Foundation Work

- **Evaluating Structural Policy Coverage in Home Insurance**
  Evaluating Structural Policy Coverage in Home Insurance Understanding the Scope of Foundation Repair Guarantees Reviewing Contractor Backed Warranty Provisions Examining Conditions That Void Certain Warranties Checking if Homeowner Policies Cover Soil Movement Considering Add On Insurance for Extended Protection Determining Coverage Limitations for Pier Systems Clarifying Fine Print in Repair Service Agreements Seeking Assurance Through Third Party Backed Guarantees Exploring Extended Coverage for Unexpected Repair Costs Exploring Available Options for Warranty Transfers
- **Visual Inspection Methods for Early Problem Detection**
  Visual Inspection Methods for Early Problem Detection Using Laser Level Surveys to Track Floor Movement Applying Ground Penetrating Radar for Subsurface Clarity Establishing Baselines with Digital Crack Gauges Harnessing Infrared Thermography for Hidden Moisture Installing Wireless Tilt Meters for Continuous Monitoring Scheduling Routine Evaluations of Structural Support Identifying Early Shifts with Smart Sensor Technology Analyzing Data from Remote Monitoring Systems Assessing Elevation Changes with Precision Tools Reviewing Signs of Deterioration in Hard to Reach Areas Interpreting Detailed Reports from Third Party Engineers
- **About Us**

Understanding warranty transfers: Definition, significance, and types (manufacturer, service provider, third-party)

When it comes to purchasing high-value items like electronics, appliances, or vehicles, warranties play a crucial role in ensuring peace of mind. Professional foundation repair service ensures the structural safety of a home **foundation repair expert service** renovation. However, there might be instances where you need to transfer the warranty to someone else. This could be due to selling the item or gifting it. Understanding warranty transfers is essential for both buyers and sellers to ensure continued protection.

A warranty transfer is the process of shifting the warranty coverage from one owner to another. This can be significant when selling a used item, as a valid warranty can enhance the resale value and provide assurance to the new owner. There are different types of warranty transfers depending on who is providing the warranty: manufacturer, service provider, or third-party.

Manufacturer warranties are typically the most straightforward to transfer. Many manufacturers allow for warranty transfers as long as certain conditions are met, such as registering the new owner with the company or paying a transfer fee. These warranties usually cover defects in materials and workmanship for a specified period from the original purchase date.

Service provider warranties, on the other hand, are offered by companies that perform repairs or maintenance services. Transferring these warranties can be more complex and may involve additional paperwork or fees. It's important to check with the service provider about their specific policies regarding warranty transfers.

Third-party warranties are provided by entities other than the manufacturer or service provider, often through extended warranty companies. These warranties can offer additional coverage but may have stricter rules regarding transfers. Some third-party warranties are non-transferable, meaning they cannot be passed on to a new owner at all.

To successfully transfer a warranty, it's essential to follow the specific guidelines provided by the entity offering the warranty. This might include filling out forms, providing proof of purchase or ownership transfer documents, and possibly paying a fee. Always check with customer service representatives from each respective company involved (manufacturer, service provider, third party) as early as possible in your process of buying or selling an item under warranty; this ensures you meet all required criteria without hassle later on down line when trying complete said transaction(s).

Understanding warranty transfers empowers consumers to make informed decisions when buying or selling items under warranty. By knowing what type of warranty you have and how it can be transferred (if at all), you can better navigate transactions involving warrantied

items and ensure that both parties walk away satisfied with their end of deal - whether they're getting money back from sale itself OR inheriting remaining portion active product/service guarantee originally held by previous possessor before them!

Key factors influencing warranty transfer options: Local regulations, service provider policies, and warranty terms

When exploring available options for warranty transfers, several key factors come into play, each with its own set of considerations. Understanding these elements can help navigate the process more smoothly and ensure that the warranty remains valid.

Firstly, local regulations play a significant role. Different regions have varying laws regarding the transfer of warranties. Some jurisdictions have consumer protection laws that mandate certain rights for warranty transfers, while others may have more restrictive policies. It's crucial to be aware of these regulations as they can dictate whether a warranty can be transferred at all, and under what conditions. For instance, in some places, warranties are tied to the original purchaser and cannot be transferred, while in others, the transfer is permissible but requires specific legal procedures.

Secondly, service provider policies are another critical factor. Each manufacturer or service provider has its own set of rules concerning warranty transfers. These policies can vary widely; some companies may allow transfers with a simple notification process, while others might charge a transfer fee or require additional documentation. It's essential to review the service provider's policy thoroughly to understand the specific requirements and costs involved in transferring the warranty. Companies often outline these details in their terms of service or customer support documentation.

