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In accordance with your request, a limited structural and mechanical inspection of the subject property was made by Charles Butt, P.E., on February 25, 2016. The following report has been prepared based on those findings.

This report is the complete response to your request for an inspection of this property and should be read in full. It supersedes any discussions that may have occurred during the inspection.

To provide maximum information prior to your decision regarding the premises, if you have any questions about this report, our inspection, or require any re-inspection work, please call our office immediately for clarification and scheduling information. If there is any area of this property where you have a particular concern, based on this report or your own personal observations or information, we recommend a more exhaustive technical evaluation and obtaining estimates.

Attached hereto are the field notes which contain additional information. These are included as part of the overall evaluation. A separate termite/wood borer report, with all the necessary certification information for your mortgage lender, is also attached to the back of this report. This letter is for you to satisfy your bank's need for certification and is not a warranty or guaranty. See the body of our following narrative report for all our comments and recommendations regarding termite risks.

Between the time of this inspection and closing, property conditions can change. To reduce your risk it is very important to complete a thorough walk-through inspection of the entire premises before taking title. Attached is a Pre-title Checklist to aid you during the walk through.

Please refer to the Standards & Limitations of this report for important information.

## **DEFINITIONS**

For your reference while reading the report that follows, the following definitions may be helpful:

| EXCELLENT   | Component or system is in "as new" condition requiring no rehabilitation and should perform in full accordance with expected performance.   |
|-------------|---|
| GOOD        | Component or system is sound and performing its function, although it may show signs of normal wear and tear. Maintenance and some minor rehabilitation work may be required.   |
| <u>FAIR</u> | Component or system falls into one or more of the following categories:  a) Evidence of previous repairs not in compliance with commonly accepted standards, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete. d)Component |

a) Evidence of previous repairs not in compliance with commonly accepted standards, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d)Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of

**POOR** 

disrepair. Present condition could contribute or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

# OPERATIONAL/ SERVICEABLE

Generally used for equipment. No major repairs or replacement foreseen in immediate or near future. Maintenance work, normal repairs and some minor rehabilitation work may be required.

For purpose of this report, all directions (left, right, rear, etc.) are taken from the viewpoint of an observer standing in front of the building and facing it.

# **STANDARDS AND LIMITATIONS**

This inspection and report have been conducted in compliance with the "Standard of Practice of the National Academy of Building Inspections Engineers for Residences and Small Buildings." A copy of this document is available for review at our office.

While some references to hazardous materials, safety concerns, and code compliance may be made, the scope of this report does not include investigations for code compliance, the investigation for special permits/approvals; or prior uses of premises, a safety audit; town, city or well water quality; an inspection for toxic compounds in the soil or air under or around these premises, or in the property itself including RADON, LEAD, LEAD PAINT or LEAD PAINT HAZARDS, CHLORDANE, UREA-FORMALDEHYDE, ASBESTOS, EXTREMELY LOW FREQUENCY TRANSMISSIONS (ELF), MAGNETIC FIELDS, INDOOR AIR QUALITY, MOLD, HAZARDOUS CHEMICALS or COMPOUNDS, etc., or in the property itself; underground storage tanks, proximity to a toxic waste site, nor a search of any public records. These tests and surveys can be obtained from laboratories and firms specializing in these areas.

Our inspection/evaluation is intended to provide an overview of the condition of the building and its common elements based on patterns of problems and overall areas or conditions requiring repair, replacement or any other corrective action. It is not intended to be an exhaustive analysis of each and every problem and unsatisfactory condition existing within the building. As an example, we do not check every window, heating element or electrical outlet, nor do we discuss consequences for not properly correcting deficient items. Appliances are not checked nor are any equipment recalls included in this report-survey. The same applies to lawn sprinkler systems, fire sprinklers and security systems.

Further, this report does not address Wind and Flood insurance criteria, which can be provided, if needed, at an additional fee.

Our primary purpose is to provide for you an understanding of the house you are considering. We do, of course, look for problems, particularly those we would consider major deficiencies. Please keep in mind that we generally define a major deficiency as one that would cost in excess of approximately \$700 to correct. Any house will have minor items deserving attention. Often, these are matters of personal preference. It is not the intent of our inspection to detail every minor defect we might find. The report is not to be considered a guaranty of condition and no warranty is implied.

Owning any building involves some risk. Even the most comprehensive inspection cannot be expected to reveal every condition you may consider relevant to your ownership. Further, without disassembling the building, not everything can be known.

You, as a responsible buyer, should examine the portions of this building for which you are most able to judge acceptability. This includes such things as floor coverings, degree of floor slopes and unevenness, interior wall and ceiling finishes, appliances, etc.

As Professionals, it is our responsibility to evaluate available evidence relevant to the major systems in this building. We are not, however, responsible for conditions that could not be seen, were concealed by the seller, or were not within the scope of our service at the time of the inspection.

Tauscher Cronacher Engineers offers two types of residential inspections: the standard inspection and the comprehensive inspection. Essentially the standard inspection relies on visual evidence available at the time of inspection, while the comprehensive inspection relies on visual evidence plus analysis, invasive testing, hiring of experts, and extended on-site evaluation to reach conclusions.

This report is the standard inspection. If a comprehensive report is desired, please advise us and we can so proceed. Permission will need to be granted from the owner as some intrusive testing may be needed. The cost of comprehensive reports is based on man-hours and vendor charges, and is generally over ten (10) to twenty (20) times the cost of a standard report.

This report is not an exhaustive technical evaluation.

The conditions, recommendations, suggestions contained herein are the result of a visual inspection of reasonably and safely accessible areas as observed during the time of this inspection, without removing surface materials, doing any exploratory demolition, performing any testing or moving furniture and stored items, and are presented to make this house a better and more comfortable home in which to live.

