

## **Inspection Report**

Prepared Exclusively For

## **Christopher Thiemet**

Subject Property: 3631 Lawn Avenue, Saint Louis, MO 63109

Inspection Date: 09/22/2005



## Prepared by:

## BenchMark Home Inspections, L.L.C

Inspector Paul Horn -Member American Society of Home Inspectors #203230

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### INSPECTION INFORMATION

It is the client's sole responsibility to read this report in its entirety and to research any and all jurisdictional permits required by the local authorities regarding the property in contract before the close of escrow. The client is to personally perform a diligent visual inspection of the property after the seller vacates to insure that no "condition" was concealed by personal property and/or stored items while occupied or damaged during the seller's evacuation of the building. Should any "condition" be revealed that was not addressed within this report prior to or after the close of escrow, please contact our office immediately for an additional evaluation regarding such "condition." The report should not be construed as a guarantee or warranty of the premises or equipment, or future uses thereof (Home Warranty plans are available). You may be given advice that differs from the information contained in this report. Should this be the case, you should understand that not all contractors are equally competent or in some cases may be desperate for additional work. Should any questions arise regarding the validity of the information contained in this report we encourage you to contact our office for impartial advice.

#### **CLIENT & SITE INFORMATION**

FILE/DATE/TIME File #1919 Date: 9/22/05.

**CLIENT NAME** Christopher Thiemet.

**LOCATION** 3631 Lawn Avenue, Saint Louis MO 63109.

#### CLIMATIC CHARACTERISTICS

**WEATHER & SOIL** Prevailing weather conditions during the inspection: clear, light breeze, 75-80 degrees and the

ground was dry. Weather conditions have been dry in the day prior to the inspection. Rain has

fallen in the area within the past week.

#### **BUILDING CHARACTERISTICS**

**MAIN ENTRY** The front of the house faces East.

STRUCTURE The house is approximately 78 years old as stated by the client. 1 story, masonry/brick, single-

family residence.

**FOUNDATION** Foundation types: Raised foundation with a basement.

### **UTILITY SERVICES**

**ELECTRICITY** Municipal.

GAS Municipal supplied. The gas meter is located in the basement on the front wall.

WATER & SEWER Municipal. The water stop box was located on grade at the front sidewalk. (blue lid)

**UTILITIES** All utilities on.

#### OTHER INFORMATION

**ATTENDING** People present: client.

**OCCUPIED** The building was not occupied during the inspection.

**INSPECTED BY** Paul Horn - American Society of Home Inspectors (ASHI) Member #203230.

#### **INTRODUCTORY NOTES**

IMPORTANT INFORMATION

Note: Any statements made in the body of this inspection report pertaining to left, right, front or

rear were referenced by standing in front of and facing the building.

Note: We recommend obtaining equipment operating manuals and documentation for all

warranted items of the building.

Note: We recommend inquiring about any/all permits and inspection records with final signatures for any changes or additions that may have been made to the building, and/or any known conditions that may have been inadvertently left out of the disclosure statements.

Note: We recommend having the locks of all exterior doors re-keyed after taking possession of

the building for security reasons.

Note: Photographs, when used, are simply a tool to convey our findings, they are not intended to enhance these findings or diminish any findings not photographed.

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Note: Buildings built before 1978 may have products in them that contain some amounts of lead, and homes built prior to 1985 may have products in them that contain some amounts of asbestos. Determining the presence of these products is beyond the scope of this report. If information regarding these or other potentially hazardous materials is desired consult with your inspector, who may be able to assist you in obtaining further evaluation or testing.

## ENVIRONMENTAL CONCERNS

Environmental issues include, but are not limited to, asbestos, lead paint, lead contamination, mold/fungus, mildew, radon, toxic waste, formaldehyde, electromagnetic radiation, buried fuel oil tanks, ground water contamination, and soil contamination. We are not trained or licensed to recognize or analyze any of these materials. We may make reference to one or more of these materials when/if noted during the inspection. Should further study or analysis seem prudent, then a full evaluation by a specialist in the appropriate trade is recommended.



Further Evaluation: There was evidence of

what appeared to be mold/mildew or fungus present at the small area of the front basement wall under the front porch. This inspection does not include testing for mold type or toxicity. Further testing is recommended and needed to determine type and toxicity levels. Heath hazards may exist from what appears as a simple mold. Testing for airborne mold is also excluded from this inspection. We recommend further evaluation by a mold specialist or environmental lab if a concern to the client.

## PURPOSE AND SCOPE

You have contracted BenchMark Home Inspections,L.L.C. to perform a generalist inspection in accordance with the standards of practice established by the American Society of Home Inspectors (ASHI), a copy of which is available upon request , which can be read or downloaded by visiting <a href="www.ashi.org">www.ashi.org</a>. The ASHI Standards of Practice are applicable to buildings with four or fewer dwelling units and their garages or carports. They are the bare minimum standard for a home inspection, are not technically exhaustive and do not identify concealed conditions or latent defects.

Inspectors are NOT required to determine the condition of any system or component that is not readily accessible; the remaining service life of any system or component; the strength, adequacy, effectiveness or efficiency of any system or component; causes of any condition or deficiency; methods materials or cost of corrections; future conditions including but not limited to failure of systems and components; the suitability of the property for any specialized use; compliance with regulatory codes, regulations, laws or ordinances; the market value of the property or its marketability; the advisability of the purchase of the property; the presence of potentially hazardous plants or animals including but not limited to wood destroying organisms or diseases harmful to humans; the presence of any environmental hazards including, but not limited to toxins, carcinogens, noise, and contaminants in soil, water or air; the effectiveness of any system installed or methods utilized to control or remove suspected hazardous substances; the operating costs of any systems or components and the acoustical properties of any systems or components.

Our inspectors are NOT required to operate any system or component that is shut down or otherwise inoperable; any system or component which does not respond to normal operating controls or any shut off valves.

Our inspectors are NOT required to offer or perform any act or service contrary to law; offer or perform engineering services or work in any trade or professional service other than home inspection.

We DO NOT offer or provide warranties or guarantees of any kind unless clearly explained and agreed to by both parties in a formal pre-inspection agreement.

Our inspectors are NOT required to inspect underground items including, but not limited to underground storage tanks or other underground indications of their presence, whether

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abandoned or active; systems or components that are not installed; decorative items; systems or components that are in areas not entered in accordance with the ASHI Standards of Practice; detached structures other than carports or garages; common elements or common areas in multi-unit housing, such as condominium properties or cooperative housing. Our inspectors are NOT required to perform any procedure or operation which will, in the opinion of the inspector, likely be dangerous to the inspector or others or damage the property, its systems or components; move suspended ceiling tiles, personal property, furniture, equipment, plants, soil, snow, ice or debris or dismantle any system or component, except as explicitly required by the ASHI Standards of Practice.

Our inspectors are NOT required to enter under-floor crawlspaces or attics that are not readily accessible nor any area which will, in the opinion of the inspector, likely be dangerous to the inspector or others persons or damage the property or its systems or components. We do not limit our inspectors from examining other systems and components or including other inspection services. Likewise, if the inspector is qualified and willing to do so, an inspector may specify the type of repairs to be made. The inspector may also exclude those systems or components that a client specifically requests not be included within the scope of the inspection. If systems or components are excluded at the request of the client they are listed herein.

For your convenience, the following conventions have been used in this report.

Safety Concern: Conditions noted that may pose a hazard to humans, the building or both. These conditions warrant further evaluation and corrections by a specialist in the appropriate trade.

Repair: Conditions noted in need of repair, or replacement to ensure proper function. We recommend that all corrections be made by specialists in the appropriate trades.

Maintenance Item: Denotes an item that is considered normal or routine in maintaining a house or structure.

Recommended Improvement: Denotes improvements or upgrades to systems and/or components that may not have been available or have been improved since the building was constructed or represent logical long-term improvements. These may be, but are not limited to, safety-related items such as GFCI receptacles, smoke detector locations, safety glass etc.

Monitor: Denotes a system or component needing further investigation and/or monitoring in order to determine if repairs are necessary

Further Evaluation: Conditions noted that warrant further evaluation by specialists in the appropriate trades for possible follow-up recommendations or repairs

Consult Seller: Denotes a condition that will require communication with the seller as they will typically have a more intimate knowledge of the property.

<u>Functioned</u>: as defined in the ASHI Standards of Practice, "Performing its normal, proper and characteristic action." It does not imply that the system and/or component was in perfect or in like new condition, or that it would meet every individuals interpretation of an acceptable state.----- Functional with Exceptions: "Performing only part, but not all of its intended function".

Repairs or corrections are needed for safety or to restore its full function and/or normal life expectancy. Note: An item may work well and be near the end of lifespan and still be rated functional.

## FOUNDATION/UNDER-FLOOR AREAS

The visible areas of the foundation system and structural components were examined to determine their current condition. Areas of the foundation and/or structural components of the building were inaccessible because they were installed at or below grade level, and/or behind walls. Areas concealed from view by any means are excluded from this report. All concrete experiences some degree of cracking due to shrinkage in the drying process. If large cracks are present along with movement, we recommend further evaluation by a structural engineer. All exterior grades should allow for surface water and roof runoff to be directed away from the foundation system.

#### FOUNDATION INFORMATION

**TYPES** 

Foundation types: Raised foundation with a stone perimeter and interior steel beams supported by steel posts/columns.

#### **BASEMENT CONDITIONS**

**BASEMENT WALLS** 

The basement walls of this house are made of Stone with masonry joints which were common in homes built before 1950. Stone & mortar foundations have withstood the test of time, but they are particularly vulnerable to water penetration and movement. Water may enter through any of the numerous joints and voids where the freeze / thaw cycle can cause expansion, movement and deterioration of the foundation. In short, a stone foundation makes a basement vulnerable to seasonal water infiltration. Proper roof drainage control and surface grading must be maintained to limit moisture related problems. Lastly, be advised that stone foundations may harbour hidden pest infestation. A pest inspection is advised prior to purchase. The visible areas of the basement walls appeared functional and in serviceable condition. Areas of the walls at the exterior and interior have a parge coating and are painted.

