

# Structure Tech Home Inspections

## SUMMARY REPORT

**Client:** New Home Buyer  
**Inspection Address:** 123 Perfection Street, Minneapolis, MN  
**Inspection Date:** 11/2/2011 Start: 8:30 am

This Summary Report includes the items that were, in my opinion, the most likely to affect your decision to purchase the property. This is not by any means a substitute for the full report. The service recommendations that I make in this summary and throughout the report should be completed well before the close of escrow by licensed, qualified, competent specialists, who may well identify additional defects or recommend some upgrades that could affect your opinion of the property.

This inspection report is available on the Internet  
for 90 days from the date of the inspection.  
[www.StructureTech1.com](http://www.StructureTech1.com)

Enter the following Client Name: structuretechsample and the Password: 123

**This report is the exclusive property of Structure Tech Home Inspections and the Client whose name appears within, and its use by any unauthorized persons is prohibited.**

---

### Structural

#### Basement

##### *Unacceptable*

- There was an unacceptably high moisture level in the wood wall plates underneath the stairway - as high as 30% in some areas. There was also staining on the walls that appeared to be mold growth. Have the drywall in this room completely removed and have a disaster repair company run a dehumidifier in this area for as long as it takes to get the moisture levels back down to an acceptable level.

### Exterior

#### Wall Surfaces

##### *Unacceptable*

- There were open joints at the hardboard siding throughout the exterior, and these joints either don't have any joint treatment at all, or they were caulked and the caulking has dried out and split. The caulking has also dried out and split where the siding ends at windows and other trim pieces. The siding will be prone to water intrusion with all of the open joints. Have the siding serviced.

#### Exterior Features

##### *Unacceptable*

- The window well at the north side of the house was collapsing, most likely because of the poor water management at this corner of the house. Have the window well completely re-built, or get a second opinion from a structural engineer. There were cracks in the south window well, but the cracking was much less severe. If you have an engineer inspect the north window well, it would be worth having the south window well inspected at the same time. All of the photos below are of the north window well.

### Roofing

## Roof

### *Concern*

- The wear pattern on the composition shingles appears to be attributable to defective materials. Many shingles, especially at the front of the house, had missing granules and damaged mats, to the point where there were exposed fiberglass threads. There is no immediate concern of roof leakage, but this pre-mature wearing will unquestionably shorten the life of the roof. Has there been hail damage at the house? Have there been any claims made for hail damage?

### *Unacceptable*

- There is no kickout flashing installed at the roof/wall intersection at the south side of the house. Kickout flashing helps prevent potential water intrusion into the wall, it's required by the building code, and it's required by the siding manufacturer. The gutter at this location was also installed too close to the wall - there needs to be a 1" gap between the gutter end and the siding. There has obviously been a water problem at this location, as indicated by the severely deteriorated siding below the gutter, and the heavy caulking / mastic that has been applied here. Have proper kickout flashing installed at this location, have the gutter installed the proper distance away from the wall, have the deteriorated siding removed, have the wall sheathing inspected for water damage, and have it repaired as necessary.

## Plumbing

### Waste and Drainage System

#### *Unacceptable*

- There is a standpipe installed for the washing machine to drain to, but there is no water seal trap provided for the standpipe. This will allow hazardous sewer gas in to the home. Have this repaired.

### Laundry

#### *Unacceptable*

- The clothes dryer wouldn't run for longer than about a minute, and displayed the error code "E2". I tried cleaning the lint filter, but that didn't make any difference. Have the clothes dryer serviced.

### Water Heaters

#### *Unacceptable*

- The temperature and pressure relief valve was leaking. This could be happening because there is a pressure reducing valve on the water supply piping coming in to the house, but the piping was concealed by an installed cabinet, so I couldn't verify that this was the case. If there is a pressure reducing valve present, it will prevent the household water from expanding in to the city water supply when it heats up. Without anywhere for the water to go when it gets warm and expands, the pressure relief valve leaks. Try replacing the pressure relief valve. If it leaks again, you should have an expansion tank added to the plumbing system.

## Heat

### Heat System

#### *Unacceptable*

- The furnace venting was improperly installed. The installation instructions say "Termination kit should be positioned where vent vapors will not damage plants/shrubs or air conditioning equipment". The vent terminal couldn't possibly be located much closer to the air conditioning equipment. The installation instructions also say "Termination kit should be positioned so that it will not be affected by wind eddy (such as inside building corners) or allow recirculation of flue gases, airborne leaves, or light snow." The vent terminal is located in just a corner. The intake and exhaust were also located on opposite sides of the house, which is blatantly wrong; the installation instructions say to install the intake and exhaust terminals exactly as shown in the diagram below, left. This improper installation could cause the furnace to malfunction. Have the installation corrected.

Note: the furnace model # is PG9MAA048080.

Inspection Address: 123 Perfection Street, Minneapolis, MN  
Inspection Date/Time: 11/2/2011 8:30 am

---

## Interior

### Vent Fans

#### *Unacceptable*

- The first floor bath fan appeared functional, but there is no termination for the fan at the exterior. The bath fan must be connected to an insulated duct that is tightly connected to a dampered vent at the exterior. It will create moisture problems with the way it is currently installed. Have this fixed.

# Structure Tech Home Inspections

4205 Raleigh Avenue South Saint Louis Park MN 55416  
Tel: 952-915-6466 Mobile: 612-205-5600 : Home Inspector  
www.StructureTech1.com Reuben@StructureTech1.com

## CONFIDENTIAL INSPECTION REPORT

PREPARED FOR:

**New Home Buyer**

---

### INSPECTION ADDRESS

123 Perfection Street, Minneapolis, MN

### INSPECTION DATE

11/2/2011 8:30 am



**This report is the exclusive property of Structure Tech Home Inspections and the Client whose name appears within, and its use by any unauthorized persons is prohibited.**

# Structure Tech Home Inspections

4205 Raleigh Avenue South Saint Louis Park MN 55416  
Tel: 952-915-6466 Mobile: 612-205-5600 : Home Inspector  
www.StructureTech1.com Reuben@StructureTech1.com

## INSPECTION AGREEMENT

Client: New Home Buyer  
Property Address 123 Perfection Street, Minneapolis, MN  
Date: 11/2/2011

The inspection report can be viewed on the Internet  
www.StructureTech1.com  
Enter the following Client Name: structuretechsample and the Password: 123

### PLEASE READ THIS AGREEMENT CAREFULLY

THIS AGREEMENT by and between Saltzman Enterprises, Inc., d/b/a Structure Tech, a Minnesota corporation with its principal place of business located at, 4205 Raleigh Avenue South, St. Louis Park, Minnesota 55416 (hereinafter called the "Company") and the clients, as identified above (hereinafter, whether joint or several, called the "Client").

Unless specifically contradicted by the language herein which shall control in the event of the conflict, this inspection of the subject property shall be performed by the Company for the Client in accordance with the Standards of Practice of the American Society of Home Inspectors, Inc. ("ASHI"), a copy of which is available at [www.ashi.com](http://www.ashi.com).

