GOVERNING CODES:
ALL WORK SHALL COMPLY WITH THE FOLLOWING CODES:

2022 CALIFORNIA RESIDENTIAL CODE(CRC)
2022 CALIFORNIA EXISTING BUILDING CODE(CEBC
2022 CALIFORNIA BUILDING CODE(CBC)
2022 CALIFORNIA ELECTRICAL CODE(CEC)
2022 CALIFORNIA MECHANICAL CODE(CMC)
2022 CALIFORNIA PLUMBING CODE(CPC)
2022 CALIFORNIA ENERGY CODE(CEnC)
2022 CALIFORNIA GREEN BUILDING STANDARDS(CG)
2022 CALIFORNIA FIRE CODE

GENERAL:
1. THE ITEMS LISTED HERE ARE THE MINIMUM REGULATIONS APPLICABLE TO RESIDENTIAL PROJECTS
2. THESE REQUIREMENTS SHALL NOT SUPERSEDE MORE RESTRICTIVE SPECIFICATIONS ON THE APPROVED PLANS OR AS REQUIRED BY APPLICABLE CODES AND/OR OTHER REGULATIONS.
3. APPROVED PRESSURE-PRESERVATIVE TREATED (PT) OR NATURALLY DURABLE WOOD SHALL BE USED IN THE FOLLOWING LOCATIONS: (CRC R317.1 & R317.1.2)
   A. JOISTS LESS THAN 18-INCHES OR GIRDERS LESS THAN 12-INCHES FROM EXPOSED GROUND IN AREA LOCATED WITHIN THE BUILDING FOUNDATION.
   B. ALL FRAMING MEMBERS THAT REST ON CONCRETE OR MASONRY EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8-INCHES FROM EXPOSED GROUND.
   C. SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB THAT IS IN DIRECT CONTACT WITH THE GROUND UNLESS SEPARATED FROM SUCH SLAB BY AN IMPERVIOUS MOISTURE BARRIER.
   D. THE ENDS OF GIRDERS ENTERING EXTERIOR MASONRY OR CONCRETE WALLS HAVING CLEARANCES OF LESS THAN 1/2-INCH ON TOPS, SIDES AND ENDS.
   E. SIDING, SHEATHING AND WALL FRAMING ON THE EXTERIOR OF A BUILDING HAVING A CLEARANCE OF LESS THAN 6-INCHES FROM THE GROUND OR LESS THAN 2-INCHES FROM CONCRETE STEPS OR SLABS, OR SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
   F. ALL WOOD IN CONTACT WITH THE GROUND, EMBEDDED IN CONCRETE IN DIRECT CONTACT WITH THE GROUND OR EMBEDDED IN CONCRETE EXPOSED TO THE WEATHER.
   G. STRUCTURAL WOOD MEMBERS EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING THAT WOULD PREVENT MOISTURE OR WATER ACCUMULATION ON THE SURFACE OR JOINTS BETWEEN MEMBER.
4. ALL WOOD POSTS TO BE OF APPROVED NATURAL DECAY RESISTANT OR PRESSURE-PRESERVATIVE TREATED, UNLESS SUPPORTED ON A METAL PEDESTAL 1-INCH ABOVE A CONCRETE FLOOR OR SURFACE (CRC R317.1 (9))
5. ALL EXTERIOR WALL ASSEMBLIES SHALL INCLUDE A WEEP SCREED AND WATER RESISTIVE BARRIER AS FOLLOWS: (CRC R703.1.1, R703.7.2.1 & R703.7.3)
   ☒ WEEP SCREED:
      a. A MINIMUM 0.019 INCH (NO. 26 GALVANIZED SHEET GAGE) CORROSION RESISTANT OR PLASTIC WITH A MINIMUM 3-1/2 INCH VERTICAL ATTACHMENT FLANGE;
      b. SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS IN ACCORDANCE WITH ASTM C926.
      c. INSTALLED 4-INCHES ABOVE THE EARTH OR 2-INCHES ABOVE PAVED AREAS;
      d. SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.
      e. THE WEATHER RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE
      f. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED
   ☒ WATER-RESISTIVE BARRIER:
      a. 2-LAYERS OF GRADE D PAPER APPLIED OVER WOOD-BASED SHEATHING; AND, OVERLAPPING THE WEEP SCREED ATTACHMENT FLANGE.
6. BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET(72") ABOVE THE FLOOR (CRC R307.2)
7. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM WATER CONVEYANCE OR OTHER APPROVED POINT OFCOLLECTION THAT DOES NOT CREATE A HAZARD. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM THE FOUNDATION WALLS. THE GRADE SHALL FALL NO FEWER THAN 6" WITHIN THE FIRST 10' (5% SLOPE) WHERE WITHIN LANDSCAPING AREAS AND 2 PERCENT WITHING HARDSCAPED AREAS. EXCEPTION: WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6" OF FALL WITHIN 10 FEET, DRAINS OR SWALES SHALL BE ONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE UILDING FOUNDATION SHALL BE SLOPED NOT LESS THAN 2 PERCENT AWAY FROM THE BUILDING.(CRC R401.3). LOW AWAY FROM STRUCTURE AND 1.0% MIN. IN FLOW LINES AROUND STRUCTURE.
8. WHERE TOP OR SOLE PLATE ARE CUT FOR PIPES, A METAL TIE MINIMUM 0.058 INCHES THICK AND 1-1/2" WIDE HALL BE FASTENED ACROSS THE OPENING WITH (6) 16D NAILS MINIMUM EACH SIDE
9. 1.91 FIELD CUTTING ENDS, NOTCHES AND DRILLED HOLES IN PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4 (R317.1.2)
10. FIRE BLOCKING MUST BE PROVIDED IN ACCORDANCE WITH CRC SECTION R302.11 AT THE FOLLOWING LOCATIONS:
   ☒ IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS.
   ☒ IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT 10-FOOT INTERVALS ALONG THE LENGTH OF THE WALL.
   ☒ AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS

SMOKE & CARBON-MONOXIDE ALARMS:
1. SMOKE ALARMS COMPLYING WITH UL 217 SHALL BE INSTALLED IN EACH SLEEPING ROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, AND AT EACH FLOOR OR BASEMENT LEVEL, (CRC R314.1) SHALL BE HARDWIRED, INTERCONNECTED WITH BATTERY BACKUP. SMOKE ALARMS SHALL BE INSTALLED AT LEAST 3-FEET AWAY FROM OPENINGS TO BATHROOMS, THE TIPS OF CEILING FANS AND FROM HVAC SUPPLY REGISTERS, A MINIMUM OF 6-FEET FROM PERMANENTLY INSTALLED COOKING APPLIANCES; WHERE 6- TO 10-FEET FROM PERMANENTLY INSTALLED COOKING APPLIANCES THE SYSTEM MUST BE A PHOTOELECTRIC TYPE AND WHERE 10- TO 20-FEET A PHOTOELECTRIC SYSTEM OR IONIZATION SYSTEM WITH A SILENCING SWITCH.(CRC R314.3.3)
   A. BATHROOM AND AIRFLOW: SMOKE ALARMS/DETECTORS SHALL HAVE A 3-FEET HORIZONTAL DISTANCE BETWEEN BATHOOM OPENINGS, TIPS OF FANS AND THE SUPPLY REGISTER OF HVAC SYSTEM, ALSO SMOKE ALARMS/DETECTORS SHALL NOT BE IN THE DIRECT AIRFLOW OF THE SUPPLY REGISTER.
   B. DISTANCES BETWEEN SMOKE ALARMS/DETECTORS AND PERMANENTLY INSTALLED COOKING APPLIANCES. THE HORIZONTAL DISTANCE BETWEEN SMOKE ALARMS/DETECTORS AND PERMANENTLY INSTALLED COOKING APPLIANCES SHALL BE 6-FEET. WHEN THE DISTANCE IS BETWEEN 6- TO 10- FEET THE SYSTEM SHALL BE PHOTOELECTRIC SYSTEM AND WHEN THE DISTANCE IS BETWEEN 10- TO 20-FEET THE SYSTEM SHALL BE A PHOTOELECTRIC SYSTEM OR AN IONIZATION TYPE WITH A SILENCING SWITCH.
   C. SHALL BE INSTALLED IN HALLWAY AND IN THE ROOM OPEN TO THE HALLWAY IN DWELLING UNITS WHERE THE CEILING HEIGHT OF A ROOM OPEN TO A HALLWAY SERVING BEDROOMS EXCEEDS THAT OF THE HALLWAY BY 24 IN OR MORE.
2. CARBON MONOXIDE ALARMS COMPLYING WITH UL 2034 SHALL BE INSTALLED IN EACH SLEEPING ROOM CONTAINING A FUEL-BURNING APPLIANCE, OUTSIDE EACH SLEEPING AREA AND ON EVERY STORY OF DWELLING UNITS THAT HAVE AN ATTACHED GARAGE OR FUEL-BURNING APPLIANCES. (CRC R315.1) SHALL BE HARDWIRED WITH BATTERY BACKUP.

DOORS & WINDOWS:
1. EMERGENCY ESCAPE AND RESCUE OPENINGS REQUIRED. EVERY SLEEPING ROOM, BASEMENT AND HABITABLE ATTIC SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. (CRC R310.1)
2. ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM CLEAR OPENING OF 5.7 -SQUARE FEET, WITH A MINIMUM NET CLEAR OPENING HEIGHT OF 24- INCHES AND WIDTH OF 20-INCHES. THE BOTTOM OF THE CLEAR OPENING SHALL BE A MAXIMUM OF 44-INCHES ABOVE THE FLOOR. (CRC R310.2)
3. FLOORS AND LANDINGS AT EXTERIOR DOORS; THERE SHALL BE A LANDING OR FLOOR ON EACH SIDE OF EACH EXTERIOR DOOR; THE WIDTH OF EACH LANDING SHALL BE NOT LESS THAN THE DOOR SERVED. LANDINGS SHALL HAVE A DIMENSION OF NOT LESS THAN 36 INCHES MEASURED IN THE DIRECTION OF TRAVEL, THE SLOPE AT EXTERIOR LANDINGS SHALL NOT EXCEED 1:4 UNIT VERTICAL IN 12 UNITS HORIZONTAL(2 PERCENT) (CRC R311.3)
4. NOT LESS THAN ONE EGRESS DOOR SHALL BE PROVIDED FOR EACH DWELLING UNIT. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A CLEAR WIDTH OF NOT LESS THAN 32 INCHES WHERE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. THE CLEAR HEIGHT OF THE DOOR OPENING SHALL BE NOT LESS THAN 78 INCHES IN HEIGHT MEASURED FROM THE TOP OF THE THRESHOLD TO THE BOOM OF THE STOP. EGRESS DOORS SHALL BE READILY OPENABLE FORM INSIDE THE DWELLING WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. (CRC R311.2)
5. FLOOR ELEVATION AT REQUIRED EGRESS DOOR. LANDINGS OR FINISHED FLOOR AT THE REQUIRED EGRESS DOOR SHALL BE NOT MORE THAN 1-1/2 INCHES LOWER THAN THE TOP OF THE THRESHOLD. THE LANDING OR FLOOR ON THE EXTERIOR SIDE SHALL BE NOT MORE THAN 7-3/4 INCHES BELOW THE TOP OF THE THRESHOLD PROVIDED THAT THE DOOR DOES NOT SWING OVER THE LANDING OR FLOOR. (CRC R311.3.1) LANDINGS SHALL BE A MAXIMUM OF 2.0%(14" PER FOOT) SLOPE IN ANY DIRECTION.
6. SAFETY GLAZING. PROVIDE SAFETY GLAZING IN ACCORDANCE WITH CRC R308 AT SHOWN AND LABELED LOCATIONS ON PLAN. (CATEGORY II(TEMPERED) GLAZING TESTED IN ACCORDANCE WITH CPSC 16 CFR 1201)

GARAGES & CARPORTS:
1. GARAGES AND CARPORTS SHALL BE COMPLETELY SEPARATED FROM THE DWELLING AND ATTIC AREAS, AND PROTECTED BY A MINIMUM OF 1/2-INCH GYPSUM BOARD OR EQUIVALENT APPLIED TO THE GARAGE SIDE OF SEPARATING WALLS AND CEILINGS AND SHALL EXTEND FROM THE FLOOR TO THE UNDERSIDE OF THE ROOF SHEATHING. (CRC R302.6 & TABLE R302.6)
2. DOORS BETWEEN THE GARAGE AND RESIDENCE SHALL BE NOT LESS THAN 1-3/8 INCHES THICK OF SOLID WOOD OR STEEL, OR 20-MINUTE FIRE-RATED DOOR ASSEMBLIES, AND EQUIPPED WITH A SELF-CLOSING AND SELF-LATCHING DEVICE. (CRC R302.5.1) DOOR TO HAVE PROPER WEATHER STRIPPING, GASKETS OR SIMILAR PROVISIONS TO MINIMIZE THE MIGRATION OF CONTAMINATES BETWEEN THE GARAGE AND DWELLING.(CENC 150.0, ASHRAE 62.2, 6.5.1)
3. GARAGE FLOORS SHALL BE SLOPED TOWARD AREA DRAINS OR THE MAIN VEHICLE ENTRY DOORWAY. (R309.1)

UNDERFLOOR & ATTIC AREAS:
1. UNDER-FLOOR SPACES SHALL BE PROVIDED WITH VENTILATION OPENINGS THROUGH FOUNDATION WALLS OR EXTERIOR WALLS. ONE VENTILATION OPENING SHALL BE WITHIN 3-FEET OF EACH CORNER OF THE BUILDING. (CRC R408.2)
2. UNDER-FLOOR AREAS SHALL HAVE ACCESS OPENINGS AS FOLLOWS: (CRC R408.4 & CMC 304.4)
   A. THROUGH WALL ACCESS OPENINGS SHALL BE AT LEAST 16 BY 24 INCHES;
   B. THROUGH FLOOR ACCESS OPENINGS SHALL BE AT LEAST 18 BY 24 INCHES.
   C. WHERE AN APPLIANCE IS INSTALLED OPENINGS AND PASSAGEWAY SHALL BE NOT LESS THAN THE LARGEST COMPONENT OF THE APPLIANCE, AND AT LEAST 22 BY 30 INCHES.
3. WHERE ANY PORTION OF A THROUGH-WALL ACCESS OPENING IS BELOW GRADE, AN AREAWAY NOT LESS THAN 16 BY 24 INCHES SHALL BE PROVIDED. THE BOTTOM OF THE AREAWAY SHALL BE BELOW THE THRESHOLD OF THE ACCESS OPENING. (CRC R408.4)
4. AREAWAYS SHALL BE PROTECTED FROM SITE DRAINAGE BY CURBS OR SIMILAR DEVICES. (CRC R408.6)
5. ATTIC ACCESS OPENINGS SHALL BE PROVIDED INTO EACH ATTIC AREA THAT HAS A VERTICAL HEIGHT OF 30 INCHES OR GREATER OVER AN AREA OF 30-SQUARE FEET OR MORE; OR IN WHICH AN APPLIANCE IS INSTALLED. (CRC R807.1 & CMC 304.4)
6. ATTIC ACCESS SHALL MEET THE FOLLOWING: (CRC R807.1 & CMC 304.4)
   A. MINIMUM 22 BY 30 INCHES OR THE SIZE OF THE LARGEST COMPONENT OF ANY APPLIANCE INSTALLED IN THE ATTIC;
   B. LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION;
   C. SHALL NOT OPEN DIRECTLY INTO ANY SLEEPING ROOM;
   D. MINIMUM UNOBSTRUCTED HEADROOM OF 30-INCHES AT SOME POINT ABOVE THE ACCESS MEASURED VERTICALLY FROM THE BOTTOM OF CEILING FRAMING MEMBERS.
   E. CEILING INSULATION SHALL BE PERMANENTLY ATTACHED TO THE ATTIC ACCESS DOOR WITH ADHESIVE OR WITH MECHANICAL FASTENERS, AND THE ACCESS DOOR SHALL HAVE A GASKET OR WEATHER STRIPPING TO RESTRICT THE FLOW OF AIR.
7. APPLIANCES IN ATTICS AND UNDERFLOOR SPACES SHALL BE ACCESSIBLE AS FOLLOWS: (CMC304.4)
   A. THROUGH AN ACCESS OPENING NOT LESS THAN 22 BY 30 INCHES OR THE SIZE OF THE LARGEST COMPONENT OF ANY APPLIANCE INSTALLED IN THE SPACE;
   B. WHERE THE HEIGHT OF THE PASSAGEWAY IS LESS THAN 6' TALL, 20-FEET MAXIMUM PASSAGEWAY FROM THE ACCESS OPENING TO THE APPLIANCE, MEASURED ALONG THE CENTERLINE OF THE PASSAGEWAY;
   C. THE PASSAGEWAY SHALL HAVE SOLID FLOORING AT LEAST 24-INCHES WIDE AND SHALL BE UNOBSTRUCTED FROM THE ENTRANCE OPENING TO THE APPLIANCE;
   D. A LEVEL WORKING PLATFORM AT LEAST 30 BY 30 INCHES IN FRONT OF THE SERVICE SIDE OF THE APPLIANCE.
   E. A PERMANENT 120V RECEPTACLE OUTLET AND A LIGHTING FIXTURE SHALL BE INSTALLED NEAR THE APPLIANCE.(CEC 210.70(A)(3)). THE SWITCH CONTROLLING THE LIGHTING FIXTURE SHALL BE LOCATED AT THE ACCESS OPENING.

MECHANICAL:
1. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. (CMC 303.1)
2. EXHAUST DUCTS SHALL TERMINATE NOT LESS THAN 3-FEET FROM A PROPERTY LINE OR OPENING INTO A BUILDING, 10-FEET FROM A FORCED AIR INLET, AND SHALL NOT DISCHARGE ONTO A PUBLIC WALKWAY. (CMC502.2.1)
3. SUPPLY AND RETURN AIR DUCTS TO BE INSULATED AS REQUIRED ON THE CF-1R
4. ALL KITCHEN AREAS SHALL BE PROVIDED WITH A HOOD EXHAUST AND VENTILATION SYSTEM THAT MEETS OR EXCEEDS THE FOLLOWING: ((CENC 150.0(O), CMC 403.7 & ASHRAE 62.2, CMC 504.1.1.)
   A. MINIMUM EXHAUST RATE OF 100 CFM;
   B. MAXIMUM SOUND RATING OF 3 SONES;
   C. VENTED DIRECTLY TO THE BUILDING EXTERIOR; AND,
   D. VENT DUCTS TO HAVE A SMOOTH METALLIC INTERIOR SURFACE.
   E. SHALL BE HERS VERIFIED AND TESTED.[CENC 150.0(O)2] KITCHEN RANGE HOODS SHALL BE FIELD VERIFIED FOR VENTILATION AIR FLOW AS SPECIFIED IN ASHRAE 62.2, 5.4 AND SHALL BE VERIFIED FOR THE SOUND RATING PROVISION OF ASHRAE 62.2, 7.2 AS ADOPTED AND AMENDED BY CENC 150.0(O)1G.
5. BATHROOMS AND ROOMS CONTAINING BATHTUBS, SHOWERS, SPAS AND SIMILAR FIXTURES SHALL HAVE MECHANICAL VENTILATION COMPLYING WITH THE FOLLOWING: (CRC R303.3.1, CENC 150.0(O), CG4.506.1, CMC 403. 7 & ASHRAE 62.2)
   A. MINIMUM EXHAUST RATE OF 50 CFM;
   B. MAXIMUM SOUND RATING OF 3 SONES;
   C. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤50 PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT;
   D. HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT FROM THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).
   E. VENTED DIRECTLY TO THE BUILDING EXTERIOR
   F. ENERGY STAR COMPLIANT; AND,
   G. LIGHTING INTEGRAL TO EXHAUST FANS SHALL COMPLY WITH THE CENC. FAN SHALL BE SWITCHED SEPARATELY FROM THE LIGHT UNLESS ALLOWED TO OPERATE WHEN THE LIGHT IS SWITCHED OFF.
   H. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
6. CLOTHES DRYERS SHALL HAVE EXHAUST DUCTS AS FOLLOWS: (CMC 504.4.2)
   A. CONSTRUCTED OF RIGID METAL WITH SMOOTH INTERIOR SURFACES AND TERMINATE TO THE OUTSIDE OF THE BUILDING;
   B. MINIMUM DIAMETER 4-INCHES NOMINAL, AND NOT LESS THAN 0.016 INCH WALL THICKNESS;
   C. MAXIMUM 14-FEET COMBINED RUN LENGTH (HORIZONTAL AND VERTICAL), INCLUDING UP TO TWO 90 DEGREE ELBOWS.
7. PROVIDE 100 SQUARE INCHES OF VENT IN DOOR OF CLOTHES DRYER COMPARTMENT FOR MAKUP AIR (CMC504.4.1(1))
8. CONTINUOUS EXHAUST FANS AS WELL AS FANS FOR WHOLE BUILDING DWELLING UNIT VENTILATION SYSTEMS OF ASHRAE, SECTION 4, SHALL HAVE A MAXIMUM SOUND RATING OF ONE-SONE(ASHRAE 62.2, 7.2.1)

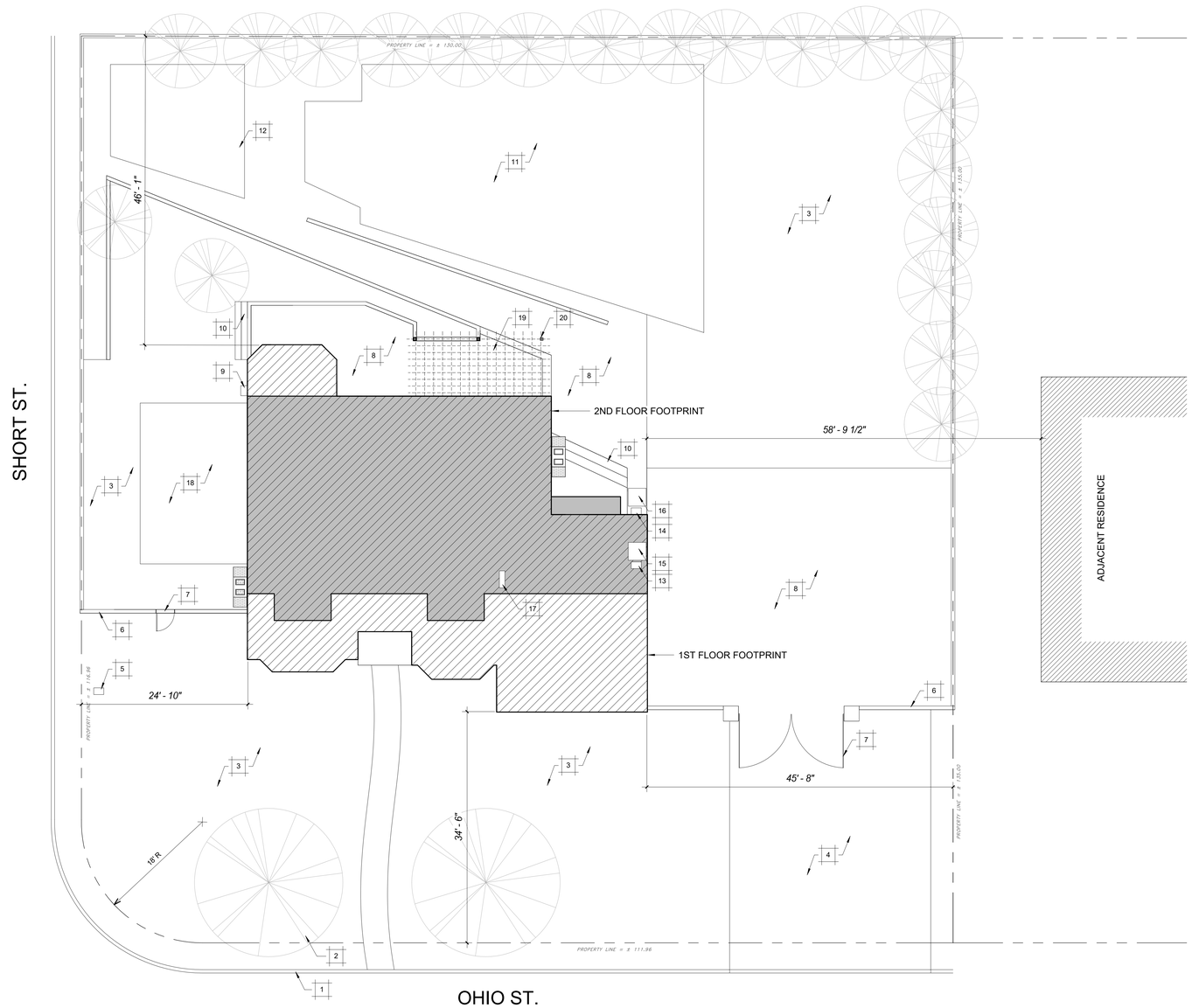
PLUMBING:
1. ALL PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH THE FOLLOWING MAXIMUM FLOWRATES: (CG 4.303.1)

