ECKLAND RESIDENCE CUSTOM ICF RESIDENCE JUNEAU, ALASKA

LIVING: 3220 SQ. FT.

OCCUPANCY TYPE: R3

GENERAL REQUIREMENTS (CHECKLIST):

- 1. PROVIDE 1SF PER 150 SF UNDERFLOOR VENTILATION (WHERE APPLICABLE)
- 2. INTERIOR PARTITIONS TO BE FRAMED WITH WOOD STUDS. USE 5/8" TYP 'X' G.W.B. BETWEEN DWELLING & GARAGE.
- 3. PROVIDE A MINIMUM OF 100 AMP ELECTRICAL SERVICE PANEL WITH 1/2" DIA. X 20' LONG REBAR BACK-UP UFER GROUND BONDED TO COLD WATER PIPE. CONTACT PACIFIC POWER FOR METER LOCATION.
- 4. PROVIDE A MIN. 3" DIA. SEPTIC DRAIN LINE WITH A 2% SLOPE.
- 5. RECEPTACLE OUTLETS SHALL BE PLACED SO THAT NO POINT ON ANY USABLE WALL (2' AND WIDER) SHALL BE MORE THAN 6' FROM A RECEPTACLE.
- 6. PROVIDE AT LEAST ONE OUTDOOR RECEPTACLE WITH WEATHERPROOF COVER AND GROUND FAULT CIRCUIT INTERRUPTER (GFCI) AT FRONT AND REAR OF DWELLING UNIT.
- 7. SHOWER WALLS SHALL BE FINISHED TO A MINIMUM HEIGHT OF 70" ABOVE DRAIN INLET W/ MOISTURE RESISTIVE SURFACE.
- 8. PROVIDE HARD WIRED INTERCONOESCTED SMOKE DETECTORS WITH BATTERY BACK-UP ADJACENT TO AND INSIDE BEDROOMS. BATTERY OPERATED SMOKE DETECTORS ARE PERMITTED IN REMODEL AND UPGRADE APPLICATIONS ONLY.
- 9. PROVIDE A HEATING SYSTEM ABLE TO MAINTAIN THE REQUIRED MIN. ROOM TEMPERATURE OF 70° FAHRENHEIT AT 3 FT. ABOVE FLOOR LEVEL. FOR NON-DUCTED SYSTEMS, UNDERCUT DOORS FOR AIR CIRCULATION.
- 10. USE 5-1/2" STUDS AT INTERIOR PLUMBING WALLS
- 11. CONTROL VALVES FOR SHOWERS AND TUB/SHOWERS SHALL BE PRESSURE BALANCE THERMOSTATIC MIXING TYPE VALVE.
- 12. BATHROOM RECEPTACLES SHALL BE SERVED BY DEDICATED 20 AMP CIRCUITS.
- 13. ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLT, SINGLE PHASE, 15 & 20 AMP RECEPTACLES INSTALLED AT BEDROOMS SHALL BE PROTECTED BY AN
- 14. OWNER TO PROVIDE ICBO APPROVAL NUMBERS FOR ANY '0' CLEARANCE FIREPLACES AND CONCRETE WATERPROOFING. 15. IF THIS BUILDING IS DETERMINED TO REQUIRE A FIRE SUPPRESSION SPRINKLER SYSTEM IT SHALL HAVE A MINIMUM R13 RATING. SPRINKLER DESIGN,
- PLANS AND SPECIFICATIONS TO BE PROVIDED AS A SEPARATE SUBMITTAL AND ARE NOT INCLUDED IN THESE PLANS.

SHEET INDEX

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- A101 SITE PLAN
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CONSTRUCTION TYPE: V

GENERAL:

NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SUPPLIED HEREIN.

WHILE EVERY ATTEMPT HAS BEEN MADE IN THE PREPARATION OF THESE PLANS TO AVOID MISTAKES, WE CANNOT GUARANTEE AGAINST HUMAN ERROR. THE CONTRACTOR MUST CHECK ALL DIMENSIONS, QUANTITIES AND ELEVATIONS BEFORE COMMENCING AND BE RESPONSIBLE FOR SAME. DUE TO THE DIFFERING PRACTICES OF CONTRACTORS, VARIATIONS IN CLIMATIC CONDITIONS, VARIATIONS IN HARDWARE REQUIREMENTS AND VARIOUS LOCAL BUILDING AND AGENCY CODES, SOME MATERIAL AND CONSTRUCTION METHODS HAVE BEEN LEFT TO THE BUILDER.

ALL FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, REGULATIONS, ETC. SHALL BE CONSIDERED AS PART OF SPECIFICATIONS FOR THIS BUILDING AND SHALL TAKE PREFERENCE OVER ANYTHING SHOWN, DESCRIBED OR IMPLIED WHERE SAME ARE AT VARIANCE.

THESE PLANS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANT ABILITY AND/OR FITNESS FOR PARTICULAR PURPOSE. THE DRAFTSMAN SHALL NOT BE LIABLE FOR ANY DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL ARISING FROM A FAILURE OF THE DESIGN. TH AUTHOR SHALL NOT BE LIABLE FOR ANY DAMAGE TO PERSON OR PROPERTY THAT MAY BE CAUSED, DIRECTLY OR INDIRECTLY, BY THESE PLANS.

IN NO EVENT SHALL THE AUTHOR BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF YOUR USE OR INABILITY TO USE THESE PLANS, OR FOR ANY CLAIM BY ANY OTHER PARTY.

THESE PLANS MUST COMPLY WITH THE 2017 ORSC, & ALL CURRENT VERSIONS OF OMSC, OPSC, OESC THIS STATEMENT APPLIES TO ALL PAGES IN THIS SET.

GLAZING IN THE FOLLOWING LOCATIONS SHOULD BE OF SAFETY GLAZING MATERIAL. NOTE: THE MANUFACTURED WINDOWS SHALL HAVE A LABEL ATTACHED CERTIFIED BY THE THE ENERGY CALCULATIONS.

A) WHERE THE BOTTOM EXPOSED EDGE OF THE WINDOW GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET OF TUBS AND SHOWERS.

B) FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24-INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.

C) WALLS ENCLOSING STAIRWAY LANDINGS OR WITHIN 5 FEET OF THE BOTTOM AND TOP OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE A

D) FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS OTHER THAN WARDROBE DOORS.

E) INDIVIDUAL FIXED OR OPERABLE PANELS, OTHER THAN THOSE LOCATIONS DESCRIBED ABOVE, THAT MEET ALL OF THE FOLLOWING CONDITIONS:

- i) EXPOSED AREA OF AN INDIVIDUAL PANE IS GREATER THAN 9 SQUARE FEET, AND:
- ii) EXPOSED BOTTOM EDGE IS LESS THAN 18 INCHES ABOVE THE FLOOR, AND: iii) EXPOSED TOP EDGE IS GREATER THAN 36 INCHES HORIZONTALLY OF THE FLOOR, AND:
- iv) ONE OR MORE WALKING SURFACES ARE WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE GLAZING.

STAIRS AND LANDINGS:

- A) MINIMUM WIDTH IS 36"
- B) MINIMUM HEADROOM OF 6'-8"

C) THE RISE OF STEPS AND STAIRS SHALL NOT BE LESS THAN 4" NOR MORE THAN 8", (IRC SECTION R311.5.3.1 (SEE EXCEPTION 1)). THE RUN SHALL NOT BE LESS THAN 9". D) THE TOP OF HANDRAILS SHALL NOT BE LESS THAN 30", NOR MORE THAN 38" ABOVE NOSING OF THE TREADS AND BE CONTINUOUS (ORSC SECTION R311.5.6.1 (SEE EXCEPTIONS)) E) THE HAND GRIP PORTION OF HANDRAILS SHALL NOT BE LESS THAN 1 1/4" NOR MORE THAN 2" IN CROSS-SECTIONAL DIMENSION (ORSC SECTION R311.5.6.3). HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2" BETWEEN THE WALL AND THE HANDRAIL. ENDS OF HANDRAILS SHALL BE RETURNED OR SHALL

HAVE ROUNDED TERMINATION OR BENDS.

F) INTERMEDIATE RAILS SHALL BE SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH. G) STAIRWAYS OPEN ON ONE OR BOTH SIDES SHALL HAVE GUARDRAILS (ORSC SECTION 311.5.6). H) GUARDRAILS SHALL HAVE A HEIGHT OF 36".

I) OPENINGS BETWEEN RAILINGS SHALL BE LESS THAN 4". THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD AND BOTTOM ELEMENT OF A GUARDRAIL AT A STAIR SHALL BE LESS THAN 6".

FIRE STOPS:

FIRE STOPS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:

A) CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10-FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL. B) AT ALL INTERCONOESCTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES SUCH AS SOFFITS, DROP AND COVE CEILINGS.

C) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND INLINE WITH THE RUN OF STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.

D) IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS THAT AFFORD A PASSAGE FOR FIRE AT THE CEILING AND FLOOR LEVELS, WITH NONCOMBUSTIBLE MATERIALS.

ELECTRICAL:

REFER TO THE 2021 OESC, AS AMENDED BY THE STATE AND LOCAL JURISDICTION A) ALL RECEPTACLE OUTLET LOCATIONS SHALL COMPLY WITH OESC.

B) BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY A MINIMUM OF ONE 20-AMPERE

BRANCH CIRCUIT. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS. THIS CIRCUIT MAY SERVE MORE

C) ALL 125-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN BATHROOMS, GARAGES, BASEMENTS, OUTDOORS, KITCHEN COUNTERS AND AT WET BAR SINKS SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION IN COMPLIANCE WITH OESC.

D) THE SMALL APPLIANCE BRANCH CIRCUITS FOR THE KITCHEN ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS (THEY CANNOT SERVE THE DINING ROOM, OUTSIDE PLUGS, RANGE HOOD DISPOSALS, DISHWASHERS OR MICROWAVES - ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS INCLUDING THE REFRIGERATOR) PER OESC.

E) LIGHTS IN CLOSETS SHALL BE INSTALLED WITH CLEARANCES AS DEFINED IN OESC. F) RECESSED LIGHT FIXTURES SHALL BE IC RATED PER OESC.

G) BATHROOM LIGHTING REQUIREMENTS REQUIRE A HIGH-EFFICIENCY LIGHT SOURCE IN EACH ROOM WITH A SHOWER OR BATHTUB. A HIGH-EFFICIENCY FIXTURE IN THE TOILET ROOM ALONE NO LONGER SATISFIES THIS REQUIREMENT. NOTE: AN ALTERNATIVE TO THE BATHROOM LIGHTING IS TO INSTALL BOTH OF THE FOLLOWING: (1) A HIGH-EFFICIENCY LAMP IN A UTILITY ROOM, LAUNDRY ROOM OR GARAGE AND (2) ALL LIGHTS PERMANENTLY MOUNTED TO THE EXTERIOR OF THE RESIDENCE FOR OUTDOOR LIGHTING MUST HAVE EITHER HIGH-EFFICIENCY LAMPS OR EQUIPPED WITH A MOTION

H) ONE OUTLET ON A SEPARATE 20-AMP CIRCUIT MUST BE PROVIDED FOR THE LAUNDRY AREA AND BE WITHIN SIX FEET OF THE INTENDED LOCATION OF THE APPLIANCE PER OESC. THIS

CIRCUIT SHALL HAVE NO OTHER OUTLETS. I) AT LEAST ONE GRADE-LEVEL GFCI-PROTECTED RECEPTACLE SHALL BE INSTALLED AT THE FRONT AND BACK OF THE DWELLING PER OESC.

J) AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM, IN BATHROOMS, HALLWAYS, STAIRWAYS, ATTACHED GARAGE, AND AT OUTDOOR

EXCEPTION: IN HABITABLE ROOMS, OTHER THAN KITCHENS AND BASEMENT, ONE OR MORE RECEPTACLES CONTROLLED BY A WALL SWITCH SHALL BE PERMITTED IN LIFT OF A LIGHTING OUTLET. K) LIGHTING SHALL BE PROVIDED AT ATTIC AND UNDER FLOOR CRAWL AREA WITH A LIGHTED SWITCH LOCATED AT THE OPENING.

1. ALL ALUMINUM CONDUCTORS SIZE 1/0 AND LARGER SHALL BE TERMINATED WITH A COMPRESSION TYPE CONOESCTOR. AN OXIDATION INHIBITOR SHALL BE USED ON ALL ALUMINUM CONOESCTIONS.

M) CONDUCTOR WIRES WITH AN INSULATED NEUTRAL AND A FOUR-PRONG OUTLET ARE REQUIRED FOR THE DRYERS AND COOKING UNITS PER OESC. N) A UFER GROUND AND 8' OF DRIVEN COPPER PIPE MUST BE USED FOR ELECTRICAL GROUNDING

O) THE ABOVE UFER GROUND MUST BE KEPT AT LEAST 6' AWAY FROM THE DRIVEN COPPER PIPE.

A) ALL BATHROOMS (CONTAINING A BATHTUB OR SHOWER), WATER CLOSET COMPARTMENTS, LAUNDRY ROOMS AND SIMILAR ROOMS SHALL BE PROVIDED WITH NATURAL VENTILATION BY MEANS OF OPEN ABLE EXTERIOR OPENINGS WITH AN AREA NO LESS THAN 1/20 OF THE FLOOR AREA OF SUCH ROOMS WITH A MINIMUM OPENING OF 1-1/2 SQUARE FEET PER ORSC. IN LIEU OF NATURAL VENTILATION A MECHANICAL SYSTEM CONNECTED TO THE OUTSIDE MAY BE PROVIDED. THE MECHANICAL SYSTEM SHALL BE CAPABLE OF PROVIDING 5 AIR CHANGES PER HOUR. SUCH SYSTEMS SHALL BE CONNECTED DIRECTLY TO THE OUTSIDE, AND THE POINT OF DISCHARGE SHALL BE AT LEAST 3 FEET (914 mm) FROM ANY OPENING THAT ALLOWS AIR ENTRY INTO OCCUPIED PORTIONS OF THE BUILDING.

B) SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHEN SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. THE DETECTOR SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. ORSC C) DETECTORS SHALL SOUND AN ALARM AUDIBLE IN ALL SLEEPING AREAS OF THE UNIT. D) SLEEPING ROOMS SHALL HAVE A WINDOW OR EXTERIOR DOOR FOR EMERGENCY ESCAPE. SILL HEIGHT SHALL NOT EXCEED 44" ABOVE FLOOR. WINDOWS MUST HAVE AN OPEN ABLE AREA OF AT LEAST 5.7 SQUARE FEET WITH THE MINIMUM OPEN ABLE WIDTH OF 20" AND THE MINIMUM OPEN ABLE HEIGHT OF 24". THE EMERGENCY DOOR OR WINDOW SHALL BE OPEN ABLE FROM THE INSIDE TO PROVIDE A FULL, CLEAR OPENING WITHOUT THE USE OF

E) OPEN ABLE WINDOW AREA IN HABITABLE ROOMS MUST BE 1/20 OF THE FLOOR AREA AND A MINIMUM OF 5 SQUARE FEET.

PLUMBING:

REFER TO THE 2021 OPSC AS AMENDED BY STATE AND LOCAL JURISDICTION. A) APPROVED INTEGRAL FREEZE LESS BACKFLOW PREVENTION DEVICES SHALL BE PROVIDED

ON HOSE BIBS PER OPSC. B) THE LOCATION FOR ALL GAS SHUT OFF VALVES FOR APPLIANCES SHALL BE WITHIN 3 FEET OF THE APPLIANCE SERVED PER OPSC.

C) WATER HEATER:

1. PROVIDE A MINIMUM OF 100 SQUARE INCHES OF COMBUSTION AIR WITHIN THE TOP 12" AND BOTTOM 12" IN A COMPARTMENT PER OPSC.

2. COMBUSTION AIR SHALL BE FROM A ROOM OR SPACE HAVING A MINIMUM OF 50 CUBIC FEET PER 1000 BTU/H INPUT OF THE WATER HEATER PER OPSC. 3. NO WATER HEATER THAT DEPENDS ON THE COMBUSTION OF FUEL FOR HEAT SHALL BE

INSTALLED IN ANY ROOM USED OR DESIGNED TO BE USED FOR SLEEPING PURPOSES, BATHROOM, CLOTHES CLOSET OR OTHER CONFINED SPACE OPENING INTO ANY BATHROOM OR BEDROOM PER OPSC. EXCEPTION IS A DIRECT-VENT TYPE WATER HEATER. 4. PROVIDE A MINIMUM ACCESS TO THE FRONT OF THE WATER HEATER OF 24 INCHES

WIDE PER OPSC. 5. TEMPERATURE/PRESSURE RELIEF VALVE DRAIN LINES SHALL BE GALVANIZED STEEL OR HARD DRAWN COPPER AND SHALL TERMINATE OUTSIDE OF THE BUILDING BETWEEN 6 AND 24 INCHES ABOVE GRADE AND POINTED DOWN PER OPSC.

6. SHALL BE SECURED TO RESIST EARTHQUAKES. ONE STRAP AT UPPER 1/3 AND ONE STRAP AT LOWER 1/3 OF VERTICAL DIMENSION WITH THE LOWER STRAP BEING A MINIMUM DISTANCE OF 4 INCHES ABOVE THE CONTROLS PER OPSC.

7. PROVIDE MEANS TO PREVENT PLUMBING AND PIPING FIXTURES FROM FREEZING PER OPSC. 8. WATER SUPPLY PIPING SHALL BE PROTECTED FROM FREEZING BY A MINIMUM OF 36" OF EARTH COVERING.

9. THE WATER SERVICE SHALL BE INSTALLED 24" BELOW GRADE AT A LOCATION INSIDE THE FOUNDATION PERIMETER, EQUIPPED WITH A "STOP AND DRAIN" VALVE AND FITTED WITH A HANDLE THAT IS READILY ACCESSIBLE. ALL WATER PIPING SHALL BE GRADED TO DRAIN. WATERLINE TO BE INSPECTED BEFORE COVERING. PE PIPE IS PROHIBITED IF MORE THAN 5' INSIDE THE FOUNDATION.

MECHANICAL

REFER TO THE 2021 OMSC AS AMENDED BY STATE AND LOCAL JURISDICTION. A) A WARM-AIR FURNACE SHALL NOT BE LOCATED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR ANY ENCLOSED SPACE WITH ACCESS ONLY

THROUGH SUCH ROOM OR SPACE PER OMSC B) ALL GAS APPLIANCES SHALL BE VENTED IN ACCORDANCE WITH OMSC.

C) PROVIDE A PRIMARY AND SECONDARY CONDENSATE DRAIN FOR EQUIPMENT LOCATED ABOVE A LIVING SPACE PER OMSC. D) AN APPROVED FUEL SHUTOFF VALVE SHALL BE INSTALLED IN THE FUEL SUPPLY PIPING SERVING

EACH PIECE OF FUEL BURNING EQUIPMENT AT AN ACCESSIBLE LOCATION AHEAD OF THE UNION OR E) FACTORY-BUILT CHIMNEYS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S

INSTALLATION INSTRUCTIONS, THE TERMS OF LISTING AND THE APPLICABLE REQUIREMENTS OF THIS F) A WARM-AIR FURNACE INSTALLED IN AN ATTIC OR A FURRED SPACE SHALL COMPLY WITH THE

FOLLOWING PER OMSC:

1. AN ACCESS OPENING LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT, BUT NOT LESS THAN 30 INCHES BY 22 INCHES.

2. A MINIMUM 30" X 30" PASSAGEWAY TO THE FURNACE AND CONTROLS. 3. THE FURNACE LOCATED NOT GREATER THAN 20 FEET FROM THE ATTIC ACCESS. 4. A LEVEL WORKING PLATFORM 30" IN DEPTH IN FRONT OF THE ENTIRE FIREBOX SIDE. 5. A PERMANENT ELECTRIC OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED

6. APPLIANCE SHALL BE ON A DEDICATED CIRCUIT. G) WARM-AIR FURNACES INSTALLED IN UNDER-FLOOR SPACES SHALL COMPLY WITH THE

AT THE ATTIC ACCESS SHALL BE PROVIDED AT OR NEAR THE FURNACE.

OMSC AS FOLLOWS: 1. CLEARANCE FROM COMBUSTIBLES PER OMSC OR LISTING. 2. AN ACCESS OPENING LARGE ENOUGH TO REMOVE THE LARGEST PIECE OF EQUIPMENT, BUT

3. FURNACE LOCATED A MAXIMUM OF 20 FT FROM ACCESS OPENING 4. FURNACE SUPPORTED ON THE GROUND SHALL REST ON A CONCRETE SLAB EXTENDING A

MINIMUM OF 3 INCHES ABOVE GRADE. 5. A FURNACE SUSPENDED SHALL HAVE A CLEARANCE OF AT LEAST 6 INCHES ABOVE GRADE. IF EXCAVATED PROVIDE 6 INCHES BELOW AND 12 INCHES TO THE SIDES OF THE FURNACE. 6. A PERMANENT ELECTRIC OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED AT THE ACCESS OPENING SHALL BE PROVIDED AT OR NEAR THE FURNACE PER OMSC.

7. APPLIANCE SHALL BE ON A DEDICATED CIRCUIT PER OMSC. 8. A SHEET METAL PAN SHALL BE PROVIDED UNDER THE APPLIANCE FOR THE REMOVAL OF UNBURNED GAS. THE PAN SHALL HAVE A MINIMUM 3" LIP WITH SOLDERED SEAMS AND SHALL BE EQUIPPED WITH A MINIMUM 2" EMT (METAL ELECTRICAL CONDUIT) DRAIN WHICH IS

SCREENED ON BOTH ENDS AND SLOPES TO THE EXTERIOR OF THE BUILDING. H) IN SHOWERS AND TUB-SHOWER COMBINATIONS, CONTROL VALVES MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES. HANDLE POSITION STOPS SHALL BE PROVIDED ON SUCH VALVES AND SHALL BE ADJUSTED PER MANUFACTURER'S INSTRUCTIONS TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120 °F (49°C).

I) SHOWER AND TUB/SHOWER WALLS SHALL BE OF A SMOOTH, HARD, NON-ABSORBENT SURFACE (E.G. CERAMIC TILE) OVER A MOISTURE RESISTANT UNDERLAYMENT (E.G. W.R. GYP) TO A HEIGHT OF 70 INCHES ABOVE THE DRAIN INLET.

J) VENTING SYSTEMS SHALL TERMINATE NOT LESS THAN 4' BELOW OR 4' HORIZONTALLY FROM, AND NOT LESS THAN 1' ABOVE A DOOR, AN OPENABLE WINDOW OR A GRAVITY AIR INLET INTO A

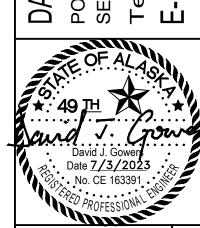
K) DIRECT VENT APPLIANCES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. THE VENT HEIGHT SHALL BE ABOVE THE ANTICIPATED SNOW DEPTH. VERIFICATION OR APPROVAL OF HEIGHT/LOCATION OF VENT SHALL BE MADE WITH AN INSPECTOR PRIOR TO INSTALLATION OF APPLIANCE.

