

GENERAL NOTES:

- A. CONSTRUCTION DOCUMENTS:
- THE CONTRACTOR SHALL REVIEW THE APPROVED CONSTRUCTION DOCUMENTS AND NOTIFY THE ENGINEER OF ANY ERRORS OR DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.
  - CONTRACTOR IS RESPONSIBLE FOR USING QUALIFIED SUB CONTRACTORS EXPERIENCED IN THIS TYPE OF CONSTRUCTION.
  - THE CONTRACTOR SHALL FURNISH AND INSTALL EVERYTHING REQUIRED TO PROVIDE A COMPLETE STRUCTURE AS SHOWN HEREIN. IF THERE IS AN OMISSION ON THE PLANS, SUCH OMISSION SHALL NOT BE CONSTRUED TO MEAN THAT THE CONTRACTOR IS NOT REQUIRED TO FURNISH OR PROVIDE EVERYTHING THAT IS NECESSARY TO COMPLETE THE PROJECT TO THE MINIMUM REQUIREMENTS OF THE 2015 INTERNATIONAL BUILDING CODE AND ALL OTHER SPECIFICATIONS, CODES AND STANDARDS NOTED ON THE APPROVED CONSTRUCTION DOCUMENTS.
  - THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY UNIDENTIFIED EXISTING UNDERGROUND UTILITIES ARE DISCOVERED. THE ENGINEER IS NOT RESPONSIBLE FOR THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS.
  - THE APPROVED STRUCTURAL DRAWINGS ARE PART OF THE OVERALL CONSTRUCTION DOCUMENT SET AND SHALL BE REFERENCED IN CONJUNCTION WITH OTHER APPROVED CONSTRUCTION DOCUMENTS INCLUDING, BUT NOT LIMITED TO, CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, DOCUMENTS.
    - SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING: HORIZONTAL AND VERTICAL DIMENSIONS NOT SHOWN ON THE STRUCTURAL PLANS, SIZE AND LOCATIONS OF DOOR AND WINDOW OPENINGS, SIZE AND LOCATIONS OF ROOF AND FLOOR OPENINGS, SIZE AND LOCATIONS OF INTERIOR NON-BEARING AND NON STRUCTURAL WALLS, CEILING ASSEMBLIES, WALL, FLOOR AND ROOF FINISHES, AND HANDRAILS.
    - SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR THE FOLLOWING: SIZE AND LOCATION OF PIPES, SLEEVES, AND DUCT PENETRATIONS, EQUIPMENT SIZES AND LOCATION, EQUIPMENT CURBS AND MOUNTING BRACKETS OR ANCHORS.
  - THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND/OR SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. CONTRACTOR AT HIS/HER OWN EXPENSE SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DESIGN BRACING, SHORING, ETC. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
  - UNDER NO CIRCUMSTANCES CAN STRUCTURAL COMPONENTS BE SUBSTITUTED, OMITTED, SPICED, OR ALTERED FROM THE APPROVED SET OF CONSTRUCTION DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.
- B. DIMENSIONS AND NOTATIONS:
- WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.
  - FOR ANY MISSING DIMENSIONS REFER TO THE ARCHITECTURAL DRAWINGS OR THE DRAWINGS OF APPLICABLE TRADE.
  - ABBREVIATIONS USED ON THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE CONSIDERED TYPICAL ABBREVIATIONS FOR THE INDUSTRY. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY ABBREVIATIONS THAT ARE UNKNOWN TO THE CONTRACTOR.
- C. TYPICAL NOTES AND DETAILS:
- SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER STANDARD TYPICAL NOTES AND DETAILS.
  - STANDARD TYPICAL NOTES AND DETAILS ARE TO BE USED WHEN REFERRED TO OR WHEN NO OTHER MORE RESTRICTIVE OR DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.
  - WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED.
- D. SHOP DRAWINGS:
- SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER IN A TIMELY FASHION PRIOR TO FABRICATION AND CONSTRUCTION, UNLESS OTHERWISE STATED, A MINIMUM OF 5 WORKING DAYS AFTER RECEIPT OF SHOP DRAWINGS SHALL BE CONSIDERED AN ACCEPTABLE TIME PERIOD FOR THE STRUCTURAL ENGINEER REVIEW PROCESS.
  - A MINIMUM OF (2) HARD COPY SETS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. THE STRUCTURAL ENGINEER WILL MAINTAIN (1) SET FOR REFERENCE PURPOSES, THE CONTRACTOR SHALL MAINTAIN (1) SET AT THE JOB SITE DURING THE DURATION OF CONSTRUCTION.
  - CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO THE STRUCTURAL ENGINEER. CONTRACTOR SHALL REVIEW FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS.
  - SHOP DRAWINGS ARE NOT A PART OF THE CONSTRUCTION DOCUMENTS. THE STRUCTURAL ENGINEER REVIEW DOES NOT GIVE PERMISSION TO DEVIATE FROM THE APPROVED CONSTRUCTION DOCUMENTS, WHERE THE SHOP DRAWINGS AND THE CONSTRUCTION DOCUMENTS DIFFER, THE MORE STRICT OF THE TWO SHALL GOVERN UNLESS WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER PERMITS OTHERWISE.
- E. INSPECTIONS, SPECIAL INSPECTIONS, AND SITE VISITS (STRUCTURAL OBSERVATIONS):
- INSPECTIONS BY THE BUILDING OFFICIAL ARE REQUIRED FOR CONSTRUCTION WORK FOR WHICH A PERMIT IS REQUIRED PER SECTION 110 OF THE IBC. CONTRACTOR IS REQUIRED TO COORDINATE AND SCHEDULE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL. INSPECTIONS PRESUMING TO GIVE AUTHORITY TO VIOLATE OR CANCEL PROVISIONS OF THE IBC OR OF OTHER ORDINANCES OF THE JURISDICTION SHALL NOT BE VALID.
  - SPECIAL INSPECTIONS ARE IN ADDITION TO, AND DO NOT REPLACE, THE INSPECTIONS BY THE BUILDING OFFICIAL PER CHAPTER 17 OF THE IBC. SPECIAL INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED PERSON TO INSPECT AS REQUIRED ON THESE DOCUMENTS THE MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS REQUIRING SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.
  - SITE VISITS OR STRUCTURAL OBSERVATIONS BY THE STRUCTURAL ENGINEER DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY OF INSPECTIONS OR SPECIAL INSPECTIONS PER SECTION 110 AND CHAPTER 17 OF THE IBC. SITE VISITS ARE NOT CONTINUOUS OR DETAILED. SITE VISITS DO NOT VALIDATE CONTRACTOR PERFORMANCE, MEANS, OR METHODS. SITE VISITS ARE FOR VISUAL OBSERVATION FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
- F. CODE REQUIREMENTS:
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING CODES:
- 2018 INTERNATIONAL BUILDING CODE (IBC)
  - ANY OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF IDAHO.
  - SPECIFICATIONS, CODES AND STANDARDS NOTED SHALL BE OF THE LATEST APPROVED ISSUE, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
  - CONTRACTOR SHALL BE PROPERLY REGISTERED IN THE STATE OF IDAHO PER IDAHO STATE LAW.
  - ALL STRUCTURAL MATERIAL MUST HAVE CURRENT ICC-ES REPORTS AVAILABLE UPON REQUEST TO PROVE CODE APPROVAL & INDUSTRY TOLERANCES.