TABLE – MAXIMUM FIXTURE WATER USE

FIXTURE TYPE FLOW RATE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH

2. A MINIMUM 24 BY 30 INCH CLEAR AREA SHALL BE PROVIDED IN FRONT OF EACH WATER CLOSET, LAVATORY OR SIMILAR FIXTURE. NO WATER CLOSET SHALL BE SET CLOSER THAN 15-INCHES FROM ITS CENTER TO A SIDE WALL OR OBSTRUCTION. (CPC 402.5)
3. WHEN LOCATED IN A GARAGE, APPLIANCES AND WATER HEATER SHALL BE INSTALLED SO THAT BURNERS AND BURNER-IGNITION DEVICES ARE LOCATED NOT LESS THAN 18- INCHES ABOVE THE GARAGE FLOOR. (CPC 507.13)
4. WATER HEATERS, GAS METERS AND OTHER GAS APPLIANCES INSTALLED IN GARAGES, ALONG DRIVEWAYS OR OTHER AREAS SUBJECT TO VEHICLE DAMAGE SHALL BE PROTECTED BY ONE OR MORE 4-INCH DIAMETER, CONCRETE FILLED, STEEL PIPES, HAVING MINIMUM 12 INCH DIAMETER BY 18 INCH DEPTH CONCRETE FOOTINGS AND EXTENDING AT LEAST 36 INCHES ABOVE THE VEHICLE SURFACE. ((CMC 305.11, CPC 507.13.1 & CBC 1807.3.2)
5. WATER HEATERS TO BE STRAPPED AT TOP AND BOTTOM WITH 1-1/2 INCH X 16 GAUGE STRAP, WITH A 3/8 INCH DIAMETER BY 3-INCH LAG BOLT AT EACH END. (CPC 507.2)
6. ROOF AND DECK DRAIN SYSTEMS INSIDE THE BUILDING ARE REQUIRED TO BE INSTALLED WITH DIRECTIONAL DWV DRAINAGE FITTINGS. (CPC 1101.5 & 706.0)
7. CLEANOUTS ARE REQUIRED WITHIN 2-FEET OF THE CONNECTION BETWEEN THE INTERIOR ROOF AND DECK DRAIN PIPING SYSTEM, AND THE EXTERIOR ONSITE STORM DRAIN SYSTEM (CPC 1101.12)
8. A NONREMOVABLE BACKFLOW PREVENTER OR VACUUM BREAKER SHALL BE INSTALLED ON THE DISCHARGE SIDE OF EACH HOSE BIBB NOT LESS THAN 6-INCHES ABOVE THE HIGHEST POINT OF USAGE. (CPC 603.5.7)
9. NO MORE THAN 5 WATER CLOSETS SHALL BE INSTALLED ON A 3-INCH HORIZONTAL DRAINAGE SYSTEM LINE, NO MORE THAN 5 WATER CLOSETS SHALL BE INSTALLED ON A 3-INCH VERTICAL DRAINAGE SYSTEM LINE. (CPC TABLE 703.2)
10. INSULATION FOR PIPINGS AND TANKS
   ☒ WATER PIPING, SOLAR WATER-HEATING SYSTEM PIPING, AND SPACE-CONDITIONING SYSTEM LINE INSULATION THICKNESS AND CONDUCTIVITY. PIPING SHALL BE INSULATED AS FOLLOWS:
      A. ALL DOMESTIC HOT WATER PIPING SHALL BE INSULATED AS SPECIFIED IN SECTION 609.11 OF THE CALIFORNIA PLUMBING CODE.
      B. PIPING FOR SPACE-CONDITIONING SYSTEMS, SOLAR WATERHEATING SYSTEM COLLECTOR LOOP, AND DISTRIBUTION PIPING FOR STEAM AND HYDRONIC HEATING SYSTEM SHALL MEET THE REQUIREMENTS OF SECTION120.3 (C).
         a. FACTORY- INSTALLED PIPING WITHIN SPACE-CONDITIONING EQUIPMENT CERTIFIED UNDER SECTION 110.1 OR 110.2.
         b. PIPING THAT PENETRATES FRAMOND MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. PIPING THAT PENETRATES METAL FRAMING SHALL USE GROMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING. INSULATION SHALL BE SECURELY AGAINST ALL FRAMING MEMBERS.
         c. PIPING INSTALLED IN INTERIOR OR EXTERIOR WALLS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION IF ALL OF THE REQUIREMENTS ARE MET FOR COMPLIANCE WITH QUALITY INSULATION INSTALLATION (QII) AS SPECIFIED IN THE REFERENCE RESIDENTIAL APPENDIX RA3.5.
         d. PIPING SURROUNDED WITH A MINIMUM OF 1 INCH OF WALL INSULATION, 2 INCHES OF CRAWLSPACE INSULATION, OR 4 INCHES OF ATTIC INSULATION SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION.
      C. PIPE INSULATION SHALL MEET THE INSULATION PROTECTION REQUIREMENTS OF SECTION 120.3(B).
11. SHOWERS AND TUB-SHOWERS SHALL BE PROVIDED WITH INDIVIDUAL CONTROLS OF THE THERMOSTATIC, PRESSURE BALANCE TYPE OR COMBINATION THERMOSTATIC/PRESSURE BALANCE CONTROL VALVE TYPE PER THE CPC SECTION 408.3
12. PROVIDE AIR GAP AT DISHWASHER INSTALLATION PER CPC 414.3.
13. PROVIDE BACKWATER VALVE FOR SEWER IF THE FLOOR LEVEL IS LOCATED BELOW THE ELEVATION OF THE NEXT UPSTREAM MANHOLE COVER PER THE CPC 710.1
14. WATER HEATERS SHALL COMPLY WITH MANDATORY ENGERY REQUIREMENTS LISTED IN THE "2022 LOW-RISE RESIDENTIAL MANDATORY MEASURES SUMMARY", ITEMS 150.0(N) 1-3 SHOWN ON SHEET T24-2
15. WATER HEATING SYSTEM.
   ☒ SYSTEMS USING GAS OR PROPANE WATER HEATERS TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE A SPACE AT LEAST 2.5 FT BY 2.5 FT WIDE AND 7 FT TALL SUITABLE FOR THE FUTURE INSTALLATION OF A HEAT PUMP WATER HEATER (HPWH) BY MEETING A OR B BELOW. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CEC 2022.
   ☒ IF THE DESIGNATED SPACE IS WITHIN 3FT FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING THE FOLLOWING COMPONENTS:
      A. A DEDICATED 125 VOLT, 20 AMP ELECTRICAL RECEPTACLE THAT IS CONNECTED TO THE ELECTRIC PANEL WITH A 120/240 VOLT 3 CONDUCTOR, 10 AWG COPPER BRANCH CIRCUIT, WITHIN 3FT FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS. IN ADDITION, ALL OF THE FOLLOWING:
      B. BOTH ENDS OF THE UNUSED CONDUCTOR SHALL BE LABELLED WITH THE WORD "SPARE" AND BE ELECTRICALLY ISOLATED; AND
      C. A RESERVED SINGLE POLE CIRCUIT BREAKER SPACE IN THE ELECTRICAL PANEL ADJACENT TO THE CIRCUIT BREAKER FOR THE BRANCH CIRCUIT IN A ABOVE AND LABELLED WITH THE WORDS "FUTURE 240V USE"; AND
      D. A CONDENSATE DRAIN THAT IS NO MORE THAN 2IN HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE
   ☒ IF DESIGNATED SPACE IS MORE THAN 3FT FROM THE WATER HEATER, THEN THIS SPACE SHALL INCLUDE THE FOLLOWING:
      A. A DEDICATED 240 VOLT BRANCH CIRCUIT SHALL BE INSTALLED WITHIN 3 FT FROM THE DESIGNATED SPACE. THE BRANCH CIRCUIT SHALL BE RATED AT 30 AMPS MIN. THE BLANK COVER SHALL BE IDENTIFIED AS "240V READY"; AND
      B. THE MAIN ELECTRICAL SERVICE PANEL SHALL HAVE A RESERVED SPACE TO ALLOW FOR THE INSTALLATION OF A DOUBLE POLE CIRCUIT BREAKER FOR A FUTURE HPWH INSTALLATION. THE RESERVED SPACE SHALL BE PERMANENTLY MARKED AS "FOR FUTURE 240V USE"; AND
      C. EITHER A DEDICATED COLD WATER SUPPLY, OR THE COLD WATER SUPPLY SHALL PASS THROUGH THE DESIGNATED HPWH LOCATION JUST BEFORE REACHING THE GAS OR PROPANE WATER HEATER; AND
      D. THE HOT WATER SUPPLY PIPE COMING OUT OF THE GAS OR PROPANE WATER HEATER SHALL BE ROUTED FIRST THROUGH THE DESIGNATED HPWH LOCATION BEFORE SERVING ANY FIXTURES; AND THE HOT AND COLD WATER PIPING AT THE DESIGNATED HPWH LOCATION SHALL BE EXPOSED AND READILY ACCESSIBLE FOR FUTURE INSTALLATION OF AN HPWH; AND
      E. A CONDENSATE DRAIN THAT IS NO MORE THAN 2IN HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE.

ELECTRICAL:
1. EDISON COMPANY APPROVAL IS REQUIRED FOR ELECTRIC METER LOCATION AND/OR RELOCATION PRIOR TO METER INSTALLATION.
2. FIELD INSPECTORS TO REVIEW AND APPROVE UNDERGROUND SERVICES PRIOR TO CONCRETE PLACEMENT.
3. SERVICE EQUIPMENT AND SUBPANELS TO HAVE A MINIMUM 30 BY 36 INCH CLEAR WORK SPACE ON A LEVEL SURFACE WITH 78 INCH CLEAR HEIGHT. (CEC 110.26(A))
4. SUBPANELS ARE NOT ALLOWED TO BE LOCATED IN BATHROOMS OR CLOTHES CLOSETS. (CEC 240.24(D) & (E))
5. CIRCUITS SHARING A GROUNDED CONDUCTOR (NEUTRAL) WITH TWO UNGROUNDED (HOT) CONDUCTORS MUST USE A TWO POLE CIRCUIT BREAKER OR AN IDENTIFIED HANDLE TIE. (CEC 200.4(B))
6. GROUP NON-CABLE CIRCUITS IN PANEL (CEC 210.4(D))
7. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION SHALL BE PROVIDED AT ALL RECEPTACLE OUTLETS IN BATHROOMS, CRAWL SPACES, GARAGES, ROOFTOPS, OUTDOOR OUTLETS, AND ABOVE KITCHEN COUNTERTOPS, DISHWASHERS OR WITHIN 6-FEET OF A WET-BAR OR LAUNDRY SINK. (CEC 210.8)
8. COMBINATION TYPE ARC FAULT CIRCUIT INTERRUPTER (AFCI) CIRCUIT BREAKERS ARE REQUIRED FOR ALL 120V SINGLE PHASE 15A/20A BRANCH CIRCUITS. (CEC 210.12(B))
9. A MINIMUM OF 2 DEDICATED 20-AMPERE CIRCUITS ARE REQUIRED FOR ALL RECEPTACLE OUTLETS IN THE KITCHEN, DINING ROOM, BREAKFAST AREA, PANTRY OR SIMILAR AREAS. (CEC 210.11(C)1 & 210.52(B))
10. KITCHEN COUNTERTOPS 12-INCHES OR WIDER MUST HAVE RECEPTACLE OUTLETS INSTALLED SO NO POINT ALONG THE COUNTER WALL IS MORE THAN 24-INCHES FROM A RECEPTACLE. (CEC



(N) SITE PLAN

SCALE: 1/8" = 1'-0"

SITE SYMBOL

- PROPERTY LINE
- SETBACK
- BUILDING FOOTPRINT
- FENCE
- EXISTING TREE
- RETAINING WALL
- +HB HOSE BIB
- DRAINAGE PIPE

KEYNOTES

1 EXISTING 6" CURB
2 TYP. EXISTING TREE
3 EXISTING GRASS AREA
4 EXISTING DRIVEWAY
5 EXISTING WATER METER
6 EXISTING 6' FENCE W/ CMU BLOCK
7 EXISTING FENCE GATE
8 EXISTING PAVER
9 EXISTING ELECTRICAL METER
10 EXISTING STEPS
11 EXISTING POOL
12 EXISTING DETACHED PATIO COVER
13 EXISTING CONDENSER TO BE RELOCATED; REFER TO KEYNOTE #16
14 NEW GAS METER
15 EXISTING CONDENSER TO BE RELOCATED; REFER TO KEYNOTE #16
16 NEW CONDENSER
17 EXISTING TANKLESS WATER HEATER AT GARAGE
18 NEW CONCRETE SURFACE
19 NEW PERGOLA; FRAMING SIZE PER STRUCT.

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 606-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER
YASER S. SALEM
S-4902
EXP. 12/31/26
STRUCTURAL
STATE OF CALIFORNIA

NO.	DATE	REVISIONS
1		
2		
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CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886
SITE PLAN

DATE: 2/27/2025 11:12:58 AM
JOB NO:
DRAWN: JL
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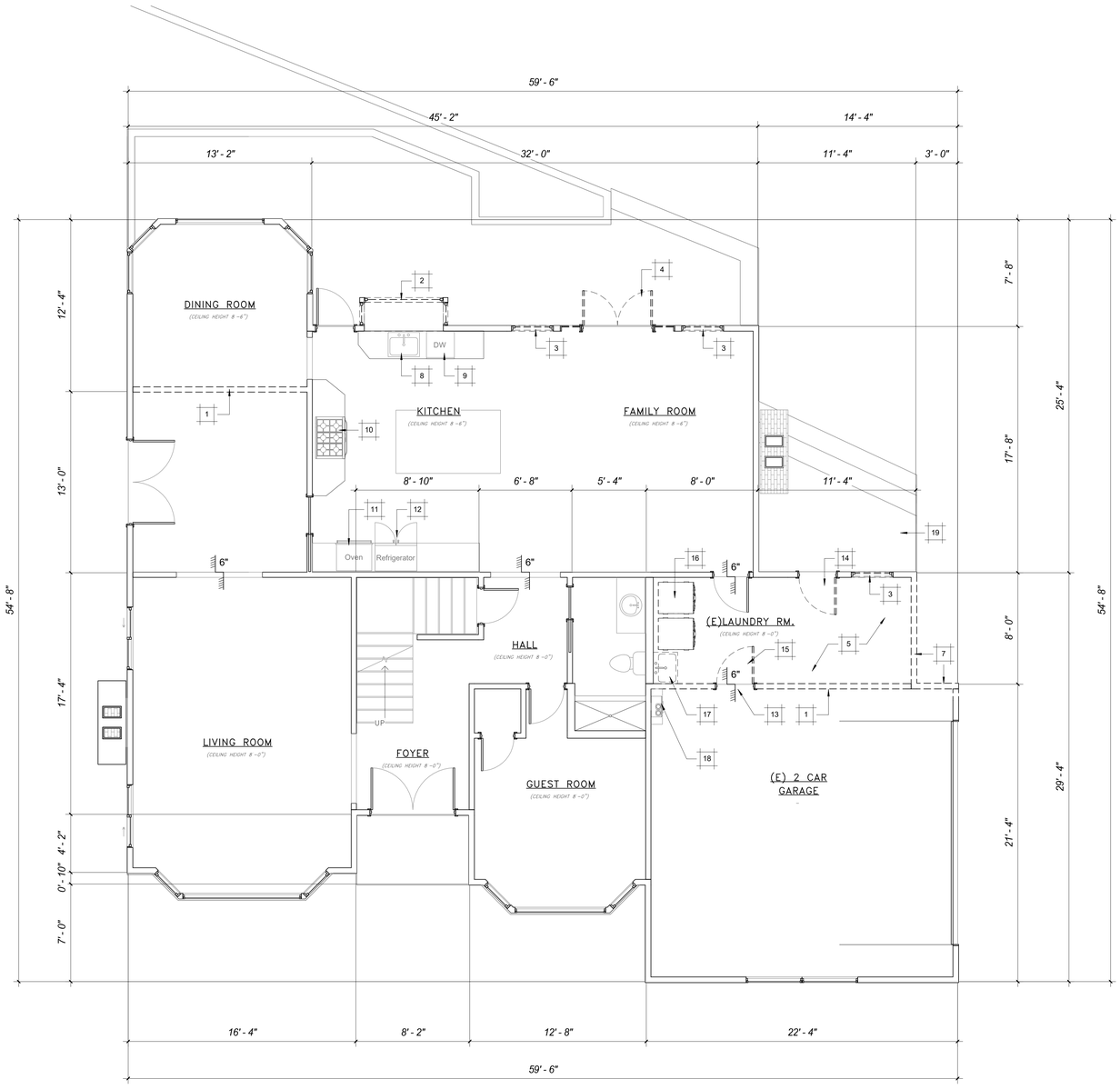
SHEET OF 12

A-1.0

24x36 FULL SHEET SCALE



(E) 1ST FLOOR PLAN

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

DEMOLITION NOTES

1. CONSTRUCTION SHOULD COMPLY LATEST CALIFORNIA BUILDING CODE.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING HIM/HER SELF WITH BOTH THE DESIGN DOCUMENTS AND THE EXISTING BUILDING PRIOR TO CONSTRUCTION. SHOULD ANY CONFLICT ARISE BETWEEN THE DRAWINGS AND FIELD CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT.
3. DEMOLITION AS NOTED ON PLANS. CONTRACTOR TO COORDINATE TO ACCOMMODATE CALIFORNIA REGULATIONS. PROJECT TO BE LEFT BROOM CLEAN DAILY.
4. THE CONTRACTOR SHALL INVESTIGATE THE SITE AND AVAILABLE DOCUMENTATION TO ASSURE HIM/HER SELF OF THE CONDITION OF THE WORK TO DEMOLISHED AND SHALL TAKE ALL PRECAUTIONS TO ENSURE SAFETY OF PERSONS AND PROPERTY.
5. EXISTING FIRE AND SMOKE DETECTION SYSTEMS TO REMAIN ON OPERATION DURING DEMOLITIONS AND CONSTRUCTION. PROVIDE ADEQUATE SHORING AD BRACING TO CARRY LOADS AND STRESSES WITHSTOOD BY ITEMS REMOVED, ARE RESPONSIBLE FOR ADQUACY OF SUCH CONSTRUCTION AS WELL AS FOR ANY DAMAGE TO EXISTING BUILDINGS.
6. PROCEED WITH DEMOLITIONS SYSTEMATICALLY, COORDINATE DEMOLITION WITH CONSTRUCTION TO REMAIN. DEMOLISH IN SMALL SECTIONS AND AVOID OVERLAPPING STRUCTURE AND UTILITIES.
7. SELECTIVE DEMOLISH ITEMS TO BE REMOVED AND LEGALLY REMOVE FROM SITE. USE DEMOLITIONS METHODS WITH LIMITATION OF GOVERNING REGULATIONS. MATERIALS NOT INDICATED FOR REUSE OR RESERVED FOR OWNER, AS WELL AS RUBLE AND DEBRIS RESULTING FROM THESE OPERATIONS, BECOME THE PROPERTY OF THE CONTRACTOR. LEGALLY REMOVE FREQUENTLY FROM SITE.
8. PROVIDE TEMPORARY ENCLOSURE AT EXTERIOR WALLS AND FLOOR NEATLY CONSTRUCTED TO FROM THIGH FIT BEFORE EXPOSING INTERIOR OF EXISTING BUILDING. TEMPORARY ENCLOSURES SHALL BE CONSTRUCTED OF FIRE RESISTANT, WEATHERPROOF CONSTRUCTION ADEQUATELY SEALED TO PREVENT PASSAGE OF HEAT AND ELEMENTS.
9. EXERCISE CARE IN REMOVING SALAVAGEABLE ITEMS SCHEDULE FOR REUSE. STORE SUCH ITEMS IN AN AREA APPROVE BY THE OWNER, AND PROTECTED FROM DAMAGE DURING SUCH STORAGE. CLEAN ITEMS AS NECESSARY FOR REUSE PRIOR TO STORAGE.
10. REMOVE ALL DOORS AND WINDOWS AS SHOWN IN DEMOLISHING PLAN. SEE A-2.0 FOR PROPOSED WORK.
11. EXISTING INTERIOR WOOD FLOORING TO BE REMOVED AS WELL AS ALL WALL FINISHES. PREP WALL AND FLOOR FOR NEW FINISHES, U.O.N.
12. EXISTING FINISH CEILING TO BE REMOVED AND PREP FOR NEW CEILING FINISH, U.O.N.

LEGEND

- EXISTING WALL TO REMAIN
- EXISTING WALL TO DEMO
- NEW WALL

KEYNOTES

1 DEMO EXISTING INTERIOR WALL

2 DEMO EXISTING BAY WINDOW & REPLACE WITH SLIDER

3 DEMO EXISTING WINDOW

4 DEMO EXISTING FRENCH DOOR

5 DEMO EXISTING LAUNDRY ROOM & CONVERT THE AREA INTO THREE CAR GARAGE

6 CONVERT THE AREA INTO (N)LAUNDRY ROOM

7 DEMO EXISTING EXTERIOR WALL

8 EXISTING SINK TO REMAIN

9 EXISTING DISHWASHER TO REMAIN

10 EXISTING RANGE & KITCHEN HOOD TO REMAIN

11 EXISTING OVEN TO REMAIN

12 EXISTING REFRIGERATOR TO REMAIN

13 DEMO EXISTING FLOOR @ LAUNDRY ROOM TO LEVEL W/ (E) 2 CAR GARAGE

14 DEMO EXISTING EXTERIOR DOOR

15 DEMO EXISTING INTERIOR DOOR

16 DEMO EXISTING WASHER & DRYER

17 DEMO EXISTING SINK

18 EXISTING TANKLESS WATER HEATER TO REMAIN

19 EXISTING LANDING

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 606-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER — YASSER S. SALEM — S-4902 — EX. 11/31/26 — STRUCTURAL — STATE OF CALIFORNIA

CLARK RESIDENCE

5851 OHIO ST.
YORBA LINDA, CA 92886

DEMO PLAN

NO.	DATE	REVISIONS
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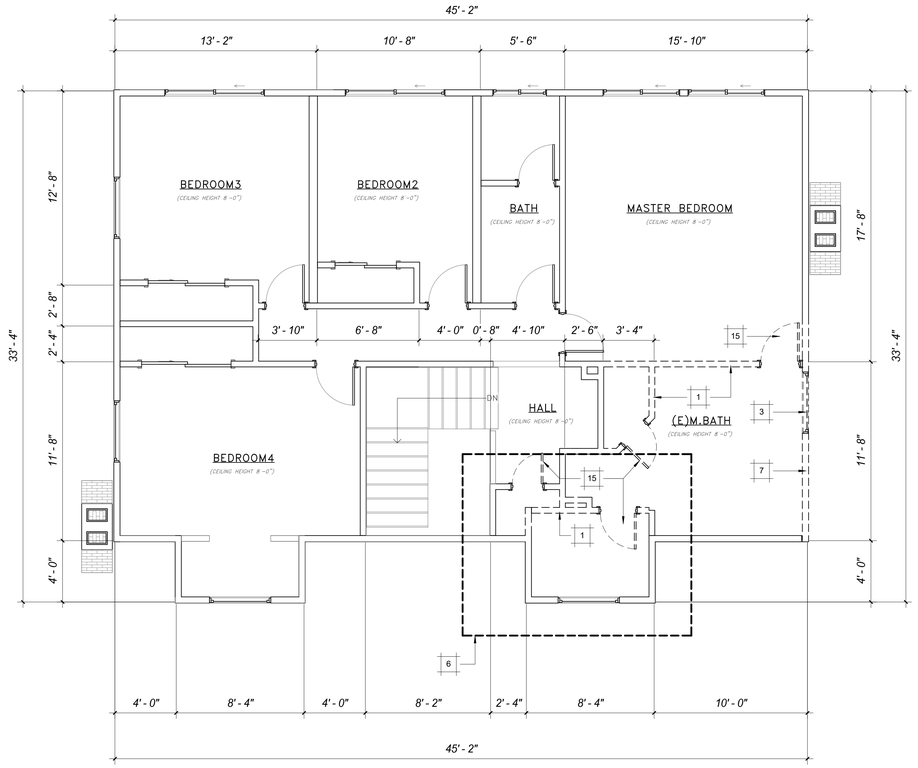
DATE: 12/18/2024 11:05:00 AM
JOB NO:
DRAWN: JL
CHECKED: Checker

SHEET OF 12

A-2.0

CAD FILE: A-2.0 DEMO.dwg



(E)2ND FLOOR PLAN

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

DEMOLITION NOTES

1. CONSTRUCTION SHOULD COMPLY LATEST CALIFORNIA BUILDING CODE.
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FAMILIARIZING HIM/HER SELF WITH BOTH THE DESIGN DOCUMENTS AND THE EXISTING BUILDING PRIOR TO CONSTRUCTION. SHOULD ANY CONFLICT ARISE BETWEEN THE DRAWINGS AND FIELD CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT.
3. DEMOLITION AS NOTED ON PLANS. CONTRACTOR TO COORDINATE TO ACCOMMODATE CALIFORNIA REGULATIONS. PROJECT TO BE LEFT BROOM CLEAN DAILY.
4. THE CONTRACTOR SHALL INVESTIGATE THE SITE AND AVAILABLE DOCUMENTATION TO ASSURE HIM/HER SELF OF THE CONDITION OF THE WORK TO DEMOLISHED AND SHALL TAKE ALL PRECAUTIONS TO ENSURE SAFETY OF PERSONS AND PROPERTY.
5. EXISTING FIRE AND SMOKE DETECTION SYSTEMS TO REMAIN ON OPERATION DURING DEMOLITIONS AND CONSTRUCTION. PROVIDE ADEQUATE SHORING AD BRACING TO CARRY LOADS AND STRESSES WITHSTOOD BY ITEMS REMOVED, ARE RESPONSIBLE FOR ADQUACY OF SUCH CONSTRUCTION AS WELL AS FOR ANY DAMAGE TO EXISTING BUILDINGS.
6. PROCEED WITH DEMOLITIONS SYSTEMATICALLY, COORDINATE DEMOLITION WITH CONSTRUCTION TO REMAIN. DEMOLISH IN SMALL SECTIONS AND AVOID OVERLAPPING STRUCTURE AND UTILITIES.
7. SELECTIVE DEMOLISH ITEMS TO BE REMOVED AND LEGALLY REMOVE FROM SITE. USE DEMOLITIONS METHODS WITH LIMITATION OF GOVERNING REGULATIONS. MATERIALS NOT INDICATED FOR REUSE OR RESERVED FOR OWNER, AS WELL AS RUBLE AND DEBRIS RESULTING FROM THESE OPERATIONS, BECOME THE PROPERTY OF THE CONTRACTOR. LEGALLY REMOVE FREQUENTLY FROM SITE.
8. PROVIDE TEMPORARY ENCLOSURE AT EXTERIOR WALLS AND FLOOR NEATLY CONSTRUCTED TO FROM THIGH FIT BEFORE EXPOSING INTERIOR OF EXISTING BUILDING. TEMPORARY ENCLOSURES SHALL BE CONSTRUCTED OF FIRE RESISTANT, WEATHERPROOF CONSTRUCTION ADEQUATELY SEALED TO PREVENT PASSAGE OF HEAT AND ELEMENTS.
9. EXERCISE CARE IN REMOVING SALAVAGEABLE ITEMS SCHEDULE FOR REUSE. STORE SUCH ITEMS IN AN AREA APPROVE BY THE OWNER, AND PROTECTED FROM DAMAGE DURING SUCH STORAGE. CLEAN ITEMS AS NECESSARY FOR REUSE PRIOR TO STORAGE.
10. REMOVE ALL DOORS AND WINDOWS AS SHOWN IN DEMOLISHING PLAN. SEE A-2.0 FOR PROPOSED WORK.
11. EXISTING INTERIOR WOOD FLOORING TO BE REMOVED AS WELL AS ALL WALL FINISHES. PREP WALL AND FLOOR FOR NEW FINISHES, U.O.N.
12. EXISTING FINISH CEILING TO BE REMOVED AND PREP FOR NEW CEILING FINISH, U.O.N.

