DOWNLOAD PDF HOW BUILDING CODES AND REGULATIONS CAN BE ADAPTED TO MEET THE BASIC NEEDS OF THE POOR

Chapter 1 : Building a Tiny House Can Be a Big Deal: Things to Consider

How building codes and regulations can be adapted to meet the basic needs of the poor: report of the UN Seminar of Experts on Building Codes and Regulations in Developing Countries, TÃ¤llberg and Stockholm, March,

Control or monitor physical processes and equipment Architecture Enterprise wide infrastructure and applications generic Event-driven, real-time, embedded hardware and software custom Interfaces GUI, Web browser, terminal and keyboard Electromechanical, sensors, actuators, coded displays, hand-held devices Ownership Engineers, technicians, operators and managers Connectivity Control networks, hard wired twisted pair and IP-based Role Supports people Controls machines The National Institute of Standards and Technology NIST has been a primary source of IT cyber standards and guides. All control systems should be on a separate network with multiple levels of DMZs and sub-networks. Defending Building Control Systems: The WBDG Cybersecurity Resource Page is meant to be primarily for the buildings community, but also has additional information and links to other control systems, workshops, and training. Whereas the IT community has had almost two decades to learn and implement cybersecurity, the OT community will have an accelerated learning curve and will need to work closely with senior management, IT, and other stakeholders to properly cybersecure their assets. Every building owner should have a building cybersecurity strategy and have the following key documents that cover both the IT and OT assets: Key to the recommendations is to bring the physical security specialists, facility engineers and managers, IT, system integrators, and property owner to the table to conduct assessments and develop System Security Plans. It defines a process based on the Risk Management Framework suitable for control systems of any impact rating, and applies to all planning, design and construction, renovation, and repair of new and existing facilities and installations that result in DoD real property assets, regardless of funding source. The publication is generic enough such that can it be used by any organization. The site provides step-by-step instructions to create a baseline risk assessment in the planning and design phases, how to create a Test and Development Environment, a Design and Construction Sequence Table that identifies deliverables and expected timeframe such as when and how to perform Factory Acceptance Testing FAT in the construction phase; and conduct full Site Acceptance Testing to include penetration testing for system turnover, templates, resources and tools. Related Issues Building Design to Mitigate the Potential for a Progressive Collapse Progressive collapse is loosely defined as a situation where a localized failure of a primary structural element leads to the collapse of adjacent structural elements, which propagates to disproportionate collapse of the structure. ASCE 7 states "Progressive collapse is defined as the spread of an initial local failure from element to element, eventually resulting in the collapse of an entire structure or disproportionately large part of it. The phenomenon is applicable to structure of any appreciable size and type of construction. Concern is greatest for taller structures, as the propagation mechanism is typically vertical. Design guidelines for the prevention of progressive collapse typically take a threat-independent approach that, regardless of initial cause, is intended to develop inherent robustness and continuity in the structure to resist and arrest propagation of failure. For example, design of a structural frame to resist propagation of damage after loss of a primary vertical-load-carrying element such as a load-bearing wall or column is a typical threat-independent approach to providing this resistance. This approach assumes complete damage of the structural element being considered and enhances the structure to prevent disproportionate spread of damage. By assuming loss of single vertical-load-carrying elements at key locations in the structure, the designer can reduce the potential for progressive collapse, should an initiating event occur. Each of these guidelines provides methods for analysis and measures of acceptability to meet each specific criterion. These Progressive Collapse guidelines GSA and UFC are currently the most complete sets of criteria in terms of providing usable guidance to the designer. Additional discussion of the role of Progressive Collapse mitigation measures in securing buildings can be found in the resource pages for Blast Safety of the Building Envelope and Designing Buildings to Resist Explosive Threats. Crash Rated Barriers and Applicable

