I'm not a robot

WoodWorks is your go-to resource for commercial and multi-family wood building design, engineering, and construction. Were here to support you with free one-on-one project assistance, continuing education, design tools, and on-demand resources. Get to Know Us Northlake Commons / Weber Thompson / DCI Engineers / Photo FLOR Projects, Timberlab / View the case study by Chris Woodford. Last updated: November 12, 2022. There's plenty of it, it's relatively cheap (or even free), it'senvironmentally friendly, it looks great, it's warm and cozy, it'ssuper-strong, it lasts hundreds or even thousands of years, and youcan use it for everything from building bridges to makingpaper or heating your home. It's woodand it's quite possibly the most usefuland versatile material on the planet, with many thousands ofdifferent uses. So what is it that makes wood so good? Let's take acloser look! Photo: Wood really does grow onor rather intrees. Who'd have thought you could make a lovely coffee table or a fruit bowl from a gnarled old specimen like this? The outer part of a tree trunk might look dead, but it's very much alive: tree trunks grow outward (getting wider) as well as upward (getting higher). Contents You often hear people grumbling about money and all kinds of other things that "don't grow on trees"; the great thing about wood is that itdoes grow on treesor, more specifically, in their trunks and branches. Structure of wood Photo: This fence pole was once a treeand you can still clearly see the annual growth rings if you look down on it from above. Take a tree and peel off the outer "skin" or bark and what you'll findis two kinds of wood. Closest to the edge there's a moist, light,living layer called sapwood packed with tubes called xylemthat help a tree pipe water and nutrients up from its roots to itsleaves; inside the sapwood there's a much darker, harder, part of the treecalled the heartwood, which is dead, where the xylem tubeshave blocked up with resins or gums and stopped working. Around theouter edge of the sapwood (and the trunk) is a thin active layercalled the cambium where the tree is actually growing outwardby a little bit each year, forming those famous annual ringsthat tell us how old a tree is. Slice horizontally through a tree,running the saw parallel to the ground (perpendicular to the trunk),and you'll see the annual rings (one new one added each year) makingup the cross-section. Cut vertically through a tree trunk and you'llsee lines inside running parallel to the trunk formed by the xylemtubes, forming the inner structure of the wood known as its grain.You'll also see occasional wonky ovals interrupting the grain calledknots, which are the places where the branches grew out fromthe trunk of a tree. Knots can make wood look attractive, but theycan also weaken its structure. Photo: Every piece of wood is unique. Burls (knotty deformed growths) are often used to make highly decorative things like this staircase at Twin Pines Lodge in Dubois, Wyoming. Photo by Carol M. Highsmith, courtesy of Gates Frontiers Fund Wyoming Collection within the Carol M. Highsmith Archive, US Library of Congress Prints and Photographs Division. Hardwoods and softwoods Wood is divided into two distinct kinds called hardwood and softwood,though confusingly the names don't always refer to its actualhardness or softness:Hardwoods typically comefrom broad-leaved (deciduous) trees (those that drop their leaveseach fall, also known as angiosperms because their seeds are encasedin fruits or pods). Examples include ash, beech, birch, mahogany, maple,oak, teak, and walnut.Softwoods typically come from evergeen(coniferous) trees (those that have needles and cones and retain themyear-round, also called gymnosperms. Examples include cedar, cypress, fir,pine, spruce, and redwood.Photo: Left/above: Hardwood comes from deciduous trees like this oak. Its leaves (inset) drop off in the fall and new ones grow in spring. Photo: Right/below: Softwood comes from evergreen conifers, like this pine, which has needles that stay on all year and cones (inset). It's generally true that hardwoods areharder than softwoods, but not always. Balsa is the best-knownexample of a hardwood that is actually very soft. Hardwoods havelovely, attractive grains and are used for such things as making finefurniture and decorative woodwork, whereas softwoods often come from verytall, straight trees, and are better suited for construction work (in the form of planks, poles, and so on). Chemical composition Look at some freshly cut wood under a microscope and you'll see it's made up ofcells, like any other plant. The cells are made of three substancescalled cellulose (about 50 percent), lignin (whichmakes up a fifth to a quarter of hardwoods but a quarter to a thirdof softwoods), and hemicellulose (the remainder). Broadlyspeaking, cellulose is the fibrous bulk of a tree, while lignin is theadhesive that holds the fibers together. What's wood like? The inner structure of a tree makes wood what it iswhat it looks like,how it behaves, and what we can use it for. There are actuallyhundreds of different species of trees, so making generalizationsabout something