

## Permits

Simple building permits may now be processed by fax or email by sending a copy of the scope of the work and the contract to the attention of Permit Technician, Mary Delgado. She can be reached by email at [maryd@ci.san-pablo.ca.us](mailto:maryd@ci.san-pablo.ca.us), by phone at 510-215-3060 or by fax at 510-235-9417. Permit research can also be requested by email.

## Permit Requirements

Most building, home improvements and demolition projects require a building permit. It is the responsibility of the homeowner and/or contractor to ensure that permits are received prior to beginning the work. The cost of the permit varies based upon the type of work that is being completed.

## General Information

Information to assist in preparing to apply for a permit is listed below.

1. Submittal requirements for a Building Permit (Single family residential buildings, remodels, and additions)
2. Commercial Plans Submittal Check List
3. Residential Electrical Grounding and Bonding (Services)
4. Plumbing Permits- General information
5. Gas Pressure Test
6. Kitchen Remodel
7. Bathroom Remodel Shower/Tub Replacement
8. Lighting & Kitchen and Bathroom
9. Projects Without Building Permits
10. Demolition Permits
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(1) Submittal Requirements for a Building Permit  
Single Family Residential Buildings, Remodels and Additions

Plan Submittal Hours: Daily 7:40 - 4:15 PM.

This is a list of minimum requirements for single family residential projects. In unique situations, additional materials may be necessary. Please read this carefully and if there are any questions, contact the Building Division at 510-215-3030. Items may be combined on the same sheet where space allows and clarity of information is not affected.

Note: All sheets of plans and documents shall include the project address, the name and address of the owner, and the name and address of the designer.

All copies of plans and documents shall be "wet signed" when developed by an architect, and or engineer (i.e. original signature and stamp is required on each copied sheet) as required by the Business and Professionals Code. Plan prepared by a property owner or designer shall be identified as such.

Submit three (3) copies of the following documents (four (4) copies for properties in flood plain or bordering on a creek or water channel) on paper measuring 24" x 36" maximum. A soils compaction report by a licensed engineering shall be provided if an existing structure is demolished in order to rebuild a new structure.

### Plot Plan

- The minimum acceptable scale is 1/8" = 1'
- Show a north arrow
- Show the property lines and lot dimensions
- Show all existing and proposed structures and the distances between each (including accessory buildings, decks, pools, spas and sheds). Clearly distinguish between what is existing and will remain, and what is existing and will be removed, and what is proposed as new.
- Show lot area, allowable lot coverage, and proposed lot coverage
- Show existing and proposed front, side and rear setbacks
- Show all easement, including those for public utilities, sanitary sewer, storm drains, and the street right of ways
- Show building pad elevations and finished floor (this is not required for additions to existing buildings unless the property is located in the 100 year floor plain
- Show driveways and adjacent streets
- Show locations of existing and proposed roof down spouts
- Show locations of well, septic tanks including leach fields

### Floor Plan

- The minimum acceptable scale is 1/8" = 1'
- Include plans for all existing and proposed structures. Clearly distinguish between what is existing and what is proposed.
- Show dimensions for all existing and proposed rooms and indicate use.
- Show dimensions for all doors, windows and cabinets.
- Locate electrical features including electrical outlet locations, light fixture and fan locations, light switch locations, main electrical service location, sub panel locations....
- Plumbing fixtures including water heater location, sinks, bathtubs, showers, toilets, water service location, gas meter location, and exterior hose bibs
- Heating appliances including furnace locations, air conditioner location, supply and return air locations for each area, exhaust fans/hood locations.
- Show skylights, fireplaces and other special features.
- Provide window and door schedule.

### Foundation Plan

- The minimum acceptable scale is 1/4" = 1'.
- Show the foundation layout (foundation location, piers, grade beams, cross reference to related details, etc.)
- Show the floor construction including floor framing size, spacing, reinforcing steel and floor covering.
- Include calculations for any manufactured floor/roof truss systems - Engineers calculation required.
- Show separate floor framing plans for each story.
- Geotechnical reports are required for all basements.

