RENDERING - STREET VIEW - · - PROPERTY LINE SCOPE 1: DEMOLISHED EXISTING 2,990 SQ. FT. ______ MAIN RESIDENCE & 218 SQ FT. SHEDS SCOPE 2: PROPOSE 3,803 SQ. FT. TWO-STORY RESIDENCE TO INCLUDE 5 BEDS, 55 BATHS, OPEN KITCHEN, DINING, LIVING, FAMILY, LAUNDRY & 759 SQ. FT. 3-CAR GARAGE ______

NEW TWO-STORY RESIDENCE

320 RANELAGH RD, HILLSBOROUGH, CA

PROJECT INFORMATION

APN: 032-270-190

ZONING: RESIDENTIAL

OCCUPANCY GROUP: R-3 CONSTRUCTION TYPE: V-B

STORIES: TWO

FIRE SPRINKLERS: YES

OCCUPANCY & BUILDING SUMMARY

MAJOR STANDARDS	ALLOWABLE	EXISTING	PROPOSED	DIFFERENCE
LOT SIZE (SF)		18,97	13	
MAIN HOUSE (TOTAL SF)		2,625	3,803	+1,178
FIRST FLOOR (SF)		2,625	2,03	
SECOND FLOOR (SF)		_	1,772	
FLOOR-TO-CEILING > 12' (SF)		_	532	+532
DECK/BALCONY (SF)		0	199	+199
GARAGE (SF)		365	759	+394
SHED (SF)		2 8	0	-2 8
FAR (%)	4,743 (25.0%)	3,208 (16.9%)	4,678 (24.7%)	+1,470 (7.8%)
TOTAL COVERAGE (%)	4,075 (21.5%)	3,145 (16.6%)	2,844 (15.0%)	-30 (1.6)
FRONT SETBACK	25'-0" (MIN.)	34'-6"	29'-6"	<i>-5'-0''</i>
LEFT SETBACK	20'-0" (MIN.)	19'-8"	26'-5"	+6'-9"
RIGHT SETBACK	20'-0" (MIN.)	20'-7"	30-6"	+9'-11"
REAR SETBACK	20'-0" (MIN.)	56'-5"	62'-5"	+6'-0"
BUILDING HEIGHT	32'-0" (MIN.)	3'-2"	3 '-4"	+ 8'-2"
PARKING	2 (GARAGE) (ADDITIONAL)	(GARAGE) (ADDITIONAL)	3 (GARAGE) (ADDITIONAL)	+2
LANDSCAPE (SF)		10,889 (57.4%)	9,918 (52.3%)	-97 (5. %)
HARDSCAPE (SF)	50%	8,084 (42.6%)	9,055 (47.7%)	+971 (5.1%)

SCOPE OF WORK

I. DEMOLISHED EXISTING 2,990 SQ. FT. MAIN RESIDENCE & 218 SQ FT. SHEDS

2. PROPOSE 3,803 SQ. FT. TWO-STORY RESIDENCE TO INCLUDE 5 BEDS, 5.5 BATHS, OPEN KITCHEN, DINING, LIVING, FAMILY, LAUNDRY & 759 SQ. FT. 3-CAR GARAGE

SHEET INDEX

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CALGREEN

APPLICABLE CODES

PROJECT SHALL CONFORM TO THE PROVISIONS OF ALL APPLICABLE CODES, LAWS, ORDINANCES, RULES AND REGULATIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

• 2011 CALIFORNIA RESIDENTIAL CODES

• 2011 CALIFORNIA BUILDING, MECHANICAL, PLUMBING AND ELECTRICAL CODES • 2012 CALIFORNIA ENERGY CODES

• 2011 CALIFORNIA GREEN BUILDING STANDARDS CODES • 2012 CALIFORNIA FIRE CODES

• 2012 HILLSBOROUGH MUNICIPAL CODES

3 VICINITY MAP N.T.S.

PROJECT TEAM

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DEFERRED SUBMITTAL

SOLAR PANEL TO PROVIDE 3.69 KWDC (SEE TITLE 24)
AUTOMATIC FIRE SPRINKLER SYSTEM

HERS VERIFICATION & ENERGY NOTES

HERS VERIFICATION REQUIRED BY T-24 ENERGY REPORT. PROVIDE EVIDENCE OF THIRD PARTY VERIFICATION (HERS) TO PROJECT BUILDING INSPECTOR, PRIOR TO FINAL INSPECTION. THE FOLLOWING FEATURES MUST BE FIELD VERIFIED BY HERS RATER AS A CONDITION FOR MEETING THE MODELED ENERGY PERFORMANCE,

- INDOOR AIR QUALITY VENTILATION
- KITCHEN RANGE HOOD VERIFIES HEAT PUMP RATED HEATING CAPACITY

THE FOLLOWING ARE FEATURES THAT MUST BE INSTALLED AS

CONDITION FOR MEETING THE MODELED ENERGY PERFORMANCE

 PV SYSTEM: 3.69 KWDC • NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER; SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED

BUILDING NOTES

 A CONSTRUCTION WASTE MANAGEMENT PLAN THAT COMPLIES WITH THE TOWN OF HILLSBOROUGH'S WASTE REDUCTION PLAN SECTION 15.18.020 WILL BE PROVIDED TO THE BUILDING DEPARTMENT PRIOR TO PERMIT ISSUANCE

GEOTECHNICAL NOTES

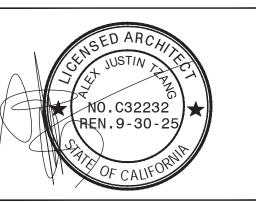
• EARTHWORK, SLAB SUBGRADE AND NON-EXPANSIVE FILL PREPARATION, FOUNDATION CONSTRUCTION, PIER DRILLING, UTILITY TRENCH BACKFILLING, PAVEMENT CONSTRUCTION, AND SITE DRAINAGE SHOULD BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY ROMIG ENGINEERS, INC., DATED MARCH II, 2014. ROMIG ENGINEERS SHOULD BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY EARTHWORK OR FOUNDATION CONSTRUCTION AND SHOULD OBSERVE AND TEST DURING EARTHWORK AND FOUNDATION CONSTRUCTION AS RECOMMENDED IN THE GEOTECHNICAL REPORT. PRIOR TO GRADING, SUBGRADE PREPARATION, OR NON EXPANSIVE FILL PLACEMENT, REPRESENTATIVE SAMPLES OF NATIVE AND/OR IMPORT SOIL MATERIAL WILL NEED TO BE COLLECTED IN ORDER TO OBTAIN A LABORATORY COMPACTION CURVE; THE CURVE SHOULD BE REQUESTED AT LEAST 5 DAYS PRIOR TO OUR STAFF BEING ABLE TO PERFORM ONSITE COMPACTION TESTING SERVICES

ALEX TZANG ARCHITECTS

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

ALEX@ALEXTZANG.COM (415) 309-8082

STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE						
1	BUILDING SUBMITTAL	23/11/23						
2	BUILDING SUBMITTAL	23/08/19						
3	BUILDING SUBMITTAL	24/10/02						
4	BUILDING SUBMITTAL	24/10/14						

JOB NO. 222088 DRAWN BY R.W. 2023-11-23

SHEET TITLE

COVER SHEET PLOT PLAN

SHEET NUMBER



CALL 811 BEFORE YOU DIG

ANY WORK THAT DISTURBS THE GROUND; SUCH AS EARTHWORK, DEMOLITION, EXCAVATION, GRADING, AND LANDSCAPE REQUIRES HOMEOWNERS, CONTRACTORS, SUB-CONTRACTORS, OR ANY PERSON RESPONSIBLE TO INDIVIDUALLY CALL 811 FOR UNDERGROUND UTILITY AND/OR SERVICE LOCATIONS, AND TO POTHOLE VERIFY/EXPOSE UTILITY AND/OR SERVICE PRIOR TO COMMENCEMENT OF WORK

GENERAL NOTES (APPLY TO ALL SHEETS)

- GENERAL CONDITIONS FOR THE PERFORMANCE OF THE CONTRACT IS HEREBY INCORPORATED INTO THE DRAWINGS AND SHALL BE CONSIDERED AS PART OF THE REQUIREMENTS FOR THE COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL THOROUGHLY REVIEW CONTRACT DOCUMENTS AND NOTIFY ARCHITECT OF ANY CONDITIONS NOT COVERED.
- CONTRACTOR SHALL FIELD-VERIFY SITE DIMENSIONS AND CONDITIONS PRIOR TO BIDDING. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT PRIOR TO COMMENCEMENT OF THE WORK. NOTES AND DIMENSIONS TAKE PRECEDENCE OVER
- SCALE OF THE DRAWINGS. • DURING CONSTRUCTION, CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SEEK CLARIFICATION IF ANY DISCREPANCIES ARE FOUND. CONTRACTORS SHALL BE RESPONSIBLE FOR REMEDIAL WORK IF RELATED WORK IS CONTINUED AFTER A
- DISCREPANCY IS IDENTIFIED. CONTRACTOR SHALL REMOVE TRASH AND DEBRIS STEMMING FROM THEIR WORK ON A DAILY BASIS. PROJECT SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDITION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT MATERIALS, LABOR, INSTALLATION, ETC., CONFORMS TO ALL APPLICABLE CODES AND REQUIREMENTS OF LOCAL GOVERNING AGENCIES.
- CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING HEALTH AND SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. CONTRACTOR TO LIMIT TRAFFIC AND ACCESS TO WORK AREAS.
- CLEAN UP AND REPAIRS: AT THE COMPLETION OF CONSTRUCTION, REMOVE ALL EXCESS MATERIALS AND RESIDUES FROM SITE. LEAVE ALL SURFACES WITHIN CONSTRUCTION SITE FREE FROM DUST, DIRT AND STAINS.
- PATCHING: PROPERLY PREPARE SURFACES FOR RECEIVING THE SPECIFIED FINISHES INCLLIDING PATCHING SURFACES ALTERED BY CONSTRUCTION, ON PATCHED AREAS OR AREAS WHERE A FINISH IS NOT SPECIFIED. THE FINISH SHALL MATCH ADJACENT MATERIAL IN CONSTRUCTION, COLOR AND TEXTURE
- ALL WORK NOTED "N.I.C." OR NOT IN CONTRACT IS TO BE ACCOMPLISHED BY A CONTRACTOR OTHER THAN THE GENERAL CONTRACTOR AND IS NOT TO BE PART OF THE WORK. INSTALLATION: ALL ITEMS SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURERS'
- RECOMMENDATION. ALL OPERATING MANUALS AND WARRANTEES SHALL BE GIVEN TO OWNER BY PROJECT COMPLETION. • NO WORK SHALL COMMENCE WITH UNAPPROVED MATERIALS. ANY WORK DONE WITH
- UNAPPROVED MATERIALS AND EQUIPMENT IS AT THE CONTRACTOR'S RISK. SUBSTITUTIONS OR CHANGES MUST BE APPROVED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- NEW/EXISTING FINISHES AND CONSTRUCTION SHALL BE PROTECTED BY THE CONTRACTOR FROM POTENTIAL DAMAGE CAUSED BY CONSTRUCTION ACTIVITY. DAMAGE TO FINISHES OR CONSTRUCTION CAUSED IN THIS MANNER SHALL BE REPAIRED OR REPLACED (OWNER'S DECISION) BY THE CONTRACTOR WITH IDENTICAL MATERIAL AND /OR FINISHES.
- GUARANTEES: THE CONTRACTOR SHALL GUARANTEE THAT THE PROJECT WILL BE FREE OF DEFECTS OF WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. NO WORK DEFECTIVE IN CONSTRUCTION OR QUALITY OR DEFICIENT IN ANY REQUIREMENT OF THE DRAWINGS OR NOTES WILL BE ACCEPTABLE IN CONSEQUENCE OF THE OWNER'S OR ARCHITECT'S FAILURE TO POINT OUT DEFECTS OR DEFICIENCIES DURING CONSTRUCTION. DEFECTS OR WORKMANSHIP OR MATERIALS REVEALED WITHIN A PERIOD OF ONE YEAR FROM THE
- ACCEPTANCE OF DEFECTIVE WORK OR IMPROPER MATERIALS. • ALL DEMOLITION INDICATED ON PLANS SHALL BE CAREFULLY OUT AND REMOVED TO MINIMIZE DISRUPTION AND DAMAGE OF EXISTING SPACE.
- CONSTRUCTION MATERIALS STORED ON SITE SHALL BE PROPERLY STACKED AND PROTECTED SO AS TO PREVENT DAMAGE OR DETERIORATION UNTIL USED. FAILURE IN
- THIS REGARD MAY BE CAUSE FOR REJECTION OF MATERIAL AND/OR WORK. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE. THE DETAILS REFLECT THE DESIGN INTENT FOR TYPICAL CONDITIONS. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SHALL INCLUDE IN THIS SCOPE THE COST FOR COMPLETE FINISHED INSTALLATIONS, INCLUDING ANOMALIES, OF ALL TRADES.
- NEW WEATHER HEADS/OVERHEAD RACEWAYS SHALL BE A MINIMUM OF 1-1/4"\$ GALVANIZED STEEL CONDUIT, OR 2" A RIGID ALUMINUM CONDUIT. THERE SHALL BE A SYSTEM DISCONNECT LOCATED ON THE EXTERIOR OF THE STRUCTURE OR PROVIDE A SHUNT-TRIP. THIS WOULD INCLUDE ANY SHUTDOWN DEVICE FOR ALTERNATE SOURCES OF POWER SUCH AS SOLAR, BATTERY, GENERATORS, ETC

GREEN BUILDING NOTES

DIVISION 4.1 THROUGH 4.5.

- I. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING. . ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN
- SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY OR A SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY. PROVIDE A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA
- ACCEPTABLE TO THE ENFORCING AGENCY OF ALL NEW EQUIPMENT INSTALLED TO THE BUILDING OCCUPANT OR THE OWNER.
- 4. HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS INCLUDING DUCTS AND EQUIPMENT BY A NATIONALLY OR REGIONALLY RECOGNIZED TRAINING OR CERTIFICATION PROGRAM.
- POCUMENTATION USED TO SHOW COMPLIANCE WITH THIS CODE SHALL INCLUDE BUT IS NOT LIMITED TO, CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS, BUILDER OR INSTALLER CERTIFICATION, INSPECTION REPORTS OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY WHICH DEMONSTRATE SUBSTANTIAL CONFORMANCE.

SMOKE & CARBON MONOXIDE ALARM NOTES

PROVIDE WIRED AND BATTERY OPERATED SMOKE AND CARBON MONOXIDE (CO) ALARMS TO BEDROOMS AND ADJACENT SPACES FROM A BEDR*OO*M

PROVIDE SMOKE ALARMS AT THE FOLLOWING LOCATIONS PER (CRC 3/4.3):

- INSIDE EACH SLEEPING ROOM • OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS; ON EACH ADDITIONAL STORY OF THE DWELLING INCLUDING
- SMOKE ALARMS SHALL BE INSTALLED A MIN. OF 3'-0" FROM A DOOR OR OPENING OF A BATHROOM THAT CONTAINS A TUB OR SHOWER UNLESS IT WOULD PREVENT PLACEMENT OF THE REQUIRED SMOKE ALARM.

PROVIDE CARBON MONOXIDE ALARMS LOCATED AT THE FOLLOWING LOCATIONS PER (CRC 3|5.3):

- · OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDR*OO*MS
- ON EVERY LEVEL OF THE BUILDING INCLUDING BASEMENTS

BASEMENTS AND HABITABLE ATTICS.

• WHERE A FUEL BURNING APPLIANCE IS LOCATED IN A BEDROOM OR IN AN ATTACHED BATHROOM THEN A CO ALARM SHALL BE INSTALLED IN THE BEDROOM.

POLLUTANT CONTROL (CALGREEN)

- <u>DUCT AND MECHANICAL SYSTEMS PROTECTION</u>. AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENTS OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METALS, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST OR DEBRIS, WHICH MAY ENTER THE SYSTEM PER COC 45041
- FINISH MATERIAL POLLUTANT CONTROL. FINISH MATERIALS SHALL COMPLY WITH SECTIONS 4.504.2.1
- ADHESIVES, SEALANTS AND CAULKS. ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT. SHALL MEET THE REQUIREMENTS OF THE STANDARDS LISTED IN CGC 4504.2.1.
- PAINTS AND COATINGS. PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS PER CGC 4.504.2.2. AEROSOL PAINTS AND COATINGS. AEROSOL PAINTS AND COATINGS SHALL MEET THE PR*O*DUCT-WEIGHTED MIR LIMITS F*O*R R*OC* AND *O*THER REQUIREMENTS PER *CGC 4.504.*2.3.
- VERIFICATION DOCUMENTATION WILL BE PROVIDED, AT THE REQUEST OF THE BUILDING DIVISION, TO VERIFY COMPLIANCE WITH VOC FINISH MATERIALS PER CGC 4.504.2.4. CARPET SYSTEMS. ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND
- COMPOSITE WOOD PRODUCTS. HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR AND EXTERIOR OF THE BUILDING SHALL COMPLY WITH THE LOW FORMALDEHYPE EMISSION STANDARDS PER CGC 4.504.5.

PR*O*DUCT REQUIREMENT PER *CGC 4.504.3. . CA*RPET *CUSHIO*N AND ADHESIVE ALSO MUST *CO*MPLY.

• <u>POCUMENTATION</u>, VERIFICATION OF COMPLIANCE WITH THIS SECTION SHALL BE PROVIDED AT THE REQUEST OF THE ENFORCING AGENCY.

FOR ALL BUILDING ALTERATIONS OR IMPROVEMENTS TO A SINGLE FAMILY RESIDENTIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE HOUSE THAT DO NOT MEET CURRENT FLOW RATES WILL NEED TO BE UPGRADED. WATER CLOSETS WITH A FLOW RATE IN EXCESS OF 1.6 GPF WILL NEED TO BE REPLACED WITH WATER CLOSETS WITH A MAXIMUM FLOW RATE OF 1.28 GPF. SHOWER HEADS WITH A FLOW RATE GREATER THAN 2.5 GPM WILL NEED TO BE REPLACED WITH A MAXIMUM 1.8 GPM SHOWER HEAD. LAVATORY AND KITCHEN FAUCETS WITH A FLOW RATE GREATER THAN 2.2 GPM WILL NEED TO BE REPLACED WITH A FAUCET WITH MAXIMUM FLOW RATE OF 1.2 GPM (OR 1.8 GPM FOR KITCHEN FAUCETS). ONLY APPLIED FOR PROPERTIES BUILT ON OR BEFORE JAN 1,

HVAC GENERAL NOTES

- PROVIDE AND INSTALL A SETBACK THERMOSTAT FOR THE NEW
- R-6.0 DUCT INSULATION SHALL BE INSTALLED IF 40 FEET OR LESS OF NEW DUCTS AFOL ARE INSTALLED IN UNCONDITIONED SPACE (CENC TABLE 150.2-A)
- MIN. 26 GAGE SHEET STEEL HEATING SUPPLY DUCTS SHALL BE INSTALLED BE INSTALLED BETWEEN THE GARAGE AND NEW HABITABLE SPACES (CRC R302.5.2)

DOMESTIC CLOTHES DRYERS DUCT NOTES

- EXHAUST DUCT TRAVEL DISTANCE SHALL NOT OVER 14'-0" MAX IN COMBINATION OF VERTICAL AND HORIZONTAL DISTANCE.
- EXHAUST DUCT SHALL BE 3'-0" MIN AWAY FROM PROPERTY LINE AND ANY OPENINGS
- **EGRESS WINDOW NOTES**
- OPENING SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44", MEASURED FROM THE FLOOR
- THE NET CLEAR OPENING SHALL BE 5.7 SQ. FT. MIN. (GRADE FLOOR OPENINGS MAY HAVE A NET CLEAR OPENING OF 5.0 SQ. FT. MIN.)
- THE NET CLEAR HEIGHT SHALL BE 24" MIN. • THE NET CLEAR WIDTH SHALL BE 20" MIN.

SPACE CONDITIONING NOTES

HEATING FACILITIES CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET F ROM EXTERIOR WALLS IN THE NEW

NEW WINDOW AND DOOR REQUIREMENTS

- PROVIDE 2 COPIES OF A COMPLETE PRESCRIPTIVE ADDITIONS FORM <u> 2012-CFIR-PRF-0IE</u> AT "FINAL INSPECTION" PREPARED BY CONTRACTOR -CERTIFYING THE INSTALLATION ALL MANDATORY BUILDING COMPONENTS ARE IN
- CONFORMANCE WITH CALIFORNIA REGULATION • TEMPORARY NFRC LABELS ON NEW WINDOWS AND EXTERIOR DOOR SHALL NOT BE REMOVED BEFORE INSPECTION BY ENFORCEMENT AUTHORITY
- PROJECT SHALL COMPLY WITH CALIFORNIA GREEN BUILDING STANDARD CODE CHAPTER 4, THE FOLLOWING OPENINGS SHALL BE CAULKED, CASKETED, WEATHER STRIPPED OR OTHERWISE SEALED: •I. EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, INCLUDING DOORS
 - BETWEEN THE HOUSE AND GARAGE, BETWEEN INTERIOR HVAC CLOSETS AND CONDITIONED SPACE, BETWEEN ATTIC ACCESS AND CONDITIONED SPACE, BETWEEN A. LIGHTING SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED CONTROLS THAT ALLOW WALL SOLE PLATES AND THE FLOOR, EXTERIOR PANELS AND ALL SIDING
 - •2. OPENINGS FOR PLUMBING, ELECTRICITY, AND GAS LINE IN EXTERIOR AND INTERIOR B. IN BATHROOMS, GARAGES, LAUNDRY ROOMS, UTILITY ROOMS AND WALK-IN CLOSETS, WALLS, CEILINGS, AND FLOORS.
 - EXTERIOR DOOR THAT SWINGS OUT REQUIRES NON-REMOVABLE HINGE OR HINGE WITH STUDS.

MECHANICAL NOTES

- A) EXHAUST DUCT TERMINATION IS AS FOLLOWS PER CMC 501.1:). 3 FEET FROM A PROPERTY LINE,
- II) 10 FEET FROM A FORCED AIR INLET, AND
- III) 3 FEET FROM OPENINGS INTO THE BUILDING.

B) UNLEGS OTHERWISE PERMITTED OR REQUIRED BY THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPROVED BY THE CITY, DOMESTIC DRYER TO A RESIDENTIAL BUILDING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL MEET MOISTURE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND THE REQUIREMENT IN ITEM I AND THE REQUIREMENTS IN EITHER ITEM II OR ITEM III: VERTICAL LENGTH OF FOURTEEN FEET, INCLUDING TWO 90-DEGREE ELBOWS. TWO 1. CONTROLLED BY A MANUAL ON AND OFF CONTROL SWITCH THAT PERMITS THE FEET SHALL BE DEDUCTED FOR EACH 90-DEGREE ELBOW IN EXCESS OF TWO. CMC

- R-6.0 DUCT INSULATION SHALL BE INSTALLED IF 40 FEET OR LESS OF NEW DUCTS ARE INSTALLED IN UNCONDITIONED SPACE (CENC TABLE 150.2-A)
- MIN. 26" GAUGE STEEL HEATING SUPPLY DUCTS SHALL BE INSTALLED BE INSTALLED
- BETWEEN THE GARAGE AND NEW HABITABLE SPACES (CRC R302.5.2) MERV|3 AIR FILTER WITH 2" NOMIAL DEPTH

REACH CODE NOTES

• ALL-ELECTRIC BUILDINGS TO HAVE NO NATURAL GAS OR PROPANE PLUMBING INSTALLED WITHIN THE BUILDING AND THAT USES ELECTRICITY AS THE SOURCE OF ENERGY FOR ITS SPACE-CONDITIONING, WATER-HEATING (INCLUDING POOLS AND SPAS), COOKING APPLIANCES, AND CLOTHES DRYING APPLIANCES. ALL-ELECTRIC BUILDINGS MAY INCLUDE SOLAR THERMAL POOL HEATING

ELECTRICAL GENERAL NOTES

<u>APPLIANCE</u>

- I. ALL ELECTRICAL SHALL BE INSTALLED PER ELECTRICAL CODE AND CITY
- ORDINANCES CURRENTLY IN USE. 2. VERIFY WITH SERVING UTILITY COMPANIES THE LOCATION OF ALL UTILITY METERS, TRANSFORMERS, PULL- STATIONS, BOXES, ETC. FOR LOCATIONS SHOWN.
- 3. MAIN GROUND WIRE SHALL CONNECT FOUNDATION REBAR TO MAIN WATER SERVICE. GEC CONTINUOUS, NO SPLICES. 4. ALL INTERIOR METALLIC WATER PIPING WHICH MAY BECOME ENERGIZED SHALL BE
- BONDED TOGETHER AND MADE ELECTRICALLY CONTINUOUS. 5. MAIN PANEL MUST BE LARGE ENOUGH TO CARRY ADDITIONAL LOAD.
- 6. RESIDENCE TO HAVE LIMITED USE OF FLEXIBLE CONDUIT FOR GROUNDING. 7. ALL ELECTRICAL WIRE THAT WILL BE ENCASED IN SPRAY FOAM MUST BE IN CONDUIT OR FLEXIBLE METAL CASING.
- 3. CONTRACTOR SHALL REVIEW THE LOCATIONS OF SWITCHES, OUTLETS, LIGHT FIXTURES, ETC. WITH THE OWNER AT THE TIME OF BOX ROUGH-IN PRIOR TO FINAL
- 9. ONE OR MORE 120-VOLT, 20-AMPERE BRANCH CIRCUITS SHALL BE PROVIDED TO SUPPLY BATHROOM RECEPTACLE OUTLET(S) REQUIRED BY CEC 2/0.52(D) AND ANY COUNTERTOP AND SIMILAR WORK SURFACE RECEPTAGLE OUTLETS. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS.
- 10. AT LEAST ONE ADDITIONAL 20-AMPERE BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET(S) REQUIRED BY 210.52(F). THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS.
- FEEDER OVER CURRENT DEVICE SHALL BE RATED NOT LESS THAN 125% OF CONTINUOUS LOAD; CONDUCTORS MUST BE SIZED ON THE SAME BASIS TO ASSURE EFFECTIVE PROTECTION.
- . PROVIDE AT LEAST TWO 20 AMP SMALL APPLIANCE CIRCUITS IN THE KITCHEN, DINING, AND FAMILY ROOM AREAS, PROVIDE A SEPARATE 20 AMP LAUNDRY CIRCUIT.
- 3. CONDUCTOR WIRES WITH AN INSTALLED NEUTRAL AND A FOUR-PRONG OUTLET ARE REQUIRED FOR DRYERS AND COOKING UNITS.

4. PROVIDE DUPLEX OUTLETS FOR BROILER OF 220V, OVEN OF 220V, DRYER OF 220V,

COMPACTOR AND REFRIGERATOR. 5. CLOTHES DRYER LOADS SHALL BE DETERMINED ON A LOAD OF 5000 WATTS OR

NAMEPLATE RATED, WHICHEVER IS LARGER.

- ARC-FAULT CIRCUIT-INTERRUPTERS (AFCI) ARE REQUIRED BY NEC 210.12(A) FOR THE PROTECTION OF ALL BRANCH-CIRCUITS THAT SUPPLY 120 VOLTS, 15- AND 20-AMP OUTLETS IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS. THE CODE REQUIRES THE COMBINATION TYPE, NOT THE BRANCH/FEEDER TYPE, TO BE USED ON ALL NEW CIRCUIT INSTALLATIONS.
- 2. RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET HORIZONTALLY FROM AN OPENING AND MAX. DISTANCE BETWEEN RECEPTACLES TO BE 12-0". INCLUDING SLIDING PANELS.
- PROVIDE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (GFCI) ON ALL
- OUTDOOR, BATHROOM, KITCHEN COUNTER, AND GARAGE RECEPTACLES. 2. GFCI PROTECTION SHALL BE PROVIDED FOR ALL COUNTERTOP RECEPTACLES, RECEPTACLES WITHIN 6 FEET OF A SINK (INCLUDING BELOW COUNTER AND BEHIND AN APPLIANCE), AND FOR RECEPTACLES SUPPLYING DISHWASHERS; AT EACH KITCHEN AND DINING AREA COUNTER SPACE WIDER THAN 12 INCHES. LOCATE SO
- THAT NO POINT ALONG THE COUNTER WALL IS OVER 24" FROM A RECEPTACLE. 3. AT LEAST ONE RECEPTACLE OUTLET IN ADDITION TO ANY PROVIDED FOR LAUNDRY EQUIPMENT SHALL BE INSTALLED IN EACH GARAGE, AND ALSO OUTDOORS.

ENERGY NOTES:

- *O*PAQUE P*O*RTIONS OF ABOVE GRADE WALLS SEPARATING *CO*NDITIONED SPACES FR*O*M UNCONDITIONED SPACES OR AMBIENT AIR SHALL MEET THE FOLLOWING REQUIREMENTS: 2x4 INCH FRAMING SHALL HAVE AN OVERALL ASSEMBLY U-FACTOR NOT EXCEEDING
- EXCEPTION TO SECTION |50.0(C)|: EXISTING WALLS ALREADY INSULATED TO A U-FACTOR NOT EXCEEDING U-0.110 OR ALREADY INSULATED BETWEEN FRAMING MEMBERS WITH INSULATION HAVING AN INSTALLED THERMAL RESISTANCE OF R-II OR
- 2x6 INCH OR GREATER FRAMING SHALL HAVE AN OVERALL ASSEMBLY U-FACTOR NOT EXCEEDING U-0.068.

INDOOR LIGHTING:

- THE LIGHTING TO BE MANUALLY TURNED ON AND OFF. CEILING FANS MAY PROVIDE CONTROL OF INTEGRATED LIGHTING VIA A REMOTE CONTROL
- AT LEAST ONE INSTALLED LUMINARIES SHALL BE CONTROLLED BY AN OCCUPANCY OR VACANCY SENSOR PROVIDING AUTOMATIC-OFF FUNCTIONALITY.
- C. LIGHTING IN HABITABLE SPACES, INCLUDING BUT NOT LIMITED TO LIVING ROOMS, DINING ROOMS, KITCHENS AND BEDROOMS, SHALL HAVE READILY ACCESSIBLE WALL-MOUNTED DIMMING CONTROLS THAT ALLOW THE LIGHTING TO BE MANUALLY ADJUSTED UP AND D. INTEGRATED LIGHTING OF EXHAUST FANS SHALL BE CONTROLLED INDEPENDENTLY
- FROM THE FANS. THE FOLLOWING SHALL BE CONTROLLED SEPARATELY FROM CEILING-INSTALLED LIGHTING SUCH THAT ONE CAN BE TURNED ON WITHOUT TURNING ON THE OTHER: UNDER-CABINET LIGHTING., UNDER-SHELF LIGHTING, INTERIOR LIGHTING OF DISPLAY CABINETS, SWITCHED OUTLETS.

- FOR SINGLE-FAMILY RESIDENTIAL BUILDINGS, OUTDOOR LIGHTING PERMANENTLY MOUNTED
- AUTOMATIC ACTIONS OF ITEMS II OR III BELOW; AND II. CONTROLLED BY A PHOTOCELL AND EITHER A MOTION SENSOR OR AN
- AUTOMATIC TIME SWITCH CONTROL; OR III. CONTROLLED BY AN ASTRONOMICAL TIME CLOCK CONTROL.

CONTROLS THAT OVERRIDE TO ON SHALL NOT BE ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY RETURNS THE AUTOMATIC CONTROL TO ITS NORMAL OPERATION WITHIN 6 HOURS. AN ENERGY MANAGEMENT CONTROL SYSTEM THAT PROVIDES THE SPECIFIED LIGHTING CONTROL FUNCTIONALITY AND COMPLIES WITH ALL REQUIREMENTS APPLICABLE TO THE SPECIFIED CONTROLS MAY BE USED TO MEET THESE REQUIREMENTS.

ENERGY EFFICIENCY STANDARDS NOTE

- LUMINAIRES IN ANY OF THE FOLLOWING CATEGORIES ARE AUTOMATICALLY CLASSIFIED AS HIGH EFFICACY AND DO NOT HAVE TO COMPLY WITH THE REQUIREMENTS OF REFERENCE JOINT APPENDIX JAS (AKA JAS - REFER TO NEXT SECTION FOR DETAILS).
- PIN-BASED LINEAR FLUORESCENT LUMINAIRES USING ELECTRONIC BALLASTS. PIN-BASED COMPACT FLUORESCENT LUMINAIRES USING ELECTRONIC BALLASTS
- PULSE-START METAL HALIDE LUMINAIRES. HIGH PRESSURE SODIUM LUMINAIRES.
- LUMINAIRES WITH INDUCTION LAMP AND HARDWIRED HIGH FREQUENCY
- LED LUMINAIRES INSTALLED OUTDOORS. G. INSEPARABLE SOLID STATE LIGHTING (SSL) LUMINAIRES CONTAINING COLORED LIGHT SOURCES FOR DECORATIVE
- LIGHTING PURPOSE. ALL NEW LIGHTING INSTALLED IN HALLWAYS, LIVING ROOMS, BEDROOMS, OFFICES, STUDIES, PLAYROOMS AND DENS SHALL BE HIGH EFFICACY, AND CONTROLLED WITH A READILY ACCESSIBLE CONTROL THAT PERMITS THE LUMINAIRE TO BE MANUALLY TURNED ON AND OFF (CENC |50(K)(2)(C)|).
- SPECIFY ALL PROPOSED LIGHTING TO BE HIGH EFFICACY IN ACCORDANCE WITH TABLE 15*0.0-*A. PER CENC 15*0.0*(K)(I)(A). • FOR RECESSED LUMINAIRES, SPECIFY FIXTURES TO BE LISTED FOR ZERO CLEARANCE INSULATION CONTACT (IC) IN ACCORDANCE WITH CEC |50(K)(I)(C)|.

BATHROOM GENERAL NOTES

- MINIMUM CEILING HEIGHT TO BE 7'-0" CLEAR. SHOWERS AND TUB/SHOWER WALLS TO BE COVERED WITH A SMOOTH, HARD, NONABSORBENT SURFACE (I.E. CERAMIC TILE OR FIBERGLASS) INSTALLED OVER A MOISTURE RESISTANT UNDERLAYMENT TO A HEIGHT OF 72" MIN. ABOVE DRAIN INLET
- CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS ARE ALLOWED TO BE INSTALLED AS A BASE FOR WALL TILE IN TUB AND
- SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS. • TILE SHALL NOT BE INSTALLED DIRECTLY ON GREEN BOARD OR PLAIN GYPSUM BOARD IN SHOWER AND TUB AREAS.
- GYP. BP. SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONT. HIGH HUMIDITY.
- WINDOWS LESS THAN 60" ABOVE THE STANDING SURFACE OF THE TUB OR SHOWER SHALL BE TEMPERED GLAZING. • DOOR ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, BATHTUBS AND SHOWERS SHALL BE TEMPERED GLAZING.
- INSULATION SHALL BE INSTALLED IN ALL WALLS, FLOORS AND CEILINGS OPENED FOR CONSTRUCTION BETWEEN CONDITIONED SPACE AND UNCONDITIONED SPACE SUCH AS EXTERIOR WALLS, GARAGES, CRAWL SPACES AND ATTICS. (WALL: R-19, CEILING: R-30, FLOOR: N/A)

- MAX. 1.28 GALLONS PER FLUSH FOR WATER CLOSET. WATER CLOSET SHALL HAVE A CLEARANCE OF 30" WIDE, 15" O.C., AND 24" IN FRONT
- SHOWERHEAD: 1.8 GPM MAX. AT 80PSI
- FAUCETS: |2 GPM MAX. AT 60 PSI; 0.8 GPM MIN. AT 20 PSI.
- A LISTED ANTI-SCALD / PRESSURE BALANCE VALVE IS REQUIRED IN ALL BATHTUB AND SHOWER COMPARTMENTS. • INSTALL INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE FOR SHOWERS AND
- TUB-SHOWER COMBINATION. SHOWERS SHALL HAVE A MINIMUM INTERIOR DIAMETER OF 30", AND HAVE MIN. 22" CLR. HINGED DOOR TO SWING OUT. • PLASTIC LINERS AND UNDERLAYMENT SHALL BE SLOPED A MIN. OF 1/4" TO THE DRAIN AND BE WRAPPED UP THE WALL A MINIMUM OF 3"
- MULTIPLE SHOWERHEADS: COMBINED FLOW RATE OF ALL SHOWERHEADS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GPM @ 80PSI, OR ONLY ONE SHOWER OUTLET IS TO BE IN OPERATION AT A TIME.

ABOVE THE DAM. A WATER TEST IS REQUIRED TO VERIFY THE PAN DOES NOT LEAK AND TO VERIFY THE WEEP HOLES ARE DRAINING

- FAN SHALL BE SWITCHED SEPARATELY FROM ANY LIGHTING SYSTEM, OR AN APPROVED EXHAUST FAN WITH AN INTEGRAL "HIGH EFFICACY" LIGHTING CAB BE ON THE SAME SWITCH.
- EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR TUB/SHOWER COMBINATION SHALL BE MECHANICALLY VENTILATED FOR PURPOSES OF HUMIDITY CONTROL. THE GLAZED AREAS SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A LOCAL EXHAUST SYSTEM ARE PROVIDED. THE MINIMUM LOCAL EXHAUST RATES SHALL BE 50 CUBIC FEET PER MINUTE (25 L/S) FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET
- PER MINUTE (10 L/S) FOR CONTINUOUS VENTILATION. • BATHROOM EXHAUST FANS SHALL BE "ENERGY STAR" COMPLIANT AND DUCTED TO TERMINATE OUTSIDE OF THE BUILDING.
- VENTILATION FAN SHALL BE INSTALLED IN EACH REMODELED BATHROOM. EXHAUST DUCT POINT OF DISCHARGE TO BE OUTSIDE OF THE BUILDING AND NOT BE DIRECTED ONTO WALKWAYS.
- THE EXHAUST FAN MAY NEED TO BE SUPPLIED BY A GFOI PROTECTED CIRCUIT BASED ON MANUFACTURER'S REQUIREMENTS • THE EXHAUST FAN DUCT SHALL TERMINATE A MIN. OF THREE FEET FROM ANY OPERABLE OPENINGS IN THE BUILDING (ATTIC VENT, WINDOW, D*OO*R, ET*C.*)
- LIGHT FIXTURES LOCATED IN WET LOCATION SHALL BE LISTED FOR WET LOCATION AND REQUIRE WATER RESISTANT TRIMS.
- ELECTRICAL PANELS SHALL NOT BE INSTALLED IN BATHROOMS.
- FIRST SWITCH TO BE MANUAL-ON, AUTO-OFF VACANCY-SENSOR SWITCH.
- ALL NEWLY INSTALLED INTERIOR LIGHTING TO BE HIGH EFFICACY PER CENC 150.0(K)(I)(A). • BATHROOM RECEPTACLES TO BE SUPPLIED BY DEDICATED 20 AMP BRANCH CIRCUIT PER CEC 210.11(C)(3). THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPT WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT

NOTES OF SHOWER

- I. SHOWER COMPARTMENTS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE FINISHED WITH A NON ABSORBENT
- SURFACE TO A HEIGHT NOT LESS THAN 72" ABOVE THE FLOOR. 2. CONTROL VALVES AND SHOWER HEADS SHALL BE LOCATED ON THE SIDEWALL OF SHOWER COMPARTMENT OR OTHERWISE ARRANGED SO THAT THE SHOWERHEAD DOES NOT DISCHARGE DIRECTLY AT THE ENTRANCE TO THE COMPARTMENT AND THE BATHER CAN ADJUST THE VALVES PRIOR TO STEPPING INTO THE SHOWER SPRAY. SHOWER AND TUB-SHOWER COMBINATIONS SHALL HAVE INDIVIDUAL CONTROL VALVES
- OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE. 3. SHOWER PAN DIMENSIONS INDICATING A MINIMUM AREA OF 1024 SQ. INCHES AND A MINIMUM FINISH DIMENSION OF 30 INCHES IN ANY DIRECTION. SHOWER DOORS SHALL OPEN SO AS TO MAINTAIN NOT LESS THAN A 22" UNOBSTRUCTED OPENING FOR EGRESS.