I. PURPOSE AND SCOPE OF INSPECTION. The company agrees to perform a visual inspection of the subject house and to provide Client with a written report identifying the major deficiencies. Items not specifically included in the written report and identified in this agreement are beyond the scope of the inspection and are not reviewed. No verbal statements by the inspector shall expand the scope of this agreement or the inspection report, nor shall such statements be relied upon by the client when solicited from the inspector at any time.

The inspection includes such items as:

Sidewalks/Driveways, Foundation, Drainage, Plumbing, Electrical, Materials of Construction, Interior, Central Air, Insulation, Heating, Crawlspace/basement, Fireplace(s), Attic, Exterior, Roof.

The inspection does not include items such as:

Underground utilities, Playground equipment, Pools, Elevators, Wells/springs, Tennis courts, Solar systems, Security systems, Septic Tanks, Drainfields, Personal property, Cosmetic items, Water softeners, Central vacuum, Cesspools, Sprinkler systems, Appliances, Recreational appliances.

\* Thermostats or timers are not checked for accuracy or calibration.

\* Air conditioners cannot be safely checked when the outside temperature has been below 60 degrees within 24 hours.

II. LIMITATIONS.

1. As an example only, the inspection report will not include cosmetic items such as minor scratches, scrapes, dents, cracks, stains, soiled, faded, torn or dirty floor, wall or window coverings. The inspector is not required to move personal property, debris, furniture, equipment, carpeting or like materials which may impede access or limit visibility. Recent and existing weather conditions may also limit or restrict the results of the inspection. Major deficiencies and defects which are latent or concealed are excluded from the inspection. The inspection is not intended to be technically exhaustive. Equipment and systems will not be dismantled. The Company does not guarantee that detected evidence of past or present water infiltration will not re-occur in the same or different locations at some future time.

2. The inspection is NOT a compliance inspection for past or present governmental codes or regulations of any kind.

3. The inspection and report do not address and are not intended to address the possible presence of or danger from asbestos, radon gas, lead paint, urea formaldehyde, toxic or flammable chemicals, mold, mildew, water or airborne related illness or disease, and all other similar or potentially harmful substances. The client is urged to contact a reputable specialist if information identification or testing for the above is desired. In addition, the presence or absence of rodents, termites, or other insects/vermin is not covered by this inspection.

4. This inspection report is not intended to be used as a guarantee or warranty, expressed or implied, regarding the adequacy, performance or condition of any inspected structure, item or system. The inspection and report are not intended to reflect the value of the premises, nor to make any representation as to the advisability or inadvisability of purchase or the suitability for use.

5. The inspection/report is not a certification of any kind. Company shall not be construed as insuring against any defects or deficiencies not contained in the inspection report and subsequently discovered by the Client. This inspection does not imply that every defect was found.

III. NOTICE OF CLAIM. In the event of a discrepancy, problem, dispute or claim arising from the performance of an inspection by the Company and/or its inspectors, the Client agrees to promptly notify the Company in writing by U.S. Certified Mail. Any claim against Company must be received by Company, in writing, within one year from the Agreement Date, or such claim is waived, regardless of the date when Client becomes aware of the discrepancy, problem or claim. Client guarantees the Company the right to examine the subject matter of any claim, prior to the Client's performance of any remedial action (unless of an emergency nature of for the safety of person or property). This is a condition precedent to Client's claim.

IV. LIMITED LIABILITY. The parties agree that the maximum liability of the Company, and its employees and agents, for any loss or damage, in the event the Company, or its employees or agents, are negligent, in breach of contract, or otherwise at fault in the performance of its obligations, shall be limited to a sum equal to the fee for the inspection service. If a lawsuit, legal action or arbitration is filed by the Client against the Company, its inspectors, or employees and the Company and/or its inspectors successfully defends the claim of the Client, the Client agrees to pay the Company and/or its inspectors for their time in defending such action, at their normal hourly rate, attorney's fees and court costs, and any other costs incurred in defending against such claim.

V. PAYMENT. Payment is due upon completion of the on-site inspection. There will be a \$20.00 dollar charge if any form of payment is subsequently dishonored. All legal and time expenses incurred in collecting due payments, returned checks, or unaccepted credit and payments will be paid by the purchaser of the service. Any fee not paid within 30 days of the inspection will have a service charge of 1.5% monthly or 18% per annum added to the inspection fee. Credit is on an approval basis.

VI. NON-ASSIGNMENT AND INDEMNITY. The inspection and report are performed and prepared for the sole, confidential and exclusive use and possession of the undersigned client only; they do not run with the land. The client agrees to indemnify and hold harmless the Company and the Inspector for all costs, expenses and legal fees incurred and arising out of any legal proceedings brought by any third party who claims he/she relied on representations made in this inspection report and was damaged thereby.

VII. ENTIRE AGREEMENT. This agreement represents the entire agreement between the parties. No change or modification shall be enforceable against any party unless such change or modification is in writing and signed by the parties. This agreement shall be binding upon and enforceable by the parties, and their heirs, executors, administrators, successors and assigns.

VIII. CLIENT'S PRESENCE. If the Client is not present at the time of inspection or for any reason is unable to sign this agreement at the time of inspection, this agreement will become part of the inspection report, and acceptance of the inspection report shall constitute acceptance of the terms herein.

IX. SEVERABILITY PROVISION. If any portion of this agreement is ruled to be illegal or unenforceable, that provision shall be null and void but the remainder of the agreement shall remain in full force and effect. CLIENT ACKNOWLEDGES THAT HE OR SHE HAS READ THIS AGREEMENT IN FULL PRIOR TO SIGNING IT AND UNDERSTANDS ALL TERMS AND CONDITIONS. Client agrees to conduct their own Pre-Closing walk through, sign and return a copy to Structure Tech. A walk through check list is included in the inspection report.

## GENERAL INFORMATION

**Inspection Address:** 123 Perfection Street, Minneapolis, MN  
**Inspection Date:** 11/2/2011 Time: 8:30 am  
**Weather:** Clear and Dry - Temperature at time of inspection: 30-40 Degrees

**Inspected by:** Reuben Saltzman

**Client Information:** New Home Buyer  
**Structure Type:** Wood Frame  
**Furnished:** No

**Structure Orientation:** East

**Estimated Year Built:** 2003  
**Unofficial Sq.Ft.:** 3006

**People on Site At Time of Inspection:** Buyer(s)  
Buyer's Agent

### General Property Conditions

#### PLEASE NOTE:

The service recommendations that we make in this report should be completed well before the close of escrow by licensed, qualified, competent specialists, who may well identify additional defects or recommend some upgrades that could affect your evaluation of the property. This inspection was conducted in accordance with the ASHI Standards of Practice, which can be viewed online at <http://www.structuretech1.com/ASHI-SOP.pdf>

Report File: Sample 120211

## Structural

### Basement

#### Limitations

##### *Informational*

I cannot view all spaces because of finished interior walls - the basement was completely finished.

#### Signs of Moisture

##### *Unacceptable*

There was an unacceptably high moisture level in the wood wall plates underneath the stairway - as high as 30% in some areas. There was also staining on the walls that appeared to be mold growth. Have the drywall in this room completely removed and have a disaster repair company run a dehumidifier in this area for as long as it takes to get the moisture levels back down to an acceptable level.