### Cross Section Drawings

- The minimum acceptable scale is 3" = 1'.
- Show the foundation system, the wall system and the roof system.
- Show the construction of structural members and their connections.
- Show a minimum of at least two complete longitudinal and transverse cross-sections of new construction.

### Exterior Elevation Drawings

- The minimum acceptable scale is 3" = 1'.
- Show the appearance of all exterior walls, roofs, doors, and windows, and indicate the materials to be used
- Clearly distinguish between existing and proposed construction. Provide notes indicating the building colors shall reflect or be complementary to, the color scheme of the dwelling, and the trim detailing, including but not limited to fascia, window trim, and door trim shall reflect and be complimentary to the trim detailing of the dwelling
- Indicate roof pitch
- The roofing and siding materials shall be the same as the roofing and siding materials that are predominant on the dwelling.

### Roof Plan

- The minimum acceptable scale is 1/4" = 1'.
- Show ridges, hips, valleys, skylights, and the size of spacing of roof/structural members
- Show location and framing details for any proposed skylights.
- Show the roof pitch
- Wet signed calculations for any manufactured truss system are required to be approved by the City Building Inspection Division before the frame inspection
- The roofing and siding materials shall be the same as the roofing and siding materials that are predominant on the dwelling

### Title 24 Energy Documents

- Energy documents are required for most projects.
- Show complete energy audit documentation for new single family residences or construction deviating from minimal mandatory measures.
- Include 3 wet signed CF-1R and MR-1R forms (available in the Building Department).

### Structural Calculations

- Calculations are necessary for all two-story structure, basements, retaining walls over 4' and any non-conventional construction. Provide 2 wet signed copies. All design features of the structural calculations shall be incorporated on the construction plans and shall be signed by the engineer that prepared the structural calculations

### Grading and Drainage Plan

For new homes, basements, and additions larger than 1,000 square feet to the ground floor.

- Identify elevation at street and neighboring property lines.
- Identify elevations on adjoining properties to nearest structure or 10 feet minimum
- Identify pad elevation.
- Identify finished floor elevation.
- Identify lot drainage plan.
- Identify existing and proposed contours.

- Stamped and wet signed by registered California Civil Engineer.
- Pollution Prevention Plan that identifies control measures to minimize flow of silt offsite, dust and mud control, washout location for concrete trucks/mixing equipment, and covered material storage areas including excavation materials.

#### Sewer Connection Permit

- Attach copy of submittal application.
- Copies of connection permits obtained from West County Waste Water.
- When public facilities for the sanitary sewer are not available a permit to install a septic tank shall be obtained from Contra Costa County Environmental Health before a building permit will be issued.

#### Demolition Permit

- A separate demolition permit is required for the complete and sometimes partial removal of any structure, and must be finalized prior to the issuance of the building permit. Utility companies and other agencies must sign-off on the demolition permit application. Therefore, it is recommended that you begin the demolition permit process as early as possible.
- The demolition permit application package can be obtained from the Building Department.

#### Handicapped Accessibility

- Define all handicapped access features for new construction per current California T-24 requirements
- For remodeling and tenant improvements, the area of improvement shall comply with the access requirements for new construction. When the valuation is less than \$75,000, 20% of the valuation shall be surcharged to the project for handicapped access retrofit. Submit schedule of retrofit items

If project is in a condominium, planned unit development, or other multi-family complex with an owner's association, you must provide evidence demonstrating that the owner's association has approved the project.

### (2) Commercial Plans Submittal Check List - Document Format Information

#### Plot Plan/Title Page/ Roof Plan

- Lot dimension
- Building footprint with all projections & dimensions to all property lines and/or Buildings
- North arrow
- Easements
- Building construction type
- Square footage of building and building height
- Square footage of project
- Occupancy use Occupancy load
- Pages to be numbered 1 of \_\_, etc.
- Wet signature on all documents by document maker
- Name, title, registration (if applicable) and address, and phone number of design professionals
- Address of the property and name, address, and phone number of the property owner
- Recommended scale: 1/8" = 1' for plot plan.