DESIGN CRITERIA:

- A. 2018 INTERNATIONAL BUILDING CODE (IBC):
- RISK CATEGORY: II
  - NATURE OF OCCUPANCY: RESIDENCE
- B. DESIGN LOADS:
- ROOF:
    - LIVE LOAD = 100 PSF (SNOW)
    - DEAD LOAD = 18 PSF
  - FLOOR- LIVE LOADS:
    - RESIDENCE = 40 PSF
  - FLOOR- DEAD LOADS:
    - WOOD = 15 PSF
- C. IBC SEISMIC DESIGN:
- SEISMIC DESIGN CATEGORY: D
  - IMPORTANCE FACTOR  $I_E = 1.0$
  - SOIL SITE CLASS: D
  - SEISMIC COEFFICIENTS:  
 $S_{DS} = 0.443$   
 $S_{D1} = 0.232$
  - RESPONSE MODIFICATION: R= 6.5
- SEISMIC FORCE RESISTING SYSTEM: SIMPLE DIAPHRAGM
- DESIGN BASE SHEAR:  
 $V = 0.068W$
7. ANALYSIS PROCEDURE: EQUIV. LATERAL FORCE
- D. IBC WIND LOAD:
- BASIC DESIGN WIND SPEED = 115 MPH
  - EXPOSURE = C
  - ANALYSIS METHOD= SIMPLE DIAPHRAGM
  - DESIGN BASE PRESSURE (ASD):  
 $P = 15 PSF$

