LOS ANGELES COUNTY EXISTING SINGLE STORY GARAGE CONVERSION TO ACCESSORY DWELLING UNIT (ADU) AND JUNIOR ACCESSORY DWELLING UNIT (JADU) STANDARD NOTES AND DETAILS

ADMINISTRATIVE REQUIREMENTS. This section identifies items required by different Los Angeles County departments and other agencies for expedited permit processing of an existing single-story garage/storage building conversion to an ***accessory dwelling unit*** **(ADU)** and/or construction of a ***junior accessory dwelling unit*** **(JADU)** in an existing section of a single dwelling residential unit **with NO ADDITIONS**. Items marked below shall be provided to the **Los Angeles County Department of Public Works Building and Safety Division** (**BSD) District /Contract City Office** at the time of building plan submittal/resubmittal of the plans. Failure to submit or follow the required items during the plan submittal/resubmittal will lead to an automatic *DENIAL* of the permit application and/or may cause significant delays and additional costs during inspections.

COUNTY DEPARMENTS (see also AGENCY REFERRAL sheet):
Department of Regional Planning (DRP)
LINK: https://planning.lacounty.gov/adu

- ◊ **APPROVED** DRP architectural plans (site plan, floor plan, roof plan, and elevation views) shall be submitted to BSD with dimensions consistent with the field conditions.
- ◊ **ALL APPROVED DRP PLANS SHALL BE SCALED AND DRAFTED PROFESSIONALLY AND NEATLY.**
- ◊ Site plans are typically 1/8”= 1’ for and 1/4” = 1' for others laid out on a minimum 24-inch x 36-inch format.
- ◊ Setbacks, heights, and building corner points established on the approved DRP plans shall match field conditions.
- ◊ HVAC, or other auxiliary, equipment may not be installed within 2 1/2 feet of the property line.
- ◊ Openings on walls, or eave/projections, are not allowed less than 2 feet from the property lines.

Building and Safety Division Drainage and Grading (D&G)
LINK: https://dpw.lacounty.gov/bsd/content/publications.aspx

- ◊ **Low Impact Development –** Increase in impervious surface of greater than 50% to the existing condition shall require approval from D&G
- ◊ **Grading**– Any excavation or fill exceeding exemptions outlined in Section J103.2 of the LACBC will require a grading permit from BSD Grading and Drainage Section
- ◊ **Best Management Practices (BMPs)** – Form shall be signed by the owner, submitted during plan submittal/resubmittal, and implemented during construction work.
- ◊ Properties in a Federally Designated Special Flood Hazard Area with proposed work within a Flood Zone A must meet requirements of the National Flood Insurance Program (NFIP), Title 44, Section 60.3 and Title 26, Sections 110.1 and 110.2 of the LACBC.
- ◊ Any alteration of the natural drainage pattern will require approval from BSD Drainage & Grading Section and a drainage release covenant.

Environmental Program Division (EPD)
LINK: https://ladpw.org/epd/CD/background.cfm

- ◊ **Construction and Demolition Form (*CND form*)** – EPD signed forms shall be provided to the district/contract city office prior to permit issuance.

Land Development Division (LDD)
LINK: **https://dpw.lacounty.gov/ldd/web/**

- ◊ **Landscape** – Landscape work greater than 500 square feet requires approval from LDD. Approved stamped plan or letter shall be submitted during plan submittal/resubmittal.
- ◊ **Right-of-Way** – Work outside of the property lines require approval from LDD
- ◊ Approved stamped plan or letter shall be submitted during plan submittal/resubmittal, unless noted by the County Building Official/Inspector otherwise. Site plan shall include curb drainage connections or driveway repairs.

Fire Department
LINK: https://fire.lacounty.gov/

- ◊ **Fire Sprinklers Approved Plans** – Required for existing dwelling with fire sprinklers. Approved stamped plan shall be provided during plan submittal/resubmittal, unless noted by the County Building Official/Inspector otherwise.

- ◊ **Form 195/6 Fire Flow Availability Letter** – A signed FORM 195/6 shall be provided during plan submittal/resubmittal satisfying the following items listed below.
- ♦ 1250 GPM at 20 psi for 1 HR for fire hazard zone
- ♦ 1000 GPM at 20 psi for 1 HR for non-sprinklered
- ♦ 500 GPM at 20 PSI for ½ HR for sprinklered
- ♦ Less than 3600 square feet area for ADU plus any attached structure
- ♦ Less than 450 feet from a fire hydrant
- ♦ Less than 150 feet from vehicular access for non-sprinklered
- ♦ Less than 300 feet from vehicular access for sprinklered
- ♦ Vehicular access 20-feet wide with less than 15% grade

Survey and Mapping and Property Division (SMP)
LINK: https://experience.arcgis.com/experience/3f66098833044147ac0b672df5c4b69a/

- ◊ **New Address** - required for a new ADU with new electrical service meter, or separate driveway /street access from the main house. SMP approved new address letter shall be provided during plan submittal/resubmittal, unless noted by the County Building Office/Inspector otherwise.
- ♦ This requirement does not apply to JADU. JADUs do not require separate addresses because they are not considered separate from the primary dwelling.

OTHER AGENCIES:
County Sanitation District
LINK: https://www.lacsd.org

- ◊ **Sanitation Fee Receipt** - required for new sewer connections and shall be provided during plan submittal/resubmittal.

Local School District

- ◊ **School District Fee Receipt** - required for projects exceeding 500 sq. of new construction and shall be provided during plan submittal/resubmittal.

Local Water Purveyor

- ◊ **WILL SERVE** letter from the local water purveyor servicing the new ADU/JADU is required and shall be provided during plan submittal/resubmittal.

UNPERMITTED CONSTRUCTION:
Los Angeles County Assessor’s Office
LINK: https://assessor.lacounty.gov/

- ◊ A copy of the County Assessor Records shall be provided during plan submittal/resubmittal.
- ◊ Approved DRP site plan must differentiate “EXISTING” and “PROPOSED” items or “TO-BE-DEMOLISHED” structures.

TITLE 24 (T-24) CALIFORNIA ENERGY CODE CALCULATIONS

- ◊ **Certified and signed T-24 calculations shall be provided to the District/Contract City Office during plan submittal/resubmittal.**
- ◊ Selected structural items shall have cavities suitable for the proposed insulation with a minimum 1-inch air gap for ceilings
- ◊ Reflective radiant barrier shall be shown on the roof if proposed in the T-24 calculations
- ◊ Heating system, ducting, water heater plumbing installation specified and followed in the field
- ◊ IAQ (Indoor Air Quality) and QII (Quality Insulation Inspection) HERS list for verifying IAQ Fans and Ventilation must be specified
- ◊ Solar panels are not required for existing single-story garage conversion to ADU, or JADU’s
- ◊ Existing conditions found during pre-construction meeting with the County Building Inspector that do not match with the submitted T-24 calculations will require revisions and re-approval from the District/Contract City Office

ADDITIONAL REQUIREMENTS

- ◊ **Stamped** Architectural and Structural Plans by a Registered Architect/Engineer

- ◊ **Structural Calculations and/or Re-Assessment Report** of a Registered Architect/Engineer due to the following reasons:
- ♦ ADU that is NOT an Existing Single-Story Garage/Storage Building
- ♦ JADU that is NOT an Existing Section of a Single-Family Dwelling
- ♦ ADU exceeds 1200 square feet (SF)
- ♦ JADU exceeds 500 square feet (SF)
- ♦ Property slope is equal or exceeding 1:3 (Horizontal: Vertical) and/or ADU is a basement conversion
- ♦ Soil Report is required and shall be evaluated by Geotechnical & Materials Engineering Division (GMED)
- ♦ Landslide, seismic zone, or earthquake liquefaction
- ♦ Basement conversion
- ♦ Unpermitted construction within the building
- ♦ Complete demolition of existing dwelling and/or reconstruction
- ♦ Drainage/Grading, or Shoring, is required
- ♦ New Two-Story Construction
- ♦ No approval for trimming, or cutting, 30-inches around an existing Oak Trees
- ♦ ASCE 7-16 Horizontal & Vertical Irregularity per Table 12.3-1 and Table 12.3-2
- ♦ Manufactured/Engineered Items (i.e., truss, strong walls, etc.) are to be installed
- ♦ New roof other than standard wood prescriptive gable roof design is to be installed
- ♦ New roofing material exceeds 6 psf (i.e., tiles)
- ♦ New Seismic Bracing NOT following Section 602 of Residential, or Chapter 23 Light Wood Frame Construction of Building Code
- ♦ Pending or Potential Damage to the existing structure (i.e., engineered foundation required, etc.)
- ♦ New lateral demand exceeds 10% of the existing per Existing Building Code (i.e., new building footprint exceeds existing 10% of existing)
- ♦ New gravity load exceeds 5% of the existing per Existing Building Code (i.e., new roof load exceeds 5% of existing)
- ♦ Others: -____

PRE-CONSTRUCTION MEETING WITH COUNTY BUILDING INSPECTOR WITH THE APPROVED CONSTRUCTION PLANS SCHEDULED ON: ________________

OWNER’S AGREEMENT FORM. This section requires the owner, or owner’s agent, to fully agree and acknowledge the disclaimer items listed below to follow these standard notes and details for expedited permit processing. By attaching these sheets with the approved DRP plans as part of the construction documents, **THE OWNER, OR OWNER’S AGENT, IS REQUIRED TO PROVIDE SIGNATURE AND CONTACT INFORMATION AT THE TIME OF PLAN SUBMITTAL/RESUBMITTAL TO CERTIFY AGREEMENT TO THESE STATEMENTS.**

1. The owner, or owner’s agent, shall comply with all notes and details on this standard sheet. A copy of these standard notes and details sheets shall be printed and attached with the approved DRP plans and available at the job site, along with other departmental/agency stamped approved plans, and agency referral sheets at all inspections. Issued permit cards, stamped approved DRP and BSD plans, special inspection/engineering reports shall be available for the County Building Inspector during inspections, including ICC Evaluation Reports and other manufacturer technical sheets highlighted with installation instructions and specifications.
2. The owner, or owner’s agent, acknowledges and shall perform the necessary upgrades to the existing foundation and structural elements if found to have extensive damage and not meeting minimum County building code and standards. It is the owner’s, or owner’s agent’s, responsibility to schedule, or reschedule, additional inspection services, if necessary, to complete the project.
3. The owner, or owner’s agent, shall provide access to all inspection areas listed under the scope of the permit. A project representative over the age of 18 shall be on site, or a written notice with *Permission to Enter* from the owner, shall be posted on the building next to unattended unoccupied structure during inspections. Safe access to the site and/or safe route to the inspection area, equipped with secured OSHA approved ladders or other tools, must be provided. Unsafe and/or hazardous conditions encountered during inspections services may lead to cancelations or stop work order issuance.
4. The owner, or owner’s agent, understands that any items deviating from these standard sheets may require additional submittal to move forward with the project. The County Building Inspector(s) and/or Official(s) reserve the right to: 1) modify this standard detail sheet; 2) provide corrections during permit processing and/or inspections; and 3) request for additional plans, revisions, and/or information from state registered architects/engineers to meet minimum municipal building code requirements. It is the owner’s, or owner’s agent’s, responsibility to obtain such services at his/her/their own expense, time, and arrangement to continue and/or complete the project.
5. The owner, or owner’s agent, agrees to pay the Los Angeles County Building and Safety Division permitting, extension, inspection, and/or Certificate of Occupancy fees as necessary for project completion. Any perjury done by the owner, or on the owner’s behalf, may lead to issuance of a work stop order, or revocation of the issued permit(s), at the directive of the County Building Inspector(s) and/or Official(s) overseeing this project.

“*I certify agreement to all the statements above and shall fully comply with the requirements of these standard notes and details. I am aware that submitting false and/or inaccurate information, and/or failing to comply with the current building code requirements on this project may result in stop work order, additional permitting fees, plans, and information, construction delays, and/or revocation of the issued permits.*”

Owner, or Owner’s Agent, Signature: ______________________ Printed Name: ______________________________________

Date: ____________________ Phone Number/Email: ___________________________________

Project Site Address: ____

DWELLING. This section specifies the minimum dwelling requirements that must be indicated on the construction plans for the proposed ADU/JADU. The items below shall be shown to the County Building Inspector at the time of the preconstruction meeting.

MINIMUM DWELLING REQUIREMENTS

- ◊ Egress Door with a minimum 32-inch net clear opening with36-inch wide clear landing
- ◊ Egress window(s) for bedroom(s) with minimum 5.7 square feet net clear opening, 20-inch wide x 22-inch height
- ◊ Kitchen
- ◊ Bathroom
- ◊ Wall Bracing with Anchors and/or Hold downs
- ◊ Wall & Attic Insulations per Title 24 Energy Calculations
- ◊ Heating and other Mechanical/Electrical/Plumbing devices
- ◊ Fire Rated Walls & Projections (as required)

EXISTING SINGLE-STORY GARAGE/STORAGE BUILDING CONVERSION TO ADU (MAXIMUM 1200 SF)

- ◊ **All MINIMUM DWELLING REQUIREMENTS,** AND
- ◊ **Existing** roof, floor, walls and/or concrete foundation
- ◊ **New** partition wall(s), and /or concrete foundation (see DETAIL 2, or provide similar)
- ◊ Connection of existing to new foundation
- ◊ Retrofit of existing floor slab, or continuous footing (see DETAIL 6 & 7)
- ◊ Reinforcement of existing roof members or diaphragms damaged, lacking shear transfer, or not meeting prescriptive approach
- ◊ Installation of new ceiling joists, and/or beam(s) (see DETAIL 1)
- ◊ Installation of new wall bracing with anchors and hold downs for shear transfer
- ◊ For **Attached** Garages, ADU demising wall(s) separating it from the primary dwelling unit shall have 1-Hour Fire Rated wall from floor slab to the underside of the roof sheathing with Sound Transmission Coefficient (STC) 50
- ◊ For **Lower Attached Garages in 2-Story Residences**, ADU ceiling and wall(s) separating it from the primary dwelling unit shall have 1-Hour Fire Rated wall with STC 50
- ◊ For **ALL Attached** ADU floor plans, each dwelling unit shall have their own separate kitchen and primary entrances

EXISTING SECTION OF A SINGLE-FAMILY DWELLING CONVERSION TO JADU (MAXIMUM 500 SF)

- ◊ **All MINIMUM DWELLING REQUIREMENTS**, AND
- ◊ Must be created in an EXISTING section of a dwelling
- ◊ **Existing** roof, floor, walls, and concrete foundation
- ◊ **New** partition wall(s) connected to existing roof and floor
- ◊ Retrofit of existing floor slab, floor joists, and/or continuous footing (see DETAIL 6 & 7)
- ◊ Reinforcement of existing roof rafters, ceilings joists, walls, or floor joists damaged, lacking shear transfer, or not meeting prescriptive approach
- ◊ Installation of new ceiling/floor joists
- ◊ Installation of new wall seismic bracing with anchors and hold downs
- ◊ Each dwelling unit shall have their own separate kitchen and primary entrances
- ◊ No fire separation is required between a JADU and a primary dwelling
- ◊ Junior ADU can share the same restroom as the primary dwelling unit

ARCHITECTURAL NOTES. This section specifies the minimum architectural and structural requirements. The following notes and items below shall be on the construction plans and available at the job site at all times. It is incumbent upon the owner, or owner’s agent, to clearly identify inconsistencies, irregularities, and existing conditions prior to permit issuance and starting construction. Any discrepancies found by the County Building Inspector between the approved plans, standard sheets, and actual field conditions will cause delays to permit processing, inspections, and issuance of the Certificate of Occupancy.

Numbers in the parenthesis () refer to sections of the 2023 edition of County of Los Angeles Building Code, Existing Building Code (E), Residential Code (R), Table (T), Plumbing Code (PC), Mechanical Code (MC), Electrical Code (EC), Building Code Manual (BCM), 2018 National Design Specifications (NDS), 2018 Special Design Provisions for Wind and Seismic (SDPWS), and 2016 Minimum Design Loads for Buildings and Other Structures including Supplement No. 1 (ASCE7).

- ◊ **Site Plan Requirements** (106.4.3). The following items must be indicated on the Site Plan located at the title page of the approved Department of Regional Planning plans:
  - ◊ Scope of Work
  - ◊ Property Line/Easements to the new ADU/ JADU
  - ◊ North Bearing and/or Directions
  - ◊ Building Lot Dimensions
  - ◊ Building Dimensions (Length, Width, and Height)
  - ◊ Distance to Existing Structure(s) and Property Lines
  - ◊ Front Vehicular Street Access Name
  - ◊ Existing, or Unpermitted, or To Be Demolished, and/or Proposed Structures
  - ◊ Utility Lines for Existing Connection Points or New Service Lines
  - ◊ Address of the Building and/or New Building
  - ◊ Name and Address of the Owner
  - ◊ Applicable Codes & Standards
  - ◊ Drainage Slope(s)/Grading Volume Table
  - ◊ Low Impact Development Table (see below)
  - ◊ Specify if:
    - ♦ Within Very High Fire Severity Zone;
    - ♦ With New or No Fire Sprinklers;
    - ♦ Utility Lines in the Way of Construction;
    - ♦ Oak Trees adjacent to Construction;
    - ♦ Hillside area or with 1(H): 3(V) Slope, or
    - ♦ Flood or FEMA zone

- ◊ **Setbacks**. Approved property line setbacks on the Department of Reginal Planning (DRP) site plans shall be verified for field compliance prior to start of construction. Underground utilities, detached equipment (i.e., electrical, a/c compressor, water heater, solar etc.), or other accessory equipment may be within 2 ½ feet (30 inches) of the property line as approved by DRP. Equipment and building heights shall also adhere to DRP approved elevations. No architectural feature or auxiliary equipment shall obstruct any equipment clearances, setback, or the required 3-foot clearance for any emergency egress system, or path to the dwelling.