### Foundation Plan

- Structural and architectural details
- Fireplaces – masonry
- Footings, piers, and grade beams
- Post and girder intersections
- Recommended scale  $3/4" = 1'$

### Floor plan

- Recommended wall definitions
- Include adjoining rooms
- Recommended scale:  $1/4" = 1'$

### Exterior Elevations

- Recommended scale:  $1/4" = 1'$

### Structural and Architectural Details

- Roof: eaves, overhangs, rake and gables
- Floor changes (i.e., slab to wood frame)
- Handrails, guardrails and support details
- Structural section with details at foundation, floor and roof level
- Typical cross section in each direction
- Structural framing detail (s)
- Suspended ceiling plan (if applicable)
- $1/2"$  or  $1"$  equals  $1'$  for details

### Prefabricated Trusses

- Provide engineered truss calculations and framing specifications with engineered stamp. Must be reviewed and approved by City Building Inspection prior to required frame inspection.

### HVAC Plan

- Location of HVAC equipment
- Duct location and layout for supply and return air
- Smoke/Fire damper locations where applicable
- CFM's of all HVAC units

### Plumbing Layout including gas, cold and hot water lines

- Water heater
- Gas line piping materials and calculations when new gas lines installed or gas-fired equipment upsized.
- Grease, oil, sand interceptors and sizing calculations
- Sewer connection location

### Electrical Plan

- Panel size (s) and location (s)
- Outlet layout
- Switching layout and total lighting for Title 24 Energy Compliance
- Title 24 -Energy Documents:
  - Minimum two (2) copies wet signed by document author
  - Documents required to be a part of plan submittal

- Mandatory compliance checklist on plans
- Provide load calculations for all new building Provide load calculations for all additions to existing structures Provide load calculations as required by City Building Official

### (3) Residential Electrical Grounding and Bonding Electrical - Upgrading the Main Electrical Panel in a Single Family Dwelling

- An electrical permit is required to upgrade the main panel
- The owner or a State Licensed Electrical Contractor may obtain a permit.
- Load calculations are generally not required for a service upgrade unless additional load is being added and the inspector determines that calculations are necessary.

#### Meter Height

- Shall be between 48" and 66" above the ground.

#### Clear Working Space

- 30" wide by 36" in front of panel with a minimum headroom clearance of 6' 6".

#### Circuit Breakers

- Circuit Breakers must be listed and approved types for panels. (The brand of breakers must be specifically approved for use within the panel as stated on the panel's label).
- A multi-wire (3-wire, 240 volt circuit) to a single duplex receptacle requires a handle tie on the circuit breakers.

#### Grounding

- Any work involving adding sub-panels, upgrade of electrical, new service riser conduit, change of water service may require upgrading of the grounding or bonding of the electrical service
- An underground metallic water pipe 10' or more in length supplying the building
- shall be bonded to the service enclosure per 2001 CEC, Article 250-50
- Grounding shall be per 2001, Article 250 of the California Electrical Code
- The water piping system is not allowed to be the sole grounding source
- A supplemental electrode (usually a ground rod, 2001 CEC, Article 250-52) must be installed if the water piping system is the only source of establishing a grounding electrode
- Bonding shall be per 2001 California Electrical Code

#### The water piping system must be bonded

- If the main water service piping to the house is an underground metallic pipe at least 10' in length, the bonding must occur within the first five feet of the water piping where it enters the building. Size Conductor per 2001 CEC, Table 250.66
- If the main water service piping is non-metallic (e.g., PVC), the cold water piping system may be bonded at any accessible location
- Bonding shall consist of a continuous bonding jumper, sized per Table 250-66, and may be jumper installed at the water heater between the hot, cold and gas lines

#### The gas piping system must be bonded

- The gas piping is bonded via the grounding conductor in the branch circuit to the gas

- appliances (if available)
- If the electrical system does not contain equipment grounds, then the gas piping system must be bonded externally with a bonding jumper (same as water pipe)
- Gas bonding shall only be connected to the house side of the meter

