



## ROOF INSPECTION

### PROPERTY DETAILS

Property address: SAMPLE - Special Items Inspection  
Johannesburg Gauteng 0000

Inspector name: Ettienne Jansen van Rensburg

Inspector email: ettiennejvr@housecheck.co.za

Inspector phone: 0829277573

Date of inspection: 2023 / 05 / 01

Important: This report remains the property of HouseCheck at all times and was produced for the use of the Client named on the cover page. Unauthorised transfer to any other party without the permission of HouseCheck, or of the Client, is not permitted. This report and the supporting inspection were performed according to a written contract agreement which limits the scope and the manner in which the report may be used. Unauthorised recipients are advised not to rely on the contents of this report, but instead to commission HouseCheck to provide them with an updated report on this property

## Contents

Notes .....	2
Actions .....	4
Areas .....	5
Inspectors comments .....	5
Valuation .....	5
Roof Structure Details .....	5
Roof Covering .....	6
Roof Structure .....	11
Hot water heating: Electric Geyser with tank .....	14

## Notes

### The HouseCheck Special Items Report

The HouseCheck Special Items Report documents all **material defects** observed by the HouseCheck inspector.

Cosmetic and minor defects are not documented in the Special Items Report. Clients wanting a report on all defects observed (both major and minor) should request HouseCheck's Property Condition Report.

A **material defect** is defined by HouseCheck as a specific issue with a system, installation or component of a property that:

- Poses an unreasonable risk to people and makes a property dangerous or potentially dangerous;
- Make a property unfit to live in;
- Has a significant, adverse impact on the value of the property
- Is a non-compliance issue which may carry potential legal or insurance risks for the purchaser of the property.

**Examples of observed material defects** included in the HouseCheck Special Items Report - some of which would require further evaluation by a relevant specialist:

- No approved plans provided for visual comparison with as-built structures; OR
- As-built structures do not conform to the approved plans provided;
- Roof leaks, or potential roof leaks resulting from neglect of maintenance or non-compliant design/installation of the roof covering and waterproofing systems;
- Non-compliant or defective roof structures;
- Non-compliant or defective roof drainage systems;
- Non-compliant or defective stormwater management systems;
- Non-compliant or defective drainage systems (waste water and sewerage);
- Wall, slab or ceiling cracks which are, or may be, structural defects;
- Evidence of damp or mould caused by the intrusion of moisture;
- Damaged or leaking sanitaryware;
- Defective or non-compliant hot water geyser installations;
- Defective or non-compliant plumbing systems;
- Defective or non-compliant electrical installations;
- Unstable or non-compliant free-standing walls;
- Other significant damage to the property systems, components and installations; and
- Non-compliant swimming pool or water feature safety.

**Cost estimates: The HouseCheck Special Items Report also includes cost estimates for the repair/ replacement of material defects - where feasible. Where a specialist review is recommended by HouseCheck of a material defect, then no estimated cost will be provided by HouseCheck (a quote would be required from the relevant specialist).**

**NOTE:** The meanings that HouseCheck attributes to the above terms is further explained at the end of this document, entitled: **Scope and limitations of this HouseCheck Special Items Report**. Please take the time to read this document in order to derive full value from this HouseCheck report.

**A Value at Risk and a Market Value, valuation of the property could be requested at an additional cost:**

**Value at Risk (replacement value):** The replacement cost estimate included in this report is calculated by a registered valuation company, with the South African Council for the Property Valuers Profession (SACPVP) contracted to HouseCheck. The Value at Risk (replacement value) is derived by measurement and the use of proven methodology to calculate the replacement costs of all permanent improvements on the property. It is important for homeowners to avoid under-insuring their properties and thereby running the risk of an insurer applying "averaging" in the event of a future claim for damages. "Averaging" means that the insurer may reduce the claim value in proportion to the extent of underinsurance.

**Market Value Valuations:** The market value included in this report is calculated by a registered valuation company, with the South African Council for the Property Valuers Profession (SACPVP) contracted to HouseCheck. Market Value as defined by the International Valuation Standards Authority is as follows: "Market Value is the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction, after being properly marketed where the parties of each acted knowledgeably, prudently and without compulsion." Depending on the property type, there are three basic methods of valuations that can be applied to determine the market value. These includes the Market Comparable Method, the Income Method and the Depreciated Replacement Cost Method. The Market Comparable Method will be applied mostly, and which are widely accepted by South African Courts. With reference to commercial and industrial type properties, the Income Method may be used. This will also apply to special type properties, like churches or schools, where the Depreciated Replacement Cost Method may be applied.