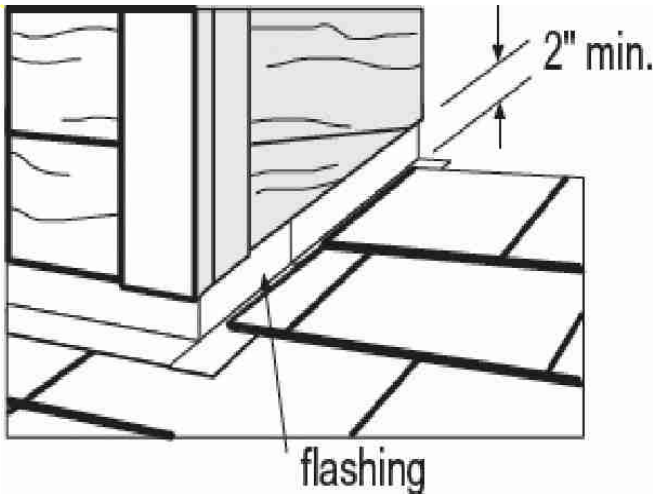
# Exterior

## Wall Surfaces

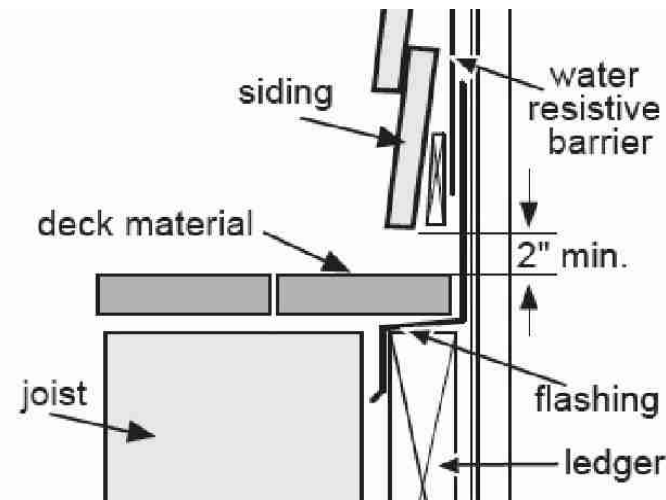
### Fiber Cement Siding

#### Informational

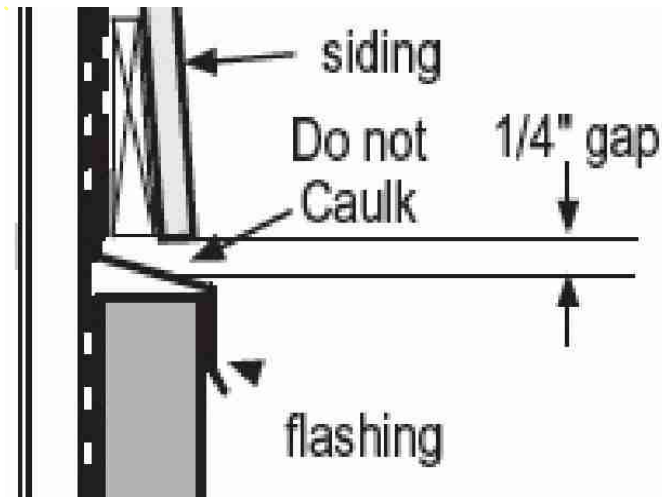
The fiber cement siding was installed too close to the roof. The siding should have been kept 2" above the roof surface to help prevent premature deterioration of the siding and peeling paint.



The fiber cement siding has been installed too close to the deck surface. The installation instructions require a 2" gap. The siding will be prone to damage and peeling paint here.



The siding has been caulked where it ends above the windows and doors, but this is prohibited by the manufacturer, as water could get trapped above the window. For more information on this topic, visit <http://www.structuretech1.com/blog/category/caulk-at-head-flashing-2/>



The paint was peeling at the siding in the corner where the furnace and water heater exhausted.

**Attention Recommended**

The siding has been blind nailed and face nailed in the middle of the south wall, which is prohibited by the manufacturer. The siding can be blind nailed OR faced nailed, but not both. The siding will be prone to cracking with this improper installation. Why were all of these extra face nails added? Did the siding come loose here? I suggest you ask the seller about this.



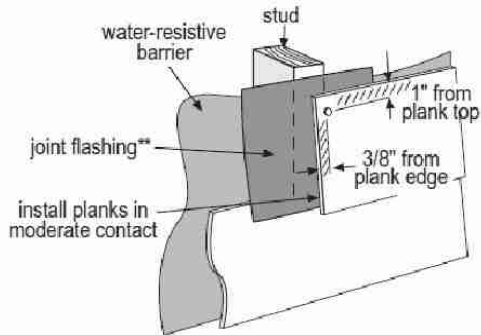
**Unacceptable**

There were open joints at the hardboard siding throughout the exterior, and these joints either don't have any joint treatment at all, or they were caulked and the caulking has dried out and split. The caulking has also dried out and split where the siding ends at windows and other trim pieces. The siding will be prone to water intrusion with all of the open joints. Have the siding serviced.

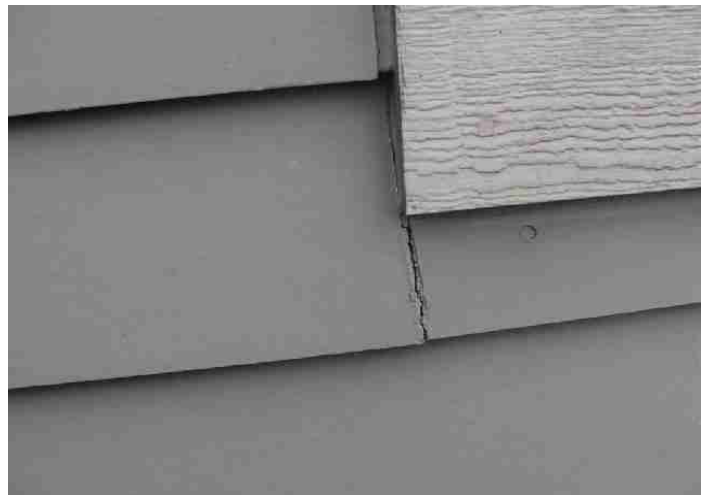
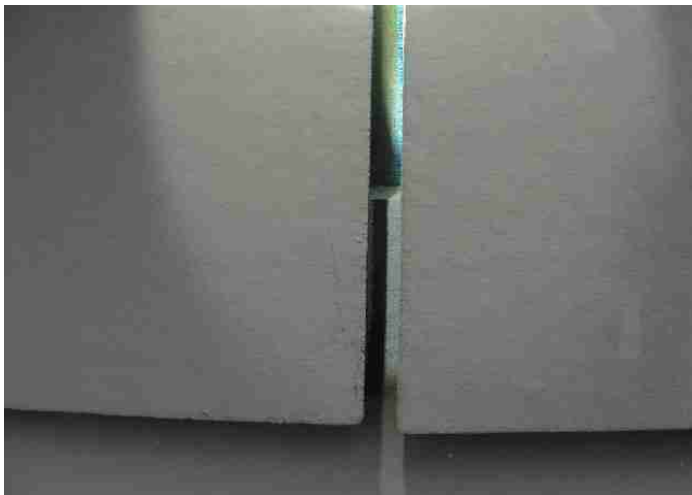
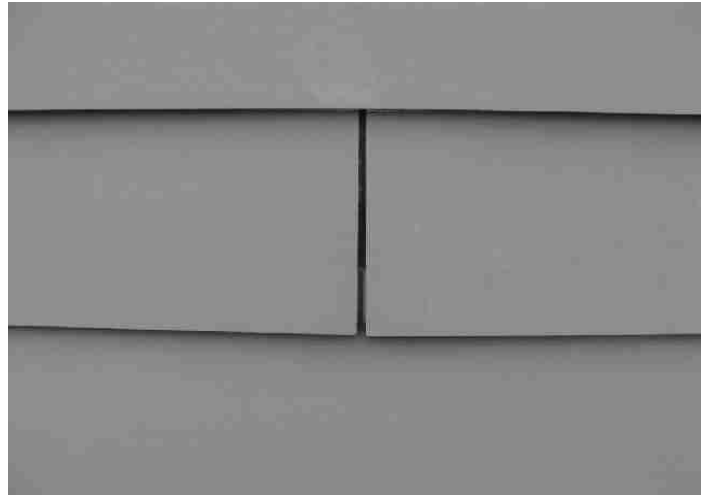
**JOINT TREATMENT\***