M) CLOTHES DRYER VENT SHALL BE OF METAL AND SHALL HAVE SMOOTH INTERIOR SURFACES. APPROVED FLEXIBLE DUCT CONOESCTORS NOT MORE THAN 6' IN LENGTH AND NOT CONCEALED WITHIN CONSTRUCTION ARE ALLOWED. CLOTHES DRYER TO VENT TO OUTSIDE AND SHALL BE

EOUIPPED WITH A BACK-DRAFT DAMPER. UNLESS OTHERWISE PERMITTED OR REQUIRED BY THE DRYFR MANUFACTURER'S SPECIFICATIONS, DOMESTIC DRYFR MOISTURE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14', INCLUDING TWO 90 DEGREE ELBOWS. TWO FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE

N) IN ADDITION TO THE REQUIRED PRESSURE RELIEF VALVE ON WATER HEATERS, AN APPROVED EXPANSION TANK (OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL) SHALL BE INSTALLED WHENEVER THE BUILDING SUPPLY PRESSURE IS GREATER THAN THE REQUIRED RELIEF VALVE PRESSURE SETTING; OR WHEN ANY DEVICE IS INSTALLED THAT PREVENTS PRESSURE RELIEF THROUGH THE BUILDING SUPPLY, SIZED IN ACCORDANCE WITH MANUFACTURER'S SPECS.

REVISIONS



2822

AWING NUMBER

A100

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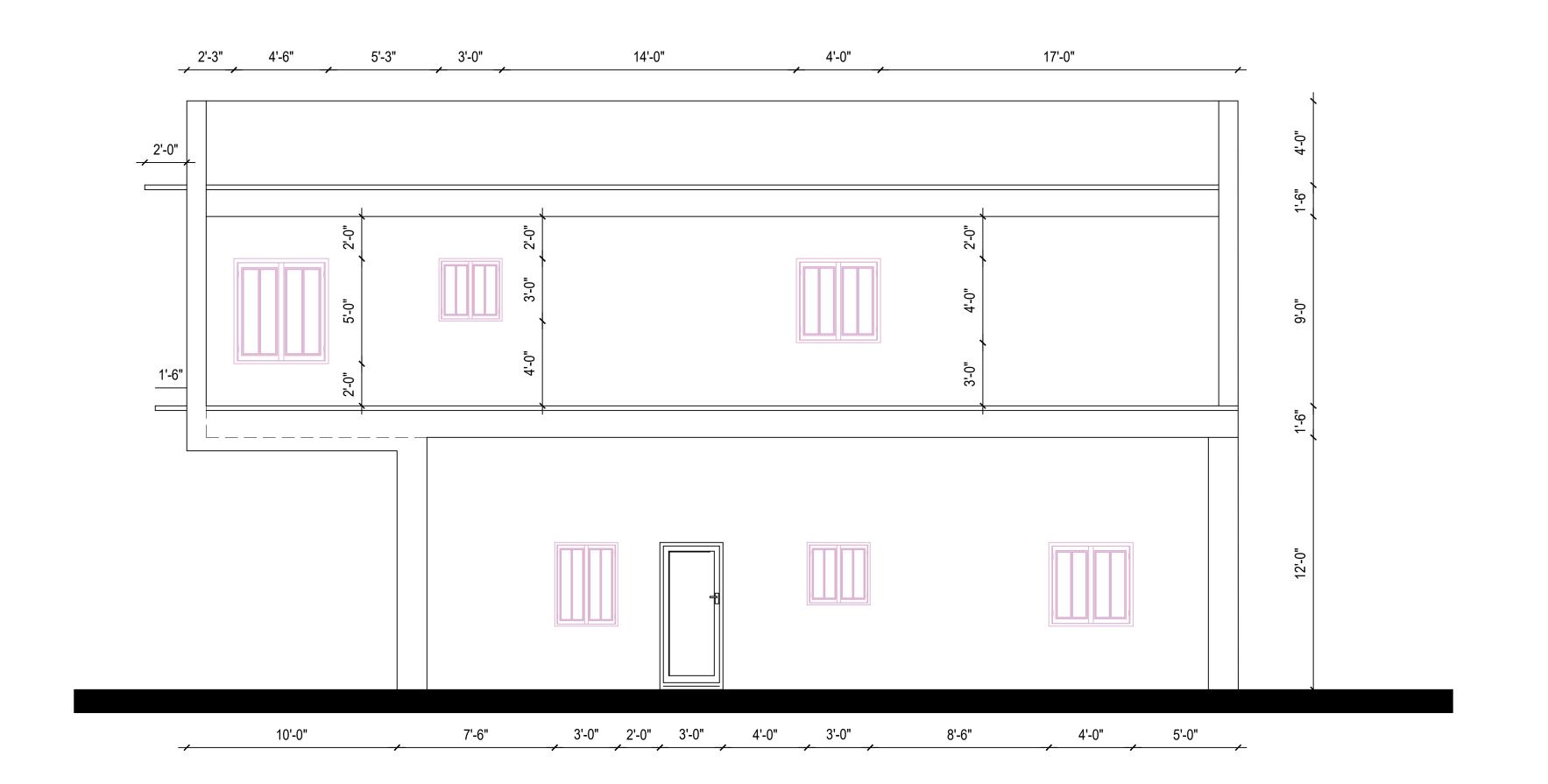
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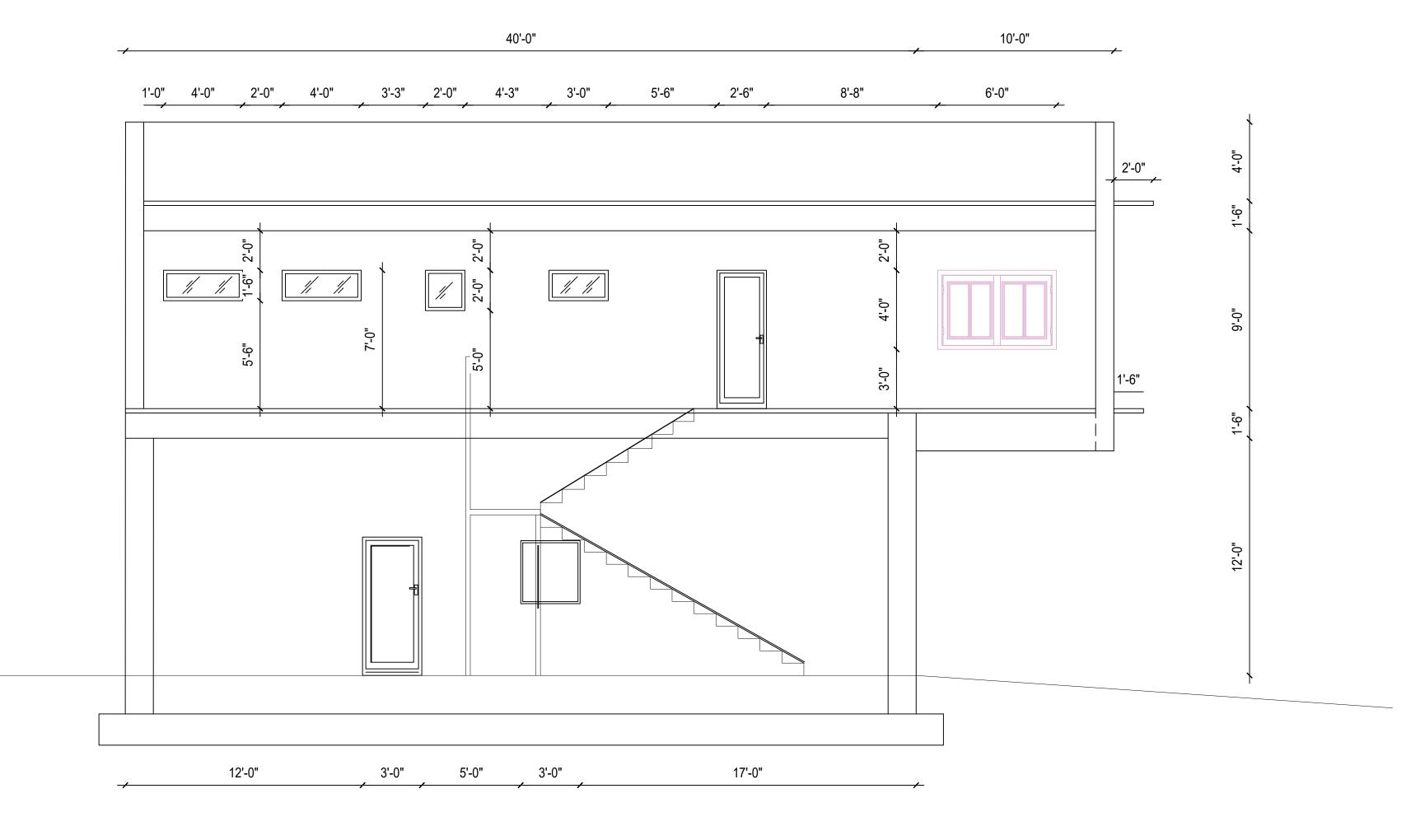


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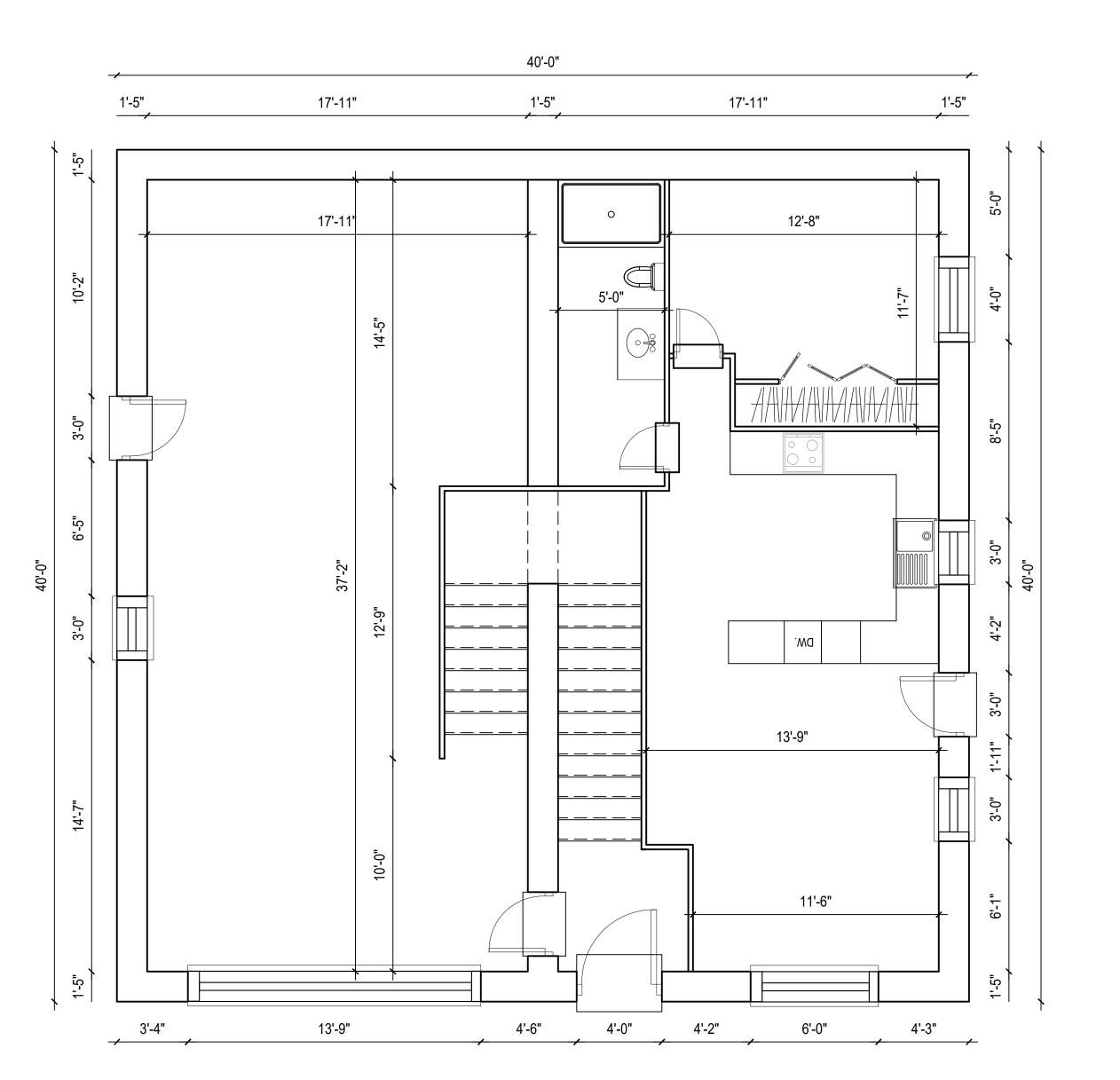
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JOB NUMBER **2822**