**MATERIAL DEFECTS**

<b>Ref</b>	<b>Comments</b>	<b>Responsibility</b>	<b>Price</b>
<a href="#">4.1</a> Roof Covering » Roof covering	Some roof slates loose, cracked , damaged or dislodged.	Roof Specialist	20000,00
<a href="#">4.1</a> Roof Covering » Roof covering	Moss growth on some areas of the roof covering. Although moss have the tendency for water retention it does not cause damage to the slates. Careful consideration should be taken before any removals are done. The possible additional damage to the brittle slates and the unavailability of new slates could be problematic.	Roof Specialist	10000,00
<a href="#">4.2</a> Roof Covering » Valleys	Some dislodged roof slates in the valley gutters. Valley gutters filled with debris. Will require cleaning on a regular basis to prevent blockages and possible water penetration into the interior.	Roof Specialist	3000,00
<a href="#">4.3</a> Roof Covering » Gutters & Downpipes	Gutters sagging in places. Gutters filled with debris. Gutters require cleaning on a regular basis to prevent sagging and water retention.	Roof Specialist	4500,00
<a href="#">5.1</a> Roof Structure » Trusses & Rafters	Some structural timber members of the roof with minor splits / cracks. The cracked / affected timbers appeared structurally sound, however reinforcing with similar timbers recommended as a precautionary measure.	Roof Specialist	8000,00
<a href="#">6.1</a> Hot water heating: Electric Geyser with tank » Drip tray	No drip tray installed.	Registered Plumber	2000,00
<a href="#">6.2</a> Hot water heating: Electric Geyser with tank » Geyser isolator switch	No isolator installed.	Registered Electrician	1000,00
<a href="#">6.3</a> Hot water heating: Electric Geyser with tank » Thermostat cover plate	Thermostat cover plate not fitted / loose.	Registered Plumber	400,00
<b>Total</b>			<b>R 48 900,00</b>

**1. INSPECTORS COMMENTS**

Ref	Item	Comment
1.1	Observation at the time of the inspection	<p>This Special Items Inspection Report includes, the properties Roof Covering, Roof Structure and Electrical Hot Water Geyser as requested.</p> <p>No serious structural issues regarding the roof structure observed, no sagging battens and no sagging, warped, bent or loose joints found. There are however, several roof slates dislodged, loose, cracked or damaged with evidence of water penetration into the roof cavity. This will require urgent specialist attention.</p> <p>The HouseCheck Special Items Report documents all material defects observed by the HouseCheck inspector. Cosmetic and minor defects are not documented in the Special Items Report.</p> <p>A material defect is defined by HouseCheck as a specific issue with a system, installation or component of a property that:</p> <ul style="list-style-type: none"> <li>- Poses an unreasonable risk to people and makes a property dangerous or potentially dangerous;</li> <li>- Make a property unfit to live in;</li> <li>- Has a significant, adverse impact on the value of the property;</li> <li>- Is a non-compliance issue which may carry potential legal or insurance risks for the purchaser of the property.</li> </ul> <p>Please note: The cost are only estimates and should be used as a guideline only. Because of the nature of the building trades, actual quotations obtained may be higher or lower than the HouseCheck estimates. Due to the nature of the inspection, the cost are estimated on a visual assessment basis only and will not include hidden or unforeseen defects. In some cases estimates will only be to make good the defect and surrounding area. For instance it will be to repair and paint a crack in a wall and not to paint the whole wall or room. Or to repair damaged / defective kitchen cupboards and not to refurbish all the cupboards.</p>
1.2	Limitations	None

**2. VALUATION**

Ref	Item	Replacement value
2.1	Estimated Replacement Value	R 3 850 000,00
2.2	Market Value	R 2 850 000,00

**3. ROOF STRUCTURE DETAILS****MAIN STRUCTURE**

Ref	Item	Observation
3.1	Access to the roof cavity	Inspector was able to access the roof cavity and inspect the items as detailed in this section of the report
3.2	Shape of roof structure	Pitched roof with gables

**3. ROOF STRUCTURE DETAILS (CONT.)**

3.3	Roof structure type	<p>Old roof structure (carpenter-built) - not compliant with SANS 10400-L. This old roof structure was designed and built on site by experienced carpenters; the structure does not conform to modern engineering design principles. This roof structure has stood for many years and will likely stand for many more. However, this roof structure does not conform to the minimum modern timber roof building standards as detailed in SANS 10400-L. All roof structures may weaken in time and only a structural engineer, after conducting a detailed inspection, measurement and calculation of loads, will be able to verify the likely future structural stability of this roof structure. Defects as observed by the HouseCheck inspector are included in this report, but this HouseCheck report does not constitute a warranty of any kind regarding the future fitness of this roof structure. The client is cautioned that in the absence of a professional certification, any future insurance claim for a failure in the roof structure may be repudiated by the insurer</p>
-----	---------------------	--

**4. ROOF COVERING**

**MAIN STRUCTURE**

Ref	Item	Description	Defects Observed	Action Recommended
4.1	Roof covering	Slates	<p>Some roof slates loose, cracked, damaged or dislodged. Moss growth on some areas of the roof covering. Although moss have the tendency for water retention it does not cause damage to the slates. Careful consideration should be taken before any removals are done. The possible additional damage to the brittle slates and the unavailability of new slates could be problematic. <b>MATERIAL DEFECTS</b></p>	Urgent repairs recommended
4.2	Valleys	Open valley	<p>Some dislodged roof slates in the valley gutters. Valley gutters filled with debris. Will require cleaning on a regular basis to prevent blockages and possible water penetration into the interior. <b>MATERIAL DEFECTS</b></p>	Urgent maintenance recommended
4.3	Gutters & Downpipes	PVC plastic	<p>Gutters sagging in places and filled with debris. Gutters filled with debris. Gutters require cleaning on a regular basis to prevent sagging and water retention. <b>MATERIAL DEFECTS</b></p>	Urgent maintenance recommended



Ref #4 - Sealing of the roof covering around piping due to water penetration.