FOUNDATIONS:

- A. MAXIMUM ALLOWABLE FOUNDATION SOIL BEARING PRESSURE:
- 1500 PSF (DEAD + LIVE LOAD)
  - 1995 PSF (GRAVITY + LATERAL LOAD)
- B. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 24 INCHES MINIMUM BELOW ADJACENT FINISHED GRADE.
- C. THE INTERIOR FOOTINGS SHALL BE 12 INCHES MINIMUM BELOW FINISH FLOOR, U.N.O.
- D. STRUCTURAL BACKFILL SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D1557. BRACE WALLS AND PIERS AS REQUIRED DURING BACKFILLING OPERATIONS.
- E. DEFINITIONS:
- STRUCTURAL WALLS - ANY LOAD BEARING WALL, SHEAR WALL, AND ANY WALL THAT REQUIRES A FOOTING.

CONCRETE:

- A. REFERENCE STANDARDS:
- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITION OF ACI 301
  - ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE
  - CONCRETE MIX DESIGN SHALL BE ESTABLISHED IN ACCORDANCE WITH CHAPTER 5 OF ACI 318
  - USE LATEST EDITION OF ACI 308R WHEN CONCRETING DURING COLD WEATHER
- B. SUBMITTALS:
- SUPPLY PRODUCT DATA FOR PROPRIETARY MATERIALS AND ITEMS, INCLUDING REINFORCEMENT AND FORMING ACCESSORIES, ADMIXTURES, PATCHING COMPOUNDS, JOINT SYSTEMS, CURING COMPOUNDS AND OTHERS.
  - SHOP DRAWINGS FOR REINFORCEMENT DETAILING, FABRICATING, FOR BENDING, AND PLACING OF CONCRETE REINFORCEMENT SHALL COMPLY WITH ACI 315, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, BAR SCHEDULES, STIRRUP SPACING, BENT BAR DIAGRAMS, AND ARRANGEMENT OF CONCRETE REINFORCEMENT SHALL BE SHOWN. INCLUDE SPECIAL REINFORCING REQUIRED FOR OPENINGS THROUGH CONCRETE STRUCTURES.
- C. FORMWORK AND FINISHES:
- FORMWORK: DESIGN, ERECT, SUPPORT, BRACE AND MAINTAIN FORMWORK TO SUPPORT VERTICAL, LATERAL, STATIC AND DYNAMIC LOADS THAT MIGHT BE APPLIED UNTIL STRUCTURE CAN SUPPORT SUCH LOADS.
  - FINAL SLAB SURFACES SHALL RECEIVE A MACHINED STEEL TROWEL FINISH.
  - ANY PROJECTING CORNERS OF COLUMNS, BEAMS, WALLS, PEDESTALS, ETC SHALL BE FORMED WITH A 3/4 INCH CHAMFER.
  - DRY PACK, OR USE NON-SHRINK GROUT, UNDER BASE PLATES, BEARING PLATES, OR SILL PLATES AS REQUIRED FOR A LEVEL AND UNIFORM BEARING SURFACE. MINIMUM GROUT STRENGTH SHALL BE  $f_c = 7000$  PSI, U.N.O.
  - SEPARATE SLABS-ON-GRADE FROM VERTICAL SURFACES WITH JOINT FILLER.
- D. MIX DESIGN, STRENGTH, AND ADMIXTURES:
- 28-DAY COMPRESSIVE STRENGTHS ( $f_c$ ):
    - FOUNDATION STEM WALLS = 3500 PSI
    - FOOTINGS = 3500 PSI
    - INTERIOR SLABS-ON-GRADE = 4000 PSI
  - CEMENT II OR III PER ASTM C-150
  - MAXIMUM SLUMP:
    - PRIOR TO ADDITION OF WATER-REDUCING ADMIXTURE = 4"
    - WITH ADDITION OF WATER-REDUCING ADMIXTURE= 10"
  - MAXIMUM SIZE COARSE AGGREGATE: 3/4 INCHES (PER ASTM C-33)
  - APPROVED ADMIXTURES:
    - FLYASH PER ASTM C-618
    - AIR ENTRAINING PER ASTM C-260
    - WATER REDUCING PER ASTM C-494
- E. REINFORCEMENT:
- REINFORCEMENT FOR CONCRETE:
    - ALL REINFORCING SHALL BE SUPPORTED IN FORMS SPACED WITH NECESSARY ACCESSORIES AND SHALL BE SECURELY WIRED TOGETHER IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "MANUAL OF STANDARD PRACTICE"
    - DEFORMED BARS - ASTM A615, GRADE 60
    - WELDED WIRE REINFORCEMENT (WWR):
      - SMOOTH WIRE - ASTM A185
      - DEFORMED WIRE - ASTM A497
      - USE FLAT MATS ONLY. NO ROLLED WWR IS PERMITTED.
  - MINIMUM REINFORCEMENT LAP = 40 BAR DIAMETERS
  - MINIMUM WWR LAP = GRID SPACING PLUS 2 INCHES
  - MINIMUM CONCRETE COVER OVER REINFORCEMENT:
    - CONCRETE CAST AGAINST EARTH = 3"
    - CONCRETE EXPOSED TO EARTH OR WEATHER = 1 1/2"
    - CONCRETE NOT EXPOSED TO EARTH OR WEATHER = 3/4"
  - SLAB-ON-GRADE REINFORCEMENT SHALL BE PLACED AT THE MID-DEPTH OF THE SLAB.