PLUMBING GENERAL NOTES

WITHIN THE SAME BATHROOM SHALL BE ALLOWED)

- PIPING MATERIALS SHALL COMPLY WITH CITY'S ADOPTION OF CURRENT CALIFORNIA PLUMBING CODE. • PROVIDE INSULATION ON ALL NEW DOMESTIC HOT WATER PIPING. HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN THE DIAMETER OF THE PIPE FOR A PIPE UP TO 2" (50 MM) IN DIAMETER. INSULATION WALL THICKNESS SHALL BE NOT
- LESS THAN 2" (51 MM) FOR A PIPE OF 2" (50 MM) OR MORE IN DIAMETER. • SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK
- PROTECTION FOR THE RATED FLOW RATE OF THE INSTALLED SHOWERHEAD. • SHOWER COMPARTMENTS, REGARDLESS OF SHAPE, SHALL HAVE A MINIMUM FINISHED INTERIOR OF 1014 SQUARE INCHES AND SHALL ALSO BE CAPABLE OF ENCOMPASSING A 30 INCH (762 MM) CIRCLE.
- TRENCHES SHALL BE BACKFILLED IN THIN LAYERS TO 12 INCHES (305 MM) ABOVE THE TOP OF THE PIPING WITH CLEAN EARTH, WHICH SHALL NOT CONTAIN STONES, BOULDERS, CINDER FILL, FROZEN EARTH, CONSTRUCTION DEBRIS, OR OTHER MATERIALS THAT WILL DAMAGE OR BREAK THE PIPING OR CAUSE CORROSIVE ACTION. • BUILDING SEWER PIPING SHALL BE LAID ON A FIRM BED THROUGHOUT ITS ENTIRE LENGTH, AND SUCH PIPING LAID IN MADE OR FILLED-IN

GROUND SHALL BE LAID ON A BED OF APPROVED MATERIALS AND SHALL BE PROPERLY SUPPORTED AS REQUIRED BY THE AUTHORITY

HAVING JURISDICTION. A. THE WASTE PIPE SHALL HAVE A SLOPE OF NOT LESS THAN 1/8 INCH PER FOOT (10.4 MM/M) OR 1 PERCENT SLOPE AND SHALL BE OF APPROVED CORROSION-RESISTANT MATERIAL NOT SMALLER THAN THE OUTLET SIZE IN ACCORDANCE WITH SECTION 3/0.3 OR SECTION 3/0.4

FOR AIR-COOLING COILS OR CONDENSING APPLIANCES, RESPECTIVELY. CONDENSATE OR WASTEWATER SHALL NOT DRAIN OVER A PUBLIC WAY.

- B. ALL SANITARY AND WASTE PIPING 4" & SMALLER SHALL BE INSTALLED AT 1/4" PER F*00*T SL*0*PE, TYP C. WHERE A BOOSTER PUMP (EXCLUDING A FIRE PUMP) IS CONNECTED TO A BUILDING SUPPLY OR UNDERGROUND WATER PIPE, A LOW-PRESSURE CUTOFF SWITCH ON THE INLET SIDE OF THE PUMP SHALL BE INSTALLED NOT MORE THAN 5 FEET (1524 MM) OF THE INLET. THE CUTOFF SWITCH SHALL BE SET FOR NOT LESS THAN 10 PSI (69 KPA). A PRESSURE GAUGE SHALL BE INSTALLED BETWEEN THE SHUTOFF VALVE AND
- D. PIPING IN CONNECTION WITH A PLUMBING SYSTEM SHALL BE SO INSTALLED THAT PIPING OR CONNECTIONS WILL NOT BE SUBJECT TO UNDUE STRAINS OR STRESSES, AND PROVISIONS SHALL BE MADE FOR EXPANSION, CONTRACTION, AND STRUCTURAL SETTLEMENT. NO PLUMBING PIPING SHALL BE DIRECTLY EMBEDDED IN CONCRETE OR MASONRY. NO STRUCTURAL MEMBER SHALL BE SERIOUSLY WEAKENED OR IMPAIRED BY
- CUTTING, NOTCHING, OR OTHERWISE, AS DEFINED IN THE CALIFORNIA BUILDING CODE OR CALIFORNIA RESIDENTIAL CODE. E. COLD WATER PIPING ABOVE & BELOW GRADE SHALL BE INSTALLED UTILIZING TYPE 'L' OR TYPE 'M' COOPER MATERIAL AS ALLOWED BY CODE F. ALL DRAINAGE PIPE SHALL BE INSTALLED AT 1/4" OR 0.2 SLOPE PER FOOT
- G. DRAIN, WASTE VENT PIPE AND FITTINGS ABOVE GROUND MATERIALS SHALL COMPLY WITH CPC TABLE 701.2 H. ALL PIPES, FITTINGS, FIXTURES AND SOLDER FLUX USED ON THIS PROJECT SHALL BE CERTIFIED BY AN ANSI ACCREDITED THIRD PARTY AS BEING IN COMPLIANCE WITH STATE OF CALIFORNIA ASSEMBLY BILL 1953 REQUIREMENTS I. PIPING AND MATERIALS THAT INTERACT WITH POTABLE WATER SYSTEM SHALL NOT EXCEED A WEIGHTED AVERAGE LEAD COUNT OF LESS THAN
- OR EQUAL TO 0.25% J. WHERE SPECIFICATIONS OF PRODUCTS DO NOT IDENTIFY THE MODEL NUMBER THAT CORRESPONDS TO THE LEAD FREE CRITERIA. IT IS THE INTENT THAT THE CORRESPONDING EQUAL, LEAD FREE PRODUCT IS REQUIRED AND SHALL BE PROVIDED, REGARDLESS OF THE SPECIFIED MODEL

K. LAV AND SINK REQUIRE A TEMPERING VALVE THAT MEETS ASSE 1070 OR CSA B125.3 KITCHEN GENERAL NOTES

- RECEPTACLES SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS:
- THE RESET BUTTON FOR GFCI RECEPTACLES SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION (I.E. NOT BEHIND AN APPLIANCE). • ALL OUTLETS AND DEVICES (I.E. RECEPTACLES, LIGHTING, HOODS, ETC.) IN THE KITCHEN SHALL BE TAMPER-RESISTANT (TR).
- COUNTERTOP RECEPTACLES SHALL BE LOCATED NO MORE THAN 20 INCHES ABOVE THE COUNTERTOP.
- ISLAND/ PENINSULAS SHALL HAVE AT LEAST ONE RECEPTACLE MOUNTED NOT MORE THAN 12 INCHES BELOW THE COUNTERTOP AND WHERE THE COUNTERTOP DOES NOT EXTEND MORE THAN 6 INCHES BEYOND ITS BASE. • ELECTRIC STOVES AND OVENS SHALL BE SUPPLIED WITH A 40- OR 50- AMP BRANCH CIRCUIT
- A DEDICATED CIRCUIT IS REQUIRED FOR CORD AND PLUG CONNECTED RANGE EXHAUST HOODS. • SEPARATE CIRCUITS MAY BE REQUIRED FOR THE GARBAGE DISPOSAL, DISHWASHER, AND BUILT-IN MICROWAVE BASED ON THE MANUFACTURER'S REQUIREMENT AND THE MOTOR RATING.
- ALL LIGHTING FIXTURES SHALL BE CONTROLLED BY A VACANCY SENSOR SWITCH THAT REQUIRES A MANUAL ON ACTIVATION (DOES NOT AUTOMATICALLY TURN ON) AND AUTOMATICALLY TURNS OFF WITHIN 30 MINUTES AFTER THE ROOM IS VACATED.
- ALL LIGHTING FIXTURES SHALL CONTAIN BULBS THAT ARE LABELED AS JA8-2019 (JA8-2019-E FOR SEALED LENS OR RECESSED FIXTURE). SCREW BASE BULBS ARE PERMITTED, EXCEPT IN RECESSED LIGHTING FIXTURES. • RECESSED LIGHTING SHALL BE LISTED AS IC (ZERO CLEARANCE TO INSULATION) AND AT (AIR TIGHT), BE SEALED/ CAULKED BETWEEN THE
- KITCHEN FAUCET: SHALL NOT EXCEED 1.8 GPM MAX. AT 60 PSI. FAUCET MAY TEMPORARILY DISCHARGE AT 2.2 GPM USING PUSH BUTTON -

FIXTURE HOUSING AND CEILING, SHALL NOT CONTAIN A SCREW BASE SOCKET, AND CONTAIN BULBS MARKED WITH JA8-2019-E EFFICIENCY

REVERTS BACK TO 1.8 GPM AFTER SHUT-OFF. MAX. 6.5 GALLONS PER CYCLE OR BE ENERGY STAR QUALIFIED FOR NEW DISHWASHERS.

• UNDER CABINET LIGHTING SHALL BE ON A SEPARATE SWITCH FROM ANY OTHER LIGHTING.

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STAMP NO.C32232

TREN.9-30-25

PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD

HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14

222088

R.W

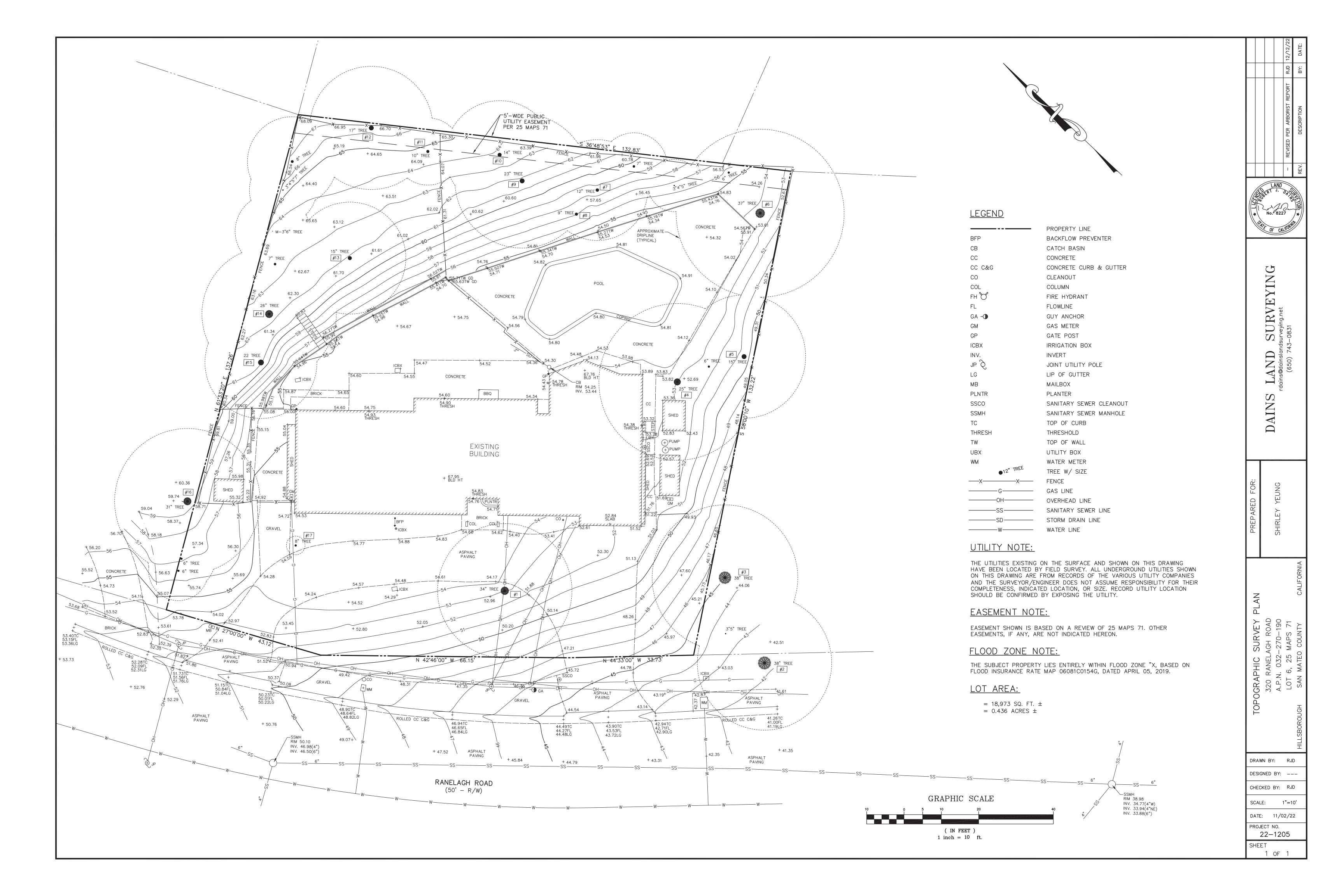
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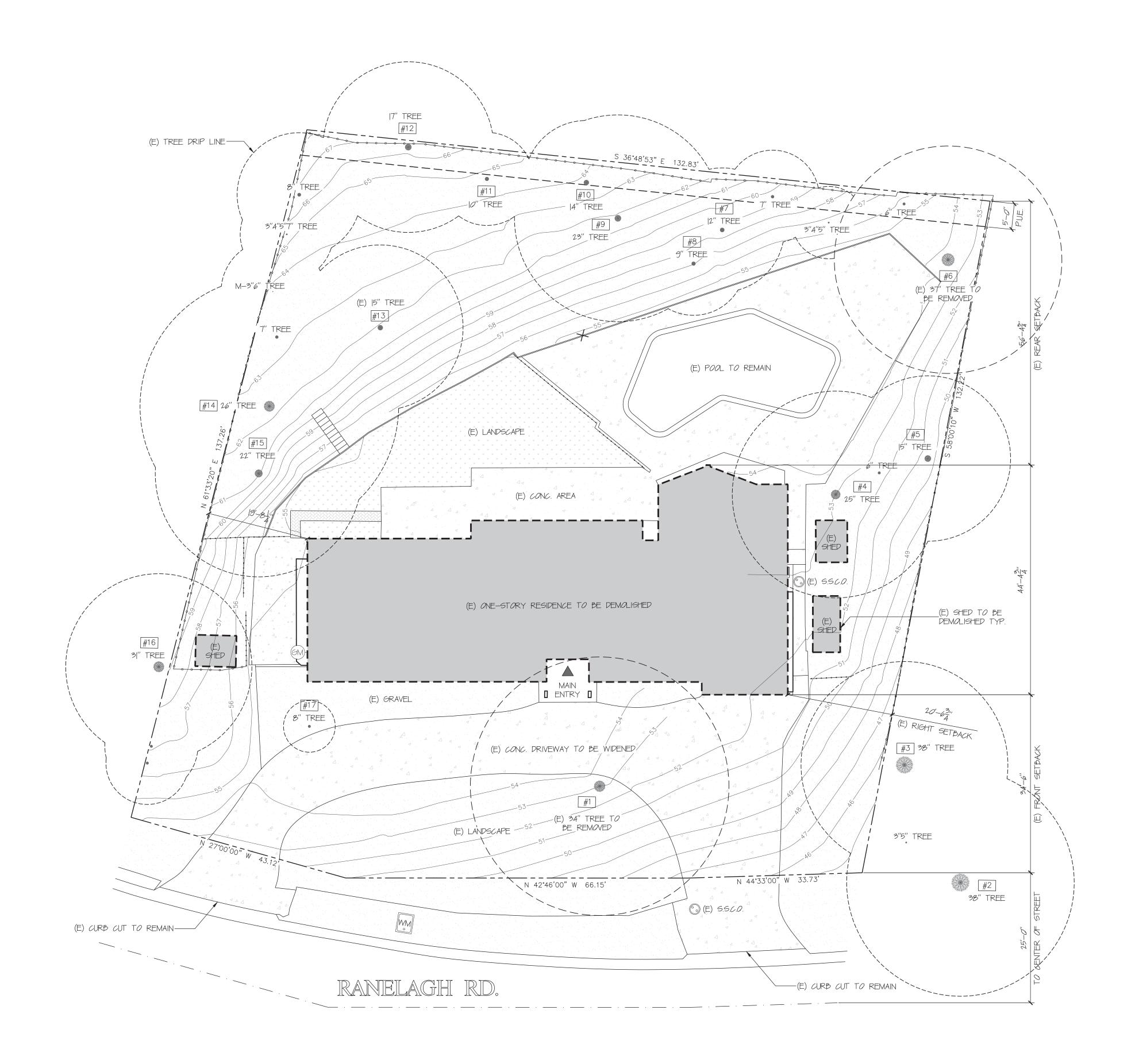
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JOB NO.

DRAWN BY

BUILDING





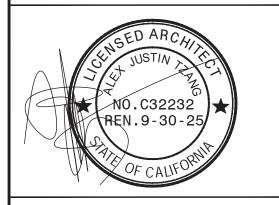


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STAMP



PROJECT

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320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

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 JOB NO.
 222088

 DRAWN BY
 R.W.

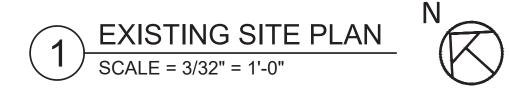
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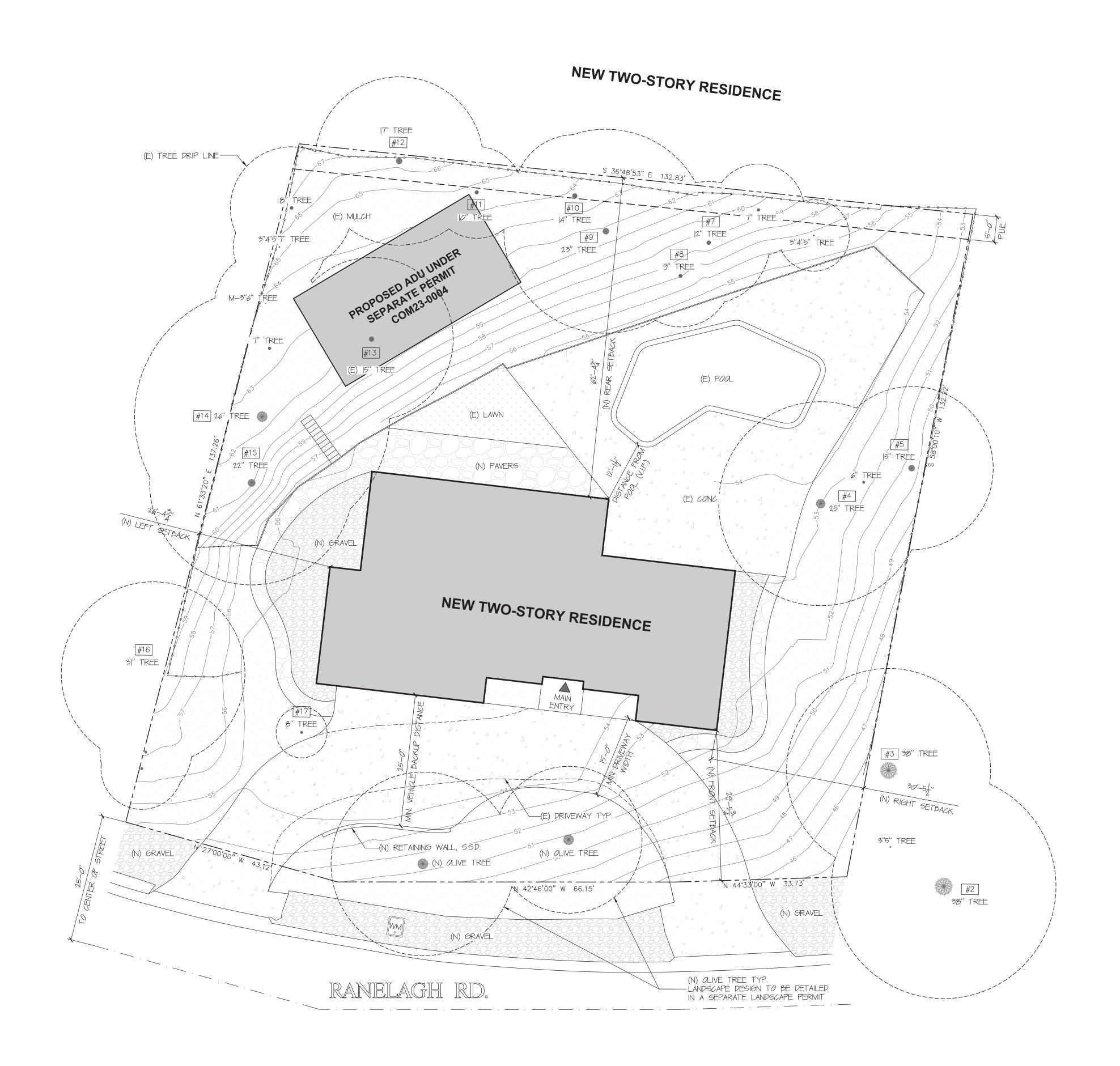
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EXISTING SITE PLANS

SHEET NUMBER

A-1.0





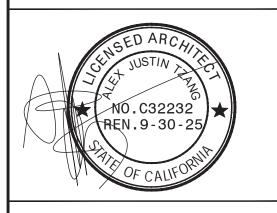


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NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY					
DESCRIPTION	DATE				
BUILDING SUBMITTAL	23/11/2				
BUILDING SUBMITTAL	23/08/1				

4 BUILDING SUBMITTAL 24/10/14

JOB NO. 222088

DRAWN BY R.W.

3 BUILDING SUBMITTAL

SHEET TITLE

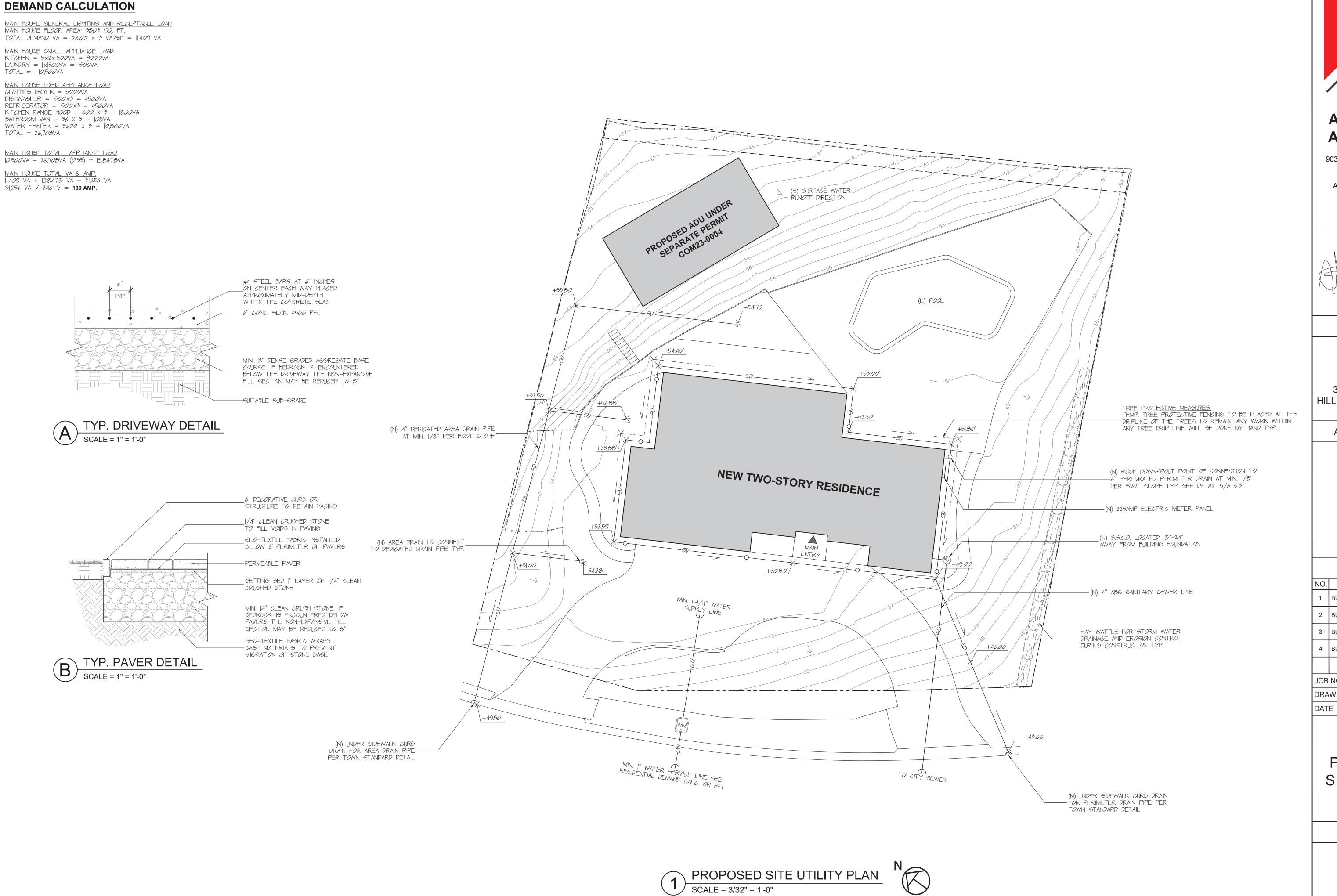
2023-11-23

PROPOSED SITE PLANS

SHEET NUMBER

A-1.1





RESIDENTIAL ELECTRICAL



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320 RANELAGH RD HILLSBOROUGH CA 94010

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IOB	NO	222088

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 222088

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 R.W.

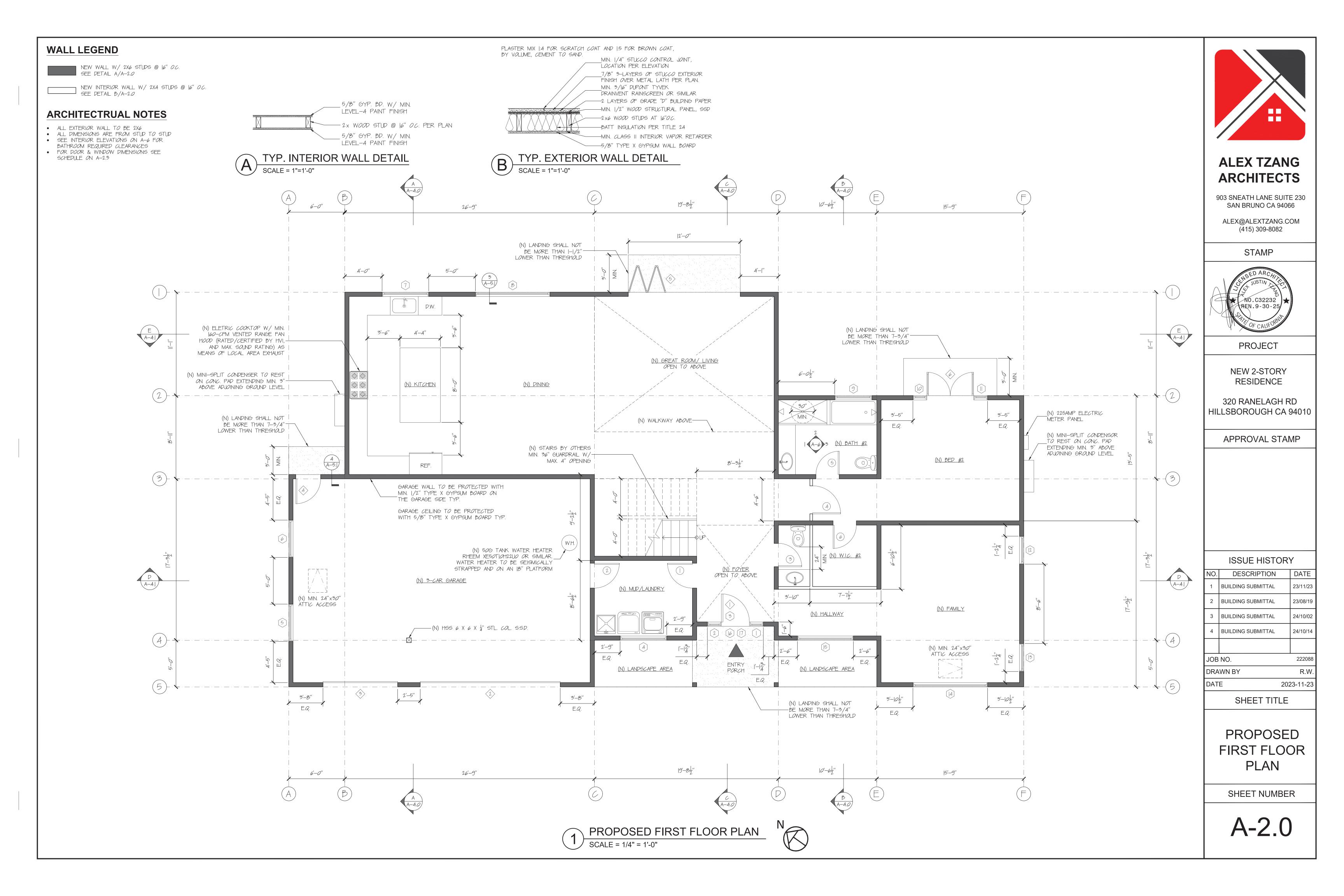
 DATE
 2023-11-23

SHEET TITLE

PROPOSED SITE UTILITY PLAN

SHEET NUMBER

C-'



WALL LEGEND

NEW WALL W/ 2X6 STUDS @ 16" O.C. SEE DETAIL A/A-20

 \longrightarrow NEW INTERIOR WALL W/ 2X4 STUDS @ 16" O.C. SEE DETAIL B/A-2.0

ARCHITECTRUAL NOTES

- ALL EXTERIOR WALL TO BE 2X6
- ALL DIMENSIONS ARE FROM STUD TO STUD • SEE INTERIOR ELEVATIONS ON A-6 FOR
- BATHROOM REQUIRED CLEARANCES

 FOR DOOR & WINDOW DIMENSIONS SEE SCHEDULE ON A-23
- LOWER VENT AREA = 148.3 SQ. IN. MIN.

FIRST FLOOR ATTIC VENTILATION **CALCULATION (GARAGE)**

TOTAL ATTIC AREA = 309 SQ. FT. TOTAL REQUIRED VENT AREA = 44 SF / 150 X 144 = 2966 SQ IN

UPPER VENT AREA = 148.3 SQ IN MIN. PROVIDE TOTAL FIVE (5) LINER FEET OF N.F.A. 16 SQ. IN. RIDGE VENT 5 * | 6 = 80 SQ. | N.PROVIDE ONE (1) |4" \times 24" GABLE VENT OF N.F.A. 92 SQ. IN EACH 80 + 92 = |72 SQ. IN. > |48.3 SQ. IN --> OK

PROVIDE MIN. FORTY-EIGHT (48) 2" VENT HOLES 48 * | * 3,|4 = |50.7 SQ. IN. > |48.3 SQ. IN. --> OK

FIRST FLOOR ATTIC VENTILATION **CALCULATION (FAMILY)**

TOTAL ATTIC AREA = 80 SQ. FT. TOTAL REQUIRED VENT AREA = 80 SF / 150 X 144 = 768 SQ IN

UPPER VENT AREA = 38.4 SQ IN MIN. PROVIDE TOTAL THREE (3) LINER FEET OF N.F.A. 16 SQ. IN. RIDGE VENT

3 * 16 = 48 SQ. IN. > 38.4 SQ. IN. --> OK

LOWER VENT AREA = 38.4 SQ. IN. MIN. PROVIDE MIN. THIRTEEN (13) 2" Ø VENT HOLES |3 * | *3.|4 = 40.82 SQ. IN. > 38.4 SQ. IN. --> OK



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APPROVAL STAMP

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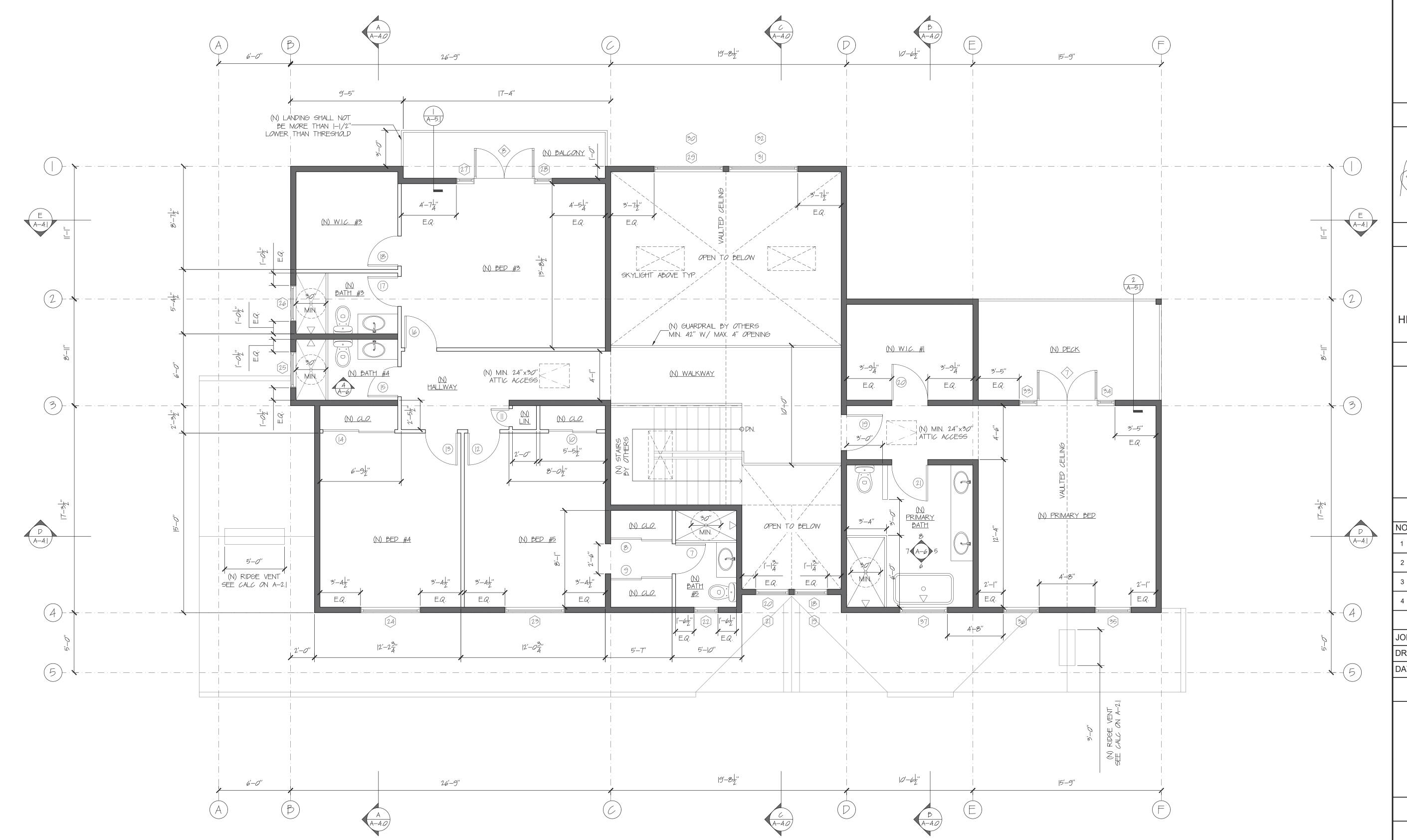
JOB NO. 222088 DRAWN BY R.W. 2023-11-23

SHEET TITLE

PROPOSED SECOND FLOOR PLAN

SHEET NUMBER

A-2.1



PROPOSED SECOND FLOOR PLAN

SCALE = 1/4" = 1'-0"

SECOND FLOOR ATTIC VENTILATION CALCULATION (BEDROOMS)

TOTAL ATTIC AREA = 1058.3 SQ. FT. TOTAL REQUIRED VENT AREA = 1058.3 SF / 150 X 144 = 1016.0 SQ IN

UPPER VENT AREA = 508 SQ IN MIN.

PROVIDE TOTAL TWENTY-SIX (26) LINER FEET OF N.F.A. 16 SQ. IN. RIDGE VENT 26 * |6| = 4|6| SQ. IN.

PROVIDE ONE (1) 14" X 24" GABLE VENT OF N.F.A. 90 SQ. IN EACH 4|6 + 92 = 508 SQ. IN. --> 0K

LOWER VENT AREA = 508 SQ. IN. MIN. PROVIDE MIN. ONE HUNDRED & SIXTY-TWO (162) 2" Ø VENT HOLES |62 * | * 3.|4 = 508.68 SQ. |N. > 508 SQ. |N. --> 0K

SECOND FLOOR ATTIC VENTILATION **CALCULATION (PRIMARY BED)**

TOTAL ATTIC AREA = 294.3 SQ. FT. TOTAL REQUIRED VENT AREA = |40 SF|/|50 X|44 = 282.5 SQ|N|

UPPER VENT AREA = 141.3 SQ IN MIN.