called "wood" isn't always that helpful: balsawood is different from oak, which isn't quite the same as hazel, which isdifferent again from walnut. Having said that, different types ofwood have more in common with one another than with, say,metals,ceramics, and plastics. Strength Photo: Trees are strong partly because of roots like these thatanchor them in the ground, but also because wood is inherently a strong material. This is the famous Moreton Bay Fig Tree in Santa Barbara, California dates from 1876and is around 24m (80ft) tall. Photo courtesy of The Jon B. Lovelace Collection of California Photographs in Carol M. Highsmith's America Project, Library of Congress,Prints and Photographs Division. Physically, wood is strong and stiff but, compared to a material likesteel, it'salso light and flexible. It has another interesting property too.Metals, plastics, and ceramics tend to have a fairly uniform innerstructure and that makes them isotropic: they behave exactlythe same way in all directions. Wood is different due to itsannual-ring-and-grain structure. You can usually bend and snap a small, dead, tree branch withyour bare hands, but you'll find italmost impossible to stretch or compress the same branch if you trypulling or pushing it in the opposite direction. The same holds whenyou're cutting wood. If you've ever chopped wood with an ax, you'llknow it splits really easily if you slice with the blade along thegrain, but it's much harder to chop the opposite way (through thegrain). We say wood is anisotropic, which means a lump of woodhas different properties in different directions. Photo: Wood is a traditional building material, as popular today as ever. Because wood is anisotropic, natural wooden beams work better resisting vertical, squashing forces (where they are in compression) than horizontal, bending ones (where they are in tension). Here, strong diagonal beams add further strength. Photo by Carol M. Highsmith from the Carol M. Highsmith Archive, courtesy of US Library of Congress Prints and Photographs Division. That's not just important to someone chopping away in the woodshed: it alsomatters when you're using wood in construction. Traditional woodenbuildings are supported by huge vertical poles that transmit forcesdown into the ground along their length, parallel to the grain.That's a good way to use wood because it generally has highcompressive strength (resistance to squeezing)when you load it in the same direction as the grain. Wooden poles are much weaker placedhorizontally; they need plenty of support to stop them bending andsnapping. That's because they have lower tensile strength(resistance to bending or pulling forces across the grain). Not all woods are the same,however. Oak has much higher tensile strength than many other woods,which is why it was traditionally used to make the heavy, horizontal beamsin old buildings. Other factors such as how well seasoned (dry) apiece of wood is (as discussed below) and how dense it is also affectits strength. Chart: Wood can be very weak. In tension (for example, stretched horizontally in struts or beams), it's one of the weakest of all common materials. That's why it's more likely to be used in compression (in vertical beams), where it's very much stronger. (Concrete suffers from the same problem, which it's why it's often reinforced with steel.)All woods are different, and vary with atmospheric conditions, but typically they're 1030 times stronger when compressive forces push or pull them in the longitudinal direction compared to when tensile forces act in the radial direction (see the inset picture of a tree trunk for an explanation of these terms). Durability One of the best things about wood is how long it lasts. Browsing through thedaily news, you'll often read that archeologists have unearthed theburied remains of some ancient wooden articlea wooden tool,perhaps, or a simple rowboat or the remnants of a huge buildingthatare hundreds or even thousands of years old. Providing a woodenobject is properly preserved (something else we discuss later), itwill easily outlast the person who made it. But just like thatperson, a wooden object was once a living thingand it's anatural material. Like other natural materials, it's subject to thenatural forces of decay through a process known as rotting, inwhich organisms such as fungi and insects such as termites andbeetles gradually nibble away the cellulose and lignin and reducewood to dust and memories. Photo: Under attack! The big problem with wood is that it's a natural material subject to attackfrom other natural things, notably fungi and insects. This is what Formosan subterranean termites can do to wood.Photo by Scott Bauer courtesy of US Department of Agriculture/AgriculturalResearch Service. Wood and water Wood has many other interesting characteristics. It's hygroscopic,which means that, just like a sponge, it absorbs water and swells upin damp conditions, giving out the water again when the air dries andthe temperature rises. If, like mine, your home has wooden windows,you'll probably notice that they open much more easily in summerthan in winter, when the damp outdoor conditions make them swellinto the