F. COORDINATION:

- COORDINATE ALL UNDER-SLAB MATERIAL SUCH AS VAPOR BARRIER, INSULATION, AND SUB-BASE WITH ARCHITECTURAL CONSTRUCTION DOCUMENTS.
  - COORDINATE CONCRETE SURFACE FINISHING WITH ARCHITECTURAL FINISH MATERIALS.
  - REPAIR OR REPLACE DEFECTIVE CONCRETE AS DIRECTED BY THE ARCHITECT, ENGINEER, OR TESTING AGENCY.
  - COORDINATE ALL JOINT SPACING, LAYOUT, FILLER AND SEALANTS.
  - COORDINATE WITH ARCHITECTURAL ANY FINISH SURFACES THAT REQUIRE MOCK-UPS AND ACCEPTANCE PRIOR TO CONSTRUCTION.
  - COORDINATE WITH REQUIRED INSPECTORS, SPECIAL INSPECTORS, AND STRUCTURAL OBSERVERS FOR FIELD QUALITY CONTROL ITEMS AND SCHEDULE NOTIFICATIONS IN A TIMELY FASHION.
- G. DEFINITIONS:
- PERFORMANCE DESIGN - A SET OF INSTRUCTIONS THAT OUTLINES THE FUNCTIONAL REQUIREMENTS FOR HARDENED CONCRETE DEPENDING ON THE APPLICATION. PERFORMANCE DESIGN DOES NOT INCLUDE REQUIREMENTS FOR MEANS AND METHODS AND DOES NOT PROVIDE LIMITATIONS ON THE INGREDIENTS OR PROPORTIONS OF THE CONCRETE MIXTURE. SUBMITTALS FOR PERFORMANCE DESIGN WOULD NOT BE A DETAILS LIST OF MIXTURE INGREDIENTS BUT RATHER A CERTIFICATION THAT THE MIX WILL MEET THE SPECIFICATION REQUIREMENTS, INCLUDING PRE-QUALIFICATION TEST RESULTS.
  - DURABILITY DESIGN - DURABILITY IS THE ABILITY OF CONCRETE TO RESIST WEATHERING ACTION, CHEMICAL ATTACK, AND ABRASION WHILE MAINTAINING ITS DESIRED ENGINEERING PROPERTIES.
  - STRENGTH DESIGN- BASED ON THE ULTIMATE COMPRESSIVE STRENGTH OF THE CONCRETE NEEDED TO RESIST THE CALCULATED DESIGN LOADS. ANY ADDITIONAL STRENGTH THAT MAY BE PRESENT DUE TO STEEL REINFORCING IS NOT PERMITTED TO BE INCLUDED IN THE CONCRETE STRENGTH DESIGN.