**FLOOR JOISTS** 

The visible areas of the 2" X 10" floor joists which are set 16 inches on center appeared functional. with exceptions noted.

Repair: As viewed from the unfinished basement on right side under the kitchen area, a floor joist has been excessively notched beyond accepted limitations.

Excess notching is unsafe. Be advised that excessive notching weakens a structural member and that the notched joists, beams or rafters may collapse under load. No signs of sagging or the framing was observed, however, for safety, I advise that additional framing be added to the joist to add integrity to the framing. (Notches in



the top or bottom of joists should not exceed 1/6 the depth of the member and should not be located in the middle 1/3 of the span.)

Repair: There is a crack in a floor joist as viewed in basement under the kitchen (next the notched joist listed above). We recommend the cracked joist have additional framing installed to restore integrity to the framing.

**FLOOR BEAMS** 

A beam is a main supportive beam component of the floor frame. The function of a beam is to support concentrated loads at isolated points along its length. Typically, floor joists rests on the beam at 16 inch or 24 inch intervals and can be made of solid wood, built-up wood or engineered lumber or steel as in this house. Beams are usually supported at their ends by pockets within the foundation and by uniformly spaced metal columns. The visible areas of the 4" X 8" steel support beam appeared functional.

**COLUMNS** 

The visible areas of the steel columns/supports appeared functional.

SUBFLOOR

Recommended Improvement: As seen from unfinished areas of the basement, firestopping is missing at floor openings under the bathroom area. Firestopping with noncombustible materials is required at openings around vents, pipes, ducts, chimneys and fireplaces at the subfloor between the basement and the first floor. We recommend safety repairs or elected upgrading of firestopping at the above listed locations.

MOISTURE

Where accessible at the basement level at time of inspection, no apparent signs of prior water infiltration were visible with the exception small stains on the left wall near the metal hatch and along the front wall under the front porch, however, dry basement conditions cannot be guaranteed for the future. All basements are a hole in the ground that may suffer from dampness or seepage depending on seasonal weather conditions and drainage control measures employed or neglected. If ground water tables saturate soil near the foundation, or if negative drainage directs surface water towards the foundation, or if roof drainage lingers near the foundation; then hydrostatic water pressure can overcome foundation water resistance and infiltrate the basement.

To reduce the possibility of wet basement difficulties a number of drainage issues should be understood. Firstly, all soil, lawn and garden areas along the perimeter of the foundation should have a positive slope away from the home to direct surface water away by gravity flow. If any negative drainage areas exist, then the basement is highly vulnerable for seepage. Secondly, all gutters & downspouts must be kept in a functional condition with downspout extensions or splash blocks that direct water away from the home. Once again, faulty gutters & downspouts make the basement vulnerable to seepage.

If wet basement difficulties are disclosed or discovered after occupancy, then each of the above outside drainage control measures should be re-evaluated and repaired as required. Annual drainage inspection is recommended as conditions will change with the passage of time. You should try to avoid an expensive waterproofing job by common sense drainage control at the source of the water outside. Eliminate or reduce the water near the foundation and the basement will stay dry. Lastly, if there is continued seepage after drainage improvements, then a sump pump installation should be considered or other control measures. Finished rooms below grade level should be protected by a drainage system beneath the foundation. As dampness can migrate through concrete without causing visible puddles of water, storage should be done with care by elevating important possessions. The use of a dehumidifier during summer months is advised. For owners of many old homes, basement leakage is a way of life. During rainy periods, or during the spring thaw, leakage is experienced. As basement leakage rarely influences the structural integrity of a home, and because basements of old homes usually remain unfinished, this condition is simply tolerated.

DRAINAGE SYSTEM

The visible areas of the concrete floor and drainage in the basement appeared functional; cracks found in the floor appear to be common in size and type - no action required.

COMMENTS

Note: As viewed from the accessible unfinished of the basement, bridging is installed between the floor joists which is beneficial to the floor framing. Bridging is typically installed between floor joists, but is not required unless they are 2 x 12 in size or have excessively long spans. Today's theory is that modern sub-floor materials provide adequate support to stabilize most floor joists. For your knowledge, the purpose of bridging is to hold the joists in alignment and to transfer loads to adjacent joists. Bridging may be configured as cross members of wood as in this house or metal forming an X-shape, or as solid blocking set between the joists.

## **EXTERIORS**

The visible exterior surfaces and materials of the building were visually examined at grade level in accordance with our ASHI standards of practice to determine their current condition. Moisture intrusion through cracks or openings in the exterior siding, trim, windows, and doors is the source of moisture damage and deterioration, therefore we recommend sealing all cracks or openings in, and between the exterior siding and trim materials, especially around windows and doors. Routine maintenance may extend the service life and minimize deterioration of the exterior surfaces.

#### EXTERIOR INFORMATION

SIDING TYPES

Vinyl type siding is present on portions of the house near the front dormer. Vinyl siding represents a durable and fairly maintenance free wall cladding when properly installed. Vinyl siding is a water shedding siding as opposed to a waterproof siding. A moisture barrier is required beneath the vinyl as small amounts of water can leak behind the siding at trim areas and joints. The vinyl is hung loosely on nails leaving a 1/4 - 3/8 inch gap between the siding and stops to allow for expansion and contraction. Vinyl siding is very brittle and vulnerable to damage during accidental bumps, especially during freezing temperatures. Periodic cleaning or power washing are all that is needed to restore the finish and the color is consistent through the vinyl. Annual inspection is advised to check for warping, loose components, broken parts or worn caulking.

The exterior of the structure is Brick.

TRIM TYPES Materials: The trim materials are a combination of wood and wood wrapped with metal/

aluminum.

**DOOR TYPES**Materials: The doors as viewed from the exterior of the house are metal and wood.

WINDOW TYPES Types: A combination of vertical sliding at the house and glass blocks at the basement windows.

#### **EXTERIOR CONDITIONS**

MANUFACTURED SIDING

The manufactured vinyl siding appeared functional.

**BRICK WALLS** The brick walls appeared functional, with exceptions noted.

Repair: The exterior brickwork needs minor tuck-pointing in several areas at the left and right side of the house due to cracks and /or worn in the mortar joints. Tuck-pointing is a form of periodic maintenance that involves undercutting the joints between bricks to remove soft, deteriorated mortar, and then restoring the joints by 'tucking' fresh mortar into them. If this task is neglected too long, the brickwork can become unstable and rain will more easily

penetrate the outer envelope of the home and lead to other issues.

**EAVES/SOFFIT** The visible eave and soffit materials appeared functional, with exceptions noted.

Maintenance Item: There is a small area of the eave framing at the right rear corner of the house that has pest type damage. Recommend repair and painting the area as needed.

FASCIA/RAKE BOARDS

The visible fascia (the wooden board to which the gutter is typically fastened) and the rake boards (the wooden boards along the ends of the house) materials appeared functional.

**EXTERIOR TRIM** The visible exterior trim materials appeared functional, with exceptions noted.

Repair: There is a section of loose metal trim at the rear window which should be secured as

needed.

**DOORS** The doors viewed from the exterior appeared functional, with exceptions noted.

Repair: The exterior surface of the front entry door has is damaged and is missing a deadbolt lock. Cosmetic only, however, we recommend correcting replacement of the door and lock as

needed.

**WINDOWS** The windows viewed from the exterior appeared functional, with exceptions noted.

Repair: The living room windows as viewed from the exterior are missing. We recommend the

windows be replaced for security and to prevent water intrusion into the house.

Recommended Improvement: Some of the basement windows at the right side of the house are installed in wells. We recommend these areas be covered and the drainage system if installed in the window well be checked and kept clean to minimize water entry into the basement.

**LIGHTS/FIXTURES** The light the front porch was functional,

Consult Seller: Photo-electric and/or motion detector type lights as installed over the yard side of the garage could not be checked in the daytime. We recommend asking the seller if the lights

are operable or installing new bulbs and testing.

Recommended Improvement: Both the rear porch/kitchen and basement egress doors have no outside light. which can make the entry area unsafe. I advise as a safety improvement that an exterior light fixture be installed to prevent personal injury. Consult an electrician for estimates.

**HOSE FAUCETS**Note: There was no water flow at the hose faucet located at the left and rear side of the house,

The water appears to have been turned off and winterized. We recommend the faucet be

turned on by the seller and tested as needed.

**COMMENTS**Maintenance Item: Caulk should be applied to areas where brick and wood siding meet, trim

around window frames at the front dormer windows or doors, and piping and service

penetrations. Also, any cracks that allow moisture or wind entry should be caulked to prevent

deterioration.

The items listed below were visually examined to determine their current condition during the inspection. The permanently installed components or equipment are checked for basic operation, with the exception of lawn sprinklers and low-voltage yard lighting. This inspection is a visual examination and does not attempt to determine site drainage performance or the condition of any underground piping, including municipal or private water and sewer service piping or concealed clean-outs. This inspection is not intended to address or include any geological conditions or site stability information. For information in these areas we recommend consulting with a specialist in the trade and/or a geotechnical engineer.

#### **GROUNDS INFORMATION**

**WALKWAYS** Materials: Concrete at the front and rear yard and along the left side of the house.

STEPS & STAIRS Materials: Wood to the rear porch, Concrete at the front yard (center and left side), basement

and to the front porch.

**MAIN ENTRY** Materials: The front entry area is concrete.

**FENCING & GATES** The fencing at the residence is wood.

### **GROUNDS CONDITIONS**

**WALKWAYS** The walkways appeared functional, with some common cracks and slight settling noted. There

is also a sidewalk next to the street on site. The condition of the surface appears to be

serviceable.

