

Masonry Chimney #1

- **Description and photos:**



- **Crown / Wash cap:** Needs attention



The masonry work that protects the top of the chimney structure is deteriorated and no longer protects the chimney structure from water intrusion that will allow damage to the chimney structure and possibly the home

- **Flashing:** Meets industry standards
- **Trees/vegetation or other objects that could present a hazard:** No
- **Material:** Brick

- **Approximate height above roof:** 36
- **Roof Type:** Asphalt
- **Approximate height above ground:** 22
- **Chimney location:** Interior
- **Approximate Roof Pitch:** 4/12

Flue #1

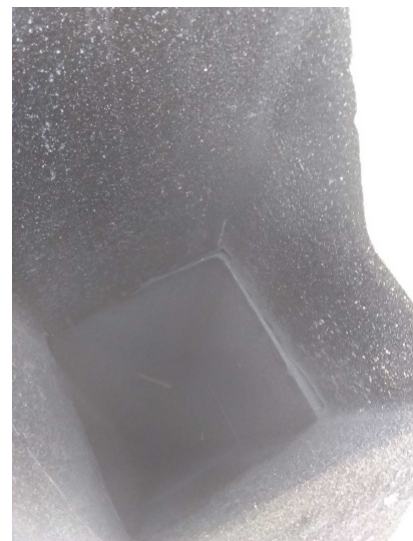
- **Appropriateness of the chimney liner type for the appliance:** Meets industry standards
- **Approximate flue length to appliance :** 15
- **Chimney liner / re-lining system support:** Meets industry standards
- **Level of cleanliness of venting system:** Potential hazard



Stage 3 Glazed Creosote: During the scan of your system we found stage 3 glazed creosote. Creosote goes through 3 stages. Stage 1 being a very fine brown powder like stage. If the system is not swept or undergoes heavy use it will become Stage 2. Stage 2 Creosote is a black flakey substance often with crystallizing taking place. If Stage 2 creosote is left in the system the crystallization will transform into a sticky tar like substance with a very shiny appearance. This is Stage 3 Glazed Creosote; it is a combustible material and can catch fire if the right amount of air is allowed to find its way into the flue during use. Removing Stage 3 Creosote may require chemicals and or more aggressive forms of cleaning than standard cleaning procedures. It should be removed before further use.

- **Internal flue opening length: 11.25**
- **Chimney cap / spark guard / Top damper: Suitable material condition**
- **Chimney liner presence, condition regarding readily visible defects, holes, cracks, missing mortar joints, spalling, mortar protrusions, and proper alignment: Potential hazard**





The mortar joints between the flue tiles are no longer intact. These missing or deteriorated mortar joints prevent the flue tiles from properly conveying the byproducts of combustion to the exterior of the home.

Flue is coated with stage 3 glazed creosote.

- **Lining material:** Clay tile
- **Flue shape (used to determine flue size ratio to fireplace opening):** Rectangular
13x13
- **This flue was inspected:** Internal camera inspection system
- **Internal flue opening width:** 11.25

Fireplace #1

- Description and photos:



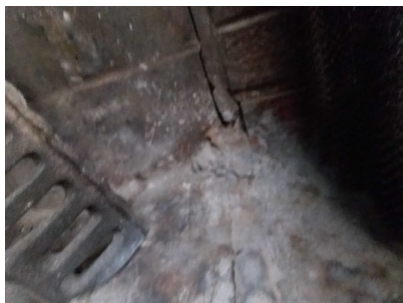
- Hearth extension size - sides of fireplace: 20
- Flue tile sealed at smoke chamber: Does not meet industry standards



The flue tile is not sealed at the top of the smoke chamber. This can allow the byproducts of combustion to go behind the flue tiles and may migrate to areas of the chimney and home not meant to contain them. The potential hazard exists that combustible residue could built up where it cannot be maintained and allow the possibility of a structure fire. This defect could also allow carbon monoxide the enter the home. 2016 NFPA 211 11.2.1.13

