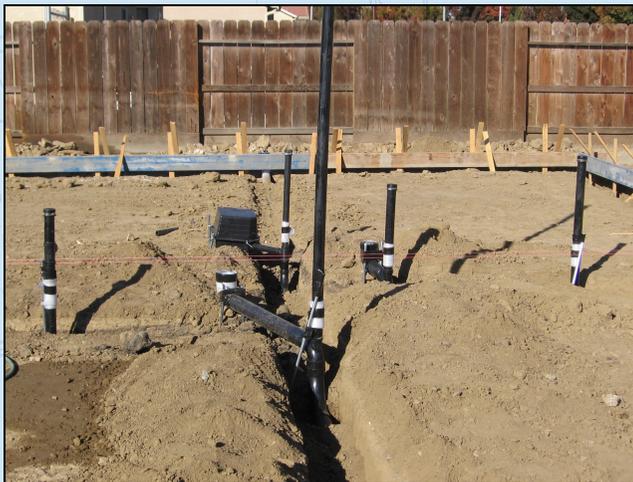


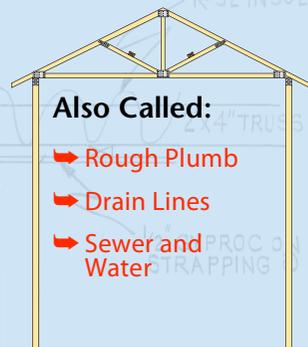
# UNDER-SLAB PLUMBING INSPECTION

This is the first of several required inspections for a single-family residence/dwelling (SFR or SFD) constructed on a concrete slab. The footprint of the house is formed and drain/sewer/water pipes should be in trenches, sealed and pressurized. Following are brief descriptions of items to look for during this inspection.



## UNDER-SLAB PLUMBING

- Identify if the Under-Slab Plumbing inspection includes the Building Sewer and Water inspection. The Under-Slab Plumbing inspection includes only the plumbing within the footprint of the house up to the clean-out within approximately 30 inches of the house. The building sewer and water service is the piping outside the house footprint to the property line or city water meter and public sewer tie-in. The sewer and water would be different if the house was built in a rural area with a private well and septic system.
- For the ABS pipe pressure test, verify that a 10-foot head of water is present and filled with water to the top of the pipe.