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LEFT ELEVATION



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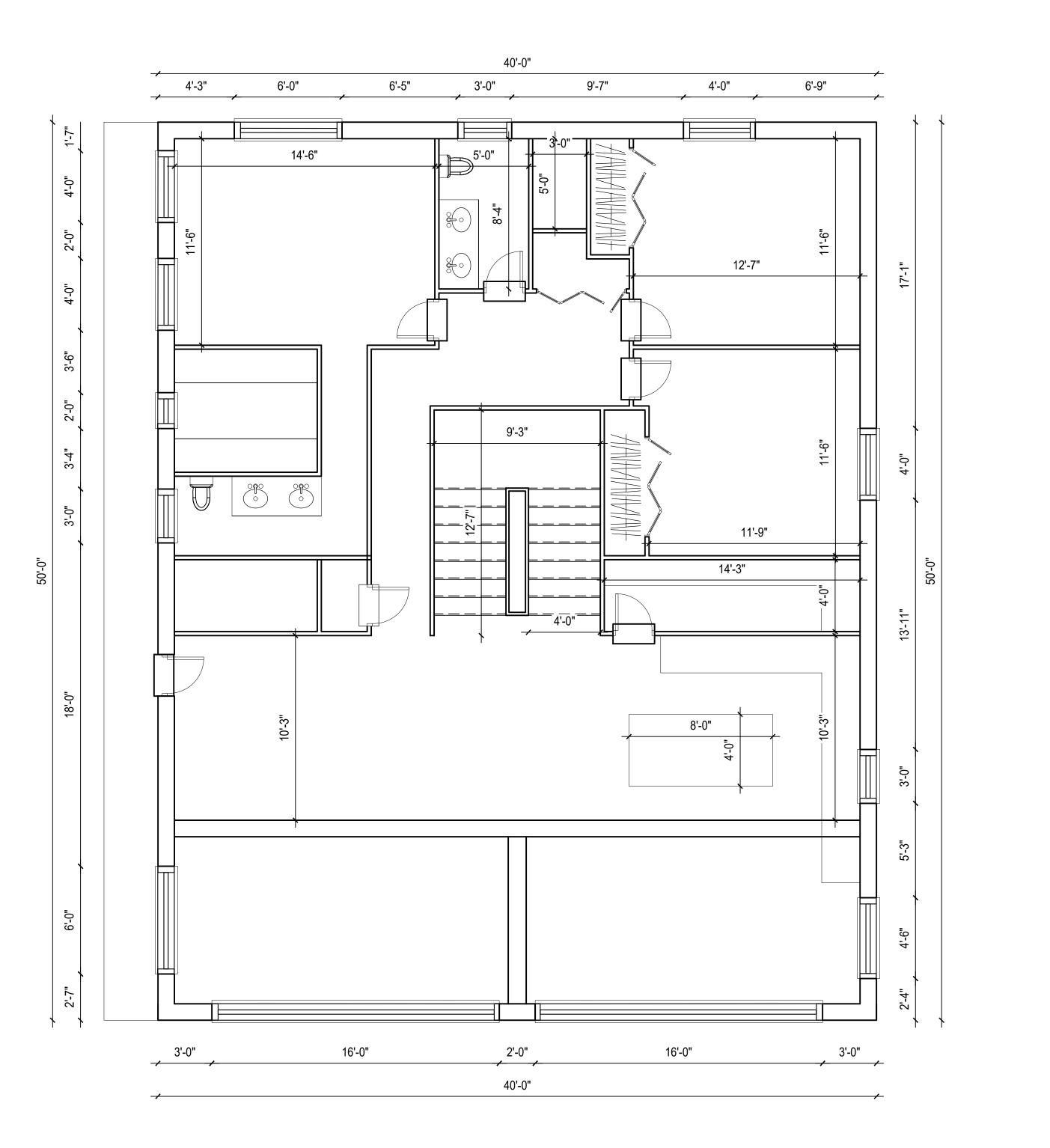
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DOUG ECKLAND CUSTOM ICF RESIDENCE JUNEAU, AK GROUND FLOOR PLAN

JOB NUMBER **2822** REV

A104



1ST FLOOR PLAN

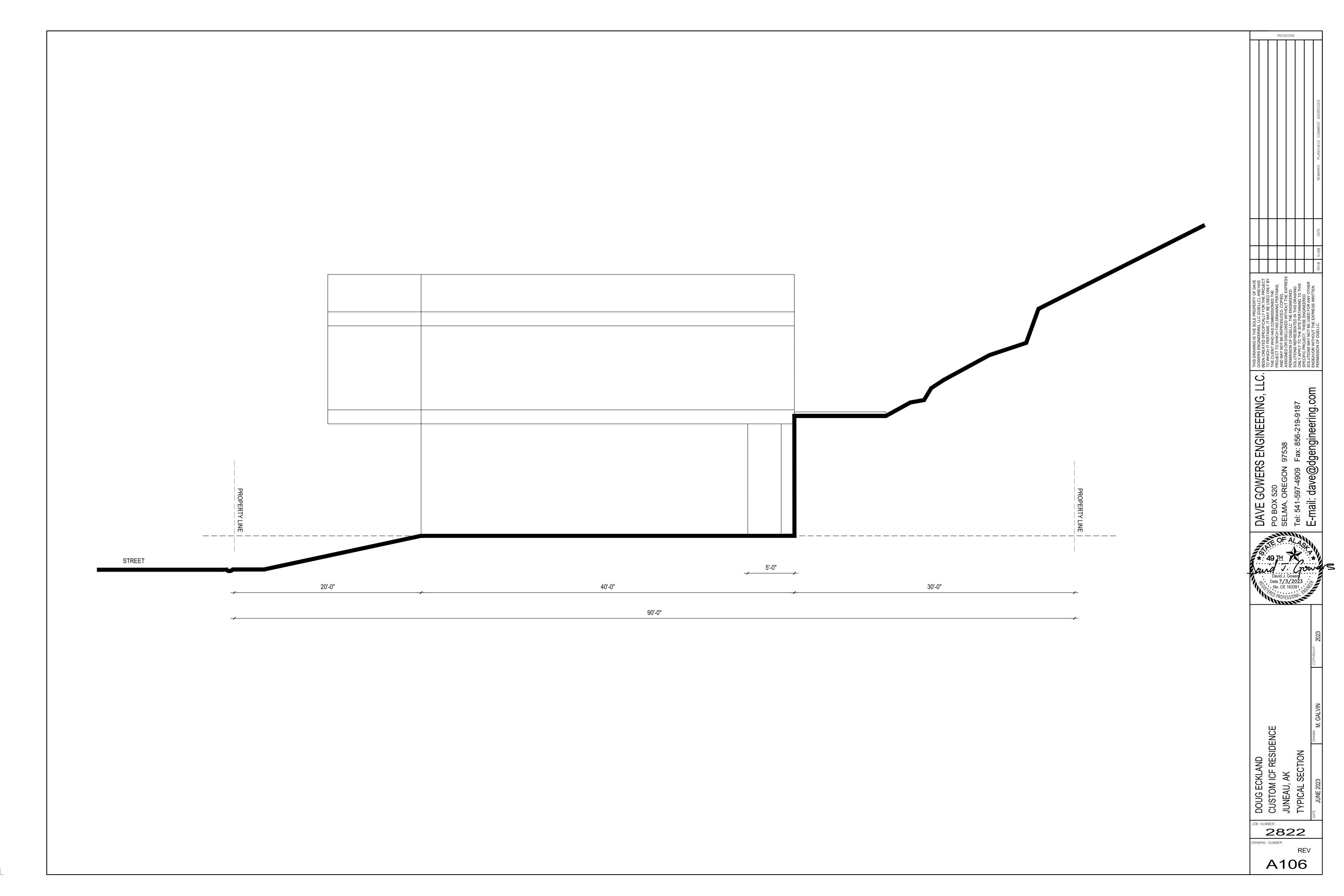
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JOB NUMBER **2822**

REV

A105



A) GENERAL CONDITIONS:

- 1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS AND JOB SITE CONDITIONS PRIOR TO COMMENCING WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 2. ALL CONSTRUCTION AND METHODS SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF THE 2018 IBC, THE 2018 IRC, AND THE REFERENCED STANDARDS THEREIN, TOGETHER WITH APPLICABLE MUNICIPAL, STATE, AND FEDERAL REGULATIONS.
- 3. ALL WORK IS SUBJECT TO BUILDING DEPARTMENT FIELD INSPECTOR'S APPROVAL.
- 4. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND ALL OTHER PERSONS DURING CONSTRUCTION.
- 5. THE ENGINEER IS RESPONSIBLE FOR THE STRUCTURAL ITEMS IN THE PLANS ONLY. SHOULD ANY CHANGES BE MADE FROM THE DESIGN AS SPECIFIED IN THESE CALCULATIONS WITHOUT APPROVAL FROM THE ENGINEER, THEN THE ENGINEER WILL ASSUME NO RESPONSIBILITY FOR ANY ELEMENT OR SYSTEM OF THE STRUCTURE.
- 6. ADDITIONAL LAYOUTS AND/OR PLANS (SITE PLAN, PLUMBING, HEATING AND VENTILATION, MECHANICAL, ETC.) BY OTHERS, UNLESS OTHERWISE NOTED OR INDICATED ON THE DRAWINGS.
- 7. IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE PLANS OR CALLED FOR IN THE NOTES OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF SIMILAR CHARACTER TO CONDITIONS SHOWN ON THE PLANS AND SHALL BE REVIEWED BY THE ENGINEER AND OWNER PRIOR TO CONSTRUCTION.
- 8. THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND, UNLESS SPECIFICALLY NOTED OTHERWISE, DO NOT SHOW THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE METHOD OF CONSTRUCTION, AND SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE PUBLIC, CONSTRUCTION WORKERS, AND THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE FORMING, SHORING, BRACING, SCAFFOLDING, ETC...
- 9. ALL WATER PROOFING AND FLASHING (ROOFS, FOUNDATIONS, GARAGE FLOORS, ETC.) IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER.