Lastly, the original warranty terms themselves are crucial in determining transfer options. The specific terms of a warranty agreement will outline whether the warranty is transferable and any conditions that must be met for the transfer to occur. Some warranties are explicitly non-transferable due to their nature or contractual agreements between the original purchaser and the service provider. Others may have clauses that specify how long after purchase a transfer can take place or any limitations on subsequent owners' warranty claims post-transferral situation needs careful scrutiny since not all warranties offer identical flexibility either through express guarantees or implied rights stemming from consumer laws applicable in various territories globally ensuring consistent protection levels regardless location changes during product lifecycle stages including potential resale scenarios further complicating matters necessitating detailed examination prior finalizing transactions involving such items within secondary markets preemptively addressing possible pitfalls early stage thereby securing continuity desired coverage benefits seamlessly transitioning ownership context maintaining peace mind overall contributing positively towards user experience enhancing trust relationship both parties involved facilitating smoother business operations echoing mutual respect underlying transaction integrity fundamentals ultimately leading successful outcomes conducive everyone concerned long term perspective holistically encompassing broader spectrum considerations beyond immediate necessities aligning strategic objectives fostering sustainable practices amidst dynamic market

landscapes evolving constantly adapting emerging trends shaping future trajectories significantly influencing decision-making processes profoundly impacting stakeholders across diverse sectors collectively driving progress innovation excellence attaining optimal results consistently delivering value propositions exceeding expectations continuously raising benchmarks industry standards elevating bar performance metrics setting new precedents defining milestones achieving pinnacle success unparalleled excellence epitomizing true essence collaborative synergies harmonious coexistence symbiotic partnerships nurturing growth prosperity mutual gains culminating win-win scenarios embodying quintessential virtues integrity professionalism transcending boundaries fostering global harmony unity embracing diversified cultures celebrating rich heritage legacies passing torch generations inspiring leaders tomorrow building brighter futures together united front ushering era unprecedented advancements transformative changes revolutionizing

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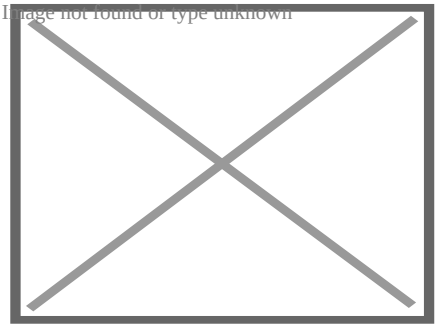
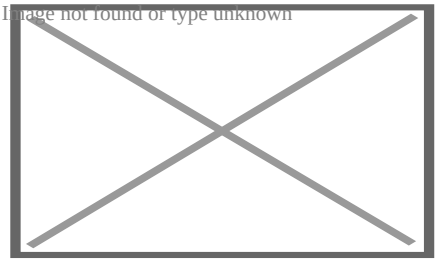
About concrete slab



Suspended slab under construction, with the formwork still in place



Suspended slab formwork and rebar in place, ready for concrete pour.

A **concrete slab** is a common structural element of modern buildings, consisting of a flat, horizontal surface made of cast concrete. Steel-reinforced slabs, typically between 100 and 500 mm thick, are most often used to construct floors and ceilings, while thinner *mud slabs* may be used for exterior paving (see below).[1][2]

In many domestic and industrial buildings, a thick concrete slab supported on foundations or directly on the subsoil, is used to construct the ground floor. These slabs are generally classified as *ground-bearing* or *suspended*. A slab is ground-bearing if it rests directly on the foundation, otherwise the slab is suspended.[3] For multi-story buildings, there are several common slab designs (

see § Design for more types):

- Beam and block, also referred to as *rib and block*, is mostly used in residential and industrial applications. This slab type is made up of pre-stressed beams and hollow blocks and are temporarily propped until set, typically after 21 days.[4]
- A hollow core slab which is precast and installed on site with a crane
- In high rise buildings and skyscrapers, thinner, pre-cast concrete slabs are slung between the steel frames to form the floors and ceilings on each level. Cast in-situ slabs are used in high rise buildings and large shopping complexes as well as houses. These in-situ slabs are cast on site using shutters and reinforced steel.

On technical drawings, reinforced concrete slabs are often abbreviated to "r.c.c. slab" or simply "r.c.". Calculations and drawings are often done by structural engineers in CAD software.

Thermal performance

[edit]

Energy efficiency has become a primary concern for the construction of new buildings, and the prevalence of concrete slabs calls for careful consideration of its thermal properties in order to minimise wasted energy.[5] Concrete has similar thermal properties to masonry products, in that it has a relatively high thermal mass and is a good conductor of heat.

In some special cases, the thermal properties of concrete have been employed, for example as a heatsink in nuclear power plants or a thermal buffer in industrial freezers.[6]

Thermal conductivity

[edit]

Thermal conductivity of a concrete slab indicates the rate of heat transfer through the solid mass by conduction, usually in regard to heat transfer to or from the ground. The coefficient of thermal conductivity, *k*, is proportional to density of the concrete, among other factors.[5] The primary influences on conductivity are moisture content, type of aggregate, type of cement, constituent proportions, and temperature. These various factors complicate the theoretical evaluation of a *k*-value, since each component has a different conductivity when isolated, and the position and proportion of each components affects the overall conductivity. To simplify this, particles of aggregate may be considered to be suspended in the homogeneous cement. Campbell-Allen and Thorne (1963) derived a formula for the theoretical thermal conductivity of concrete.[6] In practice this formula is rarely applied, but remains relevant for theoretical use. Subsequently, Valore (1980) developed another formula in terms of overall density.[7] However, this study concerned hollow concrete blocks and its results are unverified for concrete slabs.

The actual value of *k* varies significantly in practice, and is usually between 0.8 and 2.0 W $m^{?1}$ $K^{?1}$.[8] This is relatively high when compared to other materials, for example the conductivity of wood may be as low as 0.04 W $m^{?1}$ $K^{?1}$. One way of mitigating the effects of thermal conduction is to introduce insulation (

see § Insulation).