frames (not necessarily such a bad thing, since it helps tokeep out the cold). Why does wood absorb water? Remember that thetrunk of a tree is designed to carry water from the roots to theleaves: it's pretty much a water superhighway. A freshly cut piece of"green" wood typically contains a huge amount of hidden water,making it very difficult to burn as firewood without a great deal ofsmoking and spitting. Some kinds of wood can soak up several timestheir own weight of water, which is absorbed inside the wood by thevery same structures that transported water from the roots of thetree to the leaves when the tree was a living, growing plant. Wood and energy What other properties does wood have? It's a relatively goodheat insulator (which comes in handy in building construction), but drywood does burn quite easily and produces a great deal of heat energyif you heat it up beyond its ignition temperature (the point at whichit catches fire, anywhere from around 200400C, 400750F). Although wood can absorb sound veryeffectively (another useful property in buildings, where people valuesound insulation shutting out their neighbors), wooden objects canalso be designed to transmit and amplify soundsthat's how musicalinstruments work. Wood is generally a poor conductor of electricitybut, interestingly, it's piezoelectric (an electric chargewill build up on wood if you squeeze it the right way). Environmentally friendly Photo: Wood fuel (a type of biomass) can be an environmentally friendly form of renewable energy. This is a power plant in Burlington Vermont that burns 76 tons of wood chips per hour (left) to make electric power.The wood is mostly grown within 100km (60 miles) of the plant, and a lot comes from wood industry offcutsand logging waste. Photo by Warren Gretz courtesy of US DOE/NREL (US Department of Energy/National Renewable Energy Laboratory). Wood was one of the first natural materials people learned to use, and it'snever lost its popularity. These days, it's particularly prized forbeing a natural and environmentally friendly product. Forestry is a rare example of something that has the potential to be completelysustainable: in theory, if you plant a new tree for every old tree youcut down, you can go on using wood forever without damaging theplanet. In practice, you need to replace like with like and forestryis not automatically sustainable, whatever papermakers like us tobelieve. A brand new tree has much less ecological value than amature tree that's hundreds of years old so planting a thousandsaplings may be no replacement for felling just a handful ofancient trees. Logging can be hugely environmentally damaging, whether it involves clearcutting a tropical rainforest or selectivelyfelling mature trees in old-growth temperate woodland. Some of theprocesses and chemicals used in forestry and woodworking are alsoenvironmentally damaging;chlorine, used to bleach wood fibers to make paper,can cause water pollution in rivers, for example. But on the positive side, growing trees remove carbon dioxide from the atmosphere and planting more ofthem is one way to reduce the effects of climate change. Trees alsoprovide important habitats for many other species and help toincrease biodiversity (the wide range of living organisms onEarth). Practiced the right way, forestry is a good example of howpeople can live in perfect harmony with the planet. Another great advantage of wood is that it naturally biodegrades. Where plasticscan persist in the environment for hundreds of years, wood naturally recycles itself. Wood can start to rot away in a matter of months when it gets wet and starts to be eaten away by fungi. As we'll see in a moment, this can be a major problem:wooden buildings and structures, such as fences, will rot away in time unless you take steps to preserve them. Wood is also easy to reuse and recycle. Wood originally used for one purpose (old railway track sleepers or scaffold boards) can easily be cleaned up, restored, and used elsewhere (as raised beds in gardens, building cladding, garden chippings, or whatever). Using wood How does wood get from the tree to the roof of your house, your bookshelf, orthe chair you're sitting on? It's a longer and more complex journeythan you might think that takes in harvesting, seasoning, preservingand other treatment, and cutting. Here's a brief guide. Harvesting Photo: Chopping down a longleaf pine is only the start of the fun: now you've got to get it home preferablywithout damaging the rest of the forest in the process. That's where this skidder machine comes in,lifting up the logs with a hydraulic craneand dragging them away with a powerful diesel engine.Photo by Randy C. Murray courtesy of US Army. Growing plants for food is called agriculture; growing trees for human use is silvicultureandthe two things have a great deal in common. Wood is a plant crop thatmust be harvested just like any other, but the difference is how longtrees take to grow, often many years or even decades. How wood isharvested depends on whether trees are growing in plantations (wherethere are hundreds or thousands of the same species, generally of similar age) or in matureforests (where there's