B) FOUNDATION:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND FACILITIES OR OTHER BURIED OBJECTS WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. LOCATIONS AND DEPTHS OF ANY EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THESE PLANS ARE APPROXIMATE AND MAY NOT BE COMPLETE.
- 2. FOUNDATION DESIGN IS BASED UPON A SOIL BEARING CAPACITY PER DESIGN LOADS.
- 3. THESE CALCULATIONS ASSUME STABLE, UNDISTURBED SOILS AND LEVEL OR STEPPED FOOTINGS. ANY UNUSUAL SOIL CONDITIONS SUCH AS ORGANIC SOILS, CLAY POCKETS, OR UNCERTIFIED FILLS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
- 4. ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE BUILDING OFFICIAL BEFORE CONCRETE IS POURED. FOOTINGS SHALL EXTEND TO FIRM, UNDISTURBED NATIVE SOIL 12" MINIMUM BELOW EXISTING GRADE, OR AS DIRECTED BY THE ENGINEER, WHICHEVER IS LOWEST. ENGINEERED FILL MAY BE USED AS EXISTING GRADE PROVIDED TESTS ARE PRESENTED TO THE ENGINEER OF A 90% RELATIVE COMPACTION PER ASTM 1557.
- 5. FILL MATERIAL SHALL BE FREE FROM DEBRIS, VEGETATION, AND OTHER FOREIGN SUBSTANCES.
- 6. USE 4" DIAMETER PERFORATED PIPE SUB-DRAIN WITH 4"-6" DRAIN ROCK BEHIND ALL RETAINING WALLS.
 SLOPE PIPE TO DRAIN TO DAYLIGHT.
- 7. THE BOTTOM OF ALL FOOTING EXCAVATIONS SHALL BE CLEAN AND LEVEL.
- 8. ALL FINISHED GRADE SHALL SLOPE AT A MINIMUM SLOPE OF 2% AWAY FROM ALL FOUNDATIONS A MINIMUM OF 10 FEET HORIZONTAL.
- 9. FOUNDATIONS SHALL NOT BE SCALED FROM PLAN OR DETAIL DRAWINGS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL ANCHOR BOLTS, HOLDOWN ANCHORS OR STRAPS AND EMBEDMENTS, PRIOR TO PLACEMENT OF CONCRETE AND/OR INSTALLATION OF STRUCTURAL FRAMING MEMBERS.
- 11. ANCHOR BOLTS TO BE $\frac{5}{8}$ "DIAMETER X 10" LONG WITH 7" EMBEDMENT INTO CONCRETE, SPACED AT 6'-0" O.C. MAXIMUM UNLESS OTHERWISE NOTED ON PLANS, SHEARWALL SCHEDULE, OR DETAILS. BOLTS SHALL BE LOCATED WITHIN 12" OF EACH END OF 2x SILL PLATE WITH A MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE. ANCHOR BOLTS SHALL HAVE $3"x3"x\frac{1}{4}"$ PLATE WASHER.
- 12. ALL HOLDOWN ANCHOR BOLTS, COLUMN BASE PLATES, ETC. SHALL BE WIRED AND TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
- 13. THE CONCRETE CONTRACTOR AND FRAMING CONTRACTOR SHALL COORDINATE THE PLACEMENT OF ALL HOLDOWN ANCHORS, COLUMN BASE PLATES, ETC. PRIOR TO FOUNDATION INSPECTION AND PLACEMENT OF CONCRETE.
- 14. HELICAL PIERS, WHERE SPECIFIED, SHALL BE BY PIERTECH, OR APPROVED SIMILAR, AND SHALL PERFORM TO THE SPECIFIED SAFE WORKING LOAD AND AT THE SPECIFIED FACTOR OF SAFETY INDICATED ON THE PLANS.
- HELICAL PIERS SHALL BE INSTALLED BY A QUALIFIED INSTALLER. THE INSTALLER SHALL PERFORM SITE TESTS TO ESTABLISH CAPACITY VALUES FOR THE PROPOSED MODEL OF HELICAL PIER TO BE USED. THE INSTALLER SHALL SATISFY THE ENGINEER THAT THE PROJECT DESIGN CRITERIA FOR INSTALLED HELICAL PIERS HAVE BEEN MET.

C) CONCRETE:

- 1. ALL FOUNDATION CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 4" AND A MINIMUM F'c=2500 PSI @ 28 DAYS (UNO). AGGREGATE SIZE SHALL BE A MAXIMUM OF 1-1/2" IN FOUNDATIONS AND 3/4" AT ALL OTHER LOCATIONS.
- 2. CONCRETE FOR ICF WALLS SHALL HAVE A FREE-FLOW, SELF-COMPACTING SLUMP, MINIMUM F'c=3000 PSI @ 28 DAYS, WITH 3/8" MAX 1/2" AGGREGATE, OR SIMILAR APPROVED.
- 3. CURING COMPOUND SHALL BE SPRAYED ON ALL EXPOSED SURFACES IMMEDIATELY AFTER FINAL TROWELING.
- 4. ALL CEMENT USED SHALL CONFORM TO ASTM C-150 AND SHALL BE TYPE II OR TYPE III LOW ALKALI. FLYASH SUBSTITUTION UP TO 25% IS PERMITTED FOR MIX DESIGNS ALREADY ESTABLISHED & APPROVED BY LOCAL JURISDICTION.
- 5. AGGREGATE SHALL CONFORM TO ASTM C-33 AND SHALL NOT CONTAIN MATERIALS WHICH ARE ALKALI REACTIVE AS DETERMINED BY ASTM C-227, 289 AND 295. IF TEST DATA IS UNAVAILABLE IN REGARDS TO ALKALI REACTIVE MATERIALS, PROVIDE CEMENT WITH A MAXIMUM ALKALI CONTENT LESS THAN 0.45% BY
- 6. CONCRETE EXPOSED TO FREEZING OR THAWING SHALL BE PROTECTED IN ACCORDANCE TO THE LATEST EDITION OF THE ACI CODE AND IBC APPENDIX, CHAPTER 19.
- 7. WATER PROOFING OF FOUNDATIONS, RETAINING WALLS, AND SLAB ON GRADE IS THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER.
- 8. VIBRATE CONCRETE AROUND ALL BOLTS, REBAR AND SURFACES.
- 9. CONSTRUCTION JOINTS SHALL BE CLEAN AND WET PRIOR TO POURING
- 10. CONCRETE SHALL HAVE A WATER-CEMENT RATIO OF 0.45 LB./LB. OR LESS.
- 11. CONCRETE SHALL BE AIR ENTRAINED A MINIMUM OF 5% AND MAXIMUM OF 7%.
- 12. SHRINKAGE AT 28 DAYS SHALL NOT EXCEED 0.055% FOR DRY CURING.
- 14. ALL PROJECTING CORNERS OF SLABS, BEAMS, COLUMNS, ETC. SHALL BE FORMED WITH A 3/4" CHAMFER, UNLESS SPECIFICALLY NOTED OTHERWISE.

13. MINIMUM CONCRETE TENSILE SPLITTING STRENGTH SHALL BE 390 PSI.

D) CONCRETE SLAB CONSTRUCTION:

- 1. GRAVEL OR SAND BASE SHOWN IS TO PROVIDE STRUCTURAL BASE FOR SLAB ONLY. NO PROVISIONS FOR PREVENTING GROUNDWATER INFILTRATION OR DAMPNESS OF THE SLAB ARE INCLUDED. IF BUILDING USE WILL BE SUCH THAT SLAB MUST BE DRY AT ALL TIMES, DAMP-PROOFING WITH PEA GRAVEL BASE, VISQUEEN AND 2" SAND TOPPING IS RECOMMENDED.
- 2. SLABS ON GRADE SHALL BE 4" THICK AND PLACED OVER 4" MINIMUM OF FREE DRAIINING AGGREGATE BASE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION, UNLESS NOTED OTHERWISE.
- 3. CRACK CONTROL JOINTING IS DESIGNED BY THE CONTRACTOR, UNLESS SHOWN ON FOUNDATION PLAN. THE MAXIMUM SPACING OF JOINTS SHALL NOT EXCEED 30' IN ANY DIRECTION.
- 4. THE VAPOR BARRIER MEMBRANE SHALL BE INSTALLED WITHOUT ANY HOLES OR AREAS THAT ARE UNCOVERED. ALL SEAMS SHALL BE OVERLAPPED AND SEALED CONTINUOUSLY WITH TAPE SO THAT THE SEAMS ARE VAPOR TIGHT. WHERE OBJECTS PROTRUDE THROUGH THE VAPOR BARRIER, SUCH AS PIPES, THE VAPOR BARRIER SHALL BE COMPLETELY SEALED AROUND THE OBJECT. ALL TEARS OR PUNCTURES SHALL BE COMPLETELY REPAIRED BEFORE PLACEMENT OF SAND AND CONCRETE.
- 5. STEEL REBAR OR WIRE MESH IN SLABS SHALL BE LOCATED IN THE CENTER OF THE SLAB.

E) MASONRY:

- 1. CEMENT MASONRY UNITS SHALL CONFORM TO IBC STANDARD 21-4, GRADE N, TYPE I, AND SHALL BE SINGLE OR DOUBLE OPEN END BOND BEAM
- 2. F'm MIN. SHALL BE 1,500 PSI WITH COMPLIANCE VERIFIED AS REQUIRED PER IBC SECTION 2105.3.
- 3. EACH CELL SHALL BE COMPLETELY FILLED WITH GROUT CONFORMING TO ASTM C279 TYPE S WITH A MINIMUM STRENGTH OF 2,000 PSI.
- 4. LAP REINFORCING BARS THE GREATER OF 60 BAR DIAMETERS. OR 2'-0".
- 5. LOCATE ANCHOR BOLTS WITHIN 2" OF THE CENTER OF A CELL.

F) STEEL:

- 1. REINFORCING STEEL SHALL CONFORM TO THE PROVISIONS OF ASTM A-615, GRADE 40 FOR #3 BARS AND SMALLER AND ASTM A-615, GRADE 60 FOR #4 BARS AND LARGER. ALL REBAR TO BE DEFORMED AND ALL SPLICES SHALL NOT BE LESS THAN 40 BAR DIAMETERS OF THE LARGER BAR. HORIZONTAL LAPS IN ADJACENT BARS SHALL BE STAGGERED 5'-0" MINIMUM. NON-CONTACT LAP SPLICES SHALL BE SPACED THE LEAST OF 1/5 LAP LENGTH, OR 6". (IBC 1912.14.2.3)
- 2. REINFORCEMENT COVER SHALL BE AS FOLLOWS:
 CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO SOIL 3"
 CONCRETE WITH SOIL OR WEATHER EXPOSURE: #5 BARS AND SMALLER . . . 1 1/2"
 CONCRETE WITH SOIL OR WEATHER EXPOSURE: #6 BARS AND LARGER 2"
 CONCRETE WITHOUT SOIL OR WEATHER EXPOSURE 3/4"
- 3. #5 AND LARGER REBAR SHALL NOT BE RE-BENT.
- 4. ALL REINFORCING STEEL AND ANCHOR BOLTS SHALL BE ACCURATELY SECURED IN POSITION BEFORE AND DURING CONCRETE PLACEMENT.
- 5. ALL BOLTS, NUTS, AND LAG SCREWS SHALL BE PROVIDED WITH FLAT OR MALLEABLE WASHERS WHERE BEARING AGAINST WOOD.
- 6. BOLTS, NUTS, AND LAG SCREWS SHALL CONFORM TO THE PROVISIONS OF ASTM A-307, GRADE A OR EQUIVALENT.
- 7. ALL STRUCTURAL STEEL SHALL CONFORM TO THE PROVISIONS OF ASTM A-36 FOR W-SHAPES, M-SHAPES, HP-SHAPES, CHANNELS, ANGLES, STRUCTURAL TEES, AND PLATE STEEL. STRUCTURAL STEEL SHALL BE ASTM A53, TYPE E OR S, GRADE "B" FOR PIPE AND ASTM A500, GRADE "B" FOR TUBE STEEL.
- 8. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY SPECIFICATIONS.
 ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.
- 9. ALL WELDING ELECTRODES SHALL BE E70XX OR SHIELDED WIRES WITH FY>70 KSI.

G) FRAMING / LUMBER

- 1. ALL WOOD BEARING ON CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR LARCH.
- 2. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED UPON INSTALLATION AND RETIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.
- 3. LAG SCREWS SHALL BE SCREWED, NOT DRIVEN, INTO PRE-DRILLED HOLES OF $\frac{2}{3}$ THE
- SHANK DIAMETER.
- 4. HOLES FOR BOLTS SHALL BE BORED WITH A BIT 1/32" TO 1/6" LARGER THAN THE NOMINAL BOLT DIAMETER.
- OR DETAILED.