- ◊ **Drainage (106.4.3).** Existing and proposed contours/spot elevations indicating the general site slope and drainage pattern shall be indicated on the site plan and verified by the owner, or owner’s agent, in the field. The plan shall indicate a minimum 1% unobstructed slope towards the street **and** away from the ADU/JADU primary entrance. If the driveway, or existing ground, naturally slopes towards the ADU/JADU primary entrance and/or at the back of the property, the owner is required to install a sump pump, a trenched perforated drain with gravel pack, a catch basin, or similar diversion item(s) to prevent back flow towards the ADU/JADU. The owner is responsible to provide these additional item(s) at his own expense and re-schedule additional inspection (s) as required for completion.

- ◊ **Low Impact Development (LID**) **(Appendix J).** Development exceeding 50% of existing impervious surface will require approval from BSD Drainage and Grading Section as part of the local County ordinance.

- ◊ **Grading** (Appendix J**).** Any excavation or fill exceeding exemptions in J103.2 (except for foundation, basement, or retaining walls) requires a grading permit. The owner is required to obtain a grading approval prior to release of the building permit. Grading work includes site wall installation and initial grading certifications, which must be finalized prior to building permit release. All *Best Management Practices* devices for erosion, sediment, or dust control (i.e., silt fences, straw bales, sandbags, etc.). must be installed prior to start of any grading work.

- ◊ ***Best Management Practices*** **(BMPs).** Stormwater quality protection measures for all development projects shall be always implemented at the job site. Every effort should be made to always eliminate the discharge of non-stormwater from the project site. Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed in a proper manner. Spills may not be washed into the drainage system. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed into a covered receptacle to prevent contamination of rainwater and dispersal by wind. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized to inhibit sediments from being deposited into the public right-of-way. Accidental deposition must be swept up immediately and may not be washed down by rain or other means. Any slopes with disturbed soils or denuded of vegetation must be stabilized to inhibit erosion by wind and water.

- ◊ **Demolition**. South Coast Air Quality Management District (SCAQMD) demolition notification and Los Angeles County Environmental Programs Division *Construction & Demolition Debris* (CND) form must be provided prior to any demolition work exceeding 400 square feet. Demolished materials and waste must be disposed in approved Los Angeles County locations. Owner, or owner’s agent, shall keep all demolition and waste materials on site in approved containers and/or stockpiles with appropriate covers. All material disposal receipts must be maintained from approved agencies to quantify the materials disposed for final approval. Note that work, equipment, dumpsters, portable toilets, and material staging shall NOT be stored at, or within, public right-of-way without an encroachment permit from LDD.

- ◊ **Fire Rated Walls** (R302.1, T-R302.1(1) & (2)). For **non-sprinklered** buildings with distances to adjacent structures less than 3 feet, no wall opening, eave or projection, or foundation vents are allowed. The wall must be a minimum 1- HR Fire rated wall, typically no less than 5/8-inch Type X Gypsum Board. For **non-sprinklered** buildings with distances to adjacent structures between 3 to 5 feet, OR **sprinklered** buildings with distances to adjacent structures not exceeding 3 feet, 25% wall opening is allowed but the eaves, or projections, and wall must be 1 HR Fire Rated, typically no less than 5/8” Type X Gypsum Board. ADU/JADU’s distances to adjacent structure that exceeds 5 feet for **non-sprinklered**, or 3 feet for **sprinklered**, does not require eave or fire wall protection.

- ◊ **Fire Access.** A minimum of 5-foot-wide access with grade less than 15% adjacent to a minimum 20-foot-wide vehicular access shall be provided. The street vehicular access distance (ft) and grade (% slope) to the remotest portion of the ADU/JADU must be specified on the site plan. If applicable adjacent to the project site, the distance to the nearest fire hydrant (ft) must be placed on the site plan.

- ◊ **Utilities.** Utility connections for the ADU/JADU must be shown on the site plan. Existing utility lines shall be protected-in-place. The owner is required to contact the utility companies providing service for the new ADU/JADU. The following items must be shown on the site plan:
  - Sewer Line/Connection Point Distance & Slope
  - Electrical Panel Amperage & Location
  - Gas Meter Connection Point
  - Waterline Connection Point
  - HVAC/Condenser/Water Heater Location & Distance to Property Line Setbacks

- ◊ **Sewer.** ADU/JADU sewage can be connected to the existing sewer system at a minimum of 24-inches outside the existing building foundation. It must be approximately 12-inches below grade with no less than 2% to the final connection point. Cleanouts must be installed at intervals as required by the Plumbing Code with locations and size specified on the site plan. Cleanouts shall be installed for each pipe size and within ½” inch of the diameter pipe which the cleanout serves. Other items include vent location and size (combination venting must be calculated based on the pipe size and fixtures); proper use of materials and fittings; under floor or under slab-ABS 12” below grade; underfloor strap with proper straps with rodent protection; or rodent protected straps with adequate pipe protection for dissimilar straps. Fasteners must be approved galvanized, zinc, hot dip, and no “Drywall Screws”. *A minimum 10-foot head water test is required during underground drain waste inspection.*

  ADUs located within an area where connection to existing public sewer system is unavailable shall be provided with its own separate septic system. For private septic\tanks, or seepage pit(s), a minimum clearance of 5 feet for the septic tank and 8 feet for the seepage pit is required. (PC Appendix H T-H1.7). **Public Health approval for the new private sewage system shall be provided to the District/Contract City Office prior to issuing permits.**

  Drainage piping serving plumbing fixture installed on an elevation that is below the elevation of the next upstream manhole cover of the public or private main sewer serving such drainage piping shall be protected from backflow of sewage by installing an approved type of water valves. Fixtures on floor levels above the next upstream manhole shall not discharge through the backwater valve. It is the responsibility of the owner, or owner’s agent, to determine whether the relative elevation of the floor with the plumbing fixtures and the sewer manhole at the jobsite are such that the backwater valve is, or is not, required. A ***BACK-WATER VALVE FORM*** must be completed prior to installing, or modifying, any sewer line and/or plumbing system with an existing sewer connection for any building, or accessory dwelling unit. Back-water valve is required anytime the sewer line cannot maintain adequate 2% fall from point of connection (12-inch under earth 24-inch outside of ADU) to the sewer line connection to the trunkline down-stream (typically in front) of the main residence. (PC 710.1)

- ◊ **Water**. Proposed water service must be properly sized per the fixture count and planned for points of service connection. If a separate meter is requested, then the applicant must coordinate with the water company to pre-plan the waterline installation. Water service must be properly routed and installed 18” minimum below grade with valves at each point of connection, and/or service entrance. Color-coded tracer with wire extending 18” inches above grade on each end is required for all non-metallic PVC/PEX/CPVC pipes. Riser and the first 10 feet of all water service pipe shall be metallic copper or steel pipe for grounding electrode conductor.

- ◊ **Electric**. The owner or owner’s agent is required to arrange with the local electric utility company to determine an acceptable equipment location if a new service is requested. JADU units do not require a separate electrical meter as they are not considered separate dwelling units. Separate permits are required for each structure and shall use the corresponding address for each structure as applicable.

  Buildings with more than one multi-wire branch circuit (i.e., more than 2 branch circuits) require a complete grounding electrode system. A complete grounding electrode system shall include a connection to a metallic water pipe electrode (within 5 feet of the pipe entrance into that building) supplemented by at least one additional electrode type. If the supplemental electrode is a ground rod, then there should be two ground rods spaced at least 6 feet apart. A grounding electrode system may need to be installed at the building with the electrical service and at a detached structure with a subpanel.

  For a detached structure, a readily accessible disconnecting means is required outside of the building or at the point nearest where the feeders enter the building.

  Overhead service entrance conductors supplying the main service panel shall be sized per Section 310.12. This section may also be used to size the feeders to a detached structure’s subpanel for an ADU or primary dwelling.

  Main service panels shall be rated appropriately for the environment where they are installed. Outdoor panelboards shall be rated for wet locations.

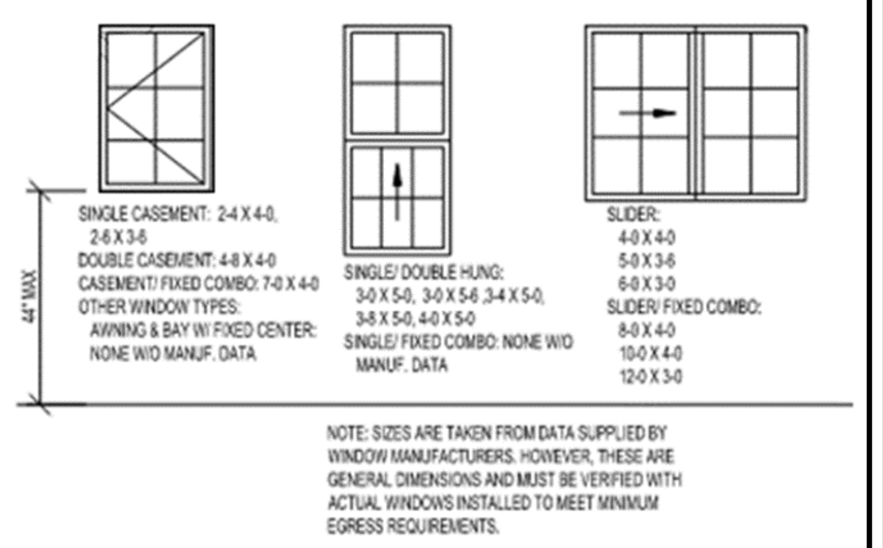
  The minimum rating for the main circuit breaker shall be 100A for the main house and 100A for a detached ADU.

  Circuit breakers, and thus the panels housing those circuits breakers, cannot be in clothes closets or bathrooms.

- ◊ **Gas** (ME 311.4). The owner, or owner’s agent is required to the arrange with the local gas company to establish any new point of service for the new ADU/JADU. No gas lines may be installed under any structures. All underground gas lines must be listed for direct burial-Metallic such as Epoxy Coated (green) pipe or HDPE (Yellow High Density Polyethylene). Plastic piping must have #18 14-gauge tracer wire suitable for direct burial extending 18” inches above grade at each one end at a building wall or riser. All gas lines in earth must be buried no less than 12” unless damage from external forces is likely than 18” inches below grade and have ball type shut off valves at each point of connection, all unions, fittings, and joints must be protected from corrosion with approved materials. At a minimum, a heating device shall be installed for each new dwelling unit. A single heating unit cannot be used for an existing single-family dwelling and attached ADU/JADU and each dwelling shall be controlled by an individual thermostatic control. Gas lines shall have shut off at the point of connection at the supply and the point of entrance to the ADU.

- ◊ **Very High Fire Severity Zone** (705A.2 & 4; 706A.2; 707A.3; 708A.2.1&3; R337.5.2-4,6.2, 7.3, 8.2.1, & 8.3). Existing buildings located in Fire Hazard Severity Zone shall conform to Chapter 7 LACBC requirements and local ordinances of the Los Angeles County Fire Department. Roof covering shall be of Class A roofing materials. The space between the roof covering and roof decking shall be constructed to prevent the intrusion of flames and embers, fire stopped with approved materials, or provided with one layer of 72-pound mineral-surfaced non-perforated cap sheet meeting ASTM D3909. Wood-shingle and wood-shake roofs are prohibited, regardless of classification. Roof gutters shall be designed to prevent the accumulation of leaves and debris. Vent openings for enclosed attics, enclosed eave soffit spaces, and enclosed rafter spaces shall resist building ignition from the intrusion of embers and flame through the vent openings. Exterior wall covering, or wall assembly, shall be of noncombustible construction, ignition resistant, heavy timber, or made of fire-retardant wood. Door shall be solid core having stiles and rails not less than 1-3/8-in. thick with interior panel thickness not less than 1-1/4-in. thick, or minimum 20-minute fire rated. Exterior window shall have a minimum 20-minuted fire rated glazing or tempered.

- ◊ **Floor Plan** (106.4.3,1207 R302.3, R304.1-2, MC 5044.4.2, MC 304.4, MC 920, ECM 82.8, EC 210.12). All habitable rooms shall have a minimum 70 square feet with no less than 7 feet horizontal dimension, except for kitchens. A legend box shall be provided to differentiate symbols utilized on the plans. Forced Air Unit (F.A.U), Water Heater, Heating/Ventilation/Air Condenser (HVAC), electrical panel/subpanel with amperage, 22-inch x 30-inch attic access location /dimension /pathway to equipment, smoke detectors, carbon monoxide, clothes dryer exhaust dimension, kitchen hood exhaust, ground fault circuit interrupter (GFCI), arc fault circuit interrupter (AFCI), windows sizes and location, and door widths and door landings shall be shown on the plan. Walls separating dwelling unit shall not be less than one-hour fire rated for non-sprinklered, or ½ fire rate for sprinklered buildings with sound transmission rating of 50 or more, **except for JADU**. A window and doors schedule with the image as shown below as shall be re-printed on the plans. **Existing (E)** and **New (N)** windows/doors shall be clearly specified on the plan and verified-in-the-field by the County Building Inspector to meet minimum egress requirements.



- ◊ **Egress Door and Landing** (R311.2, R311.1-3) – At least one side-hinged egress door with not less than 3-ft wide and 6-ft 6-in in height, with a minimum clear width of 32-inches, with a 36-in clear landing. Egress door readily open from inside without the use of a key or special or effort. Threshold shall be less than 1.5-inch when it swings out and less than 7.75-inch when it swings inside.

- ◊ **Egress Window** (R310.2, R310.2.2, R312.2) – Bedrooms are required to have egress window(s) with a minimum 24-inch height and 20-inch clear width or net clear opening areas of not less than 5.7 SF. Bottom clear height less than 44-inch measured from the floor. Sill or header heights of openable windows specified on the ELEVATION PLANS.

- ◊ **Glazing** (R308.4). Aggregate glazing must have minimum 8% of floor area or artificial light(s) provided. Glazing are required for windows or door side lites within 40” of the locking device of the door, operable panels of swinging, sliding, or bifold doors, fixed or operable glass panels exposed less than 60-inches above the walking surface, within 24-inches of either side of the door in the plane of the door in a closed position, on a wall perpendicular to the plane of the door in a closed position and within 24-inches of the hinge side of an in-swinging door, and/or walls, or enclosures, containing showers, bathtubs, etc. less than 60-inch from water surface.

- ◊ **Ventilation** (R303.1, R303.2). Ventilation must be minimum 4% of the floor area, or a Whole House ventilation system will be installed (see T-24). Existing will be verified by the building inspector and owner agrees to revise/correct existing ventilation system to meet minimum Title-24 Energy Requirements.

- ◊ **Bathrooms** (R303.3 EX, R303.3.1, PC 402.5,408.3, PC 408.3) - Bathrooms or water closets shall have 3 square feet openable glazing area, or 50 CFM intermittent or 20 CFM continuous mechanical ventilation. Bathrooms with bathtub, or shower, must be ventilated for humidity control. A minimum 30-in x 24-in clearance in front of water closet. The net shower area minimum of 1024 square feet with 30-inch diameter circle. All showers and tub-showers shall have a pressure balance, thermostatic mixing valve, or a combination pressure balance/thermostatic mixing type valve.

- ◊ **Smoke Detectors** (R314). Smoke detectors shall be installed at bedroom(s), within vicinity of bedroom(s), every level of the dwelling, and not less than 3 ft. from bathroom/shower. They shall be interconnected hard-wired battery backup and shall be installed in accordance with NFPA 72. For attached ADUs or JADUs, there should be one alarm at each dwelling partition wall.

- ◊ **Carbon Monoxide** (R315)**.** Carbon monoxide alarms shall be installed within vicinity of bedroom(s), every level of the dwelling, and near fuel-burning appliance in bedroom or bathroom. They shall be interconnected hard-wired with battery backup. For attached ADUs or JADUs, there should be one alarm at each dwelling partition wall.

- ◊ **Above Ground Access** (R303.7.R311.5-8, R312.1-3). ADU/JADU constructed more than 30-in above the ground level with 36-inch horizontally open side shall require guardrails. The guard height shall be a minimum of 42-inch with openings no greater than 4-inches in diameter. Stairs necessary for separate egress access shall have a minimum width of 36-inch, maximum rise of 7.75-inch, minimum run of 10-inch with a maximum 3/8 variance, and tread depth of less 11-inch nosing are required. A minimum of one continuous handrail (Type I or Type II) on stairways with riser of 4 or more shall be provided with height between 34 – 38 inches and openings less than 4 3/8” in diameter. All stairways shall have an illumination level on tread runs of not less than 1 foot-candle (11 lux). Connections of guardrails or handrails shall be adequate to support concentrated load of 200 pounds applied in any direction or any point along the top.

- ◊ **Attic Vents** (R806.1, R806.2). The net free ventilating areas shall not be less than 1/150 of the attic space or 1/300 above and below the attic space. Openings shall have corrosion-resistant wire mesh or other approved material with 1/16-in. minimum and 1/4-in. maximum opening. A minimum of 1-in. airspace shall be provided between insulation and roof sheathing.

- ◊ **AFCI** (CEC 210.12). AFCI protection is required for any new branch circuits rated 120-volt, 15- or 20-amperes installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, and similar rooms/areas. Branch circuits in these areas that are modified, replaced, or extended more than six feet shall have AFCI protection. Branch circuits in these areas where additional outlets or devices are added shall have AFCI protection.

- ◊ **GFCI** (CEC 210.8(A)). GFCI protection is required for all new receptacles rated 125-250 volt, installed in bathrooms, garages, accessory buildings that have a floor located below grade level not intended as habitable space, outdoors, crawl spaces (at or below grade level), basements, countertop surfaces in kitchens, within 6 feet of a sink, boathouses, within 6 feet of a bathtub or shower stall, and laundry areas.