*(Required for ColorPlus® Finish, Recommended for Primed product)*

James Hardie does not recommend the use of caulk at field butt joints.



Install factory finished edges together at butt joints.



Open joints with split caulking - *Continued*



## Exterior Features

### Storms and Screens

#### *Informational*

The upper screens at the west side of the house had several holes in them.





holes in screens - *Continued*



Most of the window screens were missing. Is the seller providing screens for the windows? If so, you should ask them to have the screens installed for the pre-closing walk-thru.

**Window Wells**

*Attention Recommended*

The window well at the north side of the house is a very deep well without an egress step or ladder. If someone jumped in to / fell in to this well, they might get trapped. Install a ladder at this window well.

*Unacceptable*

The window well at the north side of the house was collapsing, most likely because of the poor water management at this corner of the house. Have the window well completely re-built, or get a second opinion from a structural engineer. There were cracks in the south window well, but the cracking was much less severe. If you have an engineer inspect the north window well, it would be worth having the south window well inspected at the same time. All of the photos below are of the north window well.



Window well collapsing - *Continued*





### Steps and Handrails

#### *Attention Recommended*

The second step up to the house at the front porch had a large split in the deck board, and could break away. This is a fall hazard. Replace this cracked board.



### Guardrails

#### *Informational*

The front porch was low enough to the ground to not require guardrails (less than 30" high), however, the walls at the porch were at a height that a child could easily climb on top of, and the fall from the tops of the walls to the ground was much more than 30". This is a safety concern for small children.



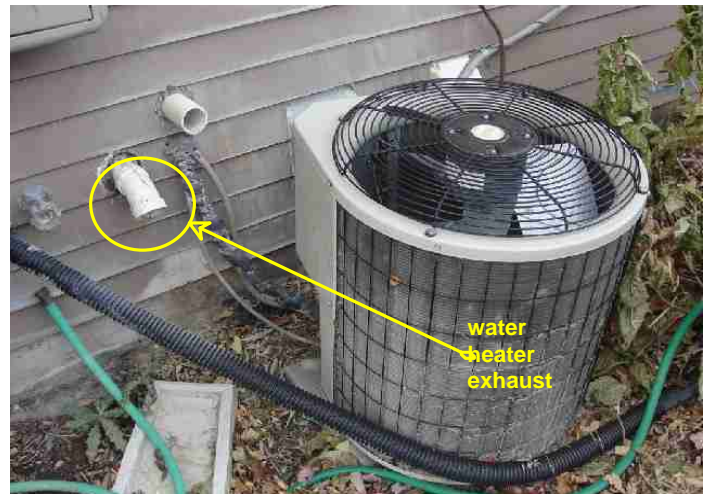
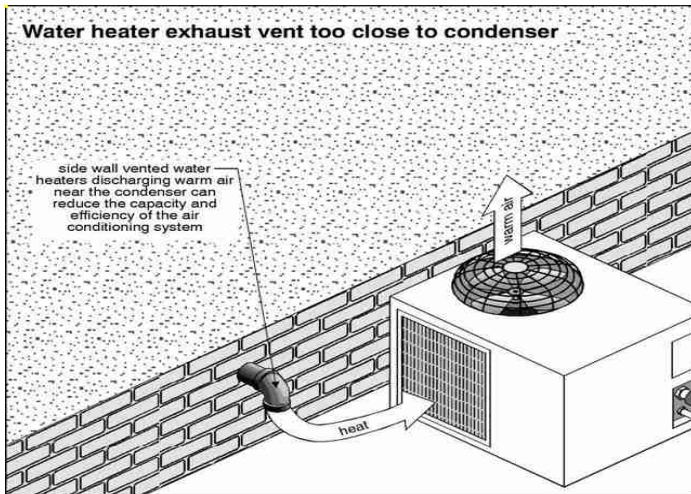
### Sidewall Vents

#### *Informational*

The combustion air intake and HRV intake are too close to the ground. These intakes are required to be located at least a foot above the ground, or above the average snow line. Make sure these vents don't get blocked with debris or snow.

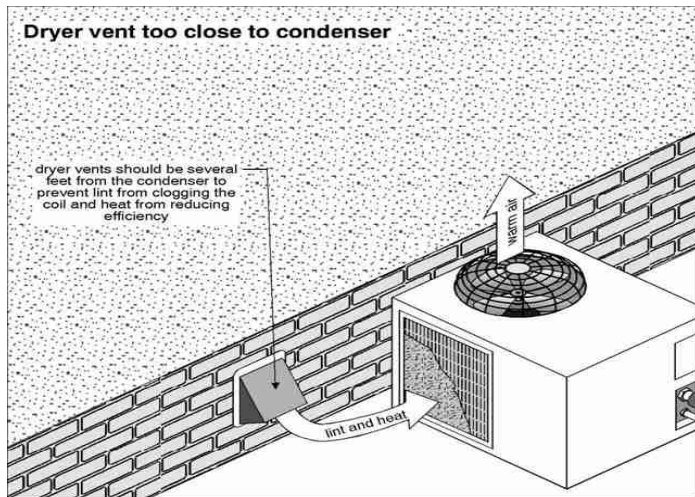


The water heater exhaust is very close to the air conditioner, which will reduce the efficiency of the cooling system. When the water heater is replaced, you should try to have the exhaust re-located.



The dryer exhaust is close to the air conditioner. When the dryer exhaust is too close to the air conditioner, excess lint can accumulate on the air conditioner coils, and this will reduce the efficiency of the air conditioner. Monitor frequently in the summer and keep clean by spraying down with a garden hose.





*Attention Recommended*

The HRV intake was dirty, and should be cleaned to allow for proper air flow and operation of the HRV.