Standards A successful site security plan often involves the establishment and enforcement of a controlled perimeter. The controlled perimeter may act to prevent threats that are transported by vehicles or by pedestrians from entering a standoff zone around a protected facility. A controlled perimeter that is designed to stop a vehicle from entering a protected site is often required to be "crash" or "anti-ram" rated. A crash rated barrier system is typically tested or engineered such that it can stop a certain size vehicle i. The vehicle size, vehicle speed and penetration distance are typically determined based on the accessibility of the site, the topography and alignment of the surrounding roadways and the required standoff distance. Crash rated barriers take various forms and can include bollards, cable reinforced fences and planters. Where vehicle access is required into the secure site for parking, maintenance, emergencies or deliveries, active vehicle barriers may be employed; these can include plate barriers, wedge barriers, retractable bollards or gates. For more discussion regarding crash rated barrier assemblies, see UFC Selection and Application of Vehicle Barriers , and the Bollard resource page. An example impact condition designation is a H50 which designates a "heavy goods vehicle" traveling at 50 mph. Similar Câ€”, PUâ€”, and Mâ€”ratings are provided for the other test vehicle types. Careful planning and an understanding of historic preservation objectives is necessary in order to address the requirements of both. A discussion of retrofit methods that have been successfully employed to meet security requirements in existing buildings are provided in the Retrofitting Existing Buildings to Resist Explosive Threats resource page. Specific challenges that may be encountered in applying these retrofit methodologies to historic buildings include lack of documentation on the existing construction, differing building technology at the time of construction, low inherent strength and ductility of existing systems, and limitations on modifications that can be made due to historic preservation restrictions. Integrating Security and Sustainability Providing for sustainable design that meets all facility requirements is often a challenge. With limited resources, it is not always feasible to provide for the most secure facility, architecturally expressive design, or energy efficient building envelope. From the planning and concept stages through the development of construction documents, it is important that all project or design stakeholders work cooperatively to ensure a balanced design. Successful designs must consider all competing design objectives and make the best selections. This applies as well to the site, as well as the building. Integrating Security and Fire Protection Care should be taken to implement physical security measures that allow Fire Protection forces access to sites, buildings and building occupants with adequate means of emergency egress to comply fully with NFPA GSA has conducted a study and developed recommendations on design strategies that achieve both secure and fire safe designs. Specifically, the issue of emergency ingress and egress through blast resistant window systems was studied. Integrated Security Systems Integrated security systems can offer more efficient access and control. Integrated Security Systems, LTD There has been a general trend towards integrating various stand-alone security systems, integrating systems across remote locations, and integrating security systems with other systems such as communications, and fire and emergency management. Some CCTV, fire, mass notification systems, and burglar alarm systems have been integrated to form the foundation for access control. The emerging trend is to integrate security systems with facility and personnel operational procedures. By involving facility stakeholders from the programming stage throughout the life of the project, the behavioral-based policies can be successfully integrated with security systems and forces. Seismic Design Seismic and blast resistant design share some common analytical methodologies and a performance based design philosophy that accepts varying levels of damage in response to varying levels of dynamic excitation. Both design approaches recognize that it is cost prohibitive to provide comprehensive protection against all conceivable events and an appropriate level of protection that lessens the risk of mass casualties can be provided at a reasonable cost. Both seismic design and blast resistant design approaches benefit from a risk assessment that evaluates the functionality, criticality, occupancy, site conditions and design features of a building. While there may be more predictability with natural hazards, this is not the case with man-made hazards. Also the explosive threats of the future are very likely to be very different from the explosive threats of the past. Another fundamental difference between seismic and blast events are the acceptable design limits.