**HANDRAILS** The handrail at the front porch steps was functional, with exceptions noted.

Safety Concern: The steps at the basement and front yard are missing a handrail which creates a unsafe condition. Today's safety standards dictate that a handrail be present when the stairs or steps have 3 or more risers. We recommend installation of a handrail at this location to

prevent personal injury.

Recommended Improvement: The handrail at the rear porch were present and functional and may have met the standards at the time of construction, however they are not considered to be grippible by today's standards. We recommend upgrading the handrail(s) to meet today's

standards for added safety.

**GUARDRAILS** The vinyl panel type quardrails at the rear porch were functional.

**STEPS & STAIRS** The stairs were functional.

**MAIN ENTRY** The entry/porch appeared functional, with some cracks noted.

**PORCH AREAS** The visible rear porch areas appeared functional, with exceptions noted.

Recommended Improvement: Inspection of the rear porch floor frame revealed that the floor joists are nailed only at the ends. There is section of a floor joist which has been covered with duct tape. End nailing relies only on the shear resistance of the nails. We recommend that an inexpensive metal hanger be installed under the end of each joist and that all nail holes in each hanger be nailed to better tie the structure together and to provide safe end bearing for the

support of loads.

**FENCING & GATES** The yard fencing appeared functional, with exceptions noted.

Repair: The gate at the rear yard (near the alley) was not installed and laying nearby.

Recommend repairs as needed.

#### GRADING/DRAINAGE/LANDSCAPING INFORMATION

**SITE GRADING** The lot is generally a flat site with a gentle slope at the front yard toward the street.

**SITE DRAINAGE** The site has both a combination of surface and underground drainage.

#### GRADING/DRAINAGE/LANDSCAPING CONDITIONS

SITE GRADING The site grading around the building appeared adequate to drain excess surface water away

from the foundation. Present standards require a minimum of 4 inches clearance between the soil and any wood/metal construction. We recommend maintaining this clearance as much as is

practical without creating a negative slope towards the structure.

**SITE DRAINAGE** The exposed areas of the surface drainage system appeared functional, with exceptions noted.

Note: There is a floor drain located outside of the rear basement door and along the rear walkway near the garage door. The drains are covered with debris. We recommend this drains be checked and cleaned now to provide proper water drainage near the door and to minimize possible water entry into the basement in this area. These areas are prone to collect leaves and

need cleaning in the future.

**LANDSCAPING** The vegetation and landscaping appeared maintained.

## **ROOF SYSTEM**

The visible areas of the roof and components were examined to determine their current condition in accordance with the ASHI standard of practice. The roof systems are inspected visually and from an area that does not put either the inspector or the roof at risk. Steep,wet, snow or ice covered roofs are not safe to walk on. Slate, tile or asbestos roofs are not walked on therefore, a closer on-roof inspection may reveal other defects not documented by this report.

The inspector's evaluation is based on generally accepted building practices and the age of the components. The foregoing is an opinion of the general quality and condition of the roofing material. The report is issured in consideration of the foregoing disclaimer. Estimates of remaining roof life are approximations only and do not preclude the possibility which can develop at any time and may depend on rain intensity, wind direction, ice build-up and other factors. The only way to determine whether a roof is absolutely water tight is to observe it during a prolonged rainfall which many times is not present during a general inspection. The testing of gutters, downspouts and underground drain piping is outside the scope of this report.

#### **ROOF INFORMATION**

INSPECTION METHOD

The inspector walked on the roof and viewed the accessible roofing components.

**ROOF COVERINGS** 

As viewed, the gable roof structure appears to be covered with dimensional (sometimes referred to as architectural shingles) asphalt/fiberglass composition shingles. This material is the most common roof covering used in this part of the country and typically provides many years of service when installed properly and maintained. However, asphalt shingles are not designed to last the life of the home and will require eventual routine age replacement. Replacement should be a budgeted item and should be scheduled before leakage occurs. The service life of the material varies and depends on variable such as: the initial shingle weight or quality, the steepness or pitch of the roof, the amount of attic ventilation, the number of roofing layers and the orientation of the home to the sun. (Note:Heavy duty shingles as installed on this house may last up to 20-25 years.) During ownership, you should conduct an annual roofing inspection to make sure that the condition of the roof is functional or fulfilling it's objective of shedding water before leakage occurs. Look for missing or loose materials, split shingles, areas of storm damage, blown-off shingles, curling shingles, loss of granules, exposed felt mat or other age defects and perform repairs as required to extend service life. The top ridge areas of the roof area are glazed clay tiles.

**ROOF LAYERS** 

1 layer - the roof covering on the main structure appears to be the first covering.

CHIMNEYS/FLUES

Materials: Brick chimney with a tile flue at the left side of the house.

**ROOF DRAINAGE** 

Materials: Copper and galvanized steel/metal rain gutters.

#### **ROOF CONDITIONS**

COMP. SHINGLE

The roof covering material appears functional and in a condition that is consistent with its age and method of installation. There is normal granular wear and aging. The granular covering protects the asphalt matt from ultraviolet rays. Loss of the granular is a normal aging process. We observed no signs of major deficiency or cause for immediate concern, with exceptions noted. In my opinion the roof covering appears to be approaching the middle of its expected useful life with normal wear and aging.

Maintenance Item: The mortar around the open joints at ridge area clay tile at the ridge is worn in several area.

open joints at ridge area

a.

These area are prone to leakage. We recommend these worn area be sealed with mortar as needed.

#### **FLASHINGS**

The visible flashings appeared functional, with exceptions noted.

Monitor: As observed at the rear roof area, black colored roofing cement or roofing tar has been applied over the flashings at the plumbing vent pipes. flashing various roof penetration points or building intersections. Due to the roofing cement, the flashing beneath was not accessible for evaluation - true flashing condition at those areas covered by tar is undetermined. Be advised that a properly flashed roof penetration should not need to be coated with roofing cement. The tar may have been installed as preventative



maintenance or to seal a flashing leak. While the area may not be leaking at this time, it does appear potentially problematic. We recommend that the area in question be monitored for leakage and that the tar be re-applied every year as it will degrade from exposure and unequal coefficients of expansion between dissimilar materials. If signs of leakage are discovered, then a roofer should be consulted to reappraise and repair the flashings as required to restore function.

Repair: As seen above the roof at the front dormer roof and the main roof, there is a small piece of metal flashing that does not lay flat against the roof. Faulty flashing at the roof intersection may allow leakage. We recommend fixing/ sealing the flashing as needed to shed water from the opening in the roof.



**FLUE PIPES** 

The visible metal flue liner/exhaust flue pipe and weather cap at the chimney appeared functional.

CHIMNEYS

The visible areas of the chimney [from the roof line upl appeared functional and there was a rain cap installed. with exceptions noted, Repair: As viewed above the roof line, the chimney mortar joints have eroded open in some areas. If this condition is allowed to continue without repair, deterioration will be progressive until bricks will eventually loosen and fall causing unsafe chimney blockage or property damage. Due to exposure to the elements and neglected chimney cap maintenance, moisture has entered the brick causing the mortar to soften and erode. At this time, the chimney appears to only need simple re-



loose mortar

pointing (replacing the mortar between the bricks) of the mortar joints. We recommend a brick mason provide simple repair estimates. A detailed on roof close-up chimney inspection by a mason may reveal interior or exterior defects not disclosed in this report. After repairs, the chimney cap should be inspected every few years for cracks and patched as needed and we

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suggest the chimney receive an annual safety inspection to check for blockages or other unsafe conditions.

Repair: The clay tile flue liner at the top of the chimney has cracked. We recommend budgeting for repair of the type of crack as need to restore safe function of the chimney.



#### **ROOF DRAINAGE**

The visible areas of the roof drainage system appeared functional, with exceptions noted,

Repair: The gutter at the front of the house appears to be improperly pitched and is sagging in the middle of the gutter. The low spots in the gutter will retain water which may cause problems such as: spill over, back-ups, clogging or loosening due to excessive weight. We recommend the problematic gutter be removed and reinstalled with proper pitch to restore function.

Maintenance Item: At the time of the inspection, areas of the gutters and/or



downspouts were clogged with leaves or debris. Clogged gutters and downspouts will eventually overflow. This can sometimes result in the gutters being pulled off of the home or in significant moisture damage to fascias, soffits, frieze, walls or framing. Having the gutters and downspouts cleaned now is recommended. Thereafter, they should be serviced at least twice a year.

#### **DOWNSPOUTS**

The downspouts discharge below grade into an underground drainage system. Beyond this point, the downspouts pass underground to unknown locations. The functional condition of these hidden drains is undetermined as they are not accessible. We suggest you question the owner and ask where the downspouts lead and if they satisfactorily handle all of the water from the roof. Also, monitor the drains during several seasonal periods of prolonged and heavy rains. The gutters leading to the underground drains should be screened to prevent clogging. Faulty downspouts that discharge near the foundation or buried drainage systems that boil over or retain water near the foundation may contribute to wet basement problems.

#### COMMENTS

Consult Seller: There is a satellite type television dish installed on the rear roof. We recommend asking the seller if this will stay with the house. If not, we recommend the holes at the roof bracket be properly patched.



## **ATTIC AREAS & ROOF FRAMING**

The visible areas of the attic and roof framing were examined to determine their current condition. The accessible permanently installed equipment or components are checked for basic operation. Thermostatically operated attic vent fans are excluded from the inspection.

### ATTIC/FRAMING INFORMATION

ATTIC ACCESS Accesses #: 1 Location: Above the basement steps - Type: Hatch in the ceiling - (hatch covers

should be weatherstripped & insulated to prevent heat loss.)