#### (4) Plumbing Permits - General Information

2001 California Plumbing Code, (CPC) is our current adopted code

- 1 All plumbing materials and fixtures must be labeled by UPC, IAPMO, or other testing agencies approved in the ICBO listing of Laboratories or Quality Control Agencies.
- 2 All plumbing shall be tested as identified in the plumbing code. Specifically, drain, waste and vent systems shall be tested —through the roof“ per CPC:
- 3 Hot and cold water supply system shall be tested under pressure not less than the working pressure. A fifty (50) pound per square inch air pressure may be substituted for the water test. (See 2001 California Plumbing Code Section 712.1)
  - Water Test - The water test shall be applied to the drainage and vent systems either in its entirety or in sections. All openings in the piping shall be tightly closed, except the highest opening, and the system filled with water. If the system is tested in sections, each opening shall be tightly plugged and each section shall be tested with less than a ten (10) foot head of water. (See 2001 CPC Section 712.2)
  - Building Sewer Test - Building Sewers shall be tested by plugging the end of the building sewer at its points of connection with the public sewer or private sewage disposal system and completely filling the building sewer with water from the lowest to the highest point thereof. (see 2002 CPC, Section 723.0)

ABS and PVC waste pipe is prohibited in:

- R1 and R3 over two (2) stories in height (hotels, motels, lodging, houses, apartment houses, and dwellings). (HCD-1) per CPC 701.1.2
- Permanent building and accessory buildings in mobile home parks. (HCD-2)
- Essential services buildings (fire and police stations etc.) (OSA/SSS)
- Clinics and health facilities (OSH/PD)
- 1.6 gallon maximum flush toilets or 1 gallon maximum flushometer valve toilets required for all new construction with permits approved after January 1, 1992

Specific Technical questions should be addressed to the Building Department at 510 215-3030 between the hours of 7:40 and 5:00 PM, Monday through Friday.

#### Gas Piping Permit Requirements for miscellaneous gas piping installations

- A permit is required when installing a new gas piping or when altering an existing gas line.
- Permits are issued to either the owner or to a State Licensed Plumbing Contractor.
- Permits are obtained at the City of San Pablo Building Department.
- The Building Department is located at 13831 San Pablo Avenue, Building 3.
- Office hours are from 7:40 am to 5:00 pm., Monday through Friday.
- Plans are not usually required. However, gas sizing calculations may be required to verify that the gas piping is sized per the minimum code requirements.
- The calculations, if required, shall be made available at the time of inspection.

- A one line diagram is required prior to the frame inspection. See the example in the CPC.

#### Installation Requirements

- It shall not be permissible to repair defects in gas piping or fittings. Upon having been located, the defective pipe or fitting shall be removed and replaced with sound materials. (CPC 1214.3)
- Leaks in gas piping shall be located by applying soapy water to the exterior of the piping. CPC 1214.1
- Unions are not permitted in a gas piping system except as follows:
- Unions are allowed downstream of appliance shutoff valves, meter locations and immediately downstream of building shutoff valves.
- The use of right/left couplings and nipples are required in lieu of unions in all other locations.
- Black Iron is not allowed outdoors in the ground or within 6 inches of the ground. Exception: Only piping which has been factory coated with approved materials is acceptable for burial in the ground
- Underground gas lines are required to be factory wrapped. Field wrap is limited to the fitting.
- All exterior gas lines are required to be galvanized. Painting is not allowed
- Gas operated appliances shall be installed per applicable codes and the manufacturer's specifications.
- Flexible gas connectors, from the gas pipe to the appliances, shall be sized and installed in accordance with code requirements and manufacturer's specifications.
- The gas pipe must be fire caulked where the pipe penetrates the exterior surface of the fire chamber in a factory-built fireplace. Also, the interior void shall be filled with fiberglass insulation or mineral wool.
- Shutoff valve requirements:  
Required in the gas piping system ahead of all gas appliances,  
Must be accessible and in the same room as the appliance,  
Shall be within three (3) feet of the appliance, except:
  - Shutoff valves for gas dryers and freestanding ovens may be within six feet of the dryer or oven.
  - Shutoff valves for fireplace log lighters and shall be within four feet of the fireplace opening.**Note:** Fireplace shutoff valves must be installed outside the firebox

#### Inspection Requirements

- All new piping shall be inspected prior to covering any portion of new piping.
- A gas test must be performed by the applicant and witnessed by the inspector for all portions of new gas piping
- The person doing the work is responsible for performing the gas test and calling for inspections

#### Gas Test Requirements

Gauges with small dials with large pressure ranges, or gauges that indicate pressure by means of an extended graduated rod used to check tire pressures are not sensitive enough to detect small leaks and should not be used.