LEGEND

- EXISTING WALL TO REMAIN
- EXISTING WALL TO DEMO
- NEW WALL

KEYNOTES

1 DEMO EXISTING INTERIOR WALL

2 DEMO EXISTING BAY WINDOW & REPLACE WITH SLIDER

3 DEMO EXISTING WINDOW

4 DEMO EXISTING FRENCH DOOR

5 DEMO EXISTING LAUNDRY ROOM & CONVERT THE AREA INTO THREE CAR GARAGE

6 CONVERT THE AREA INTO (N)LAUNDRY ROOM

7 DEMO EXISTING EXTERIOR WALL

8 EXISTING SINK TO REMAIN

9 EXISTING DISHWASHER TO REMAIN

10 EXISTING RANGE & KITCHEN HOOD TO REMAIN

11 EXISTING OVEN TO REMAIN

12 EXISTING REFRIGERATOR TO REMAIN

13 DEMO EXISTING FLOOR @ LAUNDRY ROOM TO LEVEL W/ (E) 2 CAR GARAGE

14 DEMO EXISTING EXTERIOR DOOR

15 DEMO EXISTING INTERIOR DOOR

16 DEMO EXISTING WASHER & DRYER

17 DEMO EXISTING SINK

18 EXISTING TANKLESS WATER HEATER TO REMAIN

19 EXISTING LANDING

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 606-8122
EMAIL: YSalem@TDS-AE.COM

CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886

DEMO PLAN

NO.	DATE	REVISIONS
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DATE: 12/18/2024 11:05:09 AM
JOB NO:
DRAWN: JL
CHECKED: Checker

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A-2.1

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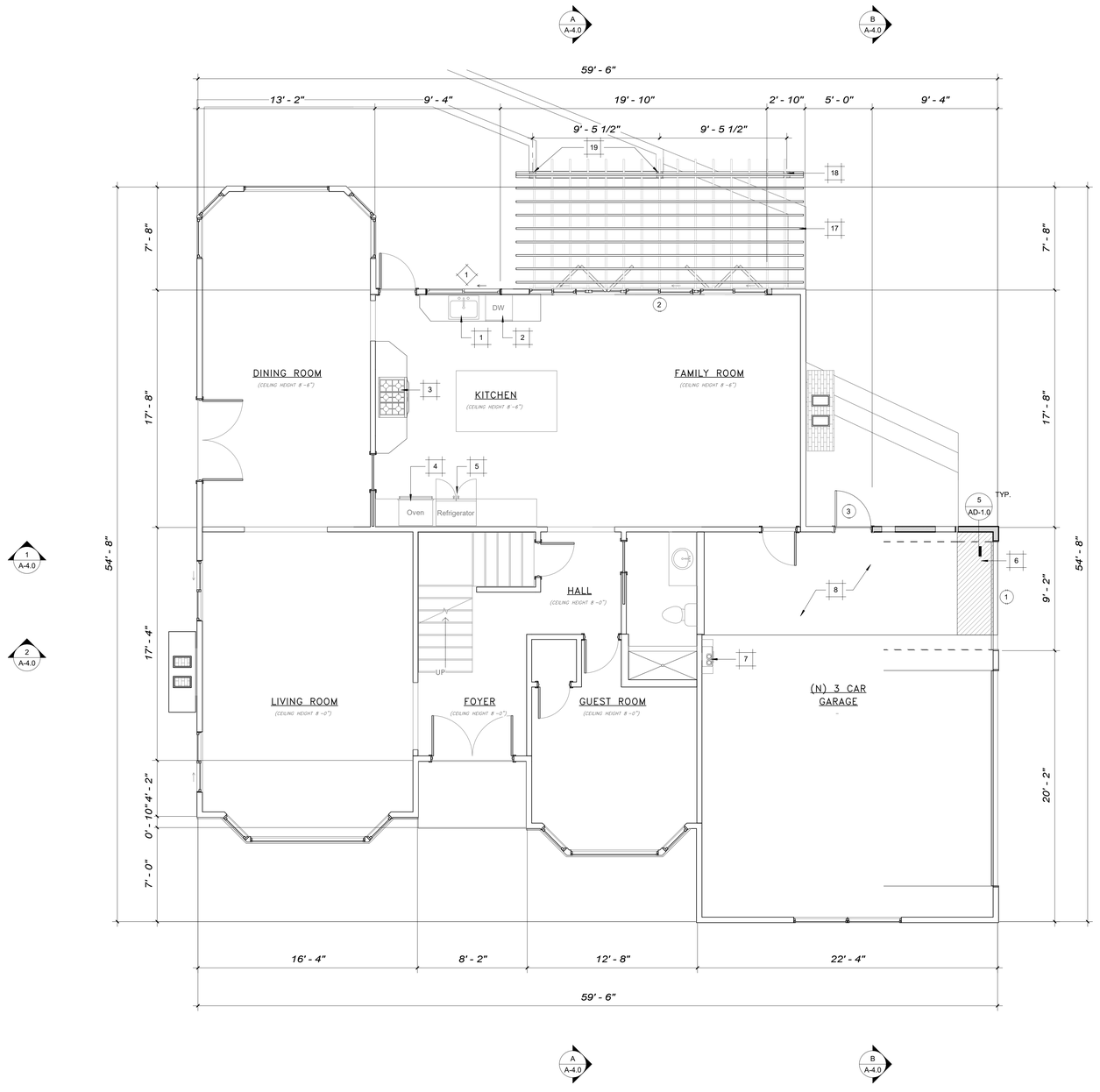

(N) 1ST FLOOR PLAN

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

GENERAL NOTES

1. ALL INTERIOR DOORS SHALL BE HOLLOW CORE WITH 1 " THICK. U.N.O. AT 1. 8 DOUBLE INTERIOR DOOR CONDITIONS PROVIDE DEADBOLT AT TOP OF INACTIVE DOOR.
2. ALL EXTERIOR FRENCH DOORS SHALL BE SOLID CORE WITH 1 " THICK. AT 2. DOUBLE FRENCH DOOR PROVIDE DEADBOLT AT TOP AND BOTTOM OF INACTIVE DOOR.
3. ALL GARAGE DOORS SHALL BE SOLID CORE WITH 1 3/8" THICK OR 20 MINUTE RATED DOOR AT OPENING DWELLING.
4. ALL ENTRY DOORS SHALL BE SOLID CORE WITH 1 3/4" THICK. AT DOUBLE ENTRY 4. 4 DOOR PROVIDE DEADBOLT AT TOP & BOTTOM OF INACTIVE DOOR
5. ALL DOORS ACCESS FROM THE GARAGE TO THE HOUSE SHALL BE 5. 3 ONE-HOUR RATED, SOLID CORE WITH 1 3/8" THICK AND SHALL BE SELF 8 CLOSING & TIGHT FITTING
6. ESCAPE OR RESCUE WINDOW SHALL HAVE A MIN. NET CLEAR OPENABLE 6. AREA OF 5.7 SQ. FT. TO BE VERIFIED WITH WINDOW MANUFACTURER. THE MIN. NET CLEAR OPENABLE DIMENSIONS SHALL BE AS FOLLOWS: 24 INCHES MIN. FOR HEIGHT 20 INCHES MIN. FOR WIDTH WITH A WINDOW FINISHED SILL HEIGHT NOT MORE THAN 44 INCHES ABOVE FIN. FLOOR PER C.B.C. SEC. 310.4

ADDITONAL NOTES:

a. CONTRACTOR SHALL POST THE INSTALLATION CERTIFICATE (CF-6R) FORM AND INSULATION CERTIFICATE (IC-1) FORM IN A CONSPICUOUS LOCATION OR KEPT WITH PLANS AND MADE AVAILABLE TO THE INSPECTOR.
b. CONTRACTOR SHALL PROVIDE COPIES OF THE CF-1R, MF-1R, CF-6F AND IC-1 FORMS TO THE BUILDING OWNER.

EXISTING CONDITIONS:

ALL DIMENSIONS & INFORMATION SHOWN ON THE PLANS RELATIVE TO EXISTING CONDITIONS ARE GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY

PLUMPING NOTES:

1. ALL SHOWERS AND TUB-SHOWERS SHALL HAVE A PRESSURE BALANCE, THERMOSTATIC MIXING VALVE, OR A COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING TYPE VALVE
2. ALL NEW, REPLACEMENT AN EXISTING WATER HEATERS SHALL BE STRAPPED TO THE WALL IN TWO PLACES. ONE IN THE UPPER 1/3 OF THE TANK AND ONE IN THE LOWER 1/3 OF THE TANK. THE LOWER POINT SHALL BE A MINIMUM OF 4-IN. ABOVE THE CONTROLS.

LEGEND

EXISTING WALL TO REMAIN

EXISTING WALL TO DEMO

NEW WALL

KEYNOTES

1 EXISTING SINK TO REMAIN
2 EXISTING DISHWASHER TO REMAIN
3 EXISTING RANGE & KITCHEN HOOD TO REMAIN
4 EXISTING OVEN TO REMAIN
5 EXISTING REFRIGERATOR TO REMAIN
6 ADDITION @ 1ST. FLR.: 24 SQ.FT.
7 EXISTING TANKLESS WATER HEATER TO REMAIN
8 DEMO EXISTING FLOOR @ LAUNDRY ROOM TO LEVEL W/ (E) 2 CAR GARAGE
9 ADDITION @ 2ND. FLR.: 195 SQ.FT.
10 NEW VANITY SINK; OWNER TO SELECT
11 NEW SHOWER
12 NEW WATER CLOSET
13 NEW FREE STANDING TUB
14 NEW LINEN CLOSET
15 NEW SINK; OWNER TO SELECT
16 NEW WASHER & DRYER; OWNER TO SELECT
17 NEW PERGOLA; FRAMING SIZE PER STRUCT.
18 NEW PERGOLA ABOVE; FRAMING SIZE PER STRUCT.
19 NEW POST SEATING ON TOP OF THE EXISTING GARDEN WALL

TOTAL ENGINEERING SERVICES
CIVIL · STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 608-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER YASSER S. SALEM S-4902 EX: 12/31/26 CIVIL STRUCTURAL STATE OF CALIFORNIA

CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886

PROPPOSED FLOOR PLAN

NO.	DATE	REVISIONS
1		
2		
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4		
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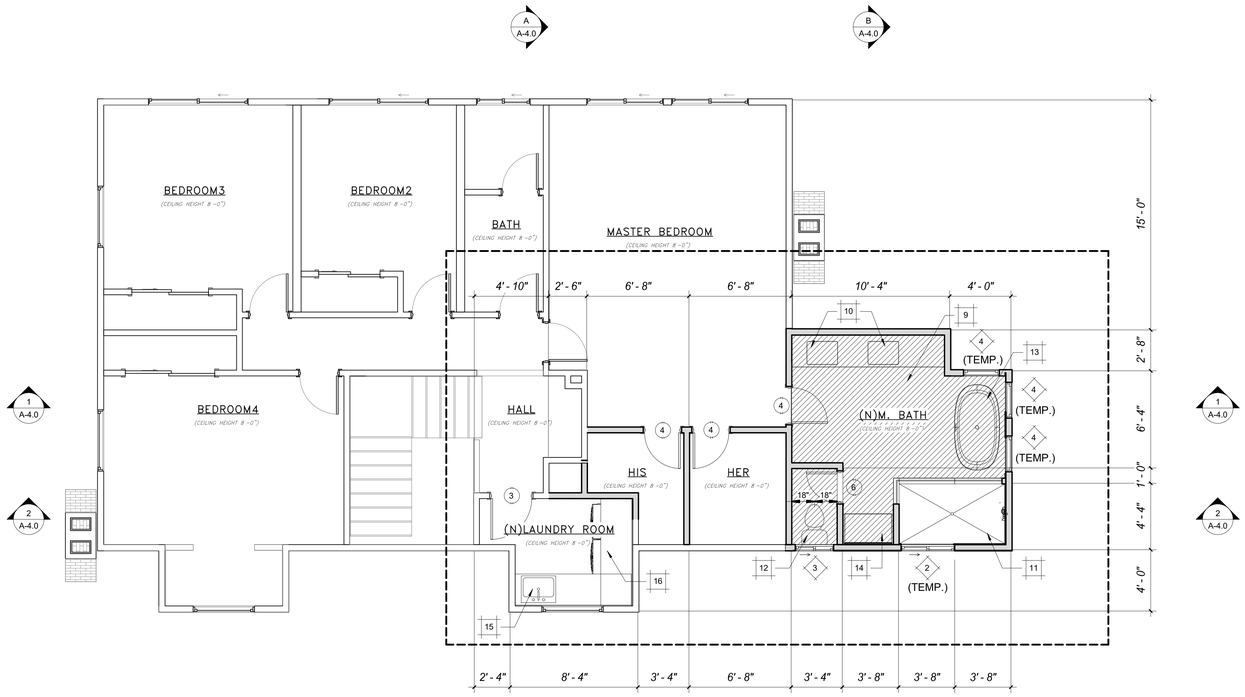
DATE: 11/2/2025 5:44:18 PM
JOB NO:
DRAWN: JL
CHECKED: Checker

SHEET OF 12

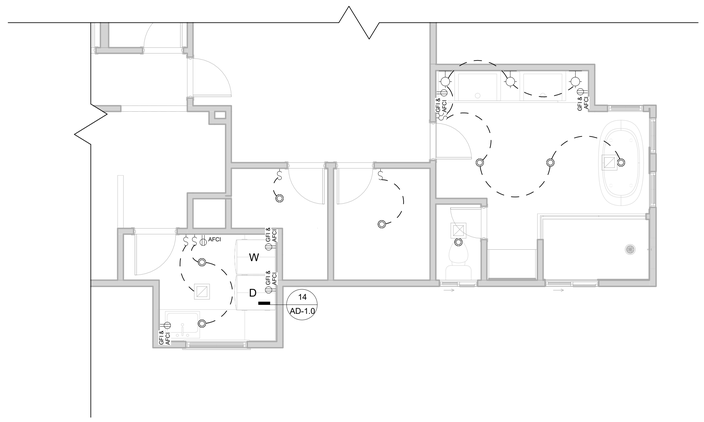
A-2.2

CAD FILE: ARCHITECTURAL



(N)2ND FLOOR PLAN

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



(N)PARTIAL ELEC. PLAN @ 2ND FLR.

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

WALL LEGEND

- EXISTING WALL TO REMAIN
- EXISTING WALL TO DEMO
- NEW WALL

ELECTRICAL LEGEND

- RECESSED CLG DOWN LIGHT, LED
- WALL MOUNTED LED LIGHT FIXTURE
- AFCI — ARC-FAULT CIRCUIT INTERRUPTING DUPLEX OUTLET
- GFI & AFCI — ARC-FAULT & GROUND FAULT INTERRUPTING DUPLEX OUTLET
- S — SWITCH
- EXHAUST FAN 5 AIR CHANGE PER HR. (25 CFM CONTINUOUS, 50 CFM INTERMITTENT) FAN SHALL BE EQUIPPED WITH A HUMIDISTAT CONTROL

NOTE:
- PROVIDE SEALED LT. FIXTURE WITH LENS OVER TUBS AND IN SHOWER
- ALL DECORATIVE LIGHT FIXTURES TO BE SELECTED BY OWNER
- ALL DOWNLIGHTS TO BE LED U.N.O.

GENERAL NOTES

1. ALL INTERIOR DOORS SHALL BE HOLLOW CORE WITH 1 " THICK. U.N.O. AT 1. 8 DOUBLE INTERIOR DOOR CONDITIONS PROVIDE DEADBOLT AT TOP OF INACTIVE DOOR.
2. ALL EXTERIOR FRENCH DOORS SHALL BE SOLID CORE WITH 1 " THICK. AT 2. DOUBLE FRENCH DOOR PROVIDE DEADBOLT AT TOP AND BOTTOM OF INACTIVE DOOR.
3. ALL GARAGE DOORS SHALL BE SOLID CORE WITH 1 3/8" THICK OR 20 MINUTE RATED DOOR AT OPENING DWELLING.
4. ALL ENTRY DOORS SHALL BE SOLID CORE WITH 1 3/4" THICK. AT DOUBLE ENTRY 4. 4 DOOR PROVIDE DEADBOLT AT TOP & BOTTOM OF INACTIVE DOOR
5. ALL DOORS ACCESS FROM THE GARAGE TO THE HOUSE SHALL BE 5. 3 ONE-HOUR RATED, SOLID CORE WITH 1 3/8" THICK AND SHALL BE SELF 8 CLOSING & TIGHT FITTING
6. ESCAPE OR RESCUE WINDOW SHALL HAVE A MIN. NET CLEAR OPENABLE 6. AREA OF 5.7 SQ. FT. TO BE VERIFIED WITH WINDOW MANUFACTURER. THE MIN. NET CLEAR OPENABLE DIMENSIONS SHALL BE AS FOLLOWS: 24 INCHES MIN. FOR HEIGHT 20 INCHES MIN. FOR WIDTH WITH A WINDOW FINISHED SILL HEIGHT NOT MORE THAN 44 INCHES ABOVE FIN. FLOOR PER C.B.C. SEC. 310.4

ADDITONAL NOTES:
a. CONTRACTOR SHALL POST THE INSTALLATION CERTIFICATE (CF-6R) FORM AND INSULATION CERTIFICATE (IC-1) FORM IN A CONSPICUOUS LOCATION OR KEPT WITH PLANS AND MADE AVAILABLE TO THE INSPECTOR.
b. CONTRACTOR SHALL PROVIDE COPIES OF THE CF-1R, MF-1R, CF-6F AND IC-1 FORMS TO THE BUILDING OWNER.

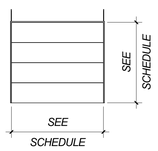
EXISTING CONDITIONS:
ALL DIMENSIONS & INFORMATION SHOWN ON THE PLANS RELATIVE TO EXISTING CONDITIONS ARE GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY

PLUMPING NOTES:
1. ALL SHOWERS AND TUB-SHOWERS SHALL HAVE A PRESSURE BALANCE, THERMOSTATIC MIXING VALVE, OR A COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING TYPE VALVE
2. ALL NEW, REPLACEMENT AN EXISTING WATER HEATERS SHALL BE STRAPPED TO THE WALL IN TWO PLACES. ONE IN THE UPPER 1/3 OF THE TANK AND ONE IN THE LOWER 1/3 OF THE TANK. THE LOWER POINT SHALL BE A MINIMUM OF 4-IN. ABOVE THE CONTROLS.

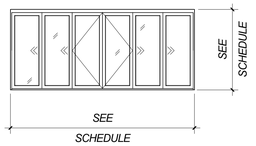
ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), AND ALL OTHER LOCAL AND STATE CODES HAVING JURISDICTION.
2. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY NATIONAL RECOGNIZED TESTING AUTHORITY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO DO ALL CORING, SAWCUTTING, PATCHING AND REFINISHING OF EXISTING WALLS SURFACES WHEREVER IT IS NECESSARY FOR HIM TO PENETRATE FOR HIS WORK. ALL OPENINGS SHALL BE SEALED COMPLETELY TO MEET THE FIRE RATINGS OF PARTICULAR WALLS, FLOOR OR CEILINGS SHOWN ON ARCHITECTURAL PLANS
4. COUNTERTOP RECEPTABLE OUTLETS COMPLY WITH 2000 CEC ART. 210-52 (c), WHICH STATES AS FOLLOWS: IN KITCHENS AND DINING AREAS OF DWELLING UNITS A RECEPTACLE OUTLETS SHALL BE INSTALLED AT EACH COUNTER SPACE WIDER THAN 12 INCHES. RECEP- TACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE. ISLAND AND PENINSULAR COUNTOPS 12 INCHES BY 24 " LONG FOR EACH FOUR FEET OF COUNTER TOP. COUNTER TOP SPACES SEPARATED BY RANGE TOPS, REFIGERATORS OR SINK SHALL BE CONSIDERED AS SEPARATE COUNTER TOPS SPACES.
5. ELECTRICAL SERVICES TO BE APPROX. 200 AMPS.N/ SERVICE PANEL ON GARAGE SIDE WALL.
6. GROUND FAULT CIRCUT INTERRUPTER (G.F.I.) OUTLETS ARE REQUIRED IN AND KITCHEN COUNTER OUTLETS (CEC. 210.8(c)).
7. ALL 125-VOLT, SINGLE - PHASE 15 AND 20 AMPERE RECEPTACLES INSTALLED IN BATHROOMS, KITCHEN.
8. PROVIDE FLUORESCENT GENERAL LIGHTING (40) LUMENS PER WATT (MINIMUM) IN KITCHEN AND BATHROOM.
9. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY A MINIMUM OF (1) 20 AMP. CIRCUIT SUCH CIRCUIT SHALL HAVE NO OTHER OUTLETS. THIS CIRCUIT MAY SERVE MORE THAN ONE BATHROOM (C.E.C. 210-52(d))
10. PROVIDE PERMANENT ELECTRICAL OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH FOR FURNACE LOCATED IN ATTIC OR UNDER-FLOOR SPACE (CMC, SEC. 306.3, 306.4)
11. ALL CONDUCTORS SHALL BE COPPER.

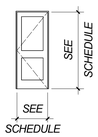
TYPE A *(GARAGE)*



TYPE B *(BI-FOLD; GLAZED)*



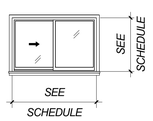
TYPE C *(SINGLE-SWING)*



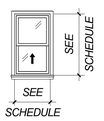
NEW DOOR SCHEDULE

MARK	WIDTH	HEIGHT	Type	SHGC	U-FACTOR	QUANTITY
1	8' - 0"	7' - 0"	A			1
2	16' - 0"	7' - 0"	B			1
3	2' - 8"	6' - 8"	C			2
4	2' - 4"	6' - 8"	C			3
6	2' - 0"	6' - 8"	C			1

TYPE A *(SLIDING)*



TYPE B *(SINGLE-HUNG)*



NEW WINDOW SCHEDULE

MARK	WIDTH	HEIGHT	SILL HEIGHT	TYPE	GLAZED	SHGC	U-FACTOR	QUANTITY
1	5' - 6"	3' - 6"	3' - 0"	A				1
2	3' - 6"	2' - 0"	5' - 0"	A				1
3	2' - 6"	2' - 0"	5' - 0"	A				1
4	2' - 4"	4' - 0"	3' - 0"	B	TEMP.			3

KEYNOTES

1 EXISTING SINK TO REMAIN
2 EXISTING DISHWASHER TO REMAIN
3 EXISTING RANGE & KITCHEN HOOD TO REMAIN
4 EXISTING OVEN TO REMAIN
5 EXISTING REFRIGERATOR TO REMAIN
6 ADDITION @ 1ST. FLR.: 24 SQ.FT.
7 EXISTING TANKLESS WATER HEATER TO REMAIN
8 DEMO EXISTING FLOOR @ LAUNDRY ROOM TO LEVEL W/ (E) 2 CAR GARAGE
9 ADDITION @ 2ND. FLR.: 195 SQ.FT.
10 NEW VANITY SINK; OWNER TO SELECT
11 NEW SHOWER
12 NEW WATER CLOSET
13 NEW FREE STANDING TUB
14 NEW LINEN CLOSET
15 NEW SINK; OWNER TO SELECT
16 NEW WASHER & DRYER; OWNER TO SELECT

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 606-8122
EMAIL - YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER YOUSEF S. SALEM C-69021 EXP. 12/31/26 STRUCTURAL STATE OF CALIFORNIA

CLARK RESIDENCE

5851 OHIO ST.
YORBA LINDA, CA 92886

PROPOSED FLOOR PLAN, PARTIAL ELECTRICAL PLAN & SCHEDULES

NO.	DATE	REVISIONS
1		
2		
3		
4		
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6		

DATE: 12/18/2024 11:05:59 AM
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CHECKED: Checker

SHEET OF 12

A-2.3

CAD FILE: A-2.3(PROP. SHT)

KEYNOTES

1 EXTERIOR WALL BELOW

2 EXISTING WALL TO DEMO

3 AREA OF NEW ATTIC AREA

4 ROOF ADDITION

5 RS-400 RAFT-A-VENT: BIRD BLOCK INTAKE VENT; 18.75 SQ.IN. PER PIECE

6 ROOF VENT. SYSTEM: COR-A-VENT V-600T RIDGE VENTILATION SYSTEM; 20 SQ.IN. NFVA PER LINEAR FOOT

7 NEW PERGOLA; FRAMING SIZE PER STRUCT.

VENT. CALCULATION

AREA OF (N)ATTIC- 180 SQ.FT
VENTILATION REQUIRED: 180 SQ.FT. /150 = 1.2 SQ.FT.
ATTIC AREA 1.2 X 144 = 172.8 SQ.IN.

VENTILATION PROVIDED(172.8/2 = 86.4 SQ.IN.):

[EXHAUST]
ROOF VENT. SYSTEM: COR-A-VENT V-600T RIDGE VENTILATION SYSTEM = 20 SQ.IN. PER LINEAR FOOT
5 X 20 = 100 SQ. IN

[IN-TAKE]
RS-400 RAFT-A-VENT: BIRD BLOCK INTAKE VENT = 18.75 SQ.IN. PER PIECE
PROVIDE 5 VENTS = 93.75 SQ. IN

TOTAL EXHAUST VENTILATION PROVIDED: 100 SQ.IN > 86.4 SQ.IN
TOTAL IN-TAKE VENTILATION PROVIDED: 93.75 SQ.IN > 86.4 SQ.IN

LEGEND

DEMO (E)ROOF

(E)ROOF TO REMAIN

ROOF ADDITION

ROOF VENT. SYSTEM: COR-A-VENT V-600T RIDGE VENTILATION SYSTEM; 20 SQ.IN. NFVA PER LINEAR FOOT

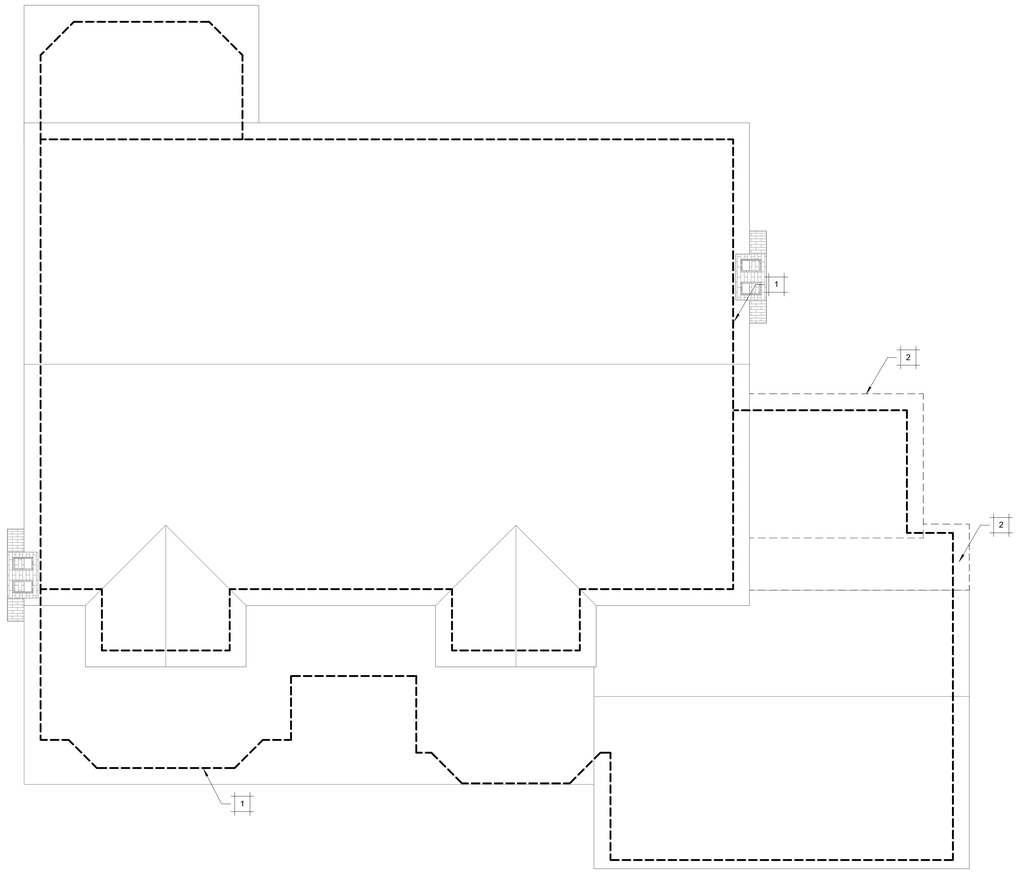
RS-400 RAFT-A-VENT: BIRD BLOCK INTAKE VENT; 18.75 SQ.IN. PER PIECE