- ◊ **Roof Plan** (R9021, R905). Additional roof gravity load on existing structure shall not exceed 5% of existing conditions. Roofs shall have a minimum 1/4: 12 slope (2%) for drainage. An approved 3rd party listing specific to the roofing product shall be installed. During inspection, the product technical sheet shall be available on site to verify compliance to the requirements per the table below. In addition, the roof architectural plan shall have the following items:
  - ♦ Roof slope(s)
  - ♦ Manufacturer and Type of Built-up Roof(s) (if applicable)
  - ♦ Type/manufacturer and ICC/UL number of shingle/tile roof
  - ♦ Cool roof with Cool Roof Rating Council (CRRC)* listing as indicated in the table below and Solar Reflectance Index (SRI) value used for 3-year solar reflectance and thermal emittance values.

Table 4.106.6(1) Low Rise Residential

Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	SRI
≤ 2:12	0.65	0.85	78
≥2:12	0.25	0.85	20

Note that roof repairs and roof replacement when the roof area is equal or less than 50% of existing are exempt.

  - ♦ Roof covering with Class C or better
  - ♦ Solar Panel location (if any)
  - ♦ Attic Vent Types and Location
  - ♦ Fire Rated Projection, or Eaves
  - ♦ Roof drainage, deck drains, or rain barrel outlets/locations

- ◊ **Exterior Elevations Views** (R305.1) **-** A minimum of two elevation views on each orthogonal direction shall be provided on the DRP approved plans. Windows and door locations and dimensions shall be consistent with the floor plans provided. Top floor and finish floor elevations shall be labeled on each elevation views. Ceiling height shall not be less than 7 feet. Door heights not less than 6 feet and 6-inches and windowsill height shall not be greater than 44-inches. Areas under stairways shall have a minimum 6 feet and 8-inches headroom.

- ◊ **Existing Single-Story Garage/Storage Building to Accessory Dwelling Unit/JADU Framing and Foundation** (106.4.3, R301.2, R317.1, R403, R502, R602.11.1, R703.7.2.1, RCM 401.4 Art 1, R802, R803, 2305.5,2308.6, Chapter 16). Existing structural elements shall be clearly verified by the County inspector, owner, and/or owner’s agent prior to start of work. A pre-construction meeting with the County Building Inspector is required to be scheduled and attended by the owner, or owner’ agent, upon receiving the expedited permit. The means and methods of construction are solely the responsibility of the owner, or owner’s agent. Standard notes and details are provided herein. By using these sheets, the owner’s, or owner’s agent, fully understands that it is their responsibility to provide the County Inspector with a more precise and specific repair/retrofit/upgrade detail customized and/or applicable to his/her/their project as required for project completion.

  The pre-construction meeting verification of the existing structural conditions shall include: 1) determining the existing span and condition of roof framing members; 2) determining existing ceiling assembly for new installation or structural reinforcement; 3) verifying ridges (ridge board/ridge beam) for additional strapping, repair, or enhancement; 4) identifying existing roof sheathing and/or material, wall stucco, or sill plate condition for replacement or repair; 5) determining existing concrete slab, or floor joists, condition for potential retrofit; 6) opening drywalls to determine existing stud sizes, wall bracing, installation of required fire protection, or envelope insulations; 7) checking windows, doors, and/or attic spaces for egress, ventilation, glazing, and headroom requirements; 8) exposing a section of the foundation to verify existing footing depth for additional anchoring and bracing; and 9) determine mechanical, electrical, and plumbing (M/E/P) connection points and/or condition of existing M/E/P installed items.

  The pre-construction meeting shall clarify and provide a mutual understanding between the County Inspector and all parties involved on what existing conditions shall be repaired/replaced. For instance, existing unstable roof framing members, lacking shear transfer from foundation to roof, pending or potential structural collapse, or dilapidated or damaged roof diaphragm, rafters, or ceiling joists shall be reinforced, or replaced per the Residential Code roofing span tables (see Detail 1). Some structures will require additional collar ties, strapping over the ridge at the exterior, shingle/roofing replacement, or installation of new beams or blocking. New exterior wall openings (doors and windows) shall have headers in compliance with the Residential Code (see Detail 4). Potential eave and roof attic ventilation locations shall be identified in the field. Unprotected openings (i.e., ventilation or annular spaces) on fire rated exterior walls are not allowed. Minimum 30-inch headroom is required for attic spaces and/or above stairs. Sill plates shall be minimum 8-inches off the natural ground are required for termite protection, or protection shall be installed (see Detail 7). Roof gutters or spouts, and/or a minimum 26-gage weep screed are required for roof drainage. Regional Planning approved architectural floor plans shall specify the Existing (E) and New (N) windows and doors and shall be field verified to meet the minimum egress, ventilation, and glazing requirements. If not meeting these requirements, then upgrades shall be done for code compliance. Additional gravity loads exceeding 5% of the existing structure, or additional lateral demand exceeding 10% of the existing, shall require a registered engineer/architect.

  Existing unconditioned single-story garage/storage building (detached or attached) shall be converted into a conditioned floor area with installation of the necessary heating, ducting, and/or insulation per the Energy Code standard. The Title 24 prescriptive, or performance, calculations shall be submitted during the permit application and must entail the actual field work. Proposed insulation in the T-24 calculations shall be suitable in the selected or existing lumber at the field site. Radiant barrier, cool roof, and/or HERS verification inspections shall be indicated on the submitted T-24 calculation set. Any deviations from the approved T-24 calculations will require the owner, or owner’s agent, to get revised approval from their respective BSD District Office/Contract City.

  Walls shall be braced with anchors and hold downs per Section 602 of Residential Building Code or Chapter 23 Light Wood Framing of Building Code (see Wood Provision Bracing Requirements). A shear/brace wall schedule specifying construction details, nailing, allowable capacity, and hold down locations shall be provided to the County inspector at the time of construction, or shown, if existing. Typically, a 15/32 Structural 1 plywood with 8d common nail, minimum 1 3/8-inch penetration into the framing member or blocking and a 6-inch on center panel edge fastener capable of minimum allowable shear capacity of 280 pounds per foot is required for Wood Structural Panels. Each hold down (i.e., HDU2 or above) shall be capable of resisting a minimum 1800 pounds per foot of uplift.

  The operable front entrance of an existing garage shall be converted to a permanent wall and a new foundation at this location shall be installed and anchored to the existing continuous footing around the perimeter of the garage. Connections of the new structural elements to the existing as shown per the attached details, or similar retrofit details from a registered professional, shall be provided to the County inspector at the time of construction. Existing foundation and concrete slab shall be verified-in-field by the owner, or owner’s agent, at the time of the pre-construction meeting. If the existing continuous footing does not have the minimum depth (7 inches) with a minimum 3-inch clear cover to anchor the new hold downs (as required for bracing) or even encountered to be nonexistent (depth at or less than 6-inches), then the foundation shall be retrofitted, underpinned, and/or a new concrete footing tied with cement grout, or epoxy, shall be installed. Extensive damage on the concrete slab shall be retrofitted with either a new concrete layer on top of the roughened existing surface, or additional vapor barrier. The owner, or owner’s agent, agrees to repair and/or upgrade structural elements not meeting the building code standards, posing life and safety hazards, or extensively deteriorated.

LOS ANGELES COUNTY EXISTING SINGLE-STORY GARAGE CONVERSION TO ACCESSORY DWELLING UNIT & JUNIOR ACCESSORY DWELLING UNIT STANDARD NOTES & DETAILS

N1

Revised on: 03/20/23
By: J.E.

- **Vapor Barrier** (1907.1 & R506.2.3). Approval of vapor retarder equivalent products for use on existing slabs are shown below. During construction, the existing slab must be shown to the building inspector to have the minimum required thickness, and to be reasonably free of settlement or expansive soils cracks. A 2-inch sound existing slab may be used with a 2-inch concrete topping. A 3-inch sound existing slab may be approved without a concrete topping by the District Office Manager. Products with an evaluation report based on the current code edition and evaluated to International Code Council (ICC) Evaluation Services (ES) Acceptance Criteria for Waterproofing Membranes for Flooring and Shower Lining (AC115) may be used. Examples of such products are listed below. Additional products may be accepted by the Building Plan Checker if upon review of the evaluation report, the product was evaluated to ICC Acceptance Criteria for Waterproofing Membranes for Flooring and Shower Lining (AC115). The application shall comply with the respective approved evaluation report and manufacturer's published installation instructions.

Approved Products

- ICC ES Report No. 1413 - Red Gard Waterproofing and Crack Prevention Membrane, C-Cure Pro-Red Waterproofing Membrane 963, CBP 232 Waterproofing and Anti-Fracture Membrane, and Jamo Waterproofing Membrane.
- ICC ES Report No. 2417 - LATICRETE Hydro Ban
- ICC ES Report No. 2785 - Polycoat-Aquatight and Flexideck P-TW Underlayment Waterproofing Systems
- ICC ES Report No. 3474 - Mapelastic Aqua Defense Waterproofing Membrane
- ICC ESR #2662 – AVM System 700 Waterproofing Membrane
- LARR (City of Los Angeles Research Report) #26218 – AVM Aussie Gas-Lock 420 Epoxy Vapor Barrier.

- **Title-24 Energy**. Existing single-story garage conversion to an ADU is considered an “Addition” per the 2022 California Energy Code. Converting an existing detached, or attached, unconditioned garage/storage building to ADU would increase the conditioned floor area (CFA) and volume in the existing garage/storage building only. Alteration to components that previously met any ventilation requirements shall continue to meet these requirements upon completion of the alterations. Additional requirements may be triggered as part of altering components for ventilation, lighting, HVAC, building envelope, or water heater. The following are minimum requirements per the Title 24 CA Energy Code:
  - Any length of ducts extended from existing duct system to serve the addition shall meet alterations requirements for duct sealing and duct insulation per Energy Section 150.2(b)1Di and 150.1(b)1Dii
  - New, or replacement, space heating systems serving the addition may be heat pump or gas
  - Completely new space conditioning systems (ducting and equipment) require duct insulations and HERS testing (leakage, airflow and fan efficacy, refrigerant change in climate zones 2,8-15, and air filtration) (Energy Section 150.2(a), 150.0 (m))

Lighting (Energy Section 150.0(k))

- All lighting shall meet high luminous efficacy requirements of Table 150.0-A.
- Recessed downlights shall not contain screw base lamp sockets.
- Readily accessible wall mounted dimming controls shall be provided in habitable spaces (such as living rooms, dining rooms, kitchens, bedrooms). Lighting controlled by a vacancy sensor is exempt from having a dimmer control.
- An occupancy or vacancy senor shall be provided for at least one luminaire in bathrooms, garages, laundry rooms, utility rooms, and walk-in closets.

Roofing (300 SF or more)

Low-slopped roofs climate zones 13, 15 - Minimum Aged SR 0.63, Minimum (Thermal Emittance) TE 0.75
Steep-sloped roofs in climate zones 10-15, Minimum Aged SR 0.20, Minimum TE 0.75

Roof and Ceiling insulation (700 SF or less)

Climate zones 1, 2, 4, 8-16 overall assembly U-factor 0.025, use R-38
Climate zones 3, 5-7 overall assembly U-factor 0.031, use R-30
Exception: Must be enclosed when rafter and ceiling meet per Energy Section 150, QII is not required

Wall Insulations

Existing walls where existing siding is unaltered
  R-21 in 2x6 wood-framed, no continuous
  R-15 in 2x4 wood-framed, no continuous
QII Exceptions:
  No insulated headers for existing door and windows
  No air sealing if existing air barrier no altered

New windows, skylights, and glazed doors

Meet U-factor .30 and SHGC .23 per Energy Section150.1c
Fenestration area per CFA and climate zone

Area (SF)	Max Total Fenestration (SF)	Max West-Facing Area Climate Zones 2, 4, 6-15
Over 700	Larger of 175 SF or 20% CFA	70 SF
401 to 700	Larger of 120 SF or 25% CFA	60 SF
400 or less	Larger of 75 SF or 30% CFA	60 SF

Whole-Dwelling Unit Mechanical Ventilation

New ADUs meet Energy Section 150.0(o) Indoor Air Quality Requirements regardless of size
Exempts whole building ventilation for JADUs additions
Whole dwelling unit ventilation per ASHRAE 62.2
  2022 Equation 150.0-B: $Q_{tot} = 0.03 \times A_{floor} + 7.5 \times (N_{br} + 1)$
    Q_{tot} = total required ventilation rate, cfm
    A_{floor} = dwelling-unit floor area, SF
    N_{br} = number of bedrooms (not less than 1)

Local Mechanical Exhaust

Kitchen and bathroom exhaust requirements added to incorporate ASHRAE 62.2
Adds Table 150.0-E, Table 150.0-F, Table 150.0-G for ventilation rates and capture efficiency\

Table 150.0-E Demand-Controlled Local Ventilation Exhaust Airflow Rates and Capture Efficiency

Application	Compliance Criteria
Enclosed Kitchen* or Nonenclosed Kitchen	Vented range hood, including appliance-range hood combinations shall meet either the capture efficiency (CE) or the airflow rate specified in Table 150.0-G as applicable.
Enclosed Kitchen	Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s) or a capacity of 5 ach
Non-enclosed Kitchen	Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s)
Bathroom	50 cfm (25 L/s)

**ASHRAE 62.2 - Enclosed kitchen: kitchen whose permanent openings to interior adjacent spaces do not exceed 60 square feet in total*

Table 150.0-F Continuous Local Ventilation Exhaust Airflow Rates

Application	Compliance Criteria
Enclosed kitchen	5 ach, based on kitchen volume
Bathroom	20 cfm (10 L/s)

Table 150.0-G Kitchen Range Hood Airflow Rates (cfm) and ASTM E3087 Capture Efficiency (CE) Ratings According to Dwelling Unit Floor Area and Kitchen Range Fuel Type

Dwelling Unit Floor Area (ft2)	Hood Over Electric Range	Hood Over Natural Gas Range
>1500	50% CE or 110 cfm	70% CE or 180 cfm
>1000 - 1500	50% CE or 110 cfm	80% CE or 250 cfm
750 - 1000	55% CE or 130 cfm	85% CE or 280 cfm
<750	65% CE or 160 cfm	85% CE or 280 cfm

Airflow rate measurement for local exhaust by the installer
Clarifies only measurement methods in RA3.7
  Airflow rate when capture efficiency is used for compliance
  Table 150.0-H prescriptive duct sizing table may be used for capture efficiency compliance

Table 150.0-H Prescriptive Ventilation System Duct Sizing [ASHRAE 62.2, Table 5-3]

Fan Airflow Rating, cfm at minimum static pressure 0.25 in. water (L/s at minimum 62.5 Pa)	≤50 (25)	≤80 (40)	≤100 (50)	≤125 (60)	≤150 (70)	≤175 (85)	≤200 (95)	≤250 (120)	≤350 (165)	≤400 (190)	≤450 (210)	≤700 (330)	≤800 (380)
Minimum Duct Diameter, in. (mm) (see note a, b) For Rigid duct	4 e (100)	5 (125)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	9 (230)	10 (255)	10 (255)	12 (305)	12 d (305)
Minimum Duct Diameter, in. (mm) (see note a, b) For Flex duct (see note c)	4 (100)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	NP	NP	NP

Footnotes for Table 150.0-H:
a. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. NP = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted.
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm)
f. When a vented range hood utilizes a capture efficiency rating to demonstrate compliance with Energy Section 150.0(o)1Giiib, a static pressure greater than or equal to 0.25 in. of water at the rating point shall not be required, and the airflow listed in the approved directory corresponding to the compliant capture efficiency rating point shall be applied to Table 150.0-H for determining compliance.

Sound ratings for local exhaust use minimum airflow rates required per Energy Section 150.0(o)1G

HERS verifications (Energy Section 150.0(o)2A-C)
Whole-dwelling unit ventilation - Airflow measurement per ASHRAE 62.2 for balanced airflow rate determination and measurement of systems with multiple operating modes
Kitchen local exhaust - vented range hoods installed to meet IAQ, adds use of capture efficiency ratings for compliance
Heat recovery ventilation (HRV) and Energy Recovery Ventilation (ERV) – required for fan efficacy less than 1.0 W per cfm

Water heating (Energy Section 150.2(a)1D)
Heat pump water heater – either: a) not located outdoor, on R10 surface, demand responsive; OR b) High efficiency NEEA Tier 3
Gas or propane instantaneous water heater: a) 200,000 BTU or less; b) no storage tank
Additions less than 500 square feet - instantaneous electric allowed or meet Energy Section RA4.4.5

Green Building Standards. The following items shall be implemented during construction.

NOTE: Numbers in the parenthesis () refer to sections of the 2023 edition of the County of Los Angeles Green Building Standards Code, Table (T).

Plumbing fixtures and fixture fittings on the plans shall comply with the following flow rates (4.303.1):

- Water Closets – 1.28 GPF
- Urinals – 0.5 GPF
- Wall-mounted urinal – 0.125 GPF
- Single showerhead – 1.8 GPM at 80psi
- Multiple showerheads – 1.8 GPM at 80psi for all combined showerheads
- Lavatory faucets – 1.2 GPM at 60psi
- Lavatory faucets in public use areas – 0.5 GPM at 60psi
- Metering faucets - .20 gallons per cycle
- Kitchen faucets – 1.8 GPM at 60psi

Annular spaces around pipes, electrical cables, conduits, or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry, or a similar method acceptable to the enforcing agency. (4.406.1)

Fireplaces shall be direct vent sealed combustion type. Indicate on the plans the manufacturer name and model number. (4.503.1)

At the time of rough installation, during storage on the construction site, and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal, or other acceptable methods to reduce the amount of water, dust and debris which may enter the system. (4.504.1)

Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19% moisture content. Insulation products which are visibly wet or have high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. (4.505.3)

All mechanical exhaust fans in rooms with a bathtub or shower shall comply with the following (4.506.1):

Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.

Fans must be controlled by a readily accessible humidistat unless functioning as a component of a whole house ventilation system. Humidity control shall be capable of adjustment between a relative humidity range of 50% and 80%.