 6. PLYWOOD SHEATHING SHALL CONFORM TO PS 1-95. U.N.O, ROOF SHEATHING SHALL BE CDX APA RATED OR O.S.B. THICKNESS SHALL BE PER APA LOAD TABLES BASED UPON ROOF

LIVE LOADS AND FRAMING SPACING. MAXIMUM UNFRAMED HOLES IN SHEATHING SHALL BE

3" IN DIAMETER. SEE PLANS FOR ROOF, FLOOR, AND SHEARWALL SHEATHING AND NAILING.

5. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED

- 7. ALL FRAMING ANCHORS, CLIPS, STRAPS, HANGERS, HOLDOWNS, ETC., SHALL BE MANUFACTURED SIMPSON STRONG-TIE COMPANY OR EQUIVALENT, INSTALLED PER
- 8. FASTENING SCHEDULE PER TABLE 2304.9.1 OF THE 2018 IBC.

MANUFACTURER'S RECOMMENDATIONS.

- 9. WHERE A WALL IS LABELED AS A SHEARWALL, SUCH WALL SHALL BE CONTINUOUSLY SHEAR PANELED AND NAILED AS REQUIRED PER SCHEDULE FROM THE ROOF PLYWOOD TO FOUNDATION SILL PLATE. WHERE A FLOOR OR OTHER ELEMENT DISRUPTS THE CONTINUOUS PANELING, SPECIAL DETAILING IS REQUIRED. WHERE SPECIAL DETAILING IS NOT PROVIDED, CONNECTIONS SHALL BE REQUESTED BY CONTRACTOR.
- 10. 2x SOLID BLOCKING SHALL BE PROVIDED OVER ALL BEARING WALLS, SHEARWALLS, OR OTHER SUPPORTS, AND AT MID-SPAN OF FLOOR JOISTS AND ROOF FRAMING U.N.O. WHERE MANUFACTURED
- "I" JOISTS ARE SPECIFIED, BLOCKING REQUIREMENTS LISTED HEREIN ARE TO BE CONSIDERED MINIMUMS AND MAY BE INCREASED AS PER MANUFACTURER'S
- 11. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR LARCH OF THE FOLLOWING GRADES

- 12. ALL STUDS TO HAVE DOUBLE TOP PLATES OF THE SAME DIMENSION AS THE STUDS. PLATES TO BE LAPPED A MINIMUM OF 48" BETWEEN SPLICES AND SHALL BE CONNECTED TOGETHER WITH A MINIMUM OF 12-16d NAILS UNLESS OTHERWISE NOTED.
- 13. ALL MANUFACTURED WOOD PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- 14. BOISE CASCADE, TRUSS JOIST MACMILLAN OR EQUIV. SHALL MANUFACTURE LAMINATED VENEER LUMBER (LVL).

290

2900

PARALLAM PSL

AS DECK LEDGERS).

15. MANUFACTURED "I" JOISTS (SUCH AS TRUSS JOISTS) SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS USING A DEFLECTION LIMIT OF L/480, UNO. USE A MANUFACTURED RIM BOARD (SUCH AS TIMBER STRAND) WITH ALL "I" JOISTS. USE A DOUBLE RIM BOARD AT ALL LOCATIONS WHERE LEDGERS ARE USED (SUCH

750

2900

- 16. SAWN FLOOR JOISTS AND ROOF RAFTERS SHALL BE SIZED PER 2018 IRC TABLES 23-IV-J AND 23-IV-R RESPECTIVELY UNLESS OTHERWISE NOTED.
- 17. PROVIDE DOUBLE FLOOR JOISTS UNDER PARTITION WALLS RUNNING PARALLEL TO JOIST SPAN AND UNDER ALL LOCATIONS WHERE TUBS MAY BE LOCATED. ADEQUATE SUPPORT FOR ALL OTHER EQUIPMENT OF FURNISHINGS INCLUDING BUT NOT LIMITED TO: HOT WATER HEATER, STOVE, REFRIGERATOR, OVEN, FIRE PLACE ENCLOSURES, WOOD BURNING STOVE, ETC... SHALL BE PROVIDED BY CONTRACTOR OR OWNER.
- 18. SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR WITH 5/8" DIAMETER ANCHOR BOLTS LOCATED AT 4'-0" O.C. U.N.O. AND 1'-0" MAXIMUM FROM END U.N.O. ON SHEARWALL SCHEDULE
- 19. PROVIDE 3" x 3" x 1/4" PLATE WASHERS ON ALL FOUNDATION ANCHOR BOLTS.
- 20. WHERE ANCHOR BOLTS HAVE BEEN INCORRECTLY PLACED (NOT INCLUDING HOLDOWN ANCHORS), USE 5/8" DIA. HILTI QWIK-BOLT WITH 7" EMBEDMENT IN CONCRETE, AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. IF THE LOCATION IS CLOSE TO AN EDGE, ENGINEER'S APPROVAL IS REQUIRED PRIOR TO INSTALLATION.
- 21. SPLICES AND JOINTS IN DOUBLE TOP PLATE OF STUD BEARING WALLS SHALL OCCUR AT THE CENTER LINE OF SUPPORTING STUD.
- 22. ALL HANGERS AND FRAMING HARDWARE SPECIFIED SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, OR SIMILAR APPROVED.
- 23. FIRE BLOCK WOOD STUD WALLS AT MID-HEIGHT OR MORE AS REQUIRED BY GOOD CONSTRUCTION PRACTICE, 10' MAXIMUM O.C.
- 24. STUDS SHALL BE STUD GRADE OR D.F #1. IN NO INSTANCE SHALL A STUD WALL BE USED TO RETAIN SOIL OR RESIST LATERAL PRESSURE DUE TO SNOW LOADING. IN CASE OF SNOW BUILD-UP AGAINST A STUD WALL, THE OWNER SHALL BE RESPONSIBLE TO ELIMINATE SNOW TO STUD WALL CONTACT.
- 25. ALL POSTS SHALL BE DOUGLAS FIR LARCH #1 U.N.O.
- 26. CARRY ALL UPPER LEVEL POSTS INTO LOWER LEVELS AND PROVIDE SOLID BLOCKING UNDER ALL POSTS IN FLOORS.
- 27. THE LOAD SHALL BE TRANSFERRED TO THE FOUNDATION BY VERTICAL GRAIN ONLY WHERE POSTS WITH COLUMN CAPS OR BEARING PLATES ARE SPECIFIED, U.N.O.
- 28. ALL BUILT UP, LAMINATED DOUBLE OR MULTIPLE 2X JOISTS AND BEAMS SHALL BE NAILED TOGETHER WITH 16d NAILS AT 6" O.C. U.N.O.
- 29. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR LARCH #1, U.N.O.

G) FRAMING / LUMBER CONTINUED

- 30. GLUE-LAMS SHALL BE SPECIFIED ON PLANS. GLUE-LAMS EXPOSED TO WEATHER MUST BE RATED FOR EXTERIOR USE BY THE MANUFACTURER. GLUED-LAMINATED FABRICATION SHALL BE PERFORMED IN AN APPROVED FABRICATOR'S SHOP IN ACCORDANCE WITH IBC 2304.4.3. BEAM INSPECTION CERTIFICATES SHALL BE SUBMITTED TO THE FIELD INSPECTOR PRIOR TO COMPLETION OF FRAME INSPECTION IN ACCORDANCE WITH IBC 1704.6.2.
- 31. LAMINATED VENEER LUMBER (MICRO-LAMS) SHALL BE SPECIFIED ON PLANS.
- 32. SPLICE ALL BEAMS OVER SUPPORTS.

EXPOSED TO WEATHER, NAILS SHALL BE GALVANIZED.

- 33. WHERE (3) OR MORE TRIMMERS ARE SPECIFIED, THOSE TRIMMERS ARE TO BE STACKED IN ALL WALL FRAMING AND SOLID BLOCKED AT THE FLOOR LEVEL CONTINUOUS DOWN TO THE FOUNDATION.
- 34. ALL NAILS SHALL BE BOX, MACHINE, OR GREEN SINKERS AS SPECIFIED. WHERE
- 35. ALL FRAMING MEMBERS SPECIFIED IN THESE CALCULATIONS ARE MINIMUM. LARGER MEMBERS MAY BE SUBSTITUTED AT THE CONTRACTOR'S OPTION.
- 36. WHEN USING "GREEN" OR UN-SEASONED LUMBER, CARE SHALL BE TAKEN TO ALLOW FOR EFFECTS OF SHRINKAGE WHICH COULD CAUSE SETTLEMENT OF THE ROOF AND OR FLOORS AND COULD LEAD TO FAILURE OF ASSOCIATED FRAMING MEMBERS. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT FRAMING FROM THE EFFECTS OF SHRINKAGE. ANY SYSTEM USED TO ALLEVIATE THE EFFECTS OF SHRINKAGE SHALL BE REVIEWED BY THE ENGINEER PRIOR TO USE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR DAMAGE TO FRAMING MEMBERS OR FINISHES DUE TO THE EFFECTS OF SHRINKAGE.

H) ROUGH CARPENTRY:

- 1. THE CONTRACTOR SHALL INSTALL SUFFICIENT STRUCTURAL SHEATHING OR BRACING TO PROVIDE ADEQUATE STABILITY TO THE STRUCTURE DURING CONSTRUCTION.
- 2. WHERE PLUMBING, HEATING, OR OTHER DUCTS ARE PLACED ON A PARTITION REQUIRING THE CUTTING OF THE DOUBLE PLATES, A SIMPSON LSTA24 STRAP SHALL BE FASTENED TO EACH SIDE OF THE TOP PLATES.
- 3. USE TWO TRIMMERS AT EACH END OF EACH BEAM AND HEADER OVER 6'-0" LONG, AND ONE TRIMMER AT EACH END LESS THAN OR EQUAL TO 6'-0" LONG U.N.O. ON PLANS.
- WALLS WHERE SLOPING CEILINGS OCCUR, U.N.O.

4. BALLOON FRAME STUDS TO TRUSS BOTTOM CHORD OR FULL HEIGHT AT EXTERIOR

5. TOP OF FOUNDATION TO BE MINIMUM OF 6" ABOVE ADJACENT FINISHED GRADE.

I) WOOD TRUSSES:

- 1. ALL TRUSS DESIGNS SHALL BEAR THE NAME AND SEAL OF A LICENSED PROFESIONAL ENGINEER.
- 2. TRUSS MANUFACTURER SHALL SUBMIT DRAWINGS AND CALCULATIONS TO ALL GOVERNING AGENCIES FOR REVIEW AND APPROVAL BEFORE FABRICATION.
- 3. TRUSS CALCULATIONS SHALL REFLECT FAU LOAD WHERE APPLICABLE. THE TRUSS DESIGN AND SUBMITTAL FOR THIS PROJECT, PREPARED BY THE TRUSS MANUFACTURER, HAS BEEN REVIEWED BY THE INDIVIDUAL SIGNING THESE PLANS AND THE DESIGN CRITERIA HAVE BEEN MET BY THE TRUSS MANUFACTURER. THE PURPOSE OF THE REVIEW WAS TO ENSURE THAT THE TRUSS DESIGNER USED THE PROPER GRAVITY AND LATERAL LOADING, TRUSS LAYOUT AND SPANS WHERE REQUIRED IN THE DESIGN OF THE TRUSSES. THE STRUCTURAL DESIGN OF THE INDIVIDUAL TRUSSES AND FRAMING CONFIGURATION ARE THE SOLE RESPONSIBILITY OF THE TRUSS MANUFACTURER.

J) INSULATED CONCRETE WALL FORM & INSULATED CONCRETE DECK CONSTRUCTION

- 1. ICF WALLS SHALL BE IN ACCORDANCE WITH ADOPTED CODES.
- 2. ICF WALLS SHALL BE FORMED WITH ICF BLOCK OF STATED MANUFACTURER PER
- PLANS, OR SIMILAR APPROVED.