PROVIDE TOTAL NINE (9) LINER FEET OF N.F.A. 16 SQ. IN. RIDGE VENT

LOWER VENT AREA = 141.3 SQ. IN. MIN. PROVIDE MIN. FORTY-FIVE (45) 2" & VENT HOLES

45 * | * 3|4 = |4|3 SQ. |N. --> OK



ARCHITECTS

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

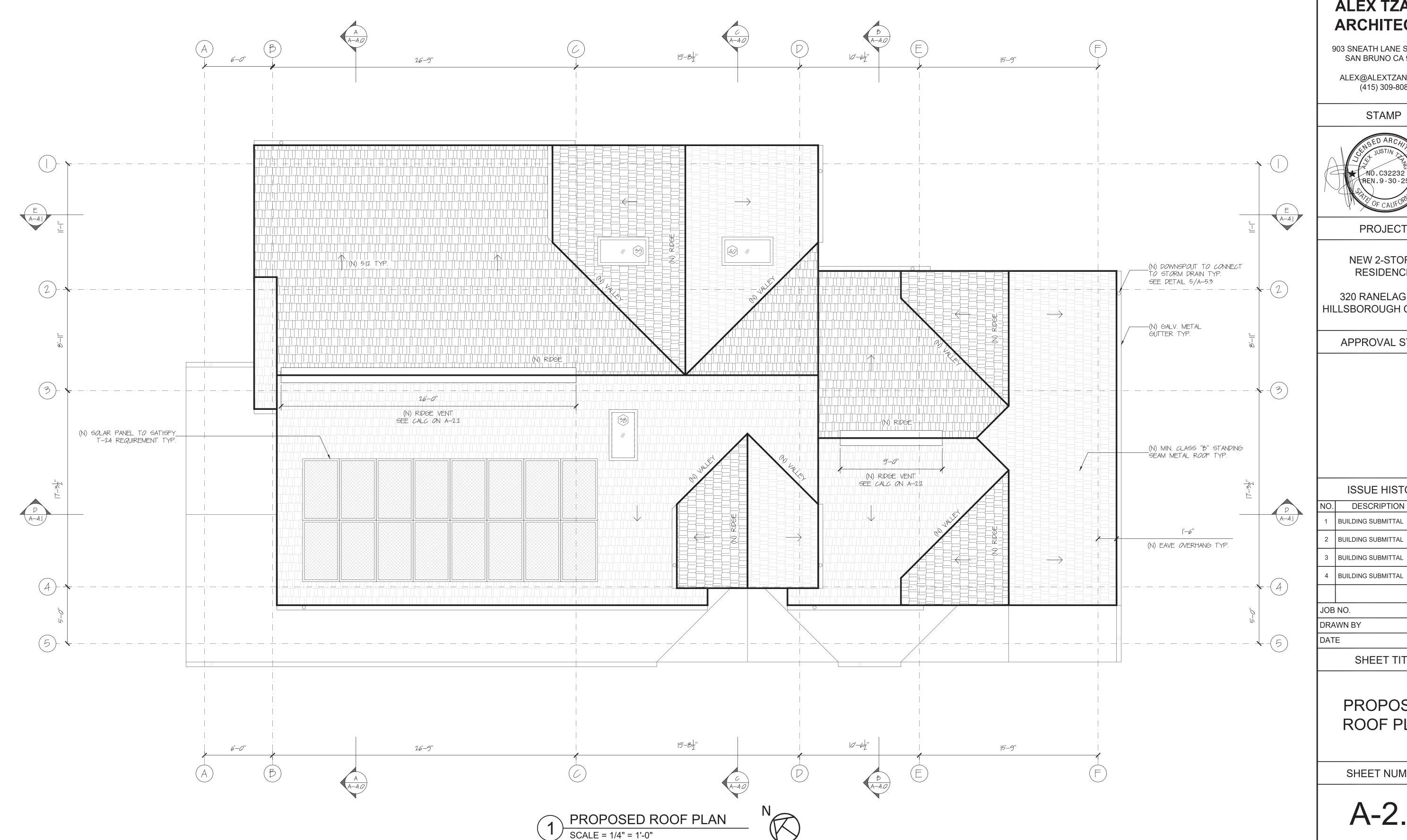
	ISSUE HISTORY					
).	DESCRIPTION	DATE				
	BUILDING SUBMITTAL	23/11/23				
	BUILDING SUBMITTAL	23/08/19				
	BUILDING SUBMITTAL	24/10/02				

24/10/14

JOB NO. 222088 DRAWN BY R.W. 2023-11-23

SHEET TITLE

PROPOSED **ROOF PLAN**



WINDOW SCHEDULE

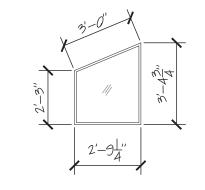
#	NAME	TYPE	WIDTH (R <i>O</i> UGH)	HEIGHT (ROUGH)	LOCATION	REMARK	U-VALUE (MAX.)
					FIRST FLOOR		
\bigcirc	1668FX	FIXED	ľ-6''	6'-8''	ENTRY	SIDELITE, TEMPERED	
2	1668FX	FIXED	ľ <i>–6</i> ′′	6'-8''	ENTRY	SIDELITE, TEMPERED	
3	80 0FX	FIXED	8'-0''	l'-0''	LIVING	TRANSOM WINDOW, TEMPERED	
4	5040SL	SLIDER	5'-0''	4'-0''	LAUNDRY		
5	4040SL	CASEMENT	4'-0"	4'-0''	GARAGE		
6	4040SL	CASEMENT	4'-0"	4'-0''	GARAGE		
7	5040SL	SLIDER	5'-0"	4'-0''	KITCHEN		
8	8060SL	SLIDER	8'-0"	6'-0''	DINING		
9	4040SL	SLIDER	4'-0"	4'-0''	BATH #2	TEMPERED	0.45
0	1668FX	FIXED	ľ-6"	6'-8"	BED #2	TEMPERED	
	1668FX	FIXED	l'-6"	6'-8"	BED #2	TEMPERED	-
(2)	3030CAS	CASEMENT	3'-0"	3'-0"	FAMILY		
[3]	3030CAS	CASEMENT	3'-0"	3'-0"	FAMILY		1
	8050SL	SLIDER	8'-0"	5'-0"	FAMILY		1
(15)	6040SL	SLIDER	6'-0''	4'-0"	HALLWAY		1
(b)	292 FX	FIXED	2'-94"	2'-103"	ENTRY	SEE DIAGRAM FOR WINDOW DIMENSIONS	-
17	292 FX	FIXED	2'-94"	2'- 03''	ENTRY	SEE DIAGRAM FOR WINDOW DIMENSIONS	-
				St	ECOND FLOOR		
(B)	295 <i>0</i> FX	FIXED	2'-9 <u>L</u> ''	5'-0''	FOYER	SEE DIAGRAM FOR WINDOW DIMENSIONS	
(9)	2935FX	FIXED	2'-9 <u>L</u> ''	3'-43''	FOYER	SEE DIAGRAM FOR WINDOW DIMENSIONS	
20	295 <i>0</i> FX	FIXED	2'-9 <u>\</u> ''	5'-0''	FOYER	SEE DIAGRAM FOR WINDOW DIMENSIONS	
21)	2935FX	FIXED	2'-94''	3'-43''	FOYER	SEE DIAGRAM FOR WINDOW DIMENSIONS	
22	2040CAS	CASEMENT	2'-0"	4'-0''	BATH #2		
23	5050SL	SLIDER	5'-0"	5'-0''	BED #5	EGRESS, 96" HEADER	-
24	5050SL	SLIDER	5'-0"	4'-0''	BED #4	EGRESS, 96" HEADER	-
25)	3040CAS	CASEMENT	3'-0"	4'-0''	BATH #4	TEMPERED	-
26)	3040CAS	CASEMENT	3'-0"	4'-0''	BATH #3	TEMPERED	-
27)	1668FX	FIXED	l'-6''	6'-8''	BED #3	SIDELITE, TEMPERED	-
28	1668FX	FIXED	l'-6''	6'-8''	BED #3	SIDELITE, TEMPERED	-
29	5910°FX	FIXED	5'-9 <u>L</u> ''	10'-0''	GREAT/ LIVING	SEE DIAGRAM FOR WINDOW DIMENSIONS	0.45
30	5946FX	FIXED	5'-9 <u>\</u> ''	4'-6"	GREAT/ LIVING	SEE DIAGRAM FOR WINDOW DIMENSIONS	-
3]	5910°FX	FIXED	5'-9 <u>L</u> ''	10'-0''	GREAT/ LIVING	SEE DIAGRAM FOR WINDOW DIMENSIONS	-
32	5946FX	FIXED	5'-9 <u>L</u> ''	4'-6"	GREAT/ LIVING	SEE DIAGRAM FOR WINDOW DIMENSIONS	-
33	1668FX	FIXED	1'-6"	6'-8"	PRIMARY BED #2	SIDELITE, TEMPERED	-
34	1668FX	FIXED	l'-6''	6'-8"	PRIMARY BED #2	SIDELITE, TEMPERED	-
35)	3050CAS	CASEMENT	3'-0"	5'-0"	PRIMARY BED #2		-
36	3050CAS	CASEMENT	3'-0"	5'-0"	PRIMARY BED #2		-
37	4050SL	CASEMENT	4'-0"	5'-0"	PRIMARY BATH #2	TEMPERED	-
38	2040SKY	FIXED SKYLIGHT	2'-0"	4'-0''	STAIRS	DECK-MOUNT, VELUX FSCO6 OR SIMILAR	_
39	2040SKY	FIXED SKYLIGHT	2'-0"	4'-0''	GREAT/ LIVING	DECK-MOUNT, VELUX FSCO6 OR SIMILAR	-
40	2040SKY	FIXED SKYLIGHT	2'-0"	4'-0''	GREAT/ LIVING	DECK-MOUNT, VELUX FSCO6 OR SIMILAR	_

DOOR SCHEDULE - EXTERIOR

#	NAME	TYPE	WIDTH	HEIGHT	LOCATION	REMARK		
	FIRST FLOOR							
\bigcirc	3068	SWING	3'-0"	6'-8"	ENTRY			
$\langle 2 \rangle$	15°80	ROLL-UP	5' <i>-0</i> ''	8'-0"	GARAGE			
3	8080	ROLL-UP	5'- <i>0</i> "	8'-0"	GARAGE			
4	2868	SWING	2'-8"	6'-8"	GARAGE			
5	12080	4-FOLD	12'-0"	8'-0"	GREAT/ LIVING	NANAWALL GENERATION 4 OR SIMILAR		
6	5080	FRENCH	5'-0"	8'-0"	MASTER BED #1	EGRESS, 96" HEADER		
				SECOND F	FL <i>00</i> R			
\bigcirc	5080	FRENCH	5'-0"	8'-0"	MASTER BED #2	EGRESS, 96" HEADER		
8	5 <i>080</i>	FRENCH	5'-0"	8'-0"	BED #3	EGRESS, 96" HEADER		

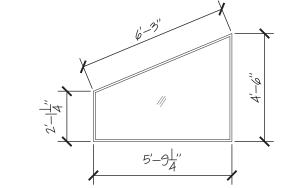
DOOR SCHEDULE - INTERIOR

			INTERIOR						
#	NAME	TYPE	WIDTH	HEIGHT	L <i>OC</i> ATION	REMARK			
				FIRST FL	FIRST FLOOR				
	1868	SWING	2'-8"	6'-8''	MUD/ LAUNDRY				
2	1868	SWING	2'-8"	6'-8''	GARAGE	20 MINUTE RATED & EQUIPPED WITH SELF CLOSING & LATCHING DEVICE			
3	1868	SWING	2'-6"	6'-8''	POWDER POWDER	FRAMELSS DOOR			
4	3068	SWING	3'-0"	6'-8"	MASTER BED #I				
5	2668	SWING	2'-6"	6'-8"	MASTER BATH #1				
6	2668	SWING	2'-6"	6'-8"	WALK-IN CLOSET #I				
				SECOND 1	FL <i>00</i> R				
7	2668	SWING	2'-6"	6'-8"	BATH #5				
8	5068	SLIDER	5'-0"	6'-8''	BED #5 CLOSET				
9	5068	SLIDER	5'-0"	6'-8"	BED #5 CLOSET				
0	6068	SLIDER	6'-0"	6'-8"	BED #5 CLOSET				
	1668	SWING	l'-6''	6'-8"	LINEN CLOSET				
(12)	1868	SWING	2'-8"	6'-8"	BED #5				
(3)	1868	SWING	2'-8"	6'-8"	BED #4				
(14)	6068	SLIDER	6'-0"	8'-0''	BED #4 CLOSET				
(5)	1868	SWING	2'-6"	6'-8"	BATH #4				
6	1868	SWING	2'-8"	6'-8"	BED #3				
(17)	2668	SWING	2'-6"	6'-8"	BATH #3				
(8)	1868	SWING	2'-8"	6'-8"	WALK-IN CLOSET #3				
(9)	3068	SWING	3'-0"	6'-8"	MASTER BED #2				
20	3068	SWING	3'-0"	6'-8"	WALK-IN CLOSET #2				
21)	3068	SWING	3'-0"	6'-8"	MASTER BATH #2				



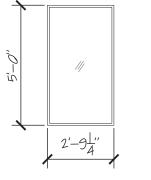
WINDOW 19 & 21 DIMENSIONS

CONTRACTOR TO VERIFY ROUGH FRAMING DIMENSIONS BEFORE ORDERING



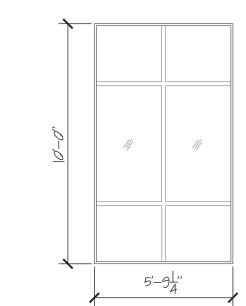
WINDOW 30 & 32 DIMENSIONS

CONTRACTOR TO VERIFY ROUGH FRAMING DIMENSIONS BEFORE ORDERING



WINDOW 18 & 20 DIMENSIONS

CONTRACTOR TO VERIFY ROUGH FRAMING DIMENSIONS BEFORE ORDERING



WINDOW 29 & 31 DIMENSIONS

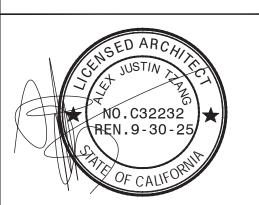
CONTRACTOR TO VERIFY ROUGH FRAMING DIMENSIONS BEFORE ORDERING

ALEX TZANG ARCHITECTS

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/2
2	BUILDING SUBMITTAL	23/08/1
3	BUILDING SUBMITTAL	24/10/0
4	BUILDING SUBMITTAL	24/10/1
JOB	NO.	22208

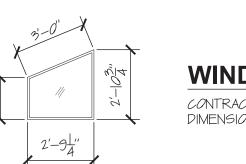
222088
R.W.
2023-11-23

SHEET TITLE

DOOR & WINDOW SCHEDULE

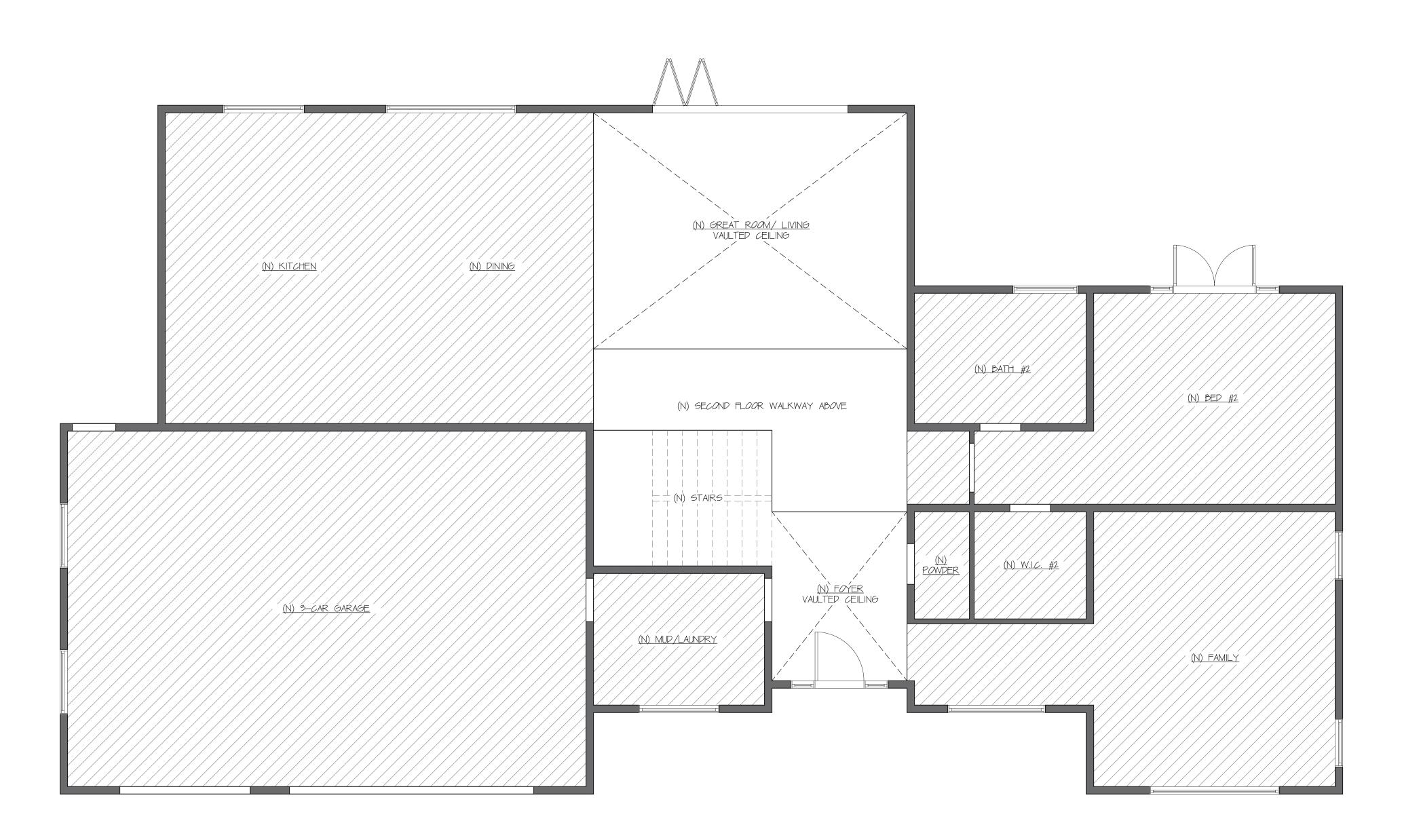
SHEET NUMBER

A-2.3



WINDOW 16 & 17 DIMENSIONS

CONTRACTOR TO VERIFY ROUGH FRAMING DIMENSIONS BEFORE ORDERING



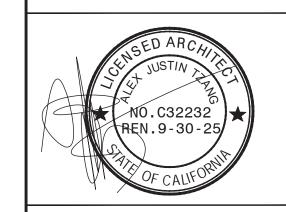


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PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DAT
1	BUILDING SUBMITTAL	23/11/
2	BUILDING SUBMITTAL	23/08/
3	BUILDING SUBMITTAL	24/10/
4	BUILDING SUBMITTAL	24/10/

 JOB NO.
 222088

 DRAWN BY
 R.W.

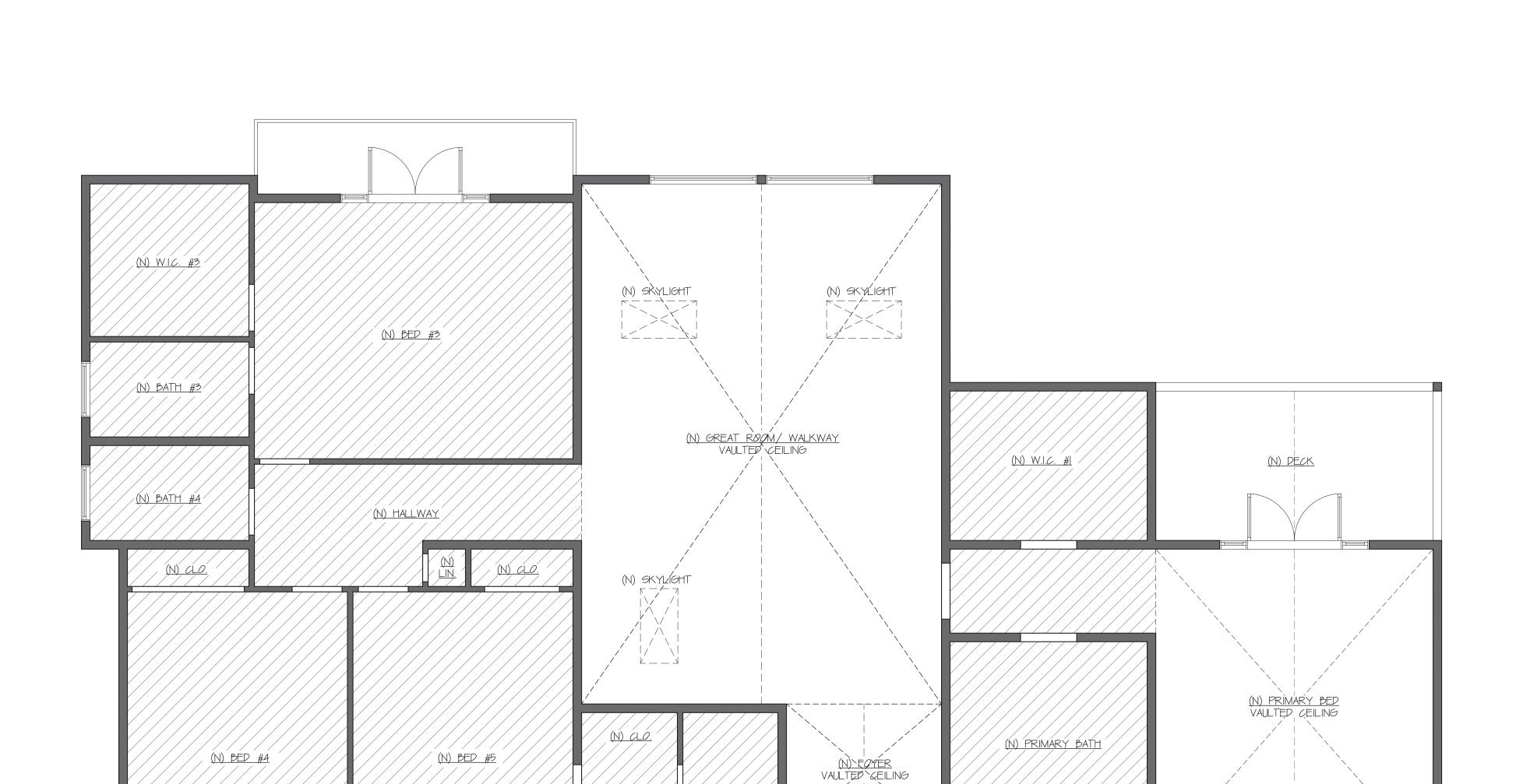
 DATE
 2023-11-23

SHEET TITLE

REFLECTED CEILING PLAN

SHEET NUMBER

A-2.4



(N) BATH #5

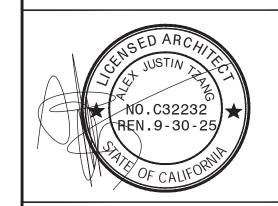


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NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

	NO.	DESCRIPTION	DATE
	1	BUILDING SUBMITTAL	23/11/2
	2	BUILDING SUBMITTAL	23/08/
	3	BUILDING SUBMITTAL	24/10/0
	4	BUILDING SUBMITTAL	24/10/

 JOB NO.
 222088

 DRAWN BY
 R.W.

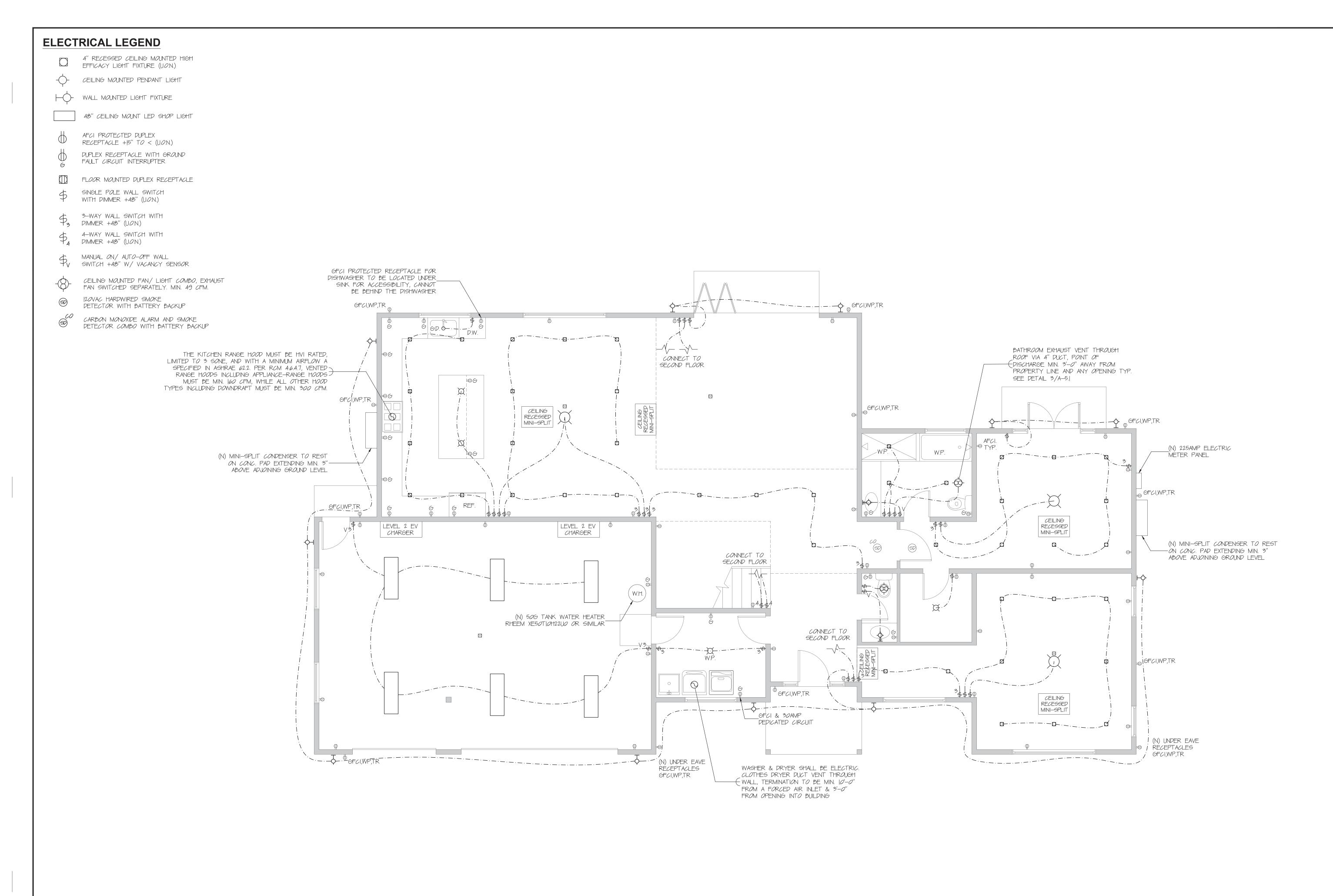
 DATE
 2023-11-23

SHEET TITLE

REFLECTED CEILING PLAN

SHEET NUMBER

A-2.5



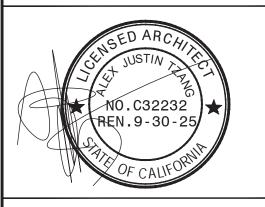


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NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
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2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14

 JOB NO.
 222088

 DRAWN BY
 R.W.

 DATE
 2023-11-23

SHEET TITLE

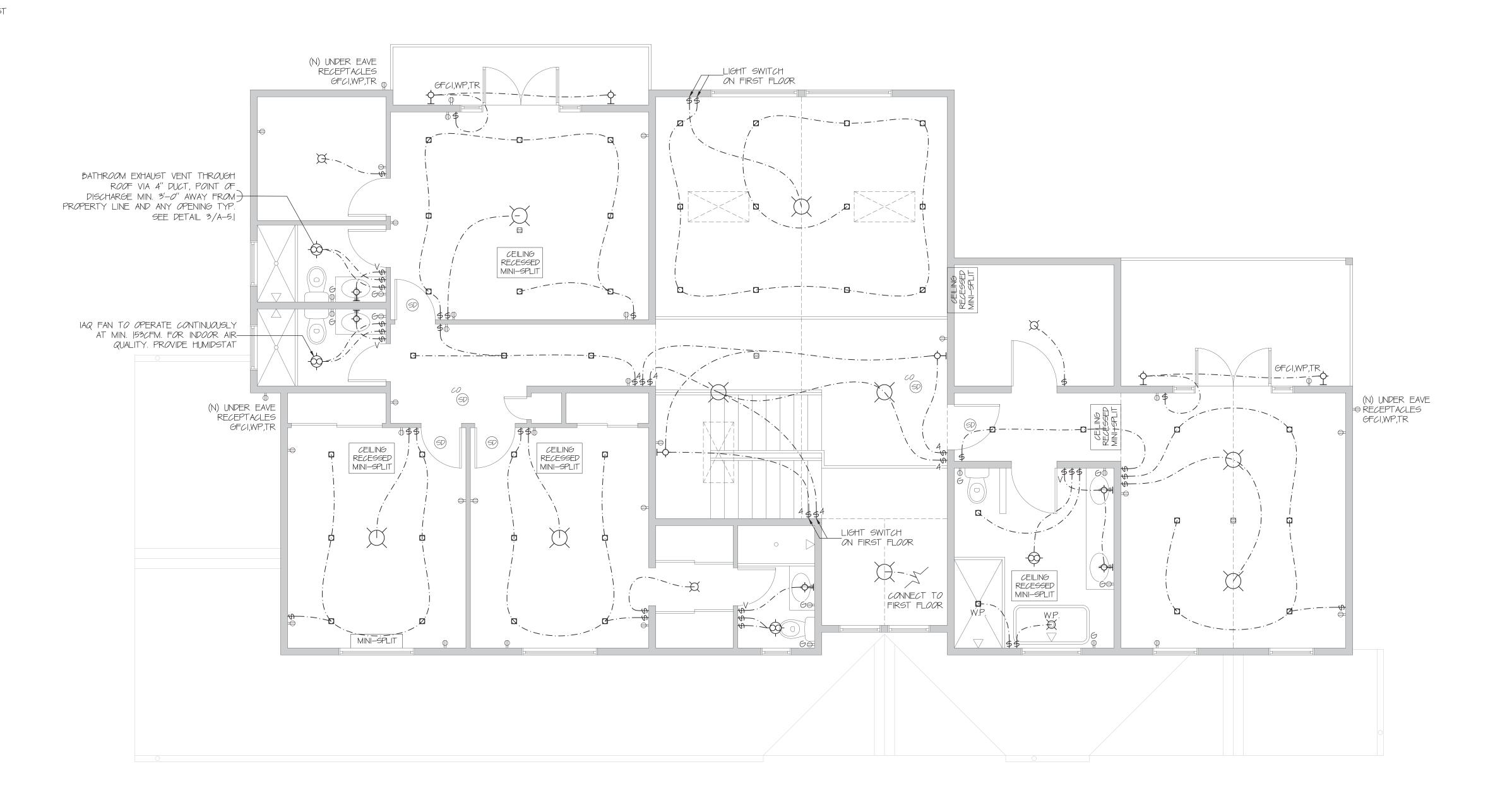
ELECTRICAL PLAN

SHEET NUMBER

E-1

ELECTRICAL LEGEND

- 4" RECESSED CEILING MOUNTED HIGH EFFICACY LIGHT FIXTURE (U.O.N.)
- CEILING MOUNTED PENDANT LIGHT
- AFCI PROTECTED DUPLEX
 RECEPTACLE +15" TO < (U.O.N.)
- DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
- TI FLOOR MOUNTED DUPLEX RECEPTAGLE
- SINGLE POLE WALL SWITCH
- Y WITH DIMMER +48" (U.O.N.)
- \$3-WAY WALL SWITCH WITH DIMMER +48" (U.O.N.)
- 4-WAY WALL SWITCH WITH
 DIMMER +48" (U.O.N.)
- SWITCH +48" W/ VACANCY SENSOR
- GEILING MOUNTED FAN/ LIGHT COMBO, EXHAUST FAN SWITCHED SEPARATELY. MIN. 49 CFM.
- © 120VAC HARDWIRED SMOKE DETECTOR WITH BATTERY BACKUP
- CO
 CARBON MONOXIDE ALARM AND SMOKE
 DETECTOR COMBO WITH BATTERY BACKUP



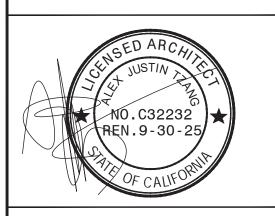


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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY		
NO.	DESCRIPTION	DATE

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/2
2	BUILDING SUBMITTAL	23/08/1
3	BUILDING SUBMITTAL	24/10/0
4	BUILDING SUBMITTAL	24/10/1
100	NO	00000

 JOB NO.
 222088

 DRAWN BY
 R.W.

 DATE
 2023-11-23

SHEET TITLE

ELECTRICAL PLAN

SHEET NUMBER

E-2

RESIDENTIAL WATER DEMAND FIXTURE UNIT CALCULATOR			
TYPE OF FIXTUE	QUANTITY	MULTIPLY BY	FIXTURE UNITS
CLOTHES WASHER	2	4	8
LAUNDRY SINK		1.5	.5
DISH WASHER	2	1.5	3.0
KITCHEN SINK	2	1.5	3.0
WATER CLOSET	8	2.5	20
LAVAT <i>O</i> RY	4		4
TUB OR TUB/SHOWER	2	4	8
SHOWER	6	2	2
HOSE BIBB	5	2.5	2.5

WATER PIPE LONGEST RUN: 145'-0" PRESSURE RANGE: 85PSI.

PRESSURE RANGE: 85PSI

I" MIN. FOR MAIN SERVICE
I-1/2" MIN. FOR BRANCH SERVICE

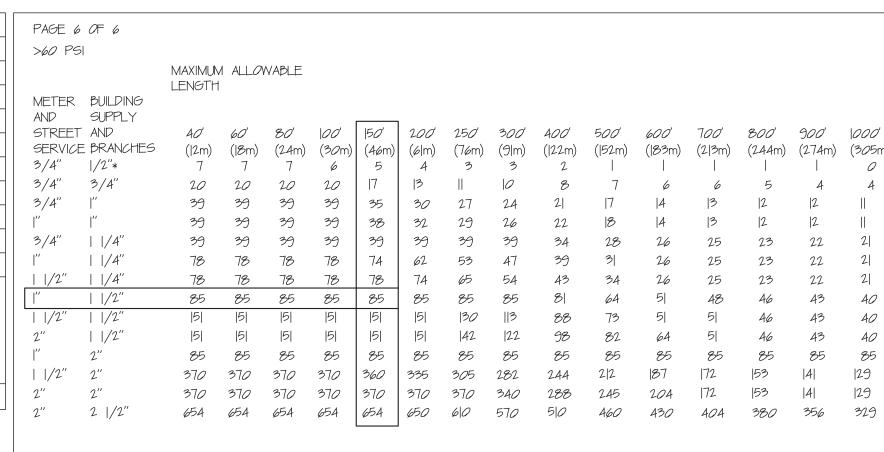
*TABLE DATA INCLUDED BOTH MAIN HOUSE & ADU PLUMBING FIXTURE COUNT

TOTAL:

PLUMBING LEGEND

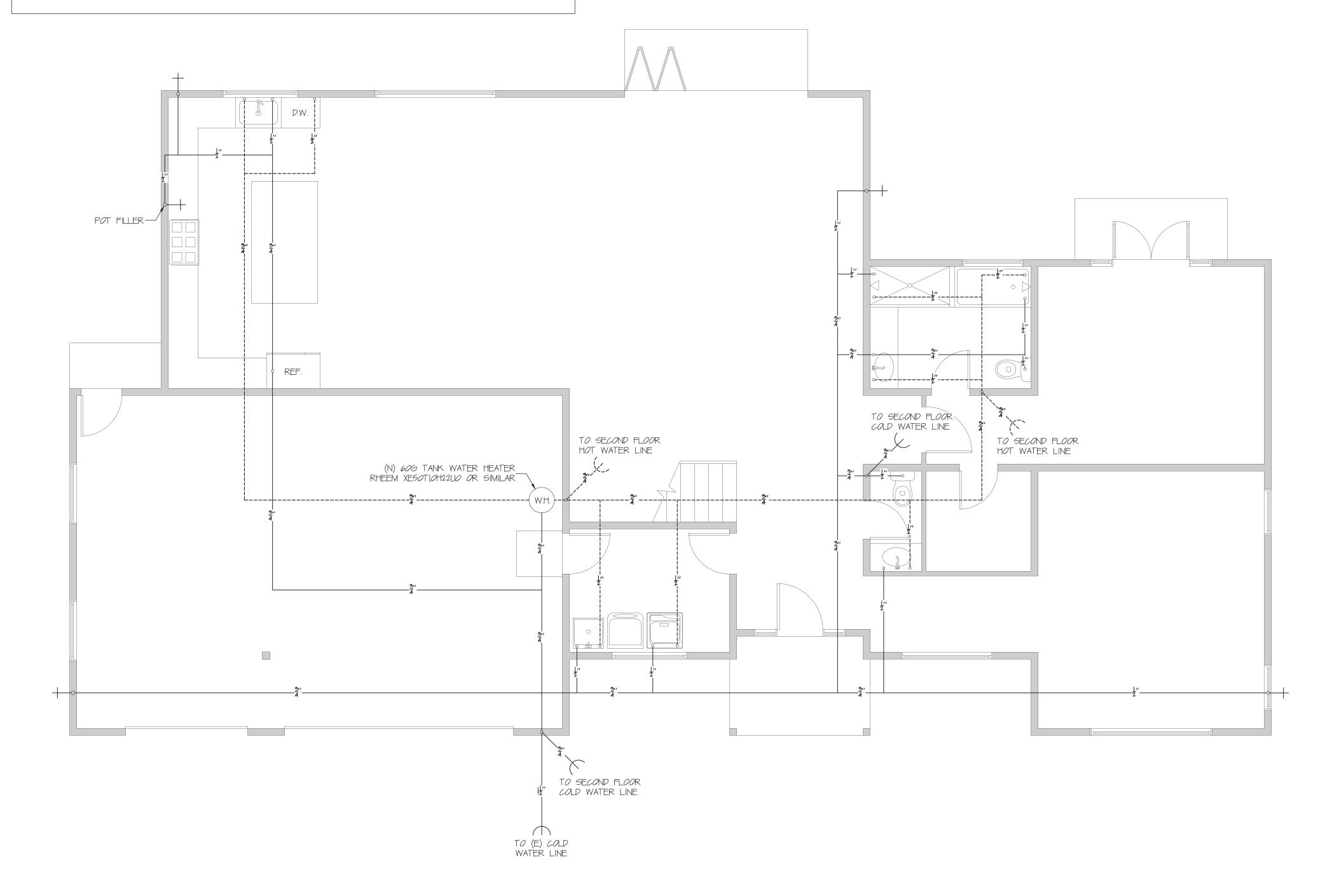
----H ---- METAL HOT WATER SUPPLY LINE

+ HOSE BIBB



>60 PSI EQUIVALENT TO >4|4KPA AVAILABLE STATIC PRESSURE AFTER HEAD LOSS

*BUILDING SUPPLY, NOT LESS THAN THREE-QUARTER (3/4) INCH (20MM) NOMINAL SIZE.