VENTILATION NOTES

1. PROVIDE MECHANICAL VENTILATION CAPABLE OF PROVIDINGN FIVE AIR CHANGES PER HOUR IN BATHROOMS AND WATER CLOSET COMPARTMENTS IF REQUIRED OPENABLE WINDOWS ARE NOT PROVIDED SECTION 120.5
2. DOMESTIC KITCHEN RANGE VENTILATION SYSTEM SHALL BE INSTALLED OVER COOKING FACILITIES AND EXHAUST TO THE OUTSIDE OF THE BUILDING. AN APPROVED DOWNDRAFT GRILL-RANGE VENTILATION SYSTEM MAY BE USED (C.M.C. SEC. 504.2 AND CITY ORDINANCE #1227)
3. PROVIDE A HOOD AND SMOOTH METAL EXHAUST DUCT FOR THE KITCHEN RANGE AND SHOW TERMINATION OF THE EXHAUST DUCT. (C.M.C. 504.2)
4. EXHAUST DUCTS SHALL TERMINATE OUTSIDE THE BUILDING AND SHALL BE EQUIPPED WITH BACKDRAFT DAMPERS (C.M.C. 504.1)
5. CLEARANCES OF LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN THE LISTING. UNLISTED APPLIANCES CLEARANCES SHALL COMPLY WITH C.M.C. TABLE 3-A OR 3-B

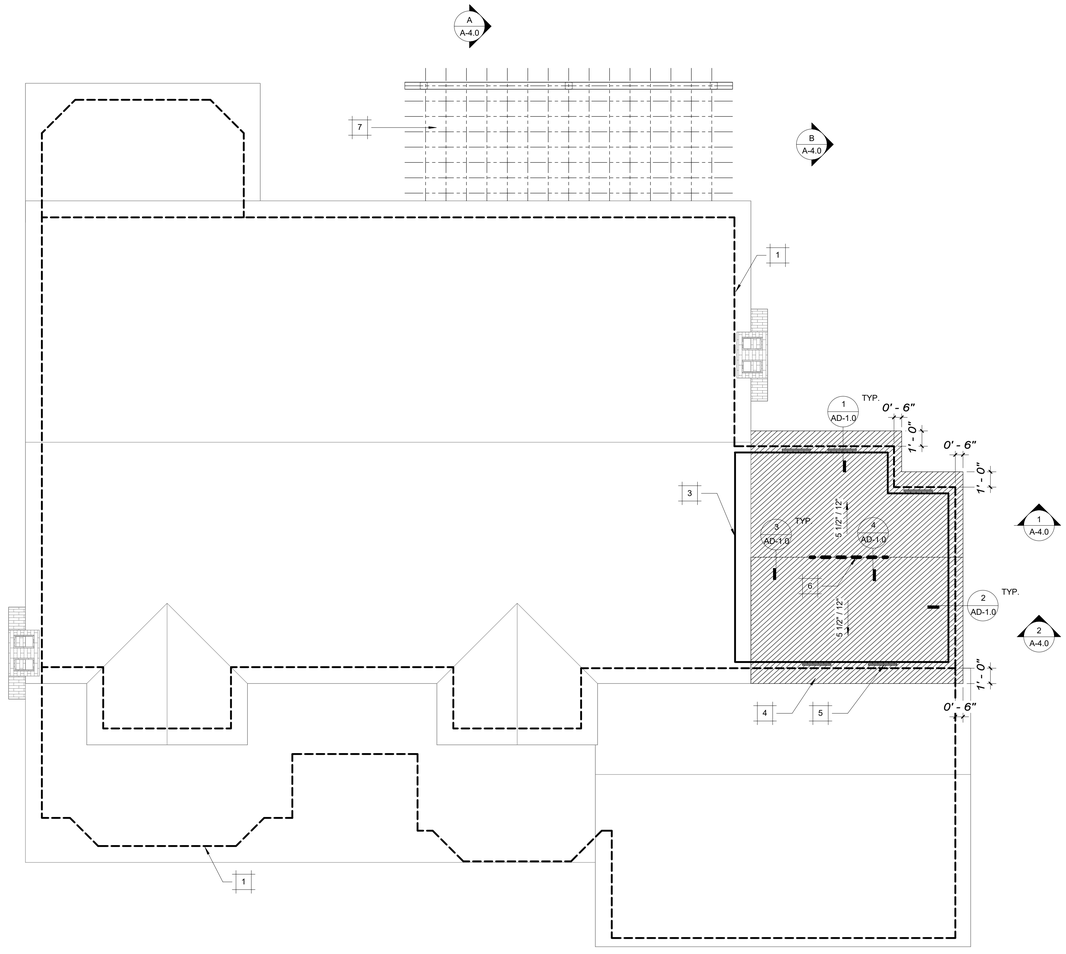
ENCLOSED ATTICS AND RAFTER SPACES SHALL HAVE CROSS VENTILATION. FOR EACH SEPARATE SPACE, THE TOTAL NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. THE TOTAL AREA IS PERMITTED TO BE REDUCED TO 1/300, PROVIDED AT LEAST 40% AND NOT MORE THAN 50% OF THE REQUIRED VENTILATING AREA IS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3' ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. VENT OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH WITH 1/16" MINIMUM TO 1/4" MAXIMUM OPENINGS. A MINIMUM OF A 1-INCH AIRSPACE MUST BE MAINTAINED BETWEEN THE INSULATION AND THE ROOF SHEATHING AT THE LOCATIONS OF THE VENTS (CRC R806)

INSTALLATION OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS (PER CRC CH9)



(E)ROOF PLAN

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



(N)ROOF PLAN

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

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
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EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER
YASER S. SALEM
S-4902
EX: 9/31/26
STRUCTURAL
CALIFORNIA

CLARK RESIDENCE

5851 OHIO ST.
YORBA LINDA, CA 92886

PROPOSED ROOF PLAN

NO.	DATE	REVISIONS
1		

DATE: 1/2/2025 5:44:39 PM
JOB NO:
DRAWN: JL
CHECKED: Checker

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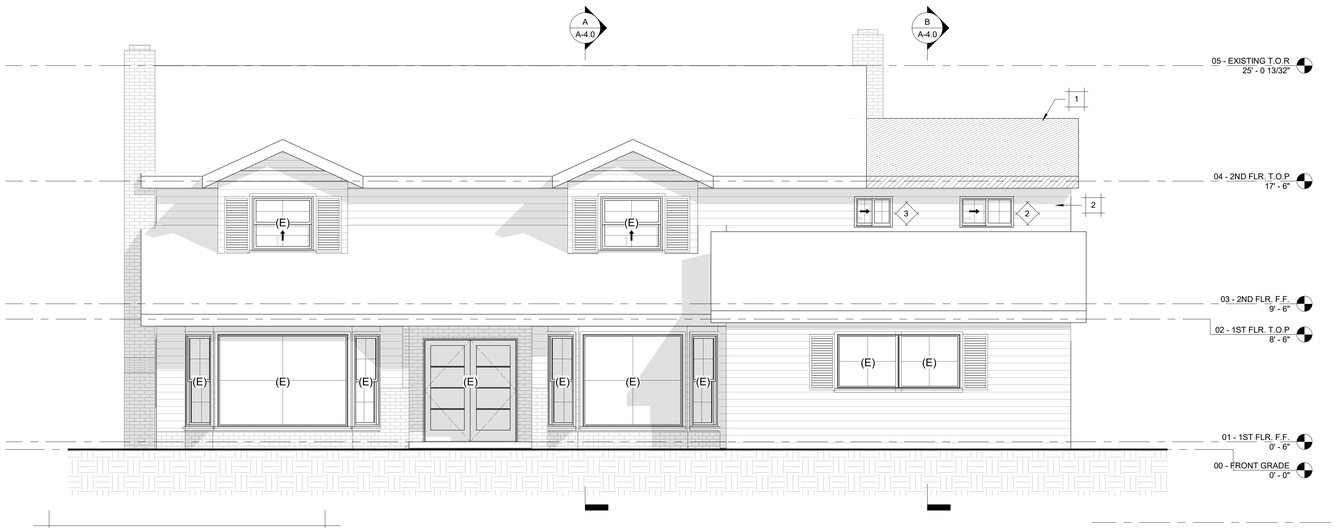
A-2.4

CAD FILE: A-2.4 ROOF PLAN



(N) FRONT ELEVATION

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

KEYNOTES

1	ROOF ADDITION W/ SHINGLE; MATCH W/ EXISTING
2	NEW SHIPLAP SIDING; MATCH W/ EXISTING
3	NEW STUCCO FINISH; MATCH W/ EXISTING
4	EXISTING ROOF TO DEMO
5	EXISTING GARDEN WALL
6	NEW PERGOLA; FRAMING SIZE PER STRUCT.
7	NEW POST SEATING ON TOP OF THE EXISTING GARDEN WALL
8	NEW POST

ELEVATION NOTES

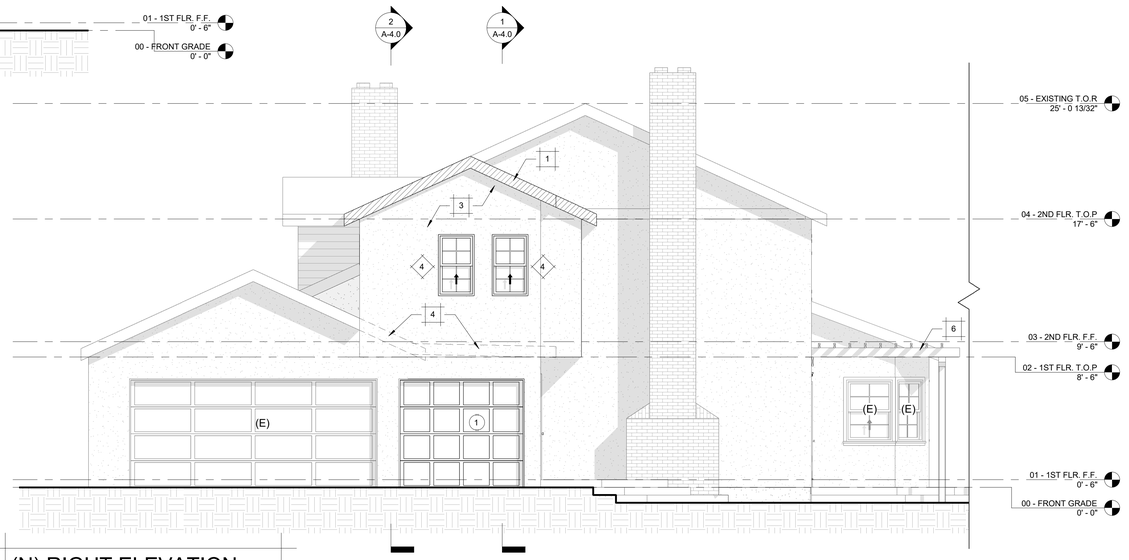
1. ANY ADDITION OR CHANGES MADE TO THE APPROVED EXTERIOR ELEVATION DESIGN EITHER ON THE DRAWINGS OR DURING CONSTRUCTION WILL REQUIRE PLANNING DIVISION AND BUILDING & SAFETY DIVISION REVIEW AND APPROVAL AND MAY RESULT IN A DELAY OF THE PROJECT OR THE REMOVAL OF NON-APPROVED WORK

2. THE EXPOSED UNDERSIDE OF EXTERIOR PORCH AND/ OR COVERED DECK CEILING SHALL BE SHEATED WITH HARDIE NONCOMBUSTIBLE SIDING

3. ALL NEW FINISH MATERIAL INCLUDING STUCCO, ROOFING, WINDOW, DOOR & FINISH TRIM SHALL MATCH WITH EXISTING MAIN HOUSE IN COLOR & STYLE

GREEN BUILDING CODE:
a-PRIOR TO GRANTING FINAL INSPECTION, THE CONTRACTOR SHALL SUBMITT RECIEPTS AND INVOICES FOR ALL SOLID WASTE DISPOSAL OF CONSTRUCTION TO THE BUILDING AND SAFETY. bY THE PERMIT APPLICATION, 65% OF HAZARDOUS CONSTRUCTION MATERIAL SHALL BE RECICLED OR SALVAGED FOR REUSE

ADDRESS LETTERS/NUMBER NOTE:
ADDRESS LETTERS/NUMBERS SHALL BE MINIMUM 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1/2 INCH, AND SHALL CONTRAST WITH THEIR BACKGROUND PER CRC R 319.1



(N) RIGHT ELEVATION

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

(N) REAR ELEVATION

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

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL NO. (949) 418-7705
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EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER
YASSER S. SALEM
S.4902
EX. 12/31/26
STRUCTURAL
STATE OF CALIFORNIA

CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886
ELEVATION

NO.	DATE	REVISIONS
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DATE: 1/2/2025 5:44:57 PM
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CHECKED: Checker

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A-3.0

KEYNOTES

1 ROOF ADDITION W/ SHINGLE; MATCH W/ EXISTING

2 PROVIDE R-30 INSULATION

3 NEW CEILING JOIST; SIZE PER STRUCT.

4 NEW STUCCO FINISH; MATCH W/ EXISTING

5 PROVIDE R-15 INSULATION

6 PROVIDE 5/8" TYPE X GYPSUM BOARD AT ALL WALLS/CEILING OF GARAGE

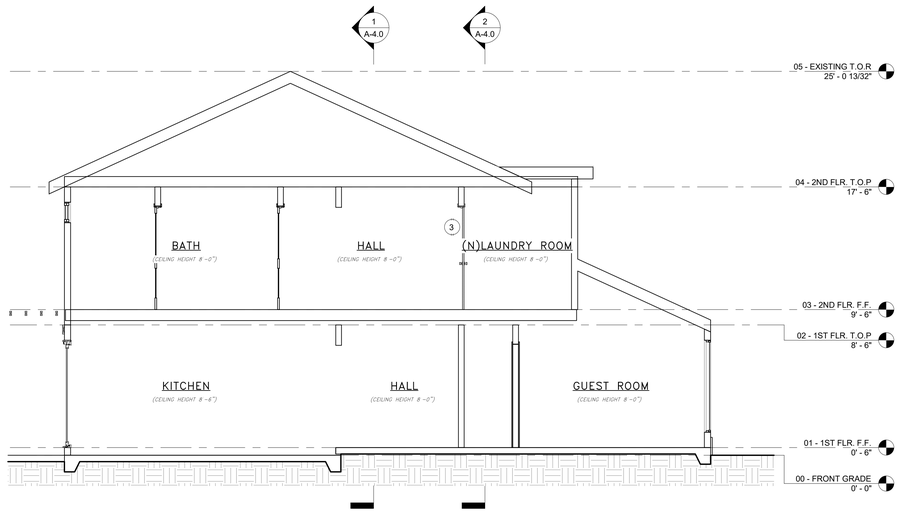
7 NEW SLAB ON GRADE

8 EXISTING SLAB ON GRADE

9 TOP OF PLATE

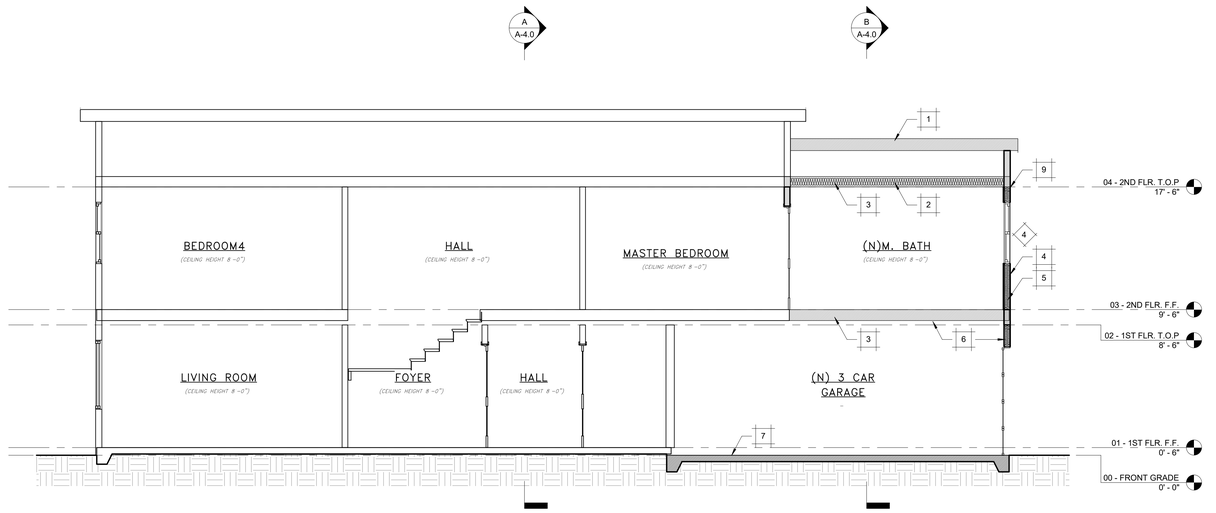
SECTION NOTES

ROOF COVERINGS SHALL BE CLASS A AS SPECIFIED IN SECTION R902.1. WHERE THE ROOF PROFILE ALLOWS A SPACE BETWEEN THE ROOF COVERING AND THE ROOF DECKING, WALKING SURFACE MATERIAL OF DECKS, PORCHES, BALCONIES AND STAIRS LOCATED WITHIN 10 FEET OF THE BUILDING SHALL BE IGNITION-RESISTANT MATERIAL COMPLYING WITH BOTH SFM 12-7A-4 AND SFM 12-7A-5, EXTERIOR FIRE RETARDANT-TREATED WOOD, NONCOMBUSTIBLE MATERIAL OR MEET THE REQUIREMENTS OF SFM 12-7A-4A WHEN THE EXTERIOR WALL COVERING IS EITHER NONCOMBUSTIBLE OR IGNITION-RESISTANT. [§R337.9.2, R337.9.3 CRC]SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBERS, BE FIRESTOPPED WITH APPROVED MATERIALS OR HAVE ONE LAYER OF 72 POUND MINERAL-SURFACED NONPERFORATED CAP SHEET COMPLYING WITH ASTM D3909 INSTALLED OVER THE COMBUSTIBLE DECKING. WOOD SHINGLES AND WOOD SHAKES ARE PROHIBITED. [§R337.5.2 CRC]



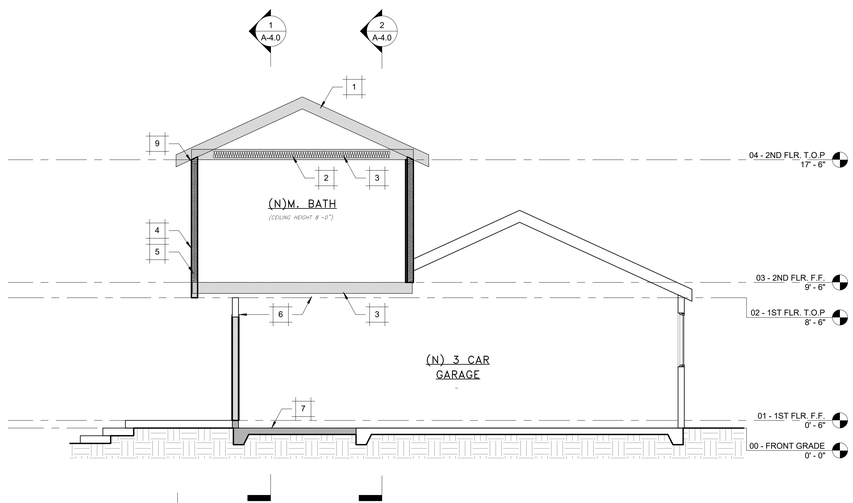
SECTION A-A

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



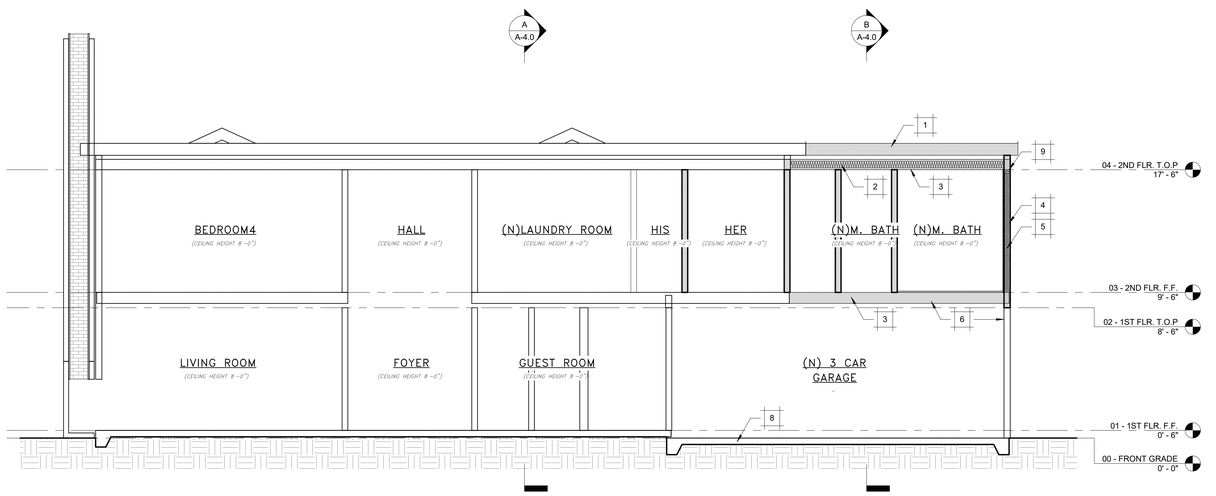
SECTION 1-1

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



SECTION B-B

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



SECTION 2-2

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

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
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FAX NO. (949) 608-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER YASSER S. SALEM S-4902 12/31/26 CIVIL STRUCTURAL STATE OF CALIFORNIA

CLARK RESIDENCE

5851 OHIO ST.
YORBA LINDA, CA 92886

SECTIONS

NO.	DATE	REVISIONS

DATE: 1/3/2025 5:45:10 PM
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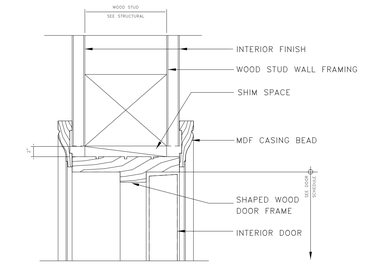
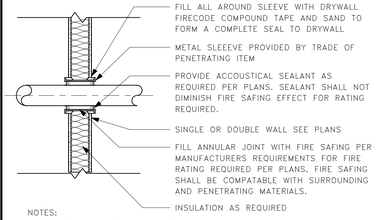
A-4.0

CAD FILE
PLOTTED SCALE: 1/4" = 1'-0"



INTERIOR DOOR HEAD/JAMB | 1" = 1'-0" | 13



NOTES:
1. PROVIDE BLOCKING AS REQUIRED ABOVE PENETRATIONS.
2. INTERRUPT INSULATION OUTSIDE PIPES AND DUCTS AT PENETRATIONS AS FAR AS POSSIBLE, SEPARATE PIPES, DUCTS, AND CONDUITS SO THEY CAN BE TREATED INDIVIDUALLY AS ABOVE.

ALL RESILIENTLY-SUPPORTED PIPES, DUCTS OR CONDUITS AND RIGIDLY-SUPPORTED PIPES, DUCTS OR CONDUITS OVER 2 INCHES IN DIAMETER THRU DRYWALL OR PLASTER WALLS, FLOORS SIMILAR

2" AND GREATER PENETRATION THRU GYPSUM BOARD CONSTRUCTION

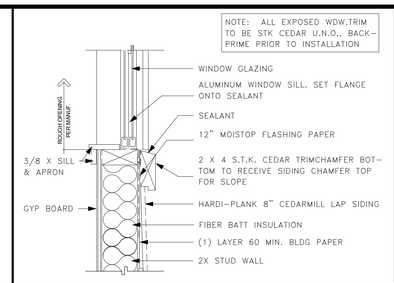
NOTES:
1. PROVIDE BLOCKING AS REQUIRED ABOVE PENETRATIONS.
2. INTERRUPT INSULATION OUTSIDE PIPES AND DUCTS AT PENETRATIONS AS FAR AS POSSIBLE, SEPARATE PIPES, DUCTS, AND CONDUITS SO THEY CAN BE TREATED INDIVIDUALLY AS ABOVE.

RIGIDLY-SUPPORTED PIPE OR CONDUIT 2 INCHES OR LESS IN DIAMETER THRU DRYWALL OR PLASTER WALLS, FLOORS SIMILAR

2" AND LESS PENETRATION THRU GYPSUM BOARD CONSTRUCTION

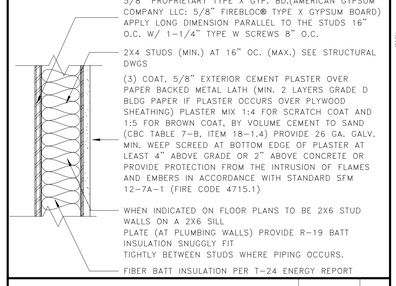
TYPICAL PIPE PENETRATION | 1" = 1'-0" | 14

NOTE: ALL EXPOSED WDW.TRIM TO BE STK CEDAR U.N.O., BACK-PRIME PRIOR TO INSTALLATION



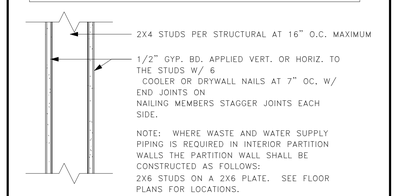
TYPICAL WINDOW SILL | 1" = 1'-0" | 8

NOTE: EXTERIOR WALL COVERINGS SHALL EXTEND FROM THE TOP OF FOUNDATION TO THE ROOF, AND ERMINATE AT 2-INCH (50.8 MM) NOMINAL SOLID WOOD BLOCKING BETWEEN RAFTERS AT ALL ROOF OVERHANGS, OR IN THE CASE OF ENCLOSED EAVES, TERMINATE AT THE ENCLOSURE (704A.3.2)



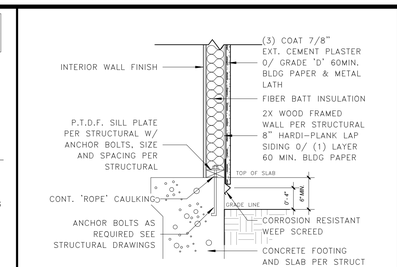
TYPICAL 1-HR FIRE RATED EXTERIOR WALL | 1" = 1'-0" | 9

NOTE: APPLY PLYWOOD PER STRUCTURAL DWG.S TO STUDS PRIOR TO APPLYING SIDING AND UNDERLAYMENTS TYP. UP-SIZE NAILS SPECIFIED BELOW TO COMPENSATE FOR THICKNESS OF LAYERS OF ADDITIONAL SHEATHING AND UNDERLAYMENT. THUS MAINTAINING THE MFGR'S. REQUIRED NAIL STUD PENETRATION.