## Roofing

### Roof

#### Sloped Roof

*Concern*

The wear pattern on the composition shingles appears to be attributable to defective materials. Many shingles, especially at the front of the house, had missing granules and damaged mats, to the point where there were exposed fiberglass threads. There is no immediate concern of roof leakage, but this pre-mature wearing will unquestionably shorten the life of the roof. Has there been hail damage at the house? Have there been any claims made for hail damage?

Inspection Address:  
Inspection Date/Time:

123 Perfection Street, Minneapolis, MN  
11/2/2011 8:30 am

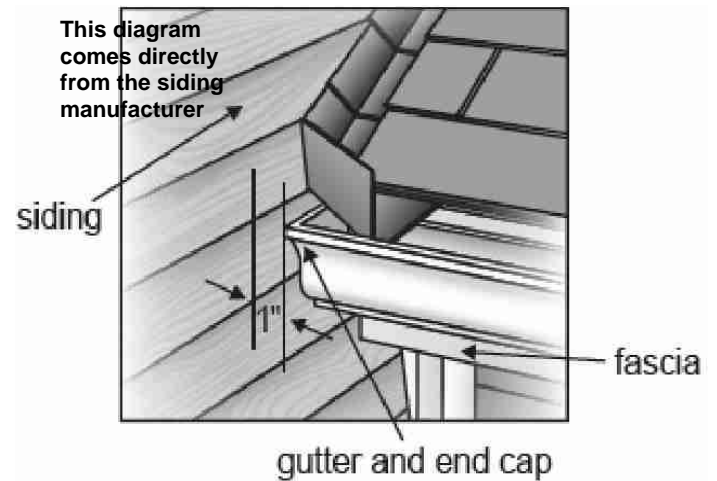
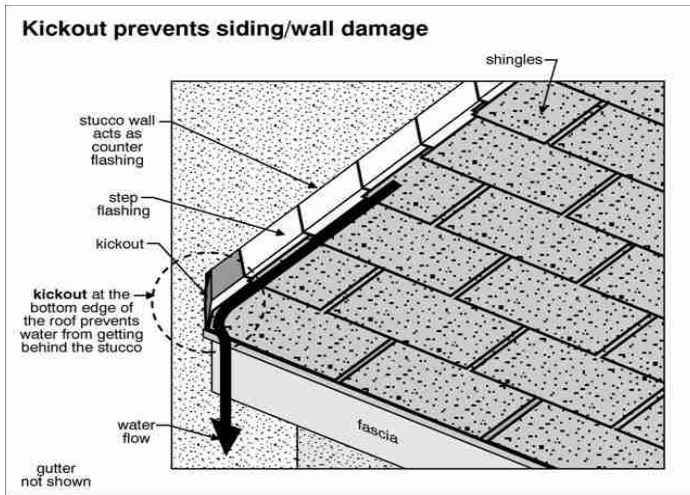
---



**Flashings**  
*Unacceptable*



There is no kickout flashing installed at the roof/wall intersection at the south side of the house. Kickout flashing helps prevent potential water intrusion into the wall, it's required by the building code, and it's required by the siding manufacturer. The gutter at this location was also installed too close to the wall - there needs to be a 1" gap between the gutter end and the siding. There has obviously been a water problem at this location, as indicated by the severely deteriorated siding below the gutter, and the heavy caulking / mastic that has been applied here. Have proper kickout flashing installed at this location, have the gutter installed the proper distance away from the wall, have the deteriorated siding removed, have the wall sheathing inspected for water damage, and have it repaired as necessary.



There is no kickout flashing installed - *Continued*



### Downspouts

#### *Attention Recommended*

The downspouts lack proper extensions to carry the water away from the foundation. Having a downspout dumping water right up against the house will concentrate the water to one location, and greatly increase the potential for basement water problems, foundation problems, and window well problems. Add downspout extensions to carry the water several feet away from the house.



### Roof Caps

#### *Attention Recommended*

The backdraft damper at the east roof cap for one of the bath fan exhausts was stuck shut. The damper has become stuck to the sealant strip below the damper, which prevents the damper from opening, and forces warm moist air to exhaust in to the attic. Replace the sealant strip with a new one that is made from polyester, which you can obtain from Broan by calling 1-800-558-1711. Order part #S97017696.

For more information about this problem, click here <http://www.structuretech1.com/blog/?p=293> .



## Plumbing

### Waste and Drainage System

#### Drain Pipes Waste Pipes and Vent Pipes

##### *Unacceptable*

There is a standpipe installed for the washing machine to drain to, but there is no water seal trap provided for the standpipe. This will allow hazardous sewer gas in to the home. Have this repaired.



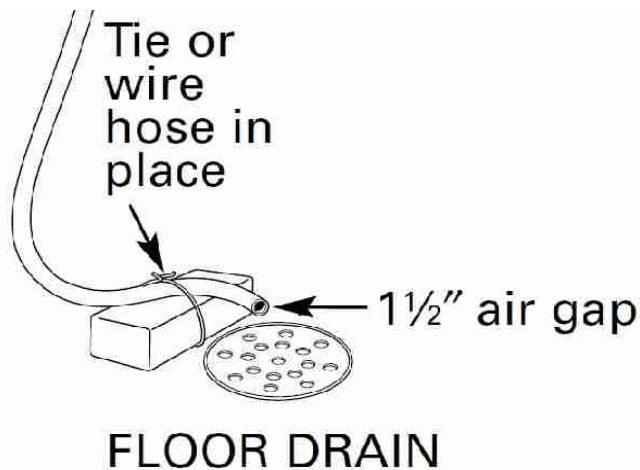
### Water Distribution Piping

#### Water Softener

##### *Attention Recommended*

There is no air gap at the drain line for the water softener. I recommend making a 1" air gap for the water softener drain line to prevent any potential cross connection between the potable drinking water and any sewer water that might back up out of the floor drain. To read more about this topic, click here <http://www.structuretech1.com/2011/07/water-softener-installation-defects/>.



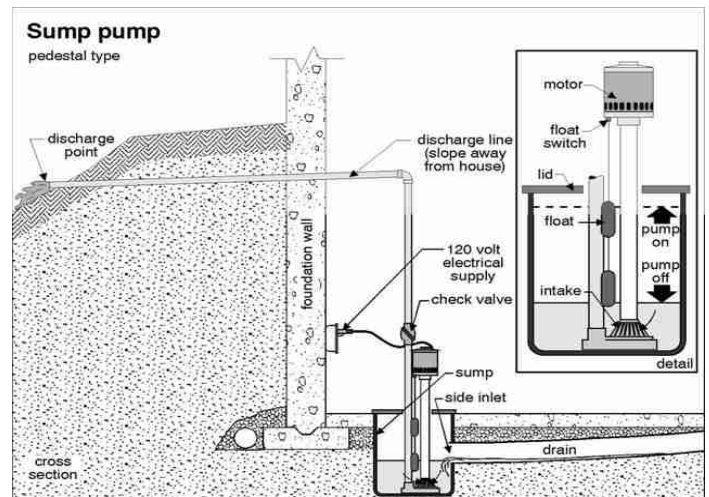
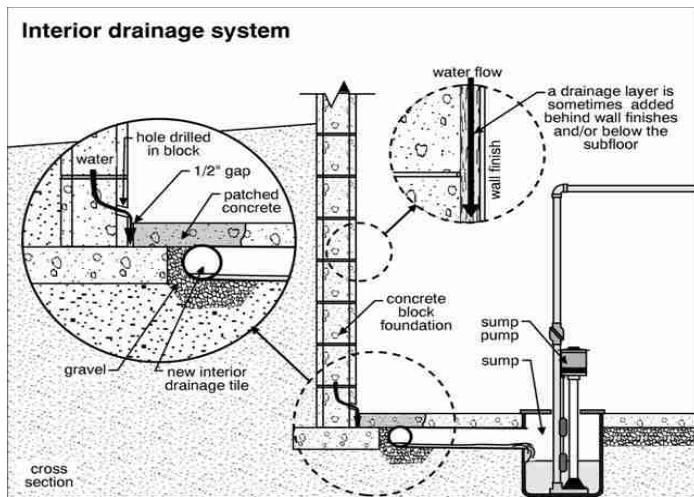


## Sump Pump

Pump

Functional

The pump was operational at the time of the inspection.