 3. ICF WALLS SHALL BE DESIGNED IN ACCORDANCE WITH THE MANUFACTURER'S
- RECOMMENDATIONS, ALL ADOPTED CODES, THE REQUIREMENTS OF AC1 318.

 4. INSULATED CONCRETE DECKS SHALL BE DESIGNED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, AND THE REQUIREMENTS OF ACI 318.
- 5. INSULATED CONCRETE DECKS SHALL BE CONSTRUCTED WITH THE MANUFACTURER SYSTEM PER PLANS (OR SIMILAR APPROVED) AND SHALL HAVE A SLAB TOPPING PER PLANS, WITH STEMS AT 24" O.C. STEM DEPTHS SHALL BE PER PLANS & DETAILS.

 6. INSULATED CONCRETE DECKS SHALL BE TEMPORARILY SUPPORTED IN
- ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND TO THE SATISFACTION OF THE ENGINEER. TEMPORARY SHORING SHALL BE PLACED PERPENDICULAR TO THE STEMS. TEMPORARY SHORING SHALL BE DESIGNED TO WITHSTAND ALL DEAD & LIVE LOADS, AND ALL TEMPORARY CONSTRUCTION LOADS.
- 7. TEMPORARY SHORING SHALL BE DESIGNED IN ACCORDANCE WITH AC1.347 GUIDE TO FORMING FOR CONCRETE. THE DESIGN LIVE LOAD FOR CONCRETE DECKS SHALL BE A MINIMUM OF 30 PSF.
- 8. TEMPORARY SHORING SHALL REMAIN IN PLACE UNTIL THE DECK CONCRETE HAS ATTAINED 70% OF IT'S PRESCRIBED STRENGTH, OR 7 DAYS, WHICHEVER IS LONGER.

K) DESIGN VALUES:

- ALL DESIGN LOADS ARE PER 2018 IBC CHAPTER 16
- 1.0: SOILS DESIGN DATA
- 1.1 Na = 1.0 1.2 Nv = 1.0 1.3 SITE SOIL CLASS = D 1.4 ALLOWABLE BEARING PRESSURE = 1500 psf 1.5 PIER SKIN FRICTION = NA 1.6 PASSIVE RESISTANCE = 400 psf/ft

2.0: SEISMIC DESIGN DATA

2.2 RISK CATEGORY

1.7 SOIL FRICTION FACTOR

2.1 IMPORTANCE FACTOR (I_e)

2.14 DESIGN BASE SHEAR ($V = C_sW$)

2.15 HORIZONTAL SEISMIC LOAD ($E_h = pV$)

2.3 MAPPED SPECTRAL RESPONSE ACCELERATION (S_s) = 0.535 2.4 MAPPED SPECTRAL RESPONSE ACCELERATION (S₁) = 0.359 2.5 MAPPED SPECTRAL RESPONSE COEFFICIENT (S_{DS}) = 0.4892.6 MAPPED SPECTRAL RESPONSE COEFFICIENT (S_{D1}) = 0.465= D (BY DEFAULT) 2.7 SITE SOIL CLASS 2.8 SEISMIC DESIGN CATEGORY 2.9 REDUNDANCY FACTOR (p) = 1.30 2.10 SEISMIC RESPONSE COEFFICIENT (C_s - S_{DS} x I/R) 2.11 RESPONSE MOD COEFF. (R) = 5.0 (ASCE 7-16, TABLE 12.2-1) 2.12 BASIC SEISMIC FORCE RESISTING SYSTEM = SPECIAL CONCRETE SHEAR WALLS = EQUIVALENT LATERAL FORCE 2.13 ANALYSIS PROCEDURE USED

= 0.010 W

= 0.013 W

= 0.33

WIND DESIGN DATA

3.1 WIND SPEED = 131mph (BASIC WIND SPEED - 3 second gust)
3.2 WIND EXPOSURE FACTOR = C

SNOW DESIGN DATA

4.1 GROUND SNOW LOAD = 60 psf 4.2 FLAT ROOF SNOW LOAD = NA 4.3 ROOF SLOPE FACTOR, C_s = NA 4.4 DESIGN ROOF SNOW LOAD = 60 psf 4.5 THERMAL FACTOR = NA 4.6 FROST DEPTH = 24"

CONCRETE DESIGN DATA

5.1 FOUNDATION CONCRETE, f_c = 2,500 psi 5.2 STRUCTURAL CONCRETE, f_c = 3,000 psi 5.3 REINFORCEMENT YIELD, F_v = 60,000 psi

STRUCTURAL DEAD & LIVE LOADS

- ROOF

 6.01 ROOF DEAD LOAD = 65 psf (ECOSPAN STRUCTURAL SYSTEM)
 6.02 ROOF SNOW LOAD = 25 psf (NON-REDUCIBLE)
 6.03 ROOF LIVE LOAD = 20 psf (DESIGN LIVE LOAD)

 FLOORS

 6.04 FLOOR DEAD LOAD 1 = NA (SLAB-ON-GRADE)
 6.05 FLOOR DEAD LOAD 2 = 65 psf (ECOSPAN STRUCTURAL SYSTEM)
 6.06
- 6.08
 6.09 FLOOR LIVE LOAD = 40 psf (RESIDENTIAL)

 WALLS
 6.11 WALL TYPE 1 = 85 psf (ICF; 6" CORE w/ FINISHES)
 6.12 WALL TYPE 2 = 110 psf (ICF; 8" CORE w/ FINISHES)

6.15 INTERIOR PARTITIONS = 15 psf (WOOD/METAL STUD w/ DRYWALL)

= 135 psf (ICF; 10" CORE w/ FINISHES)

= 160psf (ICF; 12" CORE w/ FINISHES)

L) SOILS ENGINEERING:

6.13 WALL TYPE 3

6.14 WALL TYPE 4

1) ALL FOUNDATIONS HAVE BEEN BASED ON IBC PRESCRIPTIVE VALUES

M) SPECIAL INSPECTIONS/STRUCTURAL OBSERVATION:

NONE REQUIRED BY ENGINEER OF RECORD

STRUCTURAL DRAWING INDEX:

- S100 STRUCTURAL NOTES

 S101 FOUNDATION PLAN
 S102 UPPER FLOOR FRAMING PLAN
- S103 ROOF FRAMING PLAN

 SD01 STRUCTURAL DETAILS

 SD02 STRUCTURAL DETAILS

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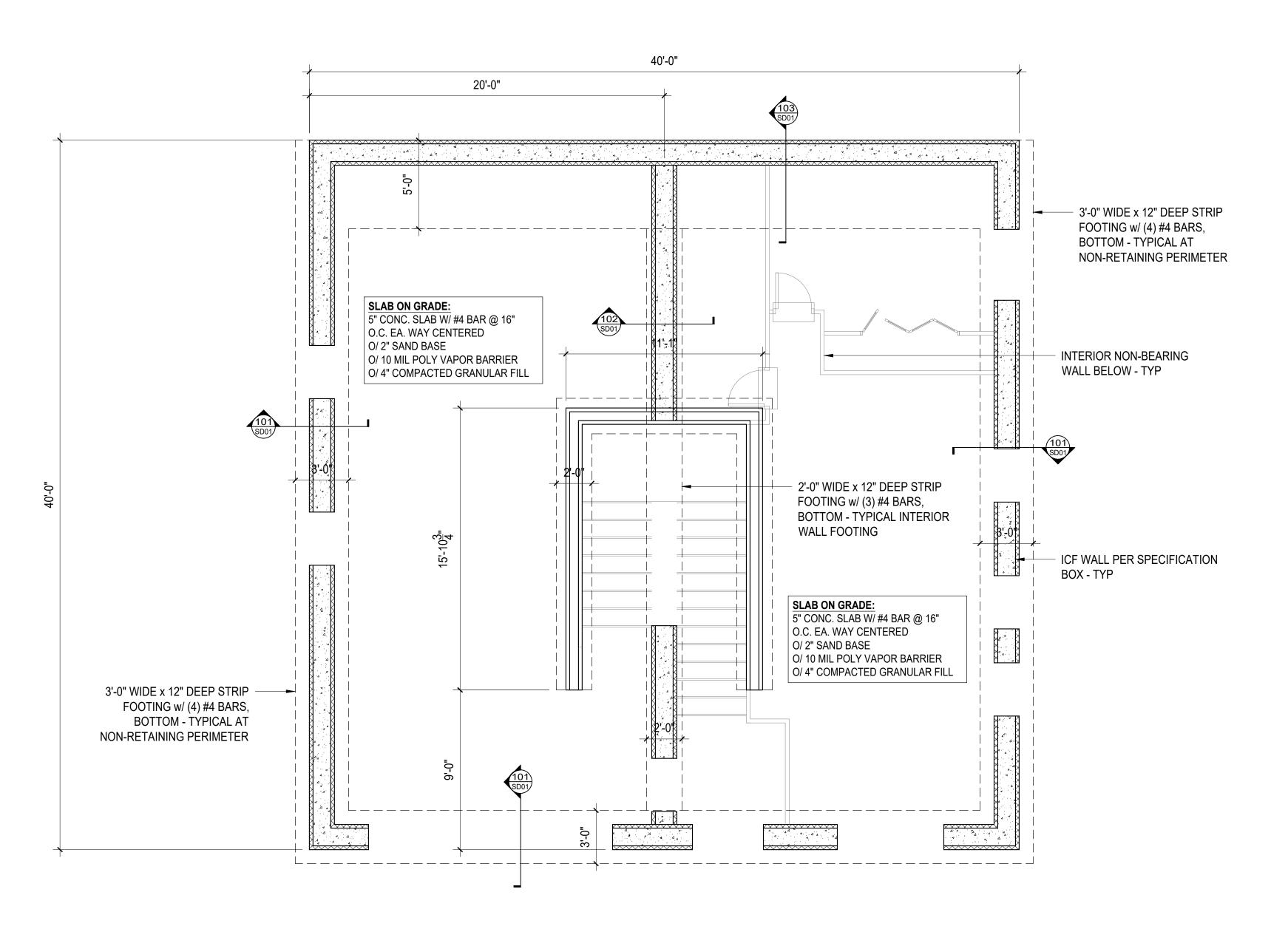
JUG ECKLAND JSTOM ICF RESIDE NEAU, AK

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WING NUMBER

S100





MAIN-LEVEL PERIMETER WALLS:

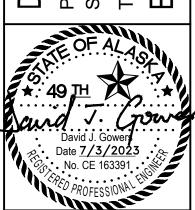
- 1. SHALL BE FORMED WITH INTEGRASPEC 17" ICF SYSTEM
- w/ 12" CONCRETE CORE, & REBAR PER DETAIL 113/SD01 2. THE MAX ALLOWABLE POUR RATE FOR THE FORMS
- SHALL BE PER INTEGRASPEC INSTALLATION MANUAL.
- SPECIAL INSPECTION BY DEPUTY INSPECTORS SHALL BE PROVIDED FOR PLACEMENT OF REINFORCING STEEL & CONCRETE - SEE SHEET S100.2.

DIMENSIONS & LAYOUT:

- 1. ALL LAYOUT AND DIMENSIONS SHALL BE
- COORDINATED WITH THE ARCHITECTURAL DRAWINGS. FIELD ADJUSTMENTS MAY BECOME NECESSARY TO DIMENSIONS INDICATED ON THIS SHEET. ARCHITECT'S DIMENSIONS SHALL GOVERN.