The entire gas piping system shall be tested.

- The inspection shall include an air, CO<sub>2</sub> or nitrogen pressure test. The gas piping shall stand a pressure of not less than (10) pounds per square inch gauge pressure. The test must hold for at least 15 minutes with no perceptible drop in pressure
- For 1½" gas piping & larger, the inspection shall include a mercury manometer test, using a (6") column of mercury. The piping must hold a test for at least 15 minutes with no perceptible drop in pressure
- Test gauges used in conducting test shall comply with Section 319.0, Test Gauges Test gauge requirements per CPC 319.0:

Section 319.1 Required pressure test of ten (10) psi or less shall be performed with gauges of 1/10 pound increment or less.

Section 319.2 Required pressure test exceeding ten (10) pounds with less than one hundred (100) psi shall be performed with gauges of one (1) psi increment or less.

Section 319.3 Required pressure test exceeding one hundred (100) psi shall be performed with gauges incremented for two (2) percent or less of the required test pressure.

Section 391.4 Test gauges shall have a pressure not greater than twice the test pressure applied.

## (6) Residential Kitchen Remodel

### Plans & Permits

A simple ¼" = 1' floor plan is preferred. Three sets of plans are required.

### Inspections

Normally only a frame, insulation, and final inspection are required for a kitchen remodel. The frame inspection includes the rough electric, rough plumbing, rough mechanical and rough frame and possibly stucco lath. The insulation inspection is normally the required R-13 insulation in the wall. If the ceiling is opened up for construction, R-38 is required or check your Title 24 requirements. The final inspection includes the electric, plumbing, mechanical and building. The project should be complete and operational.

### Plumbing

All construction shall be per current edition of the 2006 International Plumbing Code. All IAMPO labels. 1 ½" waste line is allowed for the sink if it is not moved. If the sink location is change or a garbage disposal is added, the 2" waste line may be required. A full-size cleanout may be required. An air-gap is required between the dishwasher and disposal.

### Electrical

- a. Two 20a electrical circuits are required for plugs serving counter tops
- b. Separate circuits may be required for all built-in appliances, check with your inspector for exceptions. 2001 CEC article 210.23(a)
- c. All counter plugs shall be GFCI protected.
- d. All electrical work shall comply with the 2006 Electrical Code.

### California T-24 Part 6 (Energy Conservation)

- a. All walls opened for construction shall have R-13 insulation.
- b. All ceilings opened for construction with attic above shall have R-38 insulation or follow Title 24 report for project.

- c. All windows replaced shall be double paned with labels and less than or equal to  $U=75$ .
- d. Seal all accessible envelope penetrations.
- e. Primary lighting (first switch) shall be fluorescent lighting.
- f. All exhaust fans shall be provided with back draft dampers.

#### Section 210-52 (b): Small Appliances

In the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit, the two or more 20-ampere small-appliance branch circuits required by Section 21011 (c) (1) shall serve all receptacle outlets covered by Sections 210-52 (c & g) and receptacle outlets for refrigeration equipment.

Exception No. 1: In addition to the required receptacles specified by Section 21052, switched receptacles supplied from a general-purpose branch circuit as defined in Section 210-70 (a) (1), Exception No. 1, shall be permitted.

Exception No. 2: The receptacle outlet for refrigeration equipment shall be permitted to be supplied from an individual branch circuit rated 15 amperes or greater.

The two or more small-appliance branch circuits specified in (b) (1) shall have no other outlets.

Exception No. 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the rooms specified above.

Exception No. 2: Receptacles installed to provide power for supplemental equipment and lighting on gas fired ranges, ovens, or counter-mounted cooking units.

