



Design Build 201

Lighting and HVAC



A quick review:

- The Four Agreements
- Construction is a relationship based business
- Communication is key



A quick review:

cont'd.

- A good electrical plan is based on anticipating your client's needs
- Make selections early
- Double check your specs
- Jobsite walks make a better end product and less expensive tweaks
- Always bring your tape measure to job site walks



Overview of our goals for today:

- Review some real life examples of electrical rough-in on job sites
- Overview of framing
- Overview of HVAC
- Review of some real life HVAC
- Overview of plumbing rough-in

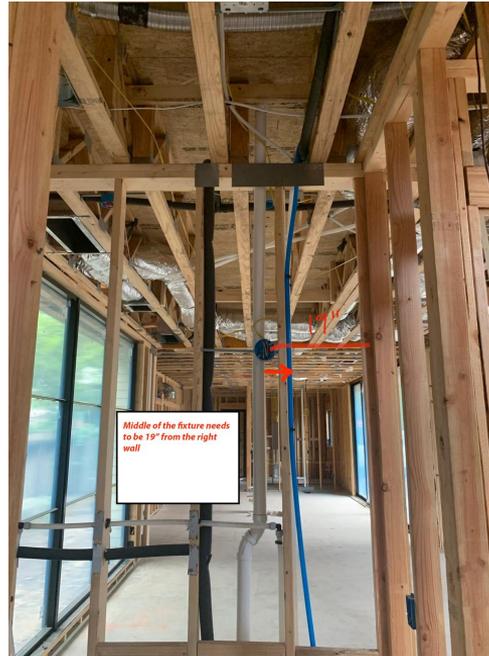


Real life examples of misplaced electrical rough-ins





Real life examples of misplaced electrical rough-ins



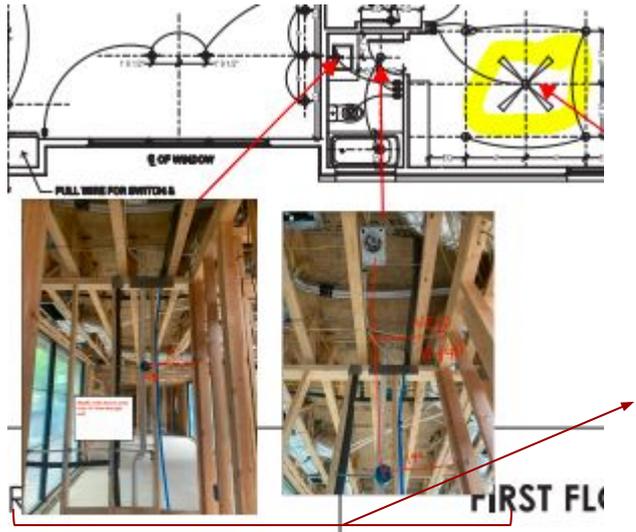


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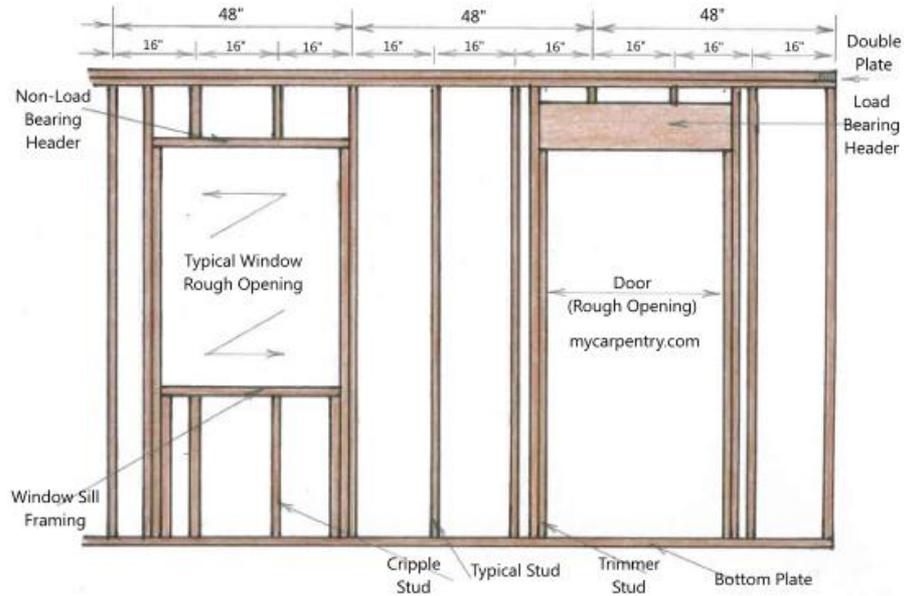


(Very, very basic) Framing Rules of Thumb

- Moving load bearing framing is a big deal (this doesn't mean it can't be done if it is essential, just know it will be expensive)
- Moving framing in non-load bearing areas is less of a big deal, but still needs to be done by qualified and properly licensed workers



Framing





HVAC





HVAC Basics

- Vents bring conditioned air in
- Returns take air out
- You need both for good air quality



Typical HVAC Process

- Larger homes and all commercial buildings will have an mechanical engineer drawings
- Sometimes these drawings are done before or without collaboration with the structural drawings
- In residential especially, I have seen contractors freestyle HVAC more than any other trade
- Smaller or more rural homes will often be built with no official mechanical drawing
- Sometimes if there are no official mechanical drawings the HVAC contractor will do a plan, or sketch if there
- Sometimes you get a good 'ol boy just installing HVAC