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering

4. ROOF COVERING (CONT.)



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref #4 - Roof Covering



Ref # 4.1 - Containers in the roof due to active or previous roof leaks.



Ref # 4.1 - Some roof slates loose, cracked, damaged or dislodged.



4. ROOF COVERING (CONT.)



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Containers in the roof due to active or previous roof leaks.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Containers in the roof due to active or previous roof leaks.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.

4. ROOF COVERING (CONT.)



Ref # 4.1 - Containers in the roof due to active or previous roof leaks.



Ref # 4.1 - Containers in the roof due to active or previous roof leaks.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.

4. ROOF COVERING (CONT.)



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Moss growth on some areas of the roof covering.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.



Ref # 4.1 - Some roof slates loose, cracked , damaged or dislodged.

**4. ROOF COVERING (CONT.)**



Ref # 4.2 - Some dislodged roof slates in the valleys.



Ref # 4.2 - Valleys filled with debris.



Ref # 4.3 - Gutters sagging in places and filled with debris.



Ref # 4.3 - Gutters sagging in places and filled with debris.

**5. ROOF STRUCTURE**

**MAIN STRUCTURE**

Ref	Item	Description	Defects Observed	Action Recommended
5.1	Trusses & Rafters	Old timber roof structure (carpenter-built)	Some structural timber members of the roof with minor splits / cracks. <b>MATERIAL DEFECTS</b>	Urgent maintenance recommended



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure

5. ROOF STRUCTURE (CONT.)



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref #5 - Roof Structure

5. ROOF STRUCTURE (CONT.)



Ref #5 - Roof Structure



Ref #5 - Roof Structure



Ref # 5.1 - Minor cracks in some roof timber joists.



Ref # 5.1 - Minor cracks in some roof timber joists.



Ref # 5.1 - Minor cracks in some roof timber joists.



Ref # 5.1 - Minor cracks in some roof timber joists.



Ref # 5.1 - Minor cracks in some roof timber joists.

6. HOT WATER HEATING: ELECTRIC GEYSER WITH TANK

MAIN STRUCTURE

Ref	Item	Description	Defects Observed	Action Recommended
6.1	Drip tray	The drip tray must be sloped towards the discharge outlet and must cover the total area of the geyser and its fittings. The support structure for the drip tray and geyser must be built on truss tie beams supported by a load-bearing wall. Each foot of the geyser must rest on a support beam. A drip tray is required for all indoor geyser installations; except for a geyser wall-mounted over a bath	No drip tray installed. <b>MATERIAL DEFECTS</b>	Urgent repairs recommended
6.2	Geyser isolator switch	An electrical isolator switch must be installed within 1.5m of the geyser	No isolator switch installed. <b>MATERIAL DEFECTS</b>	Urgent repairs recommended
6.3	Thermostat cover plate	The cover plate to the electrical connection to the geyser thermostat must be fitted	Thermostat cover plate not fitted / loose. <b>MATERIAL DEFECTS</b>	Urgent repairs recommended



Ref #6 - Electric Geyser with tank



Ref #6 - Electric Geyser with tank



Ref # 6.1 - No drip tray installed.



Ref # 6.2 - No isolator installed.

## 6. HOT WATER HEATING: ELECTRIC GEYSER WITH TANK (CONT.)



Ref # 6.3 - Thermostat cover plate not fitted / loose.

## Terms and Conditions

### HouseCheck Property Inspections Terms and Conditions

**Important clauses which may limit our responsibility, place an obligation on you to indemnify us, involve an acknowledgment of any fact or involve some risk for you will be in bold and italics. Please pay special attention to these clauses.**

The intention of any HouseCheck property inspection is to provide a professional, objective, unbiased and affordable property inspection service, which can be completed within a reasonable amount of time and result in a written report on the inspection to highlight areas of defective design, poor workmanship, or areas requiring maintenance which may be of material importance to the property owner or prospective owner and which may have significant safety, or cost implications, or result in potential claims repudiation from an insurer in the future.

Any HouseCheck Property Inspection takes the form of a visual inspection only of ***the observable areas*** of the relevant sections of the property being inspected and HouseCheck will then issue you with a written report on the same. Visual inspection is not capable of determining all conditions that may exist within a structure or installation, and as such ***we will not be liable in any way for not identifying or reporting on any non-visible, obscure, concealed, or latent faults or defects in the property.***

***The HouseCheck Property Inspection report should not be considered as a guarantee or implied warranty of any type.***

While the property Inspectors will document ***observed conditions or defects***, when in any doubt, the person who requested the property inspection is urged ***to consult an appropriate specialist for a more detailed evaluation of any specific condition or defect.***

***The HouseCheck Inspector is not a specialist who is qualified or licensed to render a binding opinion as to the structural integrity, safety or functionality of a building or its component parts.*** HouseCheck inspectors are "generalists" who are familiar with the South African building regulations and national standards and are trained and equipped to do an overall visual condition assessment of the property. Unlike specialist professionals, HouseCheck Inspectors do not conduct invasive or time-consuming technical investigations of specific or suspected problem areas. Furthermore, we will not move furniture or other goods, to obtain access to systems or components.