Since earthquakes are more predictable and affect more structures than are affected by blast events, owners may be willing to accept different levels of risk relative to these different events, and this may translate into differences in acceptable design limits, as defined by allowable deformation, ductility and other functions. Both seismic design and blast resistant design approaches consider the time-varying nature of the loading function. The response of a building to earthquake loads is global in nature, with the base motions typically applied uniformly over the foundations of the buildings. These seismic motions induce forces that are proportional to the building mass. Blast loading is not uniformly applied to all portions of the building. Due to the local versus global nature of blast loading, seismic loading analogies, including the concept of blast-induced base shears, must be applied with great care or they may be misconstrued to provide a false sense of protection. Building configuration characteristics, such as size, shape and location of structural elements, are important issues for both seismic and blast resistant design. The manner in which forces are distributed throughout the building is strongly affected by its configuration. While seismic forces are proportional to the mass of the building and increase the demand, inertial resistance plays a significant role in the design of structures to reduce the response to blast loading. Structures that are designed to resist seismic forces benefit from low height-to-base ratios, balanced resistance, symmetrical plans, uniform sections and elevations, the placement of shear walls and lateral bracing to maximize torsional resistance, short spans, direct load paths and uniform floor heights. While blast resistant structures share many of these same attributes, the reasons for doing so may differ. For example, seismic excitations may induce torsional response modes in structures with re-entrant corners. These conditions provide pockets where blast pressures may reflect off of adjacent walls and amplify the blast effects. Similarly, first floor arcades that produce overhangs or reentrant corners create localized concentrations of blast pressure and expose areas of the floor slab that may be uplifted. In seismic design, adjacent structures may suffer from the effects of pounding in which the two buildings may hit one another as they respond to the base motions. Adjacent structures in dense urban environments may be vulnerable to amplification of blast effects due to the multiple reflections of blast waves as they propagate from the source of the detonation. While the geology of the site has a significant influence on the seismic motions that load the structure, the surrounding geology of the site will influence the size of the blast crater and the reflectivity of the blast waves off the ground surface. On an element level, the plastic deformation demands for both seismically loaded structures and blast-loaded structures require attention to details. Many similar detailing approaches can be used to achieve the ductile performance of structural elements when subjected to both blast and seismic loading phenomenon. Concrete columns require lateral reinforcement to provide confinement to the core and prevent premature buckling of the rebar. Closely spaced ties and spiral reinforcement are particularly effective in increasing the ductility of a concrete compression element. Carbon fiber wraps and steel jacket retrofits provide comparable confinement to existing structures. Steel column splices must be located away from regions of plastic hinging or must be detailed to develop the full moment capacity of the section. Local flange buckling must be avoided by using closely spaced stiffeners or, in the case of blast resistant design, the concrete encasement of the steel section. Reinforced concrete beam sections require resistance to positive and negative bending moments. In addition to the effects of load reversals and rebound, doubly reinforced sections possess greater ductility than singly reinforced counterparts. Steel beams may be constructed composite with the concrete deck in order to increase the ultimate capacity of the section; however, this increase is not equally effective for both positive and negative moments. While the composite slab may brace the top flange of the steel section, the bottom flange is vulnerable to buckling. Addressing blast and seismic design goals may be achieved through the consideration of many of the same building attributes and utilizing similar design and detailing solutions. See the Designing Buildings to Resist Explosive Threats page for additional discussion on this topic. Relevant Codes and Standards Highly complex security system design is still neither codified nor regulated, and no universal codes or standards apply to all public and private sector buildings. However, in many cases, government agencies, including the military services, and private sector organizations have developed specific security design criteria. These standards

must be flexible and change in response to emerging threats.

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Chapter 2 : Posts of Ø-Ù„ ÙˆØ§Ø¬Ø¨Ø§Øª Ø§Ù„Ø¬Ø¨Ø§Ù…Ø© Ø§Ù„Ø¹Ø±Ø¨ÙŠØ© Ø§Ù„Ù…Ù•Øªà¸Ø-Ø

Showing all editions for 'How building codes and regulations can be adapted to meet the basic needs of the poor: report of the UN Seminar of Experts on Building Codes and Regulations in Developing Countries, TÃ¤llberg and Stockholm, March, '.

