
ENGINEER'S INSPECTION REPORT
RE: 1271 Kuykendall St. Fairbanks, AK



Inspected by: Timothy Henry, P.E.
Inspection date: January 27, 2026

Sellers: 0426 Tish Trust
Sellers Licensee: Gary Gallemore – Walden Home Group

This report was prepared for you after the onsite inspection of the subject property. According to Borough records this home was constructed in 1995. No other reports by others or documentation of construction were available to me for this inspection. The following listed recommendations for correction are based on my opinion, observations, code requirements and best building practices.

Recommended items for correction are as follows:

- 1. Exterior Stairway Handrail** - Stairways with four or more risers require a handrail on at least one side. Install a graspable handrail complying with code requirements on one side of the exterior stairway for the full length of the flight. The handrail height shall be 34–38 inches measured above the stair nosings, continuous from directly above the top riser to directly above the bottom riser, with ends returned to the wall, terminated in newel posts, or equipped with safety terminals.

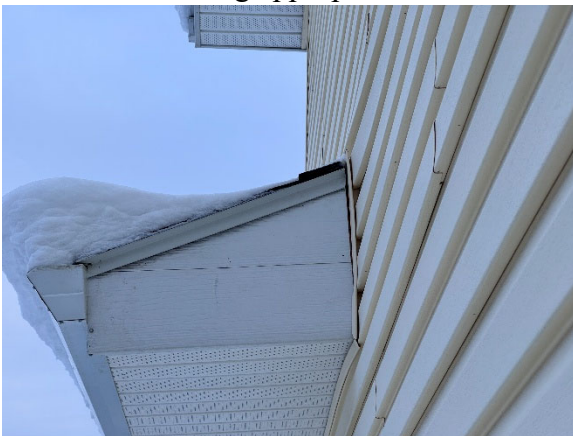
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2. **Exterior Hose Bib Vacuum Breaker** - Replace the damaged vacuum breaker on the front exterior hose bib with a new, code-compliant unit.



3. **Garage Entry Door Frame Base Trim** - The exterior door frame base trim at the garage is decayed. Remove the affected trim, inspect for underlying decay or damage, replace with new material, and ensure proper painting/sealing for moisture protection.



4. **Short Awning Roofs** - The small awning roofs have shifted and are pulling away from the wall framing at the top. Engage a licensed contractor to open the soffits as needed, resecure the structures using appropriate structural wood screws and metal brackets.



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5. **Garage Man Door Threshold** - The rear garage man door has a warped threshold causing binding and jamming. Repair or replace the threshold to ensure smooth operation without binding or gaps.



6. **Interior Paint Adhesion Over Prior Smoke Residue** - The home interior has been recently repainted; however, heavy prior smoking (evident from tar/nicotine residue) raises concerns about paint adhesion and potential bleeding/staining. Provide documentation confirming the use of a high-quality stain-blocking/locking primer (e.g., shellac- or PVA-based). Allow for an adhesion test in an inconspicuous area (e.g., closet), using Method A – X-Cut Tape Test per ASTM standards:

- Make two intersecting cuts through the paint to the substrate, forming an "X" approximately 1–2 inches long.
- Apply pressure-sensitive tape firmly over the cut.
- After approximately 90 seconds, remove the tape rapidly at a 180° angle.
- Inspect for removal and rate adhesion (0 = no removal/excellent; 5 = complete removal/poor). Poor adhesion requires corrective action.

7. **Smoke Odor Elimination** - Heavy smoking history (cigars/pipe) is evident throughout the home, with particularly strong odors in the HRV ductwork. Use professional odor remediation methods, including ozone generation if appropriate, to eliminate residual smoke odors. Note: Ozone treatment should follow safety guidelines, as high concentrations can pose health risks; occupants, pets, and plants must be removed during treatment.

8. **Heat Recovery Ventilator (HRV)** - The HRV receives power but is non-functional due to heavy tar accumulation from prior smoking. Replace the unit with a new one installed by a qualified professional. Professionally clean all associated ductwork. Verify that bathroom boost switches function properly.

9. **Mini-Split Air Conditioning System** - Have the mini-split system serviced by a qualified technician and confirm full functionality during final walkthrough/inspection.