a mixture of different species and trees ofwidely differing ages). Planted trees may be grown according to aprecise plan and clear-cut (the entire forest is felled) whenthey reach maturity. A drastic approach like that makes sense if thetrees are a fast-growing species planted specifically for use asbiomass fuel, for example. Individual trees can also beselectively felled from mixed forests and either dragged away by machine oranimal or even (if it makes economic and environmental sense) hauledupward by helicopter, which avoids damaging other nearby trees.Sometimes trees have their bark and small branches removed in theforest before being hauled away to a lumber yard for furtherprocessing, though they can also be removed intact, with the entireprocessing done offsite. It all depends on the value of the tree, the growingconditions, how far away the lumber yard is, and how easy the tree isto transport. Another interesting form of forestry is calledcoppicing, which involves removing long, thin, low-growingbranches from trees such as hazel and willow in a careful andrespectful way that does no long-term damage. Photo: These cottonwood trees might look too spindly for making poles or planks, but they'll not be usedfor either. They're part of a fast-growing plantation that produces biomass,a type of renewable energy burned in power plants.Biomass is better for the environment because the trees take in as much carbon dioxide when they growas they give out when they're burned; leaving aside the energy wasted in harvesting and processing,a biomass plant produces no overall carbon dioxide emissions, unlike a traditional power plant fueled by oil or coal.Other "energy crops" include willow, poplar, and eucalyptus. Photo by Warren Gretz courtesy ofUS DOE/NREL (Department of Energy/National Renewable Energy Laboratory). Seasoning A freshly cut tree is a bit like a sponge that comes presoaked inwater, so it has to be completely dried out or seasoned beforeit can be used. Dry wood is less likely to rot and decay, it's easierto treat with preservatives and paint, and it's much lighter andeasier to transport (typically, half a freshly felled tree's weightmay come from water trapped inside). Dry wood is also much strongerand easier to build with (it won't shrink so much) and if a tree isdestined for burning as firewood (or an energy crop), it will burnmore easily and give out more heat if it's properly dried first.Typically wood is dried either in the open air (which takes anythingfrom a few months to a year) or, if speed is important, in vastheated ovens called kilns (which cuts the drying time to days orweeks). Seasoned wood is still not completely dry: typically itsmoisture content varies from about 520 percent, depending on thedrying method and time. Preserving and other treatment In theory, wood might last forever if it weren't attacked by bugs andbacteria; preservatives can greatly extend its life by preventingrot. Different preservatives work in different ways. Paint,for example, works like an outer skin that stops fungi and insectspenetrating the wood and eating it away, but sunlight and rain makepaint crack and flake away, leaving the wood open to attackunderneath. Creosote (historically, the most popular wood preservative) is astrong-smelling, oily brown liquid usually made from coal-tar. Unlike paint,it is a fungicide, insecticide, miticide, and sporicide: in other words, it worksby stopping fungi, insects, mites, and spores fromeating or growing in the wood. There is some controversy about its potential environmental effects and there are many alternatives. Photo: A fence before (right) and after (left) treatment with wood preservative. Different kinds of treatment help to protect and preserve wood in other ways.It's a great irony that wood can be used to build a fine home thatwill last many decades or burn to the ground in minutes. Wood is soplentiful and burns so well that it has long been one of the world'sfavorite fuels. That's why fire-protection treatment of woodenbuilding products is so important. Typically, wood is treated withfire retardant chemicals that affect the way it burns if it catchesfire, reducing the volatile gases that are given off so it burns moreslowly and with greater difficulty. Cutting There's a big difference between a tree and the table it might become, even thoughboth are made from exactly the same wood. That difference comesmainly from skillful cutting and woodworking. How much cuttinga tree needs depends on the product that's being made. Something likea utility pole or a fence post is not much more than a tree strippedof its branches and heavily treated with preservatives; that's anexample of what's called roundwood. Trees need a bit more workin the sawmill to turn them into lumber, timber, orsawnwood (the three names are often used interchangeably,though they can be used with more specific meanings). Flat pieces ofwood can be made from trees by cutting logs in two differentdirections. If you cut planks with the saw running in lines parallel to the length of the trunk,you get plainsawn (sometimes called flatsawn) wood (with ovals or curveson the biggest flat surface of the wood); if you fell