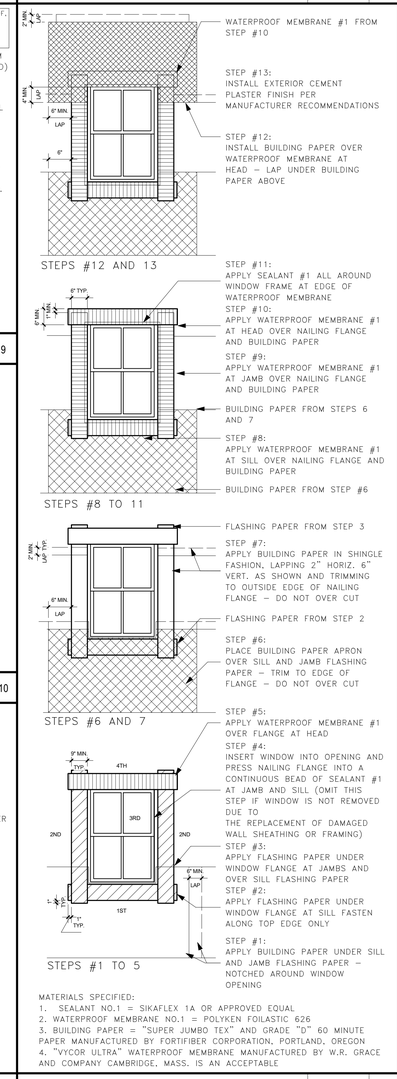


NOTE: WHERE WASTE AND WATER SUPPLY PIPING IS REQUIRED IN INTERIOR PARTITION WALLS THE PARTITION WALL SHALL BE CONSTRUCTED AS FOLLOWS: 2X6 STUDS ON A 2X6 PLATE. SEE FLOOR PLANS FOR LOCATIONS.

TYPICAL NON RATED WALL | 1" = 1'-0" | 10



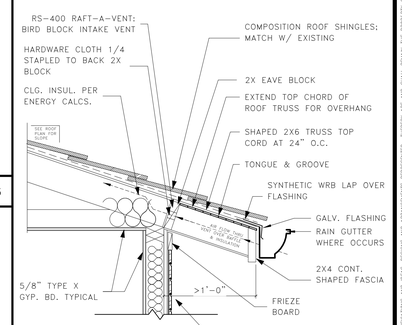
TYP. WALL SILL - STUCCO | 1" = 1'-0" | 5

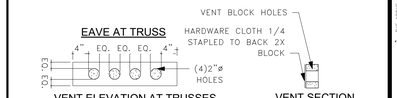


MATERIALS SPECIFIED:
1. SEALANT NO.1 = SIKAFLEX 1A OR APPROVED EQUAL
2. WATERPROOF MEMBRANE NO.1 = POLYKEN FOILASTIC 626
3. BUILDING PAPER = "SUPER JUMBO TEX" AND GRADE "D" 60 MINUTE PAPER MANUFACTURED BY FORTIFIBER CORPORATION, PORTLAND, OREGON
4. "VYCOR ULTRA" WATERPROOF MEMBRANE MANUFACTURED BY W.R. GRACE AND COMPANY CAMBRIDGE, MASS. IS AN ACCEPTABLE

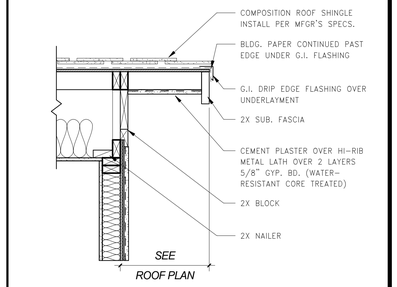
TYP. WINDOW FLASHING | 3/4" = 1'-0" | 6

NOTE:
1/ EACH BLOCK PROVIDES APPROXIMATELY 34" SQ.IN. OF VENTILATION
2/ MINIMUM BLOCK SIZE 3x4x14 1/2"
3/ PROVIDE (2) VENT BLOCKS AT EVERY THIRD BAY
4/ CONVENTIONALLY FRAMED SLOPED CEILING AREAS - 1 VENT BLOCK AT EACH BAY
5/ SEE MANUFACTURER'S SPECIFICATIONS FOR VENTILATION REQUIREMENTS
6/ ALL EXPOSED TRIM SHALL BE BACKPRIMED PRIOR TO INSTALLATION
7/ PER CRC TABLE R302.1(1) AND R302.1(2), WITH EXCEPTIONS

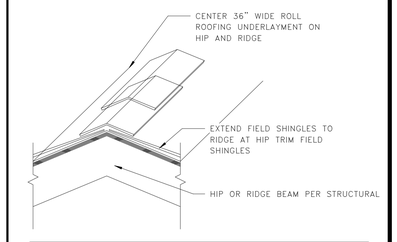




TYPICAL EAVE DETAIL | 1" = 1'-0" | 1

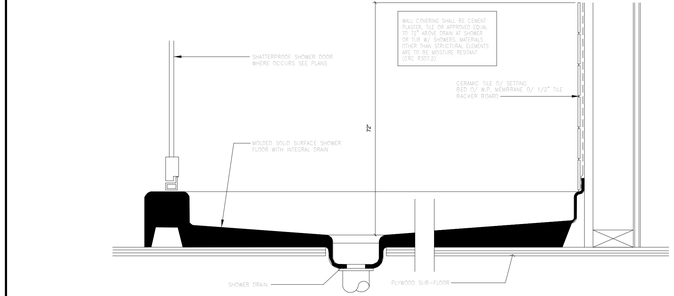


TYP. RAKE 1-HR RATED | 1" = 1'-0" | 2

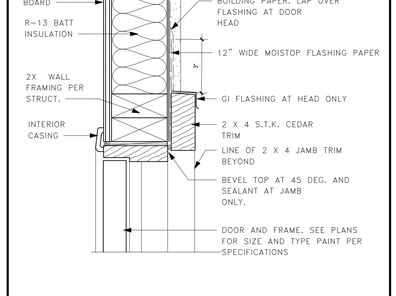


BEND TWO SHINGLES OVER CENTER OF RIDGE OR USE HIP AND RIDGE SHINGLES. 5" EXPOSURE WITH STANDARD SHINGLES, 5" EXPOSURE WITH STANDARD SHINGLES, LAPS AWAY FROM PREVAILING WINDS. AT RIDGE.

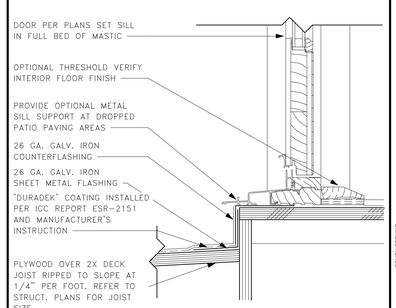
TYP. RIDGE FLASHING | 1" = 1'-0" | 3



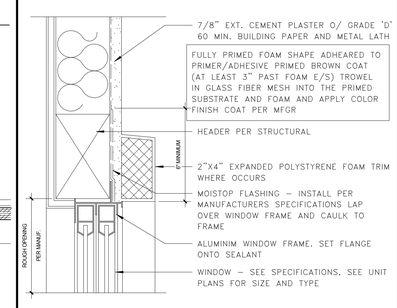
SHOWER FLOOR | 1" = 1'-0" | 22



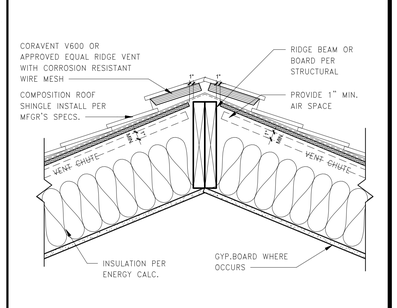
EXTERIOR DOOR HEADER | 3" = 1'-0" | 11



DOOR SILL @ DECK | 3" = 1'-0" | 12



TYP. WINDOW HEADER | 3" = 1'-0" | 7



RIDGE VENT | 1 1/2" = 1'-0" | 4

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 608-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER YASSER S. SALEM C 54902 EXP. 6/30/26 CIVIL STATE OF CALIFORNIA

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		

CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886

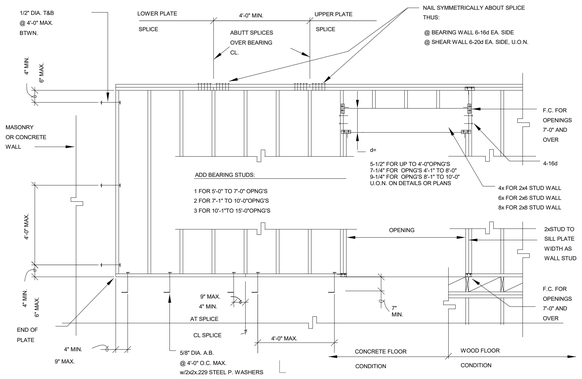
ARCHITECTURAL DETAIL

DATE: 12/18/2024 11:06:50 AM
JOB NO:
DRAWN: JL
CHECKED: YS

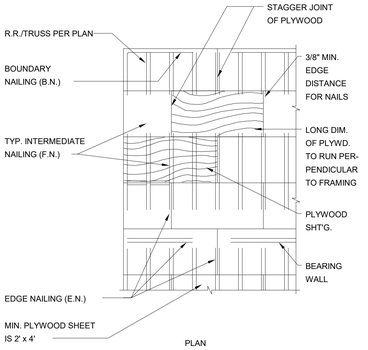
SHEET OF 12

AD-1.0

CAD FILE: ARCHITECT.DWG



HEADER SUPPORT — 3/8" = 1'-0" — 1



PLAN

ROOF DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
I	SEE NOTE #1	8d @ 6" O.C.	8d @ 6" O.C.	8d @ 12" O.C.

TYPICAL ROOF SHTG. NOTES :

1. 1/2" APA RATED CDX PLYWOOD SHEATHING PI24/0 EXP I UNBLOCKED UNO.
2. USE 10d PLYWOOD NAILS W/ 5/16 HEAD W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD NAILING SHALL BE INSPECTED.
4. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

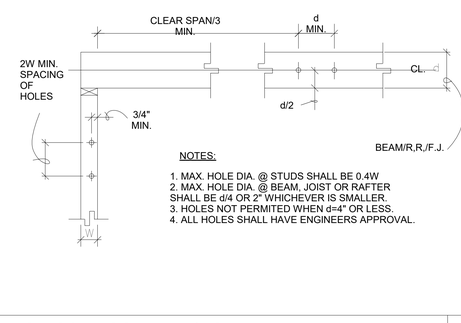
FLOOR DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
II	SEE NOTE #1	10d @ 6" O.C.	10d @ 6" O.C.	10d @ 12" O.C.

TYPICAL FLOOR SHTG NOTES:

1. 3/4" T&G UNBLOCKED STRUCT I PLYWOOD SHTG INDEX 24/0 EXP 1.
2. USE #10 PLYWOOD SCREWS W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD ATTACHMENT SHALL BE INSPECTED PRIOR TO COVERING.
4. ALL PLYWOOD TO BE GLUED TO JOIST & BEAMS.
5. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

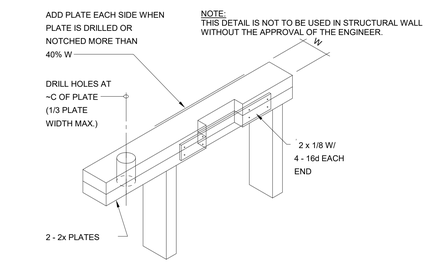
TYP. SHEATHING DETAILS — 3/4" = 1'-0" — 3



NOTES:

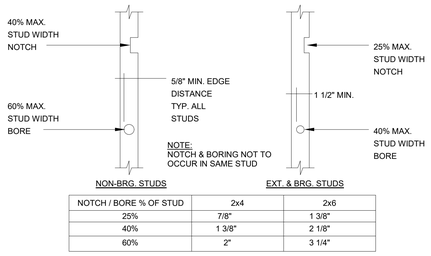
1. MAX. HOLE DIA. @ STUDS SHALL BE 0.4W
2. MAX. HOLE DIA. @ BEAM, JOIST OR RAFTER SHALL BE d/4 OR 2" WHICHEVER IS SMALLER.
3. HOLES NOT PERMITTED WHEN d=4" OR LESS.
4. ALL HOLES SHALL HAVE ENGINEERS APPROVAL.

TYP. HOLES IN WOOD FRAMING — 1" = 1'-0" — 7



NOTE:
THIS DETAIL IS NOT TO BE USED IN STRUCTURAL WALL WITHOUT THE APPROVAL OF THE ENGINEER.

TYP. PLATE NOTCHING @ NON-STRUCT. WALL — 3/4" = 1'-0" — 8



NON-BRG. STUDS — EXT. & BRG. STUDS

NOTCH / BORE % OF STUD	2x4	2x6
25%	7/8"	1 3/8"
40%	1 3/8"	2 1/8"
60%	2"	3 1/4"

TYP. STUD NOTCHING — 1" = 1'-0" — 9

I. GENERAL

A. ALL CONSTRUCTION SHALL CONFORM TO THE 2022 CBC,CPC, CMC AND 2022 CEC CODE EDITION
B. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT JOB SITE BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT OR ENGINEER.
C. OMISSIONS OR CONFLICT BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT AND RESOLVED BEFORE PROCEEDING WITH THE WORK,
D. DO NOT USE SCALED DIMENSIONS; USE WRITTEN DIMENSIONS OR WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHI-TECT FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
E. DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS WHETHER SPECIFICALLY CALLED OUT OR NOT.
F. FOR WATERPROOFING, FIREPROOFING, ETC. REFER TO DRAWINGS OTHER THAN STRUCTURAL.
G. SEE DRAWINGS OTHER THAN STRUCTURAL FOR; KINDS OF FLOOR FINISH AND THEIR LOCATION, FOR DEPRESSIONS IN FLOOR SLABS, FOR OPENING IN WALLS AND FLOORS REQUIRED BY ARCHITECTURAL AND MECHANICAL FEATURES, FOR ROADWAY PAVING, WALKS, RAMPS, STAIRS, CURBS, ETC.
H. HOLES AND OPENINGS THROUGH WALLS AND FLOORS FOR DUCTS, PIPING AND VENTILATION SHALL BE CHECKED BY THE CONTRACTOR, WHO SHALL VERIFY SIZES AND LOCATION OF SUCH HOLES OR OPENINGS WITH THE PLUMBING HEATING, VENTILATING AND ELECTRICAL DRAWINGS AND THESE SUB-CONTRACTORS.
I. NO PIPES AND DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ARCHITECT.
J. DRAWINGS AND SPECIFICATIONS REPRESENT FINISHED STRUCTURE. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION INCLUDING BUT NOT LIMITED TO SHORING AND TEMPORARY BRACING. THE SUBCONTRACTOR SHALL UNDERTAKE ALL NECESSARY MEASURES TO ENSURE SAFETY OF ALL PERSONS AND STRUCTURES AT THE SITE AND ADJACENT TO THE SITE. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT, ENGINEER SHALL NOT RELIEVE THE SUBCONTRACTOR OF SUCH RESPONSIBILITY.

II. DESIGN CRITERIA

A. APPLICABLE CODE: CALIFORNIA BUILDING CODE, 2022 EDITION
B. VERTICAL LOADS:
ROOF: DL= 24 PSF. RLL= 20 PSF.
FLOOR: DL= 16 PSF LL= 40 PSF

LATERAL LOADS:
1. WIND:
BASIC WIND SPEED 95 MPH
RISK CATEGORY II
APPLICABLE INTERNAL PRESSURE 0.18
WIND EXPOSURE C
2. SEISMIC:
Ss= 1.758g S1=0.62g
RISK CATEGORY II
IMPORTANCE FACTOR Ie= 1.0
SOIL SITE CLASS D
SEISMIC DESIGN CATEGORY D2
SEISMIC FORCE RESISTING SYSTEM "LIGHT FRAME SHEAR WALL" & CANTILEVERED TIMBER POSTS
CS= 0.2164w R=6.5 & R=1.5
ANALYSIS PROCEDURE " EQUIVALENT LATERAL FORCE "

III. MATERIALS

A. CONCRETE
1. REINFORCING STEEL: ASTM A615, GRADE 60, #4 AND SMALLER, GRADE 40.
2. CONCRETE: NORMAL WEIGHT WITH COMPRESSIVE STRENGTH OF 2500 PSI. AT 28 DAYS. W/C RATIO= 0.45 TYPE V, CEMENT
3. MINIMUM CONCRETE COVER FOR REINFORCING STEEL:
A. SURFACE POURED AGAINST GROUND 3"
B. FORMED SURFACES BELOW GRADE 2"
C. SURFACES EXPOSED TO WEATHER 2"
D. BEAM BARS (INCLUDING STIRRUPS) 1-1/2"
E. ALL OTHER 1"
B. STEEL
GRADE B.
1. BOLTS: ASTM A307
2. WELDING ELECTRODES: E-70
3. SHAPES AND PLATES: ASTM A 36; TUBES: ASTM A500,
C. WOOD
1. FRAMING LUMBER – DOUGLAS FIR LARCH, DOC PS20
A. HEADERS, PLATES, JOISTS: NO.1
B. STUDS, BLOCKING: NO.2
C. WALL SILLS, NAILERS AND LEDGERS IN CONTACT WITH CONCRETE: PRESERVATIVE TREATED DOUGLAS FIR,
D. POSTS AND BEAMS: NO.1
2. PLYWOOD SHEATHING (STRUCTURAL II)
A. ROOF SHEATHING: 5/8 INCH C-D EXTERIOR APA RATED 32/16 DOC PS1 OR DOC PS2
B. FLOOR SHEATHING: 3/4 INCH C-D EXTERIOR APA RATED 48/24
3. FRAMING HARDWARE AND JOIST HANGERS: AS MANUFACTURED BY SIMPSON STRONGTIE CO. OR APPROVED EQUAL. SIMPSON DESIGNATIONS USED. USE NAILS
4. COMMON NAILS, UNLESS OTHERWISE NOTED, SHORT NAILS MAYBE USED PROVIDED THAT THEY SPECIFIC

V. ABBREVIATIONS: ROVAL FOR EACH DEVICE,

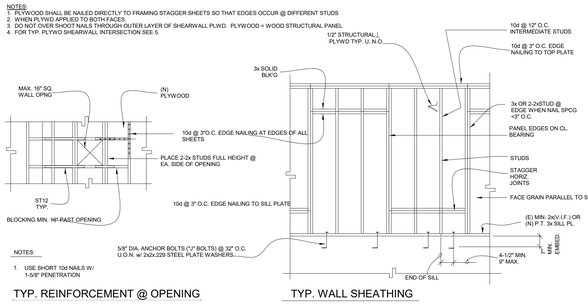
B.N. =BOUNDARY NAILING	P.T. =POST TENSIONED - SET FORTH IN
DIA. =DIAMETER	S.A.D. =SEE ARCHITECTURAL DRAWINGS
E.N. =EDGE NAILING	S.O.G. =SLAB-ON-GRADE
H.P. =HIGH POINT	S.S. =STAINLESS STEEL
L.P. =LOW POINT	T.O. =TOP OF
L.W. =LIGHT WEIGHT	TYP. =TYPICAL
M.L. =MICRO LAM	U.O.N. =UNLESS OTHERWISE NOTED
PLWD. =PLYWOOD SHEATHING	W.W.F. =WELDED WIRE FABRIC

VI. SPECIAL INSPECTIONS

SPECIAL INSPECTIONS AND/OR TESTING IS REQUIRED FOR THIS CONSTRUCTION. CONTACT THE STRUCTURAL ENGINEER FOR THE METHODS AND INSPECTION REQUIREMENTS.
[ ] 01. CONCRETE
[ ] 02. BOLTS INSTALLED IN NEW CONCRETE (VISUAL INSPECTION OK)
[ ] 03. SPECIAL MOMENT-RESISTING CONCRETE FRAME
[ ] 04. REINFORCING STEEL & PRESTRESSING TENDONS (CONTRACTOR TO CONTACT ENGR MIN. 48 HRS PRIOR TO POURING CONC.)
[X] 05. WELDING (BY INDEPENDENT TESTING AGENCY, VISUAL INSPECTION OK FOR FILLET WELDS.)
[X] 06 HIGH-STRENGTH BOLTING
[ ] 07. STRUCTURAL MASONRY
[ ] 08. REINFORCED GYPSUM CONCRETE
[ ] 09. INSULATED CONCRETE FILL
[ ] 10. SPRAY-ON FIREPROOFING
[ ] 11. PILING, DRILLED PIERS AND CASSIONS (BY SOILS ENGR)
[ ] 12. SHOTCRETE
[ ] 13. SPECIAL GRADING, EXCAVATION AND FILLING BY SOILS ENGR.
[ ] 14 EXTERIOR FACING
[ ] 15 DEMOLITION
[X] 16 BOLTS INSTALLED IN EXISTING MASONRY OR CONCRETE (TORQUE & OR TENSION TEST REPT BY INDEPENDENT TESTING AGENGY REQ'D PER SF BC1701.5.20, 1607C.4 & 1615C)
[ ] 17. SHEARWALLS AND FLOOR SYSTEMS USED AS SHEAR DIAPHRAGMS
[ ] 18. SPECIAL CASES: HOLDOWNS
19. CERTIFICATION IS REQUIRED FOR:
[ ] GLULAM COMPONENTS
[ ] TRUSS JOISTS
[ ] PARALLAM BEAMS, MINILAMS

THE SPECIAL INSPECTOR SHALL BE SELECTED BY THE OWNER OR HIS REPRESENTATIVE AND APPROVED BY THE BUREAU OF BUILDING INSPECTION PRIOR TO START OF WORK.

NOTES
1. PLYWOOD SHALL BE NAILED DIRECTLY TO FRAMING STAGGER SHEETS SO THAT EDGES OCCUR @ DIFFERENT STUDS
2. WHEN PLYWD APPLIED TO BOTH FACES,
3. DO NOT OVER SHOOT NAILS THROUGH OUTER LAYER OF SHEARWALL PLWD. PLYWOOD + WOOD STRUCTURAL PANEL
4. FOR TYP. PLYWD SHEARWALL INTERSECTION SEE 5



NOTES:
1. USE SHORT 10d NAILS W/ 1-3/8" PENETRATION

TYP. REINFORCEMENT @ OPENING — TYP. WALL SHEATHING

SHEAR WALL SCHEDULE

SYM	WALL SHEATHING	ONE SIDE	A35 SPACING	NAILING		SILL PLATE	FOUNDATION SILL BOLTING	SILL NAILING	ASD SHEAR VALUE (PLF)
				EDGES	FIELD				
6	15/32"STRUCT I BLK'D	○	24"O.C.	10d@6"	10d@12"	2x	5/8"Ø ANCHOR BOLTS @ 32" O.C.	16d @ 6" O.C.	339
4	15/32"STRUCT I BLK'D	○	16"O.C.	10d@4" •	10d@12"	3X	3/4"Ø ANCHOR BOLTS @ 16" O.C.	16d @ 4" O.C.	510
3	15/32"STRUCT I BLK'D	○	12"O.C.	10d@3" •	10d@12"	3X	3/4"Ø ANCHOR BOLTS @ 14" O.C.	SDWS 0.220"X6" @ 16" O.C	664
2	15/32"STRUCT I BLK'D	○	18"O.C.	10d@2" •	10d@12"	3X	3/4"Ø ANCHOR BOLTS @ 12" O.C.	SDWS 0.220"X6" @ 12" O.C	870
4	15/32"STRUCT I BLK'D	DBL	6"O.C.	10d@3" •	10d@12"	3X	3/4"Ø ANCHOR BOLTS @ 12" O.C.	SDWS 0.220"X6" @ 6" O.C	1020
3	15/32"STRUCT I BLK'D	DBL	6"O.C.	10d@2" •	10d@12"	3X	3/4"Ø ANCHOR BOLTS @ 12" O.C.	SDWS 0.220"X6" @ 4" O.C	1328

• FRAMING SHALL BE 3x OR WIDER AND NAILS SHALL BE STAGGERED, SEE NOTE 12

NOTES:

1. SHEARWALL SHEATHING SHALL BE (EXT. GLUE) STRUCT. 1 INDEX 32/16 PLYWOOD.
2. PROVIDE 2x MIN. FRAMING MEMBER OR BLOCKING AT ALL EDGES. PROVIDE EDGE NAILING TO END STUD OR POST WHERE HOLD-DOWN OCCURS. PLYWOOD SHEATHING SHALL CONFORM TO SHEAR WALL DETAILS U.N.O.
3. HOLES ARE NOT ALLOWED IN PLYWOOD SHEAR WALLS, UNLESS APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION. IF A HOLE IS APPROVED, IT IS TO BE ENTIRELY WITHIN ONE SHEET. PROVIDE BLOCKING AND EDGE NAILING AROUND OPENING.
4. MINIMUM WIDTH OF PLYWOOD TO BE 2'-0"
5. SILL PLATE SHALL BE TREATED D.F. CONFORMING TO SILL PLATE DETAILS WHERE IN CONTACT WITH CONCRETE
6. ALL SHEAR WALL NAILING TO BE INSPECTED PRIOR TO COVERING
7. ALL SHEAR WALLS TO EXTEND UP TO BOTTOM OF ROOF RAFTERS, ROOF JOISTS, ROOF BEAMS, OR FLOOR JOIST U.O.N.
8. EACH SHEAR WALL SHALL HAVE A MINIMUM OF 2 SILL ANCHOR BOLTS
9. ALL NAILING TO BE 3/8" MIN. TO EDGE OF SUPPORT AND SHEET
10. SEE PLANS FOR LOCATION OF HOLD-DOWNS. VERIFY WITH ARCHITECTURAL WINDOW AND DOOR LOCATIONS FOR PROPER LOCATION OF HOLD-DOWNS. FOR SPECIAL HOLD-DOWN CONDITIONS, SEE PLANS
11. SHEAR WALL ANCHOR BOLT PLATE WASHERS SHALL EXTEND TO WITHIN A 1/2" OF SHEATED EDGE.
12. WHERE PANELS ARE APPLIED ON BOTH FACES OF A SHEAR WALL AND NAIL SPACING IS LESS THAN 6" ON CENTER ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTER-NATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHALL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.
13. GALVANIZED NAILS SHALL BE HOT-DIPPED OR MECHANICALLY DEPOSITED.
14. TABULATED NOMINAL UNIT SHEAR CAPACITIES ARE APPLICABLE FOR CARBON STEEL SMOOTH SHANK NAILS OF THE SPECIFIED TYPE AND SIZE.
15. WHERE TENSION FORCE INDUCED BY SHEAR WALL OVERTURNING IS RESISTED BY A HOLD-DOWN ATTACHED TO THE INSIDE FACE OF THE END POST, NOMINAL UNIT SHEAR CAPACITY FOR SHEAR WALLS USING 10D COMMON NAILS SHALL BE MULTIPLIED BY 0.92
16. SHEAR CAPACITY OF TABLE ABOVE ARE ADJUSTED IN ACCORDANCE WITH 4.1.4 TO DETERMINE ASD ALLOWABLE UNIT SHEAR CAPACITY.
17. FOR NEW WALLS, 3x SILL PLATE AND STUD BETWEEN ADJACENT PLANELS REQUIRED. STAGGERED PLYWOOD E.N. (FOR EXISTING WALL, USE 2x SILL PLATE W/ 2x SOLID BLKG. AND DOUBLE STUDS ± 1/2" EDGE DISTANCE FOR PLYWOOD B.N. ALL PANEL JOINT & SILL PLATE NAILING SHALL BE STAGGERED

TYP. PLYWOOD SHEARWALL DETAIL — 1/4" = 1'-0" — 2

CONT. DBL TOP PLATE — 1" = 1'-0" — 4

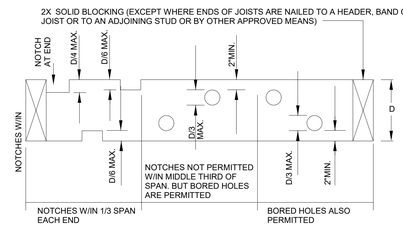
PLAN

NOTE :
PROVIDE POST WHERE STUD ANCHORS OCCUR PER SHEAR WALL PANEL SCHEDULE AND FOUNDATION PLAN. NAIL ALL DOUBLE STUDS W/ 16d @ 18" O.C. STAGGERED