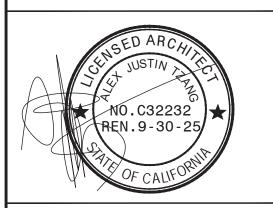


ALEX TZANG ARCHITECTS

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/2
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3	BUILDING SUBMITTAL	24/10/0
4	BUILDING SUBMITTAL	24/10/1

JOB NO.	22208
DRAWN BY	R.V
DATE	2023-11-2

SHEET TITLE

FIRST FLOOR WATER LINE PLAN

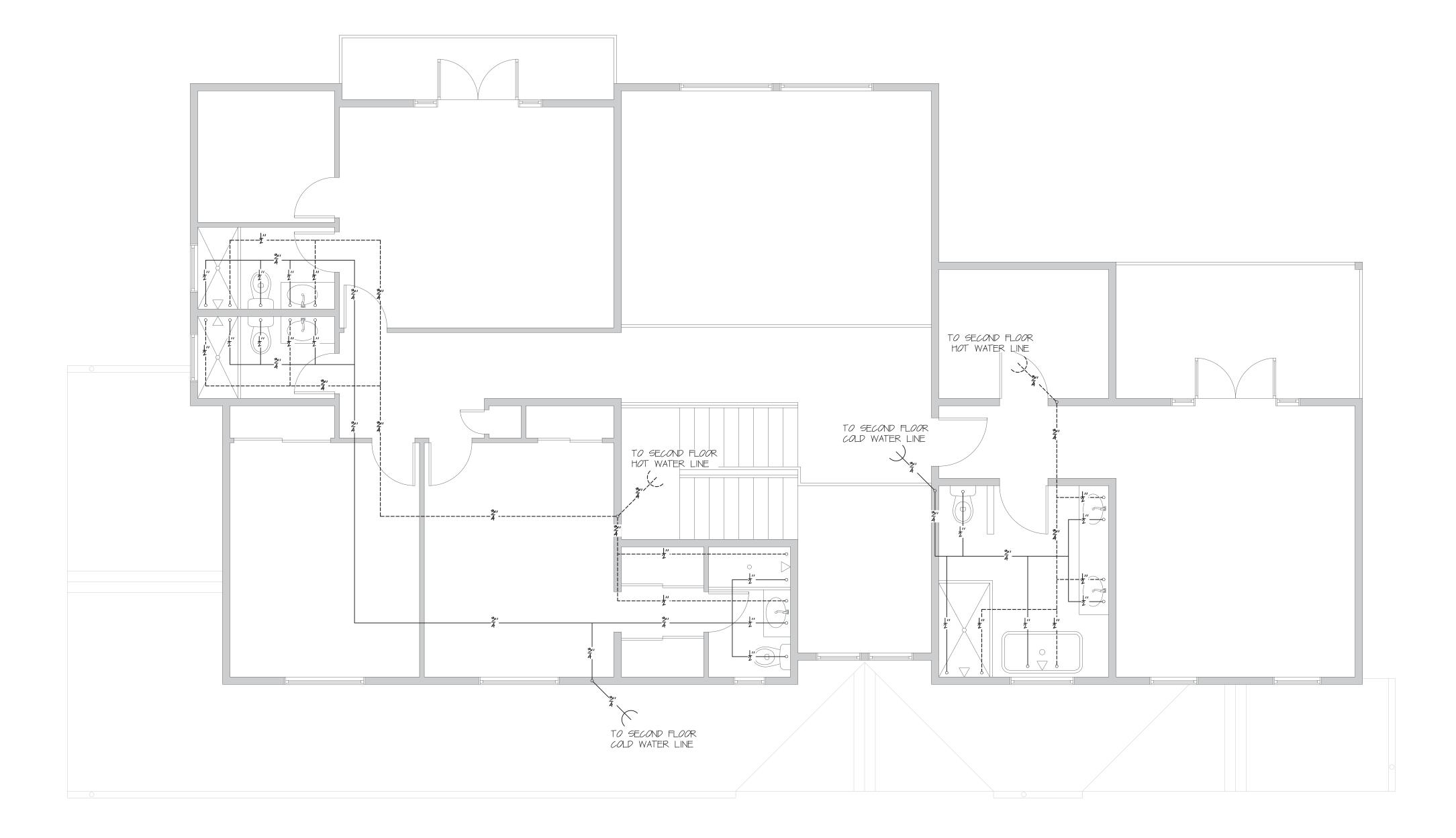
SHEET NUMBER

P₋1

PLUMBING LEGEND

----- METAL HOT WATER SUPPLY LINE

------ METAL COLD WATER SUPPLY LINE





ALEX TZANG ARCHITECTS

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DAT
1	BUILDING SUBMITTAL	23/11/
2	BUILDING SUBMITTAL	23/08/
3	BUILDING SUBMITTAL	24/10/
4	BUILDING SUBMITTAL	24/10/

JOB NO.	2220
DRAWN BY	R.
DATE	2023-11-

SHEET TITLE

SECOND FLOOR WATER LINE PLAN

SHEET NUMBER

P-2

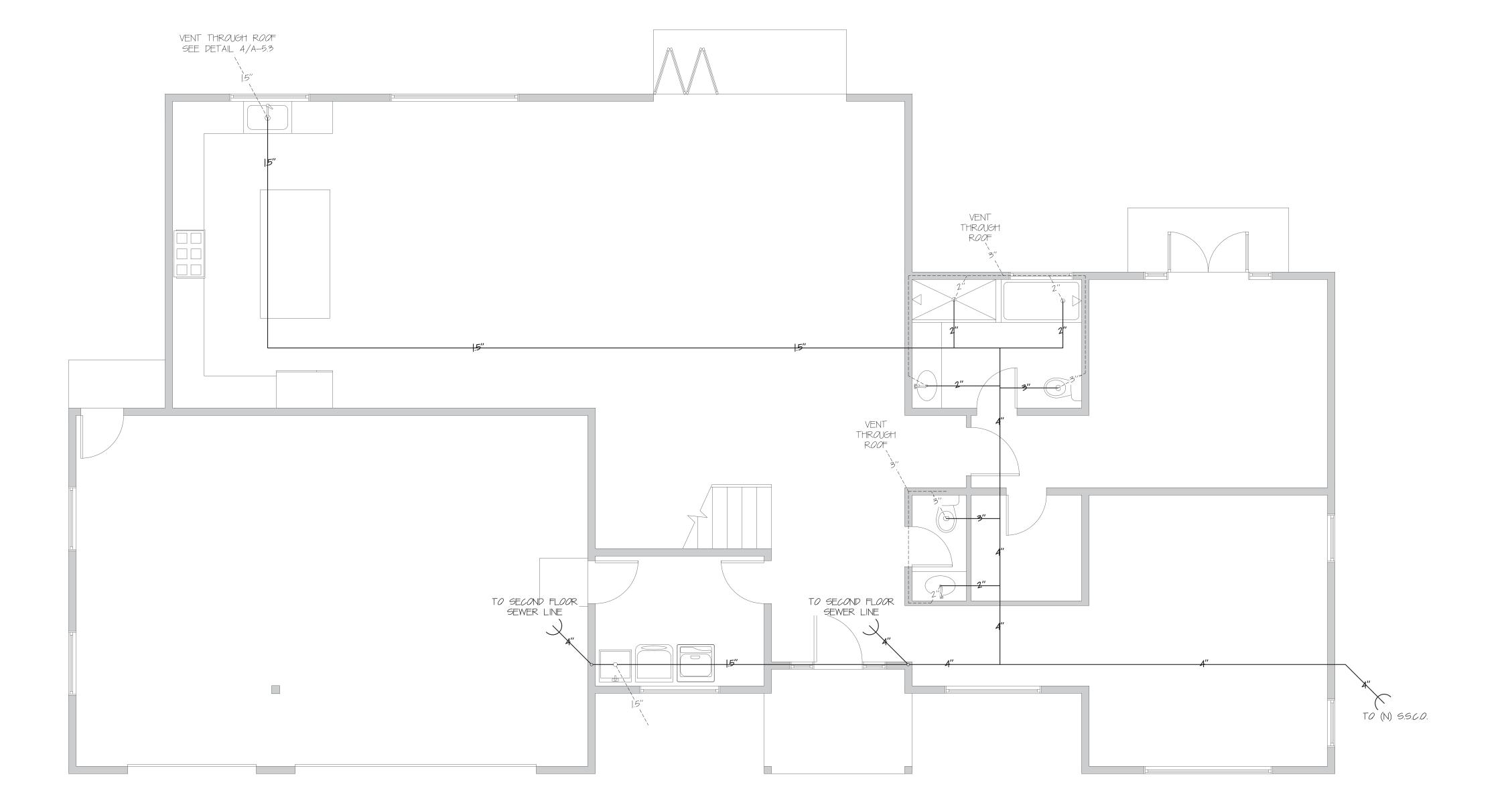
LEGEND

----V---- ABS VENT LINE

- S.S ABS SANITARY LINE WITH 1/4" PER 12" DOWNWARD SLOPE

CLEAN OUT NOTES:

HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEAN OUT AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING, WHICH IS MORE THAN 50-0" IN TOTAL DEVELOPED LENGTH



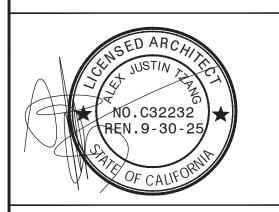


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PROJECT

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APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14
IOR	NO	222088

JOB NO.	222
DRAWN BY	R
DATE	2023-11

SHEET TITLE

FIRST FLOOR SEWER LINE PLAN

SHEET NUMBER

P-3

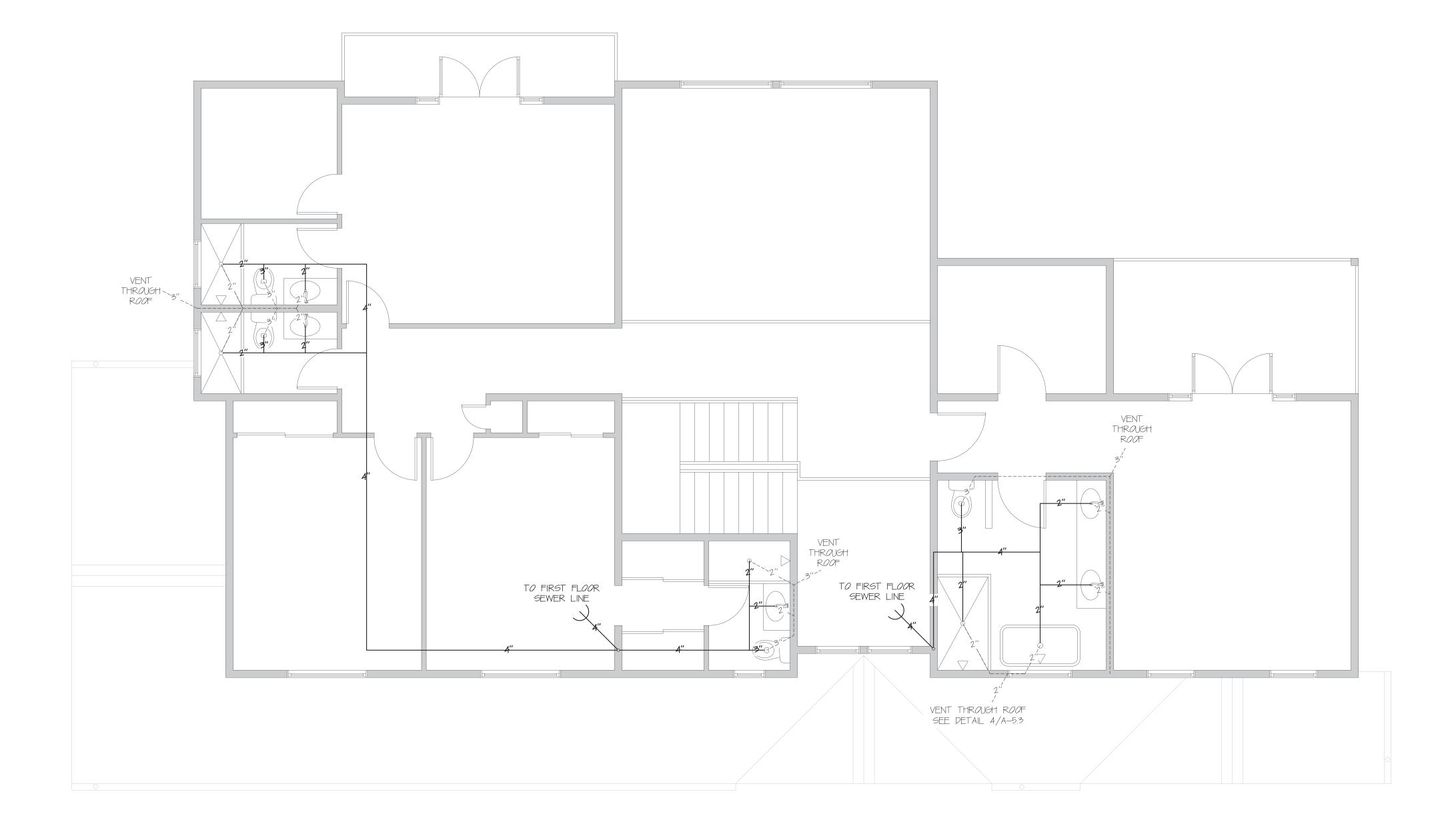
LEGEND

----V---- ABS VENT LINE

— S.S. ABS SANITARY LINE WITH 1/4" PER 12" DOWNWARD SLOPE

CLEAN OUT NOTES:

HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEAN OUT AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING, WHICH IS MORE THAN 50-0" IN TOTAL DEVELOPED LENGTH





ALEX TZANG ARCHITECTS

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PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DAT
1	BUILDING SUBMITTAL	23/11/
2	BUILDING SUBMITTAL	23/08/
3	BUILDING SUBMITTAL	24/10/
4	BUILDING SUBMITTAL	24/10/
		·

JOB NO.	222
DRAWN BY	R
DATE	2023-11

SHEET TITLE

SECOND FLOOR SEWER LINE PLAN

SHEET NUMBER

P-4





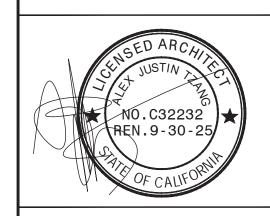


ALEX TZANG ARCHITECTS

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ALEX@ALEXTZANG.COM (415) 309-8082

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PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DAT
1	BUILDING SUBMITTAL	23/11/
2	BUILDING SUBMITTAL	23/08/
3	BUILDING SUBMITTAL	24/10/
4	BUILDING SUBMITTAL	24/10/
JOB	NO	2220

 JOB NO.
 222088

 DRAWN BY
 R.W.

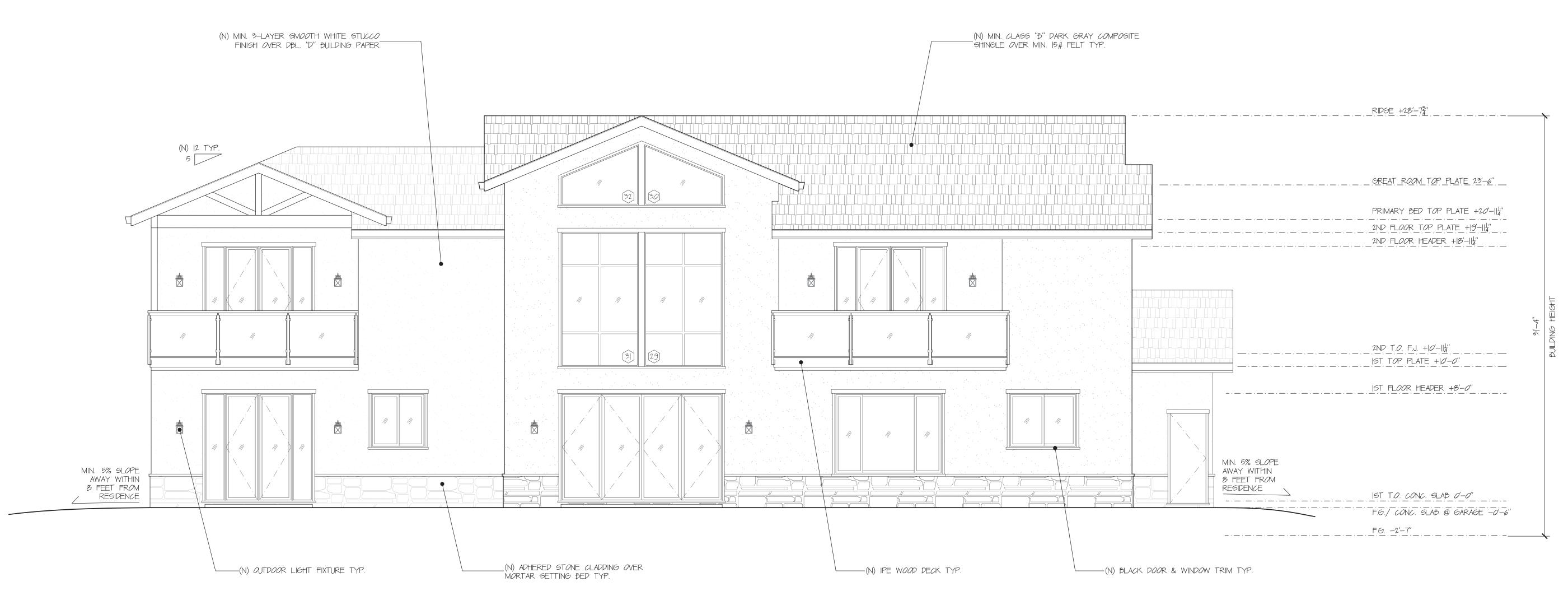
 DATE
 2023-11-23

SHEET TITLE

FRONT ELEVATION

SHEET NUMBER

A-3.0



PROPOSED REAR ELEVATION

SCALE = 1/4" = 1'-0"

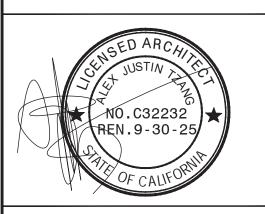


ALEX TZANG ARCHITECTS

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DAT
1	BUILDING SUBMITTAL	23/11/
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4	BUILDING SUBMITTAL	24/10/
IOB	NO	2220

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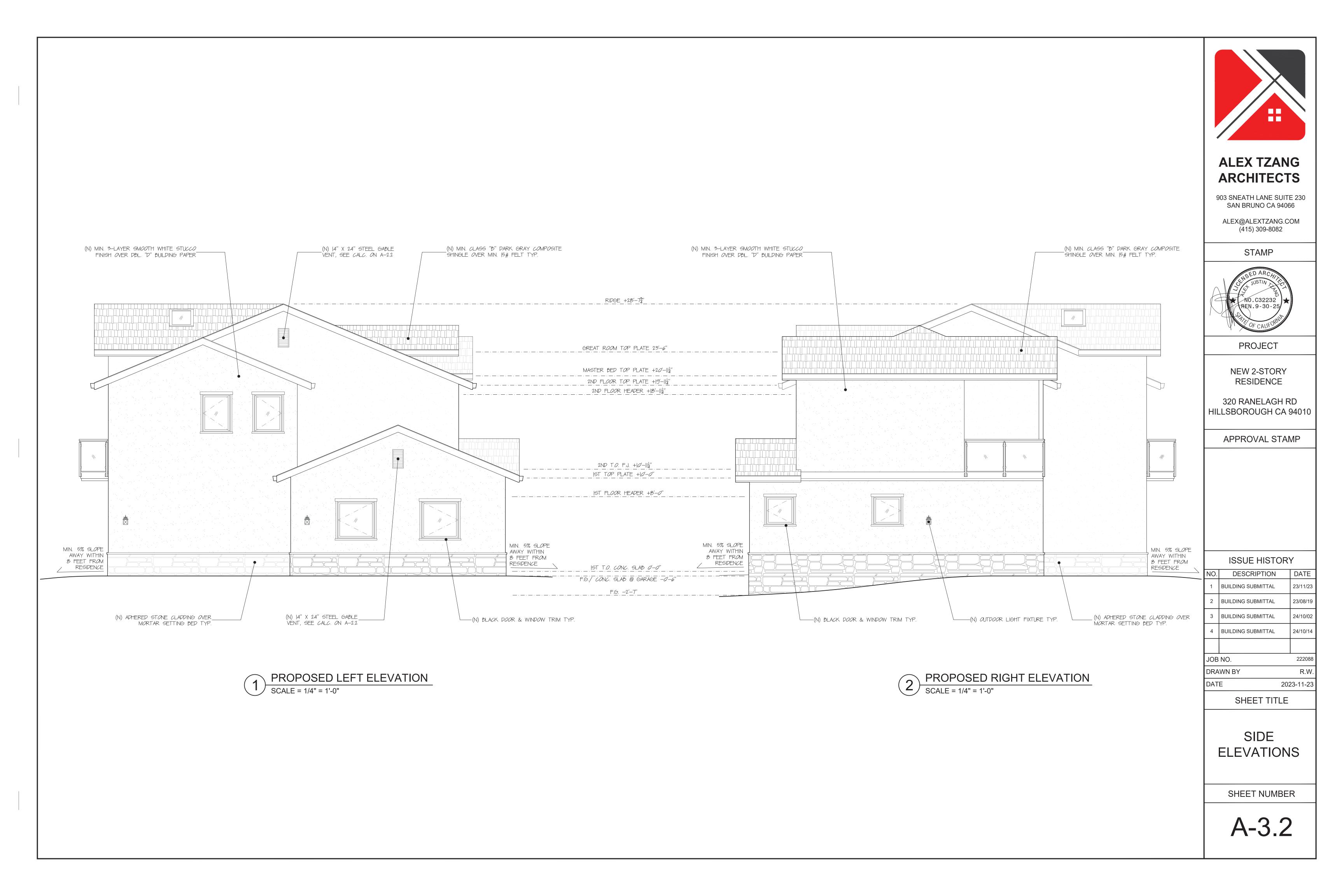
 DATE
 2023-11-23

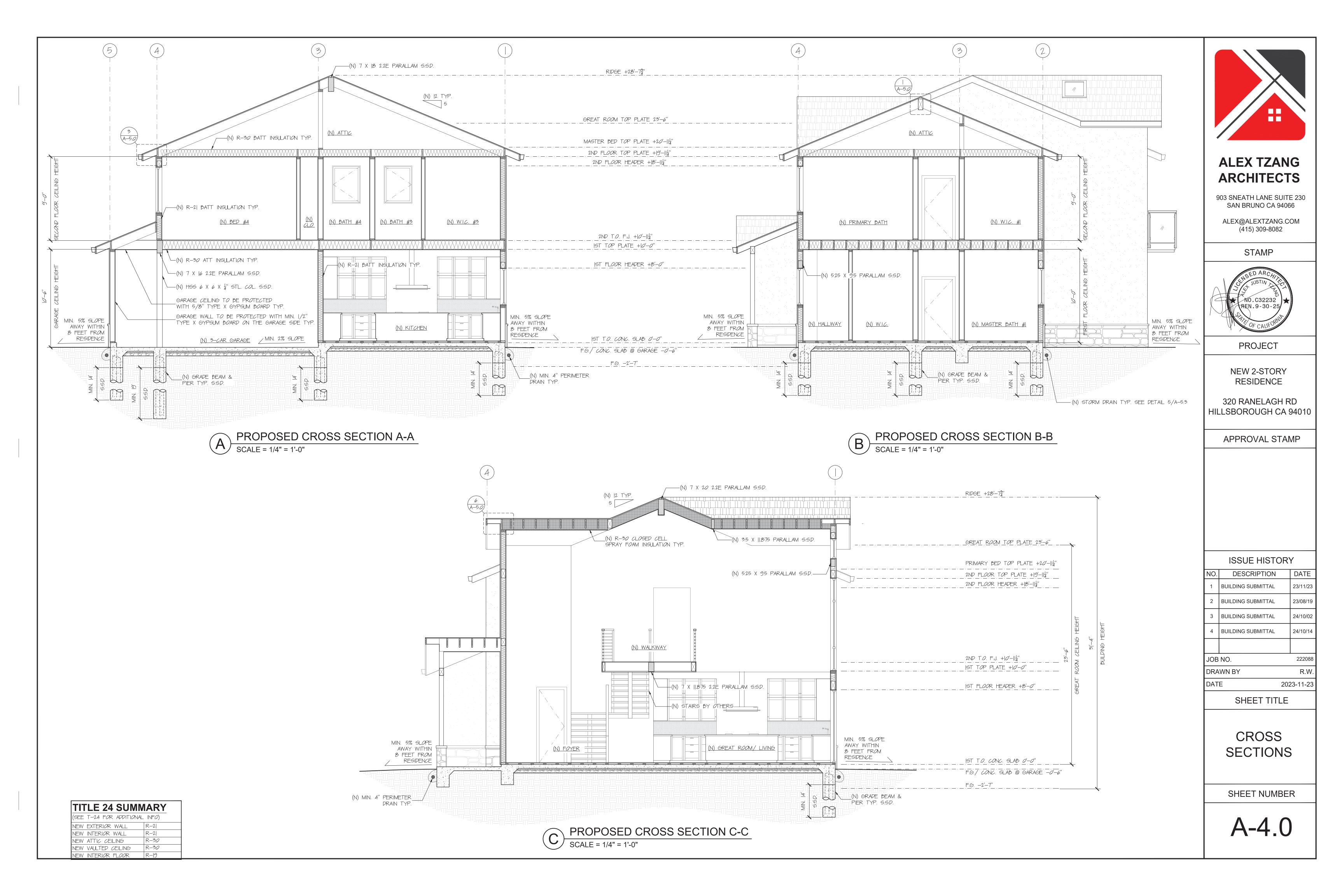
SHEET TITLE

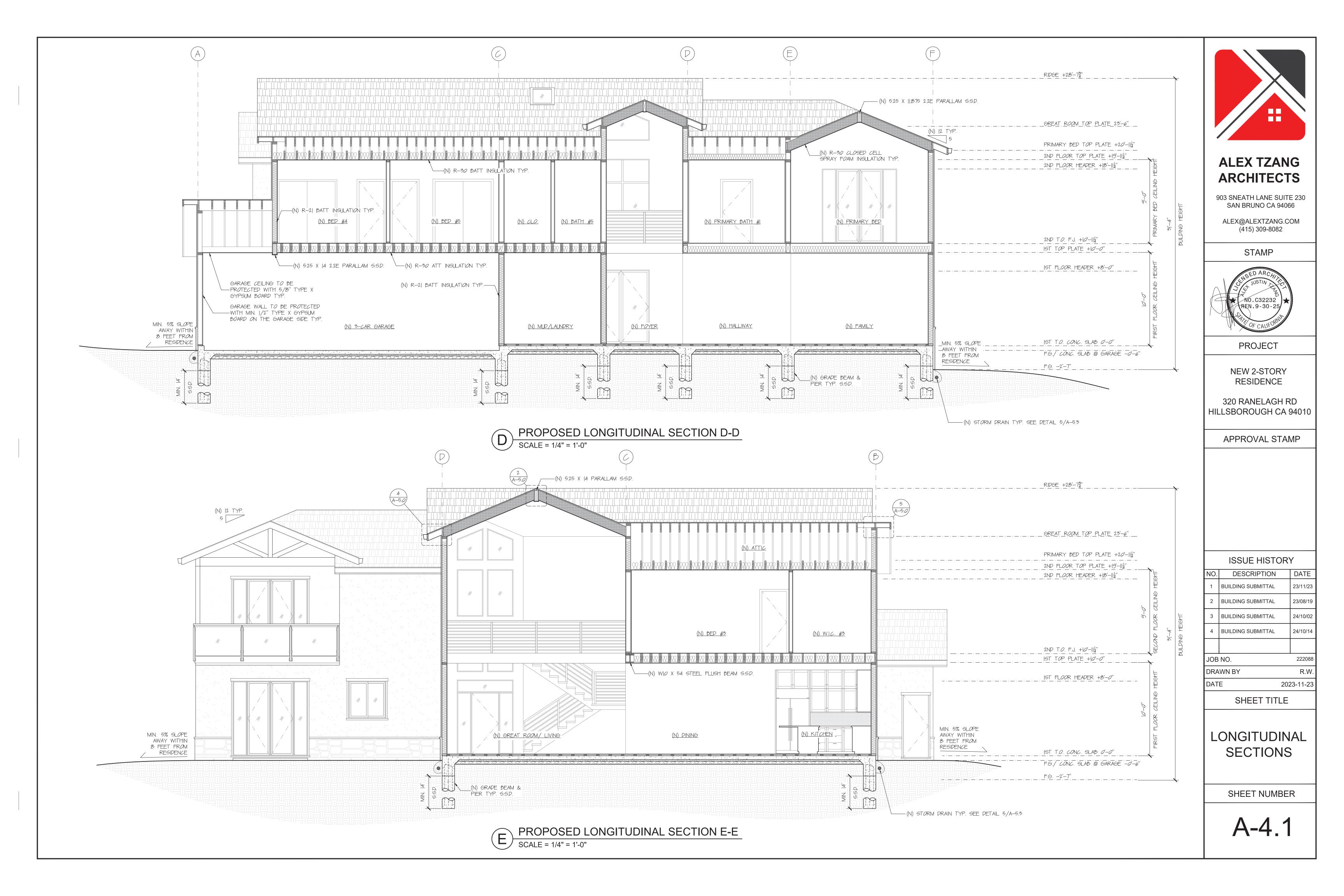
REAR ELEVATION

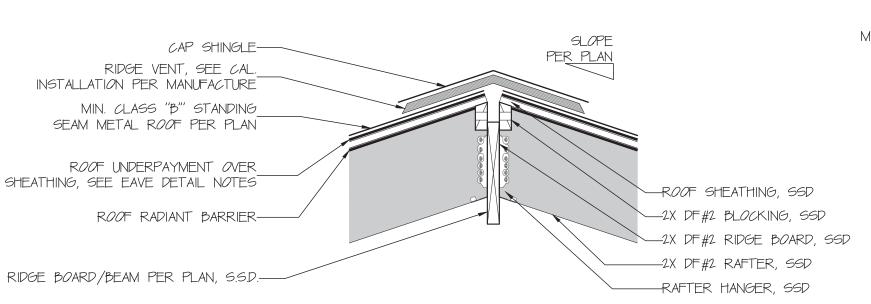
SHEET NUMBER

A-3.1









MIN. CLASS "B" STANDING STEAM METAL ROOF PER PLAN, W/ MIN. 1/4" PER PLAN VENTED AIRSPACE SEPARATES THE METAL AND THE ROOFING UNDERLAYMENT ABOVE THE STRUCTURAL SHEATHING AIR-IMPERMEABLE INSULATION PER CRC 806.5-5.1.1 -MIN.. 6"THICK FROTH-PAK-200 CLOSED CELL SPRAY FOAM INSULATION PER MANUFACTURE SPEC. INTERIOR CLASS I VAPOR RETARDERS ARE NOT ALLOWED VAULTED CEILING, SIM. ASSEMBLY PER CRC R806.5 —5/8" TYPE "X" GYP BD. SEE EAVE DETAIL NOTES —GLULAM BEAM, SSD

MIN. CLASS "B" STANDING STEAM

METAL ROOF PER PLAN, W/ MIN.

1) TYP. RIDGE BOARD / BEAM AT ATTIC DETAIL SCALE = 1"=1'-0"

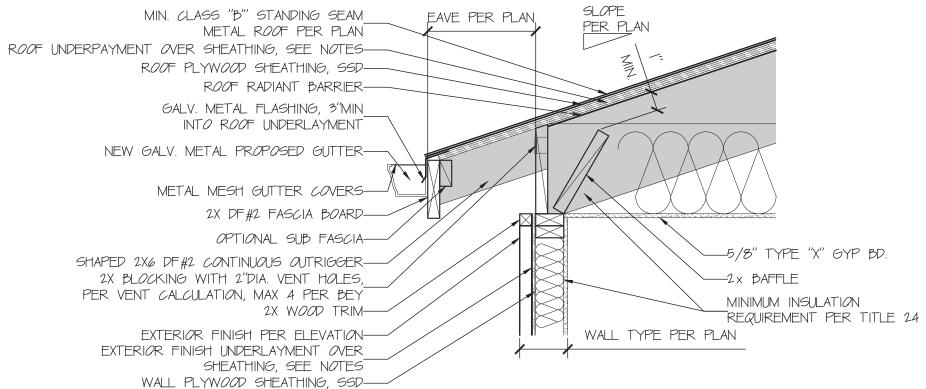
2 TYP. RIDGE BEAM AT VAULTED CEILING DETAIL SCALE = 1"=1'-0"

PER PLAN

ROOF UNDERLAYMENT NOTES

MIN. | LAYER OF #15 ROOF FELT UNDERPAYMENT OVER SHEATHING OR MATERIALS COMPLY WITH ASTM D126 TYPE I; ASTM D4869

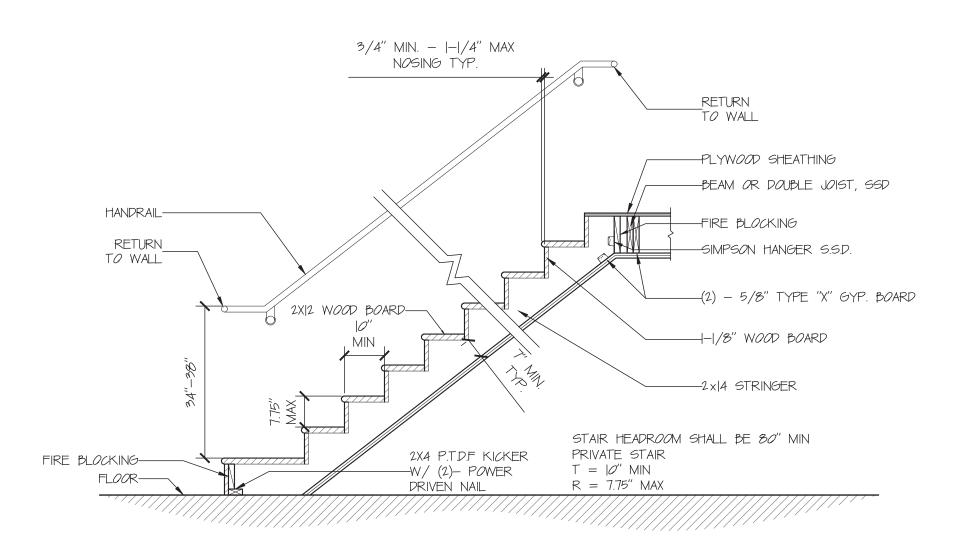
TYPE I, II, III OR IV; ASTM D6757, AND SHALL BEAR A LABEL INDICATING COMPLIANCE TO THE STANDARD DESIGNATION



EXTERIOR WALL FINISH UNDERLAYMENT NOTES

MIN. | LAYER OF #15 ASPHALT FELT, FREE FROM HOLES AND BREAKS, COMPLYING WITH ASTM D226 FOR TYPE | FELT OR OTHER APPROVED WATER-RESISTIVE BARRIER SHALL BE APPLIED OVER STUDS OR SHEATHING OF ALL EXTERIOR WALLS. WHERE JOINT OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES

3 TYP. EAVE AT ATTIC DETAIL SCALE = 1"=1'-0"



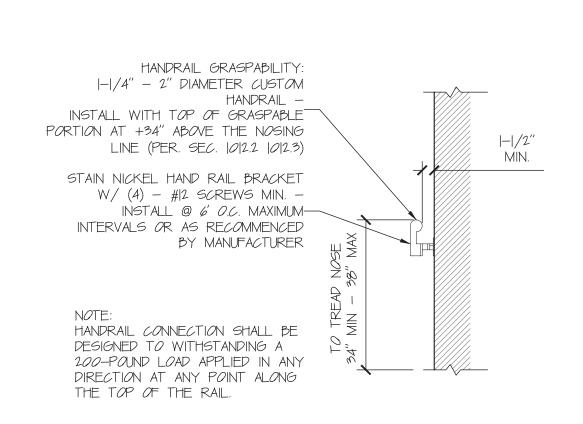
7 TYP. INTERIOR STAIRS DETAIL

SCALE = NTS

1/4" VENTED AIRSPACE SEPARATES_ THE METAL AND THE ROOFING UNDERLAYMENT ABOVE THE STRUCTURAL SHEATHING _5/8" TYPE "X" GYP BD. AIR-IMPERMEABLE INSULATION PER CRC806.5-5.[.] -MIN. 6"THICK FROTH-PAK-200 CLOSED CELL SPRAY FOAM INSULATION PER MANUFACTURE SPEC. INTERIOR CLASS I VAPOR RETARDERS ARE NOT ALLOWED 2X SOLID BLOCKING VAULTED CEILING, SIM. ASSEMBLY PER CRC R806.5 NOTES: A. INTERIOR CLASS I VAPOR RETARDERS ARE NOT INSTALLED ON THE CEILING SIDE OF THE UNVENTED ENGLOSED ROOF FRAMING B. INSULATION SHALL COMPLY WITH THE REQUIREMENTS ON CRC

TYP. EAVE AT VAULTED CEILING DETAIL SCALE = 1"=1'-0"

R806.5 ITEM 5.3 AND EITHER ITEMS 5.1 OR 5.2

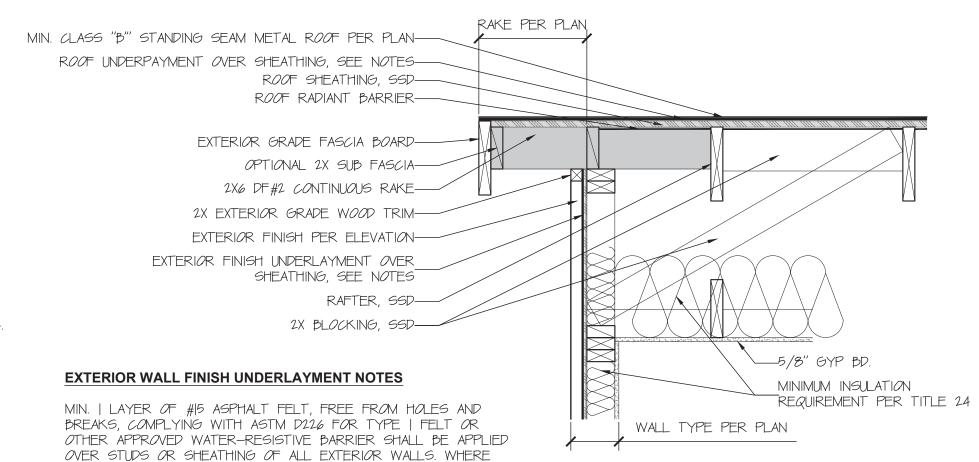


8 TYP. HANDRAIL DETAIL SCALE = NTS

ROOF UNDERLAYMENT NOTES

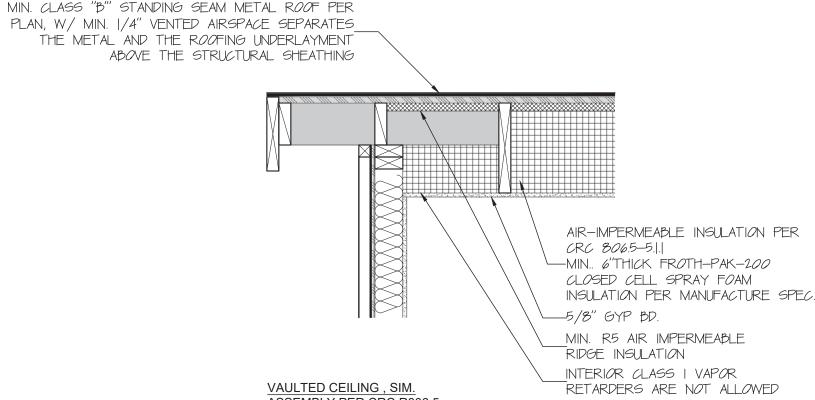
JOINT OCCUR, FELT SHALL BE LAPPED NOT LESS THAN 6 INCHES

MIN. | LAYER OF #15 ROOF FELT UNDERPAYMENT OVER SHEATHING OR MATERIALS COMPLY WITH ASTM D226 TYPE 1; ASTM D4869
TYPE 1, 11, 111 OR 1V; ASTM D6757, AND SHALL BEAR A LABEL INDICATING COMPLIANCE TO THE STANDARD DESIGNATION



5 TYP. RAKE AT ATTIC DETAIL

SCALE = 1"=1'-0"



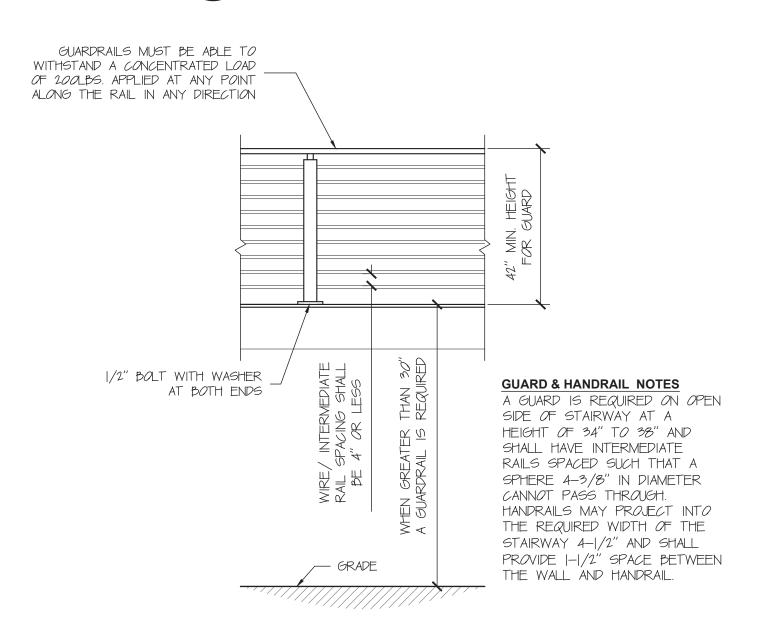
ASSEMBLY PER CRC R806.5 NOTES:

NOTES:

A. INTERIOR CLASS I VAPOR RETARDERS ARE NOT INSTALLED ON THE CEILING SIDE OF THE UNVENTED ENCLOSED ROOF FRAMING ASSEMBLY.

B. INSULATION SHALL COMPLY WITH THE REQUIREMENTS ON CRC R806.5 ITEM 5.3 AND EITHER ITEMS 5.1 OR 5.2

6 TYP. RAKE AT VAULTED CEILING DETAIL SCALE = 1"=1'-0"





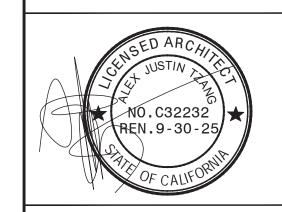


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APPROVAL STAMP

ISSUE HISTORY

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100		00000

 JOB NO.
 222088

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 R.W.