a tree, cut the trunk into quarters, then slice each quarter into parallel planks, you get quartersawn wood (with thegrain running along the biggest flat surface in broadly parallel stripes). Photo: Left/above: Plainsawn wood is parallel to the trunk, revealing the annual rings as curves or ovals. Right/below: Quartersawn wood is first quartered and then sawn, revealing a pattern of roughly parallel lines. See how attractive those patterns look? Not surprisingly, wood that's destined for furniture and other decorativeuses has to be cut much more thoughtfully and carefully with regardto what's called its figure. This is the way a particular treeis cut to show off the growth patterns it contains in the mostattractive way in the final piece of wood. The figure can also dependon which part of a tree is used. Wood cut from near the stump of atree will sometimes produce a more attractive figure than wood cutfrom higher up. Other wood products Photo: Particle board is made from offcuts of wood stuck together and coated with an attractive veneer or other surface layer (perhaps plastic or a laminate). This is what an Ikea Billy bookcase looks like if you peer round the back. You can see the veneer on the extreme left and a hardwood backing on the right. Roundwood and sawnwood are what you might call natural wood products, becausethey involve using cut pieces of tree more or less in raw form. Thereare many other ways of using trees that involve greater amounts ofprocessing. Some woods are very rare and expensive, while others are cheap and plentiful,so a common technique is to apply an outer layer of expensive and attractive wood to a core ofcheaper material. Veneer is a thin decorative layer applied to cheaperwood made by turning a log against a blade, much likepeeling an apple. Using veneer means you can get an attractive woodenfinish at much lower cost than by using a solid piece of expensivewood. Plywood is made by taking layers of wood (or plies) andgluing them together with an outer coating of veneer. Typically eachply is placed at 90 degrees to the one underneath so the grainsalternate. That means a piece of plywood is usually much strongerthan a piece of the natural wood from which it's made. Laminatedwood is a weaker kind of plywood in which the grain of each layerruns in the same direction. Particle board (often calledchipboard) is made by taking the waste chips, flakes, andsawdust from a mill and forcing it under high pressure, with glue, ina mold so it sticks together to make planks and panels. Low-cost andself-assembly furniture is often made this way. Fiber-board issimilar, but made with wood-pulp fibers instead of wood chips andsawdust. Hardboard is a thin sheet of wood made from wood fibers in muchthe same way. Not all wood products are immediately recognizable as such. A great deal ofthe paper and cardboard people use is made by turning cellulose fromtrees into a fibrous pulp, for example. Lignin (the other mainchemical inside wood) also has many uses, including making plastics(such as the celluloid used in old-fashioned photographic film),paints, turpentine, and yeast products. Chris Woodford is the author and editor of dozens of science and technology books for adults and children, including DK's worldwide bestselling Cool Stuff series and Atoms Under the Floorboards, which won the American Institute of Physics Science Writing award in 2016. You can hire him to write books, articles, scripts, corporate copy, and more via his website chriswoodford.com. Understanding the differences between wood species is necessary for construction projects where you need extremely durable materials, and it's also helpful for less intense outdoor projects. Grace Cary / Getty Images From dining tables to musical instruments, wood is everywhere. But not all wood is created equal. The types of wood you choose can affect a products strength, appearance, durability and cost. Whether you're building furniture, framing a house or choosing outdoor materials, understanding wood types is essential. Oak tree trunk. MirageC / Getty Images Oak is a classic choice for both furniture and flooring. Red oak features an open grain pattern and a reddish brown hue, while white oak has fairly high shrinkage and is naturally resistant to moisture. Both types are hardwoods, making them ideal materials for projects that demand structural integrity. Cherry wood surface. Brand X Pictures / Getty Images Loved for its warm, reddish brown color and smooth finish, cherry wood develops a rich patina over time. It has a tight grain and smooth surface, which makes it a popular choice for high end furniture and cabinets. Pre-conditioning helps it accept stains for a refined, finished piece. Maple wood background. ultramarinfoto / Getty Images Hard maple and soft maple both come from deciduous trees, but hard maple is denser and has exceptional strength. Soft maple, with its finer grain and light brown to golden brown tones, is easier to work with and still strong enough for most hardwood applications. Maple is often used for flooring, cutting boards, and even bowling alleys. Mahogany tree. Eko Prasetyo / Getty Images Mahogany is one of the more expensive