## AREAS NOT INSPECTED

As with all houses, especially those that are occupied when we perform our inspection, there may be problems or evidences of problems that were not visible to us. These are sometimes the result of intentional efforts to disguise problems or evidences of problems that would have been part of our overall evaluation of the house and our recommendations to make it better. While such evidences may exist, but were not visible to us, when they are uncovered during the course of a pre-title inspection or renovation or repair work you undertake, they will require repair. These repairs may be cosmetic (surface) or structural in nature and could be expensive to rectify. Structural members may have been altered, damaged, or removed by the previous owner(s) and evidences of same were not visible without removal of surface materials.

In this home, other than normal interior and exterior finishes which cover the structural components of the house, the following were areas where surfaces and structural components were covered and thus, we were not capable of evaluating the hidden components:

- Garages where walls and/or ceilings are partially covered and areas are cluttered and blocked.

Exterior portions of the house which were partially covered by stored items, foliage, shrubbery, trees, snow/ice, decks, etc.

When access to various areas can reasonably be provided by removal of stored items, debris, etc., we recommend that when the premises is left in a "broom clean" condition (as a requirement for the property transaction), a reinspection of these premises be performed. Since these conditions are beyond our control there is a charge for return inspections which can be scheduled through our office.

Our investigation of the electrical system is limited to the visible components, the entrance cable, meter box, service panel, outlets and switches, and the visible portion of the wiring. Where possible, the cover of the service panel is removed to investigate the conditions in it.

A larger portion of the electrical system is hidden behind walls and ceilings and, obviously, all the conditions relating to these unseen areas cannot be known.

While some deficiencies in the system are readily discernible, not all conditions that can lead to the interruption of electrical service, or that are hazardous, can be identified.

As the researching of public records and excavation work are not within the scope of this report, it could not be fully ascertained whether or not same is served by municipal sewers, cesspools, septic tank and tile field, etc. This information should be obtained prior to purchase since a visual inspection cannot determine the type of waste disposal system.

If applicable, approvals for the sewer connection should be obtained.

You were present at the time of inspection and observed the visual inspection procedures and methods employed in our gathering of information. A verbal summary of all major items was given at completion. However, as told to you, the verbal summary does not take the place of the following written report and we feel it is essential that you read and understand this written report which supersedes any verbal or electronically transmitted information that, by its very nature, is incomplete.

# **DESCRIPTION**

This house is a two story residence, approximately 53 years old, consisting of vinyl siding and brick veneer exterior walls with an asphalt shingle roof surfacing.

# **STRUCTURAL**

The basic construction of these premises consists of concrete foundation walls and a column-girder system for the support of the second level floor joist members. This is a standard method of construction.

With the lower level finished off as it is, very few of the basic structural components were visible for inspection.

Where visible, the basic structural members are in good condition.

Some structural repairs and upgrading are recommended as follows:

- The garage steel girder should be properly covered with fire resistant material (fire rated drywall) at this time.
- The metal in the garage center support column is splitting and reinforcing/replacing the column is needed at this time.
- The bolts connecting the girder to the steel columns are loose and should be tightened.

Without heat in the floor, concrete slab areas will be cool.

In connection with the concrete slab portion of this house, condensation sometimes occurs on the floor surfaces, particularly in the summer time. This is quite common and to be expected.

There has been some settlement (as noted by the cracks in the drywall at the second floor hallway) of these premises which is to be expected, and the overall structural stability can be described as good.

There are areas in and around this house that encourage dry or wet rot and mold. Rot and mold can result from moisture accumulating in areas where the normal drying process is restricted. Although it was not possible for us to actually observe any significant rot or mold, it has been our experience that, where conditions exist for rot and mold, a certain amount of risk must be assumed. Some of these areas are:

- siding that is in close contact with the ground, whereby snow and lawn sprinkling can cause water to penetrate the exterior wall surfacing;
- water leakage from the shower onto the bath floor;
- the trim around the garage door;
- the opening around wall/window type air conditioning units;
- the areas adjacent to backed-up gutters;

Therefore, it is possible that rot and mold will be encountered, particularly if projects are undertaken that involve disassembly of the portions of the structure inaccessible to visual inspection. This is typical for any home. Proper steps should be taken to halt and/or minimize conditions that encourage rot.

Proper maintenance includes painting or staining any exposed wood to prevent moisture penetration, caulking at joints between different materials, and providing or maintaining good natural ventilation. Even with these precautions, rot and mold may still develop in these or other areas. The important thing to remember is that any damaged wood and surface materials need to be replaced as soon as possible to prevent any damage from spreading to other wood framing and/or surfaces. At the time of any repair work, areas normally hidden from view can be inspected for signs of deterioration.

In addition, mold can blossom in 24 to 72 hours depending on relative humidity and temperature, fish tanks, house plants, steamy showers and excessive cooking/boiling water as well as simple work projects like painting the interior or washing the floors and walls could raise the relative humidity and cause mold.

Except as noted, based on visible evidence, we consider the structural condition of these premises to be acceptable. The conditions noted here are common in many homes we inspect of this age and construction type. Most of the recommendations we have made are relatively easy to complete.

### **TERMITES**

Evidence of anti-termite treatment was noted to have been taken in this building. If this property is to be purchased, it should be determined:

- who did the work
- when it was done
- the extent of the treatment
- what damaged members, if any, have been reinforced or replaced
- was a search done on the extent of damage
- if the work is still under warranty
- can the warranty be passed along

Conditions exist in these premises for termite re-entry. These include:

- The exterior wall surfacing in close/direct contact with the ground.
- The front entrance platform.
- The concrete slab portions of the house.
- The garage door frame.
- The lower level itself which is finished off.