Adhesives, sealants, and caulks shall meet or exceed the standards outlined in Section 4.504.2.1 and comply with the VOC limits in Tables 4.504.1 and 4.504.2 as applicable. (4.504.2.1)

Paints and coatings shall meet or exceed the standards outlined in Section 4.504.2.2 and comply with the VOC limits in Table 4.504.3. (4.504.2.2)

Aerosol paints and coatings shall meet or exceed the standards outlined in Section 4.504.2.3. (4.504.2.3)

All carpet installed in the building interior shall meet all the testing and product requirements of one of the following:

Carpet and Rug Institute’s Green Label Plus Program OR

California Department of Public Health Standard Method for the testing of VOC Emissions (Specification 01350) OR

NSF/ANSI 140 at the Gold Level OR

Scientific Certifications Systems Indoor Advantage Gold(4.504.3)

All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label Program. Carpet adhesives shall not exceed a VOC limit of 50 g/L. (4.504.3.1, 4.504.3.2)

A minimum of 80% of floor area receiving resilient flooring shall comply with one of the following (4.504.4):

Products certified as a Low-Emitting Material in the CHPS High Performance Products Database, OR

Products certified under UL GREENGUARD Gold (Formerly the Green guard Children & Schools program), OR

RFCI Floor Score program, OR

Meet the California Department of Public Health Standard Method for the testing of VOC Emissions (Specification 01350)

Composite wood products (hardwood plywood, particle board, and MDF) installed on the interior or exterior of the building shall meet or exceed the standards outlined in Table 4.504.5. Verification of compliance with these sections must be provided at the time of inspection. (4.504.5)

TABLE 4.504.1/TABLE 5.504.4.1
ADHESIVE VOC LIMIT[1,2]
Grams of VOC per Liter of Coating,
Less Water and Less Exempt Compounds

ARCHITECTURAL APPLICATIONS	VOC LIMIT
Indoor carpet adhesives	50
Carpet pad adhesives	50
Outdoor carpet pad adhesives	150
Wood flooring adhesives	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt tile adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Single-ply roof membrane adhesives	250
Other adhesives	50
SPECIALITY APPLICATIONS	
PVC welding	510
CPVC welding	490
ABS welding	325
Plastic cement welding	250
Adhesive primer for plastic	550
Contact adhesive	80
Special purpose contact adhesive	250
Structural wood member adhesive	140
Top and trim adhesive	250
SUBSTRATE SPECIFIC APPLICATIONS	
Metal to metal	30
Plastic foams	50
Porous material (except wood)	50
Wood	30
Fiberglass	80

If an adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content shall be allowed.

For additional information regarding methods to measure the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168

TABLE 4.504.5/TABLE 5.504.4.5
FORMALDEHYDE LIMITS[1]
Maximum Formaldehyde Emissions in Parts per Million

PRODUCT	CURRENT LIMIT
Hardwood plywood veneer core	0.05
Hardwood plywood composite core	0.05
Particleboard	0.09
Medium density fiberboard	0.11
Thin medium density fiberboard[2]	0.13

1. Values in this table are derived from those specified by the California Air Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E 1333. For additional information, see *California Code of Regulations*, Title 17, Section 93120 through 93120.12.
2. Thin medium density fiberboard has a maximum thickness 5/16 inch (8mm).

TABLE 4.504.2/TABLE 5.504.4.2
SEALANT VOC LIMIT
Less Water and Less Exempt Compounds in Grams Per Liter

SEALANTS	VOC LIMIT
Architectural	250
Marine deck	760
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420
SEALANT PRIMERS	
Architectural Nonporous Porous	 250 775
Modified bituminous	500
Marine deck	760
Other	750

Note: For additional information regarding methods to measure the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168.

TABLE 4.504.3/TABLE 5.504.4.3
VOC CONTENT LIMITS FOR ARCHITECTURAL COATING[2,3]
Grams of VOC per Liter of Coating,
Less Water and Less Exempt Compounds

COATING CATEGORY	VOC LIMIT	COATING CATEGORY	VOC LIMIT
Flat coatings	50	Magnesite cement coatings	450
Nonflat coatings	100	Mastic texture coatings	100
Nonflat high-gloss coatings	150	Metallic pigmented coatings	500
SPECIALTY COATINGS		Multi-color coatings	250
Aluminum roof coating	400	Pretreatment wash primers	420
Basement specialty coatings	400	Primers, sealers, and undercoaters	100
Bituminous roof coatings	50	Reactive penetrating sealers	350
Bituminous roof primers	350	Recycled coatings	250
Bond breakers	350	Roof coatings	50
Concrete curing compounds	350	Rust preventative coatings	250
Concrete/masonry sealers	100	Shellacs: Clear Opaque	 730 550
Driveway sealers	50	Specialty primers, sealers and undercoaters	100
Dry fog coatings	150	Stains	250
Faux finishing coatings	350	Stone consolidants	450
Fire resistive coatings	350	Swimming pool coatings	340
Floor coatings	100	Traffic marking coatings	100
Form-release compounds	250	Tub and tile refinish coatings	420
Graphic arts coatings (sign paints)	500	Waterproofing membranes	250
High-temperature coatings	420	Wood coatings	275
Industrial maintenance coatings	250	Wood preservatives	350
Low solids coatings[1]	120	Zinc-rich primer	340

Grams of VOC per liter of coating, including water and including exempt compounds.

The specified limits remain in effect unless revised limits are listed in subsequent columns in the table.

Values in this table are derived from those specified by the California Air Resources Board, Architectural Coatings Suggested Control Measure, February 1, 2008. More information is available from the Air Resources Board.

Building Inspection Checklist. This section is an inspection checklist based upon the most common construction sequences, methods of construction, and associated inspections. It is recommended that the owner, or owner’s agent, read carefully through this prior to undertaking any work and/or scheduling inspections.

How to Schedule Inspections. Inspection requests shall be made on Epic LA, Epicla.lacounty.gov , or calling the local BSD District/Contract City Office. The requestor shall specify the date and time of the inspection service. BSD reserves the right to schedule the requested inspection based upon the staff availability. If the requested date is not available, then BSD will reschedule on the closest available date. Confirmation calls/emails/voicemail/or text on scheduled inspections will be sent to the requestor.

When to Schedule Inspections. Inspections shall be scheduled for anticipated dates on which the stages of construction requiring periodic inspections are completed and ready. Inspection dates for incomplete work will result in failed inspections. Multiple failed inspections will result in additional fees. If work is not ready on the day of scheduled inspection, then the inspection requestor shall cancel at a minimum of 24-hours before the scheduled date and re-schedule at a more appropriate time frame. Bad weather conditions (i.e., wet/muddy conditions), unsafe work inspection areas (i.e., unprotected electrical live wire, missing OSHA certified equipment for access) or other force majeure (i.e., fire, earthquake, pandemic closures, or large civil unrest), leading to a hazardous work environment for the County Inspector will result in cancelation

How to Prepare for Inspections. An adult over the age of 18 shall be at the site to receive the inspector, or a written notice with Permission to Enter from owner shall be posted on building next to valid permits for unattended and unoccupied structure. Minors are not allowed to assist the County Building Inspector. No dogs or animals shall be in the inspection area. The requestor shall contact the County Building inspector between 8:00 AM – 9:30 AM on the day of the inspection to determine exact time frame. The owner/contractor shall ensure that all work is exposed and readily accessible for inspection. Inspectors do not carry tools or ladders. Ladders shall be up and secured-in-place and extended sufficiently above the inspection surface (3 feet minimum) or into attic access to allow the inspector to safely enter. Electrical devices shall be open and attended by a competent electrical worker. No inspection will be performed on open unattended, or unopened, electrical panels. County inspectors will not open electrical panels for the owner/contractor. A project representative shall be on site. Safe site access, permit cards, approved stamped plans, safe route to the inspection area, and OSHA approved equipment required to perform inspection shall be provided on the day of inspection.

Pre-Construction Meeting

The mandatory Pre-Construction Meeting is the most important inspection prior to the start of work. Please make sure all Agency Referral approvals are completed and all permits have been issued. Take time to review all project documentations prior to this meeting.

The owner/contractor shall meet with the County Building Inspector on-site to review the approved plans, existing field conditions, and Standard Notes and Details for the proposed ADU/JADU. Both the owner and contractor are recommended to be present to ask any questions and/or voice any concerns. This pre-construction meeting shall review set-back, utility pathways and locations, connections, and existing framing and foundations. Existing conditions shall be exposed for the County Building Inspector to see and verify per the approved plans. Please feel free to ask any questions regarding the whole process during this meeting including the inspection timeline and how often and how far out are the inspections. There are no wrong questions; only ones that are not asked.

Mandatory Pre-Construction Meeting: See attached Pre-Inspection Checklist Below.

Address: A separate address is required for different utility connections (i.e. new electrical panel of the ADU), or different side street/driveway entrance to the proposed new dwelling. The separate address shall be obtained prior to the final inspection. All permits shall be corrected for proper records. Subordinate ADU addresses shall be posted in a conspicuous area for emergency and first responders. JADUs are not allowed to have a separate address as it is considered part of the primary dwelling unit.

Demolition and Grading/Drainage:

Demolition: All demolition shall be completed prior to the start of any construction activity, except for interior/exterior walls that shall be protected in-place where residents continue to reside. This process will require coordination and approval of the County Inspector.

Grading/Drainage: R401.3, CBC Section 1804.0, CBC Section 4.106.3- Elevations, slopes, and topography at the project site shall match the approved plans. Site preparation for drainage is required for retaining walls, swales, soil removal, or additions to the level of the earth to ensure all water is diverted away from the foundation into an approved catch basin. Run off shall not be diverted into any neighboring property, or public right-of-way (PROW). Contractor shall have possible additional contingency plans for erosion and runoff. All water shall exit 2% away from the new structure and all foundation sill plates shall be at a minimum of 8-inches above the existing grade. If the existing sill plate is at the same grade, then a repair detail shall be provided to the County Inspector. ADU garage conversion at, or less than 2 feet from, the property line may require a rain gutter system with down spouts to divert water away from the adjacent property. Certain sites may also require a mechanical pump properly sized to discharge water at a downstream catch basin.

Note: *Nothing herein shall supersede any or all requirements of the California Title 24 Building Energy Standards (HERS/CHEERS), or the most recent Code Adoptions of the Los Angeles County Code of Regulations, Los Angeles County Green Building Standards, Los Angeles County Energy Standards, Los Angeles County Low Rise Mandatory Measures at the time of permit issuance.*

Pre-Construction Inspection Checklist for Accessory Dwelling Unit (ADU) and Junior ADU

Mandatory requirement: *Project may not start until this inspection is completed.*

This document is not intended for new construction projects or projects containing additions. This document is intended for ADU and Junior ADU projects in existing building such as garage conversions (both detached and attached).

Inspector/Office Overview: Inspection Process, Timelines, Inspection Checklist, Contacts, Plans/Details

Site Conditions

◊ Plans Approved, Permits Issued
◊ Dig Alert: Call before you dig **811** or **800-422-4133**
◊ Demolition: C&D Recycle Reuse Plan (reminder keep receipts)
◊ Side Yard and Year Yard Setbacks (location of fire rated wall assemblies)
◊ Storm Water Flow (storm water pump if lower that street)
◊ Backflow- Sewer location and drainage (Sewage Ejection Pump Required if the pipe downward slope is above the connection point)

Utilities

◊ Existing Incoming Utility (if any utility connection can it comply)
◊ Electrical Connection/ SCE Coordination (Location) Separate Meters/Sub-Panels
◊ Gas Connection Location (routing of gas line)
◊ Additional Meter/Connection to Existing
◊ Sewer Connection Location Downstream of Home

Existing Structure

◊ Foundation/Footings (retrofit or new footings may be required)
    ◊ Visual Condition of Existing Foundation/Slab/Footings
    ◊ Depth of Existing Footings (verify pothole depth multiple locations as need)
    ◊ Garage Opening footing (must have potholes verifiable footing entire length)
    ◊ Slab Condition (vapor barrier system type per LACO Approved Systems) Vapor Barrier required prior to any interior framing

◊ Exterior
    ◊ Foundation Height (Sheet flow of water away from structure)
    ◊ Condition of Exterior walls, exposed eves etc.
    ◊ Condition of Existing Roof System
    ◊ Fire setbacks for fire rated walls (eve/roof/opening protection)
    ◊ Equipment set back location (location of future equipment)
    ◊ Finish wall systems and Condition (Stucco/Siding Etc.) Weather Resistive Barrier in act.

◊ Interior
    ◊ Existing/future Roof Framing system (Residential Roof Rafter Span Index)
    ◊ Existing/future ceiling joist (Residential ceiling span index)
    ◊ Existing wall Anchors and hold downs (Minimum 1/2” AB with 3x3 washers, distance apart)
    ◊ Visual Verification of existing Weather resistive barrier behind stucco/siding

Site Protection/Safety and Required BMP’s

◊ Clean Site is a Safe Site
◊ Storm Water Protections, Covered Stockpiles, Covered Unattended Trenches
◊ No Work from Public Right of Way (PROW)

NOTES:____

Date: ________

Owner/Contractor: ____________________ Inspector: ______________________________

NEW SEWER BACKWATER VALVE REQUIREMENT

Effective immediately no plumbing or sewer permit shall be issued for any plumbing work unless a backwater valve protection determination form is filled out and signed by the applicant. The signed copy shall be attached to the permit and electronically filed under the permit record. If a backwater valve is required, the plumbing permit application shall include a backwater valve.

BACKWATER VALVE PROTECTION DETERMINATION

Job Address: ____

Section 710.1 of the Los Angeles County Plumbing Code requires that drainage piping serving Plumbing fixtures installed on a floor level that is below the elevation of the next upstream manhole cover of the public or private main sewer serving such drainage piping shall be protected from backflow of sewage by installing an approved type of backwater valve.

It is the responsibility of the permittee to determine whether the relative elevations of the floor with plumbing fixtures and sewer manhole cover at this job site are such that a backwater valve is required.

I, ____________________________, (print) the LICENSED CONTRACTOR / OWNER (circle one) have reviewed the conditions at the job site and have determined that:

☐ A backwater valve is required and is installed.

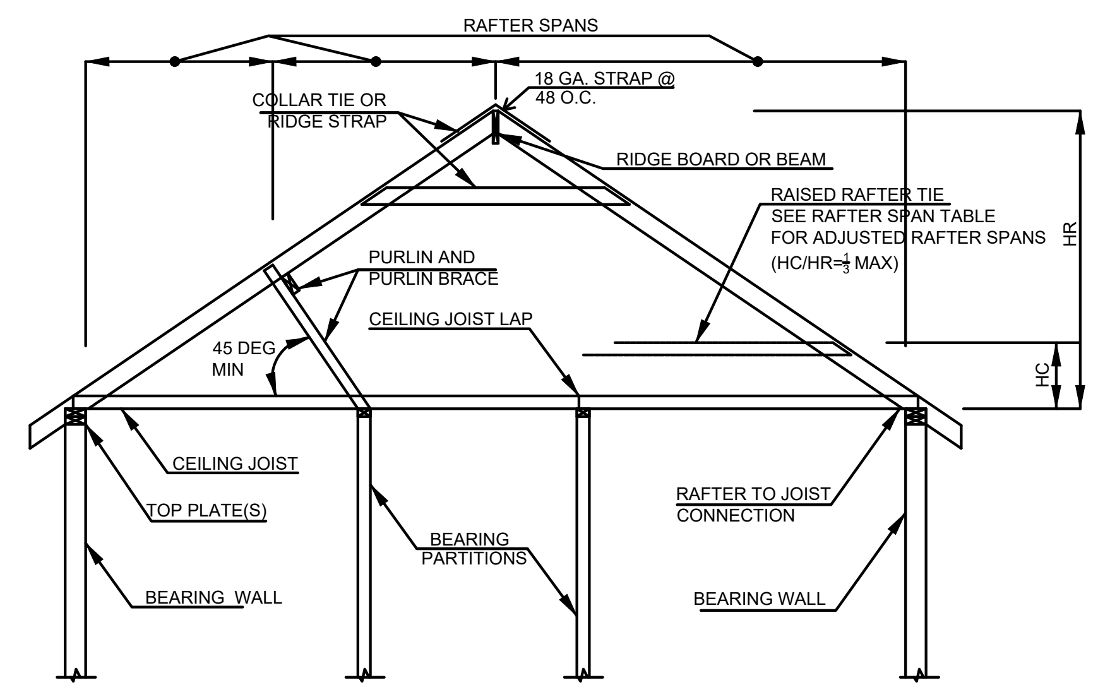
☐ No backwater valve is required. Plumbing fixtures are installed on a floor level that is not below the elevation of the next upstream manhole cover.

Signed: ________________________________ Date: ____________________

Public Works
LOS ANGELES COUNTY

LOS ANGELES COUNTY EXISTING SINGLE-STORY GARAGE CONVERSION TO ACCESSORY DWELLING UNIT & JUNIOR ACCESSORY DWELLING UNIT STANDARD NOTES & DETAILS

Revised on: 03/20/23
By: J.E.



FOR SI: 1 DEGREE= 0.018 RAD.
Hc= HEIGHT OF CEILING JOISTS OR RAFTER TIES MEASURED VERTICALLY ABOVE THE TOP OF RAFTER SUPPORT WALLS.
Hr= HEIGHT OF ROOF RIDGE MEASURED VERTICALLY ABOVE THE TOP OF THE RAFTER SUPPORT WALLS.

FIGURE R802.4.5
BRACED RAFTER CONSTRUCTION

ROOF SHEATHING SHALL COMPLY WITH CBC 2304.8.2 CONFORMING TO PROVISIONS OF TABLE 2304.8(1), 2304.8(2), or 2304.8(5) TO MEET THE REQUIREMENTS OF THE CODE.