### Informational

You should consider having a backup sump pump installed to guard against your basement flooding when the primary pump fails, or during a power outage. You can read more about this topic here - <http://www.structuretech1.com/2011/07/backup-sump-pumps/>.

### Sump Cover

Attention Recommended

The sump cover is not secured in place. Re-install the cover and secure it with screws to prevent small children from removing the cover and potentially falling in.

## Laundry

### Washing Machine Hoses

#### *Informational*

There were rubber supply hoses at the washing machine, which can leak or burst under pressure and continue to flow. Replace the rubber hoses with modern braided stainless steel hoses; they're much more dependable.

### Dryer

#### *Unacceptable*

The clothes dryer wouldn't run for longer than about a minute, and displayed the error code "E2". I tried cleaning the lint filter, but that didn't make any difference. Have the clothes dryer serviced.

### Dryer Duct

#### *Attention Recommended*

The dryer duct had a lot of lint accumulated inside, which is a potential fire hazard and will reduce the performance of the dryer. Have the dryer duct professionally cleaned.

## Water Heaters

### Pressure Release Valve and Discharge Pipe

#### *Unacceptable*

The temperature and pressure relief valve was leaking. This could be happening because there is a pressure reducing valve on the water supply piping coming in to the house, but the piping was concealed by an installed cabinet, so I couldn't verify that this was the case. If there is a pressure reducing valve present, it will prevent the household water from expanding in to the city water supply when it heats up. Without anywhere for the water to go when it gets warm and expands, the pressure relief valve leaks. Try replacing the pressure relief valve. If it leaks again, you should have an expansion tank added to the plumbing system.



## Kitchen and Bathroom Fixtures

### Kitchen Trap and Drain

#### *Attention Recommended*

The right side of the kitchen sink leaks like crazy where the garbage disposer connects to the sink. Have this leak repaired, and the garbage disposer inspected for leaks.

### Tub

#### *Informational*

Some black mold or mildew residue shot out of the jets when I operated the whirlpool. This stuff will build up in the lines if the whirlpool isn't used for a while. For information on how to prevent this from happening, click

here <http://www.structuretech1.com/2011/09/whirlpool-maintenance/> .



**Tub-Shower**

*Informational*

The tub-shower valve in the second floor hallway bathroom has hot and cold reversed, and you may wish to have this condition corrected by a plumber to prevent accidental scalding.

**Shower**

*Attention Recommended*

The shower door in the master bathroom leaks when water is directed to the door / wall intersection. Have this leak repaired.



## Electrical



## Main Panel

### Main Panel

#### *Attention Recommended*

There were two missing screws at the panel cover, which should be replaced to keep the panel cover secure; a loose panel cover might not contain a fire that could start inside the panel. Be sure to use blunt-tip screws, not pointed screws; pointed screws could pierce one of the wires inside the box.



### Circuit Breakers

#### *Attention Recommended*

There is one 20 amp breaker that has 14 gage wiring, located at the bottom left opening in the panel. This size wire is only rated for 15 amps - this is a fire hazard. Have this corrected.



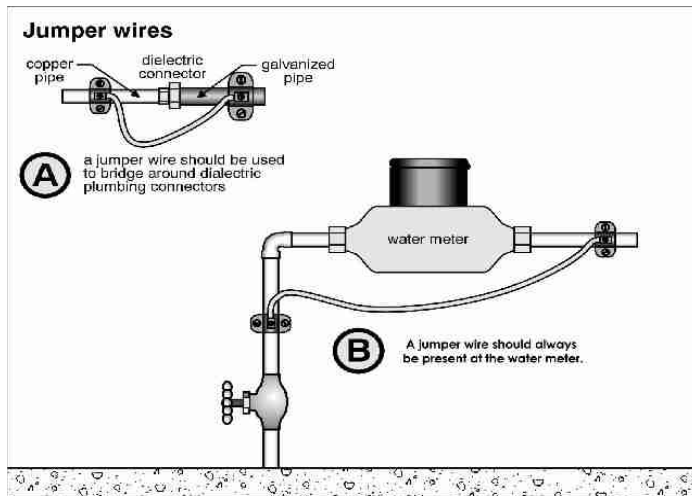
### Grounding

#### *Attention Recommended*

The water distribution piping is no longer bonded, because of the plastic by-pass valve at the water softener. Add a grounding strap at the water piping coming in to and going out of the water softener. See diagram below - same concept. You can read more about this issue here - <http://www.structuretech1.com/2011/07/water-softener-installation-defects/>

Inspection Address:  
Inspection Date/Time:

123 Perfection Street, Minneapolis, MN  
11/2/2011 8:30 am



## CO Detectors

### Locations

#### *Attention Recommended*

There are no carbon monoxide alarms present. Minnesota requires at least one approved carbon monoxide alarm within ten feet of every sleeping room. Install CO alarms as required.

For more information, visit

<http://www.structuretech1.com/blog/2011/05/carbon-monoxide-alarm-requirements-for-minnesota-including-the-little-det>

## Heat

### Heat System

#### Rigid metal ductwork

#### *Attention Recommended*

There are various gaps in the metal ductwork for the furnace that should be sealed with metal tape to help prevent unwanted air leakage in to the basement. Sealing these air leaks will help get more air where it's supposed to go. There was also an opening on the side of the furnace which will heat the furnace room; you might want to just have this opening completely blocked off, as it isn't necessary.



### Central Heating Operation

*Functional*

The operation of the furnace was acceptable at the time of the inspection.

### Exposed Vent Connector and Vent

*Unacceptable*

The furnace venting was improperly installed. The installation instructions say "Termination kit should be positioned where vent vapors will not damage plants/shrubs or air conditioning equipment". The vent terminal couldn't possibly be located much closer to the air conditioning equipment. The installation instructions also say "Termination kit should be positioned so that it will not be affected by wind eddy (such as inside building corners) or allow recirculation of flue gases, airborne leaves, or light snow." The vent terminal is located in just a corner. The intake and exhaust were also located on opposite sides of the house, which is blatantly wrong; the installation instructions say to install the intake and exhaust terminals exactly as shown in the diagram below, left. This improper installation could cause the furnace to malfunction. Have the installation corrected.