It should be noted and emphasized that although a structure has been properly treated (subject to verification and a current warranty), termite action can and does recur. Present state laws prohibit preventative retreatment unless active termites are seen (swarming, live activity in termite tubes). A passive condition or speculation as to activity, etc., does not constitute the need for retreatment. Thus, it must be understood that there exists a risk to the buyer as to new, undetectable activity and damage.

Although "no evidence" of live termite action is reported, because of the insidious habits of termites, no responsibility for a termite condition that may exist or be starting and was not visible, is assumed. Due to decreased toxicity of chemicals used today, and biological treatments that do not remain as a barrier against termites, there is an increased possibility of termite activity reappearing in the building. Further, this report is not a warranty or a guaranty that there are no termites, but an inspection report. Some termite control firms offer a guaranty that covers treatment should termite activity flare up within a specified time period and we recommend you

seek out such a firm as a means of somewhat reducing the risks involved. We feel such a guaranty is essential.

If it is found that the house was treated with Nemotodes (a biological treatment that proved to be unsuccessful), or the treatment did not encompass the entire structure (new additions, interior portions untreated), it is recommended that a complete termite treatment or treatment of untreated areas of this property be accomplished.

Further, you should be aware that a new treatment process, known as "bait," can be used to retreat a property in its entirety if the structure has been previously treated. We encourage you to consider this alternative to protecting your investment.

With areas blocked, inaccessible and finished off the way they are a full inspection for termites could not be made. Where visible and subject to additional testing, the previous termite action does not appear to be structurally significant and no repairs/reinforcement/replacement of structural members is indicated at this time.

However, termite and wood damaging insect activity may be going on in walls and partitions and is very difficult to detect without probing behind wall surfaces or creating observation openings. Thus, it must be understood that there exists a risk to the buyer as to termite, wood damaging insect activity and related damage.

Thus as part of the termite work, all of the wood structure should be tested/drilled for concealed/additional damage and corrected as needed. As an alternative, as a further precaution, we urge you to consider a fibre-optic search of the walls (interior and exterior) for evidence of structural damage and termite activity.

### **DRAINAGE**

The slope of the ground is toward the house at the right side and away from the house at the left side.

The low spots noted were at sides of the house.

Care should be taken to maintain a 6 to 8 inch space between the underside of the exterior siding and the top of the new grade.

The gutter downspouts should be made to discharge far enough away from the house to minimize water entering the areas below grade.

Rain leader dry wells were noted. It could not be determined if they are working correctly. If they do not accept rainwater, they should be cleaned out or replaced. As an alternative, the rain leaders should be made to discharge away from the foundation of the house.

No evidence of moisture or seepage from the concrete slab was noted at the time of inspection.

## **HEATING**

Heating for these premises is provided by an oil fired Peerless cast iron boiler. The system consists of two zones, hot water, and is thermostatically controlled.

The heating unit is serviceable and if properly maintained should give many years of dependable service.

Some corrosion was noted on the air vent and air vent pipe. This needs to be corrected.

The heating unit was in operation at the time of inspection.

It is recommended that the burner and heating unit be cleaned and serviced for proper operation <u>PRIOR</u> to the take-over of these premises, and at least once each year thereafter. Do not neglect this important <u>pre-title</u> step to insure that the unit is in operating order for your use.

This servicing should include all gauges; controls; a check for proper chimney draft; an efficiency test which would include carbon monoxide levels, smoke test and stack temperature; valves, safety devices, etc.

The boiler relief valve should be checked at least once a year by pulling the handle and allowing a small quantity of water to escape. This will help assure proper operation of the safety valve. Be sure that the relief valve reseats properly and does not leak water. If the relief valve sticks or appears to be clogged, it should be repaired or replaced immediately. It should be noted that when activating the relief valve, caution should be exercised and testing be performed when the enclosed water is cool.

The hot water heating units should be "air bled" at the beginning of each heating season.

Heat is supplied through baseboard convectors, which require periodic cleaning for maximum effectiveness.

The installation of new energy saving clock thermostats is recommended.

According to the heating unit's nameplate, it is rated at 155m000 BTU/hr. This should be adequate for this home.

There are two 274 gallon fuel oil storage tanks on these premises. One is located under the front entrance stairs and the other is located at the left rear side of the garage.

Steel bollards or other approved barriers are needed to protect the garage fuel oil storage tank, at the left rear side of the garage, from accidental damage from automobiles.

A carbon monoxide gas detector should be placed near the heating unit or as part of a security-fire alarm system.

Carbon monoxide can be a by-product of burning oils, natural gases and other fuels. It is also odorless and colorless, which means that it can go undetected. The symptoms of carbon monoxide poisoning can be easily mistaken for influenza or other common illnesses.

Carbon monoxide emissions can occur during improper operation or inadequate ventilation of the following:

- Automobiles or lawn equipment running in a garage or enclosed space

- Gas, oil, kerosene space heaters
- Furnaces, water heaters, ovens, clothes dryers and other gas appliances
- Wood-burning stoves or fireplaces
- Outdoor gas grills leaking fumes into an open window or door
- Charcoal broilers
- Swimming pool heaters located near or adjacent to windows and doors.

Proper maintenance of all equipment, including related flues or vents that use burning oils, natural gases or other fuels, is still the best way to avoid carbon monoxide poisoning. A carbon monoxide detector can also reduce these risks.

In New York State, carbon monoxide detecting devices are required for every building used as a residence.