TABLE 1
TABLE R802.4.1(9)
RAFTER SPAN ADJUSTMENT FACTOR

HC/HR[a]	RAFTER SPAN ADJUSTMENT FACTOR
1/3	0.67
1/4	0.76
1/5	0.83
1/6	0.90
1/7.5 or less	1.00

a. HC = Height of the ceiling joists or rafters measured vertically above the top of the rafters support walls; HR = Height of roof ridge measured vertically above the top of rafter support walls.

R802.5.2.1 Ceiling joists lapped shall not be less than 3 inches, or butted over bearing partitions or beams and toenailed to the bearing member.

R802.6 - Ends of each rafter and ceiling joists shall have not less than 1 1/2 inches of bearing on wood or metal and not less than 3-inches on masonry or concrete.

SIMPSON HU, or LU, or EQUAL JOIST U-Hangers may be required to installed the new ceiling joists or ceiling beams. Provide technical sheet specifications to the County Building Inspector prior to installation.

TABLE 2

RAFTER/CEILING JOIST CONNECTIONS
Roof live load 20 psf or less [(Table R802.5.2(1)]
Required number of 16d* common nails per connection, wood members shall be of sufficient size to prevent splitting due to nailing. Split members shall be removed and replaced.

Rafter Slope	Spacing (in)	Roof Span (ft)		
		12	24	36
3:12	12	3	5	8
	16	4	7	10
	19.2	4	8	12
	24	5	10	15
4:12	12	3	4	6
	16	3	5	8
	19.2	3	6	9
	24	4	8	11
5:12	12	3	3	5
	16	3	4	6
	19.2	3	5	7
	24	3	6	9
7:12	12	3	3	4
	16	3	3	5
	19.2	3	4	5
	24	3	5	7

*Multiply by 1.2 and round to the next full nail for substitution of 16d common nails (3 1/2" x 0.162") with 10d common nails (3" x 0.148") nails

TABLE 3

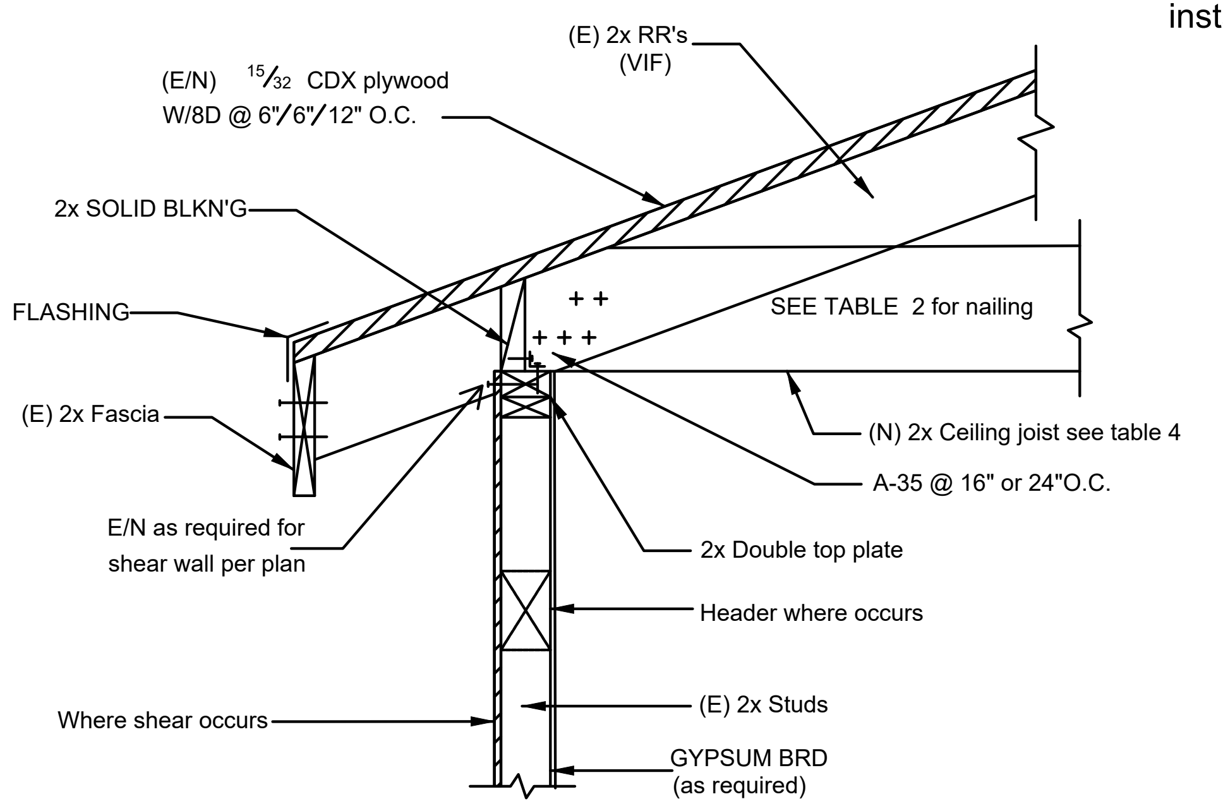
ROOF RAFTER SPANS (DF-LARCH #2)
Dead load 10 psf / Live load 20 psf
[Table R802.4.1(1) and Table R802.4.1(1)]

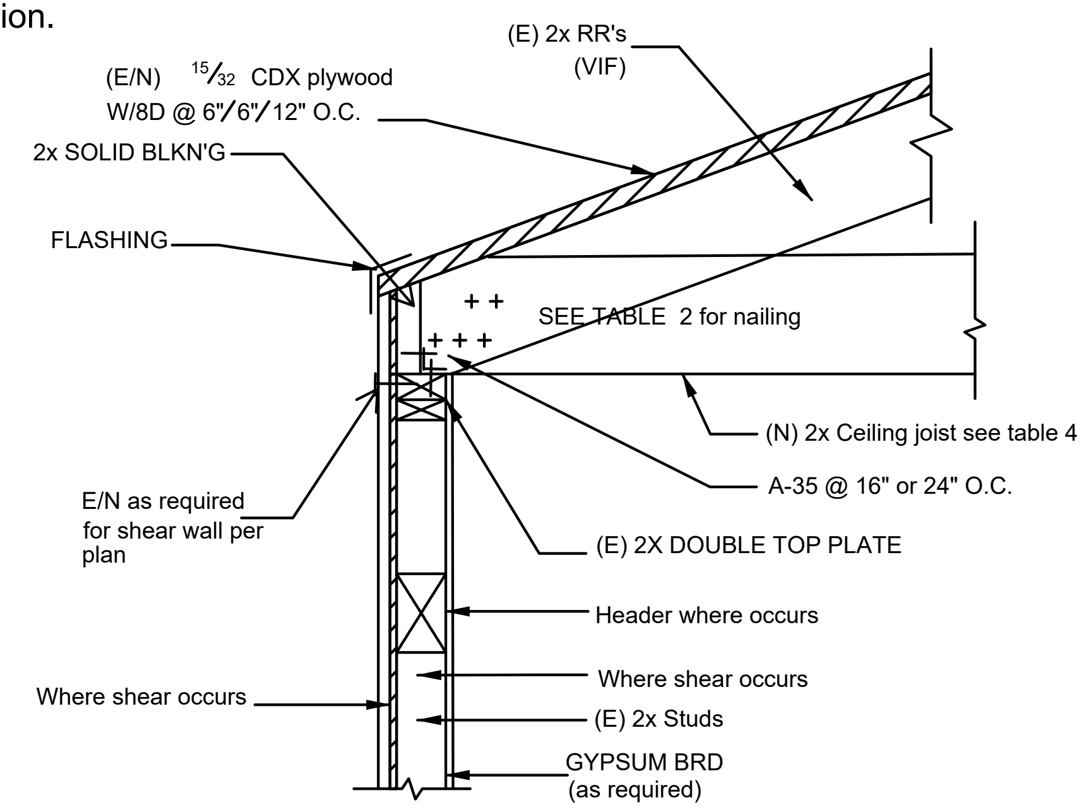
Rafter Size (inches)	Spacing (in)	Ceiling Not Attached L/Δ = 180 Allowable Span (ft)	Ceiling Attached L/Δ = 240 Allowable Span (ft)
2x4	12	10'-10"	9'-10"
	16	9'-10"	8'-11"
	19.2	9'-1"	8'-5"
	24	8'-2"	7'-10"
2x6	12	16'-10"	15'-6"
	16	14'-7"	14'-1"
	19.2	13'-3"	13'-3"
	24	11'-11"	11'-11"
2x8	12	21'-4"	20'-5"
	16	18'-5"	18'-5"
	19.2	16'-10"	16'-10"
	24	15'-1"	20'-5"
2x10	12	26'-0"	26'-0"
	16	22'6"	22'-6"
	19.2	20'-7"	22'-6"
	24	18'-5"	15'-1"
2x12	12	26'-0"	26'-0"
	16	26'-0"	26'-0"
	19.2	23'-10"	23'-10"
	24	21'-4"	21'-4"

TABLE 4

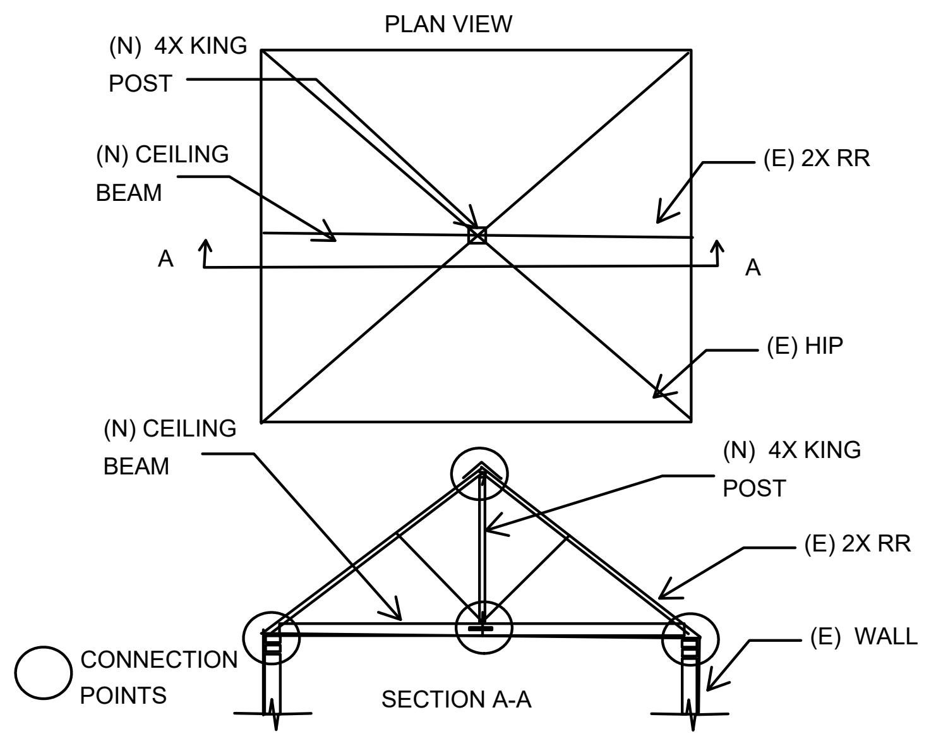
CEILING JOIST SPANS (DF-LARCH #2)
[Table R802.5.1(1) & R802.5.1(2)]

Joist Size (inches)	Spacing (in)	Allowable Span Dead load 5 psf/ Live load 20 psf	Allowable Span Dead load10psf/ Live load 20 psf
2x4	12	12'-5"	9'-10"
	16	11'-3"	8'-11"
	19.2	10'-7"	8'-2"
	24	9'-10"	7'-3"
2x6	12	19'-6"	15'-0"
	16	17'-8"	13-0"
	19.2	16'-8"	11'-11"
	24	15'-0"	10'-8"
2x8	12	25'-8"	19'-1"
	16	23'-4"	16'-6"
	19.2	21'-4"	15'-1"
	24	19'-1"	13'-6"
2x10	12	26'-0"	23'-3"
	16	26'-0"	20'-2"
	19.2	26'-0"	18'-5"
	24	23'-3"	16'-5"

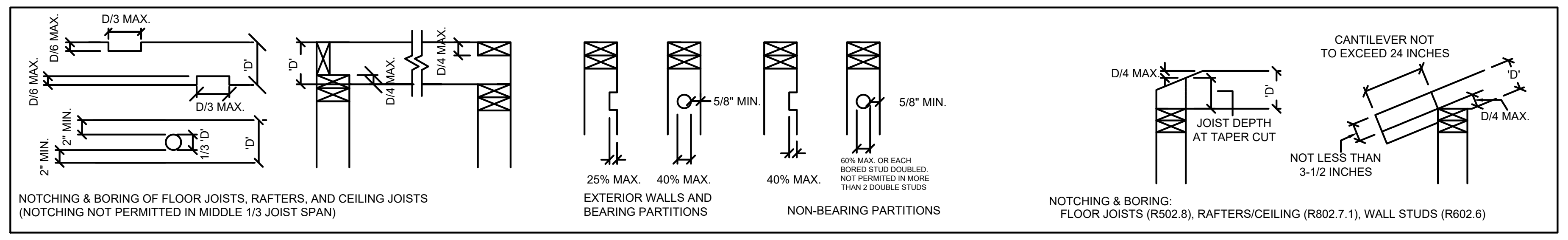


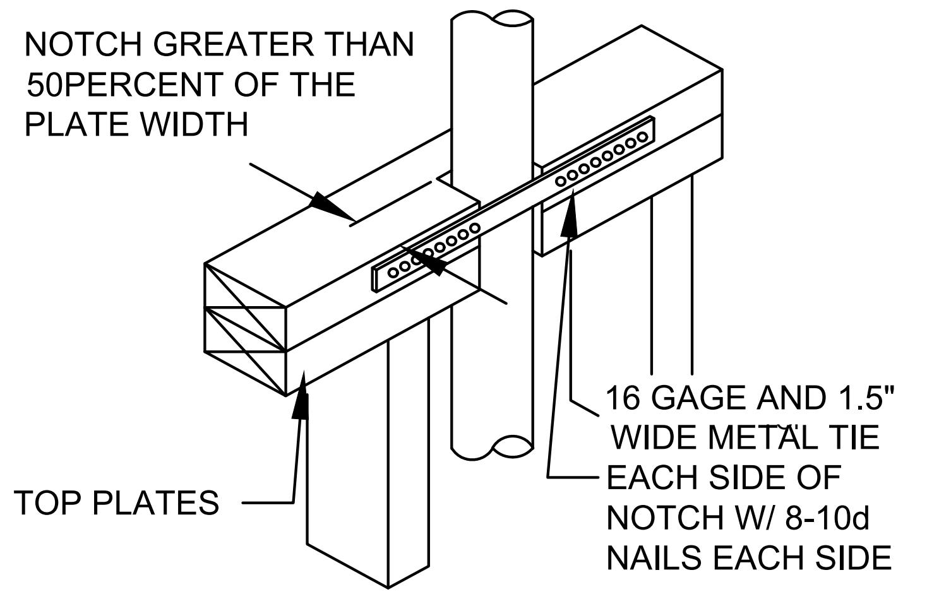


NOTE FOR (E) HIP ROOFS ON (E) GARAGES: The Applicant is liable to inspect the condition of the existing roof rafters and roofing materials. Additional King Post(s) may be required to support the existing hip beams. The Applicant is responsible to submit a supplemental engineering design plan or sheets stamped by a registered engineer/architect to the County Building Inspector for the connections of the new king post(s) and installation of a new ceiling beam(s) to the existing top plates and rafters.



CUTTING, NOTCHING, & BORING DETAILS





DRILLING & NOTCHING OF TOP PLATE (R602.6.1)

NOTE: WALLS USED TO ATTCH PLUMBING EQUIPMENT OR ACCESSORIES REQUIRE 2X6 STUDS.

TABLE 5
TABLE 2304.8(5)
ALLOWABLE LOAD (PSF) FOR WOOD STRUCTURAL PANEL SHEATHING CONTINUOUS OVER TWO OR MORE SPANS AND STRENGTH AXIS
(Plywood structural panels are five-ply, five-layer unelss otherwise noted)[a]

PANEL GRADE	Thickness	MAXIMUM SPAN	LOAD AT MAXIMUM SPAN (psf)	
			Live	Total
Structural I Sheathing	7/16	24	20	30
	15/32	24	35[b]	45[b]
	1/2	24	40[b]	50[b]
	19/32, 5/8	24	70	80
	23/32, 3/4	24	90	100
Sheathing, other grades covered in DOC PS1 or DOC PS2	7/16	16	40	50
	15/32	24	20	25
	1/2	24	25	30
	19/32	24	40[b]	50[b]
	5/8	24	45[b]	55[b]
	23/32, 3/4	24	60	65[b]

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kN/m ^{2}
a. Uniform load deflection limitations 1/180 of span under live load plus dead load, 1/240 under live load only. Edges shall be blocked with lumber or other approved type of edge supports.
b. For complosite and four-ply plywood structural panel, load shall be reduced by 15 pounds per square foot.