Some insurance companies require the structure to be built by a certified builder. If you hire a builder, you can work with him or her to design your tiny house. Another option is to purchase plans for a tiny house, which are readily available from many sources. These can be modified and upgraded depending on your budget. A steel box on the outside and a sunny beach-bright on the inside Do I have a design for the inside and the outside? Your design plans for a tiny house will have to be more complex than those for a larger home. This is because you have to plan for every function and storage area ahead of time. You will need to spend as much effort designing the interior and the built in storage areas as much as the overall structure and the exterior. Because space is tighter, the house has to be designed for maximum efficiency with storage as functional as possible. Fear not, however because plenty of on-line checklists are available for all the things that you need to consider when building a tiny home. Just as with building a traditional home, there are countless decisions you will have to make when you build a tiny house. The is the case whether your are doing it yourself or using a builder. From the foundation up, each decision can affect your budget as well as the final product. If sustainability is important to you, m this is where you can be creative by sourcing recycled building materials and reusing architectural or used elements. In either case, you will still need to contract with professionals for items like gas, electric and plumbing to make sure the installations meet local building codes. When it comes to a small space, everything needs more than one function. What is the cost of building a tiny home? Just as with a traditional home, you can go basic or luxe, depending on your budget. Of course, you can build one for less or a heck of a lot more. For a permanent tiny house, determining a price can be trickier. It depends on the actual size and where you are located because some real estate markets are pricier than others. Some elements of tiny house can cost as much or more than the standard sizes, such as kitchen and bathroom fixtures and appliances. Again, meticulous planning with regard to costs will be key. The idea behind this project is simple. Author and designer Cornelia Funke needed a private space where she could go to find inspiration What are the pros of building a tiny house? For those who decide that a tiny house is a good option, there are a number of benefits. Fixed costs are less â€" Yes, the cable and Internet bills might not be less, but utilities, maintenance and property taxes will bring savings to the household budget. Having less space for more stuff will save you money as will the need to store and maintain extra belongings. Eco friendly â€" Living in a tiny house allows you to leave less of a footprint on the environment. By consuming less energy and purchasing fewer material goods, you are contributing to sustainability. Instead of landscaping and maintaining a large lawn, you can make do with a much smaller piece of property. View in gallery What are the drawbacks? Despite all the good points, there are some negatives to consider and be aware of before building a tiny house. Building codes â€" These can be challenging depending on where you live. The best option is to do extensive homework on the local laws before you even consider building. Perhaps more than any other type of dwelling, tiny houses will elicit the opinions of others. If you choose to build a tiny house, prepare yourself to hear criticism of your choice. You have to decide how rustic you are willing to go and how you can pack all the function into a teeny space. Can you live with a composting toilet? Storage space â€" There is much, so it has to be designed efficiently. There you have it. If you want to build a tiny house the process is no less complicated than if you are building a traditional house, and in some cases it can be more complex. The most important things is to properly do your homework and go into the process well-informed on both the benefits and drawbacks of building tiny house. After that, enjoy the freer life that a tiny house can bring its residents. Subscribe Vera Dordick Vera Dordick is a global communicator, and creative provocateur. Her dabbling focuses on interior design, including DIY, jewelry, cakes, sugar flowers, and fiber arts of all kinds.

Chapter 3 : Cass County Today â€“ A Service of KAQC TV

Most buildings were designed to meet the building code in place at the time of construction. And, since codes only certify the minimum requirements for safety, when changing a building's use, a structural analysis of the strength of the existing materials must be completed.

Electrical code Wiring layout plan for a house Wiring installation codes and regulations are intended to protect people and property from electrical shock and fire hazards. They are usually based on a model code with or without local amendments produced by a national or international standards organisation, such as the IEC. The standard is mandatory in both New Zealand and Australia; therefore, all electrical work covered by the standard must comply. Hence national standards follow an identical system of sections and chapters. However, this standard is not written in such language that it can readily be adopted as a national wiring code. Neither is it designed for field use by electrical tradesmen and inspectors for testing compliance with national wiring standards. North America[edit] The first electrical codes in the United States originated in New York in to regulate installations of electric lighting. States, counties or cities often include the NEC in their local building codes by reference along with local differences. The NEC is modified every three years. It is a consensus code considering suggestions from interested parties. The proposals are studied by committees of engineers , tradesmen , manufacturer representatives, fire fighters and other invitees. The CSA also produces the Canadian Electrical Code , the edition of which references IEC Electrical Installations for Buildings and states that the code addresses the fundamental principles of electrical protection in Section The Canadian code reprints Chapter 13 of IEC , but there are no numerical criteria listed in that chapter to assess the adequacy of any electrical installation. Although the US and Canadian national standards deal with the same physical phenomena and broadly similar objectives, they differ occasionally in technical detail. The 17th edition issued in January includes new sections for microgeneration and solar photovoltaic systems. The first edition was published in Colour coding of wiring by region[edit] Colour-coded wires in a flexible plastic electrical conduit found commonly in modern European houses In a typical electrical code , some colour-coding of wires is mandatory. Many local rules and exceptions exist per country, state or region. The NEC also requires the "high leg" conductor of a High-leg delta or "bastard-leg" system to have orange insulation. The introduction of the NEC clearly states that it is not intended to be a design manual, and therefore, creating a color code for ungrounded or "hot" conductors falls outside the scope and purpose of the NEC. However, it is a common misconception that "hot" conductor color-coding is required by the Code. In buildings with multiple voltage systems, the grounded conductors neutrals of both systems are required to be identified and made distinguishable to avoid cross-system connections. In the UK, phases could be identified as being live by using coloured indicator lights: The new cable colours of brown, black and grey do not lend themselves to coloured indicators. For this reason, three-phase control panels will often use indicator lights of the old colours.