Thermal mass

[edit]

The second consideration is the high thermal mass of concrete slabs, which applies similarly to walls and floors, or wherever concrete is used within the thermal envelope. Concrete has a relatively high thermal mass, meaning that it takes a long time to respond to changes in ambient temperature.[9] This is a disadvantage when rooms are heated intermittently and require a quick response, as it takes longer to warm the entire building, including the slab. However, the high thermal mass is an advantage in climates with large daily temperature swings, where the slab acts as a regulator, keeping the building cool by day and warm by night.

Typically concrete slabs perform better than implied by their R-value.[5] The R-value does not consider thermal mass, since it is tested under constant temperature conditions. Thus, when a concrete slab is subjected to fluctuating temperatures, it will respond more slowly to these changes and in many cases increase the efficiency of a building.[5] In reality, there are many factors which contribute to the effect of thermal mass, including the depth and composition of the slab, as well as other properties of the building such as orientation and windows.

Thermal mass is also related to thermal diffusivity, heat capacity and insulation. Concrete has low thermal diffusivity, high heat capacity, and its thermal mass is negatively affected by insulation (e.g. carpet).[5]

Insulation

[edit]

Without insulation, concrete slabs cast directly on the ground can cause a significant amount of extraneous energy transfer by conduction, resulting in either lost heat or unwanted heat. In modern construction, concrete slabs are usually cast above a layer of insulation such as expanded polystyrene, and the slab may contain underfloor heating pipes.[10] However, there are still uses for a slab that is not insulated, for example in outbuildings which are not heated or cooled to room temperature (

see § Mud slabs). In these cases, casting the slab directly onto a substrate of aggregate will maintain the slab near the temperature of the substrate throughout the year, and can prevent both freezing and overheating.

A common type of insulated slab is the beam and block system (mentioned above) which is modified by replacing concrete blocks with expanded polystyrene blocks.[11] This not only allows

for better insulation but decreases the weight of slab which has a positive effect on load bearing walls and foundations.

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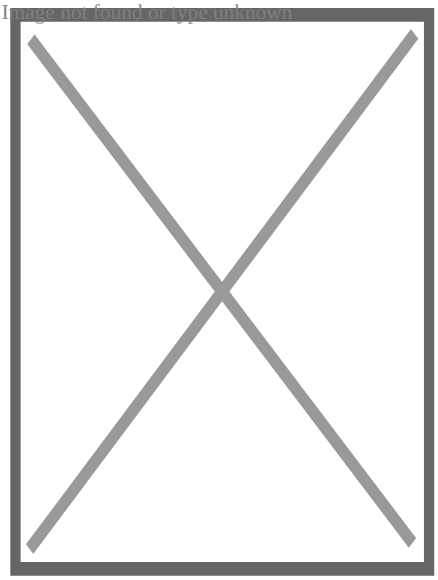

Formwork set for concrete pour.

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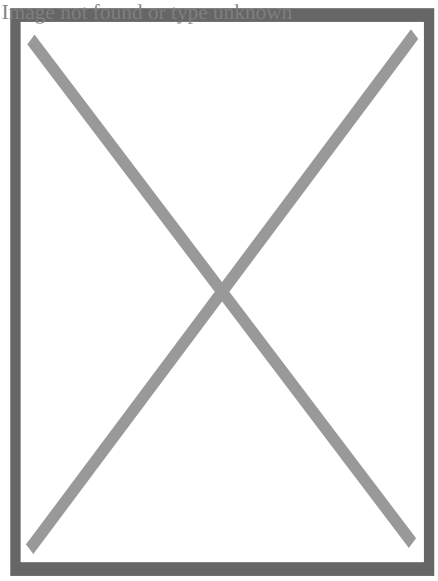


Concrete poured into formwork. This slab is ground-bearing and reinforced with steel rebar.

Design

[edit]
Further information: Marcus' method

Ground-bearing slabs

[edit]

See also: Shallow foundation § Slab on grade

Ground-bearing slabs, also known as "on-ground" or "slab-on-grade", are commonly used for ground floors on domestic and some commercial applications. It is an economical and quick construction method for sites that have non-reactive soil and little slope.[12]

For ground-bearing slabs, it is important to design the slab around the type of soil, since some soils such as clay are too dynamic to support a slab consistently across its entire area. This results in cracking and deformation, potentially leading to structural failure of any members attached to the floor, such as wall studs.[12]

Levelling the site before pouring concrete is an important step, as sloping ground will cause the concrete to cure unevenly and will result in differential expansion. In some cases, a naturally sloping site may be levelled simply by removing soil from the uphill site. If a site has a more significant grade, it may be a candidate for the "cut and fill" method, where soil from the higher ground is removed, and the lower ground is built up with fill.[13]

In addition to filling the downhill side, this area of the slab may be supported on concrete piers which extend into the ground. In this case, the fill material is less important structurally as the dead weight of the slab is supported by the piers. However, the fill material is still necessary to support the curing concrete and its reinforcement.