DETAIL 1 - ROOF DETAILS

TABLE 6

FASTENING SCHEDULE [Table R602.3(1)]

Description of Building Elements	Number and Type of Fastener	Spacing and Location
Roof		
Blocking between ceiling joists or rafter to top plate	4-8d box (2-1/2" x 0.113")	Toe nail
Ceiling joists to top pate	4-8d box (2-1/2" x 0.113")	Per joist, toe nail
Ceiling joists not attached to parallel rafter, laps over partitions	4-10d box (3" x 0.128")	Face nail
Ceiling joist attached to parallel rafter (heel joint) (see Table 802.5.2(1))	Table R802.5.2(1)	Face nail
Collar tie to rafter, face nail	4-10d box (3" x 0.128")	Face nail
Rafter or roof truss	3-16d box (3-1/2" x 0.135"); or	2 toe nails on one side and 1 toe nail on opposite side
	3-10d common nails 3" x 0.148")	of each rafter or truss
Roof rafter to ridge, valley or hip rafter or roof rafter to minimum 2" ridge beam	4-16d box (3-1 /2" x 0.135")	Toe nail
	3-16d box (3-1 /2" x 0.135")	End nail
Wall		
Stud to stud (not braced at wall panels)	16d common (3-1/2" x 0.162")	24" o.c. face nail
Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3-1/2" x 0.135")	16" o.c. face
Built-up header (2" to 2" header with 1/2" spacer)	16d common (3-1/2" x 0.162")	12" o.c. each edge face nail
Continuous header to stud	5-8d box (2-1/2" x 0.113")	Toe nail
Adjacent full-height studd to end of header	4-16d box (3 1/2" x 0.135")	End nail
Top plate to top plate	16d common (3-1/2" x 0.162")	16" o.c. face nail
Double top plate splice	8-16d common (3-1/2" x 0.162")	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
Bottom plate to joist, rim joist, band joist, or blocking (not at braced wall panels)	16d common (3-1/2" x 0.162")	16" o.c. face nail
Bottom plate to joist, rim joist, band joist, or blocking (at braced wall panels)	3-16d box 3-1/2" x 0.135")	3 each 16" o.c. face nail
Top or bottom plate to stud and interse tions	4-8d box (2-1/2" x 0.113")	Toe nail
	3-16d box (3-1 /2" x 0.135")	End nail
Top pates, laps at corners, and intersections	3-10d box 3" x 0.128")	Face nail
1" brace to each stud and plate	3-8d box (2 1/2" x 0.113")	Face nail
1"x 6" sheathing to each bearing	3-8d box (2 1/2" x 0.113")	Face nail
1"x 8" and wider sheathing to each bearing	3-8d box (2 1/2" x 0.113")	Face nail
Floor		
Joist to sill, top plate or girder	4-8d box (2-1/2" x 0.113")	Toe nail
Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box 2-1/2" x 0.131")	4" o.c. toe nail
	8d common (2-1/2" x 0.131")	6" o.c. toe nail
Built-up girders and beams, 2-inch lumber layers	20d common (4" x 0.192")	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
Ledger strip supporting joists or rafters	4-16d box (3-1/2" x 0.135")	At each joist or rafter, face nail
Bridging or blocking to joist, rafter or truss	2-10d box (3" x 0.128")	Each end, toe nail

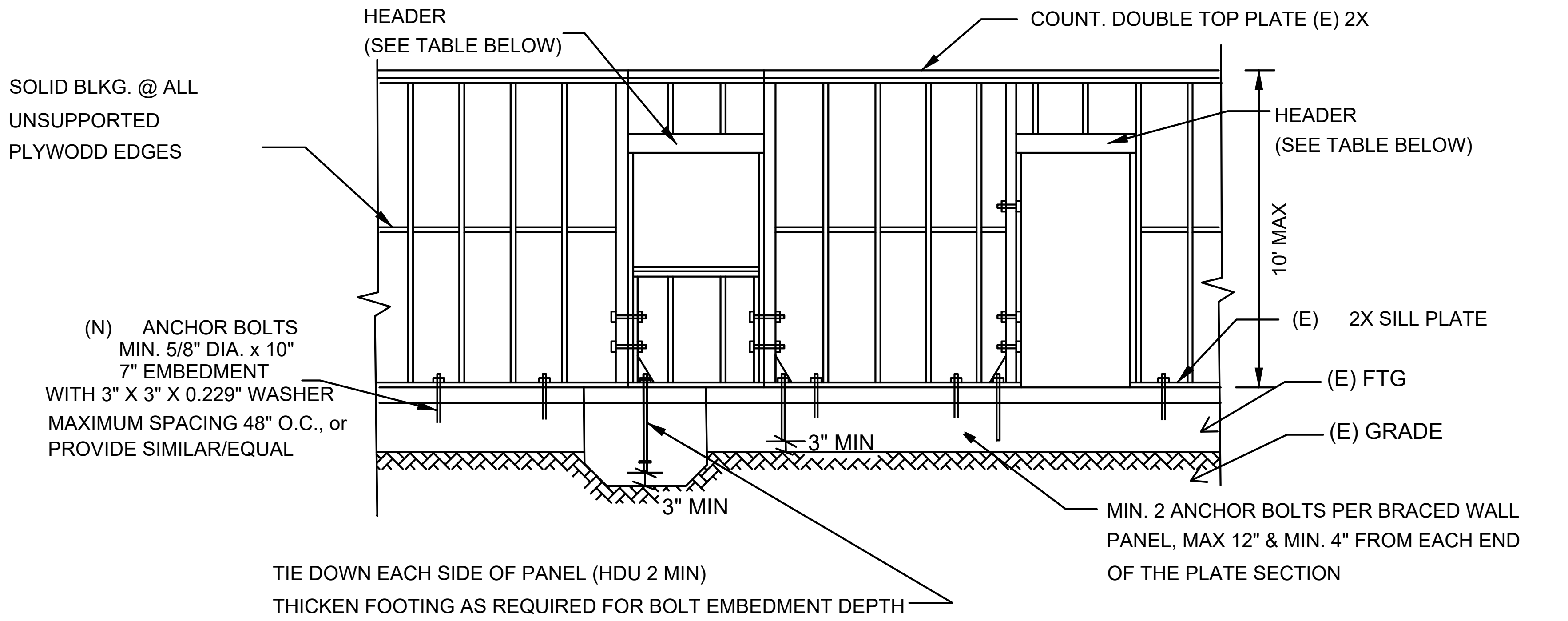


TABLE 7

HEADER SPANS FOR EXTERIOR BEARING WALLS
ONE STORY (DF-LARCH #2) [Table R602.7(1)]
NJ = Number of jacks studs required to support each end

Size	24' Building Width	36' Building Width
2-2x6	4'-7" w/ 1 NJ	3'-10" w/ 1 NJ
2-2x8	5'-9" w/ 1 NJ	4'-10" w/ 1 NJ
2-2x10	6'-10" w/ 2 NJ	5'-9" w/ 2 NJ
2-2x12	8'-1" w/ 2 NJ	6'-10" w/2NJ
3-2x12	10'-1"w/2 NJ	8'-6"w/2 NJ

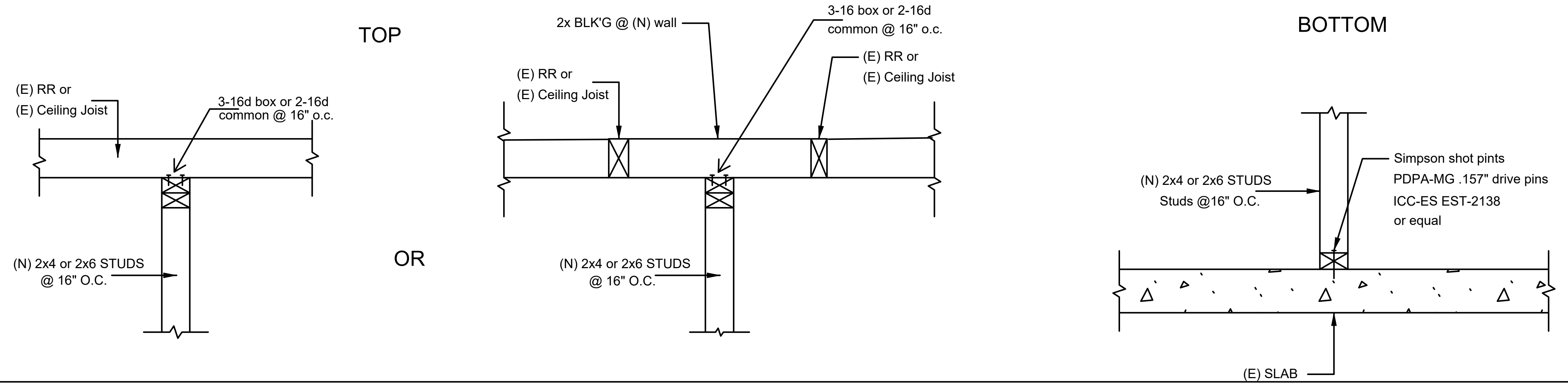
TABLE 8

HEADER SPANS FOR INTERIOR BEARING WALLS
ONE STORY (DF-LARCH #2) [Table R602.7(2)]
NJ = Number of jacks studs required to support each end

Size	24' Building Width	36' Building Width
2-2x6	4'-4" w/ 1 NJ	3'-6" w/ 1 NJ
2-2x8	5'-5" w/ 1 NJ	4'-5" w/ 2 NJ
2-2x10	6'-6" w/ 2 NJ	5'-3" w/ 2 NJ
2-2x12	7'-7" w/2NJ	6'-3" w/2NJ
3-2x12	9'-6"w/2 NJ	7'-9"w/2 NJ

NOTE:
1. 2-2X's MUST BE STITCHED NAILED AT 12" o.c.
2. 4X's OF SIMILAR DEPTH CAN BE USED IN LIEU OF THE 2-2X's SHOWN AT THE TABLE.
3. FOR SPAN NOT GREATER THAN 4 FEET, A MINIMUM 4x4 HEADER CAN BE USED.

DETAIL 3 - HEADER OVER OPENINGS



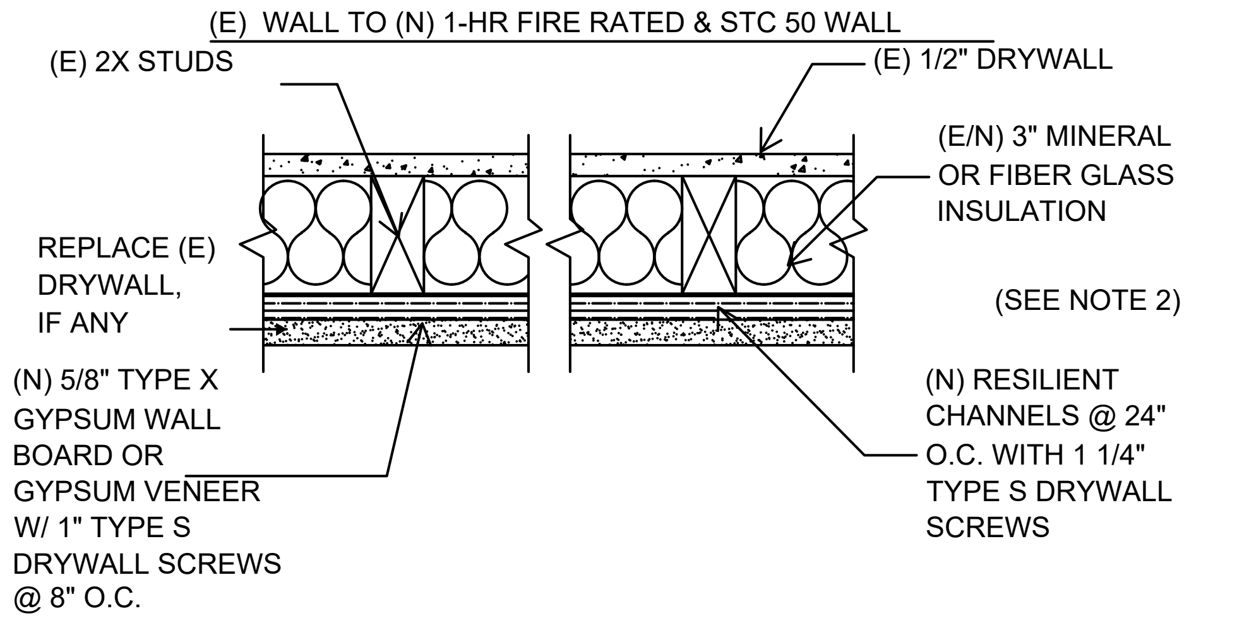
DETAIL 2 - NON-BEARING INTERIOR WALL PARTITION DETAILS

Public Works
LOS ANGELES COUNTY

LOS ANGELES COUNTY EXISTING SINGLE-STORY GARAGE CONVERSION TO ACCESSORY DWELLING UNIT & JUNIOR ACCESSORY DWELLING UNIT STANDARD NOTES & DETAILS

SD-1

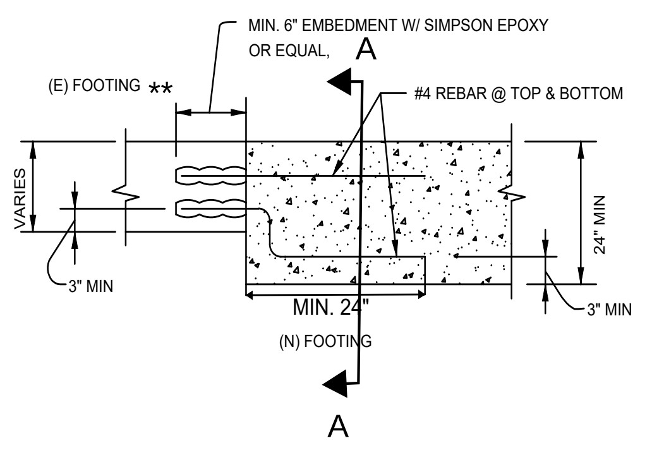
REVISED ON: 03/20/23
BY: F.B.

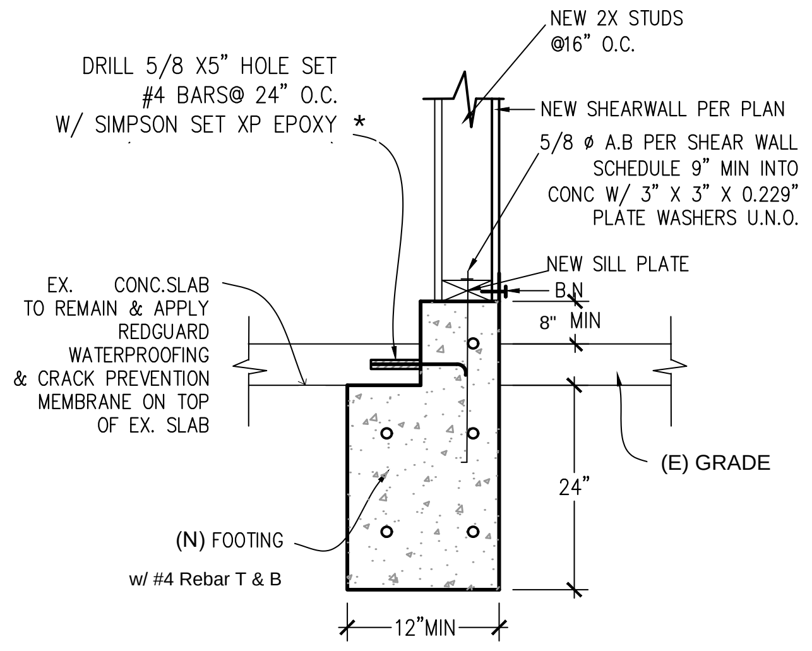


Resilient channels at 24" o.c. attached at right angles attached at right angles to ONE SIDE of 2x4 wood studs or gypsum veneer base applied at right angles to the channels with 1" Type S drywall screws 8" o.c. with vertical joints located midway between studs. 3" mineral or glass fiber insulation in stud space.

from GA-60062015 FIRE RESISTANCE DESIGN MANUAL p. 89

DETAIL 4 - 1-HR FIRE RATED PARTITIONS

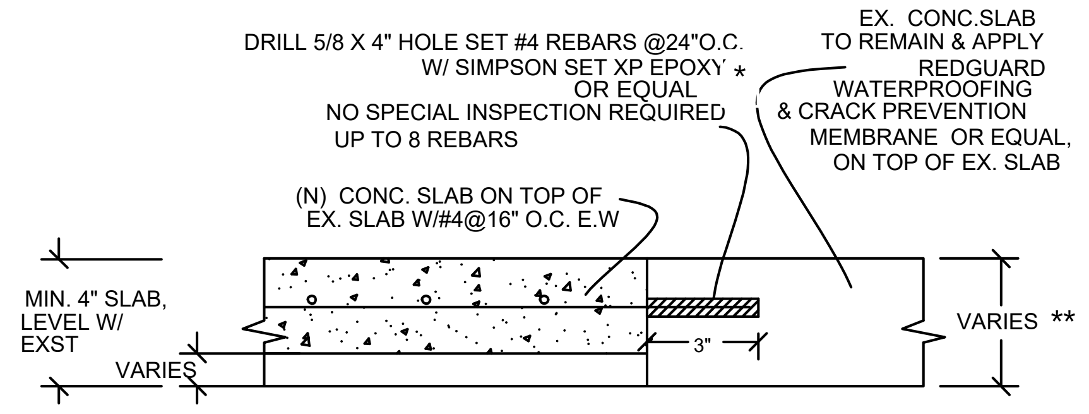




*NO SPECIAL INSPECTION REQUIRED FOR REBAR EMBEDMENT INTO EXISTING FOOTING AT 8 LOCATIONS OR LESS. INSTALLER SHALL HAVE EPOXY TUBE ONSITE WITH PHOTO DEPTH VERIFICATION OF THE EMBEDMENT.