Chapter 4 : Disability Access Provisions for Historic Buildings by Robin Kent

A building code (also building control or building regulations) is a set of rules that specify the standards for constructed objects such as buildings and nonbuilding structures. Buildings must conform to the code to obtain planning permission, usually from a local council.

The successful integration of all forms of new development with their surrounding context is an important design objective, irrespective of whether a site lies on the urban fringe or at the heart of a town centre. Natural features and local heritage resources can help give shape to a development and integrate it into the wider area, reinforce and sustain local distinctiveness, reduce its impact on nature and contribute to a sense of place. Views into and out of larger sites should also be carefully considered from the start of the design process. Local building forms and details contribute to the distinctive qualities of a place. These can be successfully interpreted in new development without necessarily restricting the scope of the designer. Standard solutions rarely create a distinctive identity or make best use of a particular site. The use of local materials, building methods and details can be an important factor in enhancing local distinctiveness when used in evolutionary local design, and can also be used in more contemporary design. However, innovative design should not be discouraged. The opportunity for high quality hard and soft landscape design that helps to successfully integrate development into the wider environment should be carefully considered from the outset, to ensure it complements the architecture of the proposals and improves the overall quality of townscape or landscape. Good landscape design can help the natural surveillance of an area, creatively help differentiate public and private space and, where appropriate, enhance security. However large scale developments are likely to include new streets, while significant buildings or land use changes in established areas may change their nature and function, requiring alterations to existing streets. Planning policies and decisions should look to create streets that support the character and use of the area. This means considering both their role as transport routes and their importance as local public spaces to accommodate non travel activities. Development proposals should promote accessibility and safe local routes by making places that connect appropriately with each other and are easy to move through. Attractive and well-connected permeable street networks encourage more people to walk and cycle to local destinations. For this reason streets should be designed to be functional and accessible for all, to be safe and attractive public spaces and not just respond to engineering considerations. They should reflect urban design qualities as well as traffic management considerations and should be designed to accommodate and balance a locally appropriate mix of movement and place based activities. For example, boulevards which include service lanes, can support continuous frontage development by providing direct access to buildings and the parking and place based activities they generate, whilst still providing a high level of traffic capacity within the central lanes. Similarly Home Zones are one way to achieve a good balance between the needs of the local community and drivers in residential streets, by allowing through vehicle movement at low speeds, prioritising walking and cycling as travel modes and providing space for residents to meet, relax and play. Streets should also be designed to support safe behaviours, efficient interchange between travel modes and the smooth and efficient flow of traffic. The transport user hierarchy should be applied within all aspects of street design â€” consider the needs of the most vulnerable users first: More people on the street can lead to improved personal security and road safety. Research shows that the presence of pedestrians causes drivers to travel more slowly and safely. Development layouts where buildings and trees frame and enclose streets, higher visual prominence of pedestrians and shorter site lines may all be helpful in supporting road safety. Roads within a development which are built to adoptable standards, rather than being locked into estate management agreements which inhibit change , are likely to allow a greater variety of uses to be developed over time. A system of open and green spaces that respect natural features and are easily accessible can be a valuable local resource and helps create successful places. A high quality landscape, including trees and semi-natural habitats where appropriate, makes an