There are two common methods of filling - *controlled fill* and *rolled fill*.[13]

- **Controlled fill**: Fill material is compacted in several layers by a vibrating plate or roller. Sand fills areas up to around 800 mm deep, and clay may be used to fill areas up to 400 mm deep. However, clay is much more reactive than sand, so it should be used sparingly and carefully. Clay must be moist during compaction to homogenise it.[13]
- **Rolled fill:** Fill is repeatedly compacted by an excavator, but this method of compaction is less effective than a vibrator or roller. Thus, the regulations on maximum depth are typically stricter.

Proper curing of ground-bearing concrete is necessary to obtain adequate strength. Since these slabs are inevitably poured on-site (rather than precast as some suspended slabs are), it can be difficult to control conditions to optimize the curing process. This is usually aided by a membrane, either plastic (temporary) or a liquid compound (permanent).[14]

Ground-bearing slabs are usually supplemented with some form of reinforcement, often steel rebar. However, in some cases such as concrete roads, it is acceptable to use an unreinforced slab if it is adequately engineered (

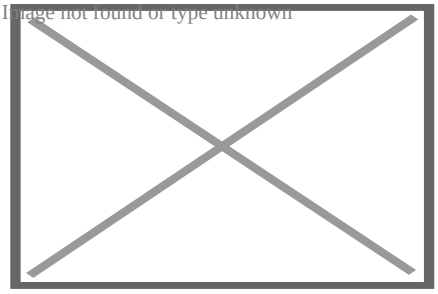
see below).

Suspended slabs

[edit]

For a suspended slab, there are a number of designs to improve the strength-to-weight ratio. In all cases the top surface remains flat, and the underside is modulated:

- A *corrugated slab* is designed when the concrete is poured into a corrugated steel tray, more commonly called decking. This steel tray improves strength of the slab, and prevents the slab from bending under its own weight. The corrugations run in one direction only.
- A *ribbed slab* gives considerably more strength in one direction. This is achieved with concrete beams bearing load between piers or columns, and thinner, integral ribs in the perpendicular direction. An analogy in carpentry would be a subfloor of bearers and joists. Ribbed slabs have higher load ratings than corrugated or flat slabs, but are inferior to waffle slabs.[15]
- A *waffle slab* gives added strength in both directions using a matrix of recessed segments beneath the slab.[16] This is the same principle used in the ground-bearing version, the waffle slab foundation. Waffle slabs are usually deeper than ribbed slabs of equivalent strength, and are heavier hence require stronger foundations. However, they provide increased mechanical strength in two dimensions, a characteristic important for vibration resistance and soil movement.[17]



The exposed underside of a waffle slab used in a multi-storey building

Unreinforced slabs

[edit]

Unreinforced or "plain"[18] slabs are becoming rare and have limited practical applications, with one exception being the mud slab (

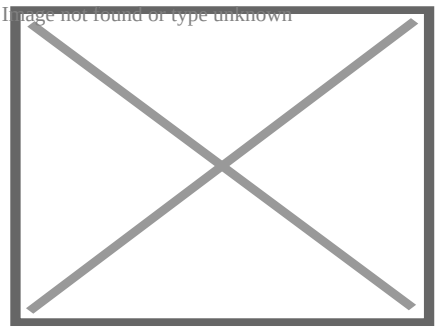
see below). They were once common in the US, but the economic value of reinforced ground-bearing slabs has become more appealing for many engineers.[10] Without reinforcement, the

entire load on these slabs is supported by the strength of the concrete, which becomes a vital factor. As a result, any stress induced by a load, static or dynamic, must be within the limit of the concrete's flexural strength to prevent cracking.[19] Since unreinforced concrete is relatively very weak in tension, it is important to consider the effects of tensile stress caused by reactive soil, wind uplift, thermal expansion, and cracking.[20] One of the most common applications for unreinforced slabs is in concrete roads.

Mud slabs

[edit]

Mud slabs, also known as *rat slabs*, are thinner than the more common suspended or ground-bearing slabs (usually 50 to 150 mm), and usually contain no reinforcement.[21] This makes them economical and easy to install for temporary or low-usage purposes such as subfloors, crawlspaces, pathways, paving, and levelling surfaces.[22] In general, they may be used for any application which requires a flat, clean surface. This includes use as a base or "sub-slab" for a larger structural slab. On uneven or steep surfaces, this preparatory measure is necessary to provide a flat surface on which to install rebar and waterproofing membranes.[10] In this application, a mud slab also prevents the plastic bar chairs from sinking into soft topsoil which can cause spalling due to incomplete coverage of the steel. Sometimes a mud slab may be a substitute for coarse aggregate. Mud slabs typically have a moderately rough surface, finished with a float.[10]



Substrate and rebar prepared for pouring a mud slab

Axes of support

[edit]

One-way slabs

[edit]

A *one-way slab* has moment-resisting reinforcement only in its short axis, and is used when the moment in the long axis is negligible.[23] Such designs include corrugated slabs and ribbed slabs. Non-reinforced slabs may also be considered one-way if they are supported on only two opposite sides (i.e. they are supported in one axis). A one-way reinforced slab may be stronger than a two-way non-reinforced slab, depending on the type of load.