***While the property inspection is based on the observable condition of the property being inspected, it is not intended to report on every observable condition that may exist in a property.*** As such, many conditions which are ***not material in nature or are of a cosmetic nature or are considered obvious will not be reported or quoted on.*** As an example, the report may not mention that an area of a property may need to be painted. The report will include photographs of some of the conditions and defects documented in the report. Where appropriate, cost estimates for repairs will be included in the report. Exact costs for repairs can only be determined by a professional service provider visiting the property to do a detailed evaluation and provision of an exact quotation for the remedial work required. Quotations for remedial work obtained from competing service providers may vary widely depending on the materials to be used and the size and competence of the service provider.

If a floor plan has been provided with the Inspection Report, please note that this floor plan is a sketch only to point out defects or to calculate the cost of repairs and while an attempt may be made to portray the room layout of the inspected property, no reliance should be placed on measurements and proportions indicated in the sketch plan in the report.

***Only official, written reports are valid, and we hereby absolve ourselves from any responsibility for any verbal feedback or comment provided to a client by the HouseCheck Inspector.***

The inspection will focus particularly on visual observation of the following areas:



1. **Roof exteriors:** Observed condition of roof coverings, roof screws and fasteners, ridges, valleys, verges, flashing, waterproofing, chimneys and projections, fascia boards, barge boards or barge tiles, roof pitch and falls, gutters, downpipes and roof drains.
2. **Roof cavities:** Observed condition of the structure, anchoring, fastening and joining of structural members, bracing, under tile sheeting, firewall, exposed masonry (including chimneys), condition of visible electrical wiring, condition of visible water pipes, observed presence of pests (birds, rodents, wood destroying insects or fungi). HouseCheck inspections do not constitute a legal certificate of compliance of any installation, such as the roof structure, or the electrical and plumbing installations.
3. **Hot water geysers:** Observed condition and compliance of the geyser installation, including, where possible, the type of geyser, its location and size (this does not constitute a legal certificate of compliance of the geyser installation).
4. **Gas Installation:** Gas installation with regards to the positioning of gas bottles and shut off valves (this does not constitute a legal certificate of compliance of the gas installation).
5. **Exterior walls of main building:** Walls are checked for structural cracks and inspected for active damp.
6. **Interior walls of main building:** Walls are checked for structural cracks and inspected for active damp.
7. **Garage doors and driveway gates:** The general condition of the doors, motorized garage doors and driveway gates are checked and reported on.
8. **Ceilings:** Ceilings and slab soffits are checked for structural cracks and inspected for active damp.
9. **Floor coverings and visible floor slabs:** Structural cracks observed in floor slabs (not surface screed cracks) structural or significant damp or insect damage to suspended wooden floors and serious damage to all other floor coverings and finishes
10. **Walls, fences, gates:** Gates, fences, free-standing walls, retaining walls are all checked for structural soundness, significant damage to electric fencing is also documented.
11. **Fire Safety:** The observed compliance with safety regulations for fireplaces, hearths, flues, chimneys, garage fire doors and roof cavity fire walls are checked. This does not constitute a legal certificate of compliance of the fire prevention installations.
12. **Safety and Security:** Intruder protection measures such as burglar bars, security gates, access control and burglar alarms are documented but not tested.
13. **Ground and stormwater management:** Management of rainwater away from structures, correct grading of ground slopes, the height of outside levels in relation to finished floor levels and the protection of foundations from the dangers of water seepage.
14. **Garden structures and Outbuildings:** Areas checked and reported on: Observed structural soundness of carports, braai facilities, lapas, bomas and garden sheds.
15. **Approved Plans:** If approved plans are made available to the Inspector while on site, then a visual comparison of the as-built structures with the approved plans will be reported on. No measurements will be taken.

The Property Inspector will only walk on the roof, or enter the roof cavity, or a crawl space if, in the opinion of the Inspector, given the conditions at the time of the inspection, it is safe and practical for the Inspector to do so. If the Inspector is unable to access the roof or any other area for any reason, the Inspector will inspect that area to the best of their ability without entering it and will mention in the report the fact that certain areas were not adequately inspected and the reasons thereof.

**Here are some examples of the types of things the Property Inspector may not be able to determine with certainty:**

- **Appropriate technical design and dimension of specific structural items and/or members e.g., the design and supporting structures of the roof or in the case of a thatch roof, the design, and dimensions of the lightning conductor.**
- **Roof, wall, or other leaks that may only occur under unusual conditions.**
- **The inner workings of mechanical items e.g., heating, ventilation, and air conditioning.**
- **The actual condition of underground or inside-wall-or-slab pipes, drains or foundations.**
- **The safety and compliance of the electrical installation (a relevant certificate of compliance is required for this).**
- **The safety and compliance of a gas installation (a relevant certificate of compliance is required for this).**
- **The safety and compliance of an electric fence installation (a relevant certificate of compliance is required for this).**
- **The working condition, functionality, or usability of any security alarm installation.**
- **A subsidence or landslide risk (a soil engineering report is required for this).**
- **Any other area or aspect of a property that may be required by law to be certified.**

**Please note that if the erf (plot) size or building size is indicated in the HouseCheck Report, this is provided in good faith, based on information provided to the Inspector. We do not warrant any dimensions of any property or structure, and clients and other interested parties are urged to do their own investigations in this regard.**

**Corporate information: HouseCheck Inspectors (Pty) Ltd . Reg 2012/234444/23 Head office: 80 St Michaels Road, Claremont 7708 , Cape Town, South Africa Postal: Suite 258 Postnet, Private Bag X1005, Claremont 7735 , CapeTown  
 Website: [www.housecheck.co.za](http://www.housecheck.co.za) Email: [info@housecheck.co.za](mailto:info@housecheck.co.za)**

## **Explanatory Notes to this HouseCheck Inspection Report**

This note contains explanatory information dealing with issues relating to the inspection of the various critical areas of a South African property. Please

consult those sections which are pertinent to this HouseCheck report.