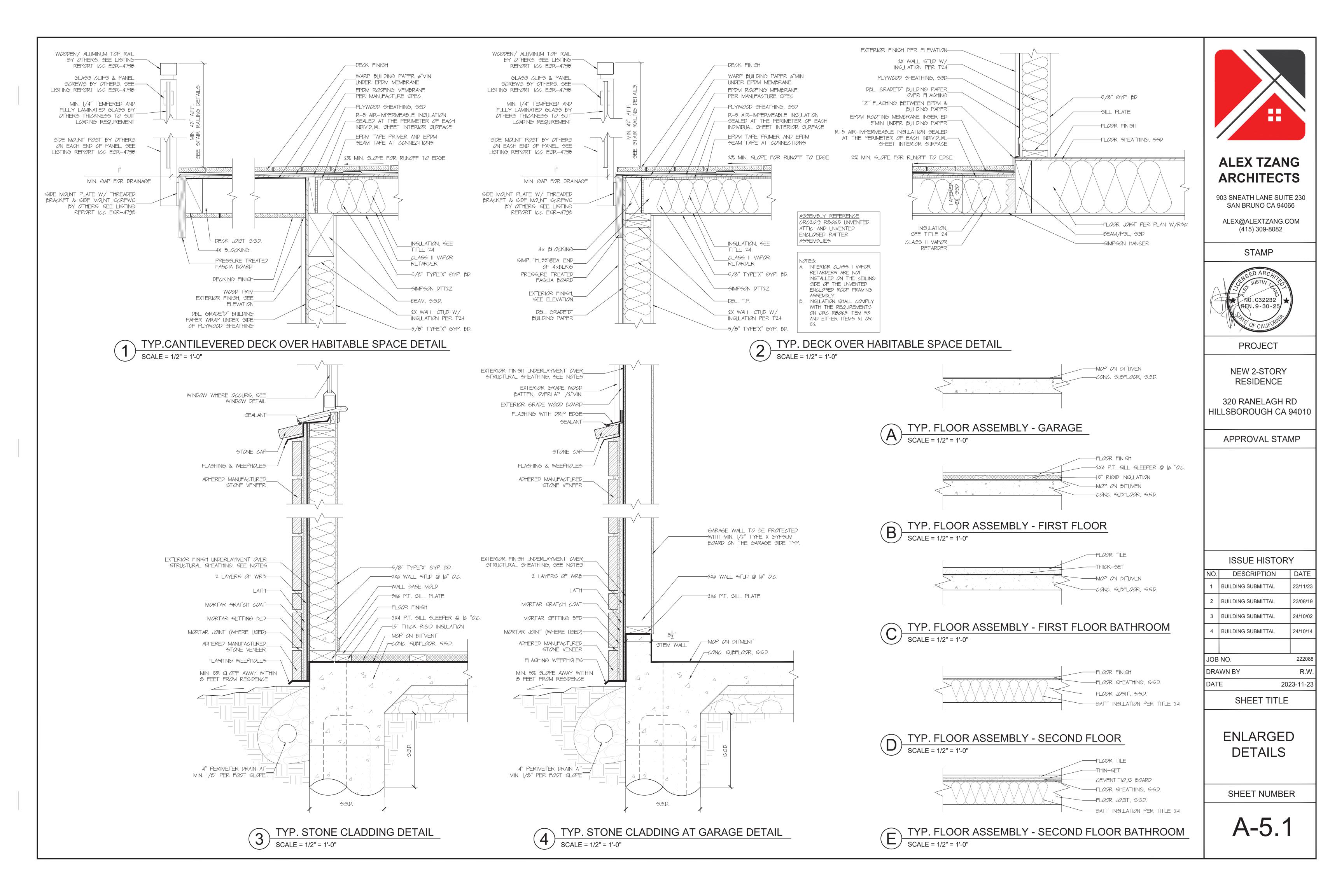
 DATE
 2023-11-23

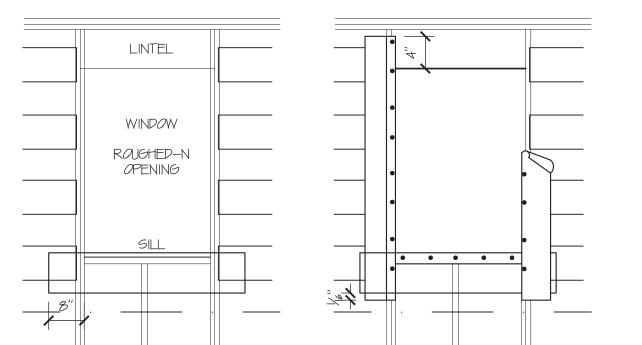
SHEET TITLE

DETAILS

SHEET NUMBER

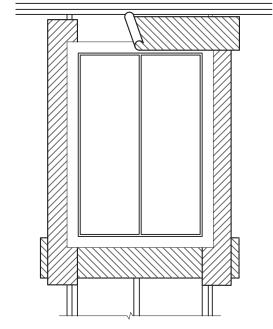
A - 5.0





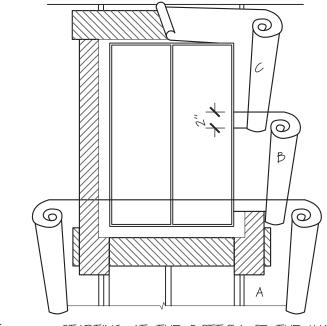
ATTACH A FILL STRIP OF ASPHALT STURATED ROOFING PAPER AT LEAST 9" WIDE WITH THE TOP EDGE OF THE ROUGH SILL EXTEND THIS SILL STRIP AT LEAST 8" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW. ATTACH FELT WITH GALVANIZED ROOFING NAILS OR RUST RESISTANT STAPLES

ATTACH SILL STRIP IS IN PLACE. ATTACH JAMB STRIPS (SIDE OF OPENING) AT LEAST 9" WIDE WITH INSIDE EDGE OF WINDOW OPENING) AT LEAST 9" WIDE WITH INSIDE EDGE OF WINDOW OPENING)



APPLY BEAD OF CAULKING TO THE BACK
SURFACES INTO THE ROUGH OPENING, WITH
JAMB STRIPS (SIDE OF OPENING) AT LEAST
9" WIDE WITH INSIDE EDGE OF WINDOW
OPENING. START JAMB STRIPS I" BELOW THE
SILL STRIP AND EXTEND JAMB STRIPS 4"
ABOVE THE LOWER EDGE OF THE LINTEL

APPLY BEAD OF CAULKING TO THE BACK
SURFACES INTO THE ROUGH OPENING, WITH
FLANGES OVER THE INSTALLED FLASHING
FELT STRIPS. AFTER WINDOW IS PLACED,
INSTALL THE HEAD FLASHING OVER THE
WINDOW FLANGE. THIS IS ANOTHER STRIP OF
FELT AT LEAST 9" WIDE.

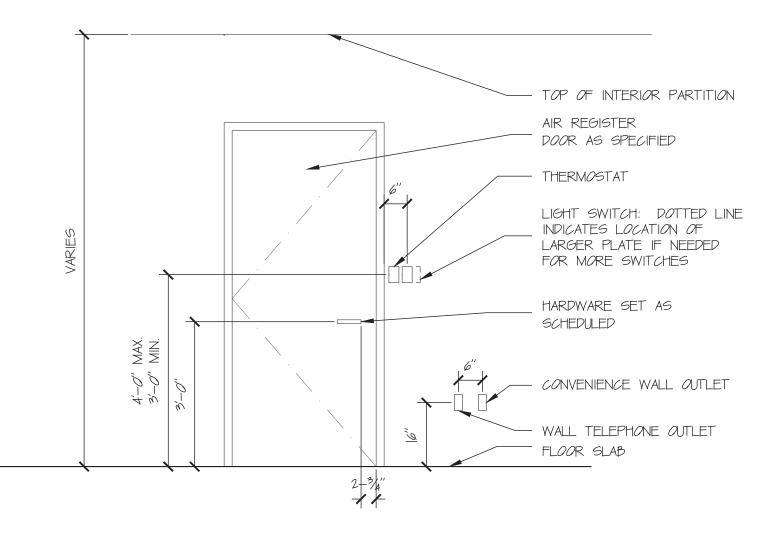


STARTING AT THE BOTTOM OF THE WALL(
SOLE PLATE), LAY WATER-RESISTANT PAPER
UNDER THE SILL STRIP. CUT ANT EXCESS
WATER-RESISTANT PAPER THAT MAY EXTEND
ABOVE THE SILL FLAGE ON EACH SIDE OF
THE OPENING.(SHOWN IN DIAGRAM AS SHORT
DASH LINES). INSTALL SUCCESSIVE COURSES
OF WATER-RESISTANT PAPER (B.C.ECT.) OVER
JAMB AND HEAD FLANGES IN SHINGLE-BOARD
FASHION.

PROVIDE FLASHING IF ALL EXTERIOR OPENINGS

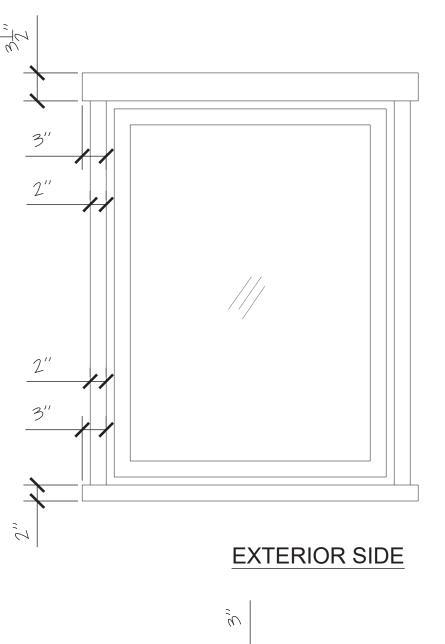
EXPOSED TO WEATHER TO MAKE THEM WATERPROOF SINCE CBC DOES NOT OUTLINE PROCEDURES FOR WINDOW FLASHING, TECHNIQUES SHOWN HERE ARE RECOMMENDED. USE 15LB. ASPHALT SATURATED FELT WHENEVER POSSIBLE FOR FLASHING MATERIAL CAULK BACK OF WINDOW FRAMES BEFORE SETTING. USE WINDOW THAT ARE WATERTIGHT.

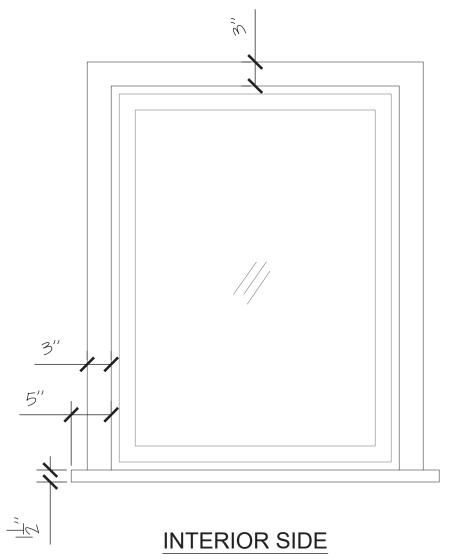
LINE WIRE, WHEN USED AS BACKING TO SUPPORT WATER RESISTANT BUILDING PAPER OR FELT BENEATH LATH FOR STUCCO, SHOULD BE INSTALLED ACCORDING TO INDUSTRY AND PRACTICE. NO ATTACHMENT DEVICES NOR THE WIRE BACKING SHOULD COVER OR PENETRATE FLASHING MATERIAL PERIPHERAL FLASHING AT ALL EDGES OF WALL OPENING MUST COVER WIRE BACKING.



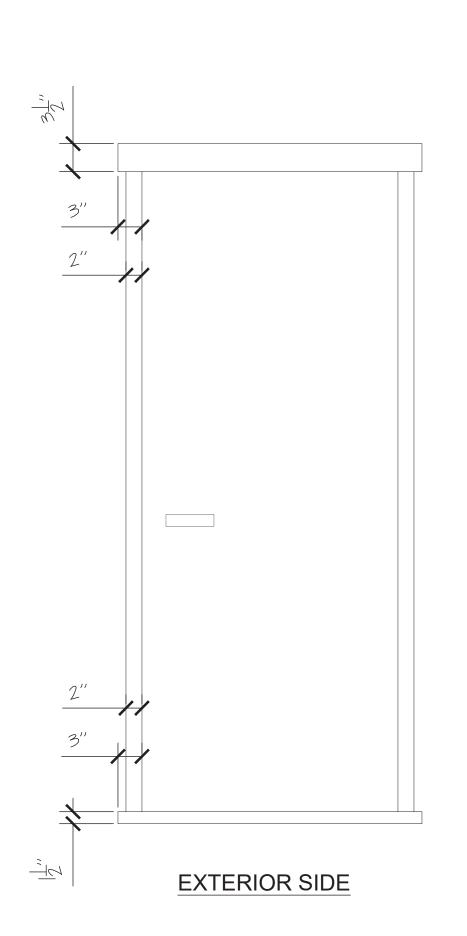
2 TYPICAL FLOOR MOUNTING DETAIL N.T.S.

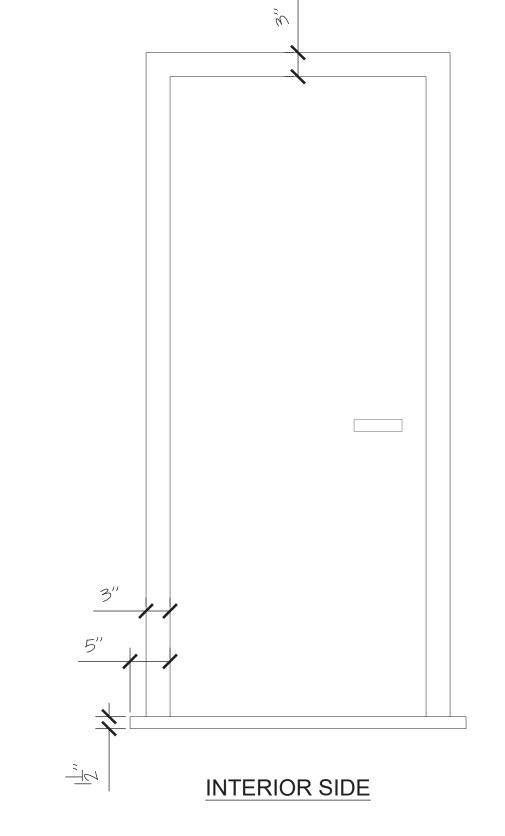
1 TYPICAL WINDOW FLASHING DETAIL N.T.S.





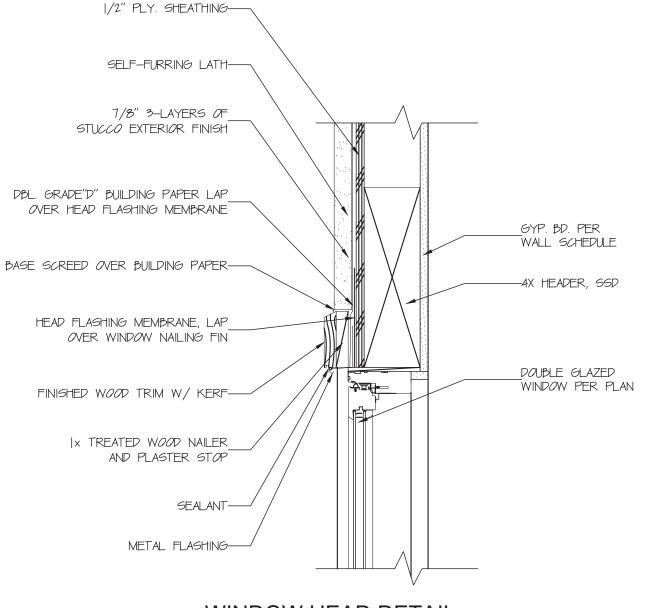
3 TYPICAL WINDOW TRIM DETAIL N.T.S.



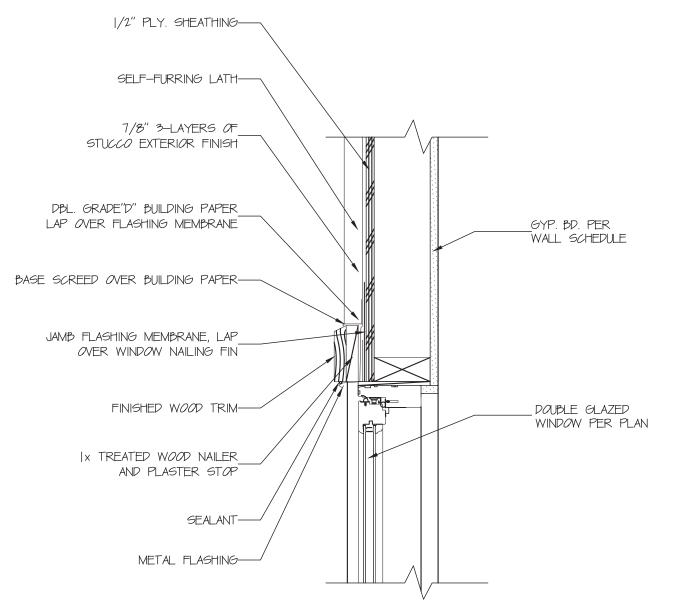


4 TYPICAL DOOR TRIM DETAIL

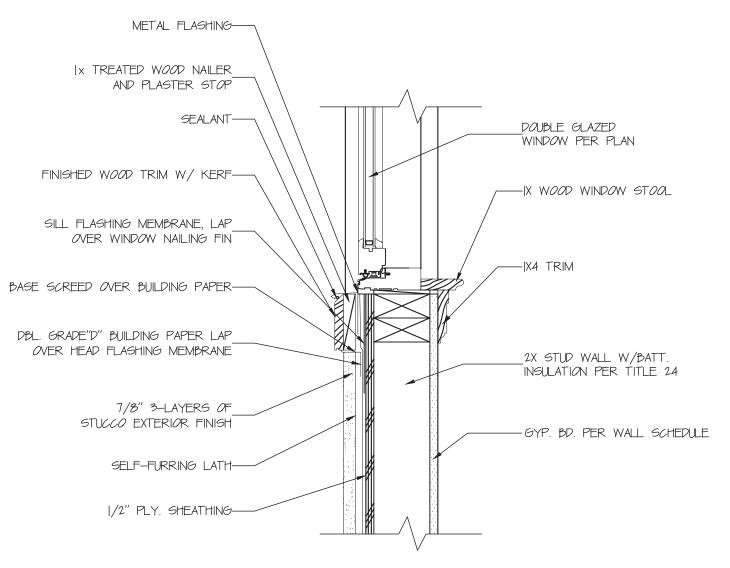
N.T.S.



WINDOW HEAD DETAIL



WINDOW JAMB DETAIL



WINDOW SILL DETAIL

6 WINDOW HEAD, JAMB AND SILL DETAIL

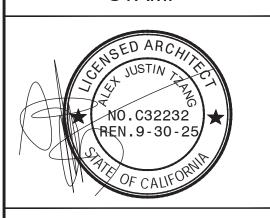


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APPROVAL STAMP

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4	BUILDING SUBMITTAL	24/10/14

 JOB NO.
 222088

 DRAWN BY
 R.W.

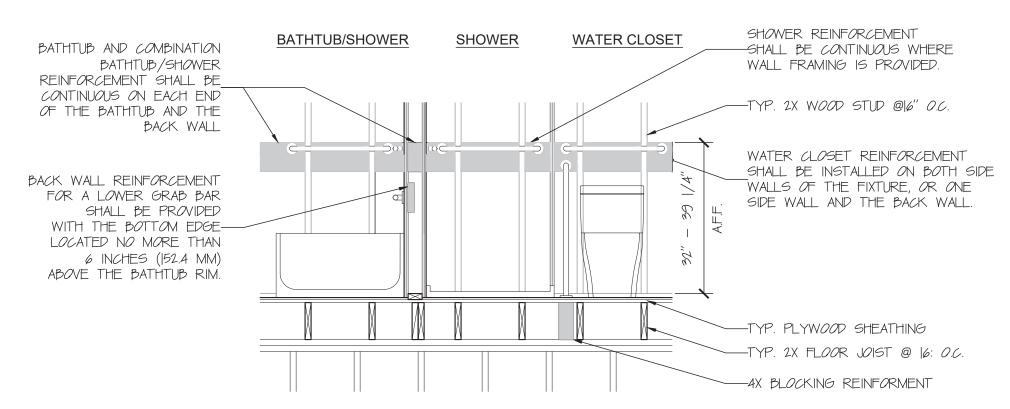
 DATE
 2023-11-23

SHEET TITLE

TYP. DOOR & WINDOW DETAILS

SHEET NUMBER

A-5.2

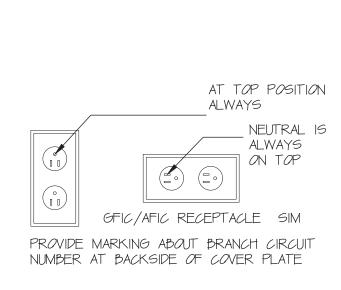


- I. AT LEAST ONE BATHROOM ON THE ENTRY LEVEL SHALL BE PROVIDED WITH REINFORCEMENT INSTALLED IN ACCORDANCE WITH THIS SECTION. WHERE THERE IS NO BATHROOM ON THE ENTRY LEVEL, AT LEAST ONE BATHROOM ON THE SECOND OR THIRD FLOOR OF THE DWELLING SHALL COMPLY WITH [CRC R327.].[]
- 2. REINFORCEMENT SHALL NOT BE LESS THAN 2 BY 8 INCH (51 MM BY 203 MM) NOMINAL LUMBER. [11/2 INCH BY 71/4 INCH (38 MM BY 184 MM) ACTUAL DIMENSION] OR OTHER CONSTRUCTION MATERIAL PROVIDING EQUAL HEIGHT AND LOAD CAPACITY.

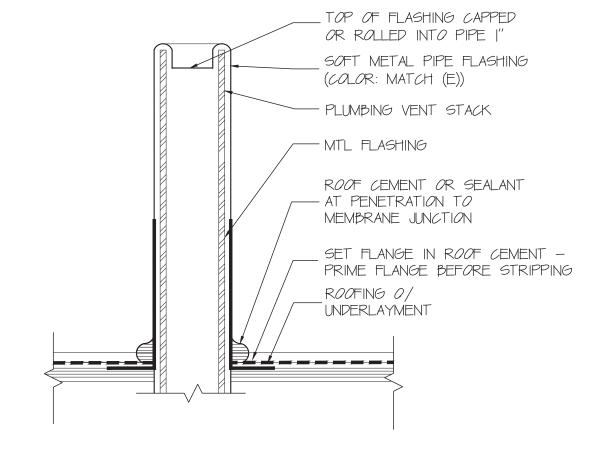
 3. INFORMATION AND/OR DRAWINGS IDENTIFYING THE LOCATION OF GRAB BAR REINFORCEMENT SHALL BE PLACED IN THE OPERATION AND MAINTENANCE MANUAL IN ACCORDANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS CODE, CHAPTER 4,

GRAB-BAR REINFORMENT DETAIL

SCALE: N.T.S.

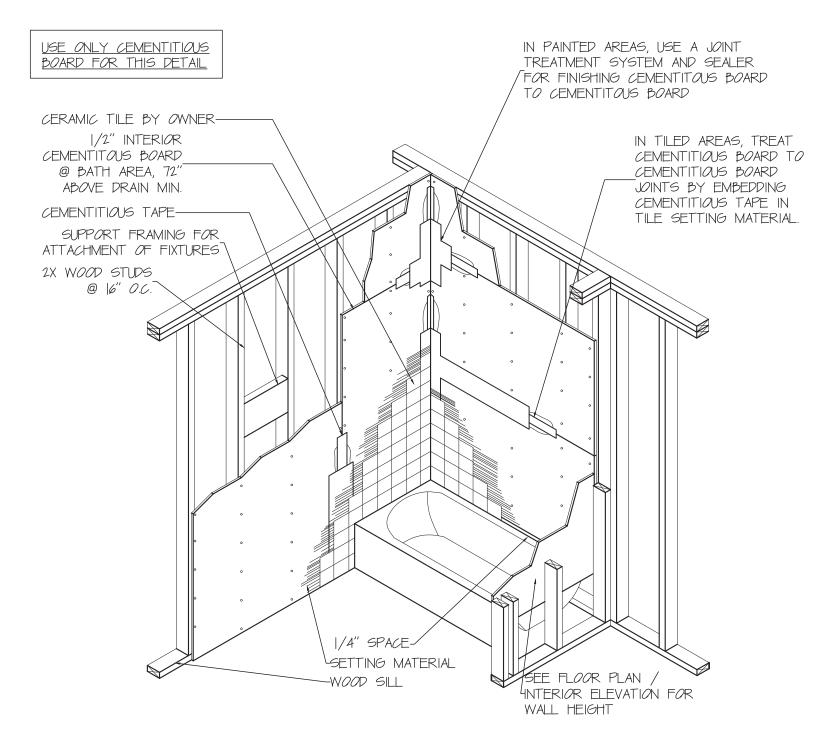


DIVISION 4. [CRC R327.|.|.|]

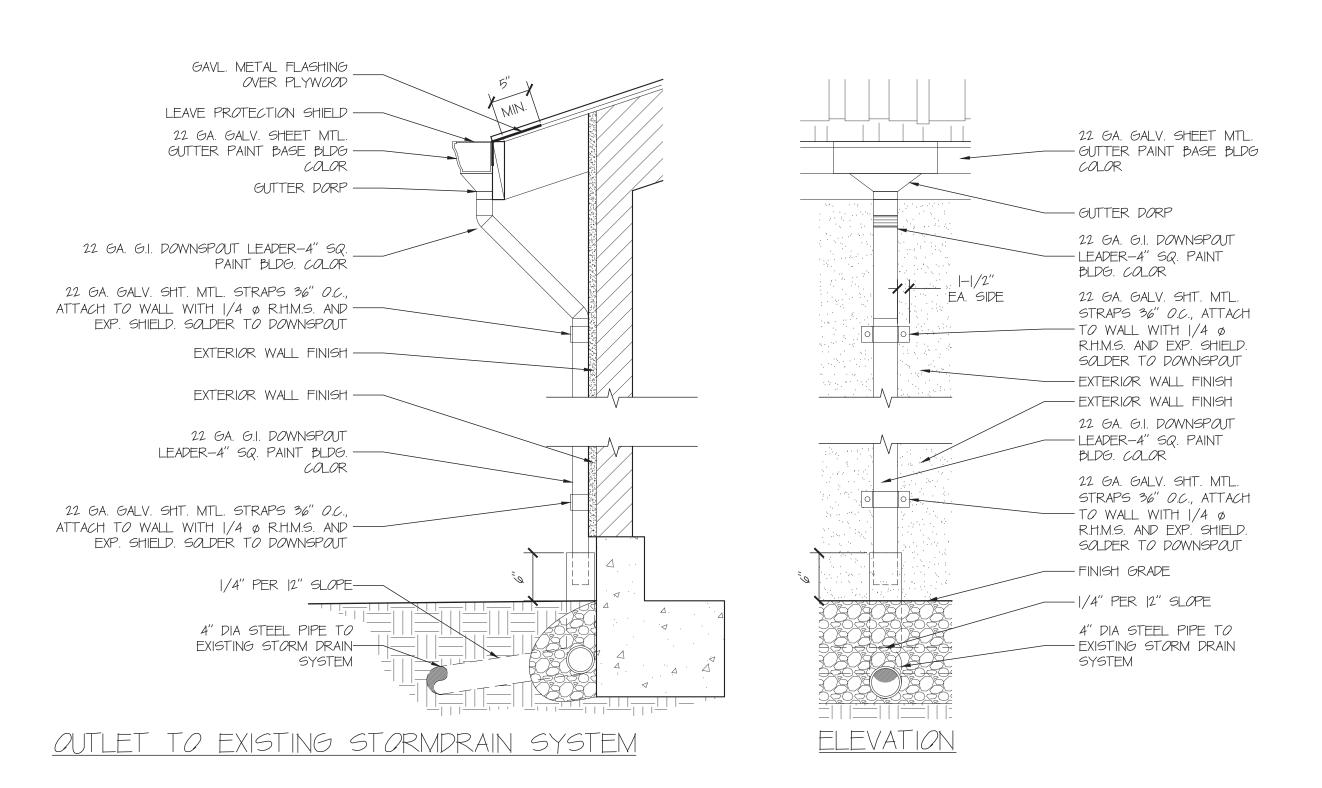














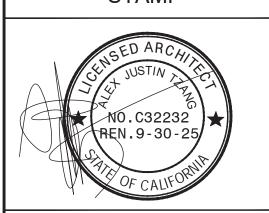


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JOB NO.		22208

 JOB NO.
 222088

 DRAWN BY
 R.W.

 DATE
 2023-11-23

SHEET TITLE

TYP. DETAILS

SHEET NUMBER

A-5.3

FRAMING NOTES:

- TOP PLATE SPLICE -LAP PLATE 48" MIN. WITH (20) 16d NAILS OR SIMP.
- MST48 SEE DETAIL U.N.O ALL STRUCTURAL HARDWARE TO BE "SIMPSON STRONG TIE" SILVER METAL
- W/ LATEST ACCEPTED I.C.C. APPROVALS (U.O.N.). PROVIDE STEEL PLATE TIES(16 GA. MIN. 1-1/2" X 24) OR SIMPSON ST22 ACROSS TOP &/ OR BOTTOM PLATE WHERE INTERRUPTED OR CUT BY
- PROVIDE SAME SIZE POST UNDER ALL POSTS FROM ABOVE (P.A.).
- ALL NAILING SHALL BE PER 2022 C.B.C. SEE NAILING SCHEDULE SHEET S1
- ALL CONSTRUCTION SHALL CONFORM TO 2022 C.B.C. REFER TO SHEAR WALL SCHEDULE FOR SILL PLATE NAILING AT SHEAR
- PANELS NOTIFY ENGINEER OF RECORD IF CERTAIN CONDITIONS ARE NOT SHOWN
- OR DETAILED. 4 X BEAMS BEARING ON TOP PLATE TO HAVE DOUBLE STUDS OR POST
- UNDER TOP PLATE -PER PLAN. CONNECT BEAM TO PLATE W/A35 EA. SIDE (U.O.N.).
- 10. ALL DBL. FLOOR JOISTS SHALL BE FACE NAILED W/16d @12" O.C.
- STAGGERED 2" FROM EACH EDGE (U.O.N.).
- ALL HEADERS NOT SPECIFICALLY NOTED SHALL BE 4 X MIN. WITH THE DEPTH IN INCHES EQUAL TO THE SPAN IN FEET. (4 X 4 MIN.).
- ALL FRAMING MEMBERS TO BE D.F. #2 (U.O.N.) ALL POST. TO BE D.F. #1 PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS.
- 14. ALL 4 X & AND LARGER HEADERS SHALL HAVE DOUBLE TRIMMERS EA. SIDE OF HEADER(U.O.N.).
- 15. ALL DOUBLE / TRIPLE FLOOR JOISTS BEARING ON TOP PLATE TO HAVE DOUBLE / TRIPLE STUDS DIRECTLY UNDER.
- MOOD BEAMS 4" & WIDER SHALL BE D.F. #1 OR BETTER (U.O.N.). BEAM BEARING ON POST TO HAVE "BC", "PC" , "CC" POST CONNECTORS
- BEAM TO POST (U.O.N.) OR DETAILED OTHERWISE ON PLAN. 18. PROVIDE 1 X 6 TIE JUST ABOVE CEILING JOIST WHERE CEILING JOIST ARE
- NOT PARALLEL LAP WITH RAFTERS AND SPIKE WITH 3-16d. 19. ALL BEAMS SHOWN ON PLANS SHOWED BE PLACED AT CENTER OF ALL
- POINT LOAD FROM ABOVE OR BEARING WALL OR / SHEAR WALL. 20. REFER TO ARCHITECTURAL PLANS FOR ANY DIMENSIONS DONT SCALE
- STRUCTURAL PLANS 21. DOUGLAS FIR LARCH: MAX. 19% MOISTURE CONTENT AT TIME OF
- INSTALLATION.

FOUNDATION NOTES:

- TYP. ANCHOR BOLTS: 5/8" DIA W/ 3"X 3"X 0.229" PLATE WASHER W/EMBED 9" INTO IST POUR, MIN (2) A.B. PER PIECE, STARTING WITHIN 12" FROM SILL END AND NOT LESS THAN 7 BOLT DIAMETER OR 4-3/8" OF EACH END OF SILL PLATE. SPACING OF THE BOLTS IS 6FT OC MAXIMUM PLEASE REEFER TO FOUNDATION PLAN & SHEAR WALL SCHED. FOR SPACING.
- 2. CONCRETE SHALL ATTAIN A DESIGN BEARING CAPACITY OF 4000 PSI & FOR GRADE BM. OR CONCRETE COL. 4000 PSI
- THE FLOOR SLAB & FOUNDATION MAY BE POURED HOMOGENEOUSLY AT THE SAME TIME OR IN TWO POURS WITH A COLD JOINT BETWEEN. DESIGN IS BASED ON A HOMOGENEOUS POUR. ALL ANCHOR BOLTS SHALL BE LONGER ENOUGH TO ACHIEVE 7" MIN. EMBED IN 1ST POUR.
- 4. BEFORE ANY CONCRETE IS PLACED EXCAVATIONS FOR FOOTINGS SHALL BE INSPECTED ANY APPROVED BY BUILDING AND SAFETY.
- 5. ALL SLAB SUB GRADE AREAS SHALL BE PRE MOISTENED BEFORE PACING MOISTURE BARRIER.
- 6. HOLD-DOWNS SHALL BE RETIGHTENS JUST PRIOR TO COVERING THE MALL FRAMING
- 7. HOLD-DOWNS SHALL BE TIED IN PLACE PRIOR TO CALLING FOUNDATION INSPECTION.
- FASTENER IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE HOT DIPPEDZING COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- 9. THE REINFORCING WIRE MESH, DEFORMED REINFORCING STEEL BARS AND STRUCTURAL STEEL SHAPES DELIVERED TO THE JOBSITE FOR USE ON THE CONSTRUCTION OF THE STRUCTURE MUST BE ACCOMPANIED WITH MILL CERTIFICATES, PREPARED BY AN APPROVED TESTING AGENCY, WHICH DOCUMENT THE MATERIAL STRENGTHS AND CHEMICAL COMPOSITION SPECIFIED FOR THE PROJECT
- 0. PROVIDE A MIN. 26-GAGE WEEP SCREED FOR STUCCO AT THE FOUNDATION PLATE LINE AT MIN. OF 4 IN. ABOVE THE EARTH OR 2 IN. ABOVE PAVED AREAS.
- 11. SATURATE THE SOIL 18-in. DEEP BEFORE PLACING THE CONCRETE SLAB12.
- 12. IF ADVERSE SOIL CONDITIONS ARE UNCOUNTED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED.

STRUCTURAL COMPOSITE PARALLAM/MICROLAM PROPERTIES

- 2.0E PARALLAM ICC-ESR-1387 ALLOWABLE BENDING STRESS Fb = 2900 ksi
- ALLOWABLE SHEAR STRESS Fy = 290 ksi MODULUS OF ELASTICITY Mo E = 2000 ksi
- E MIN = 1016.535
- 2.2E PARALLAM ICC-ESR-1387
- ALLOWABLE BENDING STRESS Fb = 2900 ksi ALLOMABLE SHEAR STRESS Fy = 290 ksi
- MODULUS OF ELASTICITY Mo E = 2200 ksi E MIN = 1118.19
- 2.0E MICROLAM ICC-ESR-1387 ALLOWABLE BENDING STRESS Fb = 2600 ksi
- ALLOMABLE SHEAR STRESS FV = 285 ksi
- MODULUS OF ELASTICITY Mo E = 2000 ksi E MIN = 1016.535

GLUE-LAM BEAM

- GLUE- LAM BEAMS SHALL BE MARKED AITC A 190.1 ALLOWABLE BENDING STRESS Fb = 2400 ksi
- ALLOWABLE SHEAR STRESS Fy = 265 ksi
- MODULUS OF ELASTICITY Mo E = 1.800 ksi E MIN = 950 ksi PROVIDE FIELD INSPECTOR WITH APPROVED"CERTIFCATION OF INSPECTION"

- STRUCTURAL OBSERVATION STRUCTURAL OBSERVATION SHALL BE AS FOLLOWS
- 1) ALL NEW TRENCHES OF ALL NEW FOUNDATIONS AND REBARS PRIOR TO
- POURING CONCRETE (CAISSON, GRADE BEAMS 2) ALL FRAMING INCLUDING MOMENT FRAME PRIOR TO COVERING OF DRYWALL

SEISMIC DESIGN CATEGORY	SPECIAL INSPECTION REQUIRED
C,D,E, AND F	STRUCTURAL WOOD, STRUCTURAL WELDING, & COLD FORM STEEL FRAMING IN SEISMIC FORCES RESISTING SYSTEMS
C,D,E, AND F	COMPONENTS IN DESIGNATED SEISMIC SYSTEM

WOOD FRAMING

WOOD FRAMING SHALL BE DOUGLAS FIR-LARCH MARKED BY W.W.P.A. OR W.C.L.I.B. AS FOLLOWS, UNLESS NOTED

OTHERWISE	:		
	DESCRIPTION	GRADE	
	VERTICAL MEMBERS: 2X, 4X & LARGER	NO. 2 OR BETTER U.N.O	
	HORIZONTAL MEMBERS: 2X, 4X & LARGER	NO. 2 OR BETTER U.N.O	
2. ALL SH	EATHING SHALL BE APA RATED SHEATHING, GRA	DE, THICKNESS AND PANEL INDEX AS INDICA	TED

ON DRAWINGS. ALL SHEETS SHALL BE BONDED WITH EXTERIOR GLUE, NAILING SHALL BE INSPECTED PRIOR TO COVERING

EACH SHEATHING SHEET SHALL HAVE A MINIMUM AREA OF 8 SQUARE FEET AND A MIN. DIMENSION IN ANY DIRECTION OF 2 FEET.

WOOD PLATES IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED OR

ALL NAILS SHOWN ON PLANS SHALL BE COMMON WIRE NAILS AND SHALL COMPLY W/ TABLE 2304.10.1 OF THE BUILDING CODE UNLESS NOTED OTHERWISE PLYMOOD AND/OR LUMBER SHIMS IF USED AS FILLER MATERIALS SHALL BE GLUED AT FULL CONTACT AREA IN STRICT COMPLIANCE WITH A.P.A. REQUIREMENTS. THE USE OF SHIMS MUST BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

ALL FRAMING HARDWARE ARE STRONG-TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY, UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S RECOMMENDATION. ON SUBSTITUTION WITHOUT WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER TO CONSTRUCTION.

BOLTS SHALL CONFORM TO ASTM A-307. PROVIDE WASHERS UNDER ALL BOLTS, NUTS, & SCREWS HEADS PER SCHEDULE.

ALL NAILS SHOWN ON USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE OFFICE OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" PLYWOOD. IF NAIL-HEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OF IF MINIMUM ALLOWABLE EDGE DISTANCE ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEM UNSATISFACTORY.