**FRAMING** Framing types: Conventional framing and joist framing.

**SHEATHING** Materials: Wood planks.

**INSULATION** There is a loose fill, silver & gold colored

insulation material in the attic between the ceiling joists. The insulation appears to be a material known as vermiculite which is a possible safety concern. Be advised that this type of insulation may contain asbestos. Do not disturb the insulation as air born dust may be hazardous to your health. You may be wise to have the insulation tested for possible asbestos content prior to purchase. We recommend contacting a certified asbestos testing lab if further testing and evaluation is desired. There is an average of approximately 3-4

inches of insulation installed where



measured which is below today's R-value standards. The 'R" in R-value stands for "Resistance"

to heat transfer. The higher the number the better - up to a point.

**VENTILATION** Vent types: Gable end louver vents which are covered with windows inside of the attic.

#### ATTIC/FRAMING CONDITIONS

**ACCESSS** 

The attic examination was conducted from the opening only due to limited access and insulation coverage which prevents safe passage. This inspection is limited to accessible areas.

**FRAMING** 

The original framing appeared functional. Although the framing does not conform to present standards, no adverse conditions were noted and no action is necessary with exceptions noted.

Repair: There is a section of moisture type damage as viewed in the attic under the front dormer roof. The water stains appear older and inactive, however repairs to the wood framing are needed to restore function to the framing. We recommend installation of metal connectors and adding additional framing where needed at any cracked or damaged wood as needed.



**RAFTERS** 

Rafters are structural members used to support the roof sheathing and roof covering. The visible areas of the rafter framing appeared functional. See faming comments above.

**PURLINS** 

Purlins are boards that run perpendicular to the roof rafters at mid-span between the walls and ridge beam. The purlin is held in place by braces fastened to the load-bearing walls. The purlin's function is to prevent/minimize roof rafter sag. The visible areas of the purlins and braces appeared functional.

**CEILING JOISTS** 

The visible areas of the ceiling joists appeared functional.

**SHEATHING** 

The visible areas of the roof sheathing appeared functional with areas of past water leakage noted at the center of the attic.

**INSULATION** 

Recommended Improvement: Inspection of the accessible areas of the attic revealed the presence of limited insulation in the attic. As compared to modern insulation requirements, this home has insufficient insulation in the attic (unable to determine in walls). While the level of insulation may be typical for a home of this age, updating will prevent heat loss and reduce fuel consumption thus saving you money. Todays standards of insulation dictate a R value of approximately R-30. This is equal to 10" of fiberglass batts or 14" of loose fill fiberglass insulation. These conditions do not exist in this house. Optional insulation updating is recommended. You may elect to install additional insulation yourself, or hire an insulation contractor to perform the task.

**VENTILATION** 

Good attic ventilation is beneficial to the longevity of the roofing material and comfort of the living spaces. Attic ventilation can be provided by a variety of static or powered venting systems. When a new roof covering is installed, we recommend consulting with a qualified roofer about upgrading to a ridge type vent system.

Repair: The windows over the gable vents on the left and right side of the attic were closed, therefore the attic has no means of ventilation. Insufficient attic ventilation will trap heat and humidity in the attic space causing higher cooling expenses and



closed vents at attic

reducing roof design life. While the lack of ventilation may be typical for a home of this age, you would be wise to update the attic ventilation system now or at time of next scheduled roof replacement. A roofer can provide you with ventilation options and estimates for updating.

(Today's building ventilation requirements state that: Attics with a ceiling vapor barrier shall have a screened opening of at least 1 SF of free vent area for each 300 SF of ceiling space. Attics without a ceiling vapor barrier shall have a screened opening of at least 1 SF for each 150 SF of ceiling area.) In the meantime you should open the windows at the attic year round to provide air movement into the attic. Check screens as needs to prevent pests from entering the attic.

**PESTS** 

There was no readily visible evidence of rodent activity in the accessible attic area.

COMMENTS:

Consult Seller: As viewed in the accessible parts of the unfinished attic, several buckets or other containers were placed under the roof as "rain catchers". The containers appear to indicate previous roof covering or flashing leakage and amateur temporary measures to prevent interior water damage. I advise that you discuss the containers with the owner as roof repairs may already have been completed. The buckets were dry and appeared to be older.



## **PLUMBING**

The visible areas of the main water line, shutoff valve, water supply and drain lines, gas meter and piping were examined to determine their current condition. Areas concealed from view by any means are excluded from this report. The accessible permanently installed equipment or components are checked for basic operation. Léakáge or corrosion in underground or concealed piping cannot be detécted by a visual examination. We highly recommend you consider hiring a plumbing company to perform an camera scan of the underground piping for possible defects prior to commitment. Older fixtures or components should be budgeted for replacement. Some corrosion is common. We are not equipped to repair leaky shutoffs, therefore we do not operate fixture shutoffs. Fire Sprinkler Systems, Water Softeners, and On-Site waste water, wells and water conditions are outside the scope of this inspection.

#### PLUMBING INFORMATION

MAIN WATER LINE

Inspection of the water service line running from the street main to the house revealed the presence of an old lead water pipe as viewed in the basement. While the lead supply line may still be functional, we recommend budgeting for its replacement in the future. For your peace of mind and safety, you may want at have the drinking water tested for lead content by a qualified environmental laboratory.



**WATER SHUTOFF** The main water shutoff valve was located at the front of the basement.

WATER PIPING Materials: The home has modern copper water pipes as viewed in the unfinished areas which

has been in use for 40-50 years as water piping within a home. Established homes generally have a 3/4 inch service line. While the copper lifespan may be indefinite, it has been my experience that the St. Louis metro water supplies have a moderate mineral content that could be corrosive. For that reason, copper water pipes should be monitored for liming (greenish

coating) corrosion and pin hole leaks.

**WASTE LINES** Materials: PVC white plastic piping where visible.

#### PLUMBING CONDITIONS

**WATER SHUTOFF** The main shut-off valve appeared to be functional at time of inspection. The valve was only

viewed for emergency access and visible appearance. We do not test this valve during the inspection as problems could occur, however we recommend testing the main valve to evaluate

it's functional condition after you move into the home.

**WATER PIPING** The visible water supply piping appeared functional.

**WATER FLOW** A number of fixtures were operated simultaneously with a functional water flow.

**WASTE PIPING** The visible waste piping appeared functional. It would be beneficial to have the drain piping

routinely cleaned to remove the buildup of debris and possible blockages.

WASTE FLOW A representative number of drains emptied in a reasonable amount of time time and did not

backup when other fixtures were drained simultaneously - drainage appeared functional.

Note: Due to the age and type of house, we suggest you hire a plumbing company to perform a camera scan of the underground drain lines to order to determine the condition of the piping

for your peace of mind and investment.

**VENT PIPING** The visible areas of the vent pipes appeared functional.

**GAS PIPING** The visible areas of the gas piping appeared functional.

## **WATER HEATERS**

The water heater(s) and the related components were examined to determine their current condition. Water heaters that were shut down, turned off or inactive will not be turned on or activated. Water that is hotter than the manufacturer's recommended setting of 125 degrees is considered a scald hazard. The water temperature should not be set higher than the manufacturer's recommended setting.

#### WATER HEATER INFORMATION

**LOCATION** The water heater was located in the basement.

BRAND NAME General Electric, SN: HPNG0299A40443.

APPROX. AGE Manufactured approximately 1999 based on the ID tag serial number.

**SIZE / GALLONS** 40 gallon based on the ID tag information, based on the ID tag information.

**ENERGY TYPE** The domestic hot water in this home is produced by a standard gas fired hot water heater. In

my opinion, a gas fired hot water heater is a desirable means of making hot water due to its fast recovery rate. Most such appliances have capacities or 30, 40 (as in this house) or 50 gallons, and an average service life of between 10-12 years. As a home owner, you should expect future replacement of this appliance, you should understand its operational controls and which parts to monitor for maintenance and safety. Firstly, there is a cold water supply pipe leading to the tank with a shut-off valve near the tank to isolate it during maintenance or replacement. The tank itself may be composed of different interior components such as copper, glass lined, stainless steel, etc. - all of which present differing warranty time periods per each manufacturer. The cold water enters the tank as water exits the tank, and is directed toward the base of the tank where a gas heater elevates the temperature of the water to the desired setting on the temperature control box. For energy conservation reasons, you should

experiment by adjusting the control knob to the lowest setting at which you can still obtain adequate hot water and never above 125 degrees F. to prevent personal injury by scalding. A second pipe also exits the top of the hot water heater distributing hot water to the fixtures & faucets. To prevent heat loss, this pipe should be fully insulated. You can easily distinguish which pipe is the cold water supply pipe and which is the hot water pipe simply by feeling the two or by reading the stamped labels at the top of the tank.

A gas pipe also is connected to the hot water heater. Usually this pipe is composed of black iron for strength. You should locate a shut off valve in the gas piping followed by a union fitting and a drip leg "T" before the pipe is connected to the gas valve. The gas shut-off valve is necessary to shut-down the appliance during service or replacement.

Most gas fired hot water heaters have a pilot that remains lighted to ignite the main burner when hot water is called for. Occasionally, pilots blow out due to back-drafting of air down the chimney or during power failures. If the pilot should go out, follow the manufacturer's posted directions for re-lighting the pilot. If the pilot will not stay lighted, then a safety device known as the thermocouple probably needs maintenance replacement.

The tank also has two other attached devices of which you should be familiar. At the base of the tank, there is a drain valve for flushing sediment or for emptying the tank. Draining accumulated minerals from the base of the tank several times a year will aid the rate of heat transfer and thereby improve fuel efficiency. (Note: Be advised that a seldom used drain valve may not seal tightly when closed - be alert for drip leaks.