### **Storm water management and ground grading**

HouseCheck inspectors check the efficient management of water from roofs and storm water away from the base of structures. The best way to achieve efficient ground water management is by the installation of a suitable drainage system, or by installing an impervious, properly sloped apron around the perimeter of walls. HouseCheck inspectors will also check that finished outside ground levels (including paving) are at least 150mm lower than inside floor levels. If the outside ground is higher than the floor inside there is a threat of water seeping into the walls above the DPC, resulting in interior damp damage.

### **Cracks in walls, slabs and foundations**

Most houses in South Africa sooner or later develop wall cracks. Most of these cracks are not serious and can be ascribed to slight settlement of the foundations, mortar shrinkage, or slight roof movement. However, some cracks can be potentially serious and are the result of significant foundation displacement, water penetration, or excessive roof movement. The most common reasons for cracking of walls are:

- **Problem soils:** Most South African cities and towns are located in areas where so-called “problem soils” occur. These are mostly “expansive” soils (clay) or “collapsible” soils (sandy). In some areas dramatic ground collapse (sinkholes) can occur where dolomitic and limestone rocks are found; this often results in the formation of underground caverns and voids.
- **Ground movement and other stresses:** The walls and slabs of all buildings are liable to crack at some point due to the movement and stresses to which buildings are continually subjected. Problem soils, inadequate design of foundations, poor roof anchoring and water penetration may worsen the situation.

**Types of cracks:** HouseCheck inspectors are trained to diagnose the cause of the observed cracks. Crack diagnosis is not an exact science and where doubt exists, then the services of a structural engineer should be enlisted.

- **Settlement cracks:** occur as the house “settles” onto its foundation, often leaves “stair step” cracks and diagonal cracks extending upwards from window and door lintels in its wake. Cosmetic repairs such as new paint or crack repair will only permanently fix settlement cracks once the structure has fully settled.
- **Movement cracks:** occur if the house has been built on expansive (clay) soil with poorly designed foundations. “Stair step” cracks and diagonal cracks extending upwards from window and door lintels in its wake. Cosmetic repairs such as new paint or crack repair will not permanently fix movement cracks problems caused by expansive soil.
- **Thermal cracks:** big changes in daily temperature changes may result in excessive expansion and contraction of walls, causing vertical or stair step cracks, or plaster cracks.
- **Water damage cracks:** Water penetrating walls from above (especially through cracks on the tops of parapet walls) will cause cracks lower down as the water seeps downwards through the wall and seeks an exit from the masonry when encountering an impenetrable barrier such as a concrete slab or waterproofing.
- **Roof movement cracks:** Movement of the roof, where it rests on the wall plate on top of the walls, can also cause wall cracks. These cracks are usually slight and can be seen along the line of the ceiling and cornices. However, the weight and movement of a badly constructed roof can also result in severe structural damage to the walls below. Roof movement generally results from badly braced rafters and trusses which can exert outward pressure on the tops of load-bearing walls. This is known as truss thrust or truss spread. Poor anchoring of the roof to the walls can also lead to roof movement especially in windy areas. Truss uplift can also occur if the top chords of the truss become damp and expand while the bottom chord remains dry.
- **Plaster cracks:** Cracks in plastered walls are common, especially in older houses. Plaster cracks may result from stresses caused by movement of the brick substrate (see discussion above). Cracking of plaster may also be caused by incorrect plastering techniques or plaster which has been allowed to dry too fast. One of the main reasons for plaster cracking is changes in ambient moisture levels and different expansion coefficients between mortar plaster, bricks, concrete and steel.
- **Slab and foundation cracks:** The reason why foundations and slabs on the ground crack is usually soil movement compounded by inadequate foundation/slab design and/or construction. Foundation footings and slabs carry the weight of the walls and roof and so cracks in foundations will almost always result in wall cracks also, the incorrect placement and compaction of the fill beneath the concrete slab is also a common cause of slab cracks. Water seeping under foundations (from downpipes or water ponding against structures) increases the risk of foundations sagging. HouseCheck inspectors will check water management around the base of structures. Tree roots close to structures may also cause problems.

**Crack width:** HouseCheck inspectors are guided by the crack width criteria below, which has been developed by the National Home Builders Registration Council (NHBRC)

Less than 1mm / Very slight / Normal re-decoration

1 to 5mm / Minor / Normal re-decoration

5 to 15mm / Moderate / Normal repairs / minor masonry replacement

15 to 25mm / Severe / Extensive repair work / replacing sections of walls

Over 25mm / Very severe / Major repair work / partial rebuilding

Over 25mm / Very severe / Major repair work / partial rebuilding

### **Damp in walls and slabs**

Where visible damp is observed HouseCheck inspectors will use a moisture meter to measure and record whether the damp is old damp (where the cause

of the damp has been resolved) or active damp (where the cause of the damp is unresolved or unknown). HouseCheck inspectors will use their experience and training to try and determine the probable cause of the damp problem.