STUD WALL INTERSECTION — 3/4" = 1'-0" — 5

BEAM	"C"
4x10	3"
4x12	3-3/4"
4x14	4-3/8"

BEAM CLIP — 1" = 1'-0" — 6



NOTCH/HOLE IN FRAMING — 1" = 1'-0" — 10

TOTAL ENGINEERING SERVICES, INC.
CIVIL - STRUCTURAL - DESIGN
1651 EAST FOURTH ST, SUITE 228
SANTA ANA, CA 92701
TEL NO. (949) 376-5842
FAX NO. (949) 606-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER — YASER S. SALEM — S-4902 — EX 12/31/26 — STRUCTURAL — STATE OF CALIFORNIA

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		

RESIDENTIAL INTERIOR REMODEL
YORBA LINDA, CA 92886

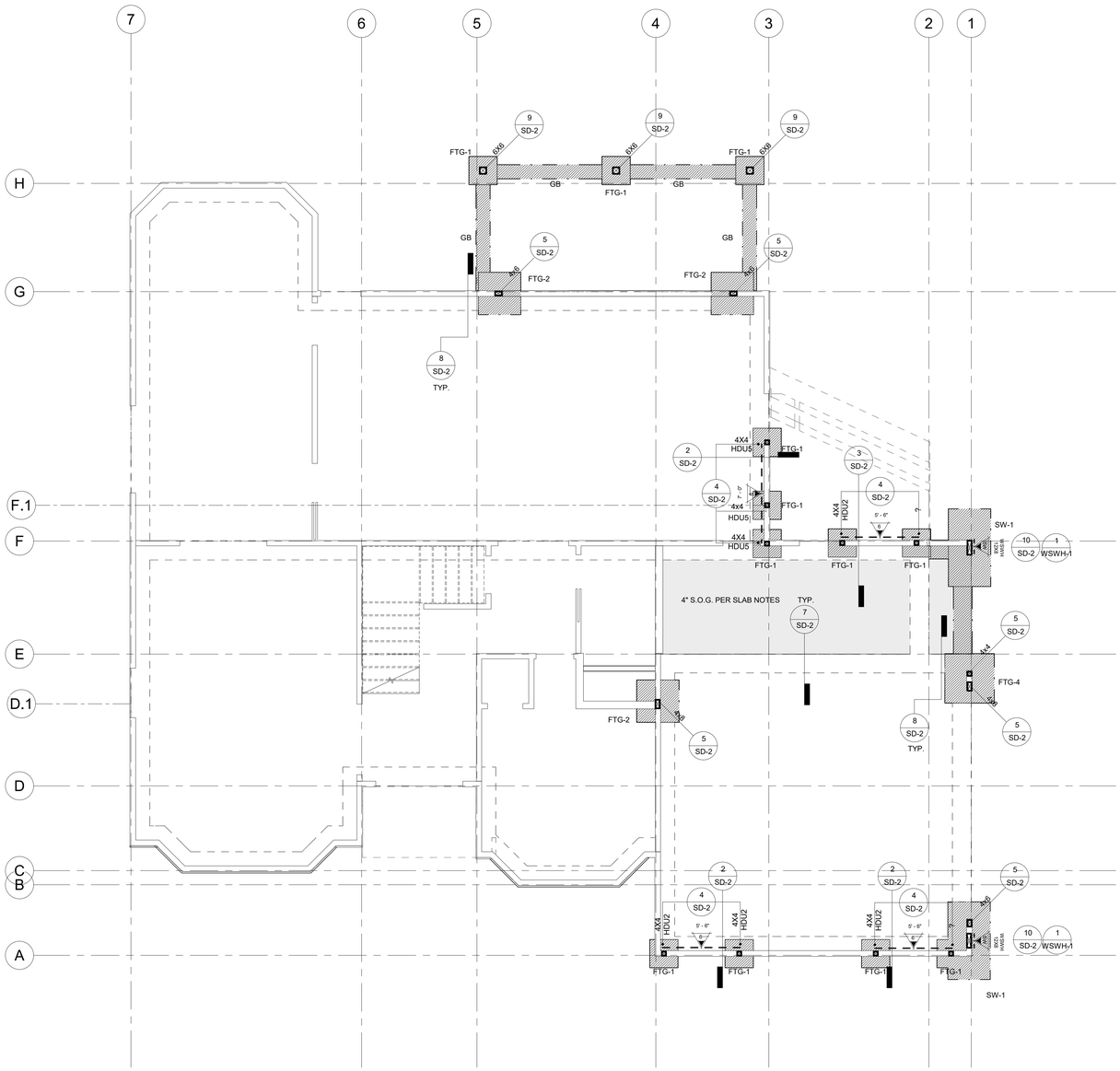
STRUCTURAL NOTES

DATE: 1/13/2025 12:20:59 PM
JOB NO: 24-66
DRAWN:
CHECKED: YS

SHEET 07 OF 12

S-N

CAL FULL LENTH SHEET



FOUNDATION PLAN
1/4" = 1'-0"

LEGEND

- INDICATES: EXISTING WALL FOOTING, MIN. 1'-6" WIDTH x12" DEEP CONTRACTOR TO FIELD VERIFY
- INDICATES: (N) FOOTING
- INDICATES: (N) S.O.G
- FTG-X — INDICATES: FOOTING NUMBER TO REFER TO FOR CALCULATIONS
- X'-XX" / X — INDICATES: PLYWOOD SHEAR WALL; INDICATES: LENGTH; INDICATES: NUMBER TO REFER TO SCHEDULE
- INDICATES: HSS POST; INDICATES: POST ABOVE; INDICATES: POST BELOW
- INDICATES: WALL ABOVE; INDICATES: WALL BELOW

SEE 1 / S-N FOR TYP. HDR DETAIL & SCHEDULE

SEE 2 / S-N FOR TYP. SHEARWALL DETAIL

FOUNDATION NOTES:

1. ALL CONTINUOUS EXTERIOR FOOTINGS TO HAVE 5/8" DIAMETER X 10" ANCHOR BOLTS W/ 3" X 3" X .229" WASHERS FOR 2X4 STUD WALL ^ 4"X4"X.229 FOR 2X6 STUD WALL AT MIN. 6'-0" O.C., 8" EMBEDMENT UNLESS NOTED OTHERWISE ON PLANS. MINIMUM 2 ABS PER SILL PLATE PER SHEAR PANEL. NE ANCHOR BOLT @ 12" MAX. AWAY FROM EA. END OF SILL PLATE.
2. VERIFY LOCATION OF HOLDOWNS AND ANCHOR BOLTS WITH ROUGH FRAMING CONTRACTOR TO ASSURE PROPER AND ACCURATE INSTALLATION.
3. ALL FOUNDATION HARDWARE, INCLUDING TYPICAL ANCHOR BOLTS, SHALL BE SECURED IN PLACE PRIOR TO FOOTING INSPECTION OR PRE-GROUT INSPECTION.
4. CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25 FT. (MAXIMUM) INTERVALS EA. WAY.
5. TOPS OF SLABS ON GRADE TO BE MIN. 8" ABOVE FINISH GRADE.
6. POWER DRIVEN PINS ARE NOT PERMITTED AT FOUNDATIONS.
7. SPECIAL INSPECTION IS REQUIRED FOR EPOXY DOWELS
8. FOOTING TRENCHES SHOULD BE MOISTENED PRIOR TO POURING CONCRETE. FOOTING SPOILS SHOULD NOT BE CAST OVER THE SLAB SUBGRADE WITHOUT BEING COMPACTED TO THE SAME DEGREE AS THE PRIMARY FILL

SLAB ON GRADE NOTES

1. THICKNESS SHALL BE AS NOTED ON PLANS.
2. REINFORCING WITH #3 BARS @ 16" O.C. CENTERED IN THE SLAB
3. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 2,500 PSI
4. CONCRETE SLAB TO BE PLACED OVER 4"BASE OF ½" OR LARGER CLEAN AGGREGATE W/ 2" SAND AND A MIN 15 MIL CAPILLARY BREAK VAPOR BARRIER. MEETING ASTM 1745, STEGOWRAP OR APPROVED EQUAL

CONTRACTOR TO VERIFY WHETHER EXISTING SLAB ON GRADE IS POST TENSIONED. IF IT IS DETERMINED THAT SLAB IS POST TENSIONED THEN THE CONTRACTOR SHALL X-RAY THE SALB TO LOCATE THE EXISTING TENDONS. CARE IS TO BE TAKEN TO AVOID DAMAGING THE STEEL TENDONS WHILE CUTTING THE SLAB.

PAD FOOTING SCHEDULE				
Mark	Foundation Thickness	Width	Length	Reinforcement Ea. Way
FTG-1	2' - 0"	2' - 0"	2' - 0"	(6) #4 @ BOTTOM
FTG-2	2' - 0"	3' - 0"	3' - 0"	(8) #4 @ BOTTOM
FTG-4	2' - 0"	3' - 6"	3' - 6"	(10) #4 @ BOTTOM
GB	1' - 6"	1' - 0"	<varies>	(2) #4 @ T&B W/ #3 STIRRUPS @ 6" O.C.
SW-1	2' - 0"	3' - 0"	5' - 6"	(4) #6 @ T&B

HOLDDOWN SCHEDULE

SIMPSON HOLDOWN	POST (MIN.)	ANCHOR DIA. AND TYPE	de	le	MIN DIST. TO CORNER
HDU2	(2)2X4	5/8" DIA. SSTB20	1 3/4"	17"	5"
HDU4	4X4	5/8" DIA. SSTB24	1 3/4"	20"	5"
HDU5	4X4	5/8" DIA. SSTB24	1 3/4"	20"	5"
HDU8	4X4	7/8" DIA. SSTB28	1 3/4"	28"	5"
HDU11	4X6	7/8" DIA. SSTB34	1 3/4"	28"	5"

HOLDDOWN	ANCHOR	EMBED INTO UNDERPINNING	FASTENERS
HDU2	PAB5	6"	(6) 1/4\@2-1/2" SDS SCREWS
HDU5	PAB5	8"	(12) 1/4\@2-1/2" SDS SCREWS
HDU8	PAB7	12"	(20) 1/4\@2-1/2" SDS SCREWS
HDU11	PAB8	14"	(30) 1/4\@2-1/2" SDS SCREWS
HDU14	PAB8	16"	(36) 1/4\@2-1/2" SDS SCREWS

TOTAL ENGINEERING SERVICES, INC.
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REGISTERED PROFESSIONAL ENGINEER YASSER S. SALEM S-4902 EX: 12/31/26 STRUCTURAL STATE OF CALIFORNIA

NO.	DATE	REVISIONS
1		
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RESIDENTIAL INTERIOR REMODEL
YORBA LINDA, CA 92886

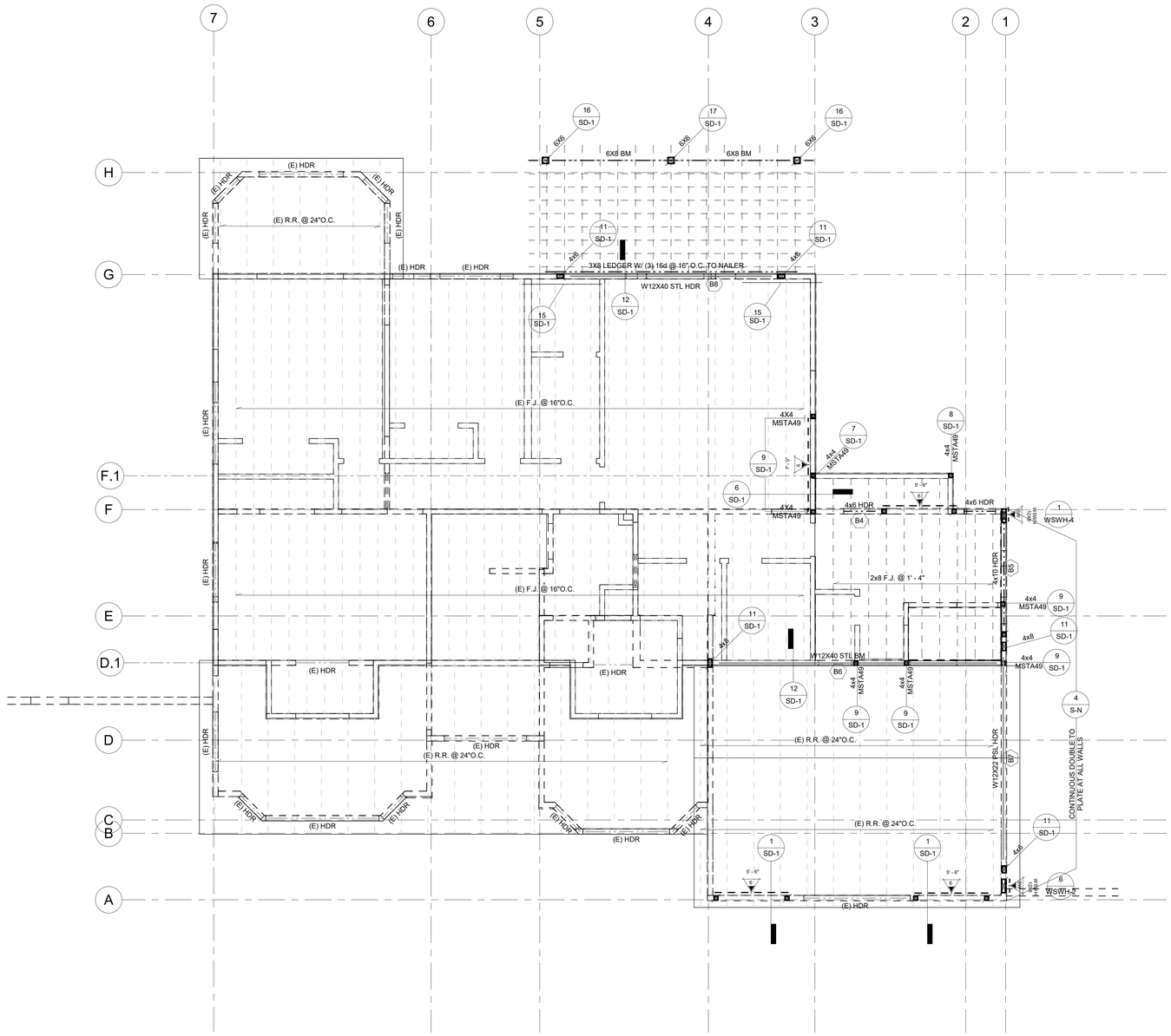
FOUNDATION PLAN

DATE: 1/13/2025 12:19:53 PM
JOB NO: 24-66
DRAWN:
CHECKED: YS

SHEET OF 12

S-1

CAD FILE: ARCHITECT NAME



FLOOR FRAMING
1/4" = 1'-0"

LEGEND

- INDICATES: PLYWOOD SHEAR WALL
- INDICATES: LENGTH
- INDICATES: NUMBER TO REFER TO ON SCHEDULE
- INDICATES: HSS POST
- INDICATES: POST ABOVE
- INDICATES: POST BELOW
- INDICATES: EXTENT OF JOIST SPAN
- INDICATES: WOOD BEAM/HDR
- INDICATES: STEEL BEAM
- INDICATES: SOLID BLOCKING
- INDICATES: BEAM NUMBER TO REFER TO FOR CALCUALTIONS
- INDICATES: WALL ABOVE
- INDICATES: WALL BELOW
- INDICATES: CALIFORNIA FRAMING

SEE 1 / S-N FOR TYP. HDR DETAIL & SCHEDULE

SEE 2 / S-N FOR TYP. SHEARWALL DETAIL

FRAMING NOTES:

1.PROVIDE DOUBLE JOIST AND BLOCKING AROUND ALL ROOF & FLOOR OPENINGS.
2.PROVIDE WIDTH OF BEAM POST OR EQUAL MULTI-STUDS (SPIKED) UNDER ALL HEADERS AND BEAMS CONNECT WITH C.C. CAP U.N.O. (ALT. A34 CLIPS EACH SIDE)
3.PLACE PLYWOOD SHEATHING PERPENDICULAR TO RAFTERS OR JOISTS AND "C" FACE DOWN.
4.INSPECT NAILING PRIOR TO ROOFING & FLOORING.
5.ALL SHEAR WALLS SHALL EXTEND TO ROOF SHEATHING.
6.TOP PLATES OF ALL STUD WALLS SHALL BE 2 PIECES THE SAME SIZE AS STUDS. SPLICES TO LAP 4'-0" MINIMUM WITH 12 - 16D (MIN.) U.N.O.
7.CONNECT ALL MULTIPLE RAFTERS & JOISTS WITH 12D NAILS AT 12" ON CENTER STAGGERED. THREE OR MORE MULTIPLE RAFTERS OR JOISTS SHALL BE BOLTED TOGETHER WITH 1/2" DIAMETER BOLTS AT 24" ON CENTER STAGGERED.
8. ALL PLUMBING WALLS TO BE 2X6 FRAMING

ROOF DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
I	SEE NOTE #1	8d @ 6" O.C.	8d @ 6" O.C.	8d @ 12" O.C.

TYPICAL ROOF SHTG. NOTES :

1. 1/2" APA RATED CDX PLYWOOD SHEATHING PI24/0 EXP I UNBLOCKED UNO.
2. USE 10d PLYWOOD NAILS W/ 5/16 HEAD W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD NAILING SHALL BE INSPECTED.
4. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

FLOOR DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
II	SEE NOTE #1	10d @ 6" O.C.	10d @ 6" O.C.	10d @ 12" O.C.

TYPICAL FLOOR SHTG NOTES:

1. 3/4" T&G UNBLOCKED STRUCT I PLYWOOD SHTG INDEX 24/0 EXP 1.
2. USE #10 PLYWOOD SCREWS W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD ATTACHMENT SHALL BE INSPECTED PRIOR TO COVERING.
4. ALL PLYWOOD TO BE GLUED TO JOIST & BEAMS.
5. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

TOTAL ENGINEERING SERVICES, INC.
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REGISTERED PROFESSIONAL ENGINEER YOUSEF SALEM MASTER S - SALEM C-74902 EXP. 12/31/26 STRUCTURAL STATE OF CALIFORNIA

NO.	DATE	REVISIONS
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RESIDENTIAL INTERIOR REMODEL

YORBA LINDA, CA 92886

FLOOR FRAMING PLAN

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CHECKED: YS

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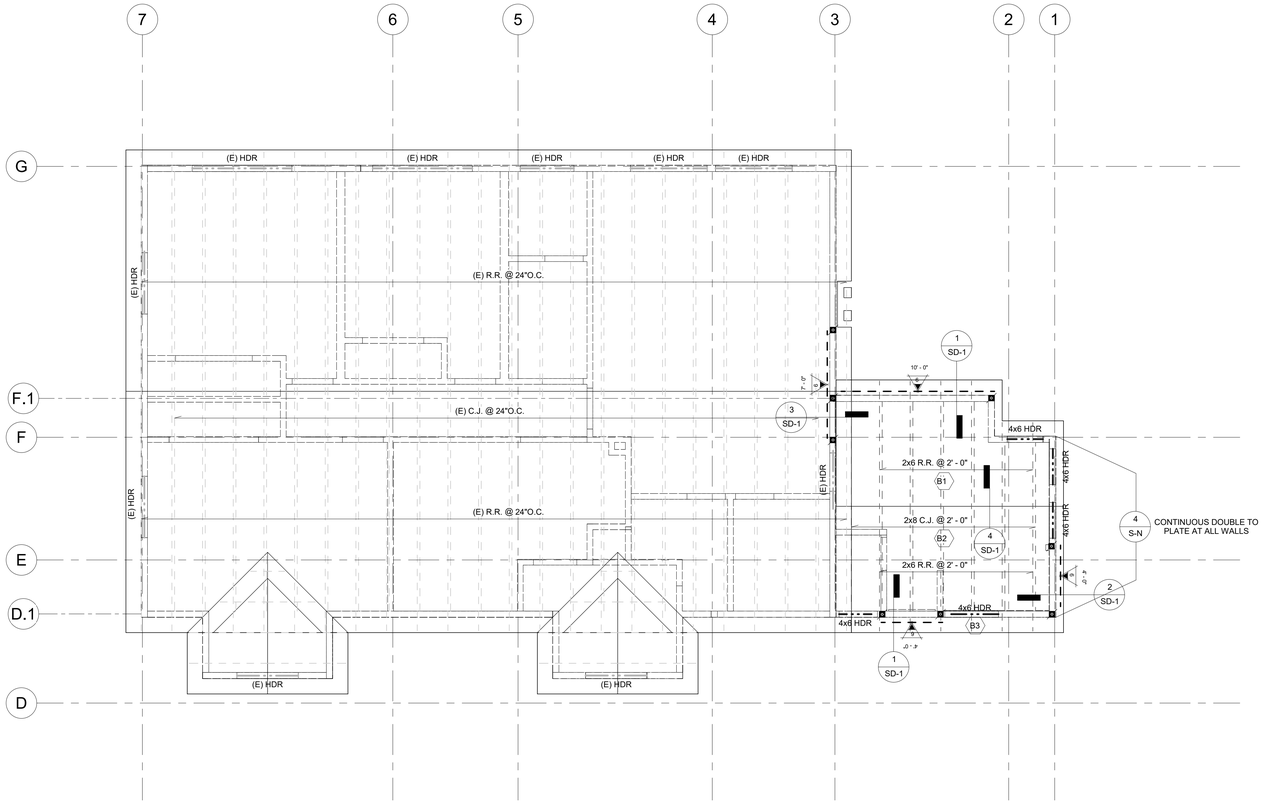
S-2

CAD FILE: FLOOR FRAMING



ROOF FRAMING
1/4" = 1'-0"

LEGEND

- INDICATES: PLYWOOD SHEAR WALL
- INDICATES: LENGTH
- INDICATES: NUMBER TO REFER TO ON SCHEDULE
- INDICATES: HSS POST
- INDICATES: POST ABOVE
- INDICATES: POST BELOW
- INDICATES: EXTENT OF JOIST SPAN
- INDICATES: WOOD BEAM/HDR
- INDICATES: STEEL BEAM
- INDICATES: SOLID BLOCKING
- INDICATES: BEAM NUMBER TO REFER TO FOR CALCUALTIONS
- INDICATES: WALL ABOVE
- INDICATES: WALL BELOW
- INDICATES: CALIFORNIA FRAMING

SEE 1 / S-N FOR TYP. HDR DETAIL & SCHEDULE

SEE 2 / S-N FOR TYP. SHEARWALL DETAIL

ROOF FRAMING NOTES:

1.PROVIDE DOUBLE JOIST AND BLOCKING AROUND ALL ROOF OPENINGS.
2.PROVIDE WIDTH OF BEAM POST OR EQUAL MULTI-STUDS (SPIKED) UNDER ALL HEADERS AND BEAMS CONNECT WITH BC. CAP U.N.O. (ALT. A34 CLIPS EACH SIDE)
3.PLACE PLYWOOD SHEATHING PERPENDICULAR TO RAFTERS AND "C" FACE DOWN.
4.INSPECT NAILING PRIOR TO ROOFING.
5.ALL SHEAR WALLS SHALL EXTEND TO ROOF SHEATHING.
6.TOP PLATES OF ALL STUD WALLS SHALL BE 2 PIECES THE SAME SIZE AS STUDS. SPLICES TO LAP 4'-0" MINIMUM WITH 12 - 16D (MIN.) U.N.O.
7.CONNECT ALL MULTIPLE RAFTERS WITH 12D NAILS AT 12" ON CENTER STAGGERED. THREE OR MORE MULTIPLE RAFTERS SHALL BE BOLTED TOGETHER WITH 1/2" DIAMETER BOLTS AT 24" ON CENTER STAGGERED.
8. ALL PLUMBING WALLS SHOULD BE 2X6 FRAMING

ROOF DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
I	SEE NOTE #1	8d @ 6" O.C.	8d @ 6" O.C.	8d @ 12" O.C.

TYPICAL ROOF SHTG. NOTES :

1. 1/2" APA RATED CDX PLYWOOD SHEATHING PI24/0 EXP I UNBLOCKED UNO.
2. USE 10d PLYWOOD NAILS W/ 5/16 HEAD W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD NAILING SHALL BE INSPECTED.
4. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

FLOOR DIAPHRAGM NAILING SCHEDULE

TYPE	MATERIAL	NAILING		
		B.N.	E.N.	F.N.
II	SEE NOTE #1	10d @ 6" O.C.	10d @ 6" O.C.	10d @ 12" O.C.

TYPICAL FLOOR SHTG NOTES:

1. 3/4" T&G UNBLOCKED STRUCT I PLYWOOD SHTG INDEX 24/0 EXP 1.
2. USE #10 PLYWOOD SCREWS W/ PENETRATION INTO FRAMING OF 1-1/2" MIN. INCREASE NAIL SIZE AS REQUIRED.
3. PLYWOOD ATTACHMENT SHALL BE INSPECTED PRIOR TO COVERING.
4. ALL PLYWOOD TO BE GLUED TO JOIST & BEAMS.
5. ICBO APPROVED ORIENTED-STRAND BOARD (OSB) IS TO BE SUBSTITUTED FOR PLYWOOD WHEN ENGINEERED LUMBER ROOF FRAMING IS USED.

RAFTER TIE SCHEDULE

ROOF SLOPE	SPAN (FT)	NAILING
3:12	12	(5) 16d
	24	(10) 16d
	36	(15) 16d
4:12	12	(4) 16d
	24	(8) 16d
	36	(11) 16d
5:12	12	(3) 16d
	24	(6) 16d
	36	(9) 16d
7:12	12	(3) 16d
	24	(5) 16d
	36	(7) 16d

TOTAL ENGINEERING SERVICES, INC.
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EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER — YASSER S. SALEM — S 4902 — EXP. 06/30/26 — STRUCTURAL — STATE OF CALIFORNIA

NO.	DATE	REVISIONS
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RESIDENTIAL INTERIOR REMODEL
YORBA LINDA, CA 92886

ROOF FRAMING PLAN

DATE: 1/13/2025 12:20:38 PM
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CHECKED: YS

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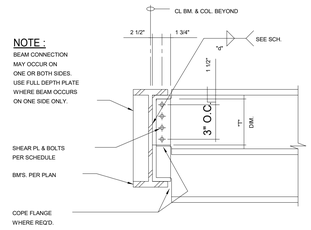
S-3

EXP. FULL
BATTERY SHEET

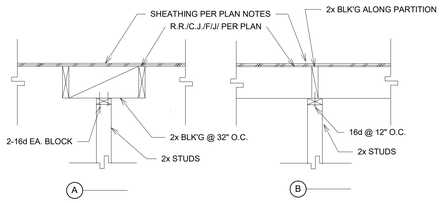
BEAM CONN. SCHEDULE					
BEAM SIZE	PL	WELD	A325N BOLTS (1)		ALLOW
		"d"	NO.	SIZE	SHEAR
W8x & W10x	3/8"	5/16	2	7/8"	11k
W12x & W14x	3/8"	5/16	3	7/8"	22.1k
W16x	1/2"	3/8	4	7/8"	35.4k
W18x & W21x	1/2"	3/8	5	7/8"	49.1k
W24x	1/2"	3/8	6	1"	82.2k
W27x	1/2"	3/8	7	1"	100k

"T" = DISTANCE BETWEEN TOP AND BOTTOM FLANGE FILLETS (PER AISC MANUAL) - 1/2"

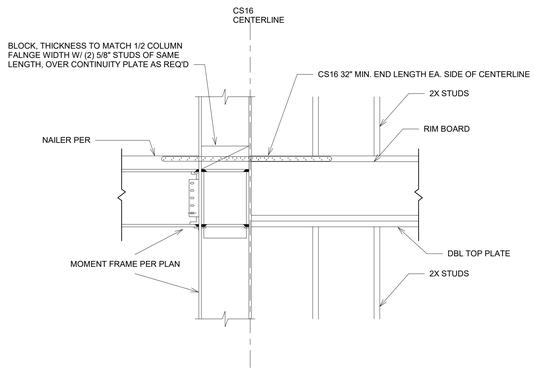
(1) = SPECIAL INSPECTION NOT REQUIRED.