## **INSULATION/WEATHERPROOFING**

In any home, the two most important areas with regard to optimizing energy efficiency pertain to the conduction and infiltration losses. Conduction (or loss through the walls and ceiling) is primarily controlled by insulation. Infiltration loss (drafts or air leakage) is controlled by caulking and weatherstripping. (See our recommendations regarding caulking under "EXTERIOR")

In this house, the infiltration control is relatively good. However, additional insulation is possible for greater energy savings.

All of the exterior glass in this house is of the insulating glass type and this is good.

All insulating glass has a finite life span and glass replacement from time to time can be expected. Condensation developing between the panes of such a glass unit is indicative of a broken seal. These conditions are not always visible, and it is recommended that the glazing be re-checked under different temperature and humidity conditions. In general, repair of broken seals requires the replacement of the damaged glass unit.

The missing and out-of-position insulation noted in the attic should be replaced.

For fuel savings and summer and winter comfort, more insulation in the attic floor is recommended. Six additional inches of insulation without a vapor barrier are recommended. This will help to cut down on heat losses and this will result in a reduction of fuel and energy costs.

In houses of this design the heated rooms over the garage can sometimes be cooler than the rest of the house. Additional insulation can be added to the garage ceiling to improve this condition somewhat.

Insulation should not be installed in or block attic eave overhang areas, in order to allow for air circulation.

The weatherstripping at the interior door between the garage and living space should be maintained in good working condition to cut down drafts and loss of heat and help prevent gasoline fumes from entering the house.

The attic area access door should be weatherstripped and insulated to cut down drafts and loss of heat.

# **VENTILATION**

Ventilation is very important for all buildings. Attic ventilation will reduce the amount of moisture that can develop in insulated attics and can increase roof shingle and sheathing life by reducing heat, condensation and mildew/mold forming from stagnant air. Good ventilation yields a healthier living environment as well, as it reduces the accumulation of offensive and/or toxic fumes.

The natural year-round ventilation in the attic area is adequate and complies with today's recommendations.

A thermostatically controlled attic ventilator fan was noted to be installed, but its operation could not be determined, due to low temperatures. It is recommended that you wire the attic exhaust fan to both a thermostat and a humidistat. This will enable the fan to be actuated under a high temperature or a high humidity condition in the attic.

## **HOT WATER**

Hot water for washing purposes is made by the boiler as an integral part of the heating unit.

Its serviceability depends, of course, on the proper operation of the heating unit itself.

However, the capacity of the hot water heat exchanger may not be adequate for these premises, but this is typical of these types of systems.

Further, an integral hot water system such as this requires the heating unit to operate continuously throughout the summer. A separate hot water heater is recommended.

Hot water for washing can produce third degree burns in 6 seconds at 140°F. For safety reasons and to be sure you are not wasting energy on the production of hot water, you should check the temperature of the hot water produced. If it is above 120 degrees, we recommend that you reduce it to that level to minimize your hot water energy requirements. To be most accurate, use a thermometer at the hot water faucet.

For safety reasons and to be sure you are not wasting energy on the production of hot water, you should check the temperature of the hot water produced. If it is above 120 degrees, we recommend that you reduce it to that level to minimize your hot water energy requirements. To be most accurate, use a thermometer at the hot water faucet. Further, an automatic mixing valve is recommended to maintain a safe water temperature.

#### **PLUMBING**

A plumbing system consists of three major components, the supply piping, the waste or drain piping, and the fixtures. The distribution piping brings the water to the fixture from a private well or public water main, and the waste piping carries the water from the fixture to a private septic system or to a public sewer line.

The distribution piping is smaller diameter piping that operates under pressure. These pipes must be water-tight. The drain or waste piping does not operate under pressure, instead typically uses gravity to drain the water from the fixture to the septic tank or sewer. Thus, these pipes must slope in order to work properly.

The main water supply pipe coming into this property is copper.

The main water cutoff valve is located under the front entrance stairs.

The visible water supply distribution piping is copper, which is preferred, and it appears to be in serviceable condition.

From evidence available, it appears that some of the plumbing in this home may be vulnerable to freezing, specifically the water pipes in the garage. We recommend that you keep the cooler areas of this home under close observation during the next winter season to identify any potential freezing problems before they cause damage to the home.

The various plumbing/maintenance deficiencies noted should be properly attended to. This includes:

- Inoperative tub drain stoppers.
- Leaking front exterior faucet.
- Replace the flexible drain pipe below the kitchen sink with a ridged pipe.
- Loose toilet fixture resetting.

All plumbing fixtures were tested and found to be in working order.

The drain lines in this home consist of cast iron and PVC piping. Where visible, this system was in serviceable condition at the time of inspection.

There is a drop in water pressure and flow reduction when more than one plumbing fixture is in use at the same time. However, this is excessive on the hot water side, and same should be corrected.

The perforated cover at the exterior main vent pipe is loose and repairs are needed.

Water damage can occur almost anywhere in your home. A small leak in the ice maker portion of your refrigerator or your dishwasher, washing machine, toilet or water heater can cause thousands of dollars in damage. A water leak detection system can prevent catastrophic losses by alerting you when an appliance or fixture has a slow leak. You may wish to obtain more information about water leak detection systems.

This home is apparently served by its own septic system. Of necessity, our evaluation of that system is limited to those portions normally visible during our inspection; specifically the operation of the plumbing fixtures, the condition of the drain piping, and a visual examination of the apparent location of the system itself.

Although no problems were noted during this inspection and the system is functioning, some observations are in order. It should be noted that a cesspool is nothing more than a covered pit with open jointed lining into which raw sewage is discharged. The liquid portion is disposed of by seepage or leaching into the surrounding porous soil and the solids or sludge is retained in the pit. Proper use discourages putting grease, coffee grounds, hair, tobacco, or any non-biodegradable materials into the waste system. Do not consider the installation of a garbage disposal unit in the sink.