- Clearance to combustible trim: 6

- **The firebox is required to have tight fitting joints at the facing material, lintel and hearth extension:** Needs attention

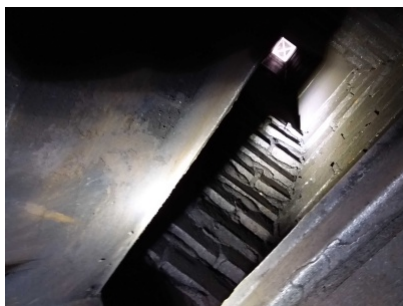


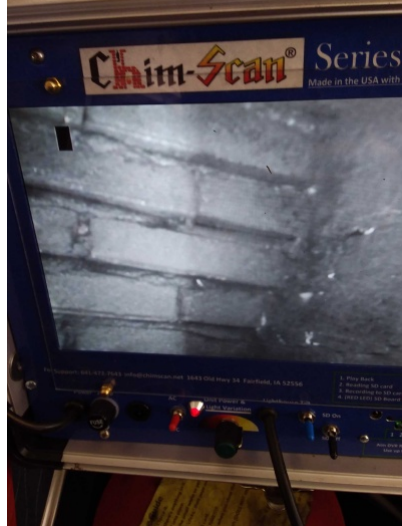
There are cracks evident where the face of the fireplace meets the firebox. These cracks have the potential hazard of allowing heat, sparks and other byproducts of combustion to travel behind the facing material of the fireplace and possibly cause a structural fire. 2016 NFPA 211 11.2.1.5

- **Firebox depth: 25**
- **Blockage or significant obstructions in damper and smoke chamber area:** Needs attention

The area above the damper is restricted by construction materials. Even when the damper is fully open the path for the smoke to travel is diminished and the fireplace may not draft properly. 2016 NFPA 11.2.1.3.3 IRC 2006 2111.6

- **Combustible trim projects out from the fireplace face:** more than 1½.
- **Operation and closure of the damper assembly:** Needs attention
A poor fitting or operating damper can cause conditioned air from the home to be drawn out of the dwelling causing increased heating and cooling expenses Industry Standard 2016 NFPA 211 IRC 2006 2111.7.1
- **Smoke chamber general accessibility, construction, parging and condition:** Does not meet industry standards







The smoke chamber is a crucial part of the fireplace system and is often the most poorly constructed area of the structure. Most structural fires associated with fireplaces originate in this area. It is imperative that this area be completely sealed and parged smooth. 2016 NFPA 211 11.2.1.13 IRC 2006 2111.S

The smoke chamber walls are not parged smooth. This can cause a chimney to draft poorly. Lack of the parging material may also increase the risk of a structural fire and the risk of the byproducts of combustion migrating into the home. 2016 NFPA 211 11.2.1.13 IRC 2006 2111.S

Smoke chamber is coated with stage 3 glazed creosote.

- **Combustible framing/forms under hearth or hearth extension of masonry fireplaces:** Meets industry standards
- **Fireplace configuration / Appliance manufacturer's clearance requirements:** Open wood burning
- **Fireplace width:** 34
- **Fireplace height:** 26.5

- **General condition of hearth and hearth extension:** Does not meet industry standards



The floor of the firebox has cracks in the mortar and / or bricks or the bricks are pitted. The floor of the firebox needs repaired.

- **Hearth extension size measured starting at the face of the fireplace:** 15
- **General condition of the firebox:** Needs attention



There are gaps in the mortar joints. The smallest gap in the masonry can create a pathway for rogue flue gases to be drawn into areas of the structure that could pose a potential fire or carbon monoxide threat. Fireboxes are to be laid with refractory mortar that can withstand heat and moisture. 2016 NFPA 211 11.2.1.4 IRC 2006 2111.5

- **Hearth extension a minimum of 2" thick :** Meets industry standards