Near the top six inches of the tank or on the tank is a primary safety device known as the temperature / pressure relief valve. The relief valve is designed to open and quickly eject excess temperature and pressure should the hot water malfunction. The relief valve should have a 3/4 inch dia. drain pipe directed towards the floor to prevent personal injury if the valve should open. While there is a trip lever on the valve for testing its function, be advised that tripping the valve may leave a drip leak as it closes. I advise the placement of a small bucket beneath the drain pipe.

Combustion gas exits the top of the tank and then rises to the chimney via metal connector piping. Be advised that any signs of scorching on the draft deflector, pipe fittings or insulation near the draft deflector or gas burner may indicate that combustion gases are not properly venting to the outdoors and that back-drafting is suspected. Back-drafting of combustion gases can allow deadly carbon monoxide to enter the home.

Gasoline or other flammable liquids should never be stored near the open flame of the gas-fired water heater. Also, watch that the insulation blanket if installed does not cover the burner controls or touch the flue pipe which could cause a fire.

#### WATER HEATER CONDITIONS

**VENTING SYSTEMS** The visible areas of the flue vent piping were intact and secured at the connections.

**SUPPLY PIPING** The shutoff valve and visible water supply connectors appeared functional. We recommend as

an energy upgrade insulating the exposed water piping to minimize heat loss.

**T&P VALVES** A temperature and pressure relief (T&P) valve and discharge line were installed. The discharge

line extended near the basement floor and was facing downward.

**TANKS** The water heater tank appeared functional, no leakage noted.

COMBUSTION AIR A combustion air supply for the water heater was present. Adequate ventilation for all fuel-

burning appliances is vital for their safe operation.

**ENERGY SUPPLYS** The gas shutoff valve and gas connector appeared functional.

**COMMENTS** Further Evaluation: The pilot light was off, shut down, the unit was nonoperational. Lighting pilot lights is outside the scope of the inspection. We recommend a full evaluation by Laclede

Gas Company.

Safety Concern: The water heater was not functioning during the inspection, so the orientation of the hot and cold water cannot be checked. The proper configuration of "HOT on the LEFT" and "COLD on the RIGHT" at each of the faucets could not be confirmed. We recommend confirming this orientation after correcting the water heater condition listed above.

## **ELECTRICAL SYSTEMS**

We evaluate electrical systems in accordance with the ASHI Standards of Practice, which includes identifying the type and capacity of the service, and evaluating panels, overload conductors, wires, panel grounds, and a representative number of switches and outlets. However, there are a wide variety of electrical systems with an equally wide variety of components, and any one particular system may not conform to current standards or provide the same degree of service and safety.

#### ELECTRICAL SERVICE INFORMATION

**SERVICE TYPE** The service wires are overhead which are located on the, right side of the house.

**MAIN PANEL** The main panel is located at the right side of the basement.

**SERVICE RATING** The incoming electrical service to the structure is a 120/240 volt system, rated at 100 amperes.

**SERVICE WIRING** Materials: Tin-coated copper where visible in the main panel.

**BRANCH WIRING** Materials: copper where visible in the main panel Wire system type: The residence is wired by

a combination of types: non-metallic sheathed cable commonly referred to as "Romex" plastic and/or cloth covered, UF cable, service entrance cable, flexible metal conduit (FMU), and older

open wire system - knob & tube.

**DISCONNECT TYPE** Circuit breakers.

**GROUNDING** The main electrical panel is double-grounded to a driven rod and to a water pipe.

#### **ELECTRICAL SERVICE CONDITIONS**

**SERVICE WIRING** The overhead service wires and weatherhead appeared to be functional.

MAIN PANEL Recommended Improvement: The circuit breakers/fuses were not labeled. We recommend they

be accurately labeled to allow individual circuits to be shut off for maintenance or emergency

needs.

WORKMANSHIP The wiring within the panel appeared

functional, with exceptions noted.

Safety Concern: Investigation within the circuit breaker panel revealed a circuit breaker connected to a undersized branch wire. #14 wire is connected to a 20 amp breaker (fourth from the bottom on the left side). This size wire should be protected by a 15 amp breaker. Overfusing is considered a safety hazard as the wires can overheat and cause an electrical fire before the breaker opens to kill the circuit. While the installation of the appropriately sized

breaker is fairly simple, overfusing is often an attempt to circumvent insufficient wire size to small for breaker size an attempt to circumvent insufficient

circuitry. We recommend a qualified electrician be asked to reappraise the compatibility of the breakers and the size of the attached circuit wires as a safety priority and that appropriate repairs be completed prior to occupancy. The electrician may recommend upgrading changes in the service equipment and / or branch circuits.

the service equipment and / or branch circuits.

**GROUNDING** The visible ground connections appeared functional.

#### **BRANCH WIRING**

The branch circuit wiring appeared functional, with exceptions noted, Note: The house has Knob and Tube wiring in use in some portions of the structure as viewed in the attic. If original insulation is still intact, and not improperly spliced, it is usually satisfactory for continued use, however, you may to be aware that some insurance companies will not insure a home with knob and tube wiring nor a fuse panel. Due to the potential for overload or deteriorated conditions some insurance companies and lenders will require an upgrade of the electrical system therefore we suggest you



<u>discuss this type of older wiring with them prior to commitment.</u> Due to its age and increased circuit needs, it is suggested that considerations be given to upgrade the system to current standards. Estimates from a qualified electrician would be needed.

Safety Concern: As seen on the front wall in the basement, there is a wire to a receptacle box which runs down the wall and is not enclosed in conduit. We recommend the wire in question be enclosed in conduit to prevent mechanical damage and abuse.

Safety Concern: We recommend the wire connections at the overhead wire to the garage have additional tape/sealing at the connections as needed.

#### **ELECTRICAL COMPONENT CONDITIONS**

**DOOR BELL** The front doorbell functioned when the button was operated.

**SWITCHES** A representative number of switches tested functional overall with exceptions noted.

Consult Seller: We were unable to determine the switch function at the center of the basement.

We recommend inquiring with the owner to determine what is controlled by the switch.

LIGHTS/FANS/ FIXTURES

A representative number of accessible lights and fixtures tested functional overall with exceptions noted.

Repair: A couple of the light fixture at the basement were inoperable at time of inspection. Bulbs are not changed during the inspection. The problem may be as simple as a bad light bulb. Replace the bulbs and test the light fixture. If function is not restored, then you might want to hire an electrician to further investigate and correct the problem as needed.

RECEPTACLES

The receptacles are two hole and three hole type outlets. A representative number of accessible receptacles tested functional overall.

Note: The floor receptacle at the front bedroom appears to be for an older AC window unit. Recommend removal and covering outlet box.

**GFCI / AFCI DEVICES** 

Ground fault circuit interrupter devices (GFCI) afford additional protection against electrical shock and are typically found in homes built from the mid-1970's in areas where electrical receptacles are located near sources of water. Local building codes vary as to where these devices or their protection feature are required and when the requirement began. Do not use a Ground Fault Protected outlet for either a food freezer, refrigerator or sump pump. Should the outlet cut the power to the appliance or pump, you may not be aware that the unit is off and possibly ruin contents or not have an operable pump. GFCI protection devices were located in the following areas: the bathroom and kitchen counter top. The installed protected GFCI type outlets tested functional at the time of the inspection, with exceptions noted.

Safety Concern: The GFCI type outlet at the bathroom does not function properly and trips without the test button. The device may not provide shock protection. It should be disassembled - evaluated by an electrician and replaced as a safety priority.

Recommended Improvement: There was no GFCI protection provided at some areas where required today. We recommend upgrading by providing GFCI protection at the following appropriate locations: The garage and any future exterior locations.

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#### **ALARM SYSTEM**

Consult Seller: The home has an alarm system, however, equipment of this type is very specialized in nature and is far beyond the scope of this limited visual home inspection. For reasons of security, the home inspector can not examine or tamper with a private security system. The evaluation of alarm systems is expressly excluded from this report per contract. While I consider an alarm system a positive feature of a home, it's mechanical operation and maintenance is beyond my knowledge. We recommend that you discuss if the alarm will be staying, and the operation / maintenance (get the code) of the alarm system with the owner and the installer prior to passing.

## **HEATING SYSTEMS**

The visible areas of the heating system(s) and related components were examined to determine their current condition. The accessible permanently installed equipment or components are checked for basic operation. The inspector is not equipped to inspect furnace heat exchanges for evidence of cracks or holes, as this can only be done by dismantling the unit and is beyond the scope of this report - not inspected. The inspector does not light pilot lights. Thermostats are not checked for calibration or timed functions. Safety devices are not tested by the inspector. Electronic air cleaners, humidifiers, and de-humidifier when present are beyond the scope of the inspection. Subjective judgment of the system capacity is not a part of the inspection. Normal service and maintenance of the heating/cooling equipment is recommend on a yearly basis.

#### HEATING SYSTEM INFORMATION

**LOCATION** The unit was located in the basement, and served the main living spaces.

BRAND NAME Heil, MN: FBFO75B12A3 SN: L990717494.

APPROX. AGE 1999 based on the ID tag information.

TYPE & FUEL Forced air natural gas-fired system.

**APPROX. BTU(S)** 75,000 Btu's, based on the ID tag information.

FILTER TYPE Disposable, The filter size is 16" X 25" X 1", The filter is located at the outside of the furnace on

the right side.

#### HEATING SYSTEM CONDITIONS

**VENTING SYSTEM** 

The visible areas of the flue vent piping were intact and secured at the connections with exceptions noted.

Safety Concern: The flue vent piping was close to or in contact with combustible materials (the plastic condensation line for the evaporator coil). This condition is a fire hazard. We recommend eh condensation line be moved away from the vent pipe.



**SUPPLY PLENUM** The supply air plenum appeared functional.

**HEATING UNIT** The furnace was functional.

**COMBUSTION AIR** The combustion air supply for the furnace appeared adequate, however no calculation was

performed. Combustion air provides oxygen for fuel-burning appliances. Adequate ventilation

around all fuel-burning appliances is vital for their safe operation.

