYP TYPICAL, U.N.O. UNLESS NOTED OTHERWISE, V.E.F VERTICAL, VERIFY IN FIELD, W/ WITH, W/O WITHOUT, WD WIDTH OR WOOD, WF WIDE FLANGE, W.P WORK POINT, WT WEIGHT, W.W.F WELDED WIRE FABRIC

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