WOOD:

- A. REFERENCE STANDARDS AND GOVERNING AGENCIES:
- NDS FOR WOOD CONSTRUCTION
  - APA PANEL DESIGN SPECIFICATION
  - AWPA U1 - USE CATEGORY SYSTEM: USER SPECIFICATION FOR TREATED WOOD
  - TP1 NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION
  - WWPA - WESTERN WOOD PRODUCTS ASSOCIATION
- B. SUBMITTALS:
- ENGINEERED WOOD PRODUCTS:
    - ANY ALTERNATE PROPRIETARY FRAMING SYSTEM(S) SHALL BE OF THE SAME DEPTH AND LOAD CARRYING CAPACITY AS THE TRUS-JOIST SYSTEM(S) SHOWN ON THE DRAWINGS. ICC REPORTS FOR THE ALTERNATE PROPRIETARY FRAMING SYSTEM(S) SHALL BE SUBMITTED SHOWING TESTING APPROVAL AND MATERIAL STRENGTH EQUIVALENCY.
    - ALL SUBMITTED ENGINEERED WOOD PRODUCTS CALCULATIONS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IDAHO.
  - FABRICATED WOOD TRUSSES:
    - ALL ROOF TRUSSES SHALL BE DESIGNED, STAMPED, AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IDAHO.
    - TRUSS MANUFACTURER SHALL PROVIDE PROOF OF APPROVED THIRD PARTY INSPECTION AS REQUIRED BY THE 2012 IBC, SECTION 1704.2.5
    - SUBMIT SHOP DRAWINGS OF PRE MANUFACTURED WOOD TRUSS LAYOUT FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION. TRUSS DESIGN DRAWINGS AND CALCULATIONS SHALL CONFORM TO THE REQUIREMENTS FROM SECTION 2303.4 OF THE IBC.
- C. CARPENTRY
- WOOD FRAMING MEMBERS SHALL HAVE THE FOLLOWING GRADES, OR BETTER, UNLESS NOTED OTHERWISE (U.N.O.):
    - BLOCKING: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - BRIDGING: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - STUD FRAMING: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - BEAMS/HEADERS/JOISTS: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - POSTS/BUILT-UP COLUMNS: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - TOP AND BOTTOM PLATES: DOUGLAS FIR LARCH NO. 2, OR BETTER
  - MAXIMUM MOISTURE CONTENT OF ALL LUMBER AT THE TIME OF CLOSURE SHALL BE 19%.
  - SPLICING OF WOOD MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE PROJECT ENGINEER.
  - HOLES MAY BE DRILLED IN JOIST/BEAM IF SPECIFICALLY INDICATED ON THESE DRAWINGS. ANY OTHER HOLES OR NOTCHES ARE NOT ALLOWED.
  - ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED OR REDWOOD.
- D. ENGINEERED OR COMPOSITE WOOD PRODUCTS
- ALL ENGINEERED WOOD PRODUCTS SHALL BE TRUS-JOIST PRODUCTS OR APPROVED EQUAL.
  - ALL ENGINEERED WOOD PRODUCTS SHALL BE DESIGNED FOR THE LOADS SPECIFIED AND SHALL CONFORM TO THE LATEST SPECIFICATIONS.
  - ALL ENGINEERED WOOD PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  - SPLICING OF ENGINEERED WOOD MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE PROJECT ENGINEER.
- E. MANUFACTURED OR FABRICATED WOOD TRUSSES
- ALL TRUSS LOADING SHALL SATISFY DEAD AND LIVE LOADS SHOW UNDER DESIGN LOADS IN THE DESIGN CRITERIA, ABOVE.
  - MEMBER PROPERTIES: NO EXCEPTIONS OR SUBSTITUTIONS WITHOUT A WRITTEN REQUEST PRIOR TO FABRICATION.
    - CHORDS: DOUGLAS FIR LARCH NO. 2, OR BETTER
    - WEBS: DOUGLAS FIR LARCH NO. 2, OR BETTER, OR STUD GRADE
    - UTILITY, CONSTRUCTION, OR #3 GRADE WOOD IS NOT ACCEPTABLE FOR ANY TRUSS MEMBER
  - EACH TRUSS SHALL BE MARKED WITH THE FOLLOWING INFORMATION:
    - MANUFACTURER'S IDENTIFICATION
    - DESIGN LOAD(S)
    - TRUSS SPACING AND CONFIGURATION.
  - ALL TRUSS BLOCKING PANELS SHALL BE DESIGNED AND PROVIDED BY THE TRUSS MANUFACTURER AND CONSTRUCTED WITH APPROVED PLATES.
  - TRUSS PROFILES SHOWN ARE REPRESENTATION OF POSSIBLE CONFIGURATIONS OF WEB LOCATIONS, MEMBER SIZES, AND NUMBER OF PLAYS.
  - TRUSS MANUFACTURER SHALL VERIFY ALL TRUSS DIMENSIONS, ACCOUNTING FOR TOLERANCES, CONNECTIONS AND SPLICE REQUIREMENTS.
  - TRUSS ORIENTATION DIRECTLY IMPACTS THE STRUCTURAL INTEGRITY OF THE FOUNDATION, AND WALL SYSTEM DESIGNS. ANY MODIFICATIONS TO THE TRUSS ORIENTATION MUST BE MADE IN WRITING AND SUBMITTED TO THE CONTRACTOR, AND ENGINEER PRIOR TO THE CONSTRUCTION OF THE ABOVE SYSTEMS.
  - THE TRUSS MANUFACTURER IS RESPONSIBLE FOR COORDINATION BETWEEN STRUCTURAL, ARCHITECTURAL, AND MECHANICAL LAYOUT REQUIREMENTS PRIOR TO FABRICATION.