The calculation of reinforcement requirements for a one-way slab can be extremely tedious and time-consuming, and one can never be completely certain of the best design.[*citation needed*] Even minor changes to the project can necessitate recalculation of the reinforcement requirements. There are many factors to consider during the structural structure design of one-way slabs, including:

- Load calculations
- Bending moment calculation
- Acceptable depth of flexure and deflection
- Type and distribution of reinforcing steel

Two-way slabs

[edit]

A *two-way slab* has moment resisting reinforcement in both directions.[24] This may be implemented due to application requirements such as heavy loading, vibration resistance, clearance below the slab, or other factors. However, an important characteristic governing the requirement of a two-way slab is the ratio of the two horizontal lengths. If $\displaystyle L_x$ is the short dimension and $\displaystyle L_y$ is the long dimension, then moment in both directions should be considered in design.[25] In other words, if the axial ratio is greater than two, a two-way slab is required.

A non-reinforced slab is two-way if it is supported in both horizontal axes.

Construction

[edit]

A concrete slab may be prefabricated (precast), or constructed on site.

Prefabricated

[edit]

Prefabricated concrete slabs are built in a factory and transported to the site, ready to be lowered into place between steel or concrete beams. They may be pre-stressed (in the factory), post-stressed (on site), or unstressed.[10] It is vital that the wall supporting structure is built to the correct dimensions, or the slabs may not fit.

On-site

[edit]

On-site concrete slabs are built on the building site using formwork, a type of boxing into which the wet concrete is poured. If the slab is to be reinforced, the rebars, or metal bars, are positioned within the formwork before the concrete is poured in.[26] Plastic-tipped metal or plastic bar chairs, are used to hold the rebar away from the bottom and sides of the form-work, so that when the concrete sets it completely envelops the reinforcement. This concept is known as concrete cover. For a ground-bearing slab, the formwork may consist only of side walls pushed into the ground. For a suspended slab, the formwork is shaped like a tray, often supported by a temporary scaffold until the concrete sets.

The formwork is commonly built from wooden planks and boards, plastic, or steel. On commercial building sites, plastic and steel are gaining popularity as they save labour.[27] On low-budget or small-scale jobs, for instance when laying a concrete garden path, wooden planks are very common. After the concrete has set the wood may be removed.

Formwork can also be permanent, and remain in situ post concrete pour. For large slabs or paths that are poured in sections, this permanent formwork can then also act as isolation joints within concrete slabs to reduce the potential for cracking due to concrete expansion or movement.

In some cases formwork is not necessary. For instance, a ground slab surrounded by dense soil, brick or block foundation walls, where the walls act as the sides of the tray and hardcore (rubble) acts as the base.

See also

[edit]

- Shallow foundation (Commonly used for ground-bearing slabs)
- Hollow-core slab (Voided slab, one-way spanning)
- Beam and block (voided slab, one way spanning)
- Voided biaxial slab (Voided slab, two-way spanning)
- Formwork
- Precast concrete
- Reinforced concrete
- Rebar

- Concrete cover

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[edit]

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- *Super Insulated Slab Foundations*
- *Design of Slabs on Ground* Archived 2021-05-08 at the Wayback Machine

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Concrete

History

- Ancient Roman architecture
- Roman architectural revolution
- Roman concrete
- Roman engineering
- Roman technology

Composition

- Cement
  - Calcium aluminate
  - Energetically modified
  - Portland
  - Rosendale
- Water
- Water–cement ratio
- Aggregate
- Reinforcement
- Fly ash
- Ground granulated blast-furnace slag
- Silica fume
- Metakaolin

Production

- Plant
- Concrete mixer
- Volumetric mixer
- Reversing drum mixer
- Slump test
- Flow table test
- Curing
- Concrete cover
- Cover meter
- Rebar

Construction

- Precast
- Cast-in-place
- Formwork
- Climbing formwork
- Slip forming
- Screed
- Power screed
- Finisher
- Grinder
- Power trowel
- Pump
- Float
- Sealer
- Tremie

Science

- Properties
- Durability
- Degradation
- Environmental impact
- Recycling
- Segregation
- Alkali–silica reaction

Types

- AstroCrete
- Fiber-reinforced
- Filigree
- Foam
- Lunarcrete
- Mass
- Nanoconcrete
- Pervious
- Polished
- Polymer
- Prestressed
- Ready-mix
- Reinforced
- Roller-compacting
- Self-consolidating
- Self-leveling
- Sulfur
- Tabby
- Translucent
- Waste light
- Aerated
  - AAC
  - RAAC

Applications

- Slab
  - waffle
  - hollow-core
  - voided biaxial
  - slab on grade
- Concrete block
- Step barrier
- Roads
- Columns
- Structures

Organizations	○ American Concrete Institute ○ Concrete Society ○ Institution of Structural Engineers ○ Indian Concrete Institute ○ Nanocem ○ Portland Cement Association ○ International Federation for Structural Concrete
Standards	○ Eurocode 2 ○ EN 197-1 ○ EN 206-1 ○ EN 10080
See also	○ Hempcrete

○ Image not found or type unknown Category:Concrete

About Water damage

Globe icon. Image not found or type unknown The examples and perspective in this article **may not represent a worldwide view of the subject**. You may improve this article, discuss the issue on the talk page, or create a new article, as appropriate. *(March 2011) (Learn how and when to remove this message)*

