This list is to be used as a general guide. 
It is not inclusive of all code requirements and inspection criteria.

Per California Plumbing Code (CPC) and California Energy Code (CEC)
California Codes available at www.bsc.ca.gov

Plumbing material, fixtures and devices used in a plumbing system shall be listed, or labeled by a listing agency, and comply with approved applicable recognized standards and submitted for approval by the jurisdiction. (CPC 301.2)

PIPE SUPPORT (table 313.3) and PROTECTION (CPC 312)
- ABS/PVC: Horizontal support every 4 feet, support vertically every story and provide mid-story guide
- Cast iron: Horizontal support every other joint unless over 4 feet, within 18” of joints, and at all horizontal branch connections. Vertical support at base and each floor, not to exceed 15 ft.
- Copper tubing: 1 ½” and less every 6 ft. horizontally and every 10 ft. horizontal for pipe 2” and larger. Support vertical piping every floor, not to exceed 10 ft.
- Protect piping from freezing, breaking and corrosion, and fill voids around pipe per CPC 312

SOIL PIPING
- Pipe supported on firm bed for entire length [CPC 313.5]
- Clean earth or granular fill for the first 12” of backfill above pipe in 6” layers [CPC 314.4]
- Four inches granular fill bed minimum for ABS drain pipe per CPC 314.4.1
- Trenches not to undermine footings within bearing plane (45˚) [CPC 314.1]
- Sewer and water pipe minimum 12” deep [CPC 609.1 and 718]
- Thermoplastic sewer pipe trench width shall be 1.25 times outside diameter (O.D.) of pipe plus 12” or O.D. plus 16” per 314.4.1

DRAINAGE
- Minimum slope ¼” per foot, or when preapproved, 1/8” per foot for 4” diameter or larger [CPC 708]
- No reductions in pipe size allowed in direction of flow [CPC 310.5]
- No drilling or tapping to make connections [CPC 310.2]
- Joints between various materials per CPC 705.9
- Minimum trap sizes per CPC table 702.2(1)
- Minimum 18” and maximum 30” to trap from inlet for laundry receptor CPC 804.1
CLEANOUTS (C.O.)

- Sized per CPC table 707.1.
- Required at upper terminal of horizontal runs on first floor or two way clean out required near building drain connection to building sewer [CPC 707.4]
- Cleanout in horizontal drainage piping every 100’ and/or every aggregate 135˚ change of direction and above urinal(s) [CPC 707.4]
- Clean out clearances per CPC 707.9
- Under floor clean out shall not be farther than 5 ft. from an access point [CPC 707.9]
- Cleanouts for drains that pass through backwater valves shall be identified with permanent label “Backwater valve downstream” per CPC 701.1

FIXTURES BELOW SEWER/ BACK WATER VALVES

- Fixtures to drain by gravity where practicable [CPC 709.1]
- When necessary due to site conditions, install sewer ejector pump per CPC 710.2.
- Backwater valves required for fixtures below next upstream manhole cover [CPC 710.1]
- Fixtures above manhole cover elevation shall not discharge through backwater valves [CPC710.1].
- Back water valves required to be accessible for service [CPC 710.6]

TRAPS

- Trap size no larger than trap arm [CPC 1003.3]
- Fixture trap arm to vent, distance minimum 2X trap arm diameter, or per Table 1002.2.
- Horizontal length of trap arms per CPC table 1002.2.
- Only 1 trap permitted on a trap arm [CPC 1001.2]
- Maximum 1 slip joint allowed on outlet side of trap [CPC 1003.2]
- Clean out required if change of direction is more than 90˚ [CPC 1002.3]
- Slip joint traps must be accessible, minimum 12” X 12” access [CPC 402.10]

VENTS

- No flat venting (take off below horizontal center line) [CPC 905.2]
- Slope vents toward waste piping and must be free of sags [CPC 905.1]
- No vent opening below trap weir [CPC 905.5]
- Horizontal vents minimum 6” above flood level rim or drainage fittings [CPC 905.3]
- Vents must terminate outdoors 6” minimum above roof [CPC 906.1]
- Termination minimum 12” horizontally from any vertical surface [CPC 906.1]
- Minimum 7 ft. above roofs used as decks if within 10 ft. horizontally [CPC 906.3]
- Clearance from building openings 3 ft. above or 10 ft. away [CPC 906.2]
- Vent terminations minimum 3 ft. from property lines [CPC 906.2]
WATER SUPPLY

- Minimum water service piping is ¾” (type L copper) [CPC 610.8]
- Steel plate protection for piping if notches or holes are closer than 1” to face of framing [CPC 312.9]
- Steel plate protection must span minimum 1 ½” beyond outside of pipe [CPC 312.9]
- Water hammer arrestors required near quick-acting valves [CPC 609.10]
- Hot water pipe insulation not less than pipe diameter but no less than 1” per CPC 609.11 & CEC 120.3-A
- Ream test required for copper pipe (CPC 309.3)
- Multiple shower heads - only one shower head operational at one time. California Green Building Standards 4.303.1.3.2.
- All materials intended to supply drinking water shall be in accordance with NSF 61 per CPC 604.1

TPR - Temperature/pressure relief valves plumbed to drain outside per CPC 608.5

REQUIRED VALVES

- Main shutoff and water heater shutoff valves must be fullway type [CPC 606.2]
- Control valves required immediately ahead of each water supplied appliance per [CPC 606.5]
- Shower valve location such that adjustment may be made without entering stream [CPC 408.9]
- Valves required on cold-water supply at each water heater [CPC 606.2]
- All valves require access [CPC 606.6]
- Vacuum relief valve for water heaters higher than the appliance(s) it serves [CPC 608.7]

GAS PIPING

- Gas piping prohibited underground beneath buildings unless in conduit sealed in building and vented on exterior [CPC 1210.1.6]
- Accessible dry leg required if water vapor in gas (called sediment trap) [CPC 1211.8.1]
- Corrugated stainless steel tubing shall be installed per manufacturer’s instructions
- Piping through concrete shall be sleeved [CPC 1210.1.5 and 312.2]
- Continuous corrosion resistant tracer wire minimum 14 AWG buried with plastic pipe per [CPC 1210.1.7.2]
- Protected from physical damage when mounted to the building. [1210.2]
- Piping subject to corrosion shall be protected per CPC 312 and 1210.1.3
PIPING TEST

- Water test on pipe at working pressure for 15 minutes (or 50 PSI air test for other than plastic pipe (15 minutes) [CPC 609.4]
- Drain waste and vent 10 foot head for 15 minutes or air test 5 PSI for 15 minutes [CPC 712.0]
- Gas test pressure, minimum 10 PSI for 15 min. per CPC 1213.3
  Test gauge per CPC 318
- Test gauge not more than 2X test pressure [CPC 318.5]
- Roof drains tested and approved prior to covering per CPC 1106.2

SHOWER PAN (CPC 408)

- Shower pan sloped to drain, minimum ¼” per foot and maximum ½” per foot
- Minimum 2” and maximum 9” dam and solid backing all around
- Listing and installation instructions for other than hot mop (built up) pans
- Drain weep holes shall not be sealed