F. PANEL SHEATHING:

- STRUCTURAL WOOD SHEATHING AS SPECIFIED ON THESE DRAWINGS AT ROOF/FLOOR DIAPHRAGMS, SHEAR WALLS, AND BUILT-UP BLOCKING LOCATIONS SHALL BE STAMPED WITH THE SPECIFIED APA RATING.
  - STRUCTURAL WOOD SHEATHING MAY BE EITHER PLYWOOD OR ORIENTED STRAND BOARD (OSB) AS LONG AS THE PANEL MEETS OR EXCEEDS THE CRITERIA LISTED BELOW.
  - ROOF SHEATHING SHALL BE, U.N.O.:
    - THICKNESS: 3/4"
    - SPAN RATING: 48/24
    - GRADE: PS-1/EXP-1
    - NAILING: PER PLAN
    - PLY CLIPS AT ALL UNSUPPORTED EDGES
    - MAXIMUM DISTANCE BETWEEN SUPPORT MEMBERS: 24"
  - FLOOR SHEATHING SHALL BE, U.N.O.:
    - THICKNESS: 3/4"
    - SPAN RATING: 48/24
    - GRADE: PS-1/EXP-1
    - NAILING: PER PLAN
    - TONGUE AND GROOVE
    - MAXIMUM DISTANCE BETWEEN SUPPORT MEMBERS: 16"
  - WALL SHEATHING SHALL BE, U.N.O.:
    - THICKNESS: 3/8"
    - SPAN RATING: WALL-16
    - GRADE: PS-1/EXP-1
    - NAILING: PER PLAN
    - BLOCKED AT ALL UNSUPPORTED EDGES
    - MAXIMUM DISTANCE BETWEEN SUPPORT MEMBERS: 16"
- G. ACCESSORIES AND FASTENERS:
- ALL WOOD CONNECTORS SHALL BE SIMPSON STRONG-TIE OR APPROVED EQUAL AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
    - POST TO CONCRETE CONNECTIONS SHALL BE SIMPSON 'AB' POST BASES, U.N.O.
    - POST TO BEAM CONNECTIONS SHALL BE SIMPSON 'LPCZ' POST CAPS, U.N.O.
    - SAWN LUMBER JOIST HANGERS SHALL BE SIMPSON 'LU' HANGERS, U.N.O.
    - JOIST HANGERS SHALL BE SIMPSON 'ITS' HANGERS, U.N.O.
  - NAILING SHALL BE IN ACCORDANCE WITH THE 2015 IBC TABLE 2304.10.1, UNLESS NOTED OTHERWISE.
  - NAILS SHALL BE COMMON WIRE NAILS (EXCEPT 16d NAILS MAY BE BOX WIRE NAILS).
  - METAL FINISH MATERIAL:
    - HIGH HUMIDITY AND PRESERVATIVE TREATED WOOD LOCATIONS: HOT DIPPED GALVANIZED STEEL PER ASTM A 153.
    - INTERIOR AND DRY LOCATIONS: STANDARD PAINTED OR ZINC GALVANIZED COATING.
- H. TRUSSES:
- SUBMIT SHOP DRAWINGS SHOWING FULL DIMENSIONS FOR EACH MEMBER AND LAYOUTS OF THE ENTIRE HEAVY TIMBER TRUSSES. SHOW DETAILS OF TRUSS CONNECTIONS, CONNECTORS AND OTHER ACCESSORIES. INDICATE SPECIES AND GRADE OF TIMBER.
  - FABRICATE CONNECTIONS CONSIDERING STRICT QUALITY STANDARDS ESTABLISHED BY THE TIMBER FRAME'S GUILD OF NORTH AMERICA, INCLUDING TPEC 1.7 UNLESS SPECIFICALLY DETAILED OTHERWISE. ALL CONNECTIONS SHALL BE DETAILED AND CONSTRUCTED ACCORDING TO THESE DRAWINGS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD. CONNECTIONS SHALL BE DESIGNED TO MINIMIZE VISIBLE JOINT SEPARATION DUE TO SHRINKAGE.
  - THE GENERAL CONTRACTOR SHALL FULLY COORDINATE THE SITE CONDITIONS, WORK, SCHEDULE, ERECTION PLATFORM, AND ALL OTHER ITEMS PERTINENT TO THE TIMBER FRAME ERECTION PROCESS.
- I. DEFINITIONS:
- APA RATED SHEATHING: A COMMON TRADE NAME THAT APPLIES TO A GRADE OR PANEL FOR USE AS SUBFLOORING, WALL SHEATHING, AND ROOF SHEATHING. PANELS ARE MADE WITH RESIN ADHESIVES THAT PROVIDE A MOISTURE RESISTANT BOND AND ARE DESIGNATED AS: EXPOSURE 1. PANELS CAN BE MANUFACTURED AS EITHER: PLYWOOD OR OSB.
  - APA STRUCTURAL 1 RATED SHEATHING: A SPECIAL SHEATHING GRADE DESIGNED FOR USE WHERE SHEAR AND/OR CROSS PANEL STRENGTH PROPERTIES ARE OF MAXIMUM IMPORTANCE. PANELS ARE MADE WITH RESIN ADHESIVES THAT PROVIDE A MOISTURE RESISTANT BOND AND ARE DESIGNATED AS: EXPOSURE 1. PANELS CAN BE MANUFACTURED AS EITHER: PLYWOOD OR OSB.