important contribution to the quality of an area. Public spaces should be designed with a purpose in mind, and wherever possible deliver a range of social and environmental goals. They can take many different forms for example path, street, square, park, plaza, green , and can serve different functions for example informal, civic, recreational, commercial. The benefit of greenspaces will be enhanced if they are integrated into a wider green network of walkways, cycleways, open spaces and natural and river corridors. Section 17 of the Crime and Disorder Act requires all local authorities to exercise their functions with due regard to their likely effect on crime and disorder, and to do all they reasonably can to prevent crime and disorder. The prevention of crime and the enhancement of community safety are matters that a local authority should consider when exercising its planning functions under the Town and Country Planning legislation. Local authorities may, therefore, wish to consider how they will consult their Police and Crime Commissioners on planning applications where they are Statutory Consultees and agree with their police force how they will work effectively together on other planning matters. Crime should not be seen as a stand alone issue, to be addressed separately from other design considerations. That is why guidance on crime has been embedded throughout the guidance on design rather than being set out in isolation. It is important that crime reduction-based planning measures are based upon a clear understanding of the local situation, avoiding making assumptions about the problems and their causes. Consideration also needs to be given to how planning policies relate to wider policies on crime reduction, crime prevention and sustainable communities. This means working closely with the police force to analyse and share relevant information and good practice. Further information can be obtained from the Police. Crime includes terrorism, and good counter terrorism protective security is also good crime prevention. The UK faces a significant threat from international terrorism. The current assessed threat level to the UK can be found on the MI5 website where more information can also be found on what threat levels mean, who decides the level of threat and how the threat level system is used. Where there is an identified risk, local planning authorities should work with police and other partners to ensure that an appropriate local strategy is in place to guide proposals for higher risk buildings and spaces where they exist. The objective is to create safer places and buildings that are less vulnerable to terrorist attack and, should an attack take place, where people are better protected from its impact. Pre-application discussions between security advisors such as Counter Terrorism Security Advisors and police Crime Prevention Design Advisors will ensure that applicants are aware right at the beginning of the design process of the level of risk and the sorts of measures available to mitigate this risk in a proportionate and well-designed manner. Advice on the matters to take in to account when considering the risk of terrorist attack, the proportionate response to that risk, and how best to integrate counter-terrorism protective security measures as part of good building and urban design can be found in Protecting crowded places: It recognises and accommodates differences in the way people use the built environment. Good design can help to create buildings and places that are for everyone. Planning can help break down unnecessary physical barriers and exclusions caused by the poor design of buildings and places. Inclusive design acknowledges diversity and difference and is more likely to be achieved when it is considered at every stage of the development process, from inception to completion. However it is often mistakenly seen as a Building Regulations issue, to be addressed once planning permission has been granted, not at the planning application stage. The most effective way to overcome conflicting policies and to maximise accessibility for everyone is for all parties to consider inclusive design from the outset of the process. This is particularly important when considering historic buildings and conservation, and highways. Thinking at the design stage about how the completed building will be occupied and managed can overcome many barriers experienced by some users. Too often the needs of users, including disabled people, older people and families with small children, are considered too late in the day. Inclusive design should not only be specific to the building, but also include the setting of the building in the wider built environment, for example, the location of the building on the plot; the gradient of the plot; the relationship of adjoining buildings; and the transport infrastructure. Issues to consider include: Ensuring a place is durable and adaptable will help make it less resource hungry over time. For example the layout of infrastructure servicing development including water