Receptacles installed in a kitchen to serve counter top surfaces shall be supplied by not less than two small appliance branch circuits, either or both of which shall also be permitted to supply receptacle outlets in the same kitchen and in other rooms specified in Section 210-52 (b) (1). Additional small appliance branch circuits shall be permitted to supply receptacle outlets in kitchen and other rooms specified in Section 210-52 (b) (1). No small appliance branch circuit shall serve more than one kitchen.

Countertops: In kitchens and dining rooms of dwelling units, receptacle outlets for counter spaces shall be installed in accordance with (1) through (5).

- (1) **Wall Counter Spaces:** A receptacle outlet shall be installed at each wall counter space that is 12 in. (305 mm) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 in. (610mm), measured horizontally from a receptacle outlet in that space.
- (2) **Island Counter Spaces:** At least one receptacle outlet shall be installed at each island counter space with a long dimension of 24 in. (610mm) or greater and a short dimension of 12 in. (305 mm) or greater.
- (3) **Peninsular Counter Spaces:** At least one receptacle outlet shall be installed at each peninsular counter space with a long dimension of 24 in. (610 mm) or

greater and a short dimension of 12 in. (305mm) or greater. A peninsular counter top is measured from the connecting edge.

- (4) Separate Spaces: Countertop spaces separated by range tops, refrigerators, or sinks shall be considered as separate countertop spaces in applying the requirements of (1), (2) and (3).
- (5) Receptacle Outlet Location: Receptacle outlets shall be located above, but not more than 18" (458mm) above the countertop. Receptacle outlets shall not be installed in a face-up position in the work surfaces or countertops. Receptacle outlets rendered not readily accessible by appliances fastened in place or appliances occupying dedicated space shall not be considered as these required outlets.

Exception: To comply with the conditions as specified in (a) or (b), receptacle outlets shall be permitted to be mounted not more than 12 in. (305mm) below the countertop. Receptacles mounted below countertop in accordance with this exception shall not be located where the countertop extends more than 6 in. (153mm) beyond its support base.

(a) Construction for the physically impaired.

(b) On island and peninsular countertops where the countertop is flat across its entire surface (no backsplashes, dividers, etc.) and there are no means to mount a receptacle within 18 in. (458mm) above the countertop, such as an overhead cabinet.

## (7) Residential Lighting - Kitchen and Bathroom

### Kitchen Lighting

- Fluorescent luminaires must provide at least 50% of the wattage of all luminaires in the kitchen.
- Fluorescent luminaires may not contain medium-bas lamp sockets.

### Bathroom Lighting

- Each room containing a shower or bathtub shall have fluorescent lamp and must not have medium-bas incandescent lamp sockets.
- However, incandescent luminaires may be used if they are controlled by a manual-on occupant sensor.

## (8) Residential Bathroom Remodel Shower/Tub Replacement

### Water Closets

Water closets shall be located in a space not less than 30-inch clear width. The clear space in front of the toilet shall not be less than 24 inches. The center of the toilet shall not be located closer than 15 inches to an adjacent obstruction or wall (2001 CPC Section 408.6)

### Ceiling Height

Required ceiling height is 7'6" minimum in all rooms except kitchens, baths and halls

which are a minimum of 7'.

If the bathroom has a sloped ceiling the 7' ceiling height is required in only one-half the area the roof. No portion of the room measuring less than 5' from the finished floor to the finished ceiling shall be included in any computation of the minimum area thereof.

#### Light and Ventilation

Bathrooms shall be provided with natural ventilation by means of open able exterior openings with an area not less than 1/20 of the floor area with a minimum of 1<sup>2</sup> s.f. Alternatively, provide a mechanical ventilation system with 5 air changes per hour, with point of exhaust at least 3' from openings into building. Bathrooms containing only a water closet and/or lavatory may use a re-circulating fan that only removes odors.

#### Required Electrical Outlets

For bathroom remodels where basin cabinets are removed and reinstalled or replaced, an electrical outlet shall be provided at each basin, (within 36" of basin) as required under the 2001 California Electrical Code. Where more than one basin is provided, a receptacle outlet shall be provided at each separate basin. One outlet may serve two basins provided the outlet is located between the two basins and the basins share a common counter top. The outlet serving the basin shall be above the counter space.