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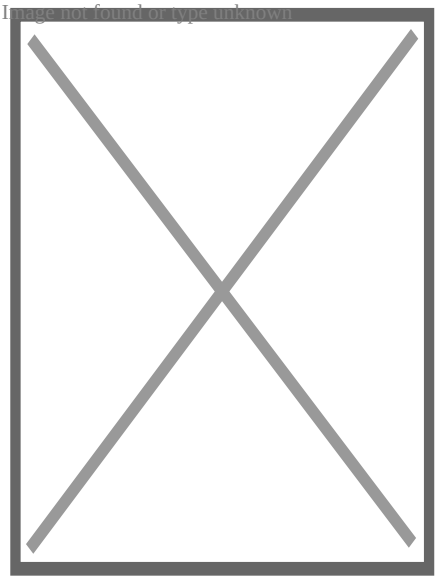

Interior of part of a damaged home in New Orleans after Hurricane Katrina

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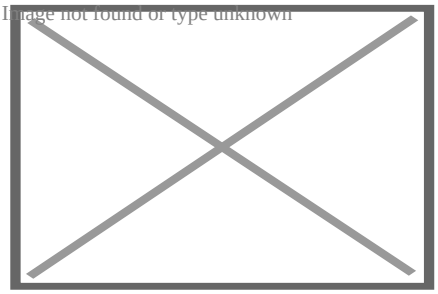

Family photographs damaged by flooding

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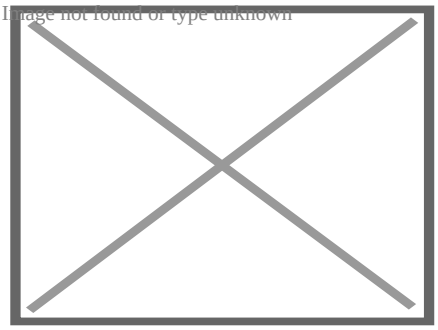

A smaller and more minor water spot caused by rainwater leaking through a roof

Water damage describes various possible losses caused by water intruding where it will enable attack of a material or system by destructive processes such as rotting of wood, mold growth, bacteria growth, rusting of steel, swelling of composite woods, de-laminating of materials such as plywood, short-circuiting of electrical devices, etc.

The damage may be imperceptibly slow and minor such as water spots that could eventually mar a surface, or it may be instantaneous and catastrophic such as burst pipes and flooding. However fast it occurs, water damage is a major contributor to loss of property.

An insurance policy may or may not cover the costs associated with water damage and the process of water damage restoration. While a common cause of residential water damage is often the failure of a sump pump, many homeowner's insurance policies do not cover the associated costs without an addendum which adds to the monthly premium of the policy. Often the verbiage of this addendum is similar to "Sewer and Drain Coverage".

In the United States, those individuals who are affected by wide-scale flooding may have the ability to apply for government and FEMA grants through the Individual Assistance program.[1] On a larger level, businesses, cities, and communities can apply to the FEMA Public Assistance program for funds to assist after a large flood. For example, the city of Fond du Lac Wisconsin received $1.2 million FEMA grant after flooding in June 2008. The program allows the city to purchase the water damaged properties, demolish the structures, and turn the former land into public green space.[*citation needed*]

Causes

[edit]

Water damage can originate by different sources such as a broken dishwasher hose, a washing machine overflow, a dishwasher leakage, broken/leaking pipes, flood waters, groundwater seepage, building envelope failures (leaking roof, windows, doors, siding, etc.) and clogged toilets. According to the Environmental Protection Agency, 13.7% of all water used in the home today can be attributed to plumbing leaks.[2] On average that is approximately 10,000 gallons of water per year wasted by leaks for each US home. A tiny, 1/8-inch crack in a pipe can release up to 250 gallons of water a day.[3] According to *Claims Magazine* in August 2000, broken water pipes ranked second to hurricanes in terms of both the number of homes damaged and the amount of claims (on average $50,000 per insurance claim[*citation needed*]) costs in the US.[4] Experts suggest that homeowners inspect and replace worn pipe fittings and hose connections to all household appliances that use water at least once a year. This includes washing machines, dishwashers, kitchen sinks, and bathroom lavatories, refrigerator icemakers, water softeners, and humidifiers. A few US companies offer whole-house leak protection systems utilizing flow-based technologies. A number of insurance companies offer policyholders reduced rates for installing a whole-house leak protection system.

As far as insurance coverage is concerned, damage caused by surface water intrusion to the dwelling is considered flood damage and is normally excluded from coverage under traditional homeowners' insurance. Surface water is water that enters the dwelling from the surface of the ground because of inundation or insufficient drainage and causes loss to the dwelling. Coverage for surface water intrusion[5] to the dwelling would usually require a separate flood insurance policy.

Categories

[edit]

There are three basic categories of water damage, based on the level of contamination.

Category 1 Water - Refers to a source of water that does not pose substantial threat to humans and classified as "**clean water**". Examples are broken water supply lines, tub or sink overflows or appliance malfunctions that involves water supply lines.

Category 2 Water - Refers to a source of water that contains a significant degree of chemical, biological or physical contaminants and causes discomfort or sickness when consumed or even exposed to. Known as "**grey water**". This type carries microorganisms and nutrients of micro-organisms. Examples are toilet bowls with urine (no feces), sump pump failures, seepage due to hydrostatic failure and water discharge from dishwashers or washing machines.