#### **Types of damp:**

- **Penetrating damp** is usually caused by roof leaks or water ingress via exterior wall cracks. Other causes may be leaking plumbing; failure of waterproofing on a wall adjacent to a shower or bath; a planter on an external wall; or water penetrating the exterior wall as a result of incorrect exterior ground levels. Further investigation is usually recommended. Damaged areas should only be repaired and decorated once there is certainty that the source of the moisture ingress has been repaired and the damaged area has completely dried out.
- **Rising damp** is confined to the lower parts of internal walls area – usually lower than 1.2m. Rising damp is caused by ground water “wicking up” through the masonry due to missing or damaged, damp-proof course (DPC). HouseCheck recommends further investigation and possible remedy by the installation of a physical or chemical damp proof barrier. Damaged areas should not be redecorated until the source of the water ingress has been located and repaired and the damaged area has completely dried out.
- **Damp proofing course (DPC):** in modern buildings a plastic barrier installed at the base of walls and in wall openings is the usual method of preventing water from the ground from wicking up into the structures. Many older buildings do not have an effective DPC. Malthoid or slate was used in older buildings used to prevent rising damp. These components can disintegrate over time causing rising damp to become active and visible on the bottom of walls in older structures. It is recommended that a reputable waterproofing company be contracted to evaluate and propose best solutions to repair the rising damp.
- **Mould** is black fungi spores which grows on walls, ceilings, behind cupboards and in roof spaces thrive in still, moist conditions. Mould is both unsightly and dangerous to the health of those with allergies. Both penetrating damp and the lack of adequate ventilation in a bathroom or bedroom encourage the growth of mould spores.
- **Efflorescence** is an aesthetic problem. Efflorescence is a white, powdery salt substance that forms on the surfaces of concrete, bricks and plaster. It is caused by soluble salts migrating through the material via capillary action. Once these soluble salts come into contact with air, unsightly white sediment appears.
- **Windows, doors and glazing:** HouseCheck inspectors check the soundness of window and door frames and also look for signs of leaks and damp around the edges of the frames.

#### **Glazing safety**

The National Building Regulations (NBR) specify standards of glazing safety for South African properties. Safety glass is required on low windows, doors, balustrades, staircases and areas of high traffic and potential risk. Many South African homes have unsafe glazing and some safety glass is often not clearly marked in compliance with the NBR. Where the HouseCheck inspector suspects that there may be a glazing safety issue, this will be mentioned in the HouseCheck report. However, HouseCheck inspectors are not glazing specialists and no warranty of glazing safety is implied or provided in any HouseCheck report. Where there is doubt, the client is advised to get the glazing installation reviewed by a glazing specialist.

#### **Balconies, balustrades, decks and steps**

- HouseCheck inspectors conduct a visual check of the structural soundness of balconies, decks and steps as well as safety and functional aspects as stipulated by the National Building Regulations.

These include:

- Balustrades must be securely fixed and be a minimum of 1m high with no gaps between vertical bars greater than 100mm.
- Balconies must be properly drained.
- Balconies must have a weather step or upstand of at least 50mm to prevent water flooding from the balcony to the interior.

#### **Roof Exterior and Roof Cavity**

HouseCheck inspectors are trained to conduct a visual inspection of roofs installed on the inspected property, in order to report on significant defects which have been observed. Where safe and practical, HouseCheck inspectors will check the overall roof structure, including: The general condition of structural items such as trusses/rafters, bracing, anchoring, valley boards, fastenings for the battens/purlins; the presence and condition of items such as under-tile sheeting and insulation; the condition of hot water systems, plumbing and electrical supply located in or on the roof; and the condition and safety of items such as chimneys and fire walls (in and on the roof).

A HouseCheck inspection of an internal roof structure is always limited in scope due to inaccessibility of areas of the roof cavity once the roof covering is in place.

In South Africa an A19 roof compliance certificate is required to be provided for all new roofs installed. This certificate certifies compliance with the National Building Regulations, both as regards the design and manufacture of the roof trusses (which are mostly pre-manufactured in specialised factories) and also the structural integrity and compliance of the roof installation.

Many older roofs on South African properties (especially old carpenter-built structures) do not comply with the deemed-to-satisfy rules of the National Building Regulations. However, most of these older roofs are still structurally sound and functional. An A19 roof certificate is generally not required for such older roofs, unless the roof has been altered or unless a buyer or a lending institution requires such.

In its report, HouseCheck may, if the HouseCheck inspector considers this precaution necessary, recommend that an engineer should certify the structural soundness of the roof.

Please note that HouseCheck inspectors are not licensed (nor qualified) to issue A19 roof certificates, only registered roof engineers can do this. This

HouseCheck report should be viewed only as an indication of the general condition of the installation and not as any type of warranty or guarantee of its functionality or legality.

