4300 Avenue D ROOF

I would also like to replace the roof (currently asphalt shingles – original house had wooden shingles) with a standing seam metal roof in galvalume (or equivalent Kynar color). I have already received administrative approval to replace the front and rear (two) shed roofs with that material (the front porch is metal and the rear two shed roofs are asphalt, but their slope is too low for shingle manufacturers to warranty (below 3:12)).

Part of this is just routine maintenance (the front porch was leaking a bit, and before covid, I had been talking to roofers and had attempted to patch some of the rusting metal with "gunk"), but I am also replacing the aging (20+ years) HVAC currently in the crawlspace. I have talked to at least five different reputable HVAC contractors and none would replace the current system, due to space constraints (the crawlspace is 18-24" high).

That leaves the attic, which is large enough for a new system. I am almost finished removing what looked to be a failed attempt at an (unpermitted) attic conversion by previous owners. Austin Energy requires R38 roof insulation, but the roof rafters are only 2x4. My plan is to spray foam the inside of the roof deck and to add rigid insulation above the roof deck to reach the required R-value. To complete this job with asphalt shingles would add significant weight to the roof (possibly requiring rebuilding the entire roof structure), and more importantly, I have not been able to find a roofer familiar with or willing to add "nailbase" insulation (nailbase is osb/plywood bonded to rigid foam - essentially the roof would become a sandwich of plywood/foam/plywood atop the rafters). All the roofing companies I've contacted are familiar with metal roofing on top of rigid foam using strapping. I propose adding additional rigid foam to the current roof deck, strapping, and finally a standing seam metal roof in galvalume or a kynar equivalent color)

My hopes are to protect the structure from below (new encapsulated foundation), from above (new roof), and from the sides (repairing the trim and re-painting), without adding/subtracting any more than is necessary.