Note: the furnace model # is PG9MAA048080.

Fig. 41—Direct Vent Concentric Vent and Combustion-Air Roof Termination (Preferred)

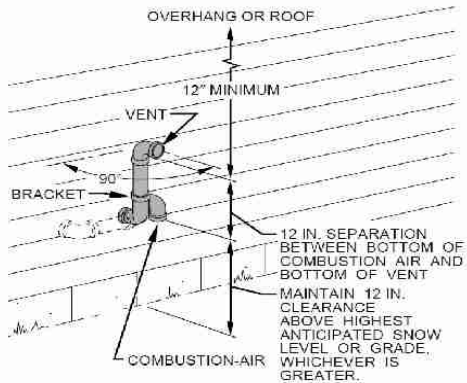


Fig. 43—Direct Vent Sidewall Termination of 12 in. or More

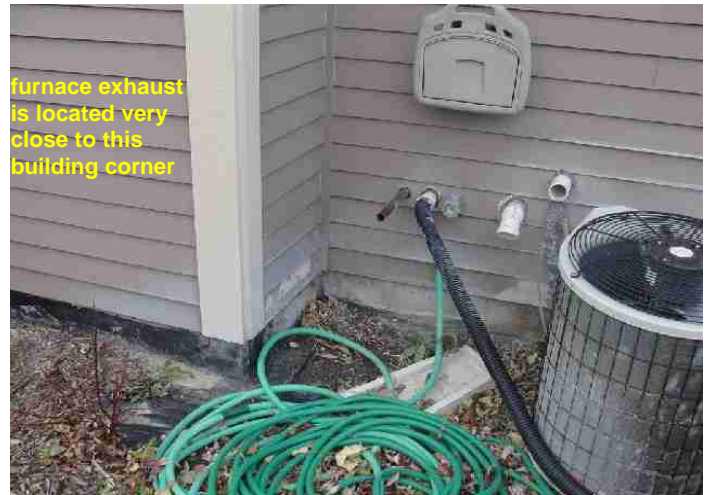
Fig.



Inspection Address:  
Inspection Date/Time:

123 Perfection Street, Minneapolis, MN  
11/2/2011 8:30 am

Improper furnace venting - *Continued*



**Grill & Registers**

*Informational*

There was a missing register cover in the laundry room.



**Air Exchange Systems**

*Attention Recommended*

The filters at the ERV were ridiculously dirty and should be replaced - they're past the point of normal cleaning. You should also clean the core of the ERV and wipe down the interior. For general operation and maintenance information, click here <http://www.structuretech1.com/blog/?cat=390> .



Inspection Address:  
Inspection Date/Time:

123 Perfection Street, Minneapolis, MN  
11/2/2011 8:30 am

---



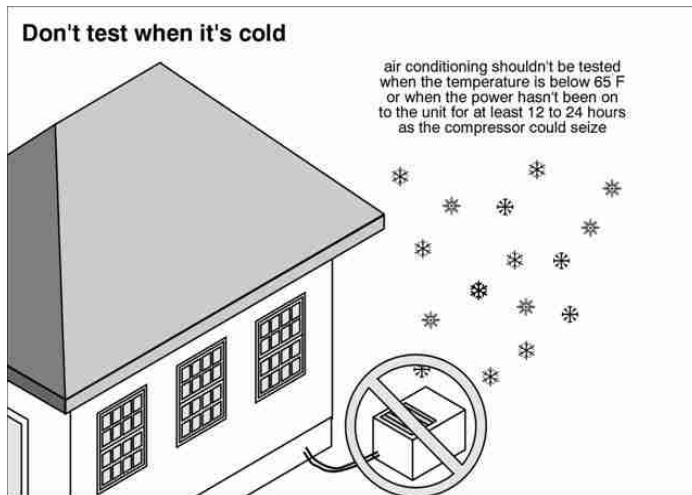
**A/C**

## AC

### Compressor- Condensing Fan- Coil

#### *Informational*

The air-conditioning system could not be tested because it was too cold outside, and to test it would risk damaging it. You should verify with the seller that the system is functional.



#### *Attention Recommended*

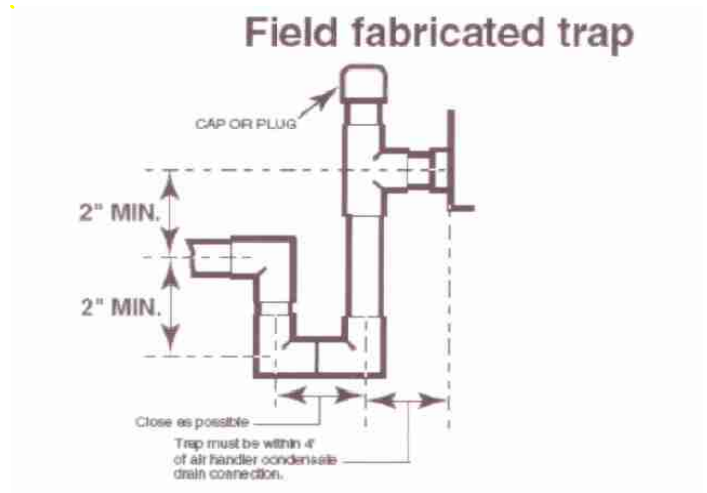
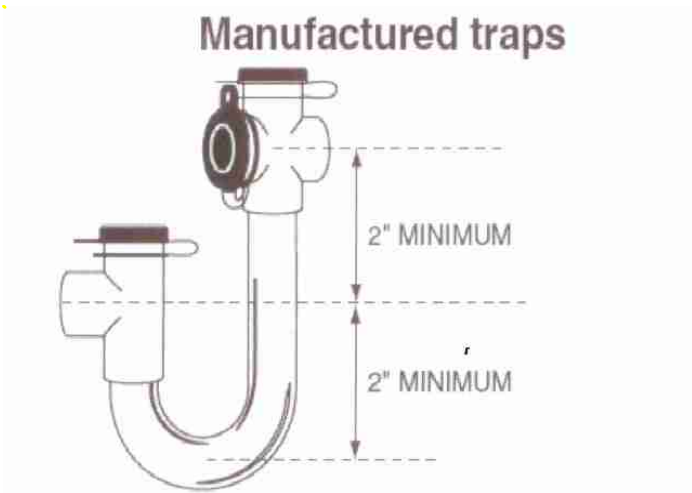
The condensing coil is dirty, which will reduce the efficiency of the unit. Clean the condensing coil.



### Condensate Discharge Pipe

#### Informational

There is no trap installed at the condensate drain pipe. The primary purpose of a trap is to prevent air leakage - think of a missing trap as having a small hole in the side of the ductwork. To prevent this air leakage, you could install a trap on the condensate drain. To read more about this, click here <http://www.structuretech1.com/blog/2011/06/ac-condensate-trap/>



## Interior

### Counters Cabinets Kitchen

#### Cabinets

#### Informational

The finish was starting to come loose or warp at a few of the kitchen cabinets and drawers.



## Counters Cabinets Bathroom

### Cabinets

#### *Attention Recommended*

The cabinet above the toilet in the basement bathroom needs to be secured to the wall to help prevent it from tipping over. There was a screw present, but it was just drilled in to the drywall, which is useless. It needs to be drilled in to a wall stud.