Despite the fact that there was no evidence of a problem with this system at the time of our inspection, we strongly recommend that it be opened up and more closely examined before you make your final decision about this property. Septic systems can be unpredictable, repairs are expensive, and you deserve to know as much as you can about this system. This is normally done by a septic tank pumping and maintenance company.

Any septic system is unpredictable. While most will perform satisfactorily for many years (assuming proper maintenance), even a new system can fail unexpectedly. Thus, you should not consider any evaluation of this system as an absolute guaranty of future performance.

All waste lines should be snaked clean when the house is taken over, as a preventative maintenance item.

The waste system trap was inaccessible but there was no evidence of back-up at the exterior vent. It should be realized that no excavations or diggings were made as part of this inspection. Unobstructed access to this area needs to be provided.

Natural gas is in use in this house. To avoid a potentially dangerous mistake, we suggest that all of the gas piping be identified clearly (perhaps by wrapping it with orange tape) to distinguish it from the water piping. We also recommend confirming with the gas utility company that all is in compliance with current regulations and safety standards.

#### **ELECTRICAL**

A typical electrical system consists of two distinct components: (1) the electric service entrance, and (2) the electric circuits. The service entrance determines the capacity of the electric power available to the home. The electric circuits distribute the power through the home.

Electrical devices in a home typically use either 120 volts or 240 volts. The major appliances such as clothes dryers, kitchen ranges, water heaters and electric heating units require 240 volts. General purpose circuits (lighting, outlets, etc.) require 120 volts.

Where visible, the general condition of the wiring and fixtures is good.

The main electrical panel is located in the garage.

The main electrical service cable comes to the house overhead from a nearby electric utility pole.

The electrical power entering these premises consisting of a three wire service, 120/240 voltage and with 200 amperes available, is adequate to serve the needs of this house as it now stands.

Water was observed on the inside of the electrical panel cover when it was removed. This condition requires further investigation.

All major appliances should be installed on their own individual circuit for full power efficiency and to prevent overloading of other circuits.

Even though the branch circuits were identified in the panel box, we recommend you verify these markings to insure that the breakers are properly identified. This can be done by the owner by shutting off circuits and documenting what is on same. It is important to remember that no one circuit is to be overloaded, and if there is any doubt about this item, a competent electrician should be consulted.

Further, it is recommended that Board of Fire Underwriter Certificates be obtained covering all of the wiring now in these premises.

The circuit breakers should be "energized" or turned on and off, to assure they are functioning when the house is taken over and periodically thereafter. Tripping the circuit breakers will remove corrosive deposits that tend to form and insure that they are operable.

The various wiring deficiencies noted need to be eliminated.

A spot check of electrical outlets and switches revealed no problems with same.

Ground fault current interrupting type outlets are recommended to replace present outlets which are within six feet of any sink or water faucet, in the garage, at exterior outlets, and unfinished basement areas.

This house is equipped with some ground fault circuit interrupters (GFCI's). The purpose of a GFCI circuit is to provide positive protection against a shock hazard since it will "trip" almost instantaneously, thus protecting you. Should a GFCI circuit interrupter "trip", simply reset it for continuing operation. Periodically, you should test the GFCI circuit interrupters for proper operation. There is a test button. When you push the test button, the GFCI circuit interrupter should trip to the "OFF" position.

The existing ground fault interrupting outlet located at the kitchen sink was inoperative and needs to be replaced.

It is recommended that the circuit breakers for all bedroom electrical devices should be replace with arch fault interrupter circuits (AFCI).

For your safety, we suggest retaining a competent licensed electrician to review the system, check the circuitry, correct various deficiencies and assure that everything is sound.

In order to prevent damage to electrical equipment caused by fluctuations in the incoming current, an electrical surge protector is recommended. This device needs to be installed to a breaker in the main electrical panel by a licensed electrician.

### **INTERIOR**

As a responsible buyer, you are best able to judge the condition of the interior finish of the rooms. In this section of the report we are concerned with those things which are technically and financially significant. For example, stains which might indicate roof or plumbing leaks; older wall or ceiling material which may require repair/replacement; the use of substandard materials on interior walls or ceilings; or the quality and condition of such items as the doors and cabinetry are those things which can affect the overall quality and condition of a home.

The interior walls and ceilings of these premises are lined with sheetrock. A number of nails employed to fasten this sheetrock have a tendency to pop out. This condition is inherent with sheetrock construction. When the interior is re-decorated, the painter will recess these nails and plaster over them so they will no longer be visible.

The cracks noted in the interior of the premises can be taken care of when re-decorating.

Squeaking floors are the result of loose floor boards which require re-nailing. This condition has no structural significance.

A railing/grab bar is recommended for safety access into and out of the tub.

The hollow core doors in this house have a short service life. Periodic repairs or replacement will likely be needed in coming years.

The exterior sliding glass doors do not have protective warning decals on the glass pains. We recommend installing these for safety reasons.

Door stops should be installed at all hinged doors.

No evidence of active leaking was visible under roof and plumbing fixture areas.

No cement grouting is needed in the ceramic tilework at this time. However, the tilework should be inspected regularly and kept in good condition since water leakage can lead to structural deterioration.

All exhaust fans and/or exhaust ductwork should be cleaned and serviced.

Screen caps have been installed at the tops of the flue liners at the top of the chimney. It is important to maintain the screened openings free to allow for proper release of combustion gases to the atmosphere.

The kitchen cabinetry is old and weary. Replacement should be given consideration.