#### GFCI Protected Outlets

Ground-Fault Circuit Interrupters are required at each relocated or new receptacle outlet within bathrooms. When existing outlets are removed from their outlet box, the replacement outlet shall be GFCI protected. Non-GFCI protected outlets shall not be reused. GFCI protection may be accomplished by use of either listed GFCI outlets or by listed GFCI breakers protecting the circuit associated with the outlets in the bathroom.

#### (9) Showers (including tub/showers)

- Showers shall be at least 1024 square inches in floor area, and shall be capable of encompassing a 30" circle. (CPC Section 412.7)
- Showers and tubs with showers require a non-absorbent surface up to 70" above the drain inlet. (CPC 412.7)
- Shower doors shall open outward and have a minimum clear unobstructed opening width of 22 inches. (2001 CPC 412.6)
- Where shower valves are replaced or are new, they must be either of the pressure balancing or the thermostatic mixing valve type.
- Concealed slip joint traps and overflows shall have access panels or utility space at least 12" in dimension and so arranged without obstructions as to make such connections accessible for inspection and repair. (2001 CPC Section 405.2)
- Shower pans can be replaced by several approved types: (2001 CPC Section 412.8)
- Fiberglass and cast stone types must be labeled and installed per UPC or IAPMO.
- Shower dam to be a minimum of 2" to maximum of 9" (CPC Section 412.6)
- Most pans are required to be mechanically secured in place (screws or nails depending on installation instructions).
- Job-formed pans composed of flexible type materials such as Composite, Choraloy and Composeal must be labeled by UPC, IAPMO, or ICBO and installed per approval.
- Job-formed pans shall slope 3" per foot toward the drain.
- Some brands require 15# felt under line. Check your listing.
- Some brands require that preformed corners are used. Check your listing.

- Inspections: After the shower drain is installed and connected to the waste. The drain shall be plugged and the pan filled to the dam to test the drain and pan installation. The installation shall not leak regardless of location.

#### Water Supply

- Water valve assembly must be blocked and strapped.
- Shower head wings shall be screwed (not nailed) to the blocking.
- Dissimilar materials must have dielectric fittings. (2001 CPC Section 316.2.4)
- Shower and tub/shower combinations shall be provided with individual control valves of pressure balance or thermostatic mixing valve type. (2001 CPC Section 420.0) Existing valve in good condition may remain.

#### Sub-floor Repair or Replacement

- If you have damage under the tub or shower, replace or repair damage per your pest control report and the Building Code.
- Call for an inspection of repair before covering.

#### Plywood/Board Damage

- If the plywood/board structural floor is damaged, you can replace the damaged portion only by blocking all edges of the new plywood/boards and providing new equal sized materials.
- Nail according to Nailing Schedule (CBC Table 23-II-B-1)
- If the damage extends under the floor, follow steps above for sub-floor repair.

No inspection is required for removal or replacement of linoleum under layment.

#### Framing

- All framing shall be replaced per 2001 CBC and if available current pest control report. Inspection: After framing is replaced, valves are replaced (optional) and pan is installed and full of water.
- Frame inspection involving tubs need to be made before tub is installed since we cannot see past the tub perimeter blocking. Block tub at perimeter with typical 2x4 blocking, secure tub to framing members as needed.

Call for another inspection on tubs after installed (before sheetrock)

Outside wall behind Shower/Tub replacement must have R-13 insulation minimum in walls. Window replacement must be dual-pane with a U-Value of .75 or lower with the U-Value stated on the window. Windows less than 60" from drain inlet to bottom of window are required to be tempered.

#### Wet walls

Backing for the finishing material is covered under two general categories:

##### A. Moisture Resistant Gypsum Board

- NO building paper between the studs and the material.
- Must be installed with the factory edge down facing the tub or shower pan.
- Material must extend 70" above the drain.
- All joints shall be taped with normal paper tape and the special water resistant (W.R.) taping compound from the board manufactures.
- Nail fasteners/screw heads are to be covered with W.R. Compound.
- Inspection: Required after completion of taping of joist and fasteners.
- Cement Compound Boards that are receptacles for use on networks.