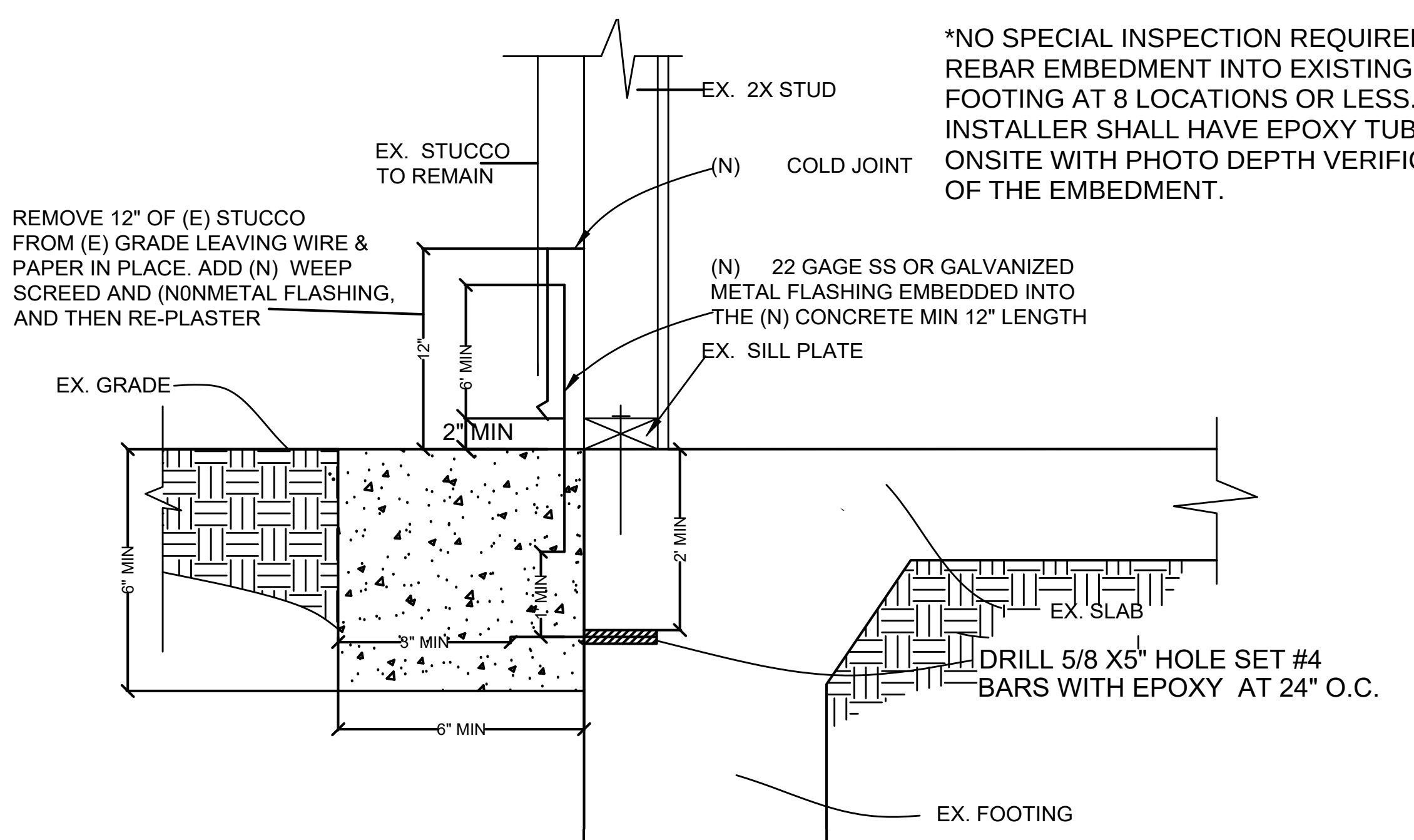
SECTION A-A

DETAIL 5
(E) FOOTING TO (N) FOOTING CONNECTION



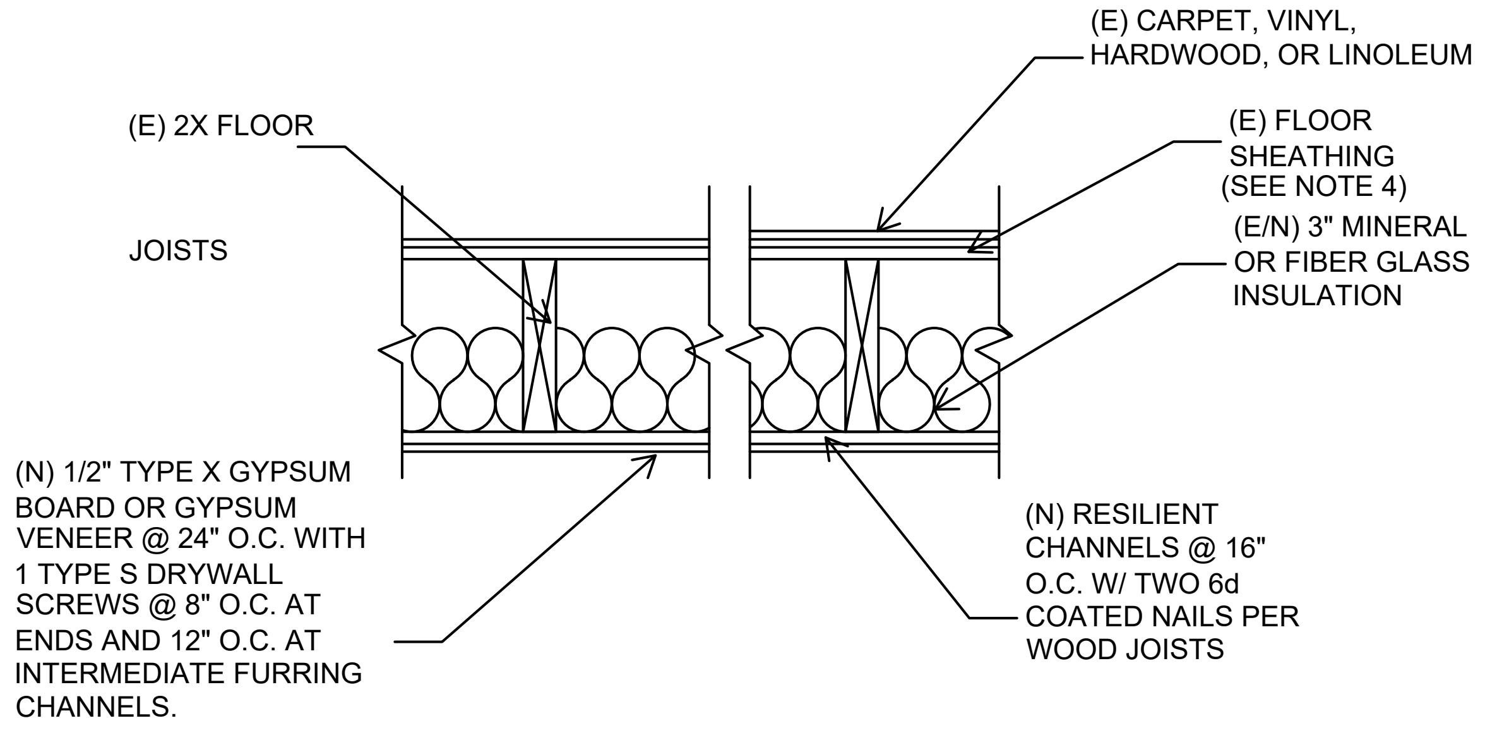
*NO SPECIAL INSPECTION REQUIRED FOR REBAR EMBEDMENT INTO EXISTING SLAB AT LOCATIONS OR LESS. INSTALLER SHALL HAVE EPOXY TUBE ONSITE WITH PHOTO DEPTH VERIFICATION OF THE EMBEDMENT.

DETAIL 6
(E) SLAB TO (N) SLAB CONNECTION



*NO SPECIAL INSPECTION REQUIRED FOR REBAR EMBEDMENT INTO EXISTING FOOTING AT 8 LOCATIONS OR LESS. INSTALLER SHALL HAVE EPOXY TUBE ONSITE WITH PHOTO DEPTH VERIFICATION OF THE EMBEDMENT.

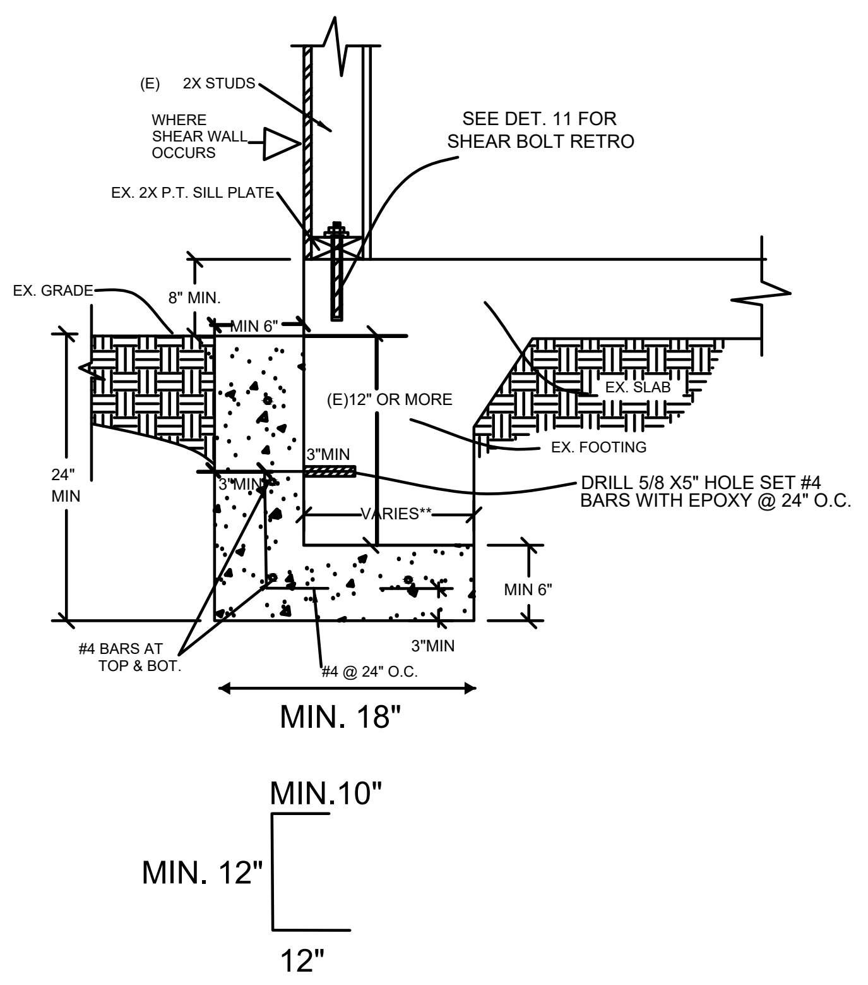
DETAIL 7 (N) EXTERIOR CONCRETE FOR TERMITE & SILL WOOD PLATE PROTECTION

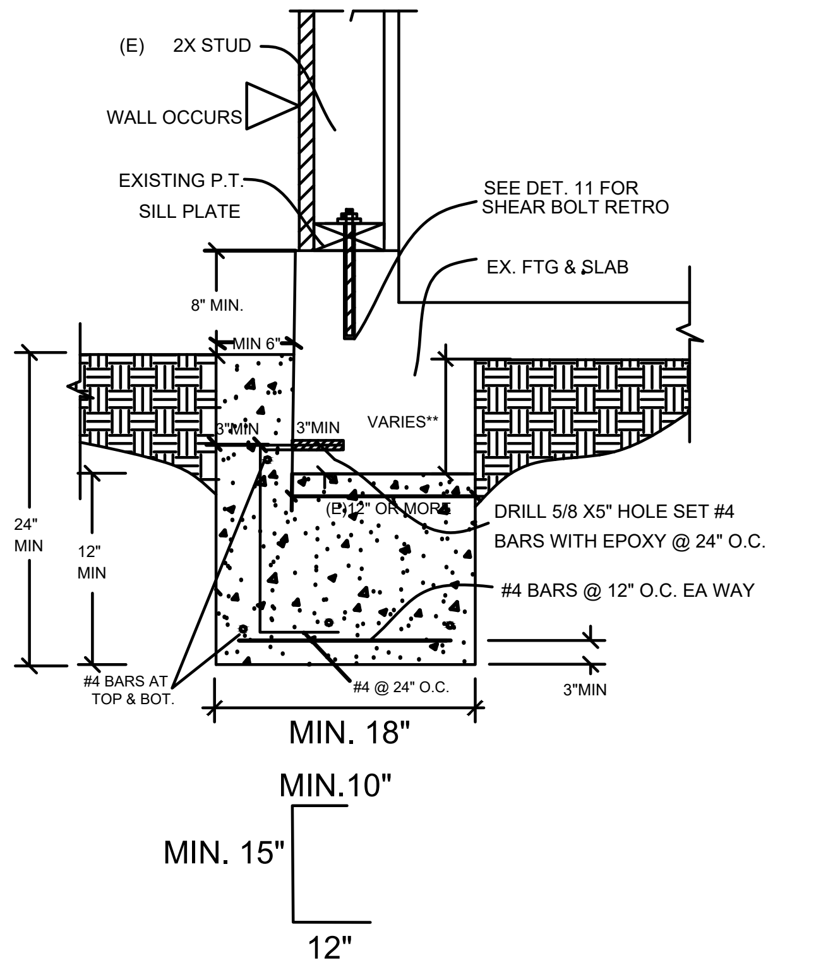


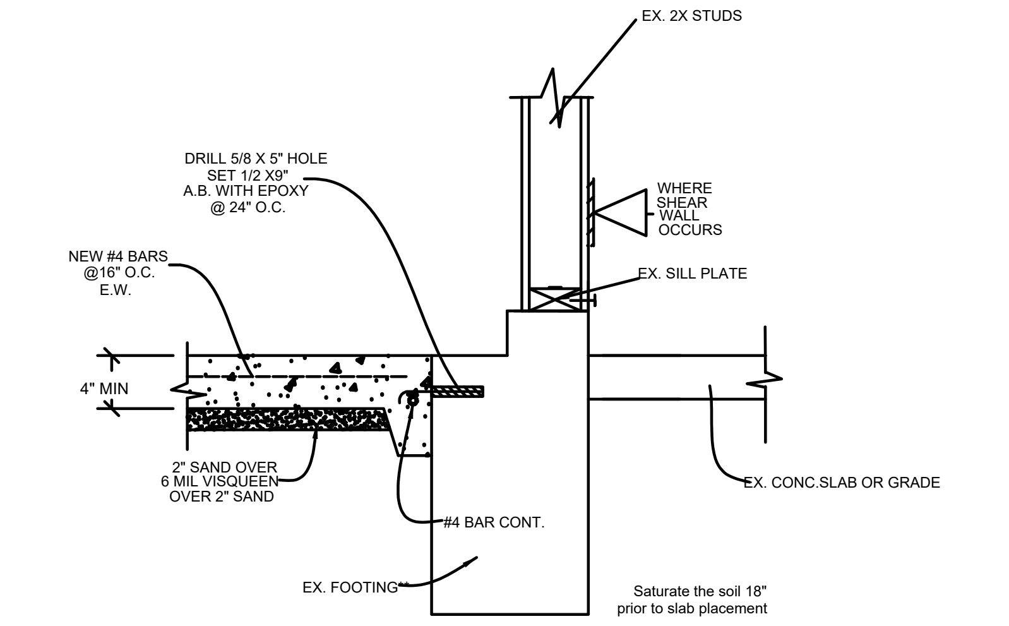
One layer 1/2" type X gypsum wallboard or gypsum veneer base applied at right angles to resilient channels at 24" o.c. with 1" Type S drywall screws 8" o.c. at ends and 12" o.c. at intermediate furring channels. Gypsum board end joints located midway between continuous channels and attached to additional pieces of channel 64" long with screws 8" o.c. Resilient channels applied at right angles to the (E) wood joists 16" o.c. with 6d coated nails, 1 7/8" long, 0.085" shank, 1/4" heads, two per joist. 3 1/2" glass fiber insulation batts, 0.7 pcf friction fit in joist cavities supported alternately every 12" by wire rods and resilient channels.

from GA-60062015 FIRE RESISTANCE DESIGN MANUAL p. 210

DETAIL 8 (E) FLOOR/CEILING TO (N) 1-HR FIRE RATED & STC 50 FLOOR/CEILING





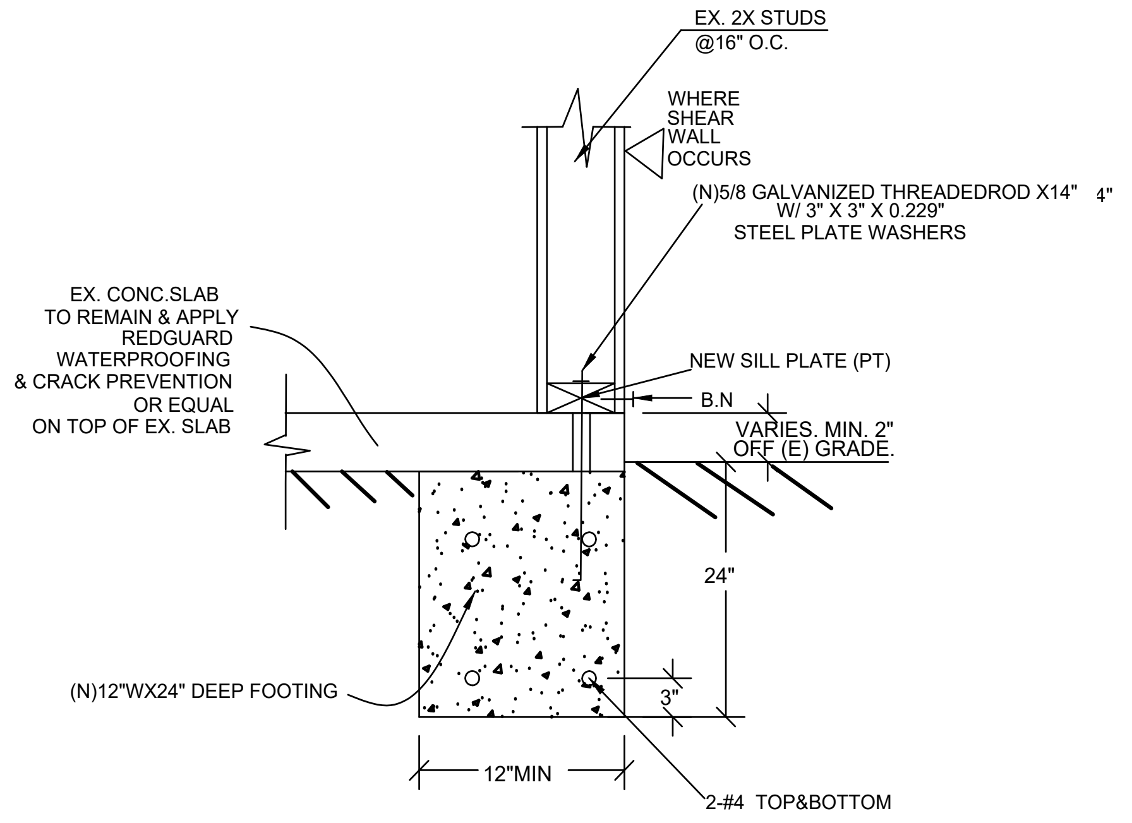


* NO SPECIAL INSPECTION REQUIRED FOR REBAR EMBEDMENT INTO EXISTING SLAB/FOOTING AT 8 LOCATIONS OR LESS AND/OR #4 REBAR INSTALLED TOP & BOTTOM AT TWO LOCATIONS. INSTALLER SHALL HAVE EPOXY TUBE ONSITE WTH PHOTO DEPTH VERIFICATION OF THE EMBEDMENT.