The joints between counter top surfaces and walls need to be fully sealed.

The garage cabinets are fastened to the wall simply with nails. This is poor practice and the cabinets should be secured to the wall with proper wood screws.

Overall, the materials used throughout the interior of this home are average. Although minor repairs and maintenance should always be expected, the quality of the doors, cabinetry, hardware,

molding, etc., used indicates that very few serious problems need to be anticipated for at least the next five to ten years.

All of the appliances and/or equipment in and about this property were partly tested (at start-up and stop cycles). All that remain should be in operating order when these premises are taken over. Low voltage systems, i.e., security, telephone, intercom, cable TV, and the like, along with central vacuum and sprinkler systems are typically not inspected. Service companies dealing with these items should be consulted regarding their operation and suitable for your needs. Exceptions to this are thru-the-wall/window air conditioning units.

Prior to taking ownership, please refer to our Pre-Title Checklist to confirm that all appliances are operating properly. Further, we suggest that all manufacturers' literature on the proper and safe operation of all appliances, equipment and systems be obtained from the owner or manufacturer. Appliances are sometimes substituted or replaced, and the condition of these units can change unexpectedly.

The kitchen stove is in poor condition. Replacement is indicated at this time.

There is a security/fire alarm system in this home. Exactly how well this system is functioning and what areas it serves are not known at this time. We suggest that you spend some time with the current owner to further understand the operation of this system and, if possible, to obtain all manufacturer's literature. Also, keep in mind that most of these systems do require regular maintenance to assure proper and dependable operation.

There were not enough smoke alarms in this home. We strongly recommend their installation, especially in sleeping areas. Further, we suggest installing hard wired smoke alarms (connected directly to the electrical system) rather than battery powered smoke alarms since they will provide more dependable, long term service.

The placement of dry chemical fire extinguishers in accessible locations throughout the premises would be very desirable from a safety standpoint.

## **EXTERIOR**

The exterior walls of this house are covered with vinyl siding and brick veneer. At the time of inspection, the condition of the siding can be described as good.

Do not place any heat source (barbecue) near the vinyl siding as melting will occur.

Since the exterior walls are covered with vinyl siding and trim, the sub-strate, or original siding and trim is hidden from view. Therefore, we are unable to comment on its condition. Realize that many older homes that have been resided can experience excessive moisture build-up and rotting behind siding. Although we did not see any evidence of damage, because of the potential for it to be hidden behind the siding, we cannot be certain that none exists.

The scraping and proper repainting of all exterior ironwork is needed. Provide a primer and finish coat of rust-inhibiting paint.

Presently, the caulking around the window and door frames is serviceable. Re-evaluation of the caulking should be done periodically as this material will dry out in time.

### **WINDOWS**

A spot check (operation) of windows was accomplished.

In general, the windows in this home are of standard quality. While some maintenance and repairs will always be needed, these should be serviceable for many years to come.

Some window and window hardware servicing, lubrication and adjustment is needed.

## **ROOF**

The <u>roof</u> is a system that must work well together to provide structural integrity and weather protection for the house. The major elements in this system include the roofing or roof covering (shingles, tile, membrane), the underlayment (impregnated felt or paper, ice and water shield), metal flashing (lead, copper, aluminum, galvanized steel), sheathing (plywood, waferboard, dimensional lumber boards), and the roof rafters themselves.

The roof covering of this home is of asphalt shingles.

The roof surfacing is in good condition.

This observation is the result of an inspection of the roof surfacing from ground level.

With any roof, regardless of age, minor leakage should be expected from time to time. This can occur along the edges of the roof, at joints between different roof surfaces, roof flashings, house walls, roof penetrations and around the chimney. Normally, these maintenance repairs are easily accomplished.

The gutter-leader system is in serviceable condition and of standard quality.

Rain leaders terminate in the ground. It could not be determined if they are working correctly or are all connected to free-flowing drain tiles or to drywells. Drain tiles are preferred since drywells (oftentimes holes in the ground about the size of 55 gallon oil drums filled with rock, or precast concrete units somewhat larger with open bottoms and side ports) can become clogged or ineffective when there is a high water table. If they do not accept rainwater, they should be cleaned out or replaced. As an alternative, the rain leaders should be made to discharge away from the foundation of the house.

In addition, we observed that the PVC pipes, at the sides of the house and connected to the drains, were not slopped properly which will interfere with proper drainage. Repairs are recommended.

It is most important that the gutter-leader-drain system be repaired and cleaned and kept operative at all times. Cleaning of the gutter-leader system is normally accomplished at least twice yearly.

The chimney appears to be serviceable at this time, although it could not be inspected throughout its entire length. The condition of those portions not visible remains unknown. We suggest that it be cleaned prior to taking ownership and carefully inspected internally.

#### **ENVIRONMENTAL SCAN**

While some references to hazardous materials and code compliance may be made, our report is not a complete investigation for code compliance, toxic wastes in the building or adjacent soils, hazardous materials, or public records affecting this property. Such an investigation would be much more costly and is beyond the scope of this inspection.

### **LEAD**

Since this house was apparently constructed prior to 1978, there is a high probability that certain surfaces have paint that contains lead (called lead based paint).

The major risk with this type of paint is ingestion of peeling or flaking paint or inhalation of lead based paint dust, especially with children, who are at most risk.

By law, a buyer must be given the EPA booklet "Protect Your Family From Lead In Your Home," a disclosure form to be signed by the seller and buyer, and an opportunity for the buyer to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards, or to waive the inspection.

Since a lead assessment is beyond the scope of this report, we strongly recommend such a survey be accomplished, particularly to determine lead hazards that may exist which should have been addressed.