woods, known for its deep color, close grain and smooth surface. Its used in high end furniture, musical instruments and decorative veneers. Its uniform appearance and aesthetic appeal make it a favorite among woodworkers. Teak wood. billnoll / Getty Images Teak (Tectona grandis) is the go-to for outdoor furniture thanks to its natural resistance to rot and insects. Its high oil content, remarkable strength and resistance to rot also gave it a reputation in the English Royal Navy. Though pricey, its durability and fire resistance make it worth the investment for outdoor use by many homeowners. Cedar tree. Jackyenjoyphotography / Getty Images White cedar is a versatile softwood prized for its lightweight nature and natural resistance to decay. Its a suitable material for outdoor applications like siding, window frames and garden structures. Eastern red cedar has a distinctive grain and a pleasant scent, making it a favorite for chests and closets. Not as well-known as other hardwoods, Mindi wood features a straight grain and yellowish brown tone. Its lightweight, easy to shape with sharp tools and often used in furniture construction for its stability and aesthetic appeal. Medium-density fibreboard (MDF). Steve Gorton / Getty Images/Dorling Kindersley Engineered wood products like medium density fibreboard (MDF) and particle board are made by bonding wood fibers or particles together with resin. These materials are cost-effective and offer a smooth surface for veneers and laminates. While they lack the strength of solid wood, theyre widely used in the construction industry and furniture manufacturing. We created this article in conjunction with AI technology, then made sure it was fact-checked and edited by a HowStuffWorks editor. Duff Goldman's Sweet Workshop Retreat Great Finishes for the Great Outdoors FREE SHIPPING on $35+ Purchase By Gerry Phelan Updated on: August 26, 2023 Published on: March 30, 2017The Merriam-Webster dictionary defines wood as the hard substance that makes up the stems and branches of trees and shrubs or an area of land covered with many trees, or a golf club. For our purposes, we will focus on the first definition.Wood is the stuff beneath the bark. The technical term is for it is the xylem. What is interesting is the structure of the wood and the characteristics that make is such a useful building material. The trees interior is like a bundle of straws and is used to draw up nutrients. Sandwiched between the bark and the inner wood is a thin layer called the vascular cambium. This layer consists of reproductive cells that, by cell division, form new bark outward, and also new wood inward. That is what causes the trees diameter to expand and creates the characteristic growth rings. As growth speeds and slows across the seasons the activity is recorded in the rings and fairly accurately record the age of the tree. However in temperate zones with little seasonality there may be no discernable rings.As the cambium forms new wood cells, they develop into different sizes, shapes, and orientations to perform a variety of tasks. That can include food storage, sap conduction, trunk strength, etc. Younger cells, called sapwood, are alive and move sap up or down and store nutrients. Over time, the tree no longer needs the entire trunk to conduct sap, and the cells in middle begin to die. This dead wood in the center of the trunk is called heartwood. The as it grows, the heartwood accumulates various deposits which cause distinctive characteristics. Normally the heartwood is pale white or yellow but some more colorful examples would be the black in Ebony, the orange in Padauk or the dark brown in Walnut. The heartwood deposits also affect the woods resistance to rot and decay and its relative hardness. Its why Teak is prized for boats and Basswood is easy tocarve.We tend to label wood as being hardwood or softwood but that may lead to some confusion since those labels really refer more to the type of tree; hardwoods generally come from deciduous trees that drop their leaves in the fall while softwoods come from conifers or evergreens. An Austrian named Gabriel Janka invented a hardness scale in 1906 to accurately hardness. It measures the pounds of force required to imbed a .444 steel ball one-half its diameter into the surface of the wood. The chart on the left shows the hardness of some typical species. Interestingly Poplar, Basswood and Balsa which are hardwoods rank lower than softwoods like Douglas Fir and Pine.All of these properties; hardness, rot resistance, color, and grain affect which wood you choose. Wood is an amazing, renewable resource.Wood in all its forms has been used for thousands of years for construction, fuel, paper and more. Never worry about using wood for your projects; after all, it grows on trees.

Can you put a wood burner in a grade 2 listed building. Can you put a log burner in a listed building. Listed building wood burning stove. Listed building consent wood burner. Listed building consent wood burning stove. Does a wood burning stove need listed building consent. Wood burning stove building regulations. Do i need listed building consent to install a wood burning stove.