### Also Called:

- Rough Plumb
- Drain Lines
- Sewer and Water

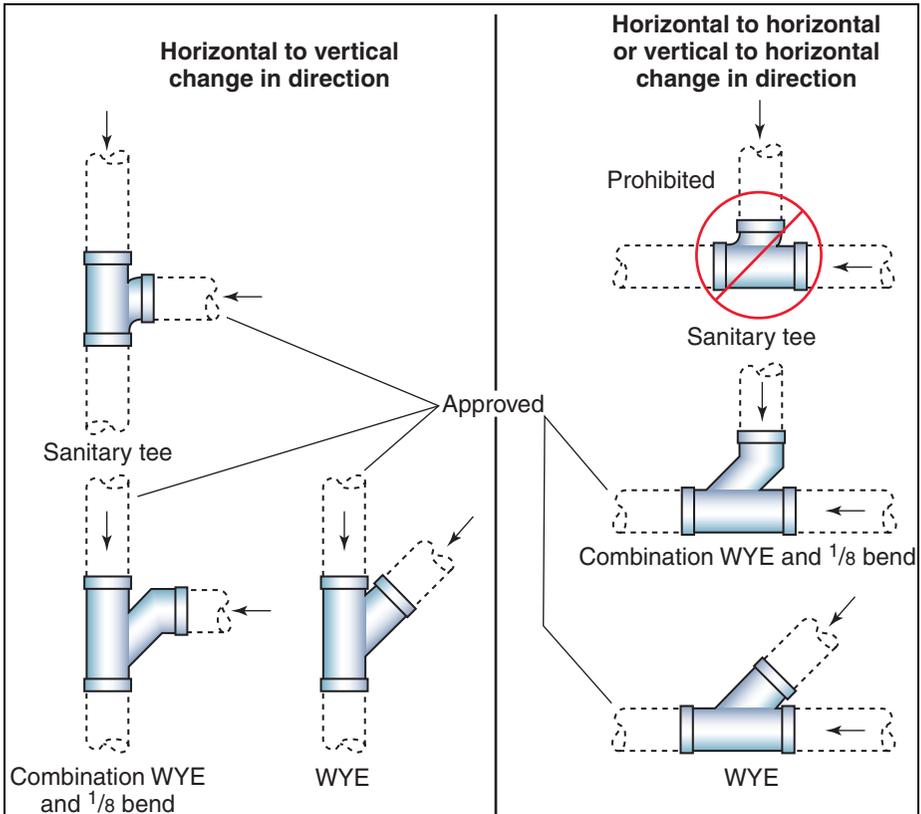
# UNDER-SLAB PLUMBING INSPECTION

- Check pipes and fittings for leaks.
- Make sure the main drain lines are sized properly for the house.  
*Examples: 3 water closets min. 3-inch pipe, 4 or more water closets min. 4-inch pipe*
- Identify each drain riser (pipe) for its intended use, to properly verify that the size pipe is appropriate for the fixture. Identify and size the risers used for any second-floor drains.



## PIPE IDENTIFICATION

- Identify and size vents for each fixture, making sure trap arm lengths are not exceeded.
- Identify each fitting for correct application and flow direction.



## DWV FITTINGS FOR CHANGE IN DIRECTION

- Check for proper 2% slope on ALL horizontal pipes. A 4-inch or greater building sewer line may have a 1% slope when first approved by the code official.
- Plumbing pipes must be exposed and properly “shaded,” completely supported in the trench on a bed of clean dirt or sand. Sharp rocks or large clumps of dirt under pipes could cause cracking, breakage or other damage to the pipes.
- Identify all the required clean-out locations.
- If a water service line is included, check that the line is properly sized per plan and pressurized with city pressure and the depth is correct in trench.

## UNDER-SLAB PLUMBING INSPECTION

- If the water line is PVC, all pipes and fittings shall be cleaned and joined with listed primers and solvent cements.
- If a building sewer line is included, check for the same requirements as drain lines (leaks, slope, shading, fittings, and so on).



**IDENTIFYING DRAIN PIPES FROM SEWER PIPE**

# FOUNDATION INSPECTION

This is the next inspection required after the under-slab plumbing has passed. The trenches are covered, and all the necessary components of the foundation/footings should be in place.



**ENGINEERED DESIGN FOUNDATION**



**CONVENTIONAL FOUNDATION**



- If your jurisdiction does not use a surveyor to verify the location of the house, you need to locate the property line hub markers and extend a string line between the front and back markers on each side of the house. Check measurements of setbacks according to the Approved Plot Plan.



**SURVEY PROPERTY PIN MARKER**



## **STRING LINE BETWEEN PROPERTY PINS TO MEASURE SETBACKS**

- Identify if there are different exterior/roof elevations of the house in the plans, and find the appropriate foundation drawings for that plan. Note any options that may apply to the inspection.
- Check the requirements for pad thickness, sand or gravel, vapor barrier and size/type of wire grid. All debris and foreign matter shall be removed from footings and foundation.
- Locate and measure the width, depth and length of the perimeter footings, any piers, interior spread footings, grade beams, etc., according to plans. Verify that these elements are in the correct location.

- Check all steel rebar diameters, grades, lengths, lap diameters, placement and clearance requirements in the footings and foundation.
- Locate any braced walls or engineered shear walls indicated in the plans and any structural engineered shear panels. Determine the manufacturer type and size of the engineered seismic hold-down hardware. Manufacturer's templates are required for any prefabricated shear panels to ensure proper tension bolt placement and installation.
- Determine anchor bolt diameters, lengths, spacing and placement.
- Locate any interior bearing or shear wall locations for lengths and spacing of anchor bolts throughout the foundation. **Note:** If bolts are left out of the concrete pour, they can be retrofitted with both epoxy and threaded rod or anchors similar to the Titan HD bolts (per the engineer of record) prior to standing the walls.
- Locate electrical panel risers and placement of the 20-foot, 4 AWG rebar Ufer ground.
- Locate all exposed under-slab plumbing and electrical pipes. Provide the necessary wrapping or sleeving where needed.
- No plumbing or electrical is allowed to run parallel with footings or go across piers and pads.
- If required, collect the Soils Moisture Test that applies to that lot and attach it to the building permit.
- If the foundation is a post-tension (PT) slab, then an approval report is required from a special inspector.



**POST-TENSION (PT) SLAB**

- If special inspections are required (Moisture Test or PT report) but are not available, then make arrangements to collect the documents before approving and signing the permit.

## FLOODPLAIN INSPECTIONS

For construction in flood hazard areas, upon placement of the lowest floor, including the basement, and prior to further vertical construction, the building official shall require submission of documentation, prepared and sealed by a registered design professional, of the elevation of the lowest floor, including any basement.



**FLOODED DWELLINGS**