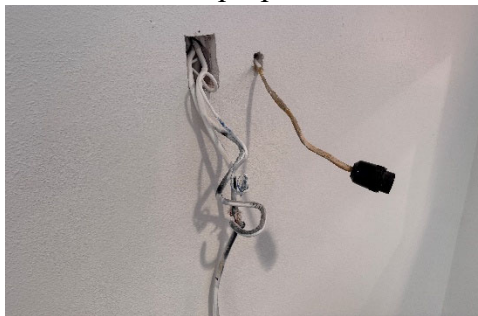
10. **Bar Sink Faucet Aerator** - Replace the clogged aerator screen on the bar sink faucet.

11. Electric Items:

- a. Install GFCI protection to all exterior electric receptacles. Ensure they all have “in use type” weather seal covers. *Reference NEC 210.8(A)(3).*
- b. Confirm there is proper GFCI protection for the master jet tub. *Reference NEC 680.21(A)(C).*
- c. At each electric breaker panel, install handle ties between each of the circuit breakers of the multiwire branch circuits that share a neutral conductors as required by *NEC 210.4(B)*. *each multiwire branch circuits shall be provided with the means that will simultaneously disconnect all ungrounded conductors at the point where the branch circuit originates.*
- d. Install all open electrical throughout the crawl space into a junction box with cover plate installed. Ensure proper wire nuts are installed on each conductor.



- e. Restore functionality to all of the garage ceiling lights.
- f. Eliminate the improper and unsafe wiring along the wall in the living room area.



12. Master Bathroom Water Damage - Moisture-damaged paint and drywall are present beneath the master toilet and around the leaking master jet tub. Open affected areas, repair leaks, document resolution (e.g., via photos or technician report), and properly patch/restore drywall.

13. Boiler Inspection and Service - Have the boiler fully inspected, serviced, and the heat exchanger cleaned/brushed by a licensed heating contractor (unless documented service within the last 6 months is provided). Address any deficiencies noted and furnish receipts/documentation.

14. Boiler Aquastat - The aquastat appears malfunctioning, with the boiler approaching boiling temperatures. Have this diagnosed and repaired by the heating contractor.

15. Master Vanity Hot Water (Right Side) - Restore hot water supply to the right-side master vanity sink.

16. Master Vanity Drain Leak (Left Side) - Repair the leaking drain pipe under the left-side master vanity sink.

17. Master Shower Grout - Repair cracked grout lines throughout the master shower.

18. Sewer Cleanout - No exterior sewer foundation cleanout is accessible, as the addition covers the original location. Keep the discovery/inspection period open to allow video scoping of the sewer line. I am available to perform this scoping at no additional charge.

19. Crawl Space Vapor Barrier at Columns - Trim and remove vapor barrier material from around untreated wood support columns to prevent ground moisture contact. Seal the vapor barrier securely to the concrete footings.



20. Crawl Space Floor Joist Support - Many floor joists are gapped above supporting beams due to shrinkage, relying solely on brackets. Install shims to achieve tight, positive bearing under each joist with no gaps.



21. Crawl Space Ground Vapor Barrier - Improve the ground vapor barrier to ensure it is continuous, properly overlapped, and tightly sealed at all seams and edges.

22. Crawl Space Mildew - Scrub and disinfect areas of mildew on floor joists.



The following is general information and suggestions for future use.

A. As illustrated in the photos below the staining coming out of the master bedroom windows illustrate the amount of smoking that occurred in this room. It is also evident when opening up the HRV ducting as there is heavy tar accumulation.



B. In the summer when weather permits, recommend refinishing the exterior door frames.



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- C. The perimeter weather seals on the garage overhead doors are brittle and are generally worn out. Recommend upgrading these with new and consider using the bristle type.



- D. The exterior electric service panel was evaluated and appears to be NEC compliant with appropriately sized copper conductors for the 200 amp service.



- E. The metal flashing at the exterior is frost heaved, this is somewhat common in this neighborhood due to the high moisture content in the soil.



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- F.** There is OSB plywood covering the mini split air conditioning system along the back of the garage. If this unit is going to remain it really should have a proper cover built for it to protect it during the winter. The cover of course needs to come off in the summer when the unit is in use.



- G.** Clean the rain gutters of accumulated leaves and debris and install rain gutter downspout extensions ensuring that the water discharges at minimum 5 feet away from the foundation at each. Reevaluate finish grade slopes in the spring when the snow is melting and ensure that no water is pooling adjacent to the foundation. There is evidence of water infiltration into the living room addition along the east side of the house indicating that the finish grading does need improvement at minimum in that area.