SPECIAL INSPECTION PROGRAM:

- A. THE OWNER SHALL EMPLOY AN APPROVED AGENCY FOR SPECIAL INSPECTION SERVICES TO PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC.
- B. AN APPROVED AGENCY SHALL BE AN ESTABLISHED AND RECOGNIZED AGENCY, REGULARLY ENGAGED IN CONDUCTING TESTS OR FURNISHING INSPECTION SERVICES.
- C. A SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL SHOW COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR THE INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. A SPECIAL INSPECTOR SHALL ALSO DEMONSTRATE A THOROUGH WORKING KNOWLEDGE OF CHAPTER 17 OF THE IBC AS SUMMARIZED BELOW. IF THERE IS ANY OMISSION ON THE SUMMARIZED LIST BELOW, SUCH OMISSION SHALL NOT BE CONSTRUED TO MEAN THAT THE SPECIAL INSPECTOR IS NOT REQUIRED TO INSPECT EVERYTHING THAT IS NECESSARY TO MEET THE MINIMUM REQUIREMENTS OF THE IBC.
- D. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL SUBMIT INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE ENGINEER FOR REVIEW IN A TIMELY FASHION.
- E. SPECIAL INSPECTION REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE BUILDING OFFICIAL AND THE ENGINEER.

SPECIAL INSPECTION:

- A. SPECIAL INSPECTION AS HEREIN REQUIRED OF THE FOLLOWING MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS REQUIRING SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.
- B. STRUCTURAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE ENGINEER OF RECORD DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE SPECIAL INSPECTION REQUIRED BY SECTION 110, 1704, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE.
- C. THE SPECIAL INSPECTION STATEMENT ON THIS SHEET LISTS THE ITEMS THAT REQUIRE SPECIAL INSPECTION AND VERIFICATION, THE CODE SECTION-REFERENCE FOR ADDITIONAL INFORMATION, AND THE REQUIRED FREQUENCY OF INSPECTION.

STRUCTURAL OBSERVATIONS:

- A. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEMS BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
- B. THE STRUCTURAL OBSERVER SHALL BE EITHER THE ENGINEER OF RECORD OR A REGISTERED DESIGN PROFESSIONAL APPROVED BY THE ENGINEER OF RECORD.
- C. THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR STRUCTURAL OBSERVATION, THE CONTRACTOR, AND APPROPRIATE SUBCONTRACTORS SHALL HOLD A PRE-CONSTRUCTION MEETING TO REVIEW THE DETAILS OF THE STRUCTURAL SYSTEMS TO BE STRUCTURALLY OBSERVED.
- D. THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR STRUCTURAL OBSERVATION SHALL SUBMIT SEPARATE WRITTEN OBSERVATION REPORTS FOR EACH REQUIRED SIGNIFICANT CONSTRUCTION STAGE TO BE OBSERVED. THIS WRITTEN REPORT, INCLUDING ANY OBSERVED DEFICIENCIES, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD, THE OWNER'S REPRESENTATIVE, THE CONTRACTOR, AND THE BUILDING OFFICIAL.

