

Electrical System

As part of our home inspections, we will inspect the meter box, overhead service line, main panel for proper wire sizing to breaker/fuse sizing, look for melted sheathing, burnt wiring, double-taps, clearances, branch wiring ground wires, proper grounding & bonding, GFCI & Arc fault protection, test 110 outlets & lights, and inspect the condition of the visible branch wiring. We will not load-test breakers to see if they trip under short-circuit or overload situations. We will not trace wires. We do not test 220 hookups. We are not making sure the electrical system is Code Compliant. If there are outbuildings, we will not inspect the electric running to them or in those buildings unless the client has agreed to pay extra to cover inspecting those additional items.

Service:

Service Type & Condition:

Overhead, the service line is running through the crotch of the Maple tree. Over time, the movement of the tree and/or the wires can cause the sheathing to wear down exposing the bare wires and leading to a fire. There is also a dead branch from the Oak tree touching the line. These need to be corrected.



Masthead: Drip Loop:

Meter Box

Amperage Size:

The masthead appears to be installed properly with proper clearances.

The drip loop appeared to be in good condition.

100 amps.

Inspection:

Address:



Phase:

Condition:

2-Phase.

The meter box appeared to be plumb and in good condition.

Main Panel:

Type:

Knife Fuse in the Main panel with a fuse panel that is supposed to be the main, but has been reconfigured improperly.



Main Panel Service Entrance Cables:

Type:

Multi-strand copper coated with tin.

Amperage Size:

100 amps.

Main Disconnect:

Main Disconnect Size:

100 amps.

Main Panel Condition:

Condition:

The main disconnect panel with the knife fuses have the main lugs at the bottom improperly triple tapped with different sized wires. This is a fire hazard. 1 set of wires runs over to the main fuse panel, another runs directly over to the sub-panel under the main fuse panel, and the 3rd runs below left to the additional sub-panel that has breakers. Both of these sub-panels should have never been installed. The main fuse panel has the main pull fuse down-sized and should be 60 amps. It was either 45's or 30's. I can't remember. Theoretically, when this pull fuse is removed, the power to all of the screw fuses below should no longer have power. The service entrance cable feeding this has been down-sized and has melted. This is a fire hazard. When I removed the pull fuse to the right, this has arced in the past and melted the plastic. This may be a fire-hazard.

There are no branch wiring ground wires in the main fuse panel or any of the sub-panels in the basement, yet some of the outlets are "testing" grounded.



Basement Sub-Panel at the bottom left

Condition:

The sub-panel to the bottom left has hot & neutral wires sharing the same bar. There never should be any hot (black) wires on the bar.

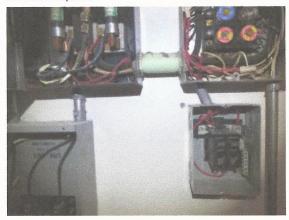




Basement Sub-panel bottom right

Condition:

This sub-panel should have never been installed. It's triple tapped out of the main disconnect panel.



Basement Sub-panel right Condition:

Rear Entry Sub-panel Condition:

No significant issues observed. This sub panel appeared to be in good condition and properly installed.

This panel is made out of asbestos with porcelain parts. This panel is a safety hazard for lung cancer and also a fire hazard. I counted at least 8 screw fuses that were 30 amps with 12 or 14 gauge CU wires running from them. These are over fused and a fire hazard. To remove this panel, you'll need to have an Asbestos Abatement Contractor abate as deemed necessary once the power is disconnected from it.



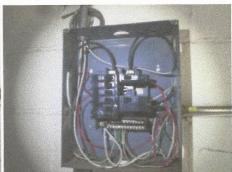




Detached Garage Sub-panel *Condition:*

There are 4 or more openings in the sides, top, & bottom of this sub-panel. This can allow mice or other animals into the panel. It's also a potential for anyone to poke something inside and become electrocuted. The ground and neutral wires are sharing the same bar in this sub panel. They need to be separate.







A/C Sub-panel Condition:

General Wiring:

Detached Garage Wiring:

No significant issues observed. This sub panel appeared to be in good condition and properly installed.

The overhead wires running from the house to the garage are too low, not designed for exposure to the sun, and are for the knob-n-tube wiring. The knob-n-tube wiring is improperly spliced into Romex inside the garage, there are no junction boxes, and the unprotected wiring that's below 8' needs to be protected. The outlets are not GFCI protected either.



Attic Wiring:

Live knob-n-tube wiring is present. This old, out-of-date wiring can be a fire hazard. It needs 3" clearance so it doesn't overheat. Over time, the frail sheathing can become damaged or chewed exposing the live wiring. It is designed for only 15 amps and for the original wiring schematics of the home. This wiring shouldn't be added onto or spliced into as it can overload it. We recommend that this wiring be removed and replaced with Romex by a licensed Electrician as they deem necessary.



Interior Wiring:

Overall Recommendation:

Recommendation(s):

Recommend having a licensed Electrician review and correct as deemed necessary.

See Interior Section of report for further details on lights & outlets.