- H.** Recommend pressure washing and cleaning the moss and debris out of the J trim of the vinyl siding at the exterior of the house.



- I.** The roof framing consists of Engineered trusses with steel gusset plates. These are generally considered load capable of the full Fairbanks design snow load and under normal conditions shoveling the roof should not be necessary. Attic insulation consists of blown cellulose and was measured at around 8 inches thick. Recommend adding an additional 8 inches of blown fiberglass taking care not to block the eave vents.



- J.** There is an exhaust fan in the attic space. This fan is likely not needed since the ridge vent has been added.



- K.** The boiler chimney appears to have been replaced and was found to be in acceptable condition. Recommend checking this annually as part of the boiler servicing.



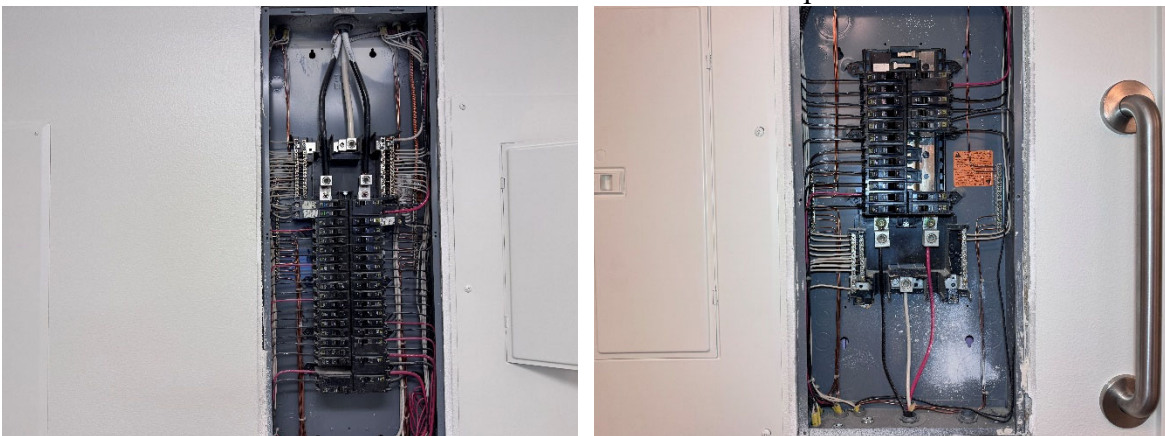
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- L.** It is very difficult to evaluate roof condition during the winter with so much snow and ice cover. I was able to clear some snow and the shingles appear to be in good condition. These are an architectural type fiberglass reinforced shingle that have a design life of 30+ years. It is my understanding that these were replaced during a renovation in approximately 2005.



- M.** The garage overhead door panels are bent from a vehicle strike but they do still seem to be fully functional.



- N.** Both electric breaker panels were evaluated and look good. Besides needing handle ties for the multibranch wire circuits these were found to be NEC compliant.



O. The master shower steam unit was tested and confirmed fully functional.

P. I did not find any active leaking on the boiler but there is staining underneath as shown below. This boiler appears to be original from 1995 and would be considered at or near the end of its design life.



Q. All of the in floor heat was confirmed fully functional using a thermal imager. There was no glycol in the system but it consists of just straight water. There was dirt and debris observed in the hydronic fluid so it would be best to consider flashing this out and at minimum and installing fresh distilled water.



R. Below are photos inside the nonfunctioning HRV. There is heavy tar staining from smoke.



S. Recommend refinishing the windowsills throughout the house and re-caulking the windows at the interior as needed to ensure they are each tightly sealed.



T. Recommend resecuring the loose cabinet hinges throughout the kitchen.

U. There were mushrooms observed under the plastic vapor barrier in the crawl space which further confirms the high moisture condition of the soil in this area. There is known for permafrost nearby but I did not find any evidence of settlement or movement on this house.



This report is intended solely for the named buyers. Third parties relying on this report do so at their own risk. The inspection was limited to visibly accessible areas at the time of the visit. This document supplements, but does not replace, direct discussions. It does not cover latent defects, environmental hazards (e.g., fuel leaks, hazardous materials), or compliance with all local ordinances. I recommend consulting qualified specialists (e.g., plumbers, HVAC technicians, environmental testers) for further evaluation as desired. Please contact me with any questions.

Sincerely,

Timothy Henry, P.E.



January 27, 2026