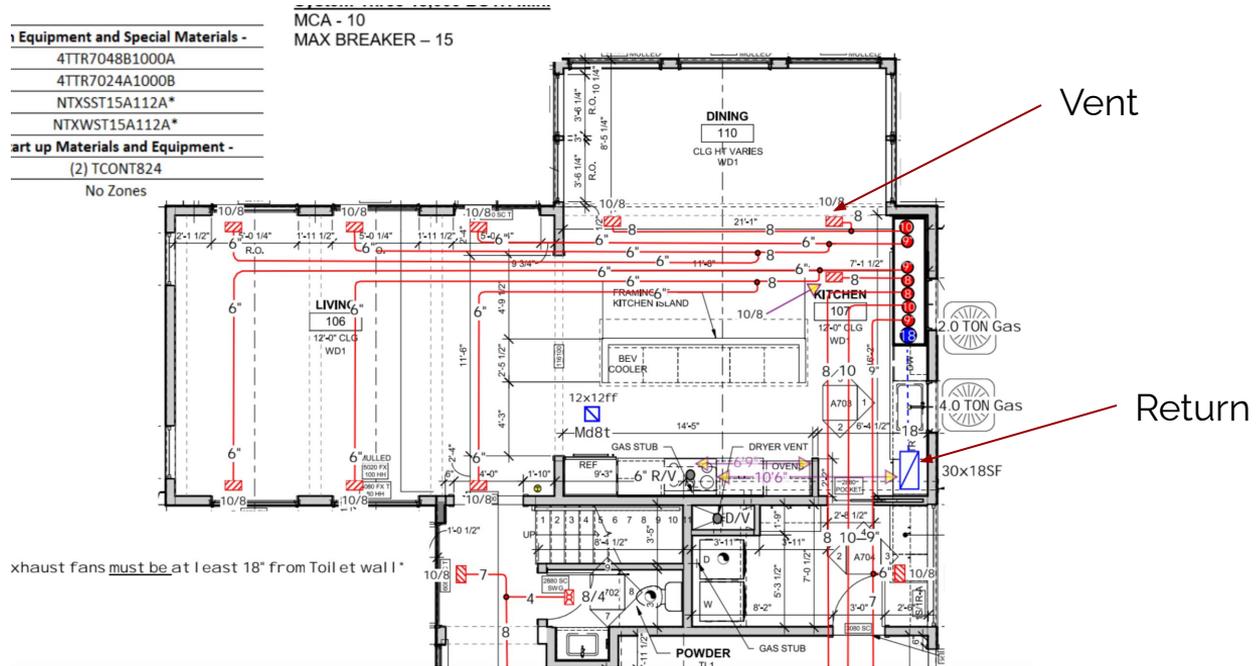


How the Interior Designer Interfaces with HVAC

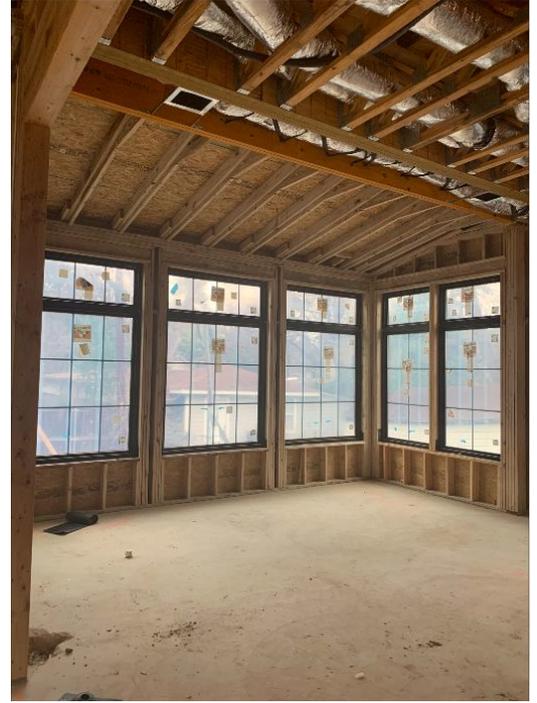
- The more elevated the project, the more your involvement with details such as HVAC
- Generally speaking, you want to make sure you aren't installing light fixtures, cabinets, window treatments, etc over a vent or a return
- Have a basic understanding of what can be moved, and what is a big ask
- Look for HVAC plans in the plan set, or request them from the contractor
- Put your eyeballs on the HVAC rough in real life and make good notes so you can check for light fixture, cabinet, and window treatment collisions when you are back at your desk



HVAC



HVAC plan









Thermostats



- Thermostats typically go in central locations
- This often means an ideal art wall
- Mark on HVAC plan or collaborate with the builder or HVAC person on an ideal thermostat location (that doesn't inhibit your placement of a great piece of art)
- Thermostats are high value items to integrate into home automation
- Double check thermostat placement on your electrical walk



Plumbing



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Plumbing Parts and Pieces

- Supply line (hot and cold)
- Drain lines
- Valve-and mixer rough ins
- Mixed water line (from valve and mixer to shower head or tub spot)



Supply Lines

- Bring hot and cold water to faucets





Drain Lines

- Take waste water out of the house
- Need to maintain certain slopes, beware when requesting a drain move it is a larger ask—especially especially when it comes to toilets





An example of supply lines and drain lines together





Valve and Mixer Rough-ins





Plumbing Rough-in Basics

- Most plumbing locations needs both supply AND drain lines (a refrigerator is a rare exception to this rule)
- Most sink faucets need only the supply lines roughed in to the location
- Showers, tubs, and wall mounted sink faucets will have a rough-in part (called the valve or mixer) that needs to be installed at framing stage
- For these items the part that goes in the wall is called the "rough-in" for slang, or "valve or mixer". The part that goes on the outside of the wall is the "trim"