A lead base paint survey will identify elements in rooms that contain leaded paint and the amount of lead in the paint. The elements are classified as in good, fair or poor condition. The report does not specifically identify lead hazards, which would be peeling, flaking paint or areas where lead paint dust could occur such as doors, window sash and adjoining soil. Another report would address lead paint hazard areas and yet another study would be needed to develop a protocol for mitigating the lead-based paint condition.

Given the harmful effects of lead to the human body, the protocol for living in a house with lead paint, as set forth in the EPA booklet, should be strictly adhered to.

The copper plumbing in this house is probably joined with a lead-based solder. In 1986, Federal law prohibited the use of leaded solder on pipes that carry drinking water. In addition, many plumbing fixtures, such as chrome-plated faucets, are made of brass which contains lead. When water stands for several hours or more in plumbing systems containing lead, the lead may dissolve into the drinking water. We, therefore suggest that the water supply be tested for the presence of lead.

#### UFFI

No evidence of urea-formaldehyde foam insulation was noted in these premises at the time of our inspection. However, for your peace of mind, we recommend you ask the seller whether or not urea-formaldehyde foam insulation was ever installed in this home, was installed and has been removed, or has never been installed.

#### **ASBESTOS**

This prepurchase inspection report is not an asbestos audit which involves sampling of all suspected asbestos containing materials and analyzing same under microscopy in an EPA certified laboratory. Such a report can be performed by this firm for additional fees and with approval of the seller, since some minor destructive sampling techniques are employed. This type of report would specify the type of asbestos in place, the percentage of asbestos in the material, the condition of the asbestos containing materials, qualities of material affected and various remedial measures to be considered. These reports are costly.

During the course of this visual inspection, we did not observe any friable asbestos containing material within the premises. This is not to say, however, that asbestos is not in the house in floor tiles, plaster, gaskets, dry wall spackle, rigid "Transite" boards, covered exterior wall shingles, insulation, etc.

In general, if these materials are not releasing fibers into the air they are not considered a health hazard. We would recommend contacting a qualified asbestos abatement contractor for spot testing of various building components prior to any renovations that would involve disturbing possible ACMs. Renovation work involving asbestos-containing material (ACM) would need to be done in accordance with applicable City, State and Federal regulations.

## **NEGATIVE OFF-SITE CONDITIONS**

With the finding of more and more off-site toxic waste conditions that could pose a threat to the safety and saleability of this property, we would recommend obtaining lists of detailed negative off-site conditions that are available from the EPA (Environmental Protection Agency) and towns. The lists should include all negative conditions within one-half mile of the property.

If desired, we can contract with firms specializing in preparing these lists for you for an additional fee.

#### **INDOOR AIR QUALITY**

Indoor air quality is a growing concern. Mold and mildew, fostered by moisture accumulation, can lead to respiratory discomfort and aggravate allergies and other respiratory conditions. While there was no visible evidence of mold and mildew related problems at this time, such conditions are not always visible. We cannot be responsible for any such conditions that might be discovered later. Basement area dampness/leakage and inadequate house ventilation during changes in the outdoor and indoor temperature and humidity conditions are causes of mold/mildew and these conditions should be corrected at this time.

Organizations like the Environmental Protection agency (EPA) and the Centers for Disease Control (CDC) have not established any levels considered to be safe or unsafe for mold. This is not for lack of trying, it is a matter of complexity. For more information about mold, you may want to consider visiting one or more of the following websites:

- www.iaqa.com
- www.epa.gov/iag/molds/index.html
- www.cdc.gov (search on mold)

## **GROUNDS**

The garage door is equipped with an electric garage door opener. However, the door did not stop and reverse when light pressure was applied on the descent mode of the door. This can be a serious hazard, particularly for children playing in the vicinity and should be corrected.

The garage door is equipped with safety sensor units which transmit an invisible light beam across the bottom of the door opening. If an obstruction breaks the light beam when the door is closing, the door will stop and reverse to full open position. This safety device was operating at the time of inspection. However, it should be periodically checked for proper operation.

The garage door springs are worn and could break, which is a safety hazard. These springs should be replaced. The installation of restraining cables inside the springs is recommended.

Repairs/repaying of sidewalk and driveway surfaces are needed.

There is a shed on the property which was blocked and could not be entered. It appears sound but repairs are needed to the loose door panel.

The garage floor in this house is at the same level as the adjacent living space. Most codes require that there be at least a several inch drop between these two floors so that the garage floor is lower than the adjacent living space. This prevents migration of carbon monoxide into the living space. This condition should be kept in mind and, if possible, the wall and door separating these two spaces should be kept in good condition and well sealed.

There is an old tree at the left rear of the property that is beyond its prime and subject to internal rot. This tree could fall during heavy windstorms and should be checked by an arborist. Your insurance policy should state that losses from tree damage are included in the coverage.

There is a wood tree house at the left rear of the property. We did not inspect it, but suggest that you do so before allowing children to play on it.

#### **CONCLUSION**

The above report has been prepared from the perspective of what an owner of this property would benefit from knowing. Thus, it discusses many things beyond those which are of immediate concern. Therefore, the report needs to be read in its entirety to understand fully all the information that has been obtained.

For your convenience, we have prepared the following summary to highlight the condition of some of the major systems of the house. Please refer to the appropriate section of this report for a more detailed discussion of these systems.

# **SUMMARY**

- The structural system appears generally sound.
- There was evidence of wood destroying insects.

- The heating system is operational but in need of regular maintenance.
- The plumbing system is operational but in need of some repair.
- The electrical system is adequate but in need of some repair.
- The exterior walls are serviceable.
- The roofing is serviceable.