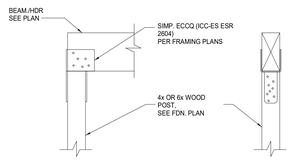
STL. BEAM TO STL. BEAM CONN. — 3/4" = 1'-0" — 13



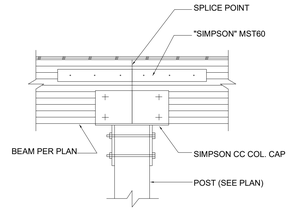
NON-BEARING WALL CONNECTION — 3/4" = 1'-0" — 14



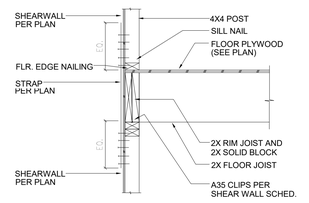
STL BM DRAG @ TOP PLATE — 3/4" = 1'-0" — 15



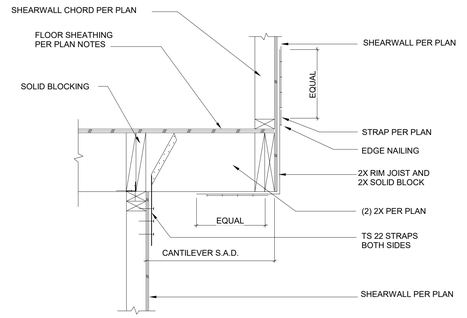
BEAM TO POST CONNECTION — 1" = 1'-0" — 16



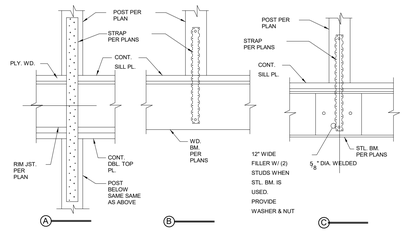
DRAG ACROSS BEAMS — 1" = 1'-0" — 17



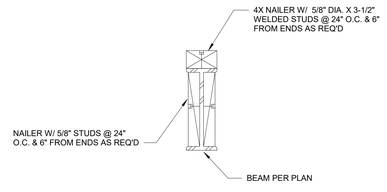
SHEAR TRANSFER @ EXT. WALL — 1" = 1'-0" — 7



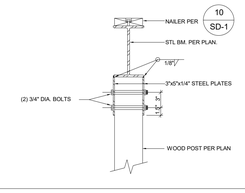
STRAP @ CANTILVERED FLOOR — 1" = 1'-0" — 8



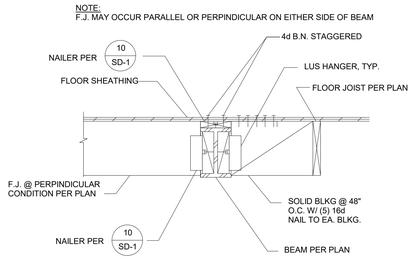
STRAP @ FLOOR — 1" = 1'-0" — 9



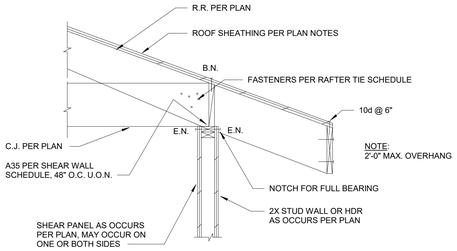
STL BM W/ NAILER — 1" = 1'-0" — 10



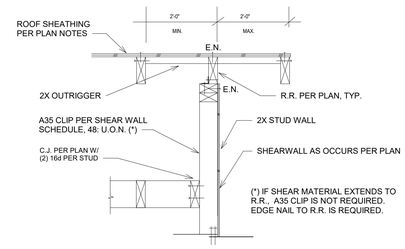
WOOD POST TO STL BM CONN. — 1" = 1'-0" — 11



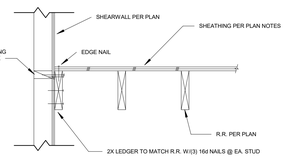
STL BM W/ WEB NAILER — 1" = 1'-0" — 12



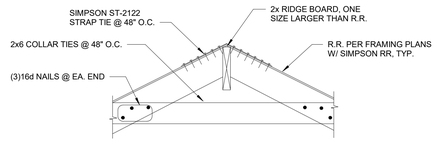
SHEAR TRANSFER @ DROPPED CEILING — 3/4" = 1'-0" — 1



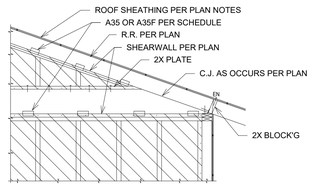
SHEAR TRANSFER OUTRIGGER — 1" = 1'-0" — 2



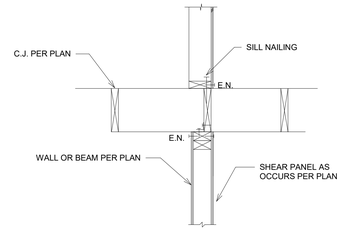
SHEAR TRANSFER @ ROOF LEDGER — 1" = 1'-0" — 3



RIDGE BOARD CONN. — 1" = 1'-0" — 4



SHEAR TRANSFER @ RAKE — 1" = 1'-0" — 5



SHEAR TRANSFER @ INT. WALL PERP. — 1" = 1'-0" — 6

TOTAL ENGINEERING SERVICES, INC.
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EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER — YASSER S. SALEM — S-4902 — 12/31/26 — STRUCTURAL — STATE OF CALIFORNIA

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RESIDENTIAL INTERIOR REMODEL
YORBA LINDA, CA 92886

STRUCTURAL DETAILS

DATE: 1/13/2025 12:23:02 PM
JOB NO.: 24-66
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CHECKED: YS

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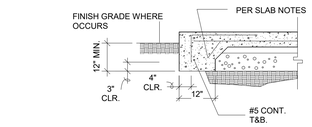
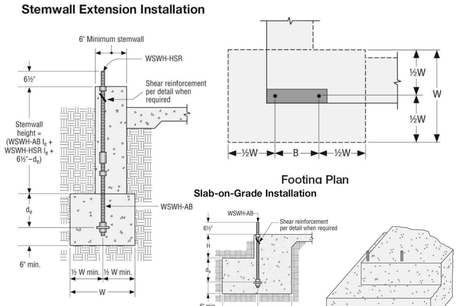
SD-1

CAD FILE: ARTIST NAME

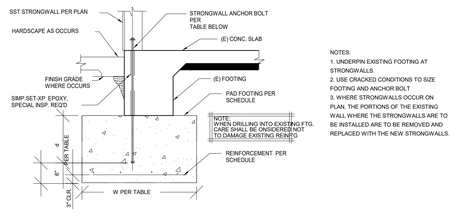


TYP. SLAB DETAILS | 3/4" = 1'-0" | 13

Stemwall Extension Installation

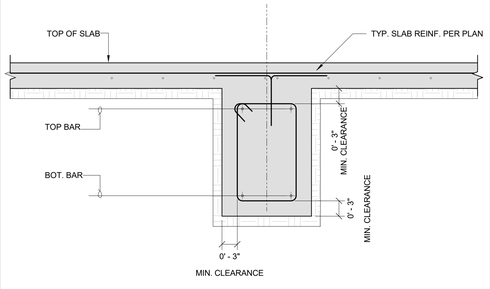


MODEL	W	B (IN)	d_e (IN)	ANCHOR BOLT	STRENGTH
WSWH12X8	PER SCHEDULE	8.125	14	WSWH-AB	HIGH STRENGTH
WSWH18X8	PER SCHEDULE	14	11	WSWH-AB	STANDARD
WSWH18X16	PER SCHEDULE	14	11	WSWH-AB	STANDARD

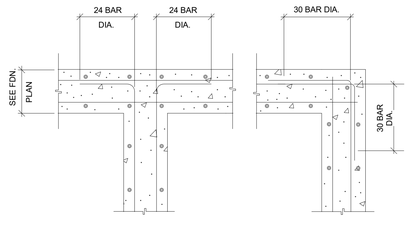


NOTES:
1. UNDERPIN EXISTING FOOTING AT STRONGWALLS.
2. USE CRACKED CONDITIONS TO SIZE FOOTING AND ANCHOR BOLT
3. WHERE STRONGWALLS OCCUR ON PLAN, THE PORTIONS OF THE EXISTING WALL WHERE THE STRONGWALLS ARE TO BE INSTALLED ARE TO BE REMOVED AND REPLACED WITH THE NEW STRONGWALLS.

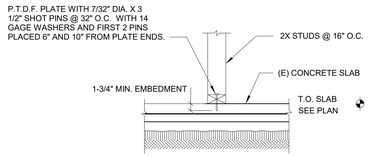
STRONGWALL FOOTING | 1" = 1'-0" | 10



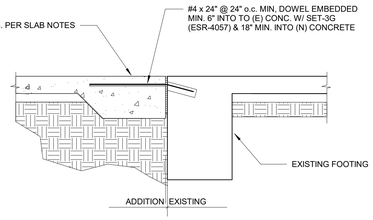
CONC. GRADE BEAM | 1" = 1'-0" | 11



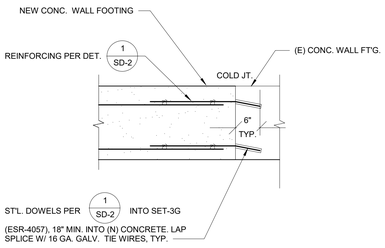
TYP. GRADE BM @ WALL INTER. | 3/4" = 1'-0" | 12



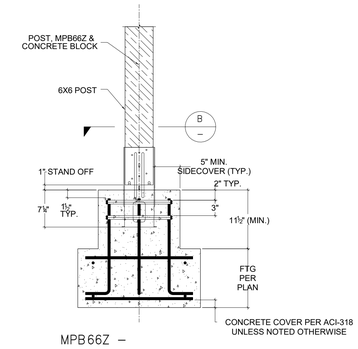
NON-LOAD BEARING WALL | 1" = 1'-0" | 6

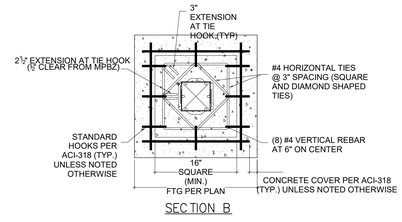


(N) SLAB TO (E) FTG CONNECTION | 1" = 1'-0" | 7

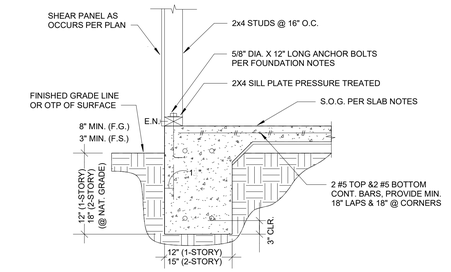


(N) FTG TO (E) FTG CONNECTION | 1" = 1'-0" | 8

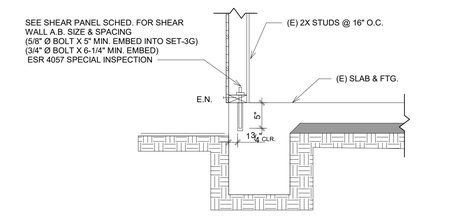




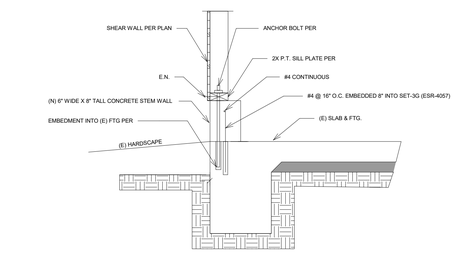
MPB66Z FOOTING | 1" = 1'-0" | 9



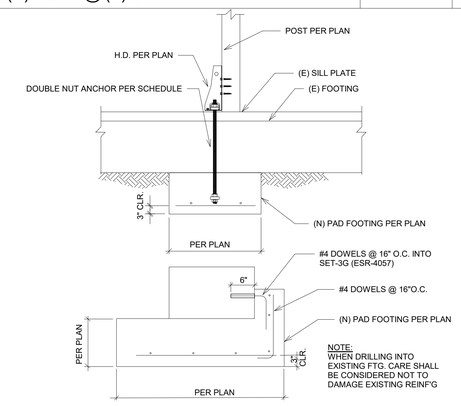
ANCHOR BOLT @ NEW FTG. | 1" = 1'-0" | 1



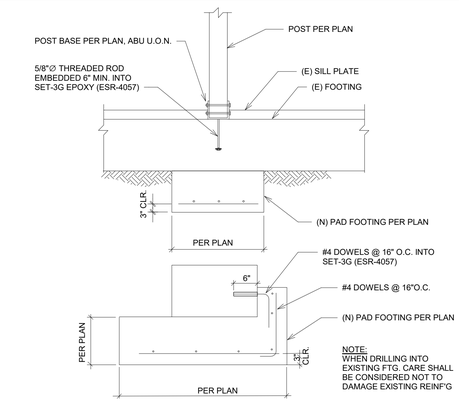
ANCHOR BOLT @ (E) FOOTING | 1" = 1'-0" | 2



(N) CURB @ (E) GAR. FTG | 1" = 1'-0" | 3



H.D. @ UNDERPINNING | 1" = 1'-0" | 4



FTG UNDERPINNING | 1" = 1'-0" | 5

TOTAL ENGINEERING SERVICES, INC.
CIVIL - STRUCTURAL - DESIGN
1651 EAST FOURTH ST, SUITE 228
SANTA ANA, CA 92701
TEL NO. (949) 376-5842
FAX NO. (949) 606-8122
EMAIL: YSalem@TDS-AE.COM

REGISTERED PROFESSIONAL ENGINEER YASER S. SALEM S 4902 12/31/26 STRUCTURAL STATE OF CALIFORNIA

NO.	DATE	REVISIONS

RESIDENTIAL INTERIOR REMODEL
YORBA LINDA, CA 92886

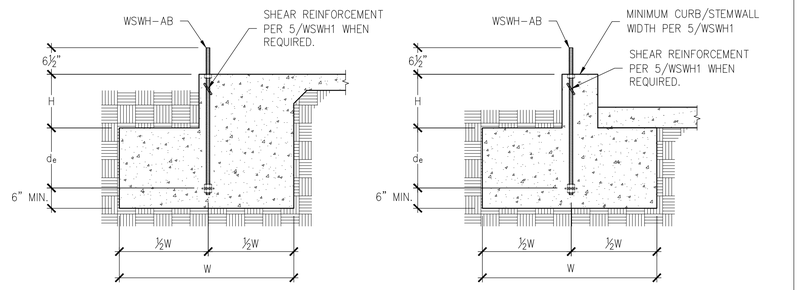
FOUNDATION DETAILS

DATE: 7/13/2025 12:23:18 PM
JOB NO: 24-66
DRAWN:
CHECKED: YS

SHEET OF 12

SD-2

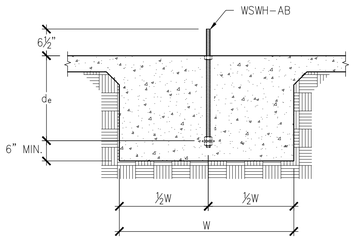
CAD FILE: FOUNDATION.DWG



SLAB ON GRADE FOUNDATION

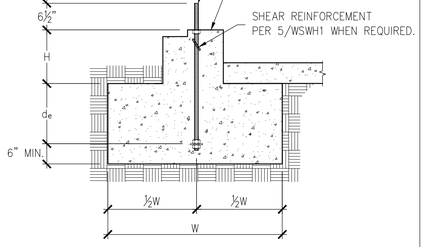
CURB OR STEMWALL FOUNDATION

NOTES :
1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = l_e–d_e. SEE 3/WSWH1 AND 4/WSWH1 FOR l_e.



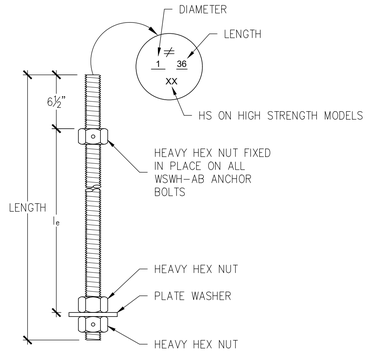
INTERIOR FOUNDATION

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



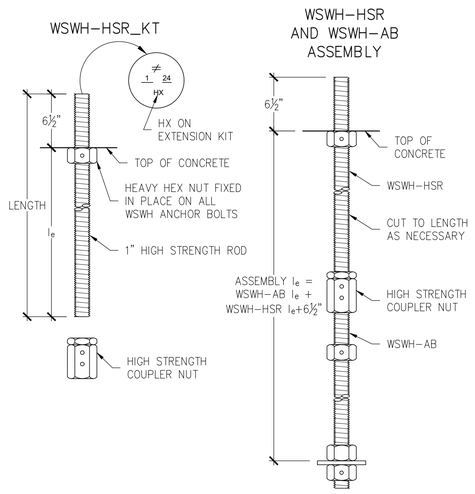
BRICK LEDGE FOUNDATION

STRONG–WALL® WSWH ANCHORAGE – TYPICAL SECTIONS | 1



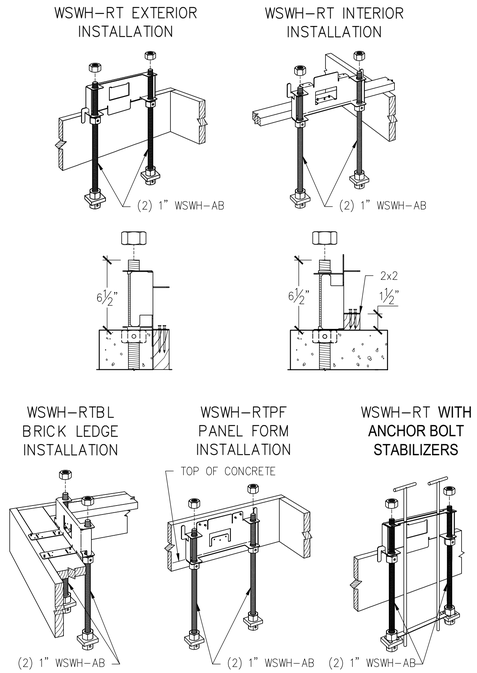
WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH–AB1x24	1"	24"	15½"
	WSWH–AB1x24HS	1"	24"	15½"
	WSWH–AB1x30	1"	30"	21½"
	WSWH–AB1x30HS	1"	30"	21½"
	WSWH–AB1x36	1"	36"	27½"
	WSWH–AB1x36HS	1"	36"	27½"
	WSWH–AB1x42	1"	42"	33½"
	WSWH–AB1x42HS	1"	42"	33½"
	WSWH–AB1x48	1"	48"	39½"
	WSWH–AB1x48HS	1"	48"	39½"

WSWH ANCHOR BOLTS | 3

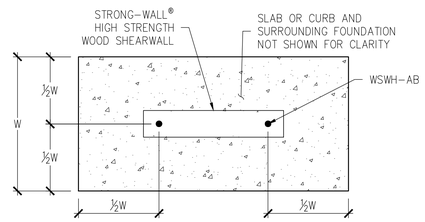


WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH–HSR1x24KT	1"	24"	17½"
	WSWH–HSR1x36KT	1"	36"	29½"

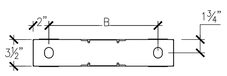
WSWH ANCHOR BOLT EXTENSION | 4



WSWH ANCHOR BOLT TEMPLATES | 6



FOUNDATION PLAN VIEW



WSWH PLAN VIEW
ANCHORAGE LAYOUT

ANCHOR BOLT LAYOUT	
STRONG–WALL® HIGH STRENGTH WOOD SHEARWALL MODEL NO.	DISTANCE FROM CENTER–TO–CENTER OF WSWH–AB, B (in)
WSWH12	8⅛
WSWH18	14
WSWH24	20

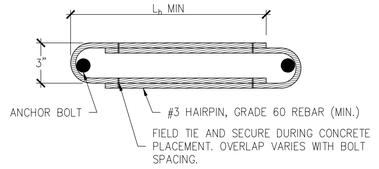
NOTES :
1. ANCHORAGE DESIGNS CONFORM TO ACI 318–11 APPENDIX D, ACI 318–14 CHAPTER 17 AND ACI 318–19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH–AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C–F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318–11 SECTION D.3.3.4.3, ACI 318–14 SECTION 17.2.3.4.3 AND ACI 318–19 SECTION 17.10.5.3.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/WSWH1 FOR d_e.

WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	33	11
			17,100	35	12
		HIGH STRENGTH	34,100	52	18
			36,800	55	19
	UNCRACKED	STANDARD	15,700	28	10
			17,100	30	10
		HIGH STRENGTH	33,500	45	15
			36,800	48	16
WIND	CRACKED	STANDARD	6,200	16	6
			11,400	24	8
			17,100	32	11
		HIGH STRENGTH	21,100	36	12
			27,300	42	14
			34,100	48	16
			36,800	51	17
	UNCRACKED	STANDARD	6,400	14	6
			12,500	22	8
			17,100	28	10
		HIGH STRENGTH	22,900	33	11
			26,400	36	12
			34,200	42	14
			36,800	44	15

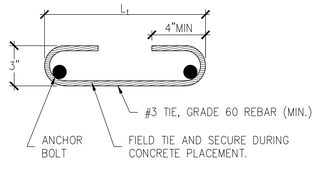
WSWH ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	31	11
			17,100	33	11
		HIGH STRENGTH	33,900	49	17
			36,800	52	18
	UNCRACKED	STANDARD	16,300	27	9
			17,100	28	10
		HIGH STRENGTH	34,000	43	15
			36,800	46	16
WIND	CRACKED	STANDARD	5,600	14	6
			10,200	21	7
			17,100	30	10
		HIGH STRENGTH	20,000	33	11
			26,500	39	13
			33,600	45	15
			36,800	48	16
	UNCRACKED	STANDARD	6,200	13	6
			12,800	21	7
			17,100	26	9
		HIGH STRENGTH	21,800	30	10
			28,900	36	12
			33,100	39	13
			36,800	42	14

WSWH ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH–AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	27	9
			17,100	29	10
		HIGH STRENGTH	34,700	44	15
			36,800	46	16
	UNCRACKED	STANDARD	15,700	23	8
			17,100	25	9
		HIGH STRENGTH	33,900	38	13
			36,800	40	14
WIND	CRACKED	STANDARD	6,800	14	6
			11,600	20	7
			17,100	26	9
		HIGH STRENGTH	21,400	30	10
			28,400	36	12
			32,400	39	13
			36,800	43	15
	UNCRACKED	STANDARD	6,800	12	6
			12,400	18	8
			17,100	23	8
		HIGH STRENGTH	22,800	27	9
			26,700	30	10
			30,700	33	11
			36,800	37	13

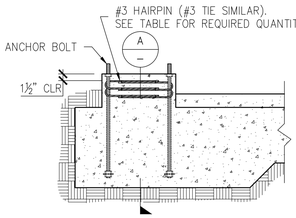
STRONG–WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI | 2



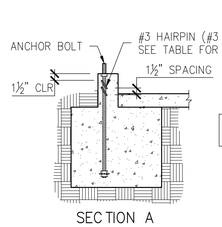
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

STRONG–WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE						
MODEL	SEISMIC[3]			WIND[4]		
	L_t OR L_h (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)
						UNCRACKED / CRACKED
WSWH12	10¼	(1) #3 TIE	6	SEE NOTE 7	6	1,080 / 770
WSWH18	15	(2) #3 HAIRPINS[5,6]	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX. ALLOW SHEAR LOAD OF THE WSWH
WSWH24	19	(2) #3 HAIRPINS[5]	6	(2) #3 HAIRPINS[5]	6	

NOTES :
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318–19, ACI 318–11 AND ACI 318–14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318–19, SECTION 17.10.6.3, ACI 318–14, SECTION 17.2.3.5.3
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.
6. USE (1) #3 HAIRPIN FOR WSWH18 WHEN STANDARD STRENGTH ANCHOR IS USED.
7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS.
9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318–19 SECTION 17.9.2, ACI 318–14 SECTION 17.7.2 AND ACI 318–11 SECTION D.8.2.
10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.

STRONG–WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS | 5

NO.	DATE	REVISIONS
0	02-26-2021	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS
2	04-29-2022	ADDED WSWH-AB MODELS

SIMPSON Strong-Tie, Co. Inc.
• 5956 W. Las Positas Blvd.
Pleasanton, CA 94588
• Tel: (800) 999–5099
• Website: www.strongtie.com

SIMPSON Strong-Tie THERE IS NO EQUAL

STRONG-WALL® WSWH
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie THERE IS NO EQUAL

NAME	
DATE	04-29-2022
SCALE	N.T.S.
CHECKED	
SHEET	WSWH1
OF	SHEETS
JOB NO.	

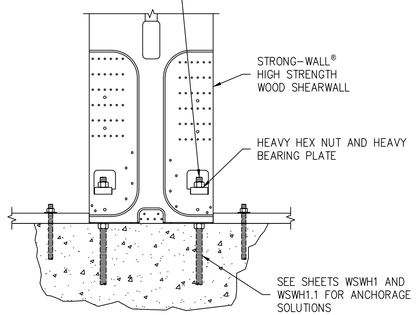
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

NOTES :
1. FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74½".
2. ALL PANELS COME WITH PRE-ATTACHED HOLDOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
3. ALL PANELS ARE 3½" THICK.