ABBREVIATIONS			
A	ANCHOR BOLT	M	MANUF
AB	ADDITIONAL	MAX	MAXIMUM
ADD'L	ALTERNATE	MB	MACHINE BOLT
ALT	APPROXIMATE	MECH	MECHANICAL
APPROX	ARCHITECT	MIN	MINIMUM
ARCH	ARCHITECTURAL	MISC	MISCELLANEOUS
ARCH'L			
B		N	
B	BOTTOM	NO.	NUMBER
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
BM	BEAM	O	
BOT	BOTTOM	O.C.	ON CENTER
BRG.	BEARING	O.H.	OPPOSITE HAND
C		OPNG	OPENING
C	CHANNEL	OPP	OPPOSITE
CJ	CONTROL JOINT	OSB	ORIENTED STRAND BOARD
CL	CENTER LINE	OWSJ	OPEN WEB STEEL JOIST
CLG.	CEILING		
CMU	CONCRETE MASONRY UNITS	P	
COM	COMMON	PEMB	PRE-ENGINEERED METAL BUILDING
CONC.	CONCRETE	PERP	PERPENDICULAR
COND.	CONDITION	PL	PLATE
CONN.	CONNECTION	PLY	PLYWOOD
COORD.	COORDINATE	PSL	PARALLEL STRAND LUMBER
D		PSI	POUNDS PER SQUARE INCH
(D)	DEPTH	P.T.	PRESSURE TREATED
DET	DETAIL	R	
D.F.	DOUGLAS FIR	REF	REFERENCE
D.F.L.	DOUGLAS FIR- LARCH	REINF	REINFORCEMENT
DIAG	DIAGONAL	REQ'D	REQUIRED
DIAM	DIAMETER	REV	REVISION
DIMS	DIMENSION	RTU	ROOF TOP UNIT
DWG	DRAWING	S	
E		SCHED	SCHEDULE
(E)	EXISTING	SHTG	SHEATHING
EA	EACH	SIM	SIMILAR
E.B.	EXPANSION BOLT/ANCHOR	SK	SKETCH
E.J.	EXPANSION JOINT	SPECS	SPECIFICATIONS
ELEV	ELEVATION	SS	STAINLESS STEEL
E.N.	EDGE NAIL	STAG	STAGGERED
EQ	EQUAL	STD	STANDARD
EQUIP	EQUIPMENT	STRUCT	STRUCTURAL
EXIST	EXISTING	T	
F		T.A.S.	THREADED ANCHOR STUD
FDN	FOUNDATION	T&G	TONGUE AND GROOVE
FIN	FINISH	T&B	TOP AND BOTTOM
FLR	FLOOR	THRU	THROUGH
FRMG	FRAMING	TJI	TRUS JOIST I-JOIST
FTG	FOOTING	TO	TOP OF
(F.V.)	FIELD VERIFY	TRANSV	TRANSVERSE
G		TYP	TYPICAL
GA	GAUGE	U	
GALV	GALVANIZE	UNO	UNLESS OTHERWISE NOTED
GLB	GLU-LAM BEAM	V.I.F.	VERIFY IN FIELD
GYP	GYPSPUM BOARD	VERT	VERTICAL
H		W	
H.A.S.	HEADED ANCHOR STUD	(W)	WIDTH
H.D.	HOLD DOWN	WD	WIDE FLANGE
HDR	HEADER	WP	WOOD POINT
HORIZ	HORIZONTAL	WT	WEIGHT
I		WWF	WELDED WIRE FABRIC
IN	INCHES	WWR	WELDED WIRE REINFORCEMENT
L			
(L)	LENGTH		
LB	POUND		
LLH	LONG LEG HORIZONTAL		
LLV	LONG LEG VERTICAL		
LVL	LAMINATED VENEER LUMBER		

ARCH COTTAGE TOWNHOMES - UNIT 1

SUNBEAM SUBDIVISION

HAILEY, IDAHO

STRUCTURAL SPECIFICATIONS

REVISIONS

05/05/2023 DESIGN REVIEW

PRINT DATE

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DRAWING SCALE

NO SCALE

S000

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