#### **Plumbing, sanitary ware and drains**

HouseCheck inspectors are trained to conduct a visual inspection of plumbing (water supply and drains) and sanitaryware installed on the property, in order to report on observed defects – including the legal compliance of the installations. Among the items which HouseCheck inspectors will check are the general observed condition of visible water supply, waste and drain systems; the general condition and functionality of sanitary ware, showers and sinks; and the legality and functionality of storm water management systems.

In Cape Town an up-to-date compliance certificate is required to be provided (usually by the seller) prior to ownership of a property being transferred to a new owner. Other local governments are expected to follow suit.

It should be noted that HouseCheck inspectors are not licensed (nor qualified) to issue compliance certificates, only registered plumbers and drain layers can do that. This HouseCheck report should be viewed only as an indication of the observed condition of the installation and not as any type of warranty or guarantee of its functionality or legal compliance.

#### **Hot water geysers**

HouseCheck inspectors are trained to conduct a visual inspection of hot water systems installed on the property (including electric and solar powered geysers) in order to report on observed defects, including the legal compliance of the installations. Among the items which HouseCheck inspectors will check are: The general observed condition of the hot water system, including the compliance and functionality of: Drip trays; geyser casing, overflow systems; valves; earthing; stop cocks, isolator switches and also geyser support.

Defective geyser installations are both a safety risk and the leading cause of homeowner's insurance claims. Increasingly insurers are repudiating claims for damage caused by non-compliant geyser installations.

It should be noted that HouseCheck inspectors are not licensed (nor qualified) to test hot water systems. In the event of a defective geyser installation a registered plumbers and/or electrician should investigate further and rectify the problem.

This HouseCheck report should be viewed only as an indication of the condition and compliance of the installation and not as any type of warranty or guarantee of its functionality or legality.

#### **Electrical installations**

HouseCheck inspectors are trained to conduct a visual inspection of the electrical installation on the property, in order to report on observed defects – including any observed non-compliance of the installation. Among the items which HouseCheck inspectors will check are: Distribution boards; compliance of the location of plug points, lights and isolator switches; the general condition of built-in appliances and the general condition of visible wiring and earthing.

In South Africa an up-to-date compliance certificate (not older than two years) is required to be provided (usually by the seller) prior to ownership of a property being transferred to a new owner.

It should be noted that HouseCheck inspectors are not licensed (nor qualified) to issue compliance certificates, only registered electricians can do that. This HouseCheck report should be viewed only as an indication of the condition of the installation and not as any type of warranty or guarantee of its functionality or legal compliance.

#### **Gas installations**

HouseCheck inspectors are trained to conduct a visual inspection of any gas inspection installed on the property, in order to report on observed defects – including the legality of the installation. Among the items which HouseCheck inspectors will check are: The general observed condition of the gas installations, including the legal compliance and functionality of: The positioning of gas bottles; gas supply pipes; and shut-off valves.

In South Africa an up-to-date compliance certificate is required to be provided (usually by the seller) prior to ownership of a property being transferred to a new owner.

It should be noted that HouseCheck inspectors are not licensed (nor qualified) to issue gas compliance certificates, only registered gas installers can do that. This HouseCheck report should be viewed only as an indication of the observed condition of the gas installation and not as any type of warranty or guarantee of its functionality or legal compliance.

#### **Electric fencing**

HouseCheck inspectors are trained to conduct a visual inspection of any electric fence installed on the property, in order to report on observed defects – including the legal compliance of the installation. Among the items which HouseCheck inspectors will check are: The general observed condition of the energizer and fence; and the legal compliance of the electric fence as regards warning signs and overhangs. HouseCheck inspectors will not check the actual operation of the fence.

In South Africa an up-to-date compliance certificate is required to be provided (usually by the seller) prior to ownership of a property being transferred to a new owner.

It should be noted that HouseCheck inspectors are not licensed (nor qualified) to issue compliance certificates, only registered electric fence installers can do that. Electricians, who are not licensed as electric fence installers may not issue electric fence compliance certificates.

This HouseCheck report should be viewed only as an indication of the condition of the installation and not as any type of warranty or guarantee of its functionality or legality. **Security, safety and fire protection**

Fire safety in attached garages: If the dwelling has an attached garage, because of the dangers of fuel stored in motor vehicles or in containers, national building regulations require certain fire safety precautions – including an adequate fire wall within any roof cavity; a fire-resistant, self-closing door between the garage and the dwelling and a step-up on the floor level between the garage and the dwelling. HouseCheck will report on observed safety issues in this regard.

Smoke detectors: If smoke detectors have been installed in a structure, then the HouseCheck inspector may report on the presence of these detectors.

HouseCheck will not check the functionality of such detectors.

Automatic gates and doors, especially in driveways and garages, pose a safety threat to pets and children. If practical the HouseCheck inspector may conduct a force test on the automatic gate/door settings to ensure that the gate/door reverses which light resistance is applied.

Intruder and access control: HouseCheck inspectors may report on any serious observed defects as regards access control to the property and intruder protection. However, the HouseCheck inspector will not check or warrant the effectiveness of burglar alarms, burglar bars, security gates, intercom systems and remote gate and door releases.