## Vent Fans

### Bath Exhaust Fan

#### *Unacceptable*

The first floor bath fan appeared functional, but there is no termination for the fan at the exterior. The bath fan must be connected to an insulated duct that is tightly connected to a dampered vent at the exterior. It will create moisture problems with the way it is currently installed. Have this fixed.

## Kitchen Appliances

### Gas Range

#### *Attention Recommended*

The range is not equipped with an anti-tip device that prevents the range from tipping, or its contents from spilling if a child tried to climb on an open door. Install an anti-tip bracket.

For more information, visit <http://www.structuretech1.com/blog/?p=50>

The kitchen range protrudes from the wall because there is a big coil of gas tubing behind the range. This is a nuisance, and prevents an anti-tip bracket from being properly installed. Have this repaired.



## Attic

### Attic

#### Exhaust Fans and Ducts

#### *Attention Recommended*

The connection for one of the bathroom exhaust fans at the west roof cap was loose in the attic, which will allow warm, moist air to escape in to the attic. Have the connection repaired so it's airtight.





### **Attic Insulation**

#### *Attention Recommended*

There were several sections of insulation that were matted down, and they were all located directly below the ridge vents. This has probably happened because light, fluffy snow drifted in underneath the ridge vents and settled on the attic floor. If you wanted to prevent this from happening, you could try installing a different style of ridge vent, or change the ridge vents to standard roof roofs. There is no guarantee that doing either one of these things would prevent this from happening though.



## **Garage**

### **Garage**

#### **Vehicle Door and Hardware**

##### *Functional*

The overhead garage doors appeared in good condition and operated smoothly.

#### **Automatic Opener**

##### *Functional*

The garage door opener was functional.

## **General**

This section of the inspection report describes the various components in the home that are required to be described by the ASHI Standards of Practice. At the end of this section is a description of the various components that are inspected.

### **Structural**

#### **Wall Structure**

##### *Informational*

Wood studs

#### **Floor Structure**

##### *Informational*

Open web truss system

Inspection Address: 123 Perfection Street, Minneapolis, MN  
Inspection Date/Time: 11/2/2011 8:30 am

---

## **Ceiling and Roof Structure**

*Informational*

Factory-built truss system

## **Crawlspace**

*Informational*

No crawl space

## **Foundation**

*Functional*

Poured concrete

## **Exterior**

### **Type of siding**

*Informational*

Cement fiber board siding

## **Roofing**

### **Roofing Material**

*Informational*

Architectural asphalt shingles

### **Access or Limitations**

*Informational*

The roof was inspected by walking it's surface

## **Plumbing**

### **Drain Waste and Vent Materials**

*Informational*

PVC

### **Water Distribution Pipes and Supply Pipe**

*Informational*

Copper tubing, copper water supply coming in from the street

### **Water Heater Type**

*Informational*

Powervent gas storage tank water heater

### **Water Heater Age**

*Informational*

5 - 10 years old

### **Water Main Location**

*Informational*

Basement living room, inside a cabinet

### **Gas Main Location**

*Informational*

Meter at exterior

## Electrical

### Electric Service Size and Location

*Informational*

Garage, north wall  
200 amp 120/240 volt main breaker service panel

### Wiring Methods

*Informational*

Copper non-metallic sheathed cable

### Smoke Detectors

*Informational*

Present, not tested for functionality

## Heating

### Central Heating Type

*Informational*

Natural gas, forced air, high efficiency furnace

### Age of Heating System

*Informational*

Heating system is between 5 and 10 years old.

## Air Conditioning

### Cooling Method

*Informational*

Typical electric split system

### Cooling Age

*Informational*

5 - 10 years old

## Insulation

### Attic Insulation

*Informational*

Blown fiberglass, approximately 12" - 14"

### Attic Vapor Barrier

*Informational*

Poly vapor barrier

### Basement Insulation

*Informational*

Finished basement, insulation not visible

## Fireplaces

### Fireplace Description

*Informational*

No fireplaces present

## Description of Components Inspected

### Exterior

#### *Informational*

The inspection of the exterior includes the siding, flashing, trim, all exterior doors, decks, balconies, stoops, steps, porches, and guardrails. It includes eaves, soffits, and fascias that are accessible from the ground level. This also includes vegetation, grading, surface drainage, and retaining walls that are likely to adversely affect the building. This also includes adjacent entryway walkways, patios, and driveways.

### Structural

#### *Informational*

The inspection of the structural components includes the foundation and framing. If we suspect deterioration or there are clear indications of possible deterioration, we probe a representative number of structural components.

### Roofing

#### *Informational*

The inspection of the roof includes the roofing materials, the roof drainage systems, the flashings, skylights, chimneys, and roof penetrations.

### Plumbing

#### *Informational*

The inspection of the plumbing system includes the following: the water supply and distribution system, including all fixtures and faucets; the drain, waste and vent systems including all fixtures; the water heating equipment and hot water supply system; vent systems, flues, and chimneys; fuel storage and fuel distribution systems; drainage sumps, sump pumps, and related piping. We DO NOT operate water supply / shut-off valves.

For the washing machine and dryer, we perform only a cursory test for the basic operation of the appliances. For instance, we'll check to make sure the dryer turns on with normal controls and listen to make sure it sounds like the tumbler is turning, but we do not check the accuracy of the dryer thermostat, moisture sensor, timers, or do any type of testing on similar features.

### Electrical

#### *Informational*

The inspection of the electrical system includes the following: the service drop; the service entrance conductors, cables, and raceways; service equipment and main disconnects; service grounding; interior components of service panels and subpanels; conductors; overcurrent protection devices; a representative number of installed lighting fixtures, switches, and receptacles; ground fault circuit interrupters. If any solid conductor aluminum branch wiring is found, this is reported.

### Heat

#### *Informational*

The inspection of the heating system includes any installed heating equipment and their vent systems, flues, and chimneys. Any readily openable access panels are also opened.

### AC

#### *Informational*

The inspection of the air conditioning consists of the central and through-wall equipment (but not window units), as well as the distribution systems. Any readily openable access panels are also opened.

### Interior

#### *Informational*

The inspection of the interior includes the following: walls, ceilings, and floors; steps, stairways, and railings; countertops and a representative number of installed cabinets; a representative number of doors and windows.

This is also the section where the inspection of fireplaces and solid fuel burning appliances is reported. This inspection includes the system components and any chimneys and vents.

For the kitchen appliances, a cursory inspection is performed to determine if they are in basic working condition or not. For instance, we'll check to make sure the food storage area of a refrigerator is cold, and we'll check to make sure the freezer compartment is very cold. We will not pull the fridge out from the wall to verify the coils

Inspection Address: 123 Perfection Street, Minneapolis, MN  
Inspection Date/Time: 11/2/2011 8:30 am

---

are clean, nor take temperature readings inside the fridge.

**Attic**

*Informational*

The inspection of the attic(s) includes the insulation, ventilation, and vapor retarders where visible. This also includes any mechanical ventilation systems.

**Garage**

*Informational*

The inspection of the garage includes the garage doors and garage door operators.