**ENERGY SUPPLY** The gas shutoff valve and gas connector appeared functional.

**BURNERS** The burner flames appeared typical for this type of unit.

**BLOWER / FILTER** Maintenance Item: The filter was dirty which blocks the air flow. We recommend the filter be

cleaned or replaced. The filter should be checked for possible replacement at least every 35 - 45

days when using the heating and/or cooling cycles.

Repair: The air filter was not secured in place. This condition allows dirt and debris to be drawn up into the system which in turn lowers the system's efficiency. We recommend correcting the condition noted and having the system cleaned and serviced by a specialist in the appropriate

trade.

**RETURN PLENUM** The return air ducting appeared functional.

**THERMOSTAT** The thermostat located at the dining room was operated and the system responded.

**COMMENTS** Have Laclede Gas Company inspect the furnace and all gas-fired appliances before closing.

There standards are rigorous and their safety inspection is typically part of the sales contract.

The gas company is the final authority on the operational safety of all gas equipment.

**DUCTING SYSTEMS** 

**DUCT TYPES** Uninsulated metal ducts.

**DUCT CONDITIONS** The visible areas of the conditioned air ducts appeared functional.

**VENTS & GRILLS** There was air movement from the air registers/grills.

## **CENTRAL COOLING SYSTEMS**

The visible areas of the central cooling system(s) and related components were examined to determine their current condition. The permanently installed components or equipment are checked for basic operation. The inspector does not perform pressure tests on coolant systems, therefore no representation is made regarding coolant charge or line integrity. Inspection of window installed air conditioner units is outside the scope of this inspection.

#### AIR CONDITIONING SYSTEM INFORMATION

**LOCATION** The unit was located at the rear of the house and served the main living spaces.

BRAND NAME Heil, MN: ACSO24A2C1 SN: L984395804.

APPROX. AGE 1998 - based on the ID tag information. The outside AC/compressor unit has an average 12-

15 year service life with proper maintenance.

**SYSTEM TYPE** The home has an electric powered split-system central air conditioning system. The two prime

components of the system include the outside compressor unit and the evaporator unit located in the plenum above the furnace. The central air conditioning system shares the same duct distribution system, blower unit & filter, as the heating furnace to deliver cool conditioned air to

the habitable rooms serviced by the system.

**APPROX. SIZE** 2 ton based on the ID tag information.

#### AIR CONDITIONING SYSTEM CONDITIONS

#### **ENERGY SUPPLYS**

An electrical disconnect was present, in sight of and providing power to the condensing unit. Safety Concern: The circuit breakers in the main panel had a higher amperage rating than specified on the condensing unit ID tag. The rating on the ID tag is 20 amp. The breaker size is 30 amp. We recommend the circuit breakers or fuses be checked a replaced as needed by a qualified specialist in the trade.

#### CONDENSING UNITS

The condensing unit was functional, with exceptions noted.

Maintenance Item: A number of the coil fins of the condensing unit were dented This condition reduces the unit's overall performance. Minor dents in the fins can be combed out by a cooling technician. We suggest this condition be improved the next time the unit is serviced.

Maintenance Item: The was excessive lint type coverage on some areas of the fins at the condenser unit which will reduce the unit's efficiency. We recommend cleaning and taking precautions to prevent blocked coils/fins in the future. Watch for possible



nearby dryer vents and when mowing the yard, throw grass clippings away from the condenser cabinet.

## SYSTEM CONDITIONS

The system responded to normal operating controls and the temperature differential between the supply and return air grills was within the normal range of (14 -20) degrees.

## CONDENSATE DRAIN LINES

The visible areas of the condensate drain line appeared functional and the condensate drain line appears to be adequately installed. Periodic checking to make sure that the line is clear will help to maintain the system. with exceptions noted.

Recommended Improvement: The main condensate drain line exiting the evaporator unit is missing a U -shaped vented trap. A trap is partly filled with condensate water and is required to prevent cool air from escaping from the condensate drain line. We recommend that a trap be installed by a HVAC technician.

#### **THERMOSTATS**

The thermostat was operated and the system responded within the normal operating range.

#### **AIR DUCTS**

The air-conditioning ducts are the same as the heating system.

#### **COMMENTS**

The condenser appears to be in the middle of its useful service life. We recommend keeping the unit clear of vegetation and level. Periodic inspection and maintenance by a Heating/Cooling specialist would be beneficial to prolong the service of the unit.

### **KITCHEN**

The visible areas of the walls, ceilings, floors, cabinets, and counters were examined to determine their current condition. The accessible doors, windows, lights, receptacles, conditioned air vents, and permanently installed components or equipment are checked for basic operation. Self or continuous cleaning functions, timing devices, and thermostat accuracy are beyond the scope of the inspection.

#### KITCHEN INFORMATION

**SINK/PLUMBING** 2 sinks - double sink bowl.

DISPOSAL 1 present.

DISHWASHER 1 present.

**EXHAUST VENTS** Internal recirculating system provided at a hood with a light over the cooktop.

**COOKTOP** A gas cooktop/range.

OVEN(S) Gas oven.

MICROWAVE Not present.

**REFRIGERATOR** Freestanding type present.

#### KITCHEN CONDITIONS

CABINETS/

**COUNTERS** The cabinets and counters were functional.

**SINK/PLUMBING** The faucet, sink and piping were functional, no leakage noted.

**DISPOSAL** The garbage disposal functioned.

**DISHWASHER** The dishwasher functioned through the "Normal Cycle", no leakage noted, with exceptions

noted.

Repair: The door at the dishwasher does not close properly due to contact with the base cabinets. We recommend the dishwasher be adjusted as needed to restore function of the

dishwasher.

Repair: The dishwasher was connected directly to the garbage disposal and the dishwasher drain hose is missing a loop called an air gap. An air gap is needed in the drain hose running from the dishwasher to the stub out connection on the drain pipe under the kitchen sink. The purpose of the air gap is to prevent back siphonage if the sink drain becomes clogged. If there is enough slack in the gray drain hose, an air gap can easily be created by elevating the hose beneath the countertop creating an upside down "U".or "high-loop". A simple pipe clamp can be installed to hold the air gap at an elevation higher than the drain connection it empties into.

**EXHAUST VENT** The exhaust fan functioned.

Repair: The light at the exhaust hood failed to function. We recommend correcting the

condition noted.

**COOKTOP** Gas: Freestanding: The cooktop/range burners functioned, with exceptions noted.

Repair: All four of the top gas burners of the kitchen range are missing parts. The range cannot be used until the parts are replaced. We recommend the burner parts be replaced as needed.

**OVEN** Gas: Freestanding: The oven/broiler functioned, with exceptions noted.

Safety Concern: The freestanding range is missing anti-tip brackets on the rear feet to prevent tipping over and should be installed as a safety priority. All manufacturers supply anti-tip brackets with all freestanding ranges to prevent tipping should a child climb or lean on an open door causing the range to tip spilling hot liquids from the burners. The range has a chain

connected to the range which is an improper installation.

**REFRIGERATOR** The refrigerator functioned.

### LAUNDRY

The visible areas of the walls, ceilings, floors, cabinets and counters were examined to determine their current condition. Drain lines and water/gas supply valves serving the laundry machines are not operated during the inspection. The supply valves sit for long periods of time without being operated and are subject to leak when turned off and the present equipment is removed. We recommend checking these valves for evidence of leakage during your final walk-through before closing escrow.

#### LAUNDRY INFORMATION

**LOCATION** The laundry is located in the basement.

WASHER SERVICE Present.

**DRYER SERVICE** The dryer hookup was provided for a gas unit only.

**DRYER VENT** Present.

#### LAUNDRY CONDITIONS

WASHER SERVICE The laundry faucets were functional, no visible leaks, no machine connected. We do not

operate the faucets. The visible areas of the drain piping appeared functional.

**DRYER SERVICE** The dryer hookup was provided for a gas unit only.

**DRYER VENTS** Dryer venting was provided and terminated at the exterior through a louver type vent at the

right basement window.

## **BATHROOMS**

The visible areas of the walls, ceilings, floors, cabinets and counters were examined to determine their current condition. The accessible doors, windows, lights, receptacles, conditioned air vents and permanently installed components or equipment are checked for basic operation. Shower pans are visually checked for leakage, but leaks often do no show except when the shower is in actual use. Determining whether shower pans, tub/shower surrounds are water tight is beyond the scope of this inspection. It is very important to maintain all grouting and caulking in the bath areas. Very minor imperfections can allow water to get into the wall or floor ares and cause damage. Proper ongoing maintenance will be required in the future.

#### BATHROOM INFORMATION

**BATHROOM #:** The residence is served by one bathroom.

VENTILATION

The ventilation at the bathroom was provided by a window which appeared to provide adequate ventilation. Recommended Improvement: Every bathroom must have either a functional window or an exhaust fan for required ventilation. This home has a window in the bathroom as the primary means of ventilation. Most bathroom windows seldom get opened as people like to be warm while taking a shower. As a closed up bathroom is nothing more that a sealed box, trapped humidity produces dreaded mold & mildew within the bathroom and sometimes within other parts of the house. While no ventilation changes are required, we recommend as a beneficial upgrade the optional installation of a ceiling mounted exhaust fan vented outside. A fan will more conveniently remove heat, humidity and odors. A fan installation is a relatively easy job for an electrician, especially if a ceiling light is already present. If a light is not present, the task is a little more labor intensive but still possible. (Note: A fan should never discharge into an attic.) Bathroom fans are available in several sizes and options. To select an appropriate fan, you should know the size of the bathroom in cubic feet as each fan is designed to remove a specified number of cubic feet of air per minute (CFM). Other options include: A fan only, a fan with a light, a fan with a night light, a fan with a light and heat lamp.