S ENGINEERING, LI

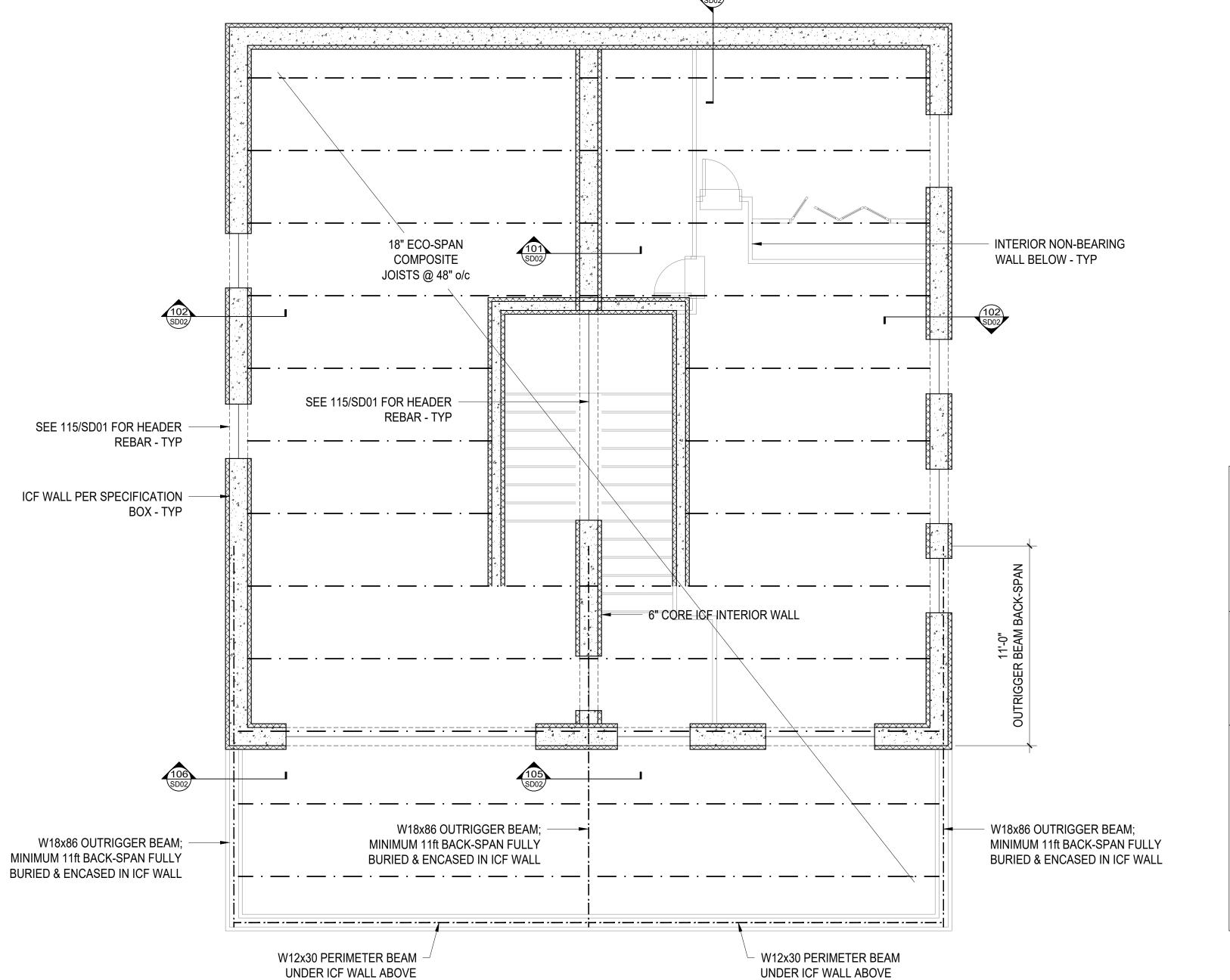
DAVE GOWERS
PO BOX 520
SELMA, OREGON
Tel: 541-597-4909
E-mail: dave@c



2822

RAWING NUMBER

S101



MAIN-LEVEL PERIMETER WALLS:

- SHALL BE FORMED WITH INTEGRASPEC 17" ICF SYSTEM w/ 12" CONCRETE CORE, & REBAR PER DETAIL 113/SD01
- 2. THE MAX ALLOWABLE POUR RATE FOR THE FORMS
- SHALL BE PER INTEGRASPEC INSTALLATION MANUAL 3. SPECIAL INSPECTION BY DEPUTY INSPECTORS SHALL BE PROVIDED FOR PLACEMENT OF REINFORCING STEEL & CONCRETE - SEE SHEET S100.2.

DIMENSIONS & LAYOUT:

- ALL LAYOUT AND DIMENSIONS SHALL BE
- COORDINATED WITH THE ARCHITECTURAL DRAWINGS. 2. FIELD ADJUSTMENTS MAY BECOME NECESSARY TO DIMENSIONS INDICATED ON THIS SHEET. ARCHITECT'S DIMENSIONS SHALL GOVERN.

UPPER LEVEL FLOOR SYSTEM:

- FLOORS SHALL BE ECOSPAN STRUCTURAL SYSTEM @
- SPACING AND JOIST SIZE PER PLAN. TOPPING SLAB SHALL BE 4" THICK UNO
- TOPPING SLAB REBAR SHALL BE 6"x6" 6 /6 WWM SET ON ECOSPAN DECKING.
- 4. ECOSPAN STRUCTURAL SYSTEM LAYOUT IS INDICATED ON THE FRAMING PLANS. INSTALLATION SHALL FOLLOW ECOSPAN SHOP DRAWINGS FOR FINAL LAYOUT ON
- SITE. 5. ALL SPECIFIED REBAR SHALL BE INSTALLED. ANY DEPARTURE FROM THE INDICATED LAYOUT SHALL ONLY BE WITH THE APPROVAL OF THE ENGINEER.

DAVE GOWERS
PO BOX 520
SELMA, OREGON
Tel: 541-597-4909
E-mail: dave@c

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Fax: 856-219-9187 Odgengineering.com

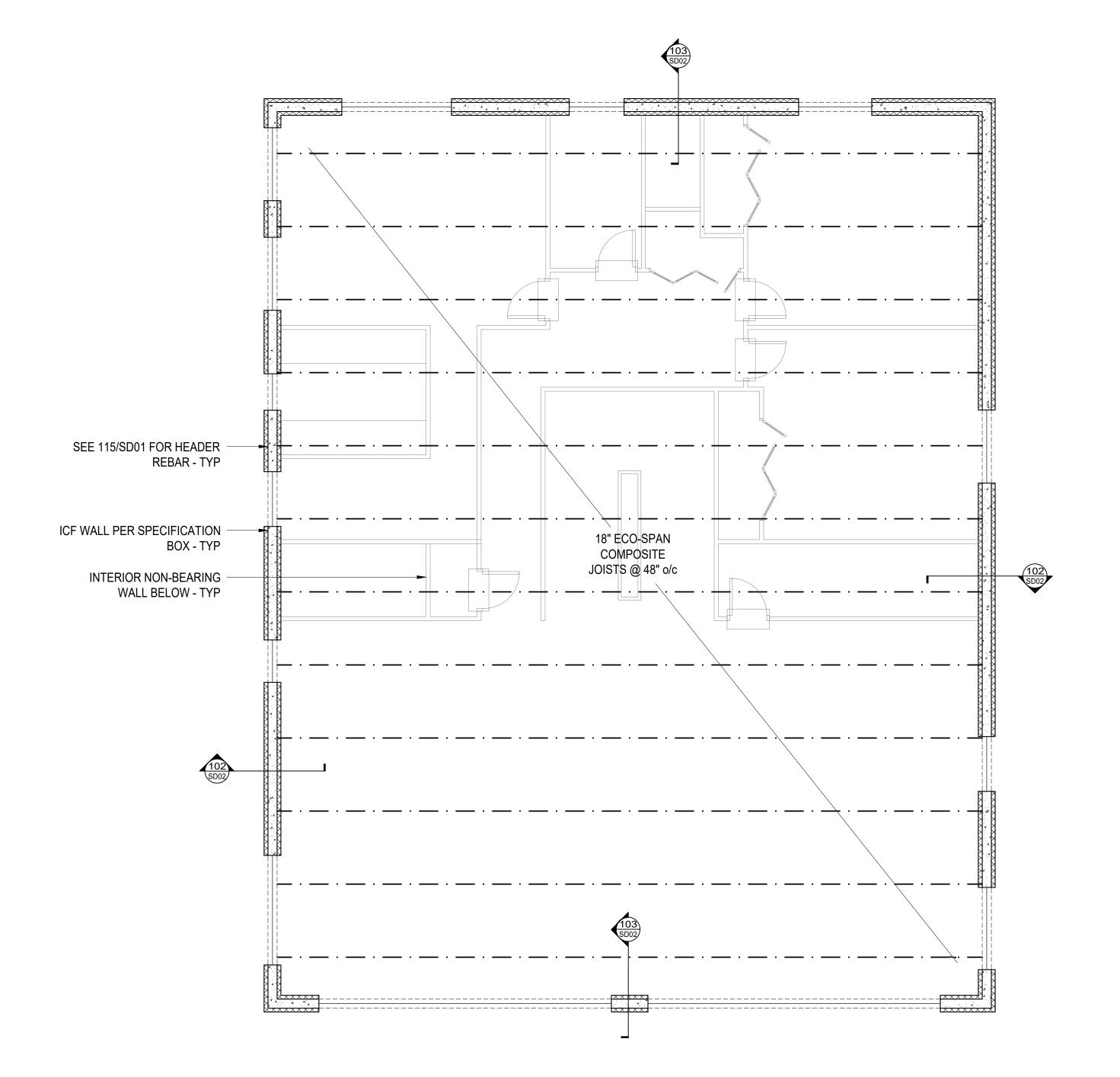
S ENGINEERING, LLC.

DOUG ECKLAND CUSTOM ICF RESIDENCE 2822

AWING NUMBER

REV S102

A UPPER FLOOR FRAMING PLAN S102 SCALE: 1/4" = 1'-0"





UPPER-LEVEL PERIMETER WALLS:

- 1. SHALL BE FORMED WITH INTEGRASPEC 11" ICF SYSTEM w/6" CONCRETE CORE, & REBAR PER DETAIL 113/SD01.
- 2. THE MAX ALLOWABLE POUR RATE FOR THE FORMS SHALL BE PER INTEGRASPEC INSTALLATION MANUAL.
- 3. SPECIAL INSPECTION BY DEPUTY INSPECTORS SHALL BE PROVIDED FOR PLACEMENT OF REINFORCING STEEL & CONCRETE - SEE SHEET S100.2.

DIMENSIONS & LAYOUT:

- 1. ALL LAYOUT AND DIMENSIONS SHALL BE
- COORDINATED WITH THE ARCHITECTURAL DRAWINGS. 2. FIELD ADJUSTMENTS MAY BECOME NECESSARY TO DIMENSIONS INDICATED ON THIS SHEET. ARCHITECT'S DIMENSIONS SHALL GOVERN.

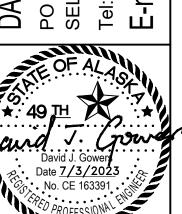
ROOF SYSTEM:

- 1. ROOF SHALL BE ECOSPAN STRUCTURAL SYSTEM @
- SPACING AND JOIST SIZE PER PLAN. 2. TOPPING SLAB SHALL BE 4" THICK UNO
- 3. TOPPING SLAB REBAR SHALL BE 6"x6" 6 /6 WWM SET
- ON ECOSPAN DECKING.
- 4. ECOSPAN STRUCTURAL SYSTEM LAYOUT IS INDICATED ON THE FRAMING PLANS. INSTALLATION SHALL FOLLOW ECOSPAN SHOP DRAWINGS FOR FINAL LAYOUT ON
- SITE. 5. ALL SPECIFIED REBAR SHALL BE INSTALLED. ANY DEPARTURE FROM THE INDICATED LAYOUT SHALL ONLY BE WITH THE APPROVAL OF THE ENGINEER.

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S ENGINEERING, LLC.

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DOUG ECKLAND CUSTOM ICF RESIDENCE JUNEAU, AK ROOF FRAMING PLAN

2822

RAWING NUMBER

S103