ALL FRAMING "E" VALUE ARE 1.7×1000000

NAILING SCHEDULE

CONNECTION	NAILING	LOCATION
	OOF	
1- Blocking between ceiling joists, rafters or truss to top plate or other framing below	3-8d common or 3-10d box or 3-3" x0.131 nails or 3-3" 14 gage staples.	Each end, toenail
Blocking between rafters, rafters or truss not at the	2-8d common or 2-3" × 0.131 nails or 3-3" 14 gage staples.	Each end, toenail
wall top plate, to rafter or truss	2-16d common or 3-3" x 0.131 nails or 3-3" 14 gage staples.	End nail
Flat blocking to truss and web filler	16d common or 3-3" × 0.131 nails or 3-3" 14 gage staples.	Face nail
2- Ceiling joists to top plate	3-8d common or 3-10d box or 3-3" x0.131 nails or 3-3" 14 gage staples.	Each end, toenail
3- Ceiling joist not attached to parallel rafter, laps over partition (not) thrust	3-16d common or 4-10d box or 4-3" x0.131 nails or 4-3" 14 gage staples.	Face nail
4- Ceiling joist attached to parallel rafter (hell joint)	per table 2308.7.3.1	Face nail
5- Collar tie to rafter	3-10d common or 3-16d box or 4-3" x0.131 nails or 4-3" 14 gage staples.	Face nail
6- Rafter or roof truss to top plate	3-10d common or 3-16d box or 4-3" x0.131 nails or 4-3" 14 gage staples.	Toenail
7- Roof rafter to ridge valley or hip rafters; or roof	2-16d common or 3-10d box or 3-3" x0.131 nails or 3-3" 14 gage staples.	End nail
rafter to 2-inch. ridge beam	3-10d common or 3-16d box or 4-3" x0.131 nails or 4-3" 14 gage staples.	Toenail
	<u>I</u> ALL	
	16d common (3 $\frac{1}{2}$ " × 0.162"):	24" o.c. face nail
8- Stud to Stud (not at braced wall panel)	10d box or 3" × 0.131 nails; or 3-3" 14 gage staples.	16" o.c. face nail
	16d common (3 $\frac{1}{2}$ " × 0.162"): or	16" o.c. face nail
9- Stud to Stud and abutting studs at intersection wall	16d box (3 $\frac{1}{2}$ " × 0.135"): or	12" o.c. face nail
corners (at braced wall panels).	3" x 0.131" nails or 3-3" 14 gage staples	12" o.c. face nail
10- Built-up header (2" to 2" header)	16d common (3 $\frac{1}{2}$ " × 0.162"): or	16" ea. edge, face nail
10- Built-up ricader (2 to 2 ricader)	$16d box (3 \frac{1}{2}" \times 0.135")$	12" ea. edge, face nail
11. Continuous header to stud	4-8d common 4-10d box	Toenail
12. Top plate to top plate	16d common	16" o.c. face nail
	3"x0.131" nails	12" o.c. face nail
	3" 14 gage staples, 7/16" crown	
13.Top plate to top plate, at end joints	12-10d box 12-3"x0.131" nails	Each side of end joint face nail (min 24" lap splice length each side of end joint)
	12-5 14 gage staples, 1/16 crown	-
14. Bottom plate to joist, rim	16d common	16" o.c. face nail
inict bandinict on blacking	16d box	
joist, band joist or blocking (not at braced wall panels)		12" o.c. face nail
(not at braced wall panels)	3"×0.131" nails	
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box	12" o.c. face nail
(not at braced wall panels) 15. Bottom plate to joist, rim	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails	
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown	16" o.c. face nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails	
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown	16" o.c. face nail Toenail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common	16" o.c. face nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails	16" o.c. face nail Toenail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box	16" o.c. face nail Toenail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box	16" o.c. face nail Toenail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-6d common(2"x0.131") OR 3-10d BOX (3" X 0.128") OR	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common 17. Top plates, laps at cornerS and intersection 18.1" brace to each stud and	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-6d common 2-8d common(2 "X 0.131") OR 3-10d BOX (3" X 0.128") OR 2-3"x0.131" nails OR	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common 17. Top plates, laps at cornerS and intersection 18. 1" brace to each stud and plate	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-6d common(2 "X 0.131") OR 2-3"x0.131" nails OR 2-3" 14 gage staples, 7/16" crown 2-8d common(2 "X 0.131") OR	16" o.c. face nail Toenail End nail
(not at braced wall panels) 15. Bottom plate to joist, rim joist, band joist or blocking at braced wall panels 16. Stud to top or bottom plate 4-8d common 17. Top plates, laps at cornerS and intersection 18. 1" brace to each stud and plate	3"x0.131" nails 3" 14 gage staples, 7/16" crown 2-16d common 3-16d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 4-10d box 4-3"x0.131" nails 4-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-16d common 3-3"x0.131" nails 3-10d box 3-3" 14 gage staples, 7/16" crown 2-8d common(2 "X 0.131") OR 3-10d BOX (3" X 0.128") OR 2-3"x0.131" nails OR 2-3" 14 gage staples, 7/16" crown	16" o.c. face nail Toenail End nail Face nail

- ALL STRUCTURAL STEEL WORK SHALL BE DESIGNED, FABRICATED AND ERECTED TO AISC SPECIFICATIONS AND STANDARD PRACTICES FOR BUILDINGS.
- STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A-50.
- 3. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A-53 GRADE "B".
- 4. STRUCTURAL STEEL TUBE SHALL CONFORM TO ASTM A-500 GRADE "B". 5. PAINT ONE COAT OF RUST INHIBITIVE PAINT AND TWO COATS IN EXPOSED AREAS.
- 6. A LICENSED FABRICATOR APPROVED BY THE BUILDING DEPARTMENT SHALL FURNISH SHOP DRAWINGS FOR APPROVAL BY ENGINEER PRIOR TO FABRICATIONS OF STRUCTURAL STEEL MEMBERS. HOLES FOR BOLTS AND/OR RIVETS SHALL NOT BE
- CUT WITH A TORCH. BOLT HOLES FOR STEEL CONNECTIONS SHALL BE 1/16" LARGER IN DIAMETER THAN NORMAL BOLT SIZE. BOLTS FOR COLUMN BASE PLATES AT FOUNDATIONS MAY BE 3/16" MAXIMUM LARGER IN DIAMETER THAN ANCHOR BOLTS.
- ALL CONNECTIONS NOT DETAILED ON PLANS SHALL BE DETAILED BY STEEL FABRICATOR AND SHALL BE SUBMITTED ON SHOP DRAWINGS FOR APPROVAL BY
- ENGINEER. BOLTS SHALL BE ASTM A-307 UNLESS NOTED OTHERWISE. ALL STEEL MEMBERS SHALL BE MADE IN AN APPROVED FABRICATOR'S SHOP. THE APPROVED FABRICATOR SHALL SUBMIT THE CERTIFICATE OF COMPLIANCE TO THE BUILDING INSPECTOR PRIOR TO ERECTION.

NOTES FOR CONTRACTORS

AND SPECIAL MOMENT RESISTING CONCRETE FRAMES.

CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING YSTEM/ COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM/ COMPONENT PER CBC 1706.1.

I. CONTINUOUS SPECIAL INSPECTION BY A REGISTERED DEPUTY INSPECTOR IS REQUIRED FOR FIELD NELDING, CONCRETE STRENGTH FC'>2500 PSI, HIGH STRENGTH BOLTS, SPRAYED- ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, PRE-STRESSED CONCRETE, HIGH LOAD DIAPHRAGMS

3. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED MOOD

FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY LADBS FOR (STRUCTURAL STEEL) (REINFORCING STEEL) (LIGHT GAUGE STEEL). CONTINUOUS INSPECTION BY A DEPUTY NSPECTOR IS REQUIRED.

5. SHOP WELDS MUST BE PREFORMED IN LADBS LICENCE FABRICATOR'S SHOP.

LADBS LICENSED FABRICATOR IS REQUIRED FOR TRUSSES, STRUCTURAL STEEL, PARALLAM

. GLUED-LAMINATED TIMBERS MUST BE FABRICATED IN A LADBS LICENSED SHOP. IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2018 NDS SUPPLEMENT TABLE 5-A

. PROVIDE LEAD HOLE 40%-70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR MOOTH SHANK PORTION.

PERIODIC SPECIAL INSPECTION IS REQUIRED FOR MOOD SHEAR MALLS, SHEAR PANELS AND DIAPHRAGM, INCLUDING NAILING, BOLTING ANCHORING AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4" ON CENTER OR LESS

REINFORCEMENT

1. REINFORCING TO CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

- A. REINFORCING STEEL U.N.O.: ASTM A615 OR A706, 60 KSI B. REINFORCING STEEL TO BE WELDED: ASTM A706, 60 KSI
- C. WELDED STEEL WIRE FABRIC: ASTM A185, 70 KSI D. SMOOTH DOWELS IN SLAB ON GRADE: ASTM A36, 36 KSI

2. REINFORCING BARS SHALL HAVE THE FOLLOWING MINIMUM COVERAGE. PLACE BARS AS NEAR TO THE CONCRETE SURFACE AS THESE MINIMUMS PERMIT WHEREVER POSSIBLE UNLESS

NOTED OTHERWISE: MIN. CONCRETE COVER CONCRETE POURED AGAINST EARTH FORMED CONCRETE IN CONTACT WITH EARTH EXPOSED TO WEATHER (#6 AND LARGER) EXPOSED TO WEATHER (#5 AND SMALLER) SLABS & WALLS NOT EXPOSED TO WEATHER NOT EXPOSED TO MEATHER

3. #5 AND LARGER REINFORCING BARS SHALL NOT BE SPLICED EXCEPT AS LOCATED AND DETAILED ON TH DRAWINGS. #4 AND SMALLER BARS WITH LENGTH NOT SHOWN SHALL BE CONTINUOUS, LAPPING 1'-6" MIN. IN CONCRETE (SEE TYPICAL DETAILS). HORIZONTAL WALL SPLICES SHALL BE STAGGERED. VERTICAL BARS SHALL NOT BE SPLICED EXCEPT AT HORIZONTAL SUPPORT, SUCH AS FLOOR OR ROOF, UNLESS DETAILED OTHERWISE. ALL BARS ENDING AT THE FACE OF A WALL, COLUMN, OR BEAM SHALL EXTEND TO WITHIN 2" OF THE FAR FACE AND HAVE A 90 DEGREE HOOK UNLESS OTHERWISE SHOWN.

4. BARS SHALL BE FIRMLY SUPPORTED AND ACCURATELY PLACED AS REQUIRED BY THE A.C.I. STANDARDS USING TIE AND SUPPORT BARS IN ADDITION TO REINFORCEMENT SHOWN WHERE NECESSARY FOR FIRM 8 ACCURATE PLACING. ALL DOWELS SHALL BE ACCURATELY SET IN PLACE BEFORE PLACING CONCRETE.

5. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. CONTRACTOR SHALL PREPARE DETAILED PACEMENT DRAWINGS OF ALL CONDITIONS SHOWING QUANTITY, SPACING, SIZE, CLEARANCES, LAPS, INTERSECTIONS AND COVERAGE REQUIRED BY STRUCTURAL DETAILS, APPLICABLE CODE AND TRADE STANDARDS. CONTRACTOR SHALL NOTIFY REINFORCING INSPECTOR OF ANY ADJUSTMENTS FROM

CONDITIONS THAT ARE PROPOSED IN PLACEMENT DRAWINGS TO FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.

6. NO WELDING OF REINFORCEMENT (INCLUDING TACK WELDING) SHALL BE DONE UNLESS SHOWN ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY WELDERS SPECIFICALLY CERTIFIED FOR REINFORCING STEEL. USE E90XX ELECTRODES.

CONCRETE

- CONCRETE IS REINFORCED AND CAST-IN-PLACE UNLESS OTHERWISE NOTED. WHERE REINFORCING IS NOT SPECIFICALLY SHOWN OR WHERE DETAILS ARE NOT GIVEN, PROVIDE REINFORCING SIMILAR TO THAT SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE OWNER'S REPRESENTATIVE.
- ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
- FOUNDATIONS FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY A, B OR C USE 2500 psi CONCRETE
- B1. FOUNDATIONS FOR GROUP R OR U OCCUPANCIES OF LIGHT-FRAME CONSTRUCTION, TWO STORIES OR LESS IN HEIGHT, ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F USE 4000 psi B2. FOUNDATION FOR OTHER STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D,E OR F
- PRECAST NON-PRESTRESSED DRIVEN PILES USE 4000 psi (U.O.N.)
- SOCKETED DRILLED SHAFTS USE 4000 psi (U.O.N.)
- MICROPILES USE 4000 psi F- PRECAST PR-ESTRESSED DRIVEN PILES USE 5000 psi (U.O.N.) ALL STRUCTURAL CONCRETE MIXES SHALL BE TYPE V W/ 0.45 W/C RATIO MAX. CEMENT AND SHALL BE DESIGNED BY AN APPROVED LABORATORY.
- ADMIXTURES CONTAINING CALCIUM CHLORIDE ARE NOT ALLOWED AT CONCRETE FILL OVER METAL DECK.
- NORMAL WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33. LIGHT WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-330.
- NO MORE THAN ONE GRADE OF CONCRETE SHALL BE ON THE JOB SITE AT ANY ONE TIME. THOROUGHLY CLEAN AND ROUGHEN ALL HARDENED CONCRETE & MASONRY SURFACES TO RECEIVE NEW CONCRETE. INTERFACE SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4"
- KEY AND DOWEL POUR JOINTS AS SHOWN ON THE PLANS, ANY DEVIATION FROM POUR JOINTS SHOWN ON THE PLANS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- NON-SHRINK CEMENT GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 7000 PSI. USE "FIVE STAR GROUT" (LA RR # 25967) ASTM C 1107-02 GRADE A, B, &C, ASTM C 1107-07 AND CRD-C 621-93
- DEFECTIVE CONCRETE (BOIDS, ROCK POCKETS, HONEYCOMBS, CRACKING, ETC.) SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE OWNER'S REPRESENTATIVE

CONTINUOUS SPECIAL INSPECTION

UNLESS NOTED OTHERWISE.

- 1. CONTINUOUS SPECIAL INSPECTION IS REQUIRED PER CBC SECTION 1701. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK AS DESCRIBED IN CBC SECTION 1701.5: 1.1 EPOXY DOWELS.
- 1.3 STEEL FRAME COLUMNS.

1.10 CONCRETE COMPRESSION TESTS FOR F'C OVER 2500 PSI.

1.2 FIELD STEEL WELDING

- 1.4 VERTICAL SEISMIC FORCES RESISTING SYSTEMS THAT HAS MORE THAN 300 PLF VALUE 1.5 CONCRETE WITH fc OVER 2500 PSI AND GRADE BEAMS 1.6 ALL CMU WALLS.
- .7 EPOXY ANCHORS: PERIODIC SPECIAL INSPECTION SHALL BE PROVIDED FRO ANCHORS INSTALLED IN HARDENED 1.8 HIGH LOAD DIAPHRAGMS USING VALUES FROM SECTION 2306.2 SHALL BE INSTALLED WITH INSPECTIONS.
- SECTION 1705.5.1 1.9 HARDY PANELS.
- 2. APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OF FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE STRUCTURAL ENGINEER FOR INTERPRETATION OR CLARIFICATION.
- 3. DEPUTY INSPECTORS ARE REQUIRED TO BE LISTED BY THE BUILDING DEPARTMENT

GENERAL NOTES

NOTED OTHERWISE. DO NOT SCALE THE DRAWINGS.

- . ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND THE 2022 CALIFORNIA BUILDING CODE.
- 2. THESE GENERAL NOTES SUPERSEDE THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS. IN CASE OF
- CONFLICT BETWEEN THE PLANS AND SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE.
- 3. REFERENCE TO CODES, RULES, REGULATIONS, STANDARDS, MANUFACTURER'S INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES IS TO THE LATEST PRINTED EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BID UNLESS THE DOCUMENT DATE IS SHOWN.
- 4. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE (U.N.O.)
- 5. THE STRUCTURAL DRAWINGS ILLUSTRATE THE NEW STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR DEPRESSIONS, EDGE OF SLAB, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS AND EQUIPMENT.
- SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WHICH IMPACT THE WORK. FIELD VERIFY SIZES, ELEVATIONS, HOLE LOCATIONS, ETC. PRIOR TO FABRICATION.

8. DRAWING DIMENSIONS ARE TO FACE OF FINISH, JOINT CENTERLINE OR COLUMN GRID CENTERLINE UNLESS

9. CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED. VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO

WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.

- 10. EXISTING CONDITIONS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR IS REQUIRED 2306.2 & 2306.3) TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.
- 1. THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- 12. ANY DEVIATION, MODIFICATION & SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS & PRIOR TO PROCEEDING WITH THE WORK.
- 13. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORES, BRACES AND GUYS REQUIRED TO SUPPORT ALL LOADS TO WHICH THE BUILDING STRUCTURE AND COMPONENTS, SOILS, OTHER STRUCTURES AND UTILITIES MAY BE SUBJECTED DURING CONSTRUCTION. SHORING SYSTEMS SHALL BE DESIGNED AND STAMPE BY A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA. VISITS TO THE SITE BY THE OWNER'S REPRESENTATIVE WILL NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
- 14. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE AND PROCEDURE OF CONSTRUCTION AS REQUIRED. SITE VISITS PERFORMED BY THE OWNER'S REPRESENTATIVE DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY CONTRACTOR.
- 15. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.
- 6. STRUCTURAL OBSERVATIONS PERFORMED BY ENGINEER DURING CONSTRUCTION ARE NOT THE CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR. OBSERVATIONS ALSO DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
- 7. CONTRACTORS SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND COMPLIANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO OWNER'S
- 18. REVIEM OF THE SHOP DRAWINGS SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEVIATE FROM CONTRACT DOCUMENTS.
- 19. SHOP DRAWINGS WILL NOT BE PROCESSED DUE TO INCOMPLETENESS, LACK OF CO-ORDINATION WITH RELEVANT PORTION OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS IF REQUIRED AND WHERE DEVIATIONS, MODIFICATIONS AND SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM OWNER'S REPRESENTATIVE.
- 20. ALLOW FOURTEEN WORKING DAYS FOR PROCESSING SHOP DRAWINGS AFTER RECEIPT.
- 21. PRIOR TO ALL CORING, THE CONTRACTOR SHALL IDENTIFY EXISTING REINFORCING LOCATIONS BY
- PACHHOMETER, PROBING, CHIPPING, ETC. TO AVOID DAMAGE EXISTING REINFORCING.

CBC 2308.7.4 OR 2308.4.2.4

REPRESENTATIVE.

- 22. A. STRUCTURAL LUMBER SHALL COMPLY WITH CBC 2303.1.1 B. WOOD STRUCTURAL PANEL SHALL COMPLY WITH CBC 2303.1.5
- C. THE LUMBER AND SIZE OF WOOD FASTENER SHALL NOT BE LESS THAN SET FORTH TABLE 2304.10.2 D. CONCRETE: CEMENT TYPE V & WATER-CEMENT RATIO. TYPE IN MIX TICKET.
- 23. NOTCHING, DRILLING, BORING HOLES
- A. DRILLING AND NOTCHING OF STUDS AND TOP PLATES SHALL BE IN ACCORDANCE WITH SECTION CBC 2308.7.4
- B. CUTS, NOTCHES AND HOLES BORED IN TRUSSES, LAMINATED VENEER LUMBER, GLU-LAMINATED MEMBERS OR I-JOIST ARE NOT PERMITTED UNLESS THE EFFECTS OF SUCH ARE SPECIFICALLY ADDRESSED-CBC 2303.4.5 & 2308.7.9 C. NOTCHES AND HOLES IN SOLID LUMBER JOISTS AND BEAMS SHALL COMPLY WITH
- 24. ALL WALLS AND DIMENSIONS SHOWN ON PLANS WERE PROVIDED TO US BY THE OWNER AND HIS DESIGNER REFER TO ARCHITECTURAL PLANS FOR EXACT DIMENSIONS (DO NOT SCALE PLANS) ANY DISCREPANCIES BETWEEN FRAMING AND ARCHITECTURAL PLANS, CONTRACTOR MUST STOP ALL CONSTRUCTIONS AND NOTIFY THE ARCHITECT/DESIGNER AAA ENGINEERING IMMEDIATELY
- 25. ALL EXISTING FOUNDATION SHALL SHOW NO SIGN OF ANY DETERIORATIONS OR CRACKS CONTRACTOR TO VERIFY ALL EXISTING FOUNDATION SUCH AS DIMENSIONS
- 26. THESE PLANS MUST BE SUBMITTED TO CITY FOR PLAN CHECK, NON-SUBMITTAL RENDERS PLANS AND CALCULATIONS INVALID AND MAY NOT BE USED FOR CONSTRUCTION
- ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS ANDIOR FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER OF RECORD PRIOR TO SUBMITTAL OF BID AND CONSTRUCTION ANY DISCREPANCIES BETWEEN DRAWINGS THAT RESULT IN ADDITIONAL COST AFTER THE BID SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO REVIEW DRAWINGS CAREFULLY DURING THE BID PROCESS DO NOT PROCEED WITH ANY WORK UNTIL DISCREPANCY OR ANY OUTSTANDING ITEMS AND/OR QUESTIONS HAVE BEEN RESOLVED

HARDY FRAME NOMENCLATURE — HARDY FRAME WIDTH HARDY FRAME HEIGHT HFX-12X78 ICC # 2089 (1 ¹"-HS-RA) LARR # 2575 ---- INDICATES REIFORCED ANCHORAGE ----- INDICATES ROD GRADE INDICATES ROD DIAMETER

GENERAL STRUCTURAL NOTES:

- THE ALLOWABLE SOIL BEARING PRESSURES ARE AS FOLLOWS:
- N. WALL FOOTINGS: 1,500 psf 3. COLUMN FOOTINGS: 1,500 psf
- C. ALLOWABLE BEARING VALUES MAY BE INCREASED BY 33 PERCENT FOR SHORT TERM LOADING.

BACKFILL MATERIALS AND BACK FILLING PROCEDURES.

- . ALL EXISTING FILL MATERIALS & ANY LOOSE UPPER NATIVE SOILS SHALL BE REMOVED & RE-COMPACTED TO CREATE A COMPACTED FILL PAD FOR THE SUPPORT OF THE BUILDING. IN ADDITION, THE PROPOSED REMOVALS SHALL EXTEND A MINIMUM OF THREE FEET BELOW THE
- PROPOSED FOUNDATIONS . REMOVE LOOSE SOIL AND STANDING WATER FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING CONCRETE. THE GEO-TECHNICAL ENGINEER SHALL INSPECT AND APPROVE ALL EXCAVATIONS, SOIL
- 4. LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING ANDIOR AFTER CONSTRUCTION.

COMPACTION WORK PRIOR TO PLACEMENT OF ANY REBAR OR CONCRETE, SHORING INSTALLATIONS,

- 5. REMOVE ABANDONED FOOTINGS, UTILITIES, ETC. WHICH INTERFERE WITH NEW CONSTRUCTION, JNLESS OTHERWISE INDICATED.
- 5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.
- . PLACE BACKFILL BEHIND RETAINING WALLS AFTER CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. BRACE BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHED FLOORS AND SLABS ON GRADE ARE COMPLETE AND HAVE ATTAINED FULL DESIGN 7. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND
 - STRENGTH . HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS. AND HOLD-DOWN SHALL BE FINGER TIGHT AND WRENCH TURN PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS IN TO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE POST ON THE
 - OPPOSITE SIDE OF THE ANCHORAGE DEVICE. PLATE SIZE SHALL BE A MIN. OF 0.299 INCHES BY 3 INCHES . ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL
 - ONFORM WITH TABLE 2304 7 0. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS W/ FULL HEADS.(CBC

12. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION

- I. ALL BOLT HOLES SHALL BE DRILLED ${}^{\prime}_{32}$ " TO ${}^{\prime}_{16}$ " OVERSIZED.
- 3. MECHANICALLY DRIVEN NAILS USED IN WOOD STRUCTURAL PANEL SHEAR WALLS SHALL MEET THE SAME DIMENSIONS AS THAT REQUIRED FOR HAND-DRIVEN NAILS, INCLUDING DIAMETER, MIN. LENGTH
- AND MIN. HEAD DIAMETER. CLIPPED HEAD OR BOX NAILS ARE NOT ACCEPTABLE. 4. ENGINEERED WOOD PRODUCTS SUCH AS PREFABRICATED WOOD I JOISTS, STRUCTURAL GLUED AMINATED TIMBER, STRUCTURAL COMPOSITE LUMBER AND DESIGN TRUSSES SHALL NOT BE NOTCHED OR DRILLED EXCEPT WHERE PERMITTED BY THE MANUFACTURERS' RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. (CBC 2304.4 & 2308.10.7).
- 15. THE QUALITY MARK SHALL BE ON THE STAMP OR LABEL AFFIXED TO PRESERVATIVE TREATED MOOD AND SHALL INCLUDE THE FOLLOWING INFORMATION: IDENTIFICATION OF TREATING MANUFACTURER, TYPE OF PRESERVATIVE USED, MIN. PRESERVATIVE RETENTION (PCF), END USE FOR

WHICH THE PRODUCT IS TREATED, AWPA STANDARD TO WHICH THE PRODUCT WAS TREATED AND

16. SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN SO THAT

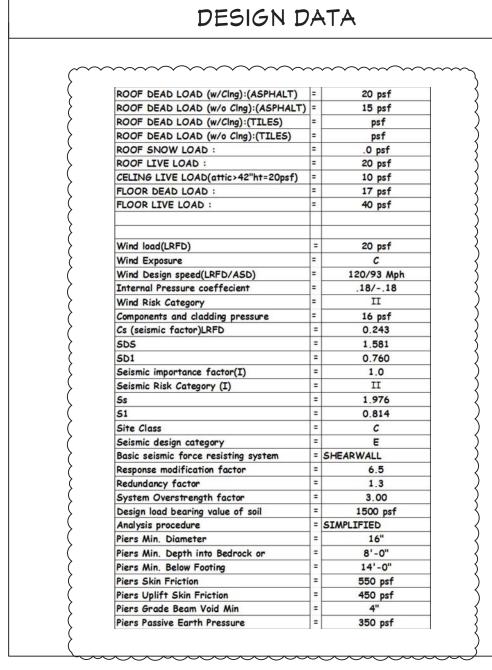
THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING (CBC 2304.10.3).

IDENTITY OF THE ACCREDITED INSPECTION AGENCY. (CBC 2303.1.9.1)

2304.10.5.1.

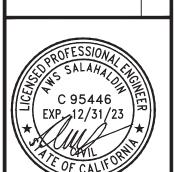
- 17. THE HOLE IN THE PLATE MASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. (CBC 2308.3.1)
- 18. FASTENERS FOR PRESERVATION-TREATED OR FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC- COATED GALVANIZED STEEL IN ACCORDANCE WITH CBC 2304.10.2.1.

18.ANCHOR BOLTS IN CONTACT WITH PRESSURETREATED SILL PLATE SHALLBE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZEOR COPPER-PER CBC SECTION



STANDARD PLATE WASHER SCHEDULE						
BOLTS SIZE	PLATE SIZE					
5/8" DIA.	1/4" × 3" × 3"					
3/4" DIA.	5/16" × 3" × 3"					
7/8" DIA.	5/16" × 3" × 3"					
1" DIA.	3/8" × 3 1/2" × 3 1/2"					

REVISION REVISION DATE





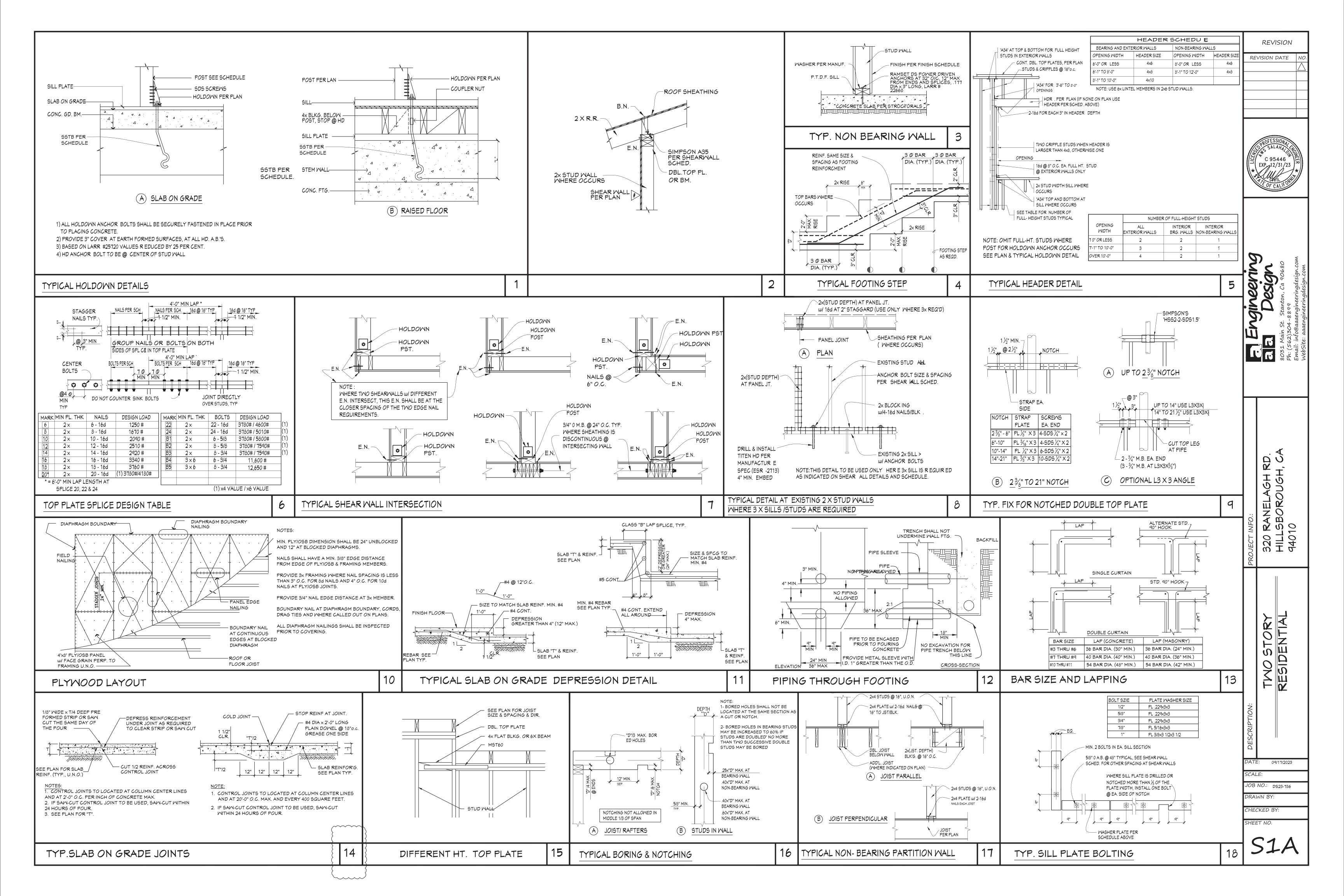
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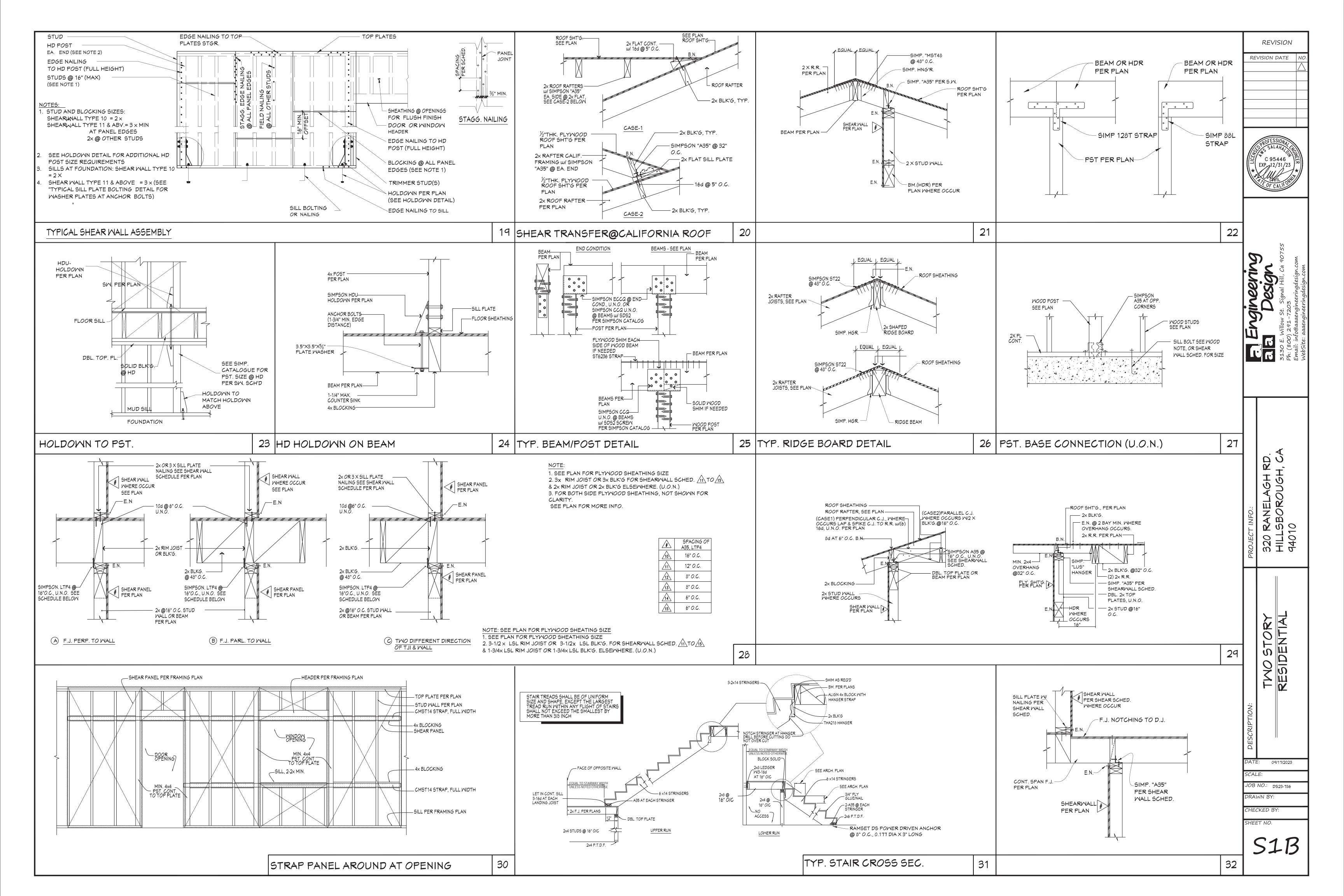
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PATE: 09/17/2023 CALE: OB NO.: DS23-786

CHECKED BY HEET NO.

PRAWN BY:





MOISTURE CONTENT OF BUILDING MATERIALS (SECTION 4.505.3) MOISTURE CONTENT OF MATERIALS REQUIREMENT: BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. INSULATION WHICH IS VISIBLY WET OR HAS HIGH MOISTURE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES

SHEAR WALL SCHEDULE NOTES:

1. FOR SHEAR MALLS MY ALLOMABLE SHEAR EXCEEDING 300 LB/FT, FRAMING AT ADJOINING PANEL EDGES SHALL BE 3" (INCH) NOMINAL OR THICKER (i.e. MIN 3x VERTICAL STUDS, SOLE PLATES, SILL PLATES AND BLOCKING) NAILS SHALL BE STAGGERED IN TWO LINES ALONG PANEL EDGES WHERE NAILS ARE SPACED 2" INCHES ON CENTER OR WHEN 10d COMMON NAILS SPACED 3" O.C. PENETRATE FRAMING MORE THAN 1 5/8".

2. ALL EXTERIOR WALL TO BE SECURED WITH 5/8" DIAM. X 16" A.B.'S AT 72" O.C. (U.O.N.) WITH 9" OF EMBEDMENT, UNLESS OTHERWISE NOTED, ALL %" A.B. FOR EXTERIOR AND INTERIOR SHEAR MALLS SHOULD PROVIDE MINIMUM 3"X3"X1/4" THK. PLATE MASHER UNDER NUT AT EACH BOLT.

3. WHERE PLYWOOD APPLIES ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" INCHES ON CENTER ON EITHER SIDE. PANEL JOINTS SHALL HAVE MIN 3x (VERTICAL STUDS AND BLOCKING) AND NAILS SHALL BE STAGGERED. OFFSET PANEL JOINTS TO FALL ON DIFFERENT FRAMING MEMBER WHERE PLYWOOD IS PLACED AT BOTH FACES.

- 4. NAILS SHALL BE PLACED NOT LESS THAN |4 INCH FROM PANEL EDGES
- 5. DEEPEN FOOTINGS AS REQUIRED AT HOLD-DOWNS. PROVIDE 3" MIN. DEPTH OF CONC. BELOW HOLD-DOWN ANCHOR.

6. FOR HOLD-DOWNS AT THE END OF THE SHEAR WALL, SEE PLANS AND SCHEDULE. PROVIDE PLATE WASHER PER STANDARD PLATE WASHER SCHEDULE AT ALL SILL PLATE ANCHOR BOLTS AND AT ALL HOLD-DOWN BOLTS CONNECTED TO VERTICAL POSTS.

7. USE WELDED STUD BOLTS OF SAME SIZE & SPACING AS OF SILL PLATE ANCHOR BOLTS, WHERE STEEL BEAM OCCURS UNDER SHEAR WALL.

8. PROVIDE DOUBLE PARALLAM BLOCKING TO ACCOMMODATE 2 ROWS OF SIMPSON SDS SCREWS.

9. FOUNDATION SILL PLATE SHALL BE 2x. U.N.O. - USE 3 x SILL IP WHEN ALLOWABLE SHEAR EXCEEDS 300#/FT. FOR ALL WALLS, PROVIDE MINIMUM TWO BOLTS PER PIECE OF SILL PLATE & ONE LOCATED WITHIN 12" AND NOT LESS THAN 7 BOLT DIAMETER OR 4|3" OF EACH END OF EACH SILL PLATE

10. SIMPSON SDS 1/4"x6" MOOD SCREMS. TYP. USE |2"x4|4" SDS INTO NAILERS AT STEEL BEAMS.

11. WHERE 2-2× SILL PL ARE USED SCREW LOWER PLATE TO FRAMING BELOW. DRILL HOLE IN UPPER SILL PLATE FOR SCREW HEAD SO THAT UPPER PLATE SITS FLAT ON LOW SILL PLATE.

12. AT (E) FOUNDATION, SILL ANCHORS SHALL BE 5/8" @ EXPANSION ANCHORS W/ 8" MIN. EMBED. SPACING SHALL BE AS SAME AS ANCHOR BOLT SPACING PER SHEAR WALL SCHED.

13. FOR BRACED WALL PANELS/SHEARWALLS, EACH SHEET OF PLYWOOD/OSB SHEATHING SHALL NOT BE LESS THAN 24" IN LEAST DIMENSION. ALL EDGES OF ALL PANELS SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING

14. BRACED WALL PANELS/SHEARWALLS SHALL RUN CONTINUOUSLY FROM FOUNDATION TO ROOF/FLOOR FRAMING

FOUNDATION NOTES:

LEGEND:

| INDICATES NEW FOUNDATION

INDICATES DETAIL NO.

INDICATES BEAM NO.

INDICATES GRID LINE NO.

⟨├──|⟩ INDICATES CLG. JST./FLR JST

⟨├──|⟩ INDICATES ROOF RAFTER

INDICATES SHEAR WALL PANEL TYPE SEE SHEAR WALL SCHEDULE.

INDICATES (N)WALL

SHEAR WALL

 \bowtie POST(MIN.4X4)

POST ABOVE

CRIPPLE POST

1. FOR GENERAL NOTES AND TYPICAL DETAILS, SEE SHEETS S1.0, S1A

2. VERIFY ALL DIMENSIONS, ELEVATIONS, SLAB EDGES, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, FOOTING, PENETRATIONS, WALL OPENINGS, WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL & CIVIL DRAWINGS.

3. FOR GRID LINE DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.

4. ALL PIER FOOTINGS SHALL EXTEND 14 FEET FROM THE BOTTOM OF THE GRADE BEAMS & 8' INTO BEDROCK. IF BED ROCK IS EXPOSED AT THE SURFACE, PIER DEPTH MAY BE REDUCED TO 8 FEET BELOW GRADE BEAM.

5. ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED BY THE PROJECT ENGINEERING GEOLOGIST OR PROJECT GEO-TECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL

6. SILL PLATE ANCHOR BOLTS AT WALLS OTHER THAN SHEAR WALLS: 5/8" WITH 9" MIN. EMBEDMENT, INSTALLED WITH PLATE WASHERS, SPACED AT 4'-0" O.C. FOR ALL WALLS, PROVIDE MINIMUM TWO BOLTS PER PIECE OF SILL PLATE & ONE LOCATED WITHIN 12" AND NOT LESS THAN 7 BOLT DIAMETER OR $4\frac{3}{4}$ " OF EACH END OF EACH SILL PLATE.

7. PLYWOOD WALL SHEATHING: AT ALL EXTERIOR WALLS OTHER THAN SHEAR WALLS, 1/2" CDX PLYWOOD NAILED WITH 8d COMMONS SPACED AT 6" O.C. ALONG ALL PANEL EDGES (E.N.) AND 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.) (U.O.N.).

8. ALL HOLD-DOWN HARDWARE IS TO BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

9. SHEAR WALLS SHALL RUN CONTINUOUSLY FROM FOUNDATION TO ROOF OR FLOOR FRAMING.

10. WEEP SCREED FOR STUCCO AT THE FOUNDATION PLATE LINE SHALL BE MIN. OF 4" ABOVE THE EARTH OR 2" ABOVE PAVED AREAS.

11. IF ADVERSE CONDITIONS ARE ENCOUNTERED A SOILS INVESTIGATION MAY BE REQUIRED

12. PRESERVATIVE-TREATED WOOD - AWPA STANDARD U1 AND M4

13. FOUNDATION SILL SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED MOOD. FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATI AMP.M4.