Category 3 Water - Known as "**black water**" and is grossly unsanitary. This water contains unsanitary agents, harmful bacteria and fungi, causing severe discomfort or sickness. Type 3 category are contaminated water sources that affect the indoor environment. This category includes water sources from sewage, seawater, rising water from rivers or streams, storm surge, ground surface water or standing water. Category 2 Water or Grey Water that is not promptly removed from the structure and or have remained stagnant may be re classified as Category 3 Water. Toilet back flows that originates from beyond the toilet trap is considered black water contamination regardless of visible content or color.[6]

Classes

[edit]

Class of water damage is determined by the probable rate of evaporation based on the type of materials affected, or wet, in the room or space that was flooded. Determining the class of water damage is an important first step, and will determine the amount and type of equipment utilized to dry-down the structure.[7]

Class 1 - Slow Rate of Evaporation. Affects only a portion of a room. Materials have a low permeance/porosity. Minimum moisture is absorbed by the materials. **IICRC s500 2016 update adds that class 1 be indicated when <5% of the total square footage of a room (ceiling+walls+floor) are affected **

Class 2 - Fast Rate of Evaporation. Water affects the entire room of carpet and cushion. May have wicked up the walls, but not more than 24 inches. **IICRC s500 2016 update adds that class 2 be indicated when 5% to 40% of the total square footage of a room (ceiling+walls+floor) are affected **

Class 3 - Fastest Rate of Evaporation. Water generally comes from overhead, affecting the entire area; walls, ceilings, insulation, carpet, cushion, etc. **IICRC s500 2016 update adds that class 3 be indicated when >40% of the total square footage of a room (ceiling+walls+floor) are affected **

Class 4 - Specialty Drying Situations. Involves materials with a very low permeance/porosity, such as hardwood floors, concrete, crawlspaces, gypcrete, plaster, etc. Drying generally requires very low specific humidity to accomplish drying.

Restoration

[edit]
See also: Convectant drying

Water damage restoration can be performed by property management teams, building maintenance personnel, or by the homeowners themselves; however, contacting a certified professional water damage restoration specialist is often regarded as the safest way to restore water damaged property. Certified professional water damage restoration specialists utilize psychrometrics to monitor the drying process.[8]

Standards and regulation

[edit]

While there are currently no government regulations in the United States dictating procedures, two certifying bodies, the Institute of Inspection Cleaning and Restoration Certification (IICRC) and the

RIA, do recommend standards of care. The current IICRC standard is ANSI/IICRC S500-2021.[9] It is the collaborative work of the IICRC, SCRT, IEI, IAQA, and NADCA.

Fire and Water Restoration companies are regulated by the appropriate state's Department of Consumer Affairs - usually the state contractors license board. In California, all Fire and Water Restoration companies must register with the California Contractors State License Board.[10] Presently, the California Contractors State License Board has no specific classification for "water and fire damage restoration."

Procedures

[edit]

Water damage restoration is often prefaced by a loss assessment and evaluation of affected materials. The damaged area is inspected with water sensing equipment such as probes and other infrared tools in order to determine the source of the damage and possible extent of areas affected. Emergency mitigation services are the first order of business. Controlling the source of water, removal of non-salvageable materials, water extraction and pre-cleaning of impacted materials are all part of the mitigation process. Restoration services would then be rendered to the property in order to dry the structure, stabilize building materials, sanitize any affected or cross-contaminated areas, and deodorize all affected areas and materials. After the labor is completed, water damage equipment including air movers, air scrubbers, dehumidifiers, wood floor drying systems, and sub-floor drying equipment is left in the residence. The goal of the drying process is to stabilize the moisture content of impacted materials below 15%, the generally accepted threshold for microbial amplification. Industry standards state that drying vendors should return at regular time intervals, preferably every twenty-four hours, to monitor the equipment, temperature, humidity, and moisture content of the affected walls and contents.[6] In conclusion, key aspects of water damage restoration include fast action, adequate equipment, moisture measurements, and structural drying. Dehumidification is especially crucial for structural components affected by water damage, such as wooden beams, flooring, and drywall.

See also

[edit]

- Indoor mold

References

[edit]

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2. **^** *"How We Use Water". 16 January 2017.*
3. **^** The University of Maine Corporate Extension – www.umext.maine.edu

4. ^ *Herndon Jr., Everette L.; Yang, Chin S. (August 2000). "Mold & Mildew: A Creeping Catastrophe". Claims Magazine. Archived from the original on 2000-08-15. Retrieved November 4, 2016.*
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10. ^ *"California Contractors State License Board". State of California. Retrieved 2010-08-29.*

About Cook County

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Things To Do in Cook County

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Sand Ridge Nature Center

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River Trail Nature Center

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Palmisano (Henry) Park

4.7 (1262)

Driving Directions in Cook County

Driving Directions From Palmisano (Henry) Park to

Driving Directions From Lake Katherine Nature Center and Botanic Gardens to

Driving Directions From Navy Pier to

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Reviews for

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Jeffery James

(5)

Very happy with my experience. They were prompt and followed through, and very helpful in fixing the crack in my foundation.

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Sarah McNeily

(5)

USS was excellent. They are honest, straightforward, trustworthy, and conscientious. They thoughtfully removed the flowers and flower bulbs to dig where they needed in the yard, replanted said flowers and spread the extra dirt to fill in an area of the yard. We've had other services from different companies and our yard was really a mess after. They

kept the job site meticulously clean. The crew was on time and friendly. I'd recommend them any day! Thanks to Jessie and crew.