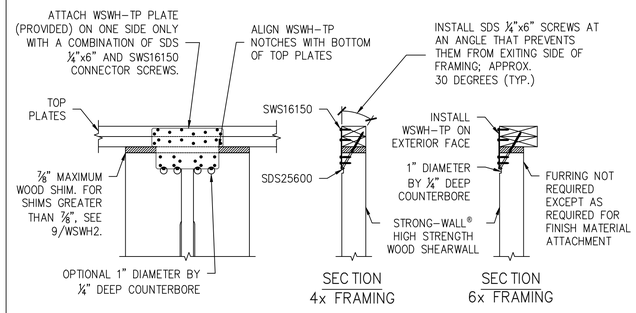
PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1⅛" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + ½" TURN.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

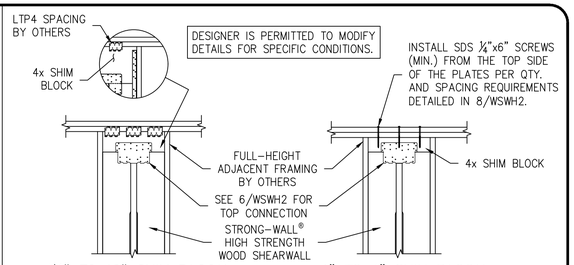


WSWH-TP CONNECTION		
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8

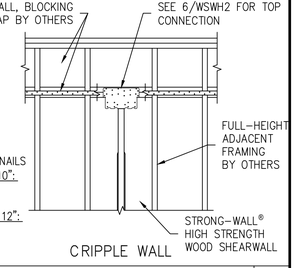
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



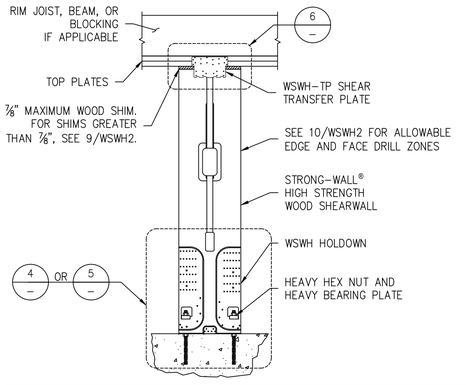
DESIGNER SHALL DESIGN AND DETAIL FOR:
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT



FOR 8" TO 12" BLOCK DEPTHS:
ATTACH SIMPSON STRONG-TIE® CS16 STRAPS AT EDGE OF WSWH PANEL (EACH SIDE) USING 10dx1½" NAILS
SHIM BLOCK HEIGHTS GREATER THAN 8" AND UP TO 10":
- 8 NAILS INTO BLOCK
- 8 NAILS INTO WSWH PANEL

SHIM BLOCK HEIGHTS GREATER THAN 10" AND UP TO 12":
- 10 NAILS INTO BLOCK
- 10 NAILS INTO WSWH PANEL

STRONG-WALL® WSWH MODELS | 1



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

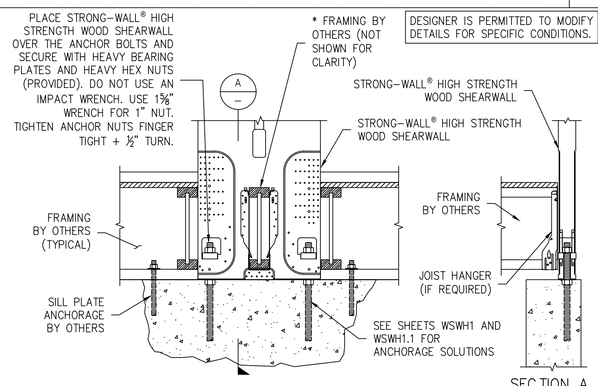
ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

SINGLE STORY WSWH ON CONCRETE | 2

STANDARD INSTALLATION BASE CONNECTION | 4

PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1⅛" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + ½" TURN.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

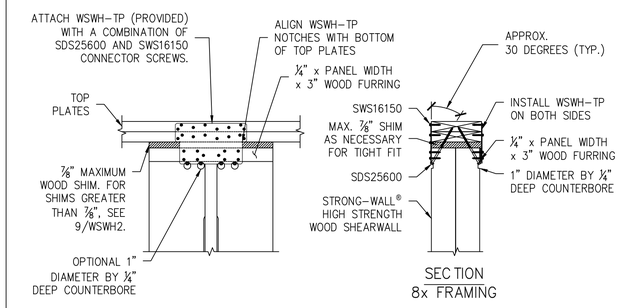
*THIS DETAIL APPLICABLE ONLY FOR WSWH18 & WSWH24. JOISTS MAY NOT FRAME INTO WSWH12 MODELS..

WOOD FLOOR SYSTEM BASE CONNECTION | 5

TOP CONNECTION | 6

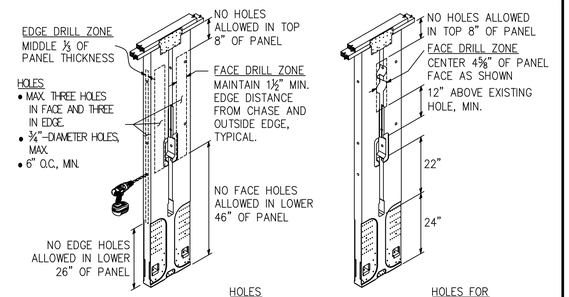
WSWH-TP CONNECTION		
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	28	4
WSWH-TP18	52	8
WSWH-TP24	92	16

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



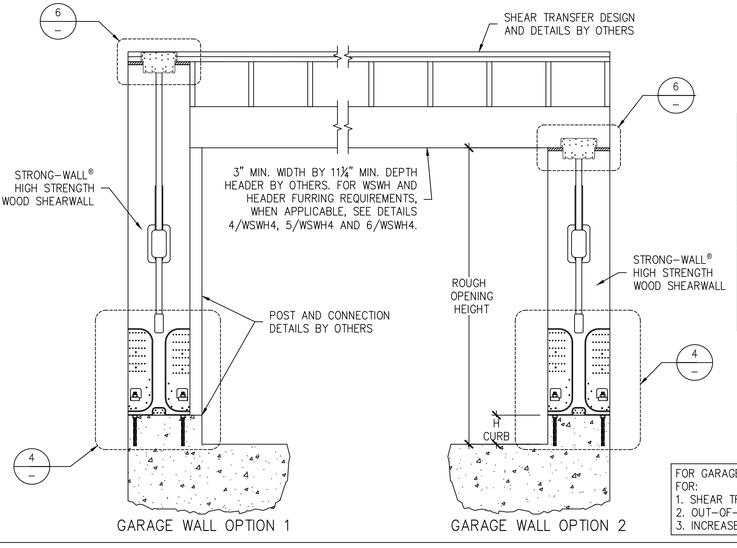
BACK-TO-BACK TOP CONNECTION | 7

TOP OF WALL HEIGHT ADJUSTMENTS | 9



TRIM ZONE AND ALLOWABLE HOLES | 10

ALTERNATE WSWH GARAGE FRONT OPTIONS | 3



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSWH-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5½"	6'-11½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	85½"	0"	7'-1½"
	93¼"	5½"	8'-2¾"
		6"	8'-3¼"

NOTES :
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

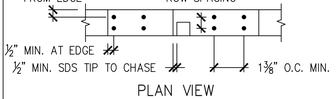
FOR GARAGE WALL OPTION 2, DESIGNER SHALL DESIGN AND DETAIL FOR:
1. SHEAR TRANSFER
2. OUT-OF-PLANE LOADING EFFECT
3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

RAKE WALL | 8

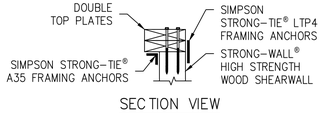
QTY. OF SDS¼"x6" SCREWS REQ'D.	
WSWH12	4
WSWH18	8
WSWH24	16

EDGE DISTANCE FOR SCREWS		
SLOPE	A (in.)	B (in.)
0:12-4:12	2	3
5:12-8:12	1½	4½
9:12-12:12	1½	5½

NOTES :
1. MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES.
2. INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
3. EDGE DISTANCES ASSUME DOUBLE TOP PLATE.

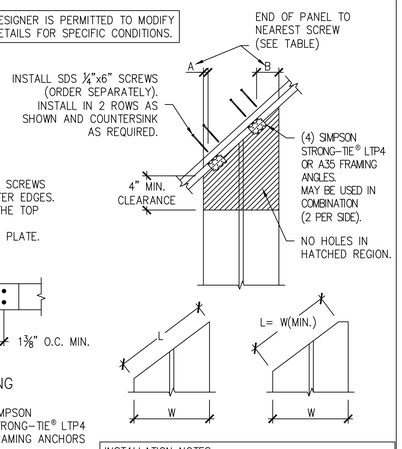


PLAN VIEW
SDS SCREW SPACING



SECTION VIEW
2X6 OR WIDER FRAMING

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



INSTALLATION NOTES :
1. ACTUAL CUT LENGTH (L) MUST BE GREATER THAN OR EQUAL TO PANEL WIDTH (W).
2. THIS DETAIL APPLICABLE FOR SLOPES UP TO 12:12.
3. PANELS TALLER THAN 12' MUST BE DESIGNED FOR THE APPLICATION.

RAKE WALL | 8

NOTES | 11

1. STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
7. SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
9. SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

NO.	DATE	REVISIONS
0	11-20-2020	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS
2	09-27-2023	UPDATE DETAIL 5

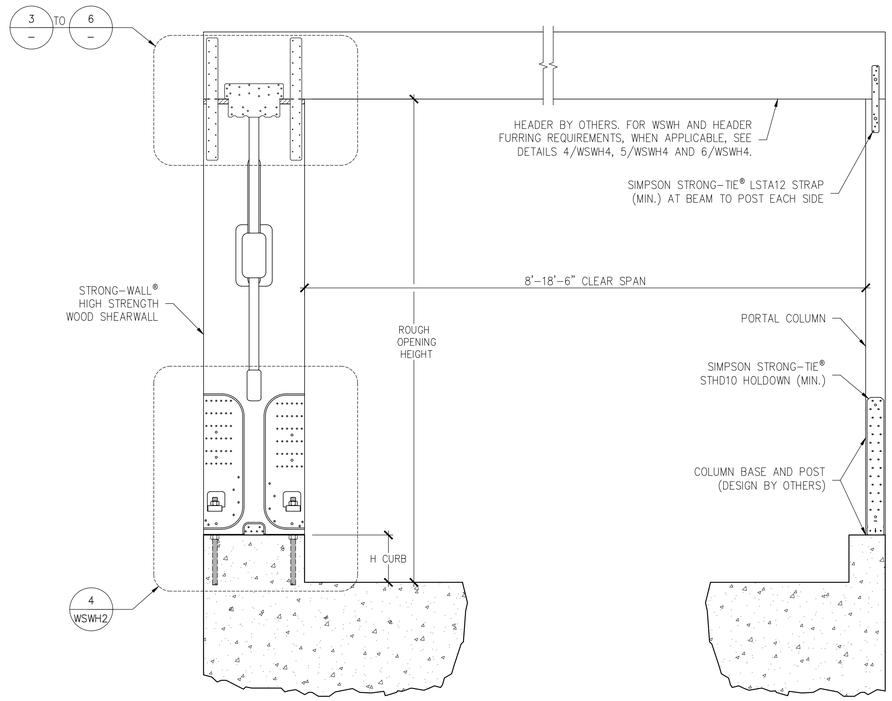
SIMPSON Strong-Tie, Co. Inc.
• 5956 W. Las Positas Blvd.
• Pleasanton, CA 94588
• Tel: (800) 999-5099
• Website: www.strongtie.com

SIMPSON Strong-Tie THERE IS NO EQUAL

STRONG-WALL® WSWH
FRAMING DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie THERE IS NO EQUAL

NAME	
DATE	09-27-2023
SCALE	N.T.S.
CHECKED	
SHEET	WSWH2
OF	SHEETS
JOB NO.	



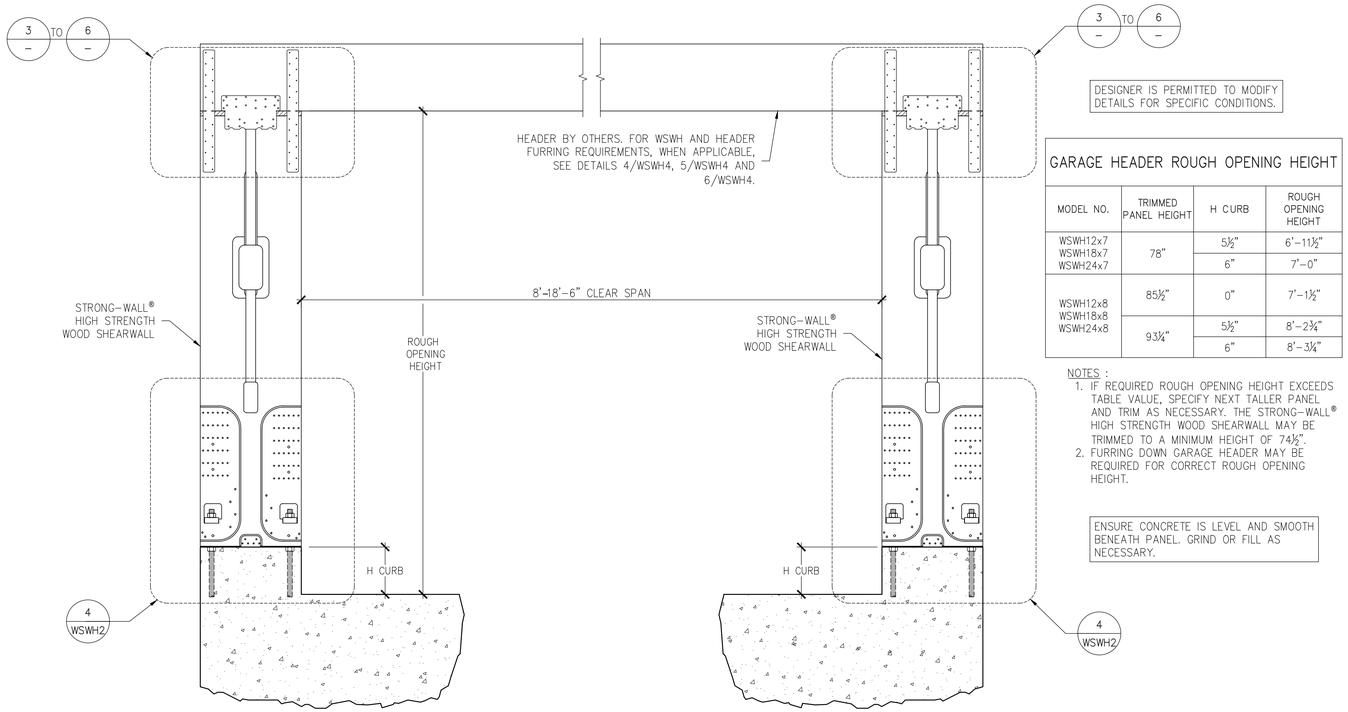
GARAGE HEADER ROUGH OPENING HEIGHT			
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5½"	6'-11½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	85½"	0"	7'-1½"
	93¾"	5½"	8'-2¾"
		6"	8'-3¼"

NOTES :
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SINGLE PORTAL ASSEMBLY | 1



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

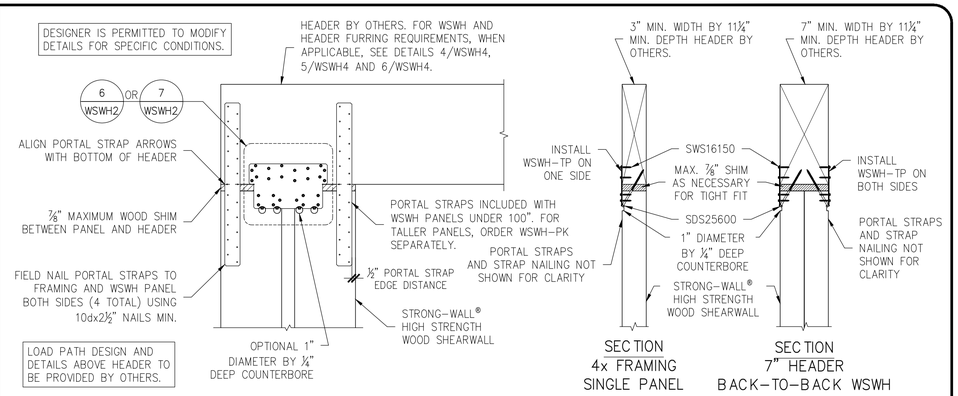
GARAGE HEADER ROUGH OPENING HEIGHT			
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5½"	6'-11½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	85½"	0"	7'-1½"
	93¾"	5½"	8'-2¾"
		6"	8'-3¼"

NOTES :
1. IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
2. FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

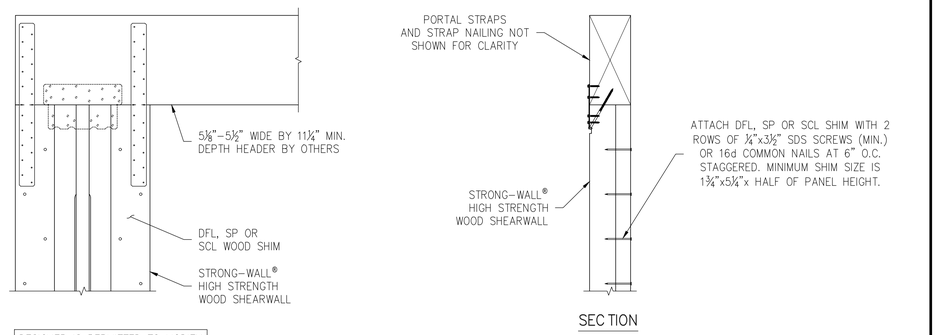
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL DOUBLE PORTAL ASSEMBLY | 2

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



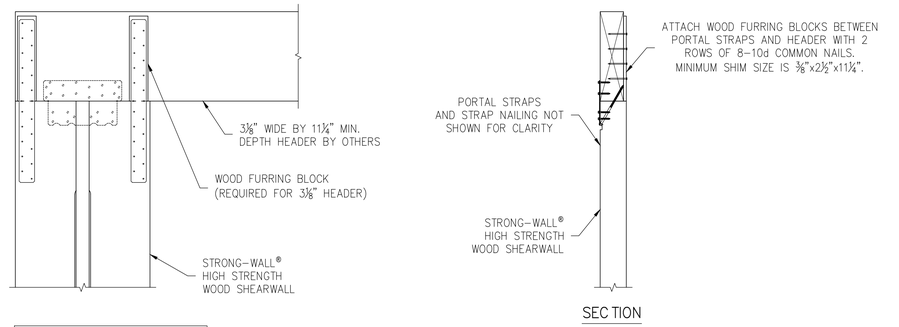
LOAD PATH DESIGN AND DETAILS ABOVE HEADER TO BE PROVIDED BY OTHERS.

PORTAL TOP CONNECTION | 3



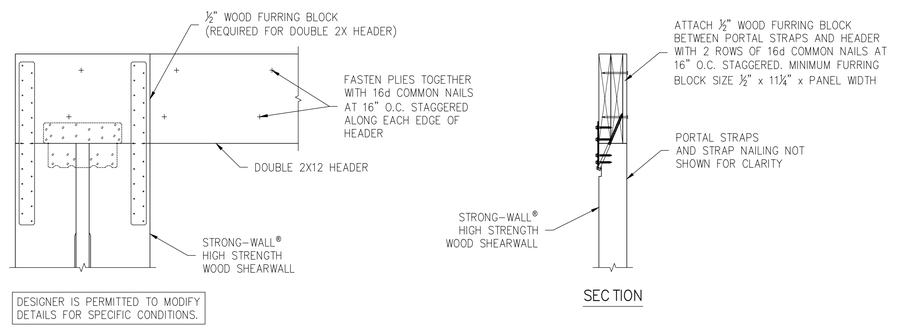
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

FURRING FOR 5⅛" TO 5½" HEADER | 4



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

FURRING FOR 3⅛" HEADER | 5



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

FURRING FOR DOUBLE 2X12 HEADERS | 6

REVISIONS			
NO.	DATE		
0	11-23-2020	FIRST RELEASE - 2018 IBC	
1	03-16-2021	2021 IBC REVISIONS	

SIMPSON Strong-Tie, Co. Inc.
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• Pleasanton, CA 94588
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• Website: www.stronGtie.com

SIMPSON Strong-Tie® THERE IS NO EQUAL

STRONG-WALL® WSWH

PORTAL SYSTEM
FRAMING DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie® THERE IS NO EQUAL

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	WSWH4
OF	SHEETS
JOB NO.	

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 1 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

GENERAL INFORMATION					
01	Project Name	Residential Building			
02	Run Title	Title 24 Analysis			
03	Project Location	5851 Ohio St.			
04	City	Yorba Linda	05	Standards Version	2022
06	Zip code	92886	07	Software Version	EnergyPro 9.3
08	Climate Zone	8	09	Front Orientation (deg/ Cardinal)	135
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Addition and/or Alteration	13	Number of Bedrooms	4
14	Addition Cond. Floor Area (ft^2)	0	15	Number of Stories	2
16	Existing Cond. Floor Area (ft^2)	3100	17	Fenestration Average U-factor	0.2
18	Total Cond. Floor Area (ft^2)	3100	19	Glazing Percentage (%)	17.55%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Fuel Type	Natural gas	23	No Dwelling Unit:	No

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	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.
03	This building incorporates one or more Special Features shown below

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 2 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

ENERGY USE SUMMARY

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	0	13.04	0	12.05	0	0.99
Space Cooling	0	30.26	0	30.53	0	-0.27
IAQ Ventilation	0	0	0	0	0	0
Water Heating	0	13.7	0	13.84	0	-0.14
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	**0**	**57**	**0**	**56.42**	**0**	**0.58**
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	6.09	0	6.09		
Appl. & Cooking	0	16.75	0	16.75		
Plug Loads	0	21.05	0	21.05		
Outdoor Lighting	0	1.59	0	1.59		
TOTAL COMPLIANCE	**0**	**102.48**	**0**	**101.9**		

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 3 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

ENERGY USE INTENSITY

	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	12.85	12.81	0.04	0.31
Net EUI[2]	12.85	12.81	0.04	0.31

Notes
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 SPECIAL FEATURES

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

- Floor has high level of insulation

HERS FEATURE SUMMARY

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

- Kitchen range hood

BUILDING - FEATURES INFORMATION

01	02	03	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
Residential Building	3100	1	4	2	0	1

ZONE 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
Zone 1	Conditioned	HVAC System1	1662	8	DHW Sys 1	Existing Unchanged
Zone 2	Conditioned	HVAC System1	1438	8	DHW Sys 1	Existing Unchanged

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 4 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (%2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Front Wall	Zone 1	R-19 Wall	135	Front	477	196	90	none	Existing	No
Left Wall	Zone 1	R-19 Wall	225	Left	374	50	90	none	Existing	No
Rear Wall	Zone 1	R-19 Wall	315	Back	363	171	90	none	Existing	No
Right Wall	Zone 1	R-19 Wall	45	Right	216	18	90	none	Existing	No
Front Wall 2	Zone 2	R-15 Wall	135	Front	450	38	90	none	Altered	No
Left Wall 2	Zone 2	R-19 Wall	225	Left	240	24	90	none	Existing	No
Rear Wall 2	Zone 2	R-15 Wall	315	Back	476	88	90	none	Altered	No
Right Wall 2	Zone 2	R-15 Wall	45	Right	236	18	90	none	Altered	No
Roof	Zone 1	R-38 Roof Attic	n/a	n/a	1662	n/a	n/a		Altered	No
Roof 2	Zone 2	R-38 Roof Attic	n/a	n/a	1438	n/a	n/a		Altered	No
Raised Floor	Zone 2	R-22 Floor No Crawlspace	n/a	n/a	1438	n/a	n/a		Altered	No

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
Attic Zone 1	Attic RoofZone 1	Ventilated	0	0.1	0.85	Yes	No	Existing	No
Attic Zone 2	Attic RoofZone 2	Ventilated	4	0.1	0.85	Yes	No	Existing	No

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	Front Wall	Front	135			1	156	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 5 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window 2	Window	Left Wall	Left	225			1	50	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No
Window 3	Window	Rear Wall	Back	315			1	152	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No
Window 4	Window	Right Wall	Right	45			1	18	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No
Window 5	Window	Front Wall 2	Front	135			1	38	0.2	NFRC	0.23	NFRC	Bug Screen	Altered	No
Window 6	Window	Left Wall 2	Left	225			1	24	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No
Window 7	Window	Rear Wall 2	Back	315			1	88	0.2	NFRC	0.23	NFRC	Bug Screen	Existing	No
Window 8	Window	Right Wall 2	Right	45			1	18	0.2	NFRC	0.23	NFRC	Bug Screen	Altered	No

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft^2)	U-factor	Status	Verified Existing Condition
Door	Front Wall	40	0.2	Existing	No
Door 2	Rear Wall	19	0.2	Existing	No

SLAB FLOORS

01	02	03	04	05	06	07	08	09	10
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated	Status	Verified Existing Condition
Slab	Zone 1	1662	0.1	none	0	80%	No	Altered	No

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 6 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

OPAQUE SURFACE CONSTRUCTIONS

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
R-19 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 Exterior Finish: 3 Coat Stucco
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
Attic RoofZone 1	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Attic RoofZone 2	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-38 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-38	None / None	0.025	Over Ceiling Joists: R-28.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-22 Floor No Crawlspace	Exterior Floors	Wood Framed Floor	2x8 @ 16 in. O. C.	R-22	None / None	0.044	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-22 / 2x8

BUILDING ENVELOPE - HERS VERIFICATION

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

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WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)	New	NA	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location	Status	Verified Existing Condition
DHW Heater 1	Gas	Consumer Instantaneous	1	0	UEF	0.81	Btu/Hr	200000	0	n/a	n/a		New	n/a

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 Sys 1 - 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	10	11	12
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Existing HVAC System
HVAC System1	Heating and cooling system other	Heating Component 1	1	Cooling Component 1	1	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

Project Name: Residential Building — **Calculation Date/Time:** 2024-12-18T13:29:24-08:00 — **(Page 8 of 10)**

Calculation Description: Title 24 Analysis — **Input File Name:** Building1.ribd22x

HVAC - HEATING UNIT TYPES

01	02	03	04	05
Name	System Type	Number of Units	Heating Efficiency	Heating Unit Brand
Heating Component 1	Electric	1	HSPF -	n/a

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08	09
Name	System Type	Number of Units	Efficiency Metric	Efficiency EER/EER2/CEER	Efficiency SEER/SEER2	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	EER2/SEER2	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Design Type	Duct Ins. R-value		Duct Location		Surface Area		Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts >= 25 ft
			Supply	Return	Supply	Return	Supply	Return							
Air Distribution System 1	Unconditioned attic	Non-Verified	R-8	R-8	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribution System 1-hers-dist	Existing	No		n/a

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD — **CF1R-PRF-01-E**

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HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Not Required	0

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I, I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Yasser Salem	*Yasser Salem*
Company: Total Engineering Services, Inc.	Signature Date: 12/18/2024
Address: 1651 East Fourth Street, Suite 228	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Santa Ana, CA 92701	Phone: (949) 378-5842

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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 responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name:	Responsible Designer Signature:
Yasser Salem	*Yasser Salem*
Company: Total Engineering Services, Inc.	Date Signed: 12/18/2024
Address: 1651 East Fourth Street, Suite 228	License:
City/State/Zip: Santa Ana, CA 92701	Phone: (949) 378-5842

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.

TOTAL ENGINEERING SERVICES
CIVIL - STRUCTURAL DESIGN
15375 BARRANCA PARKWAY, SUITE A-209, IRVINE, CA 92618
TEL. NO. (949) 418-7705
FAX NO. (949) 608-8122
EMAIL: YSalem@TDS-AE.COM

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		

CLARK RESIDENCE
5851 OHIO ST.
YORBA LINDA, CA 92886

RESIDENTIAL TITLE 24

DATE: 1/13/2025 12:42:13 PM
JOB NO:
DRAWN: JL
CHECKED: Checker

SHEET OF 12

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CAD FILE: Building1.dwg