**CABINETS** The cabinets and counter was functional.

**SINK/PLUMBING** The faucets, sinks and piping were functional, no leakage noted.

**TOILETS** The toilets functioned when flushed with no leakage noted.

Note: The water level in tank was high. Watch for possible constant running of the valve. Adjust

the float as needed.

**TUB/SHOWERS** The tub/shower and faucets were functional.

**ENCLOSURES** The enclosure was functional and needs a shower curtain installed.

Safety Concern: There is a window near the tub or shower area that does not have a visible label indicating the presence of safety glass. Non-safety glass in or near a tub / shower area can cause personal injury if it should break. For safety, I advise that the glass be re-appraised by a glass company for an exact determination of type and replaced with safety glass if needed. Windows located within a tub / shower area require constant moisture protection and more

frequent maintenance then other windows due to the damp environment.

**MIRRORS** The mirrors were functional.

**TOWEL BARS** The towel bars and toilet paper holders were functional.

## **BUILDING INTERIOR**

The visible areas of the walls, ceilings, floors, cabinets and counters were examined to determine their current condition. The accessible doors, windows, lights, receptacles, conditioned air vents, and permanently installed components or equipment are checked for basic operation. Determining the condition of insulated glass windows is not always possible due to temperature, weather and lighting conditions. In general almost all insulated glass window seals will fail and can fail at any time. Fireplaces with gas lines should have the damper fixed so it will not close and the gas line should be sealed to the wall where it enters the fireplace. All fireplaces should be cleaned and inspected on a regular basis to insure safe operation. Smoke detectors should be installed within 15 feet of all sleeping rooms. To examine or test smoke detectors is beyond the scope of the inspection. We recommend older homes be upgraded to meet the current smoke detector installation standards for additional occupant safety. Inspectors are not required to move suspended ceiling tiles.

#### BUILDING INTERIOR INFORMATION

**ROOMS INSPECTED** Bedroom, living room, dining room, kitchen, bonus room, hallway and stairwell.

**WALLS/CEILINGS** Materials: Plaster, sheetrock/drywall and acoustic spray.

**FLOORS** Materials: A combination of wood and sheet vinyl.

SMOKE/CO DETECTORS

Note: Smoke detectors are present in the house, however their operation was not verified. We do not test the smoke detectors because they may work today, but not work when you need them to work. That is why it is important for you to test them at move in and on a regular basis, monthly at least. For your information, if the home were to be constructed today, standards would require installation of smoke detectors in each sleeping room and the hallway accessing each sleeping area. Multistory dwellings would require a smoke detector on each level. Future installation of additional smoke detectors at any unprotected location is recommended for increased fire safety.

Due to the use of gas appliances in the house and/or the attached garage it would be wise as a safety upgrade to install carbon monoxide sensors where appropriate in the house especially at the sleeping rooms. Carbon monoxide is a colorless, odorless gas that can result from a faulty fuel burning furnace, range, water heater, space heater or wood stove. Proper maintenance of these appliances is the best way to reduce the risk of carbon monoxide poisoning. Install detectors according to manufacturer's directions.

**WALLS/ CEILINGS** The visible areas of the walls and ceiling appeared functional.

**VINYL FLOORING** The visible areas of the vinyl floor appeared functional.

**WOOD FLOORING** The visible areas of the wood flooring appeared functional.

**INTERIOR DOORS** The doors were functional with normal open and closing, with exceptions noted.

Repair: The door at the bathroom did not latch to the jamb. We recommend adjusting the metal

strike plate or trimming the door as needed.

Repair: The door knob-set was at the rear room closet and front bedroom had loose and/or

missing parts. We recommend correcting the condition noted.

Safety Concern: There were no visible safety glass markings on the glass panels in the doors at

the rear room. We recommend the glass be confirmed as safety type or upgraded.

**EXTERIOR DOORS** The doors were functional when opened and closed from the interior with exceptions noted

Repair: The rear kitchen door rubs on the top jamb. We recommend correcting the condition

noted.

**WINDOWS** The accessible representative numbers of windows tested were functional.

**HEAT & COOL** There was air movement from the air registers and grills.

**CLOSETS** The visible areas of the closet including the shelves and clothes rods appeared functional at the

time of the inspection.

**HANDRAIL** The handrail was functional.

**STAIRWELLS** The stairs were used several times and appeared functional, with exceptions noted.

Recommended Improvement: We recommend installation of proper guardrails at the basement steps This is a potential fall-through situation especially for young children. We recommend as a safety upgrade installing proper guardrails at this location. Today's standards require the

openings in these types of railings be spaced no more than 4" inches.

## **GARAGE - CARPORT**

The visible areas of the walls, ceilings, floors, were examined to determine their current condition. The accessible doors, windows, lights, receptacles and permanently installed components or equipment are checked for basic operation. The garage door balance and spring tension should be checked regularly by a garage door specialist. All garage door openers should have functional auto-reverse system safety features for child safety.

### GARAGE/CARPORT INFORMATION

**TYPE & LOCATION** The residence has a detached garage, which serves two cars located at the rear of the lot.

DETACHED GARAGE

**ROOF COVERINGS** The inspector walked the garage roof. The roof covering on the garage structure appears to be

the first covering (1 layer). The gable roof structure appears to be covered with asphalt/

fiberglass composition shingles.

**EXT DOOR TYPE** Materials: Metal.

**WINDOW TYPE** Window types: Metal with single pane windows were present.

**GARAGE DOORS** The is one garage door installed which is a metal sectional type and rolls overhead.

**INTERIOR WALLS** Materials: Brick.

**INTERIOR FLOOR** Materials: The floor of the garage is concrete which has common cracks noted. No action

needed.

#### GARAGE/CARPORT CONDITIONS

COMP. SHINGLE

The roof covering material appears functional and in a condition that is consistent with its age and method of installation. There is normal granular wear and aging. We observed no signs of major deficiency of cause for



missing shinles / worn areas

immediate concern, with exceptions noted. In my opinion the roof covering appears to be in the middle of its expected useful life with normal wear and aging.

Repair: There were damaged/missing shingle tabs observed at the roof coverings on the left side of the roof. There are also several worn roof shingles on the right side of the roof. This condition could permit water entry into the structure. We recommend corrections and repair of these shingles by a qualified roofer.

**EXTERIOR DOOR** The door was functional.

WINDOWS The accessible windows were functional, with exceptions noted.

Repair: The left window in the garage had cracked and/or broken glass. We recommend

correcting the condition noted.

**FRAMING** The visible garage framing appeared functional with evidence of past repairs or replacement

framing at areas around the garage door and roof framing.

**GARAGE FLOOR** The visible areas of the garage floor appeared functional with common cracks noted.

**GARAGE DOORS** The garage door was operated and appeared functional with exceptions noted.

Maintenance Item: The overhead door metal tracks and hinges lack lubrication. The lack of lubrication will cause excessive noise. We recommend applying white lithium grease/WD40 to

the metal door tracks.

**DOOR OPENERS** The automatic garage door opener was operational and the automatic reversing system

functioned when the door hit an object placed in its path. The secondary safety system (electric

eyes) functioned with exceptions,

Safety Concern: The secondary safety system (electric eyes) were mounted higher than the manufacturer's recommendation of 4" to 6" above the floor. We recommend the electric eyes

be lowered for safety.

**LIGHTS/FIXTURES** The lights were functional.

**RECEPTACLES** Recommended Improvement: The accessible receptacles were functional, but they were not

GFCI protected. We recommend upgrading to provide GFCI protection for the receptacles for

safety reasons.

#### **COMMENTS**

Note: The gutter screen at the garage were laying in the gutters and causing backups. Recommend removal of the screens.

Monitor: There is a settlement type crack in the brick wall as viewed on the exterior at the right side of the garage. We recommend the crack be sealed and monitored for future movement.

## Recommended Corrections Overview and Summary Page

3631 Lawn Avenue, MO63109

#### Read The Entire Inspection Report

This document was prepared to provide a convenient preview of the conditions and components the we have identified within our report as needing service or repair. It is comprehensive and should not be a substitute for reading the entire report. The client is directed to <u>Read The Inspection Report</u> as stated in the inspection agreement. We recommend that each of the conditions listed below be further evaluated and/or corrected by specialists in the appropriate trade. The items listed below have been coded for ease of review.

#### INSPECTION INFORMATION

#### **INTRODUCTORY NOTES**

1. Further Evaluation: There was evidence of what appeared to be mold/mildew or fungus present at the small area of the front basement wall under the front porch. This inspection does not include testing for mold type or toxicity. Further testing is recommended and needed to determine type and toxicity levels. Heath hazards may exist from what appears as a simple mold. Testing for airborne mold is also excluded from this inspection. We recommend further evaluation by a mold specialist or environmental lab if a concern to the client.

#### FOUNDATION/UNDER-FLOOR AREAS

#### **BASEMENT CONDITIONS**

- 2. Repair: As viewed from the unfinished basement on right side under the kitchen area, a floor joist has been excessively notched beyond accepted limitations. Excess notching is unsafe. Be advised that excessive notching weakens a structural member and that the notched joists, beams or rafters may collapse under load. No signs of sagging or the framing was observed, however, for safety, I advise that additional framing be added to the joist to add integrity to the framing. (Notches in the top or bottom of joists should not exceed 1/6 the depth of the member and should not be located in the middle 1/3 of the span.)
- 3. Repair: There is a crack in a floor joist as viewed in basement under the kitchen (next the notched joist listed above). We recommend the cracked joist have additional framing installed to restore integrity to the framing.