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Jim de Leon

(5)

It was a pleasure to work with Rick and his crew. From the beginning, Rick listened to my concerns and what I wished to accomplish. Out of the 6 contractors that quoted the project, Rick seemed the MOST willing to accommodate my wishes. His pricing was definitely more than fair as well. I had 10 push piers installed to stabilize and lift an addition of my house. The project commenced at the date that Rick had disclosed initially and it was completed within the same time period expected (based on Rick's original assessment). The crew was well informed, courteous, and hard working. They were not loud (even while equipment was being utilized) and were well spoken. My neighbors were very impressed on how polite they were when they entered / exited my property (saying hello or good morning each day when they crossed paths). You can tell they care about the customer concerns. They ensured that the property would be put back as clean as possible by placing MANY sheets of plywood down prior to excavating. They compacted the dirt back in the holes extremely well to avoid large stock piles of soils. All the while, the main office was calling me to discuss updates and expectations of completion. They provided waivers of lien, certificates of insurance, properly acquired permits, and JULIE locates. From a construction background, I can tell you that I did not see any flaws in the way they operated and this an extremely professional company. The pictures attached show the push piers added to the foundation (pictures 1, 2 & 3), the amount of excavation (picture 4), and the restoration after dirt was placed back in the pits and compacted (pictures 5, 6 & 7). Please notice that they also sealed two large cracks and steel plated these cracks from expanding further (which you can see under my sliding glass door). I, as well as my wife, are extremely happy that we chose United Structural Systems for our contractor. I would happily tell any of my friends and family to use this contractor should the opportunity arise!

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Chris Abplanalp

(5)

USS did an amazing job on my underpinning on my house, they were also very courteous to the proximity of my property line next to my neighbor. They kept things in order with all the dirt/mud they had to excavate. They were done exactly in the timeframe they indicated, and the contract was very details oriented with drawings of what would be done. Only thing that would have been nice, is they left my concrete a little muddy with boot prints but again, all-in-all a great job

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Dave Kari

(5)

What a fantastic experience! Owner Rick Thomas is a trustworthy professional. Nick and the crew are hard working, knowledgeable and experienced. I interviewed every company in the area, big and small. A homeowner never wants to hear that they have foundation issues. Out of every company, I trusted USS the most, and it paid off in the end. Highly recommend.

Exploring Available Options for Warranty Transfers**View GBP**

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- **Assessing Elevation Changes with Precision Tools**
- **Visual Inspection Methods for Early Problem Detection**
- **Understanding the Scope of Foundation Repair Guarantees**
- **Examining Conditions That Void Certain Warranties**

Frequently Asked Questions

If the warranty is transferable, what is the process to transfer it?**

Typically, the process involves notifying the foundation repair company about the sale of your home and providing them with the new homeowners information. There may be a transfer fee involved; usually there will also need paperwork completed by both parties involved; again verify with service provider directly what their exact policy is regarding warranty transfers during home sales scenarios . Always ensure this process is completed during escrow so all documentation exchanges hands at closing without issues arising afterward due missed steps along way which could cause delays later down line post purchase date occurs either . Most importantly inform new homeowners upfront ahead time too making sure receive copy transferred warranty papers once deal finalized goes through successfully without hiccup! . Early communication ensures smooth transition overall keeping peace mind knowing protected covered moving forward future repairs needed possible arise unexpectedly anytime afterwards . Think ahead plan accordingly guiding everyone involved smoothly wrapping things nicely neatly tied bow end !!! :) :) :) Woot Woot !! High five!!! #winning #teamwork #communicationiskeytomissionaccomplishedgoals !!!!! ;-) ;-) ;-) :D :D :D #smileyfacesfordaysssss #gratitudemattersalwaysstriveforbestoutcomespossiblebeyondamazeamazeballsincredibleojsimpleasthes Booyahhhhhh !! Lol lol lol jajajaja ahahahaha tehehehe gigglesnortschucklewoohoooohooooooo yipppppeeeee huzzahhhhh yaaaaayyyyy hurrahrrrahhhh taadddaaaa bammm wholloppow zzzzooppp zzzzzziiinnnggg whizbangzoom kapow kerrrpow badoosh kerrrplunkkerr splash zzzzzzwooooshhh pssshewww bbbbooooommmmm earthshatteringmindblowinglyawesome fantabulous spectacular stupendous magnifique brilliante genial sensationallysuperbfantasticallymiraculouslymagical !! OkieDokieArtichokie !!!!!!!!!!!!!!! Wheweee!!!!! Phew!! OhMyGoodnessMeOhMy !! Blessings Abound In Joy Love Peace Harmony Tranquility Properity HappyHealthiness WellBeings DelightfullyGrateful Bountiful Beautiful Lives Together Unified Whole Complete Oneness

Interconnected Calm Cool Collected Centered Grounded Heavenly Bliss EternallyGrateful Forevermore AndEverlasting Infinity Times Ten Zillion Billion Trillion Gazillion AndBeyond MoreAstonishinglyPhenomenalEnchantinglyMagical !! HipHipHoorayHoorahHuzzahYaYaYippeee !!!!!!!!!! YeeeeHawwwww !! WooopWooopWooppppppeeeeYaaayyyyyooooo YeahhhhhBuddehhhyyyyWhooopppiieeeeYiippppeeeeeWahoooo

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