TIVE-TRATED WOOD SHALL BE FIELD -TREATED PER		
ı	ABBRE	EVIATIONS:
	PR.J.J.M.P.F.R.H.D.D.B.F.D.M.S.D.T.E.U.P.M.E.B.H.S.S.P.T.&S.N.A.B.N.N.G.H.E.D.D.B.F.D.M.S.D.T.E.U.P.M.E.B.H.S.S.P.T.	POST ROOF RAFTER. FLOOR JOIST. DECK JOIST. CEILING JOIST. BEAM. KING POST. BALLOON FRAMED WALL. HEADER. PIPE COLUMN. FLUSH BEAM. DROPPED BEAM. DOUBLE. BLOCKING. FULL HEIGHT. DRAG STRUTS. MULTI STUDS BEARING. SILL PLATE NAILING. DOUBLE 2 X TRIMMER. TOP AND BOTTOM. EACH SIDE. UNLESS NOTED OTHERWISE PST. ABOVE. TO ADD SAME SIZE PST. BELOW MACHINE BLOT EDGE NAILING BOUNDARY NAILING HANGER SHEAR WALL SCHEDULE PRESSURE TREATED

MST	25713	257 13
SSTB	25827	2611
UFP	25726	2616
SB BOLTS	25827	2611
COUPLER NUT CNM		1161
SET XP ADHESIVE	25744 CONC	2508
	25965 MASONRY	IAPMO ER265 MASONRY
STRONG BOLT2 WEDGE ANCHOR	25891 CONC 25936(CARBON) MASONRY	3037 IAPMO ER240(CARBON) MASONRY
DTT2Z,ETC	25720	2330
HDU (EXCEPT HDU14 W/4X6 POST)	25720	2330
PB	25985	3050
CBSQ	25985	3050
CCQ,CC	25714	2604
HUĈQ, 410,412,610,612	25801	2552
LU,HU	25910	3096
	01001	

25800

25803

25804

25806

25806

25910,25718

25713

LARR#

25814, 25910

ES#

3096

2549

2553

2615

2551

2877

2616 2613

2105

3X STUDS AND BLOCK FOR ALL FRAMING MEMBERS RECEIVING EDGE

NAILING FROM ABUTTING MEMBERS 1/2"EDGE DISTANCE FROM PANEL EDGES AND 3" FROM THE EDGE OF THE CONNECTING MEMBERS EDGE NAILING FROM ABUTTING MEMBERS ALL MOOD STRUCTURAL JOINT AND SILL PLATE NAILING SHALL BE

STAGGERED AT ALL PANEL EDGES

CONNECTOR

A35

MM

HCP

MM/MMU

MBHA

H2.5

CS/CMST

NOTE:

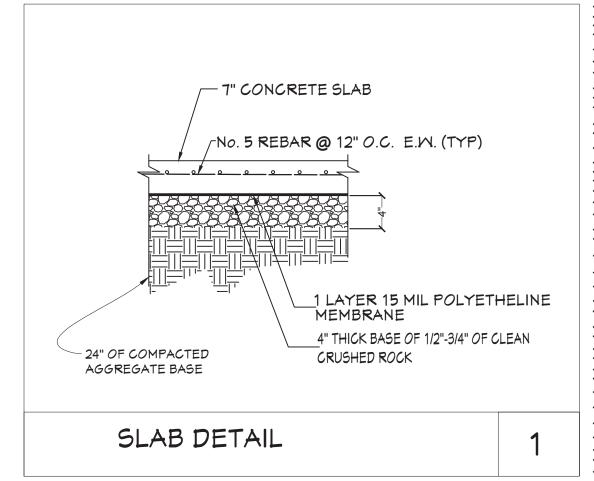
* 4000PSI CONCRETE FOR PIERS AND GRADE BEAMS PER PLAN

* TYP. SLAB: 7" THICK (NET) CONCRETE SLAB W/ #5 BARS, 12" O.C. EACH WAY PLACED AT THE CENTER OF SLAB. UNDERLAIN BY (15MIL) PLASTIC MOISTURE BARRIER OVER 4" THICK $\frac{1}{2}$ "- $\frac{3}{4}$ " INCHES OF CLEAN CRUSHED ROCK OVER 24 INCHES OF COMPACTED AGGREGATE BASE. NOTE: ALL CONCRETE SLAB AREA TO RECEIVE FLOOR COVERINGS SHOULD BE MOISTURE TESTED TO MEET ALL MANUFACTURER REQUIREMENTS PRIOR TO PLACEMENT.

* 5/4" DIAM. ANCHOR BOLTS EMBEDDED 7" INTO CONCRETE OR MASONRY, MAXIMUM 4'-0" O.C. MINIMUM 2 BOLTS PER PLATE, ONE BOLT NOT MORE THAN 12" OR LESS THAN SEVEN BOLT DIAMETERS OF PLATE ENDS SEC. 1806.6 AND 1806.6.1.

*A CERTIFICATION OF 90% COMPACTION OF BACKFILL FROM A GEO-TECHNICAL ENGINEER SHALL BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO FINAL SIGN OFF AND ACCEPTANCE OF RETAINING MALL.

* CONTRACTOR TO FOLLOW SOILS REPORT RECOMMENDATIONS DONE BY ROMING ENGINEERS DATED MARCH 11, 2024 PROJECT NO. 6491-1



		*D.S=D <i>O</i> l	JBLE SIDED ALL SI	ECIAL INS	SPECTION						
		ALLOW	SILL PLATE ATTAC	CHMENT U.N.O. FR	RAMED FLOOR	A35	NA	ILING	NO. OF		
		SHEAR (#/FT)	FOUNDATION (A307 BOLTS)	16D NAILS	SIMPSON	SHEAR CLIPS	FIELD (F.N.)	EDGE (E.N.)	SIDES	MATERIAL	MARK
		90	5/8"Φ A.B. @ 48" O.C.	16d NAIL @ 12" O.C.	SIMPSON SDS @ 16" O.C.	32" <i>O.C</i> .	8d @ 12" O.C.	8d @ 6" O.C.	1	7/8" STUCCO	8
_		280	5/8"Ø A.B. @ 48" O.C.	16d NAIL @ 4" O.C.	SIMPSON SDS @ 16" O.C.	16" O.C.	8d @ 12" O.C.	8d @ 6" O.C.	1	15/32" STRUCT-I PLYMD (PI 32/16) 5-PLY	10
	3×	340	5/8"Ø A.B. @ 32" <i>O.C.</i>	16d NAIL @ 3" O.C.	SIMPSON SDS @ 12" O.C.	12" O.C.	10d @ 12" O.C.	10d @ 6" O.C.	1	15/32" STRUCT-I PLYMD (PI 32/16) 5-PLY	11
	Эх	430	5/8"Φ A.B. @ 24" <i>O.</i> C.	16d NAIL @ 2.5" O.C.	SIMPSON SDS @ 8" O.C.	8" O.C.	10d @ 12" O.C.	8d @ 4" O.C.	1	15/32" STRUCT-I PLYWD (PI 32/16) 5-PLY	12
	3x	510	5/8"Ø A.B. @ 20" O.C.	16d NAIL @ 2" O.C.	SIMPSON SDS @ 6" O.C.	8" O.C.	10d @ 12" O.C.	10d @ 4" O.C.	1	15/32" STRUCT-I PLYMD (PI 32/16) 5-PLY	13
	3x	550	5/8"Ø A.B. @ 16" O.C.	16d NAIL @ 2" O.C.	2 ROWS SIMPSON SDS @ 8" O.C.	6" O.C.	10d @ 12" O.C.	8d @ 3" O.C.	1	15/32" STRUCT-I PLYWD (PI 32/16) 5-PLY	14
	3x	665	5/δ"Φ A.B. @ 12" <i>O.C</i> .	16d NAIL @ 1.5" O.C.	SIMPSON SDS @ 6" O.C.	6" O.C.	10d @ 12" O.C.	10d @ 3" O.C.	1	15/32" STRUCT-I PLYWD (PI 32/16) 5-PLY	15
	3x	1020	5/δ"Φ A.B. @ 10" <i>O.C</i> .	16d NAIL @ 2" O.C.	SIMPSON SDS @ 3" O.C.	6" O.C.	10d @ 6" O.C.	10d @ 4" O.C.	2	15/32" STRUCT-I PLYMD (PI 32/16) 5-PLY	D.5
	3x	1330	5/8"Ø A.B. @ 6" O.C.	16d NAIL STG @ 1.5" O.C.	SIMPSON SDS @ 3" O.C.	6" O.C.	10d @ 6" O.C.	10d @ 3" O.C.	2	15/32" STRUCT-I PLYWD (PI 32/16) 5-PLY	D.5

STRUCTURAL OBSERVATION

FIRM OR INDIVIDUAL RESPONSIBLE FOR THE STRUCTURAL OBSERVATION:

NAI	ME: AAA ENGINEER	ING	DESIGN INC.	ALI	F. REG.: C 62778		
	FOUNDATION		MALLS & MALL FRAMING		OTHER STRUCTURAL MEMBERS		ROOF & FLOOR DIAPHRAGM
×	FOOTINGS,STEM WALLS,PIERS		CONCRETE WALL		STEEL MOMENT FRAME		CONCRETE
	PAD FOOTINGS		MASONRY WALL		STEEL BRACED FRAME		STEEL DECK
	SLAB	×	MOOD WALL & SHEAR WALL		CONCRETE MOMENT FRAME	×	MOOD
	CAISSON,PILES GRADE BEAMS	×	MOOD STRUC. BEAMS & MEMBERS		MASONRY WALL FRAME		OTHER
	STEPPED FOOT'G. HILLSIDE		OTHER		OTHER		OTHER

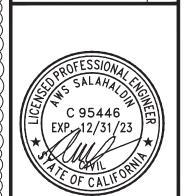
* ROOF DIAPHRAGM: USE 1/2" CDX (APA RATED)(EXPOSURE 1)PLYWOOD, PANEL INDEX# (24/0), WITH 8d NAILS @ 6" O.C. SUPPORTED EDGES & BOUNDARIES,@ 12" O.C. IN FIELD (BLOCKED DIAPH.U.O.N.)

(BLOCKED DIAPH. U.O.N.)

FLOOR & DECK DIAPHRAGM USE MIN. 3/4 STR.I, C-D OR C-C (APA RATED) PLYMOOD, MIN. PANEL INDEX# (32/16), T&G WITH 10d NAIL AT 4" O.C. SUPPORTED EDGÉS & BOUNDARIES @ 10" O.C. IN THE FIELD

SPECIAL INSPECTION							
ITEMS	SPECIAL INSPECTOR						
STRUCTURAL WELDING	×						
SHEAR WALL NAILING	X						

REVISION REVISION DATE



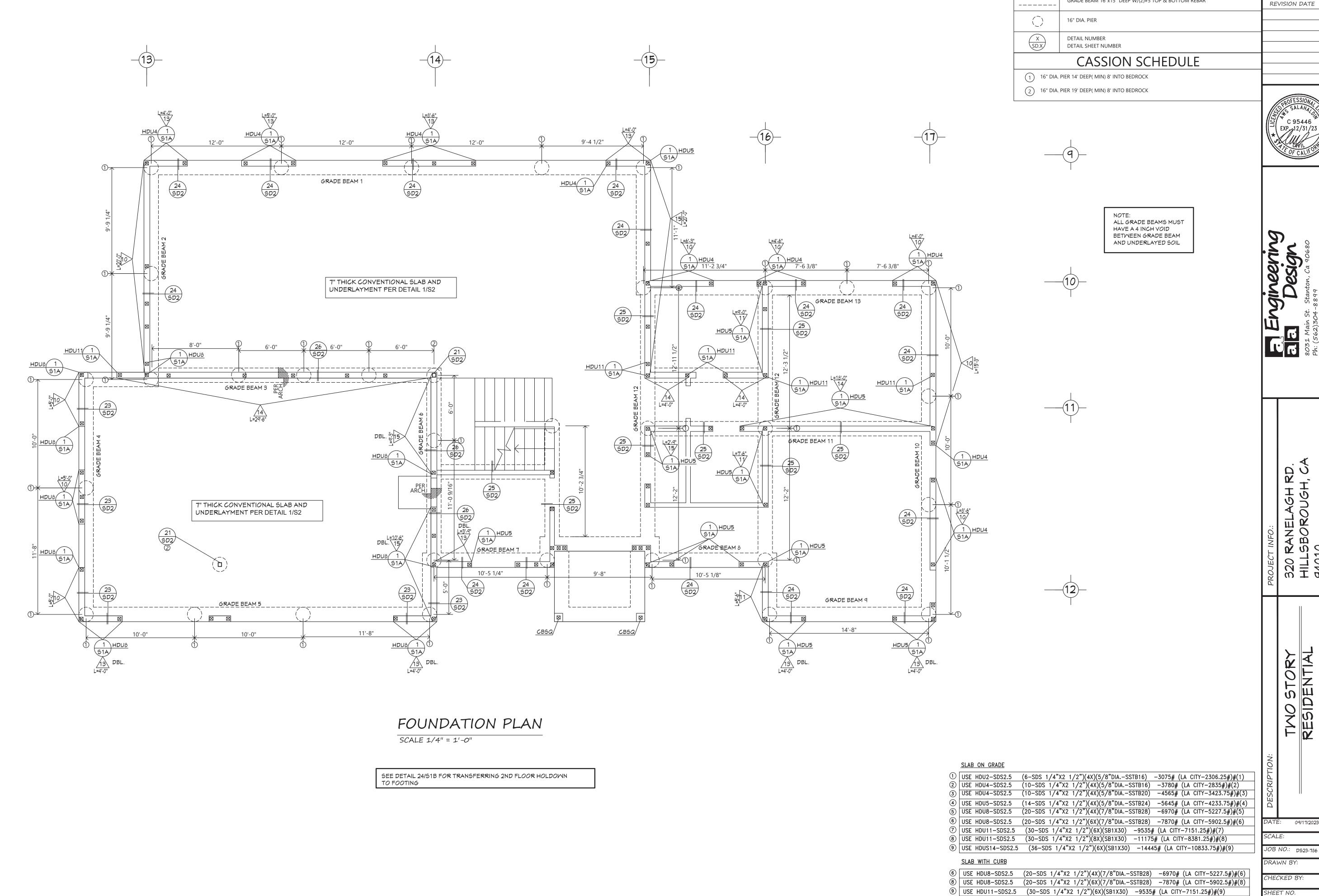
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> TOR NO ESI

09/17/2023

JOB NO.: DS23-786 DRAWN BY:

CHECKED BY SHEET NO.

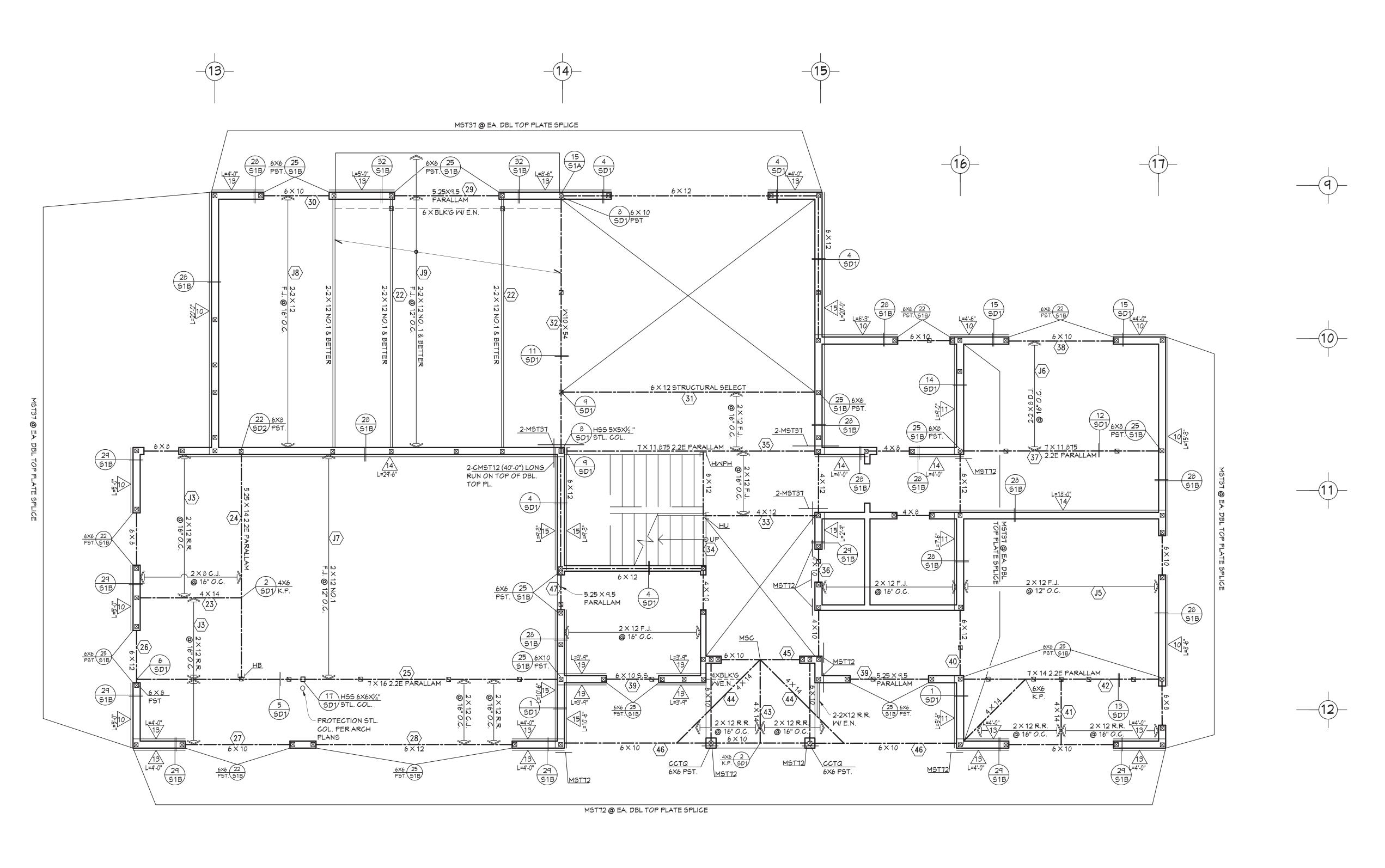


SYMBOLS LEGEND REVISION GRADE BEAM 16"x15" DEEP W/(2)#5 TOP & BOTTOM REBAR REVISION DATE



DATE: 09/17/2023

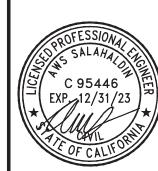
① USE HDU11-SDS2.5 (30-SDS 1/4"X2 1/2")(8X)(SB1X30) -11175# (LA CITY-8381.25#)#(10) ① USE HDUS14-SDS2.5 (36-SDS 1/4"X2 1/2")(6X)(SB1X30) -13090# (LA CITY-9817.5#)#(11)



2ND FLOOR FRAMING PLAN

SCALE 1/4" = 1'-0"

NOTE: STRUCTURAL GRID LINES ARE DIFFERENT THAN ARCHITECTURAL GRID LINES. STRUCTURAL GRID LINES ARE IN PLACE FOR SHEAR WALL LINES. REVISION



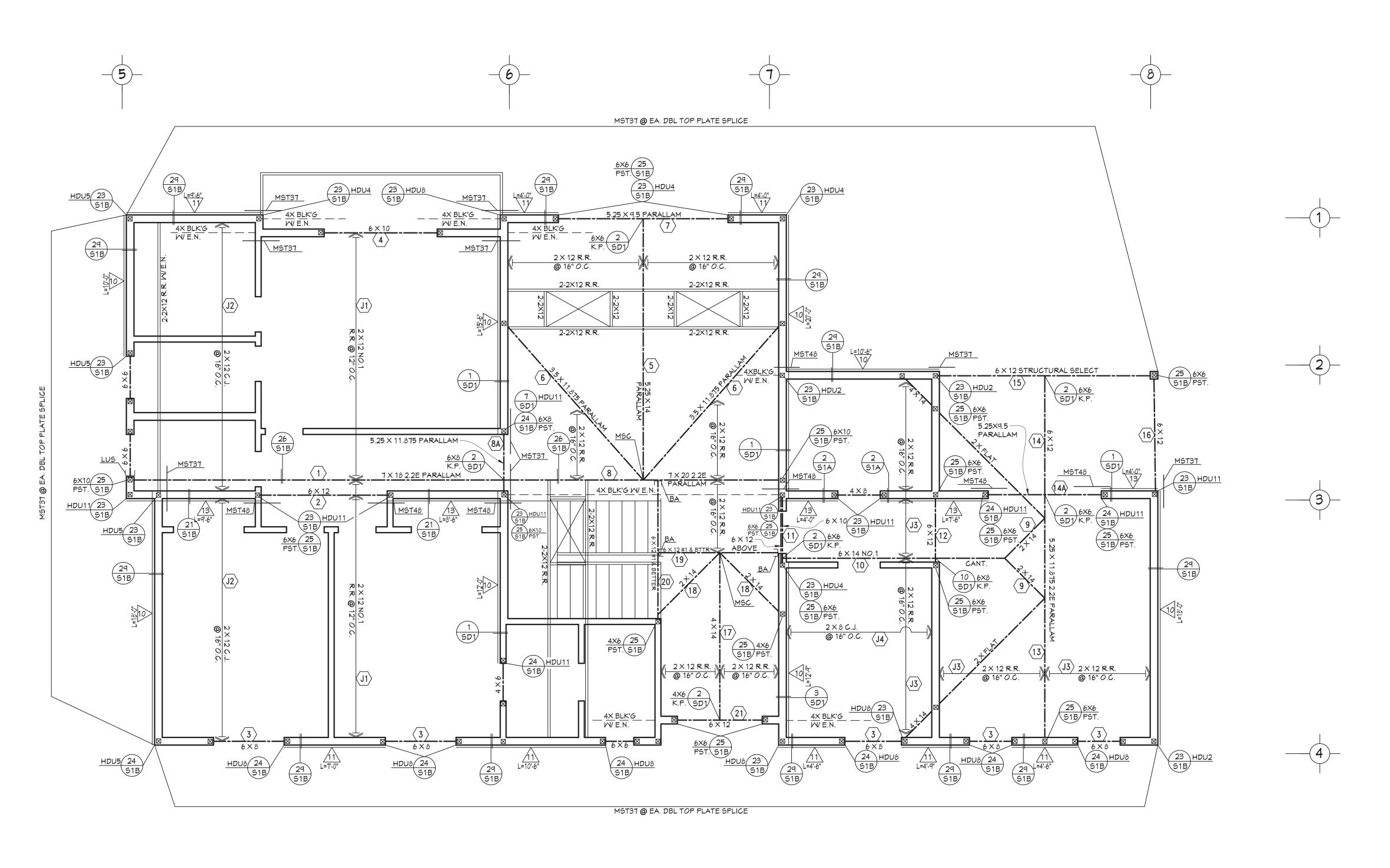
320 RANELAGH RD.
HILLSBOROUGH, CA
94010

TWO STORY RESIDENTIAL

DATE: 09/17/2023

JOB NO.: DS23-786

CHECKED BY: SHEET NO.



NOTE: STRUCTURAL GRID LINES ARE DIFFERENT THAN ARCHITECTURAL GRID LINES. STRUCTURAL GRID LINES ARE IN PLACE FOR SHEAR WALL LINES. ROOF FRAMING PLAN

SCALE 1/4" = 1'-0"

REVISION DATE NO.

SROFESSIONAL SP SALAHA



Engineering
Design
Main St. Stanton, Ca 90680

320 RANELAGH RD.
HILLSBOROUGH, CA
94010

TWO STORY
RESIDENTIAL

DATE: 09/17/2

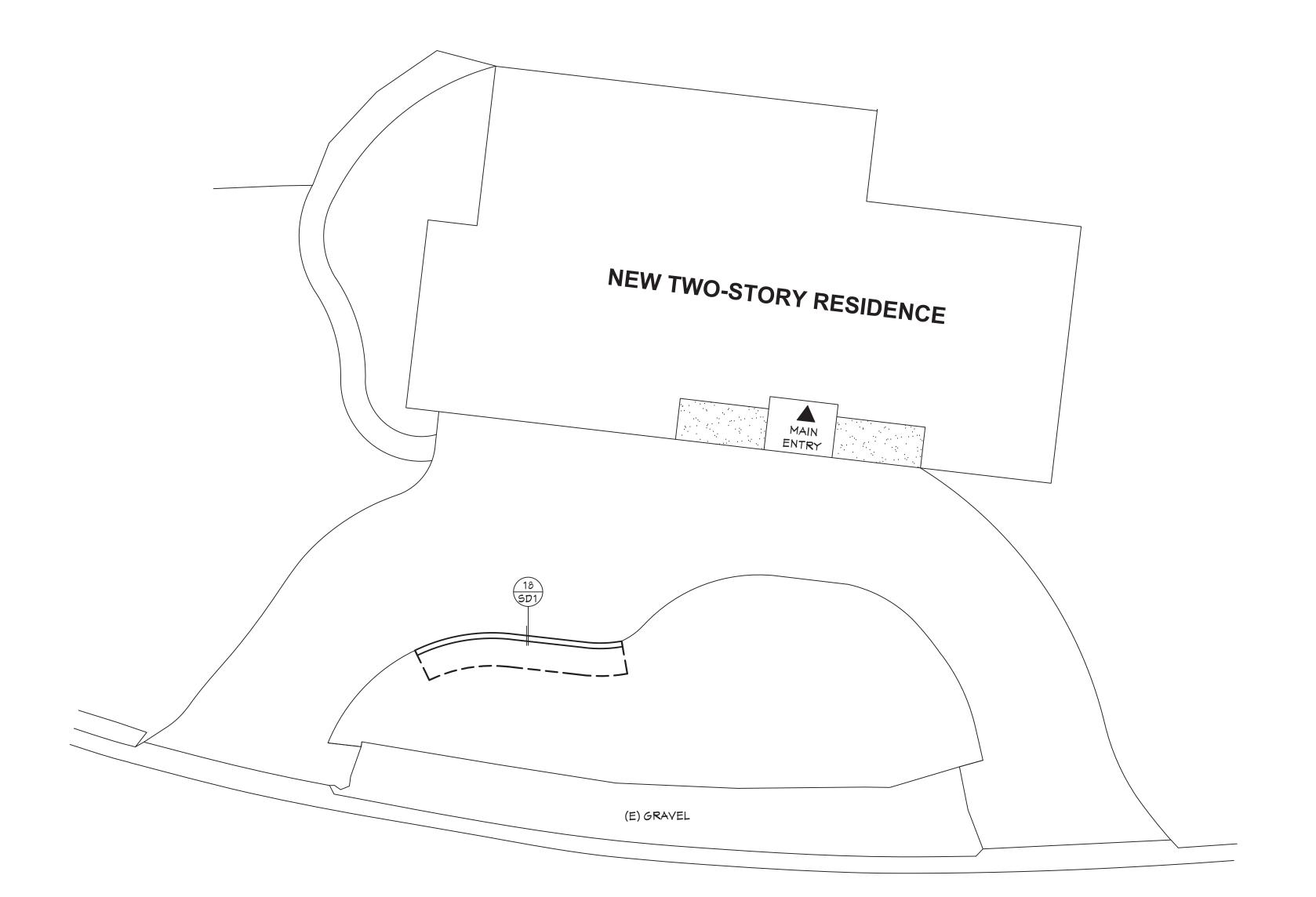
DATE: 09/17/2023 SCALE:

JOB NO.: D523-786

DRAWN BY:

CHECKED BY: SHEET NO.

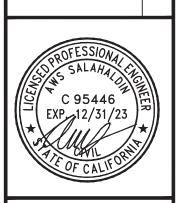
S5



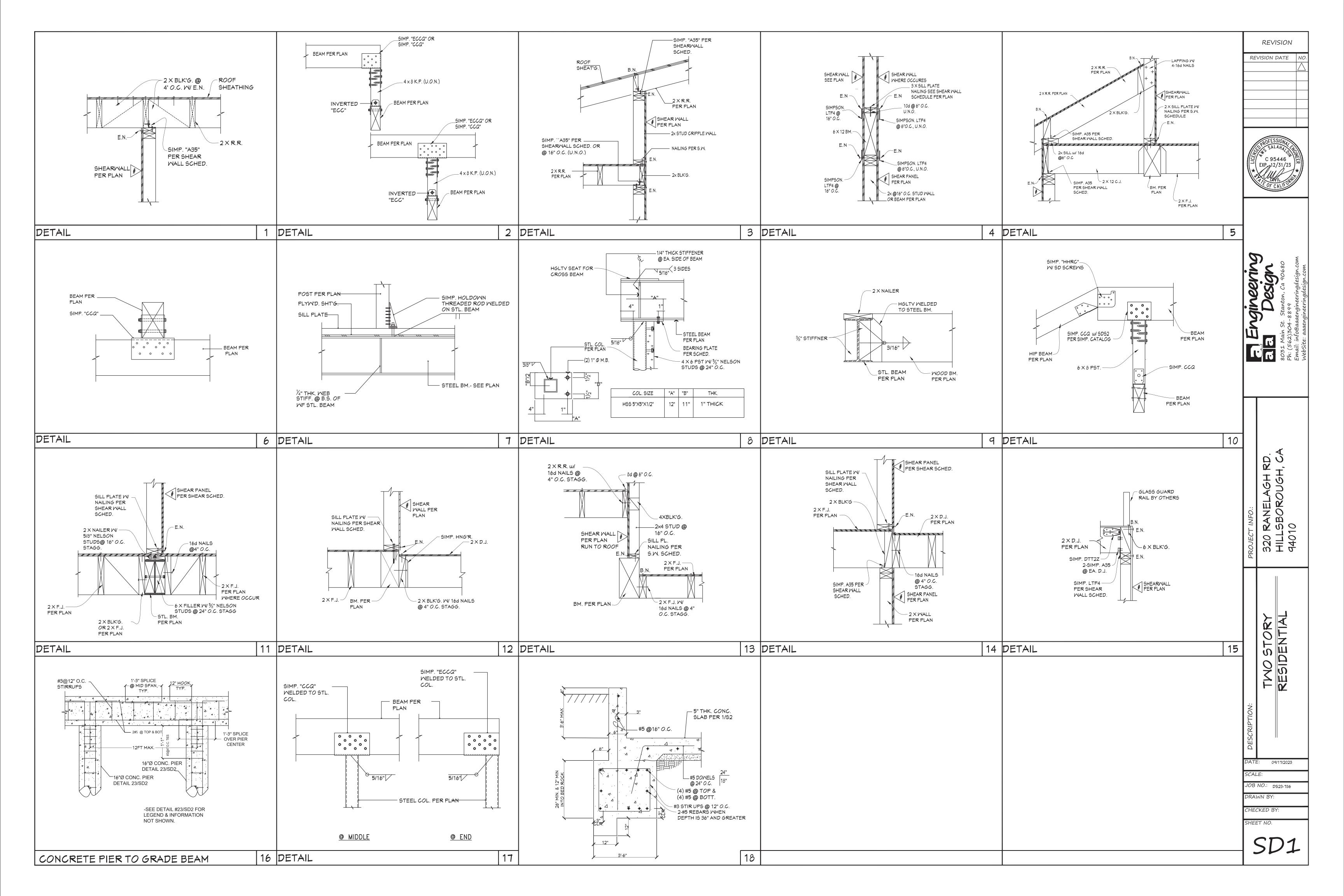
RETAINING WALL PLAN

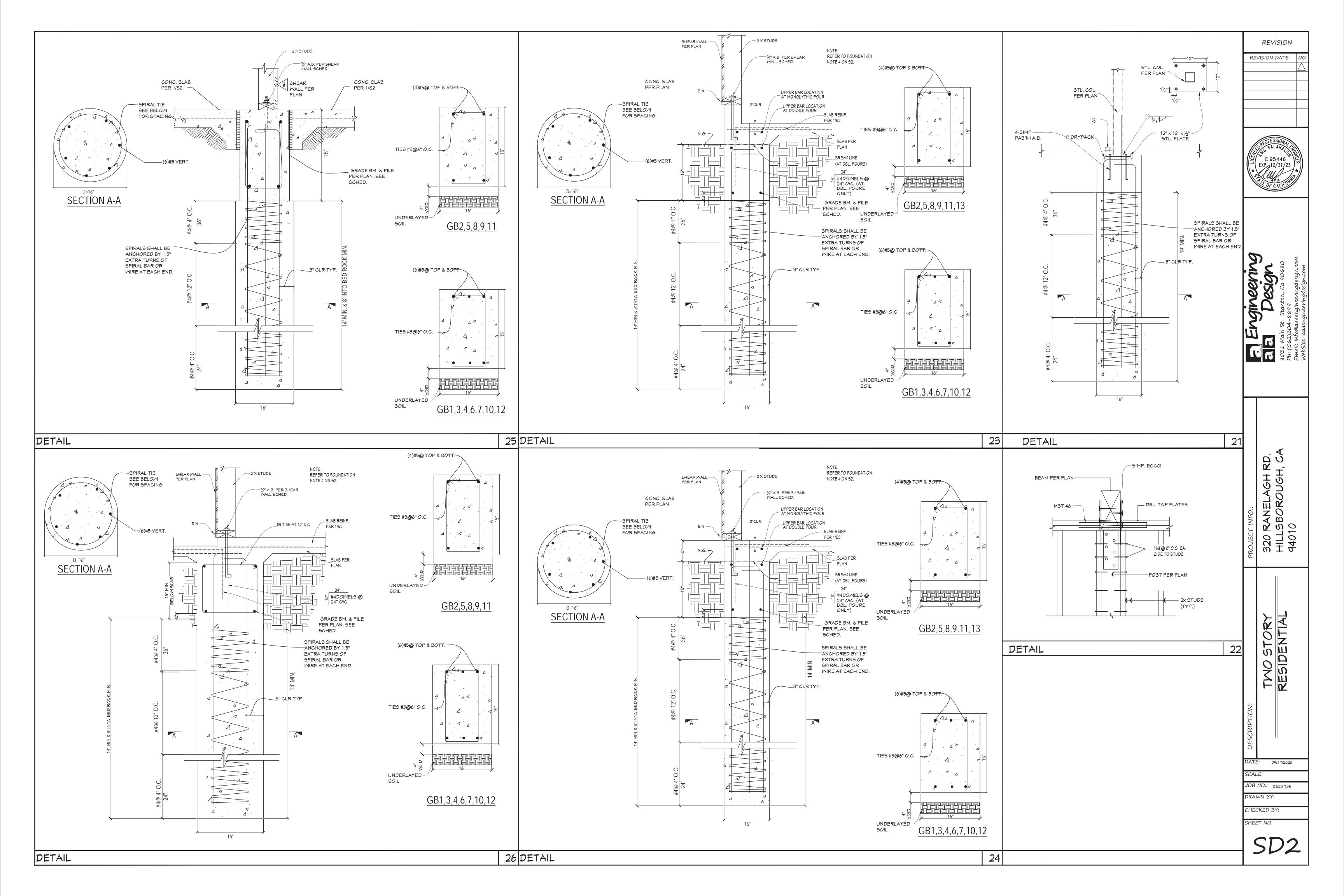
SCALE 1/4" = 1'-0"

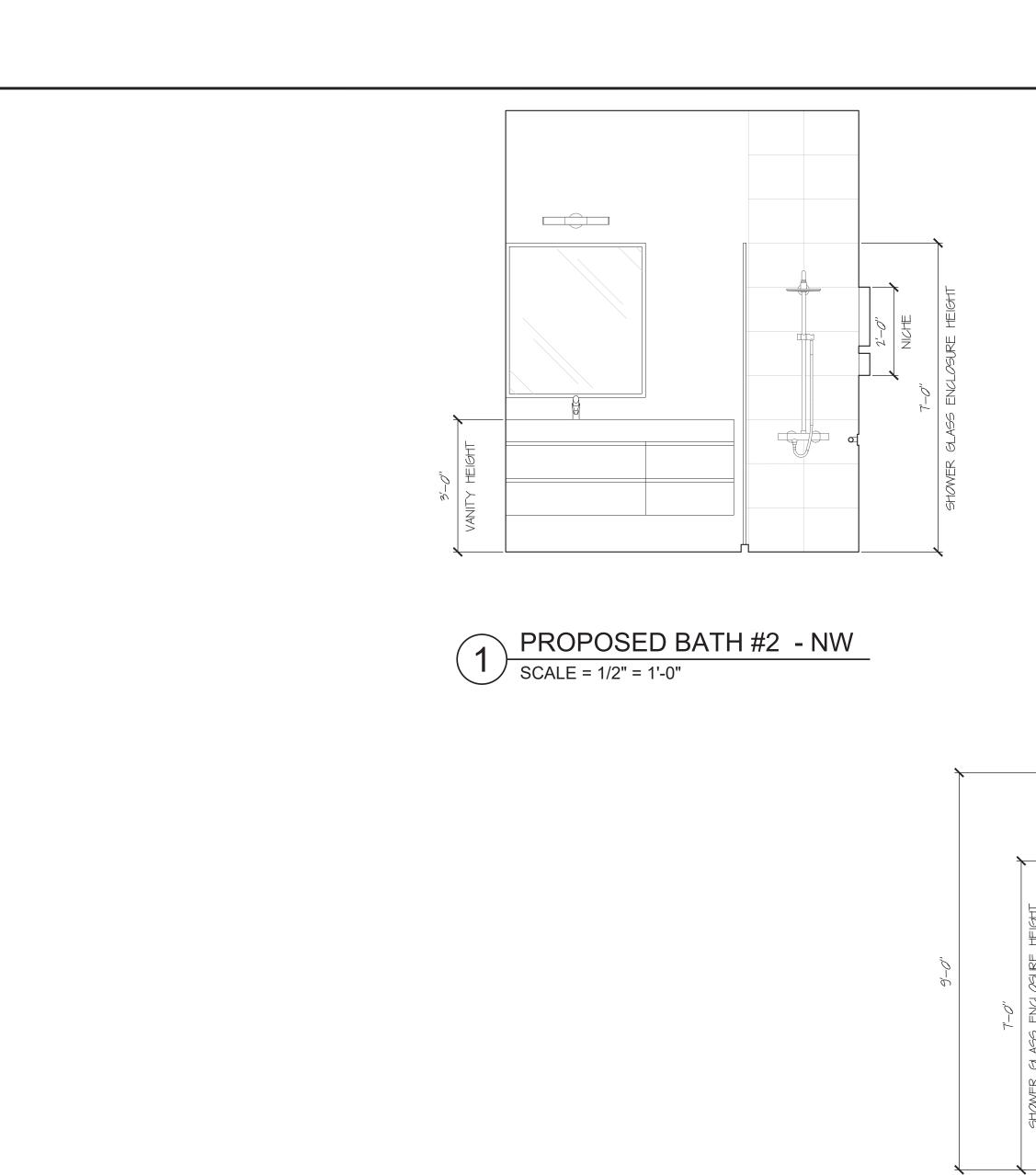
REVISION

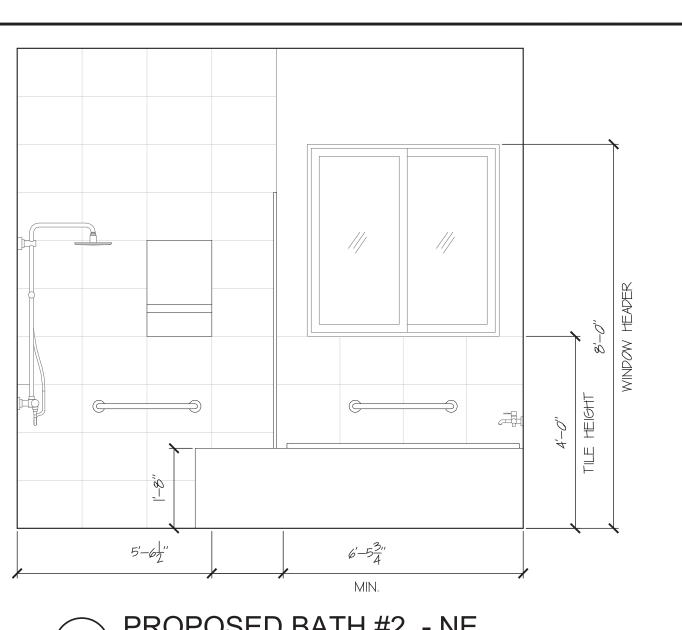


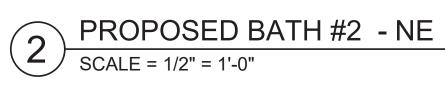
920 RANELAGH RD.
HILLSBOROUGH, CA
94010

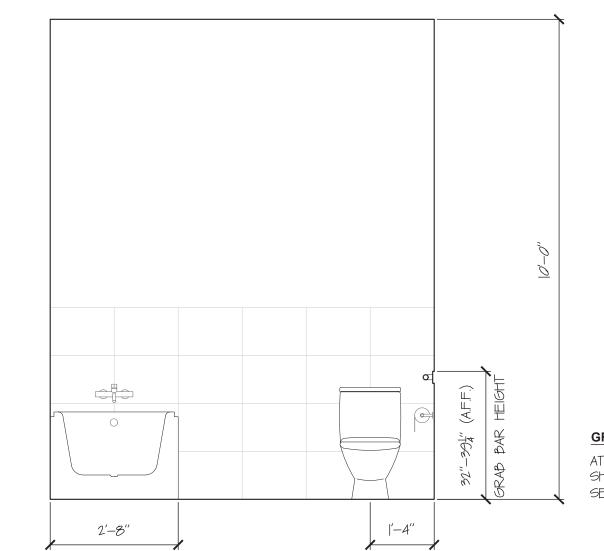












GRAB BAR NOTES:

AT LEAST ONE BATHROOM ON THE ENTRY LEVEL
SHALL BE PROVIDED WITH GRAB BAR REINFORCEMENT,
SEE REINFORCEMENT DETAIL 10/A-5.0

3 PROPOSED BATH #2 - SE SCALE = 1/2" = 1'-0"

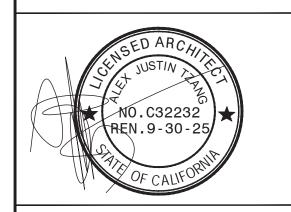


ALEX TZANG ARCHITECTS

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

ALEX@ALEXTZANG.COM (415) 309-8082

STAMP

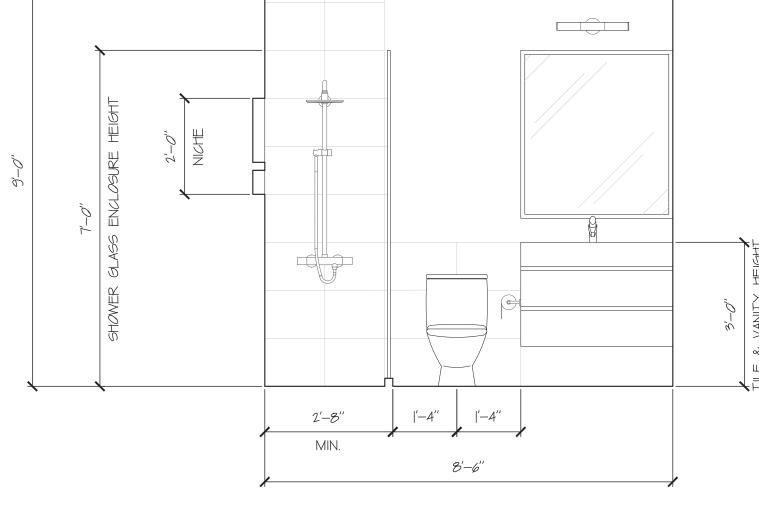


PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

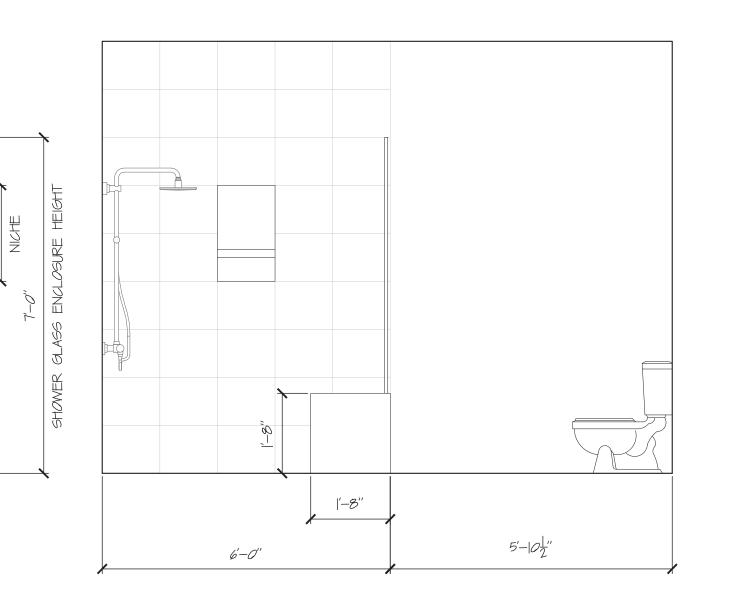
APPROVAL STAMP



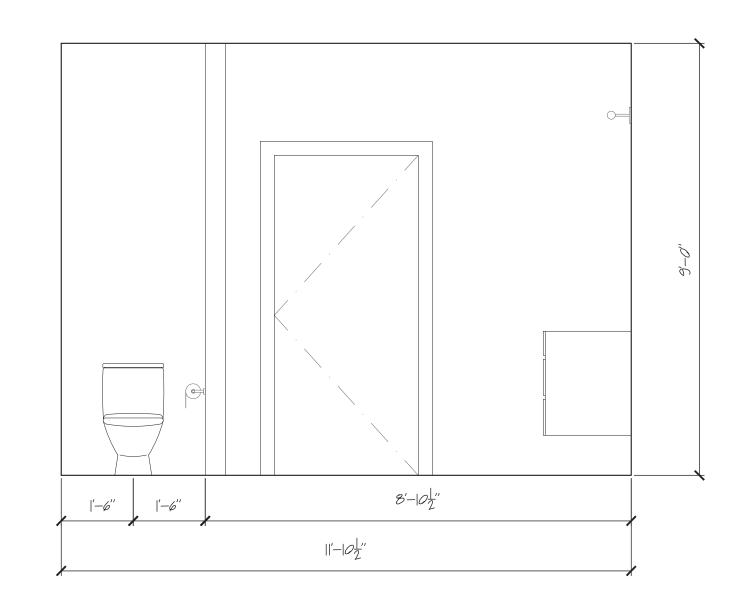
3'-4"

PROPOSED BATH #4 - NE

SCALE = 1/2" = 1'-0"



7 PROPOSED PRIMARY BATH #4 - NW SCALE = 1/2" = 1'-0"



6 PROPOSED PRIMARY BATH #4 - NE SCALE = 1/2" = 1'-0"

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14
JOB	NO.	222088

 JOB NO.
 222088

 DRAWN BY
 R.W.