#### **EXTERIORS**

#### **EXTERIOR CONDITIONS**

- 4. Repair: The exterior brickwork needs minor tuck-pointing in several areas at the left and right side of the house due to cracks and /or worn in the mortar joints. Tuck-pointing is a form of periodic maintenance that involves undercutting the joints between bricks to remove soft, deteriorated mortar, and then restoring the joints by 'tucking' fresh mortar into them. If this task is neglected too long, the brickwork can become unstable and rain will more easily penetrate the outer envelope of the home and lead to other issues.
- 5. Repair: There is a section of loose metal trim at the rear window which should be secured as needed.
- 6. Repair: The living room windows as viewed from the exterior are missing. We recommend the windows be replaced for security and to prevent water intrusion into the house.

#### **GROUNDS CONDITIONS**

- 7. Safety Concern: The steps at the basement and front yard are missing a handrail which creates a unsafe condition. Today's safety standards dictate that a handrail be present when the stairs or steps have 3 or more risers. We recommend installation of a handrail at this location to prevent personal injury.
- 8. Repair: The gate at the rear yard (near the alley) was not installed and laying nearby. Recommend repairs as needed.

#### **ROOF SYSTEM**

#### **ROOF CONDITIONS**

9. Maintenance Item: The mortar around the clay tile at the ridge is worn in several area. These

area are prone to leakage. We recommend these worn area be sealed with mortar as needed.

10. Monitor: As observed at the rear roof area, black colored roofing cement or roofing tar has been applied over the flashings at the plumbing vent pipes. flashing various roof penetration points or building intersections. Due to the roofing cement, the flashing beneath was not accessible for evaluation - true flashing condition at those areas covered by tar is undetermined. Be advised that a properly flashed roof penetration should not need to be coated with roofing cement. The tar may have been installed as preventative maintenance or to seal a flashing leak. While the area may not be leaking at this time, it does appear potentially problematic. We recommend that the area in question be monitored for leakage and that the tar be re-applied every year as it will degrade from exposure and unequal coefficients of expansion between dissimilar materials. If signs of leakage are discovered, then a roofer should be consulted to reappraise and repair the flashings as required to restore function.

- 11. Repair: As seen above the roof at the front dormer roof and the main roof, there is a small piece of metal flashing that does not lay flat against the roof. Faulty flashing at the roof intersection may allow leakage. We recommend fixing/ sealing the flashing as needed to shed water from the opening in the roof.
- 12. Repair: As viewed above the roof line, the chimney mortar joints have eroded open in some areas. If this condition is allowed to continue without repair, deterioration will be progressive until bricks will eventually loosen and fall causing unsafe chimney blockage or property damage. Due to exposure to the elements and neglected chimney cap maintenance, moisture has entered the brick causing the mortar to soften and erode. At this time, the chimney appears to only need simple re-pointing (replacing the mortar between the bricks) of the mortar joints. We recommend a brick mason provide simple repair estimates. A detailed on roof close-up chimney inspection by a mason may reveal interior or exterior defects not disclosed in this report. After repairs, the chimney cap should be inspected every few years for cracks and patched as needed and we suggest the chimney receive an annual safety inspection to check for blockages or other unsafe conditions.
- 13. Repair: The clay tile flue liner at the top of the chimney has cracked. We recommend budgeting for repair of the type of crack as need to restore safe function of the chimney.

  14. Repair: The gutter at the front of the house appears to be improperly pitched and is sagging in the middle of the gutter. The low spots in the gutter will retain water which may cause problems such as: spill over, back-ups, clogging or loosening due to excessive weight. We recommend the problematic gutter be removed and re-installed with proper pitch to restore function.

#### ATTIC AREAS & ROOF FRAMING

#### ATTIC/FRAMING CONDITIONS

15. Repair: The windows over the gable vents on the left and right side of the attic were closed, therefore the attic has no means of ventilation. Insufficient attic ventilation will trap heat and humidity in the attic space causing higher cooling expenses and reducing roof design life. While the lack of ventilation may be typical for a home of this age, you would be wise to update the attic ventilation system now or at time of next scheduled roof replacement. A roofer can provide you with ventilation options and estimates for updating. (Today's building ventilation requirements state that: Attics with a ceiling vapor barrier shall have a screened opening of at least 1 SF of free vent area for each 300 SF of ceiling space. Attics without a ceiling vapor barrier shall have a screened opening of at least 1 SF for each 150 SF of ceiling area.) In the meantime you should open the windows at the attic year round to provide air movement into the attic. Check screens as needs to prevent pests from entering the attic.

#### WATER HEATERS

#### WATER HEATER CONDITIONS

16. Safety Concern: The water heater was not functioning during the inspection, so the orientation of the hot and cold water cannot be checked. The proper configuration of "HOT on the LEFT" and "COLD on the RIGHT" at each of the faucets could not be confirmed. We recommend confirming this orientation after correcting the water heater condition listed above.

#### **ELECTRICAL SYSTEMS**

#### **ELECTRICAL SERVICE CONDITIONS**

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- 17. Safety Concern: Investigation within the circuit breaker panel revealed a circuit breaker connected to a undersized branch wire. #14 wire is connected to a 20 amp breaker (fourth from the bottom on the left side). This size wire should be protected by a 15 amp breaker. Overfusing is considered a safety hazard as the wires can overheat and cause an electrical fire before the breaker opens to kill the circuit. While the installation of the appropriately sized breaker is fairly simple, overfusing is often an attempt to circumvent insufficient circuitry. We recommend a qualified electrician be asked to reappraise the compatibility of the breakers and the size of the attached circuit wires as a safety priority and that appropriate repairs be completed prior to occupancy. The electrician may recommend upgrading changes in the service equipment and / or branch circuits.
- 18. Safety Concern: As seen on the front wall in the basement, there is a wire to a receptacle box which runs down the wall and is not enclosed in conduit. We recommend the wire in question be enclosed in conduit to prevent mechanical damage and abuse.
- 19. Safety Concern: We recommend the wire connections at the overhead wire to the garage have additional tape/sealing at the connections as needed.

#### **ELECTRICAL COMPONENT CONDITIONS**

- 20. Repair: A couple of the light fixture at the basement were inoperable at time of inspection. Bulbs are not changed during the inspection. The problem may be as simple as a bad light bulb. Replace the bulbs and test the light fixture. If function is not restored, then you might want to hire an electrician to further investigate and correct the problem as needed.
- 21. Safety Concern: The GFCI type outlet at the bathroom does not function properly and trips without the test button. The device may not provide shock protection. It should be disassembled evaluated by an electrician and replaced as a safety priority.

#### **HEATING SYSTEMS**

#### HEATING SYSTEM CONDITIONS

- 22. Safety Concern: The flue vent piping was close to or in contact with combustible materials (the plastic condensation line for the evaporator coil). This condition is a fire hazard. We recommend eh condensation line be moved away from the vent pipe.
- 23. Repair: The air filter was not secured in place. This condition allows dirt and debris to be drawn up into the system which in turn lowers the system's efficiency. We recommend correcting the condition noted and having the system cleaned and serviced by a specialist in the appropriate trade.

#### CENTRAL COOLING SYSTEMS

#### AIR CONDITIONING SYSTEM CONDITIONS

24. Safety Concern: The circuit breakers in the main panel had a higher amperage rating than specified on the condensing unit ID tag. The rating on the ID tag is 20 amp. The breaker size is 30 amp. We recommend the circuit breakers or fuses be checked a replaced as needed by a qualified specialist in the trade.

#### **KITCHEN**

#### KITCHEN CONDITIONS

- 25.Repair: The door at the dishwasher does not close properly due to contact with the base cabinets. We recommend the dishwasher be adjusted as needed to restore function of the dishwasher.
- 26. Repair: The dishwasher was connected directly to the garbage disposal and the dishwasher drain hose is missing a loop called an air gap. An air gap is needed in the drain hose running from the dishwasher to the stub out connection on the drain pipe under the kitchen sink. The purpose of the air gap is to prevent back siphonage if the sink drain becomes clogged. If there is enough slack in the gray drain hose, an air gap can easily be created by elevating the hose beneath the countertop creating an upside down "U".or "high-loop". A simple pipe clamp can be installed to hold the air gap at an elevation higher than the drain connection it empties into.

  27. Repair: The light at the exhaust hood failed to function. We recommend correcting the condition noted.
- 28. Repair: All four of the top gas burners of the kitchen range are missing parts. The range cannot be used until the parts are replaced. We recommend the burner parts be replaced as needed.

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#### **BATHROOMS**

29. Safety Concern: There is a window near the tub or shower area that does not have a visible label indicating the presence of safety glass. Non-safety glass in or near a tub / shower area can cause personal injury if it should break. For safety, I advise that the glass be re-appraised by a glass company for an exact determination of type and replaced with safety glass if needed. Windows located within a tub / shower area require constant moisture protection and more frequent maintenance then other windows due to the damp environment.

#### **BUILDING INTERIOR**

- 30. Repair: The door at the bathroom did not latch to the jamb. We recommend adjusting the metal strike plate or trimming the door as needed.
- 31. Repair: The door knob-set was at the rear room closet and front bedroom had loose and/or missing parts. We recommend correcting the condition noted.
- 32. Safety Concern: There were no visible safety glass markings on the glass panels in the doors at the rear room. We recommend the glass be confirmed as safety type or upgraded.
- 33. Repair: The rear kitchen door rubs on the top jamb. We recommend correcting the condition noted.

#### **GARAGE - CARPORT**

#### **GARAGE/CARPORT CONDITIONS**

- 34. Repair: There were damaged/missing shingle tabs observed at the roof coverings on the left side of the roof. There are also several worn roof shingles on the right side of the roof. This condition could permit water entry into the structure. We recommend corrections and repair of these shingles by a qualified roofer.
- 35. Repair: The left window in the garage had cracked and/or broken glass. We recommend correcting the condition noted.
- 36. Safety Concern: The secondary safety system (electric eyes) were mounted higher than the manufacturer's recommendation of 4" to 6" above the floor. We recommend the electric eyes be lowered for safety.