#### **Swimming pools**

HouseCheck inspectors will report on the presence of pool filter and cleaning equipment; but inspectors will not test the function and efficiency of this equipment. HouseCheck inspectors will also report on the observed condition of the electrical distribution sub-board serving the pool, together with the observed condition of the visible portions of the pool shell and aspects of pool safety as required by law.

The National Building Regulations require that swimming pools must be enclosed by a fence or wall to prevent access to the pool from any street or public place. This fence or wall must be at least 1.2m high; with gaps between the vertical fence rails of less than 100mm; and fitted with a self-closing and self-latching gate.

This means that, in terms of these regulations, a swimming pool on private property does not have to be fenced in, so long as the boundary walls and /or fences around the property are more than 1.2m high and there is a self-closing driveway and pedestrian gate, preventing children from wandering in off the street.

If, however, the pool is open to the street then a 1.2m pool fence and self-closing gate must be installed around the pool.

Some municipalities have adopted by-laws allowing for a suitable pool net to be substituted for a pool fence.

#### **Asbestos regulations**

Building components containing asbestos (mainly older fibre cement roof sheeting and slates, gutters, downpipes and ceiling boards) are governed by the Asbestos Regulations issued in terms of the Occupational Health and Safety Act 1993. These regulations were first promulgated in 1987 and then revised in 2001.

Owners of property with asbestos components are compelled by law to ensure that their asbestos components remain in a safe condition or are safely removed by registered contractors.

Safe condition means, in essence, that the asbestos-containing component must be kept in good condition so that no asbestos dust or fibres are released into the air. Inhaled asbestos can cause lung cancer and other serious diseases.

Asbestos building products can generally be maintained in a safe condition by means of regular painting. However, dry brushing, scraping, sanding and abrasion cleaning techniques, prior to painting, are not allowed. Roof cleaning with a high-pressure water jet is allowed but only in conjunction with a profiled hood that prevents the dispersal of contaminated water. Water polluted with asbestos must be filtered and the residue disposed of safely.

Damaged asbestos-containing components must be removed by a contractor licensed by the Department of Labour.

Manufacture of asbestos-containing building components was phased out following the publication of the Asbestos Regulations in 1987. Therefore, fibre cement building components installed in South Africa after 1990 probably do not contain asbestos. When in doubt consult a registered asbestos contractor.

#### **Free-standing and retaining walls**

Garden and boundary walls, including retaining walls, are mostly classified as "free-standing". This is because such walls are not bonded together in a continuous shape (square, rectangle or circle). Free-standing walls are inherently more unstable than an equivalent house wall. Free-standing walls often crack if the wall is not properly designed with adequate piers (support pillars) and sufficient expansion (movement) joints.

To increase stability free standing walls do not have a damp proof course (DPC), which is a layer of plastic or other waterproof material inserted between the foundation and the base of the wall. This makes free-standing walls prone to rising damp.

## **HouseCheck's policy on referring tradespeople and building professionals**

To be seen to be impartial with its inspection findings, HouseCheck does not usually recommend contractors nor professionals for repair or investigative work. This policy is to avoid a perceived conflict of interest. The exception is when the client appoints HouseCheck, for an additional fee, to manage a remedial or investigative programme – arising from HouseCheck's inspection and report. HouseCheck programme management may involve all aspects of managing a quotation/tender process and also undertaking one or more quality control inspections prior to sign-off.

Below is a schedule of the applicable governing bodies for various trades and building professionals. These bodies should be contacted to obtain a list of local members. These members can then be asked to quote on needed repairs.

#### **Master Builders of South Africa**

- Master Builders Head Office: [www.mbsa.org.za](http://www.mbsa.org.za)
- Western Cape: [www.mbawc.org.za](http://www.mbawc.org.za)
- Boland: [www.mbaboland.org.za](http://www.mbaboland.org.za)
- Greater Boland: [www.mbanorthboland.org.za](http://www.mbanorthboland.org.za)
- Northern Cape: [www.mbank.org.za](http://www.mbank.org.za)
- Eastern Cape: [www.ecmba.org.za](http://www.ecmba.org.za)
- Eastern Cape: [www.ecmba.org.za](http://www.ecmba.org.za)
- North: [www.mbanorth.co.za](http://www.mbanorth.co.za) / [www.gmba.org.za](http://www.gmba.org.za) (Gauteng, North West, Mpumalanga and Limpopo provinces)
- Kwa-Zulu Natal: [www.masterbuilders.co.za](http://www.masterbuilders.co.za)

- Free State: [www.mbafs.co.za](http://www.mbafs.co.za)

**Governing bodies of some trades and professions**

- Consulting Engineers South Africa: [www.cesa.co.za](http://www.cesa.co.za)
- Electrical Contractors Association of SA: [www.ecasa.co.za](http://www.ecasa.co.za)
- Institute of Plumbing South Africa: [www.iopsa.org.za](http://www.iopsa.org.za)
- Waterproofing Federation of South Africa: [www.waterproofingfederation.co.za](http://www.waterproofingfederation.co.za)
- Damp-proofing and Waterproofing Association of South Africa [www.dwasa.net](http://www.dwasa.net)
- Institute for Timber Construction South Africa: [www.itc-sa.org](http://www.itc-sa.org)
- Thatchers' Association of South Africa: [www.sa-thatchers.co.za](http://www.sa-thatchers.co.za)