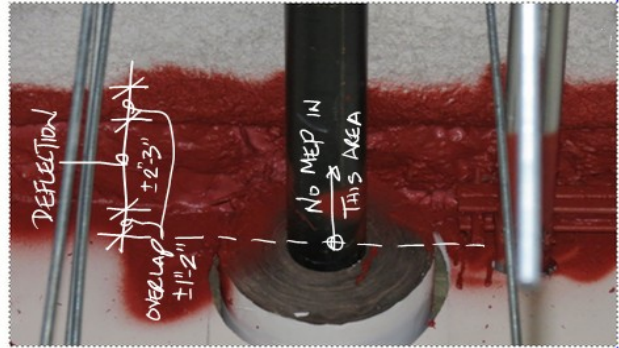
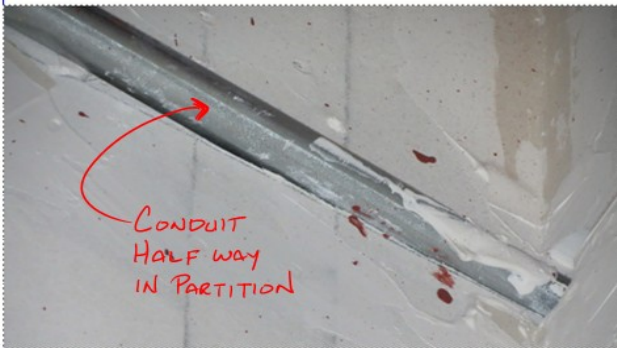


During BIM coordination, the following items should be reviewed in order to prevent common Quality issues.

BIM / MEP Quality Review Checklist (Fire/Smoke Walls): *Discuss at your jobsite meetings*

- ❑ REVIEW THE TYPE OF HEAD-OF-WALL...if it is spray system... the 5"-6" will work. IF it is a mechanical type system (such as drywall overlapping the joint, "fire trak", etc. the distance will dramatically be different and considerably be larger...around 12"-15". Also note that the sides of the beam, joist, etc. also has a no fly zone for this type of system...generally around 6"-8".
- ❑ REVIEW THE TYPE OF HEAD-OF-WALL...Review fire plan, beam locations, and discuss with the fire head-of-wall installation contractor to make sure that the head-of-wall will be horizontal or vertical...discuss with the installation contractor to make sure that the head-of-wall will be horizontal or vertical... contractor to make sure that the head-of-wall will be horizontal or vertical. *It will likely be horizontal if the beam is less than 12" from the wall.*
- ❑ MEP items cannot go through the head-of-wall...which means:
 - ❑ The head-of-wall includes anything 3"-4" down from the deck (low flute), steel beam, joist, etc...
 - ❑ Locate the top of any MEP item 5"-6" from the bottom of the deck (low flute), steel beam flange, joist, etc. in order to properly install the fire stopping overlap.
 - ❑ Make sure that the insulation thickness (water pipe, steam pipe, etc.) is below the 5"-6" mark.
 - ❑ Make sure that the top of the mechanical duct flange and insulation wrap is at least below the 5"-6" mark.
 - ❑ Understand the thickness of the fire proofing, as the 5"-6" from the bottom of the deck (low flute), steel beam flange, joist, etc. starts at the bottom of the fire proofing.
- ❑ MEP items should NOT go through the fire/smoke wall at an angle other than 90°. (There is a limited tested assembly, with one mfr...which just cannot be duplicated by another mfr)
- ❑ HVAC ductwork should not be half in the fire / smoke wall (drywall)
- ❑ Plumbing & electrical items should not be half in the fire / smoke wall (drywall)



- ❑ MEP items such as plumbing should not have a flange, hub, or fitting connection part way in the wall (as that part of the system is not tested).
- ❑ MEP items such as plumbing should not have a "Y" half way into the wall (as that part of the system is not tested).
- ❑ MEP hangers (rod) should be at least 3" away from the wall.
- ❑ Door or window king studs need to go to deck above...review relocating king studs as required and increase the length of the box beam above the door.
 - ❑ If the duct must go through the king stud, try and get it to at least miss one side of the door to allow for the king stud to extend to the deck.
- ❑ There is a maximum total length of a group of electrical conduits in a row allowed to go through a wall...review the UL Assembly from the sub Contractor.
- ❑ Only stair related MEP items can be within or through the stair enclosure.
- ❑ Make sure that any plumbing going through an electrical or IT closet is properly protected underneath the pipe with a fully soldered stainless steel pan.
- ❑ Fire damper in a 2-hour wall or greater...must be within the wall plane. Model clear access zone for damper access
- ❑ Smoke damper must be with-in 2'-0" of the plane of the wall. Model clear access zone for damper access.
- ❑ Review CMU walls and determine location of bond beams...typically located 8"-16" above a door and 1-3 CMU courses below the top of the wall...REVIEW THE STRUCTURAL DRAWINGS FOR LOCATIONS...
- ❑ Determine if there are beam penetrations...edge of openings will need spray fireproofing which must be included into the opening size...Need to verify of the flange is to be designed to 1/2 or full tip thickness prior to determining overall encroachment.