Because of their potential unsafe/hazardous or deteriorated condition, and/or because of the cost of their repair or replacement, the following are some of the high priority items, in addition to the above mentioned summarized items that will need your attention either now or in the near future:

- Repairs/replacement to the garage support column.
- Termite re-treatment, if the previous treatment was neither comprehensive nor covered under a contract and transferable service contract.
- Remodel kitchen.
- Insulation upgrading.

In general, keep in mind that many of the suggestions we have made in this report represent improvements to this home rather than deficiencies. Thus, much of the work we have suggested can be handled as time, finances and personal preference dictate. Further, keep in mind that not all of the things we have recommended must be done immediately.

Additional data concerning these premises at this time are noted on the individual field notes which will serve as a ready reference if you purchase this property.

If you decide to buy this property, you'll sooner or later begin to make repairs and renovations. During this process you're going to get proposals and information from various contractors. We want you to know that we are here for you to offer an unbiased professional opinion about what is appropriate for your home. There is no one way to build, renovate or remodel a home. As a result, you may encounter contractors whose opinions about the condition of a home will differ from ours.

In this State, it is unlawful for anyone except licensed Professional Engineers or Registered Architects to render opinions to the public regarding the structural soundness, electrical capacity or heating/cooling ability in dwellings since they would be practicing a profession without a license. We cannot be responsible for any action you may take based on those opinions, unless we have the opportunity to review the situation and examine the relevant conditions before any repairs and/or modifications are made.

This home has been built using average quality workmanship and materials. It is generally in good condition at this time and, with attention to the items mentioned in this report, should offer many years of relatively trouble-free occupancy.

This report is not to be used as a basis for determining the value of such premises or whether same is or is not to be purchased. This report is not to be construed as a guaranty, or warranty of the premises or equipment therein or of their fitness for use. Since this was, as noted previously, a visual inspection of these premises, it is suggested that consideration be given to engaging the services of a licensed contractor to determine the extent of the various defects/deficiencies noted herein, determine the reparability or replacement of the items noted, and to provide cost estimates for a complete job prior to purchasing.

Since the condition of equipment and materials can change unexpectedly, damages can occur during the moving process, and conditions can be seen that were not visible when the premises were furnished, we suggest that the house be visited just prior to taking ownership to confirm that everything is operating properly and in good order. We have prepared a "Pre-title" Checklist to use for this purpose, which is included herein. Specifically, be sure to look for new wall and ceiling staining, damaged items, appliance or equipment malfunction, uncarpeted floors for staining and damage, stall shower pan leakage, and perform all contractor recommended pre-title inspections and servicing. If you feel you need guidance in this area, we can offer you a pre-title walk-through inspection for an additional fee. Remember, leakages can occur at any time, without warning, and that the house should be carefully re-inspected for leaks just prior to closing. Complete the "Pre-title Checklist.

Property Condition Disclosure Acts are in place in New York and Connecticut. These acts require the seller of a residential one to four family property to provide answers to a standard questionnaire pertaining to the condition of the property. This questionnaire is given to the buyer and may contain information about known defects which may be relevant to the decision to purchase the property. The information in the questionnaire relies on the "seller's knowledge" only and should not construed as completely factual, as conditions may exist which are unknown to the seller. Our report on this property which follows is not intended to be a formal item-by-item comparison of our findings with the "Property Condition Disclosure Act" questionnaire. We urge you to review both documents and make comparisons. We are available to discuss discrepancies as needed.

The conditions, recommendations, suggestions contained herein are the result of a visual inspection of reasonably and safely accessible areas without exposing the inspector, client and premises to potentially dangerous situations. We do not remove surface materials, perform any exploratory demolition, conduct any testing, move furniture or stored items, walk on sloped roofs, or enter confined spaces. Our report is presented to make this house a better and more comfortable house in which to live. We wish to advise you that although such premises and/or equipment may be in good condition when examined, the condition may change thereafter.

The attached photographs are for illustration purposes only and do not indicate all conditions that are discussed in this report.

As it is the purpose of this report to inform you of the condition of this property from a larger overview, it is suggested that you keep in mind the following:

- Comments will generally fall into one of four categories: repairs, maintenance, improvements and/or anticipated replacement.
- It is suggested that by "charting" this report's comments into one of the four categories, a sense of perspective, with respect to relative importance and time, will emerge.

- As with any property, at any given time, repairs, maintenance, etc., will always be needed in order to keep the property viable.

- With the passage of time, improvements, upgrading, etc., should be considered, due to changing technology.

Prior to contract or closing, servicing of equipment, testing or service plans are needed as follows:

Clean and service the heating system prior to closing.

- Obtain termite warranty prior to closing.

- Transfer of all manufacturers appliance and contractors material warranties prior to closing.

- Certificates of completion including Electrical Inspectors Underwriters approvals.

- Fully test all appliances/complete pre-title inspection.

The prior to purchasing recommendations, such as obtaining approvals, servicing, investigating, and testing various systems, obtaining service contracts and contractors estimates for needed work, etc., are items commonly performed by buyers as a method of reducing risk associated with ownership and improper and/or partial maintenance by the owner.

It is recommended that all inaccessible areas throughout the entire premises should be made fully accessible and exposed so that these areas could be properly inspected prior to purchasing the premises.

Unauthorized reproduction or alteration of this report or any part thereof, without express written permission of Tauscher, Cronacher Professional Engineers, P.C. is a violation of State law and is therefore prohibited. This report will not be released to anyone without your authorization.

Thank you for the opportunity to be of assistance to you.

### **END OF REPORT**

Encs: Photos

**Building Inspection Agreement** 

Field notes

Pre-title check list

CMB:ab