** EXISTING CONCRETE FOOTING LESS THAN 6 INCHES IN DEPTH AND/OR WIDTH REQUIRES FULL PERIMETER FOUNDATION RETROFIT.

***SLOT CUTTING AND EXCAVATION ON EXISTING GRADE MAY BE REQUIRED. PLEASE DISCUSS WITH COUNTY BUILDING INSPECTOR.

DETAIL 9 - FOUNDATION RETROFIT DETAILS

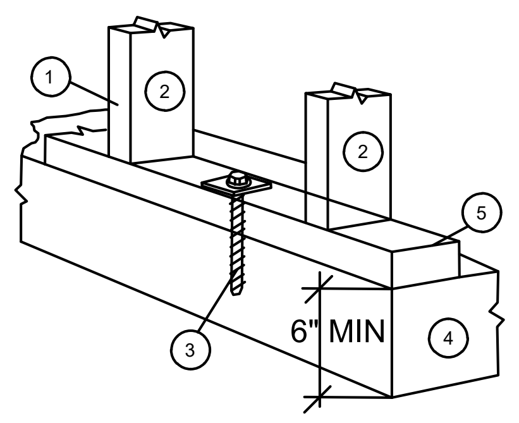


*NO SPECIAL INSPECTION REQUIRED FOR #4 REBAR INSTALLED TOP AND BOTTOM AT TWO LOCATIONS.

DETAIL 10
(N) FOUNDATION ON (E) SLAB

SOUND-RATED WALLS AND FLOOR-CEILING CONSTRUCTION NOTES

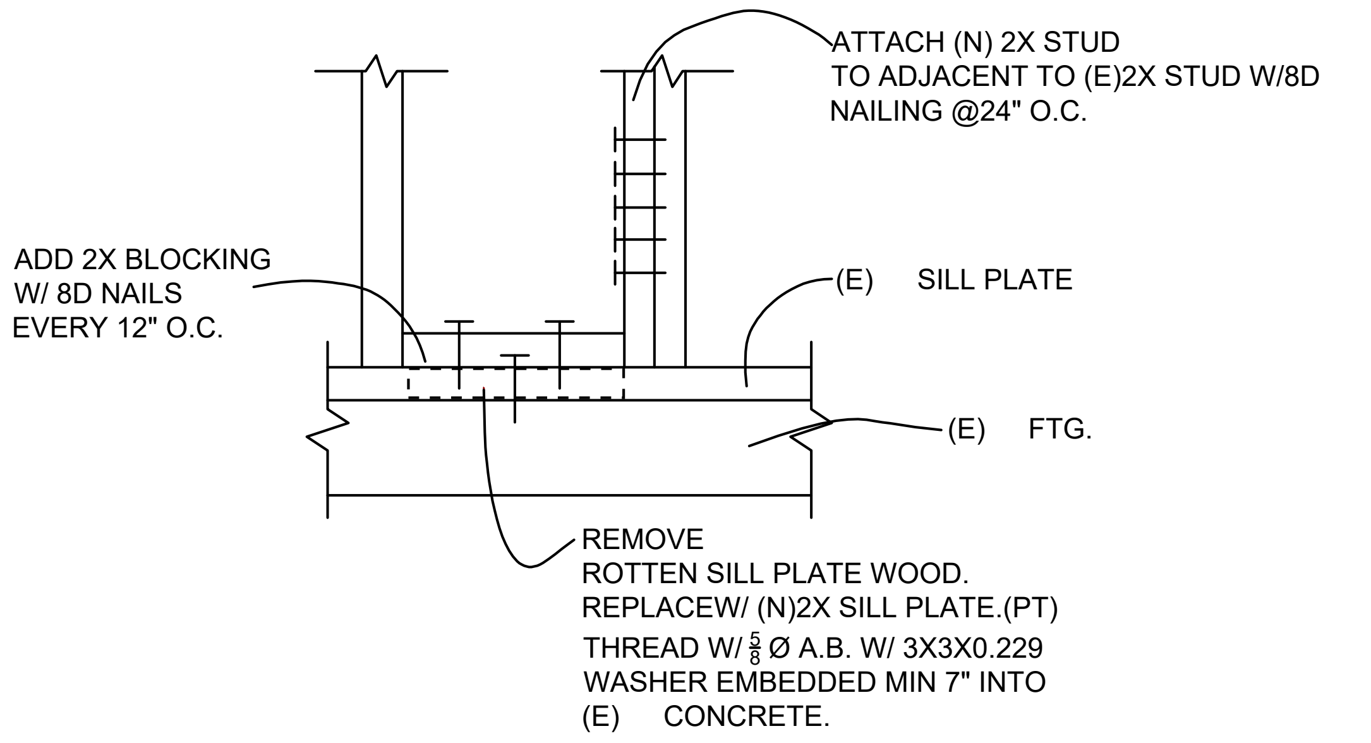
1. All penetrations into sound rated partitions or floor-ceiling assemblies shall be sealed, lined, or insulated with an approved permanent resilient sealant.
2. All rigid conduits, ducts, plumbing pipes, and appliance vents located in sound rated assemblies shall be isolated from the building construction by means of resilient sleeves, mounts, or a minimum 1/4" thick approved resilient material.
3. An approved permanent and resilient acoustical sealant shall be provided along the joint between the floor and the separation walls.
4. Metal ventilating and conditioned air ducts located in sound rated assemblies shall be lined (Exception: Ducts serving only exit ways, kitchen cooking facilities, and bathrooms need not be lined).
5. Mineral fiber insulation shall be installed in joist spaces whenever a plumbing, piping, or duct penetrates a floor-ceiling assembly or where such unit passes through the plane of the floor-ceiling assembly from within a wall. The insulation shall be installed to a point 12" beyond the pipe or duct. This requirement is not applicable to fire sprinkler pipe, gas line or electrical conduit.
6. Electrical outlet boxes in opposite faces of separation walls shall be separated horizontally by 24" and note that back and sides of boxes shall be sealed with 1 /8" resilient sealant and backed by a minimum of 2" thick mineral fiber insulation.
7. No wall furnace shall be installed in sound rated partitions.
8. No electrical panel shall be installed in sound rated partitions.



① WHERE SHEAR WALL OCCURS CONT. TO BOT. SILL BLOCK ALL EDGES
② EXISTG. 2X STUDS
③ Drill with 5/8" Ø drill bit x 8" deep hole, set 5/8" Ø Titan HD Heavy-Duty Screw Anchor#, with minimum 6-inch into existing concrete, spaced at 48" o.c. Tighten the anchor with 15/16" wrench into the base material until the hex-washer head contacts the fixture. OR PROVIDE SIMILAR OR EQUAL anchors to County Building Inspector prior to installation
④ EXISTING FOUNDATION
⑤ EDGE NAILING AND (E) SILL PLATE

No Special Inspection required for Titan Anchors and/or Wedge anchors

DETAIL 11 - ANCHOR RETROFIT



DETAIL 12 - (N) SILL PLATE RETROFIT DETAIL

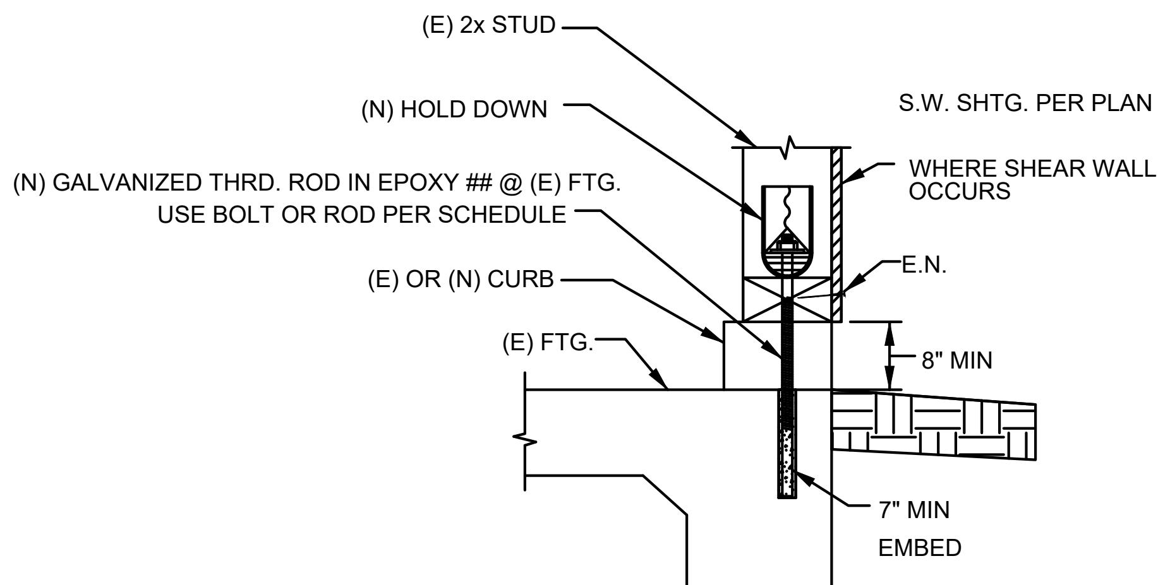


TABLE 9

HOLD DOWN	BOLT/ROD Ø (IN.)	MIN. THRD. ROD LENGTH (IN)
HDU2	5/8" DIA.	20"
HDU5	5/8" DIA.	21"
HDU8	5/8" DIA.	22"

BUILDING INSPECTOR TO OBSERVE HOLD DOWN INSTALLATION, OR SPECIAL INSPECTION IS REQUIRED FOR HOLD DOWN INSTALLATION WITH EPOXY.

DETAIL 13 - (N) HOLDDOWN ON (E) FOOTING

WOOD PROVISION BRACING REQUIREMENTS

TABLE 10

INTERMITTENT BRACING METHODS BASED On SEISMIC DESIGN CATEGORY (AS A FUNCTION OF BRACED WALL LINE LENGTH)a

ROOF/CEILING DEAD LOAD = 15 PSF WALL HEIGHT= 10 BRACE WALL LINE SPACING ≤ 25 FT SOIL CLASS = D			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE^{f}	
SEISMIC DESIGN CATEGORY (SDC)	STORY LOCATION	BRACED WALL LINE LENGTH	METHODS GB^{b,e,i} AND PCP^{c,e,i}	METHOD WSP^{d,i}
SDC DO OR D1	⌂	10	6	4
		20	12	4
		30	18	6
		40	24	8
D2	⌂	10	8	4
		20	16	5
		30	24	7.5
		40	32	10
E^{g,h}	⌂	10	10	4
		20	20	6
		30	30	9
		40	40	12

FOR SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.89 Pa.

a. Based on Table R602.10.3(3) of the 2017 County of Los Angeles Residential Code.

b. Method GB (Gypsum Board) = 1/2" minimum thickness gypsum board with 1-1/2" galvanized roofing nail or 1-1/4" screws, Type W or S for exterior sheathing, or 5d cooler nails, 0.086" diameter, 1-5/8" long, 15/64" head for interior sheathing. Maximum spacing of fasteners shall be at 7" o.c. at panel edges, including top and bottom plates. When Method GB panels are applied to only one face of a braced wall panel, the minimum total length of braced wall panel in the Table shall be doubled.

c. Method PCP (Portland Cement Plaster) = 7/8" minimum thickness Portland cement plaster with 1-1/2", 11 gage, 7/16" head nails at 6" spacing (for maximum 16" stud spacing only). Gypsum wall board (1/2" minimum thickness shall be installed on the side of the wall opposite the bracing material, except if the minimum total length of braced wall panel in the Table is multiplied by a factor of 1.5.

d. Method WSP (Wood Structural Panel) = 15/32" minimum thickness wood structural panel with 8d common (2-1/2" x 0.131") nails at 6" spacing (panel edge) at 12" spacing (intermediate supports), 3/8" edge distance to panel edge. Gypsum wall board (1/2" minimum thickness) shall be installed on the side of the wall opposite the bracing material, except if the minimum total length of braced wall panel in the Table is multiplied by a factor of 1.5.

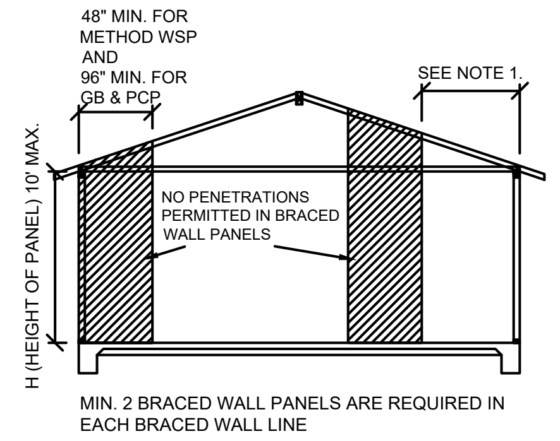
e. Method GC and PCP braced wall panel h/w ratio shall not exceed 1:1.

f. Linear interpolation shall be permitted.

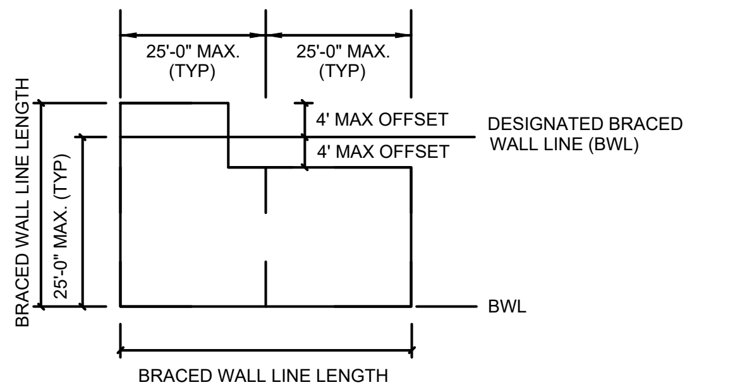
g. This SDC E Intermittent Bracing Method is only limited to existing single story garage conversion to ADU, or JADU, as assumed on these sheets. Other applications require compliance to the Building Code and/or assessment of a registered architect/engineer.

h. County Inspector shall assume SDC E, unless otherwise noted in ASCE 7 Hazard Tool website: https://asce7hazardtool.online/

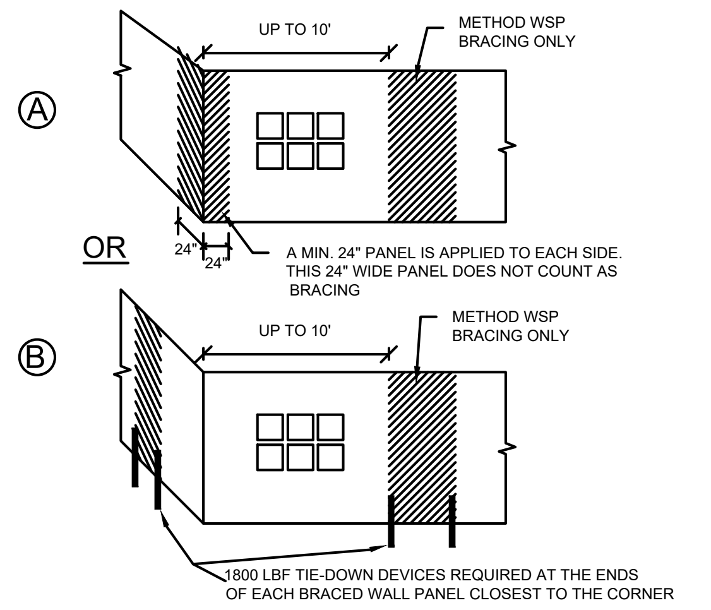
i. New openings on an existing wall less than 10% of the existing wall area will not require additional brace walls per 2015 NDS Table 4.3.3.5 .



MIN. 2 BRACED WALL PANELS ARE REQUIRED IN EACH BRACED WALL LINE



NOTES:
1. BRACED WALL LINES AT EXTERIOR WALLS SHALL HAVE A BRACED WALL PANEL LOCATED AT EACH END OF THE BRACED WALL LINE.
EXCEPTION: FOR METHOD WSP, THE BRACED WALL PANEL SHALL BE PERMITTED TO BEGIN NO MORE THAN 10 FEET FROM EACH END OF THE BRACED WALL LINE PROVIDED:



2. MIXING BRACING METHODS WITHIN A BRACED WALL LINE IS NOT PERMITTED.

DETAIL 14 - WOOD PROVISION BRACING REQUIREMENTS

Public Works
LOS ANGELES COUNTY

LOS ANGELES COUNTY EXISTING SINGLE-STORY GARAGE CONVERSION TO ACCESSORY DWELLING UNIT & JUNIOR ACCESSORY DWELLING UNIT STANDARD NOTES & DETAILS

SD-2

REVISED ON: 03/20/23
BY: F.B.