 DATE
 2023-11-23

SHEET TITLE

INTERIOR ELEVATIONS

SHEET NUMBER

A-6

PROPOSED PRIMARY BATH #4 - SE

SCALE = 1/2" = 1'-0"

 $||'-|O_{\overline{2}}^{\perp}|'$

&'-O''

3'-101"

6 PROPOSED PRIMARY BATH #4 - SW SCALE = 1/2" = 1'-0"

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 320 Ranelagh Residence Calculation Date/Time: 2023-11-14T10:31:10-06:00 Input File Name: 320 Ranelagh residence v30.ribd22 Calculation Description: Title 24 Analysis

CF1R-PRF-01E (Page 1 of 14)

CF1R-PRF-01E

	Calcula	ition Description: Title 24 Analysis	Input File Name: 320_Ranelagn_residence_v30.ribd22
	GENER	AL INFORMATION	
	01	Project Name	320 Ranelagh Residence
	02	Run Title	Title 24 Analysis
8	03	Project Location	320 Ranelagh Rd

03	Project Location	320 Ranelagh Rd			
04	City	Hillsborough	05	Standards Version	2022
06	Zip code	94010	07	Software Version	CBECC-Res 2022.3.0
08	Climate Zone	3	09	Front Orientation (deg/ Cardinal)	215
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed	13	Number of Bedrooms	5
14	Addition Cond. Floor Area (ft ²)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft ²)	n/a	17	Fenestration Average U-factor	0.45
18	Total Cond. Floor Area (ft ²)	3803	19	Glazing Percentage (%)	22.53%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	All electric	23	No Dwelling Unit:	No

COMPLIANCE RESULTS

Building Complies with Computer Performance This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider. O3 This building incorporates one or more Special Features shown below

CA Building Energy Efficiency Standards - 2022 Residential Compliance

Registration Number: 423-P010207551A-000-00000000-0000 Registration Date/Time: 11/16/2023 15:08

NOTICE: This document has been generated by California Home Energy Efficiency Rating Services (CHEERS) using information uploaded by third parties not affiliated with or read cannot guarantee, the accuracy or completeness of the information contained in this document. Report Generated: 2023-11-14 08:32:56 Report Version: 2022.0.000

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Calculation Date/Time: 2023-11-14T10:31:10-06:00 (Page 4 of 14) Project Name: 320 Ranelagh Residence Calculation Description: Title 24 Analysis Input File Name: 320_Ranelagh_residence_v30.ribd22

IERGY USE INTENSITY				
	Standard Design (kBtu/ft ² - yr)	Proposed Design (kBtu/ft ² - yr)	Compliance Margin (kBtu/ft ² - yr)	Margin Percentage
Gross EUI ¹	13.13	9.36	3.77	28.71
Net EUI ²	8.01	4.03	3.98	49.69

Schema Version: rev 20220901

1. Gross EUI is Energy Use Total (not including PV) / Total Building Area. 2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYS	REQUIRED PV SYSTEMS										
01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Access (%)
3.69	NA	Standard (14-17%)	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	100

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Indoor air quality ventilation Kitchen range hood

Verified heat pump rated heating capacity

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 320 Ranelagh Residence Calculation Date/Time: 2023-11-14T10:31:10-06:00 Calculation Description: Title 24 Analysis

³Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

Input File Name: 320_Ranelagh_residence_v30.ribd22

CF1R-PRF-01E

(Page 2 of 14)

CF1R-PRF-01E

(Page 5 of 14)

Source Energy	Efficiency ¹ EDR	2		T T	
(EDR1)	(EDR2efficiency)	Total ² EDR (EDR2total)	Source Energy (EDR1)	Efficiency ¹ EDR (EDR2efficiency)	Total ² EDR (EDR2total)
35.9	41.1	33.9			
24	26.4	24.5	11.9	14.7	9.4
	Cold Washing	24 26.4	Children and Child	24 26.4 24.5 11.9	24 26.4 24.5 11.9 14.7

Standard Design PV Capacity: 3.69 kWdc PV System resized to 3.69 kWdc (a factor of 3.695) to achieve 'Standard Design PV' PV scaling

²Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

OPAQUE SURFACES

Calculation Date/Time: 2023-11-14T10:31:10-06:00 Project Name: 320 Ranelagh Residence Calculation Description: Title 24 Analysis

Input File Name: 320_Ranelagh_residence_v30.ribd22

Schema Version: rev 20220901

BUILDING - FEATURES INFORM	ATION			**************************************		
01	01 02		04	05	06	07
Project Name	Conditioned Floor Area (ft ²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
320 Ranelagh Residence	3803	1	5	2	0	1

E INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Status
House	Conditioned	HVAC new	2031	10	DHW n	New
House-2	Conditioned	HVAC new 2	1772	10.3	DHW n	New

01	02	03	04	05	06	07	08	
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft2)	Tilt (deg)	
Wall F	House	Wall 2x6	215	Front	460	145.3	90	
Wall L	House	Wall 2x6	305	Left	260	0	90	
Wall B	House	Wall 2x6	35	Back	728	240.1	90	
Wall R	House	Wall 2x6	125	Right	436	18	90	
Wall F-2	House-2	Wall 2x6	215	Front	729	151.4	90	
Wall L-2	House-2	Wall 2x6	305	Left	359	24	90	
Wall B-2	House-2	Wall 2x6	35	Back	798	274	90	
Wall R-2	House-2	Wall 2x6	125	Right	409	0	90	
Interior WallToGarage	House>>Garage	Wall IntGar	n/a	n/a	447	18	n/a	
Interior WallToAttic	House-2>>Attic	Wall IntGar	n/a	n/a	142	0	n/a	
Ceiling n	House	Ceiling attic	n/a	n/a	79	n/a	n/a	
Ceiling gar	Garage	CeilingGar	n/a	n/a	305	n/a	n/a	
Ceiling n-2	House-2	Ceiling attic	n/a	n/a	1304	n/a	n/a	

Registration Number: 423-P010207551A-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Project Name: 320 Ranelagh Residence

Calculation Date/Time: 2023-11-14T10:31:10-06:00 Calculation Description: Title 24 Analysis Input File Name: 320_Ranelagh_residence_v30.ribd22

NERGY USE SUMMARY	·			quii .		
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft ² -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft ² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft ² -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft ² -yr)	Compliance Margin (EDR1)	Compliance Margin (EDR2)
Space Heating	5.61	37.87	2.5	18.4	3.11	19.47
Space Cooling	0.04	3.18	0.1	6.64	-0.06	-3.46
IAQ Ventilation	0.31	3.35	0.31	3.35	0	0
Water Heating	1.07	12.4	0.72	8.16	0.35	4.24
Self Utilization/Flexibility Credit		N		0		0
Efficiency Compliance Total	7.03	56.8	3.63	36.55	3.4	20.25
Photovoltaics	-0.83	-26.47	-0.87	-27.54		
Battery			0	0		
Flexibility						
Indoor Lighting	0.66	6.88	0.66	6.88		
Appl. & Cooking	1.36	16.83	1.37	17		
Plug Loads	1.92	20.39	1.92	20.39		
Outdoor Lighting	0.18	1.73	0.18	1.73		

Registration Number: 423-P010207551A-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CERTIFICATE OF COME	PLIANCE - RESIDENTIA	L PERFORMANCE COMPLIAN	NCE METHOD		CF1R-PRF-01E					
Project Name: 320 Ra	nelagh Residence		C	alculation Date/Ti	(Page 6 of 14)					
Calculation Descriptio	n: Title 24 Analysis		In	Input File Name: 320_Ranelagh_residence_v30.ribd22						
OPAQUE SURFACES										
229	750			122			2020			

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft2)	Tilt (deg)
Interior Floor to gar	House-2	Floor IntGar	n/a	n/a	446	n/a	n/a
Interior Floor to 1st fl	House-2	Floor Int RO	n/a	n/a	1326	n/a	n/a
Exterior GWall F	Garage	Wall Gar	215	Front	328	184	90
Exterior GWall L	Garage	Wall Gar	305	Left	229	0	90
Exterior GWall B	Garage	Wall Gar	35	Back	60	0	90
Exterior GWall R	Garage	Wall Gar	125	Right	50	0	90

OPAQUE SURFACES - CATHEDRAL CEILINGS

TOTAL COMPLIANCE

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Area (ft ²)	Skylight Area (ft ²)	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Cool Roof
Cathedral-n	House	Ceiling cath	35	Back	158	0	0.25	0.1	0.85	No
Cathedral-n-F	House-2	Ceiling cath	215	Front	180	8	5	0.1	0.85	No
Cathedral-n-L	House-2	Ceiling cath	305	Left	362	8	5	0.1	0.85	No
Cathedral-n-B	House-2	Ceiling cath	35	Back	107	0	5	0.1	0.85	No
Cathedral-n-R	House-2	Ceiling cath	125	Right	362	8	5	0.1	0.85	No

TTIC											
01	02	03	04	05	06	07	08				
Name	Construction	Туре	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof				
Attic	Tile roof	Ventilated	5	0.1	0.85	No	No				

Registration Number: 423-P010207551A-000-00000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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ALEX TZANG

CF1R-PRF-01E

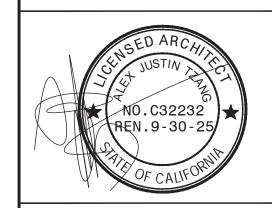
(Page 3 of 14)

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

ARCHITECTS

ALEX@ALEXTZANG.COM (415) 309-8082

STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14

JOB NO. 222088 DRAWN BY R.W. DATE 2023-11-23

SHEET TITLE

ENERGY REPORT

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 320 Ranelagh Residence Calculation Description: Title 24 Analysis

CF1R-PRF-01E (Page 7 of 14)

CF1R-PRF-01E

(Page 10 of 14)

Calculation Date/Time: 2023-11-14T10:31:10-06:00 Input File Name: 320_Ranelagh_residence_v30.ribd22

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
14-Wind	Window	Wall F	Front	215	8	5	1	40	0.45	NFRC	0.67	NFRC	Bug Screen
15-Wind	Window	Wall F	Front	215	6	4	1	24	0.45	NFRC	0.67	NFRC	Bug Screen
1-Wind	Window	Wall F	Front	215	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
16-Wind	Window	Wall F	Front	215			1	6.6	0.45	NFRC	0.67	NFRC	Bug Screen
17-Wind	Window	Wall F	Front	215			1	6.6	0.45	NFRC	0.67	NFRC	Bug Screen
2-Wind	Window	Wall F	Front	215	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
3-Wind	Window	Wall F	Front	215	8	1	1	8	0.45	NFRC	0.67	NFRC	Bug Screen
4-Wind	Window	Wall F	Front	215	5	4	1	20	0.45	NFRC	0.67	NFRC	Bug Screen
7-Wind	Window	Wall B	Back	35	5	4	1	20	0.45	NFRC	0.67	NFRC	Bug Screen
8-Wind	Window	Wall B	Back	35	8	6	1	48	0.45	NFRC	0.67	NFRC	Bug Screen
9-Wind	Window	Wall B	Back	35	4	4	1	16	0.45	NFRC	0.67	NFRC	Bug Screen
10-Wind	Window	Wall B	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
11-Wind	Window	Wall B	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
5-GlDoor	Window	Wall B	Back	35	12	8	1	96	0.45	NFRC	0.67	NFRC	Bug Screen
6-GIDoor	Window	Wall B	Back	35	5	8	1	40	0.45	NFRC	0.67	NFRC	Bug Screen
12-Wind	Window	Wall R	Right	125	3	3	1	9	0.45	NFRC	0.67	NFRC	Bug Screen
13-Wind	Window	Wall R	Right	125	3	3	1	9	0.45	NFRC	0.67	NFRC	Bug Screen
35-Wind	Window	Wall F-2	Front	215	3	5	1	15	0.45	NFRC	0.67	NFRC	Bug Screen

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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Schema Version: rev 20220901

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD	

Project Name: 320 Ranelagh Residence Calculation Date/Time: 2023-11-14T10:31:10-06:00 Calculation Description: Title 24 Analysis Input File Name: 320_Ranelagh_residence_v30.ribd22

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Wall Gar	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-0	None / None	0.372	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x6
Wall 2x6	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. Q. C.	R-20	None / None	0.063	Inside Finish: Gypsum Board Cavity / Frame: R-20 / 2x6 Sheathing / Insulation: Wood Siding/sheathing/decking Exterior Finish: Wood Siding/sheathing/decking
Ceiling cath	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-30	None / None	0.034	Roofing: Light Roof (Metal Tile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x12 Inside Finish: Gypsum Board
Wall IntGar	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-20	None / None	0.065	Inside Finish: Gypsum Board Cavity / Frame: R-20 / 2x6 Other Side Finish: Gypsum Board
Tile roof	Attic Roofs	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-O	None / None	0.394	Roofing: Light Roof (Metal Tile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12
CeilingGar	Ceilings (below attic)	Wood Framed Ceiling	2x8 @ 16 in. O. C.	R-O	None / None	0.464	Cavity / Frame: no insul. / 2x8 Inside Finish: Gypsum Board
Ceiling attic	Ceilings (below attic)	Wood Framed Ceiling	2x8 @ 16 in. O. C.	R-30	None / None	0.033	Over Ceiling Joists: R-11.2 insul. Cavity / Frame: R-18.9 / 2x8 Inside Finish: Gypsum Board

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 320 Ranelagh Residence

Calculation Date/Time: 2023-11-14T10:31:10-06:00

CF1R-PRF-01E (Page 8 of 14)

NESTRATION /	cription: Title								_	gh_residence	_		
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft ²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shadir
36-Wind	Window	Wall F-2	Front	215	3	5	1	15	0.45	NFRC	0.67	NFRC	Bug Screen
37-Wind	Window	Wall F-2	Front	215	4	5	1	20	0.45	NFRC	0.67	NFRC	Bug Screen
19-Wind	Window	Wall F-2	Front	215		1	1	7.7	0.45	NFRC	0.67	NFRC	Bug Screen
18-Wind	Window	Wall F-2	Front	215	2.8	5	1	14	0.45	NFRC	0.67	NFRC	Bug Screen
21-Wind	Window	Wall F-2	Front	215	111		1	7.7	0.45	NFRC	0.67	NFRC	Bug Screen
20-Wind	Window	Wall F-2	Front	215	2.8	5	1	14	0.45	NFRC	0.67	NFRC	Bug Screen
22-Wind	Window	Wall F-2	Front	215	2	4	1	8	0.45	NFRC	0.67	NFRC	Bug Screen
23-Wind	Window	Wall F-2	Front	215	5	5	1	25	0.45	NFRC	0.67	NFRC	Bug Screen
24-Wind	Window	Wall F-2	Front	215	5	5	1	25	0.45	NFRC	0.67	NFRC	Bug Screen
25-Wind	Window	Wall L-2	Left	305	3	4	1	12	0.45	NFRC	0.67	NFRC	Bug Screen
26-Wind	Window	Wall L-2	Left	305	3	4	1	12	0.45	NFRC	0.67	NFRC	Bug Screen
27-Wind	Window	Wall B-2	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
28-Wind	Window	Wall B-2	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
29-Wind	Window	Wall B-2	Back	35	5.8	10	1	58	0.45	NFRC	0.67	NFRC	Bug Screen
30-Wind	Window	Wall B-2	Back	35			1	18.9	0.45	NFRC	0.67	NFRC	Bug Screen
31-Wind	Window	Wall B-2	Back	35	5.8	10	1	58	0.45	NFRC	0.67	NFRC	Bug Screen
32-Wind	Window	Wall B-2	Back	35			1	18.9	0.45	NFRC	0.67	NFRC	Bug Screen
33-Wind	Window	Wall B-2	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen

Registration Number: 423-P010207551A-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 320 Ranelagh Residence

Calculation Date/Time: 2023-11-14T10:31:10-06:00

Calculation Description: Title 24 Analysis Input File Name: 320_Ranelagh_residence_v30.ribd22 OPAQUE SURFACE CONSTRUCTIONS 03 05 06 07

	Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
	Floor IntGar	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-19	None / None	0.044	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x12 Ceiling Below Finish: Gypsum Board
5)	Floor Int RO	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.196	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12 Ceiling Below Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICA	TION			2
01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

VAIER HEATING 313	TEIVIS							
01	02	03	04	04 05		07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW n	Domestic Hot Water (DHW)	Standard	WH HP	1	n/a	None	n/a	WH HP (1)
		-57						

Registration Number: 423-P010207551A-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Project Name: 3	20 Ranelagh	Residence					Calculat	ion Date	/Time: 2023	3-11-14T10:3	1:10-06:00		(Page 9 of 14)
Calculation Desc	cription: Title	24 Analysis					Input Fi	le Name	: 320_Ranela	agh_residenc	e_v30.ribd22		
FENESTRATION /	GLAZING	-					414						20
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
34-Wind	Window	Wall B-2	Back	35	1.5	6.7	1	10.05	0.45	NFRC	0.67	NFRC	Bug Screen
8-GIDoor	Window	Wall B-2	Back	35	5	8	1	40	0.45	NFRC	0.67	NFRC	Bug Screen
7-GIDoor	Window	Wall B-2	Back	35	5	8	1	40	0.45	NFRC	0.67	NFRC	Bug Screen
38-Skylights-n	Skylight	Cathedral-n-F	Front	215	Die 1		1	8	0.45	NFRC	0.67	NFRC	

OPAQUE DOORS	3	
01	02	03

305

Right

751

Name	Side of Building	Area (ft²)	U-factor		
Entry	Wall F	20	0.5		
Entry-2	Interior WallToGarage	18	0.5		
GarDoor	Exterior GWall F	184	1		

06 Edge Insul. R-value Edge Insul. R-value Perimeter (ft) **Carpeted Fraction** and Depth and Depth 2031 Slab none 80%

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Garage

Project Name: 320 Ranelagh Residence

39-Skylights-n

40-Skylights-n

SlabGar

CF1R-PRF-01E

(Page 11 of 14)

08

Skylight

Cathedral-n-L

Cathedral-n-R

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2023-11-14T10:31:10-06:00

none

0.45

NFRC

NFRC

0.67

NFRC

(Page 12 of 14) Input File Name: 320_Ranelagh_residence_v30.ribd22

0%

No

CF1R-PRF-01E

WATER HEATERS - NEEA	HEAT PUMP						
01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
WH HP	1	50	Rheem	XE50T10H22U0 (50 gal, JA13)	TankZone	Outside	Outside

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW n - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
HVAC new	Heat pump heating cooling	Heat Pump System	1	Heat Pump System	1	n/a	n/a	Setback
HVAC new 2	Heat pump heating cooling	Heat Pump System 2	1	Heat Pump System	1	n/a	n/a	Setback

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
				Heati	ng			Cooling				
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/HS PF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SE ER2	EER/EER 2/CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Ductless MiniSplit HP	1	HSPF2	7.5	36000	24400	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

Registration Number: 423-P010207551A-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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Report Generated: 2023-11-14 08:32:56 Schema Version: rev 20220901

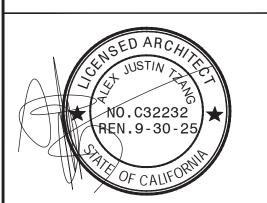
ALEX TZANG ARCHITECTS

CF1R-PRF-01E

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

ALEX@ALEXTZANG.COM (415) 309-8082

STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/2
2	BUILDING SUBMITTAL	23/08/1
3	BUILDING SUBMITTAL	24/10/0
4	BUILDING SUBMITTAL	24/10/1
JOB	NO	22208

JOR NO. DRAWN BY R.W. DATE 2023-11-23

SHEET TITLE

ENERGY REPORT

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CF1R-PRF-01E (Page 13 of 14) Calculation Date/Time: 2023-11-14T10:31:10-06:00 Project Name: 320 Ranelagh Residence Input File Name: 320_Ranelagh_residence_v30.ribd22 Calculation Description: Title 24 Analysis

01	02	03	04	05	06	07	08	09	10	11	12	13
		,		Heatir	ng			Cooling				
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/HS PF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SE ER2	EER/EER 2/CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 2	Ductless MiniSplit HP	1	HSPF2	7.5	36000	24400	EER2SEER2	14.3	11.7	Not Zonal	Single Speed	Heat Pump System 2-hers-htpump

01	02	03	04	05	06	07	08	09	
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17	
Heat Pump System 1-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes	
Heat Pump System 2-hers-htpump	Not Required	0	Not Required	Not Required	No	No	Yes	Yes	

INDOOR AIR QUALITY (IAQ) FANS

	. ()							
01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	153	0.35	Exhaust	No	n/a / n/a	No	Yes	

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Calculation Date/Time: 2023-11-14T10:31:10-06:00 Project Name: 320 Ranelagh Residence Input File Name: 320_Ranelagh_residence_v30.ribd22 Calculation Description: Title 24 Analysis

CF1R-PRF-01E (Page 14 of 14)

1. I certify that this Certificate of Compliance documentation is accurate and co	complete.
Documentation Author Name:	Documentation Author Signature:
Igor Pichko	Igor Píchko
Company:	Signature Date:
Energy Consult LLC	11/15/2023
Address:	CEA/ HERS Certification Identification (If applicable):
1252 W 22nd St Unit #2	R19-14-30005 California Association of Building Energy CERTIFIED ENERGY AN
City/State/Zip:	Phone:
San Pedro, CA 90731	4242477658
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accep	ot responsibility for the building design identified on this Certificate of Compliance.
I certify the following under penalty of perjury, under the laws of the State of California: I am eligible under Division 3 of the Business and Professions Code to accept I certify that the energy features and performance specifications identified on The building design features or system design features identified on this Certify I certify that the energy features or system design features identified on this Certify I certify that the energy features or system design features identified on this Certify I certify that the energy features or system design features identified on this Certify I certified I certifie	ot responsibility for the building design identified on this Certificate of Compliance. on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets,
I certify the following under penalty of perjury, under the laws of the State of California:	of responsibility for the building design identified on this Certificate of Compliance. on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature:
I certify the following under penalty of perjury, under the laws of the State of California:	ot responsibility for the building design identified on this Certificate of Compliance. on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application.
 I am eligible under Division 3 of the Business and Professions Code to accep I certify that the energy features and performance specifications identified of the building design features or system design features identified on this Certification. 	on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature: Alex Tzang Date Signed:
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accep 2. I certify that the energy features and performance specifications identified of the building design features or system design features identified on this Cercalculations, plans and specifications submitted to the enforcement agency Responsible Designer Name: Alex Tzang Company:	on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature: Alex Tzamg
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accep 2. I certify that the energy features and performance specifications identified of the building design features or system design features identified on this Cercalculations, plans and specifications submitted to the enforcement agency Responsible Designer Name: Alex Tzang Company: Alex Tzang Architect Inc. Address:	on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature: Alex Tzamg Date Signed: 11/16/2023 License:
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept a certify that the energy features and performance specifications identified on the building design features or system design features identified on this Cercalculations, plans and specifications submitted to the enforcement agency Responsible Designer Name: Alex Tzang Company: Alex Tzang Architect Inc. Address:	on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature: Alex Tzamg Date Signed: 11/16/2023
I certify the following under penalty of perjury, under the laws of the State of California:	on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulation rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, for approval with this building permit application. Responsible Designer Signature: Alex Tzamg Date Signed: 11/16/2023 License:

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

Registration Number: 423-P010207551A-000-000-0000000-0000 Registration Date/Time: 11/16/2023 15:08 HERS Provider: CHEERS

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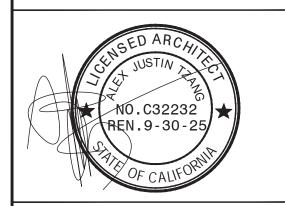


ALEX TZANG ARCHITECTS

903 SNEATH LANE SUITE 230 SAN BRUNO CA 94066

ALEX@ALEXTZANG.COM (415) 309-8082

STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14

JOB NO.	22208
DRAWN BY	R.W
DATE	2023-11-2

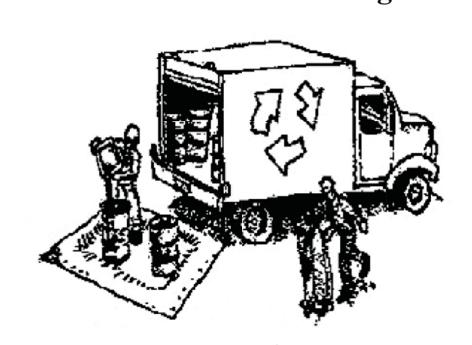
SHEET TITLE

ENERGY REPORT



Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.



Materials & Waste Management

Non-Hazardous Materials

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within
- ☐ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ☐ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ☐ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ☐ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ☐ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ☐ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ☐ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ☐ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ☐ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control



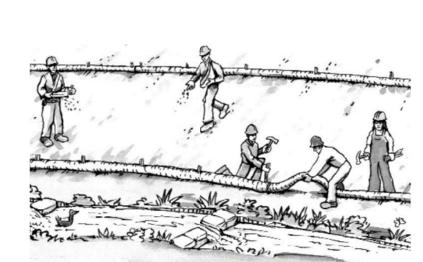
Maintenance and Parking

- ☐ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ☐ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ☐ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ☐ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ☐ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ☐ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ☐ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ☐ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving

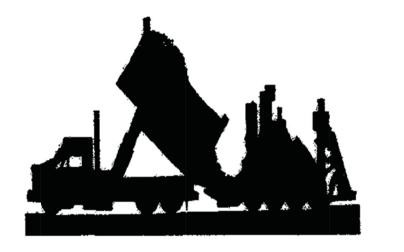


- ☐ Schedule grading and excavation work during dry weather.
- ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately
- ☐ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
- Unusual soil conditions, discoloration, or odor.
- Abandoned underground tanks.
- Abandoned wells
- Buried barrels, debris, or trash.

Paving/Asphalt Work



- ☐ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ☐ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ☐ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

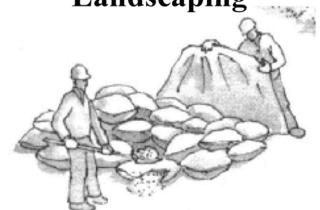
- ☐ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ☐ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ☐ If sawcut slurry enters a catch basin, clean it up immediately.

Concrete, Grout & Mortar



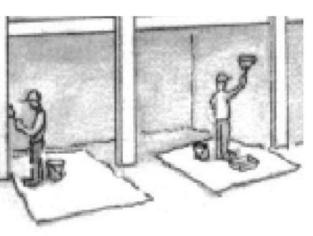
- ☐ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ☐ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ☐ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping



- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

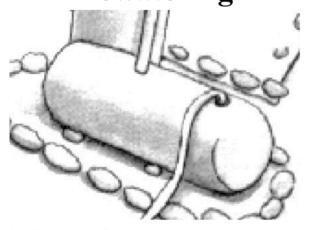
Painting & Paint Removal



Painting Cleanup and Removal

- ☐ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ☐ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ☐ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a statecertified contractor.

Dewatering



- ☐ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ☐ Divert run-on water from offsite away from all disturbed areas.
- ☐ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ☐ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

ALEX TZANG

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ARCHITECTS

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STAMP



PROJECT

NEW 2-STORY RESIDENCE

320 RANELAGH RD HILLSBOROUGH CA 94010

APPROVAL STAMP

ISSUE HISTORY

NO.	DESCRIPTION	DATE
1	BUILDING SUBMITTAL	23/11/23
2	BUILDING SUBMITTAL	23/08/19
3	BUILDING SUBMITTAL	24/10/02
4	BUILDING SUBMITTAL	24/10/14

222088

R.W.

DRAWN BY 2023-11-23

SHEET TITLE

JOB NO.

BEST **MANAGEMENT PRACTICES**

SHEET NUMBER

BMP

Storm drain polluters may be liable for fines of up to \$10,000 per day!



TOWN OF HILLSBOROUGH

California 2022 CALGREEN RESIDENTIAL MANDATORY MEASURES CHECKLIST

ADDITIONS/REMODELS > 1000 SQ. FT.

PURPOSE:

The residential provisions of the 2022 CALGreen Code outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties; establishes the means of conserving water used indoors, outdoors and in wastewater conveyance; outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

Project Name:	NEW 2-STORY RESIDENCE	
Project Address:	320 RANELAGH RD.	
Project Description:	3,803 SQ. FT. GROUND-UP 2-STORY RESIDENCE	

INSTRUCTIONS:

2022 Cal Green Residential Checklist

- The Owner or Owner's agent shall employ a qualified licensed CALGreen Inspector to verify and assure that all required work described herein is properly planned and implemented in the project in accordance with the 2022 California Green Building Standards Code (CALGreen).
- The CALGreen Inspector, in collaboration with the owner and the design professional shall initially complete Column 2
 of this checklist, sign and date Section 1, Design Verification at the end of this checklist and have the checklist
 printed on or attached to the approved plans for the project.
- 3. Prior to final inspection by the Building Division, the CALGreen Inspector shall complete **Column 3** and sign and date **Section 2, Implementation Verification** at the end of this checklist and submit the completed form to the Building Division

	Column 2	Column 3
MANDATORY FEATURE OR MEASURE	Project Requirements	Compliance Verified by CAL Green Inspecto
		14724
General Requirements		
Project meets all of the requirements of Divisions 4.1 through 4.5.		
DIVISION 4.1 - PLANNING AND DESIGN		- L.
Site Development		-
4.106.2 Storm water drainage and retention during construction. A plan is developed and implemented to manage storm water drainage during construction	<u> </u>	
4.106.3 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	<u> </u>	
4.106.4 Provide capability for electric vehicle charging in one- and two - family dwellings and in townhouses with attached private garages and 3% of total parking spaces as specified for multifamily dwellings.	<u> </u>	
DIVISION 4.2 - ENERGY EFFICIENCY		
General Requirements		
4.201.1 Scope. Building meets or exceeds the requirements of the California Building Energy Efficiency Standards.	<u> </u>	

Page 1 of 5

Pollutant Control		
4.504.1 Duct openings and other related air distribution component openings shall be covered during construction.	N/A	
4.504.2.1 Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits		
4.504.2.2 Paints, stains and other coatings shall be compliant with VOC limits.		
4.504.2.3 Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds.	\checkmark	
4.504.2.4 Documentation shall be provided to verify that compliant VOC limit finish materials have been used	✓	
4.504.3 Carpet and carpet systems shall be compliant with VOC limits	N/A	
4.504.4 80 percent of floor area receiving resilient flooring shall comply with specified VOC criteria	<u> </u>	
4.504.5 Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.	<u> </u>	
Indoor Moisture Control		
4.505.2 Vapor retarder and capillary break is installed at slab-on-grade foundations		
4.505.3 Moisture content of building materials used in wall and floor framing is checked before enclosure Wall and floor framing shall not be enclosed when the framing members exceed 19% moisture content.		
Environmental Comfort		
4.507.2 Heating and air-conditioning system design. Duct systems are sized, designed, and equipment is selected using the following methods:	N/A	
1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2011 or equivalent.		
2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or equivalent.	N/A	
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2014 or equivalent.		
Installer and Special Inspector Qualifications		
Qualifications		
702.1 Installer training. HVAC system installers are trained and certified in the proper installation of HVAC systems.		
702.2 Special inspection. The CALGreen Inspector for this project is listed by the County of San Mateo as an approved licensed CALGreen Inspector and is qualified and able to demonstrate competence in the discipline they inspect and verify.	/	
Verifications	ii	
703.1 Documentation. Verification of compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial compliance.		

Page 4 of 5

DIVISION 4.3 - WATER EFFICIENCY AND CONSERVATION		
Indoor Water Use		
4.303.1 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4303.1.1 through 4303.1.4.4.		
4.303.1.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the US EPA WaterSense Specification for Tank-type Toilets.		
4.303.1.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.	N/A	
4.303.1.3 Showerheads.		
4.303.1.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the US EPA Water Sense Specification for Showerheads.		
4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead.	N/A	
4.303.1.4.1 Residential lavatory faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.		
4.303.1.4.4 Kitchen faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.		
4.303.2 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the California Plumbing Code and shall meet the applicable referenced standards.	<u></u>	

Page 2 of 5

2022 Cal Green Residential Checklist

	CALGREEN SIGNATURE D	ECLARATIONS
Project Name:	NEW 2-STORY RESIDENCE	596
Project Address:	320 RANELAGH RD.	79
Project Description:	3,803 SQ. FT. GROUND-UP 2-STOP	RY RESIDENCE
SECTION 1 - DESI	GN VERTEICATION	
(printed on or attact Division. The owner, design that the items check the project in according to the project in	of Section 1, "Design Verification" and sub- ched to the approved plans) with the build professional, and licensed CalGreen Inspe- ked above are hereby incorporated into to dance with the requirements set forth in by the Town of Hillsborough.	ding permit application to the Building ector* have reviewed the plans and cer he project plans and will be implement
Owner's Signature		Date
Owner's Name (please please pl	gnature	2023/ / 6 Date
CalGreen Inspector's Sig	nature	Date
CalGreen Inspector's Na	me (please print)	
CalGreen Inspector's En	nail Address	
SECTION 2 – IMPL	EMENTATION VERIFICATION	
signatures on Secti I have inspected th project identified al	submit the completed checklist, including on 2 to the Building Division prior to Building Division prior to Building Division prior to Building Work and have received sufficient docupove was constructed in accordance with requirements of the 2022 California Grearough.	ling Division's final inspection. mentation to verify and certify that the this Green Building Checklist and in
	22 . 22	Date
CalGreen Inspector's Sig	nature	

*Note: The CAGreen Inspector shall not be the owner, design professional or contractor for the project and shall not have a financial interest in the project for which services are being provided except for the cost of providing said services.

Page 5 of 5

Outdoor Water Use	
4.304.1 After December 1,2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options: 1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent or 2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.	
DIVISION 4.4 - MATERIAL CONSERVATION AND RESOUR	RCE EFFICIENCY
Enhanced Durability and Reduced Maintenance	

Enhanced Durability and Reduced Maintenance		
4.406.1 Rodent proofing. Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.		
Construction Waste Reduction, Disposal and Recycling		
4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with one of the following:	<u> </u>	
 Comply with a more stringent local construction and demolition waste management ordinance; or A construction waste management plan, per Section 4.408.2; or A waste management company, per Section 4.408.3; or The waste stream reduction alternative, per Section 4.408.4. 		
Building Maintenance and Operation		
4.410.1 An operation and maintenance manual shall be provided to the building occupant or owner.	<u> </u>	
4.410.2 Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. See exception for rural jurisdictions.	N/A	
DIVISION 4.5 - ENVIRONMENTAL QUALITY		

Page 3 of 5

N/A

2022 Cal Green Residential Checklist

installed woodstove or pellet stove shall comply with U.S. EPA New Source

Performance Standards (NSPS) emission limits as applicable and shall have a

permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

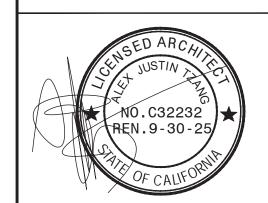


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JOB NO.		22208
DRAWN BY		R.W

SHEET TITLE

2023-11-23

CAL GREEN

SHEET NUMBER

CG