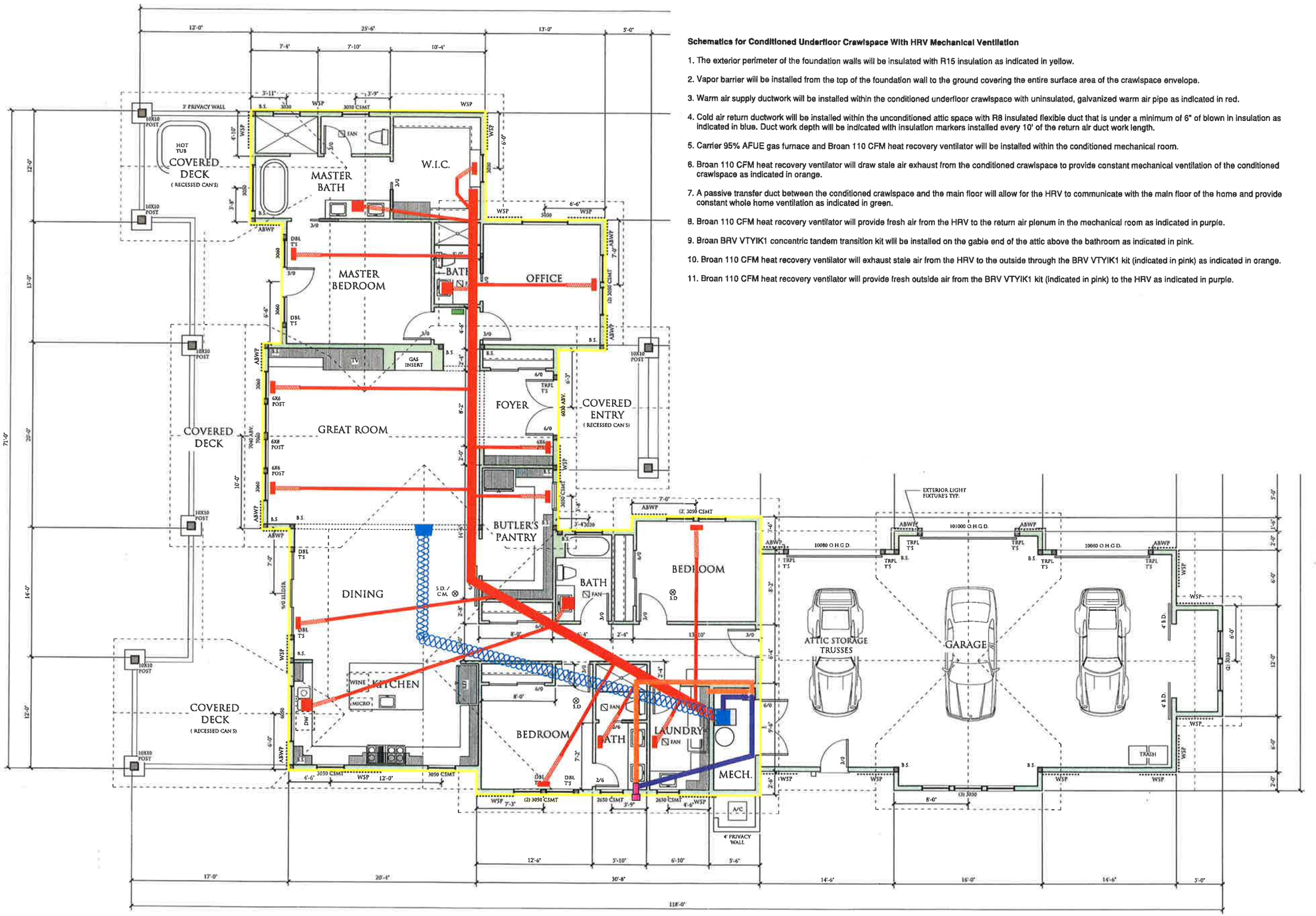

Schematics for Conditioned Underfloor Crawlspace With HRV Mechanical Ventilation

1. The exterior perimeter of the foundation walls will be insulated with R15 insulation as indicated in yellow.
2. Vapor barrier will be installed from the top of the foundation wall to the ground covering the entire surface area of the crawlspace envelope.
3. Warm air supply ductwork will be installed within the conditioned underfloor crawlspace with uninsulated, galvanized warm air pipe as indicated in red.
4. Cold air return ductwork will be installed within the unconditioned attic space with R8 insulated flexible duct that is under a minimum of 6" of blown in insulation as indicated in blue. Duct work depth will be indicated with insulation markers installed every 10' of the return air duct work length.
5. Carrier 95% AFUE gas furnace and Broan 110 CFM heat recovery ventilator will be installed within the conditioned mechanical room.
6. Broan 110 CFM heat recovery ventilator will draw stale air exhaust from the conditioned crawlspace to provide constant mechanical ventilation of the conditioned crawlspace as indicated in orange.
7. A passive transfer duct between the conditioned crawlspace and the main floor will allow for the HRV to communicate with the main floor of the home and provide constant whole home ventilation as indicated in green.
8. Broan 110 CFM heat recovery ventilator will provide fresh air from the HRV to the return air plenum in the mechanical room as indicated in purple.
9. Broan BRV VTYIK1 concentric tandem transition kit will be installed on the gable end of the attic above the bathroom as indicated in pink.
10. Broan 110 CFM heat recovery ventilator will exhaust stale air from the HRV to the outside through the BRV VTYIK1 kit (indicated in pink) as indicated in orange.
11. Broan 110 CFM heat recovery ventilator will provide fresh outside air from the BRV VTYIK1 kit (indicated in pink) to the HRV as indicated in purple.

MAIN FLOOR PLAN

2,798 S.F. HOUSE
1,224 S.F. GARAGE