- B. (Backer Board, Glas-crete, Durock, Wonder Board)
- 15# building paper is required between the board and studs per manufacturer's installation instruction.
  - If you are placing Cement Board over green gypsum board, #15 building paper is required between the boards.
  - Inspection: After mesh tape is applied.
  - Original Mortar Backed Ceramic Tile:
  - 15# building paper required behind mesh if over M.R. (green) gypsum board.
  - Inspection: Prior to mortar application.

#### Finishing the Project

- Complete the finishing material, certain tile, laminated plastic, (Marlit, etc.) or ICBO approved surfacing material.
- Caulk all penetrations of the surfacing material such as the shower head and valve body. Install shower/tub-shower enclosure. Approved enclosures include shower rod/curtains and safety glass.
- Safety glass includes laminated glass and tempered glass. Install remaining plumbing fixtures; 1.6 gallon flush toilets (2001 CPC Section 402.0)
- Traps, valves and water supply lines shall be approved by UPC or IAPMO.
- Smoke Detectors are required in all bedrooms and halls to bedrooms when the permit valuation is over \$1,000.00 (2001 CBC Section 310.9.1.2O)

#### Bathroom Lighting

- Each room containing a shower or bathtub shall have at least one fluorescent luminaries lamp(s) with an efficacy of 40 lumens per watt or greater to be switched at an entrance to the room.
- Luminaries installed to meet the 40 lumens/watt requirements cannot contain medium base incandescent lamp sockets, and must be on separate switches from incandescent lighting.
- Incandescent lighting fixtures recessed into insulated ceilings must be approved for zero-clearance insulation cover (IC rated) by Underwriters Laboratories or other testing/rating laboratories recognized by the International Conference of Building Officials.

### (10) Demolition Permits / Commercial and Residential

The Building Division has several distinct requirements for inspections involving Demolition Permits. All requirements can be met with one inspection if you take the time to carefully read the following:

1. Demolition Permits cannot be issued until receiving an approval from Bay Area Air Quality Management District for demolition.  
Approval document from BAQMD with J # is required. You may contact BAQMD Permit Services at (415)749-4990 for their requirements. You may also obtain a Demolition Packet at the City of San Pablo's Building Department located at 13831 San Pablo Avenue, Building 3, San Pablo, CA 94806.
2. The structure, including foundations, onsite sidewalks and driveways shall be completely removed from the property.
4. The lot shall be graded level or with a slight crown to provide for water drainage to the public right-of-way. Soil may be imported for that purpose, up to fifty (50) yards without a grading permit.
5. A sewer cap is required within five (5) feet of the property line with an approved cap. Concrete plugs are not permitted. An inspection is required before the cap is covered. You may identify the location with a small "S" sprayed on the sidewalk or curb for future

reference or use.

6. If a septic tank is on the property, it must be pumped out before the tank is demolished and removed from the property. A receipt from the pumping company is acceptable as evidence of sewage/sludge removal.
7. Inspection(s) shall be requested one (1) day before the actual inspection date.
8. An encroachment permit is also required for an inspection of City facilities involved in the demolition. For example: gas and electric caps in the street; street/curb/sidewalk damage; soil and/or debris in the street.
9. Abandoned wells shall be capped in an approved manner under the direct supervision of Contra Costa County Health & EBMUD. A copy of the Health Department report shall be provided to this department for verification.

Please inquire at the building division if there are any questions about materials to be submitted for a specific project.

Before any permits involving additional square footage are issued school impact fees must be paid to the West Contra Costa School District and West County Waste Water.

Contra Costa Fire District  
2010 Geary Blvd.  
Pleasant Hill, CA  
925-941-3300

West County Waste Water District  
2910 Hilltop Dr.  
Richmond, CA 94806  
510-222-6700

Contra Costa County Environmental Health  
2120 Diamond Blvd. #200  
Concord, CA  
925-646-5225

West Contra Costa School District  
1300 Potrero Avenue  
Richmond, CA 94804  
510-307-4545