supply, sewerage, drainage, gas, electricity, cable, telephone, roads, footpaths, cycle ways and parks should take account of foreseeable changes in demand to reduce the need for expensive future changes. The layout and design of buildings and planting can reduce energy and water use and mitigate against flooding, pollution and over heating. Passive solar design takes advantage of natural characteristics in building materials and air to help reduce the additional energy needed for heating and cooling. Policies can encourage sites to be planned to permit good solar access to as many buildings as possible. The potential benefits of passive solar design can only be realised by careful siting and layout. For example, access roads could predominantly run east-west, with local distributors running north-south and glazing minimised on north facing elevations to reduce heat loss. Passive solar design principles can be applied equally effectively in housing and commercial developments. It is important that passive design considers the potential for overheating in the summer, as well as reducing need for heating in the winter. A range of design solutions can be considered to help avoid overheating and the need for air conditioning. For example, high levels of thermal mass, maximising natural ventilation, passive cooling using planting for shade, roof overhangs to provide shade for high-sun angles, and smart glazing materials. The urban heat island effect can be reduced by, for example, allowing sufficient space between buildings, tree planting, shading and street layouts which encourage air flow and using light and reflective surfaces or vegetation on buildings. Local and neighbourhood plans can set aspirations for areas considering what is already successful about them and how they could be improved. This might include movement networks, the mix of uses and tenures, the amount and position of open space and local vernacular building materials and styles. The health, wellbeing and quality of life of those who will be using an area will be influenced by its cohesion. The vitality of neighbourhoods is enhanced by creating variety, choice and a mix of uses to attract people to live, work and play in the same area. Interesting and safe neighbourhoods often have a mix of uses which involves different people using the same parts of a building or place at different times of the day, as well as different uses happening in various parts of a building or space at the same time. Neighbourhoods should also cater for a range of demographic groups especially families and older people. A mix of uses will be successful when they are compatible one with another and interact with each other positively avoiding opportunities for conflict. To encourage a mix of uses that are both vibrant and safe buildings can be designed so as to facilitate different access arrangements at different times. Well designed places are successful and valued. They exhibit qualities that benefit users and the wider area. Well designed new or changing places should:

Chapter 5 : Regulations | BUILD

By choosing to build a tiny house that is permanent, you will be required to meet all local zoning regulations, building codes, and any requirements for financing that you might pursue. In addition, you will still be responsible for property taxes and any municipal utilities that your tiny house uses.

Joint Health and Safety Committee - Structure Once the committee members have been chosen, the committee should participate in decisions on the details of its structure, duties, and procedures. Establish a reporting structure. In a general sense, each committee member is responsible to the chairperson s , and the committee as a whole to all employees for fulfilling their duties. However, if prompt follow-up to recommendations is to be expected, one individual should be named as a person in authority. The best choice is usually a member of senior management. This individual should have sufficient authority to be able to take or expedite direct action as required. The joint health and safety committee members should be active participants in the development, implementation, and monitoring of all phases of the health and safety program. Why are correct work procedures established? Governmental health and safety regulations represent minimum requirements. In almost all cases, organizations will have to augment these regulations with specific rules. We need rules â€" to protect the health and safety of workers â€" but there are dangers in having either too few or too many rules. Too few rules may be interpreted as a sign that health and safety are not important, or that common sense is all that is required to achieve them. Too many rules may be seen as not treating employees as thinking adults and makes enforcement of all rules less likely. Following are some guidelines for establishing rules: Rules should be specific to health safety concerns in the workplace. The joint health and safety committee should participate in their formulation. Rules should be stated in clearly understandable terms. Rules are best stated in positive terms "employees shall" not "employees shall not". The reasons for the rule should be explained. Rules must be enforceable, since disregard for one rule will lead to disregard for others. Rules should be available to all employees in written form, in the languages of communication of employees. Rules should be periodically reviewed to evaluate effectiveness and to make changes for improved effectiveness. Compliance with health and safety rules should be considered a condition of employment. Rules must be explained to new employees when they start work or if they are transferred or retrained. After a suitable interval, these employees should be briefed to ensure they understand the rules applicable to their work. The employer must establish procedures for dealing with repeat rule violators. Supervisors are responsible for correcting unsafe acts, such as a breach of rules, and they must be supported in this duty. Points that should be considered in establishing procedures on this issue are: Ensure that employees are aware of the rule. Ensure that employees are not encouraged, coerced, or forced to disregard the rule by fellow employees. All rules are to be observed. No violation will be disregarded. The role of discipline is that of education, not punishment. Action is taken promptly. While having guidelines for penalties for the first offence or infractions may be desirable, some flexibility is required when applying the guidelines since each case will vary in its circumstances. Action is taken in private, and recorded. How do you establish correct work procedures? Correct work procedures are the safest way of doing a job, job instruction, monitoring performance, and accident investigation. Job safety analysis JSA , also known as "job hazard analysis", is the first step in developing the correct procedure. In this analysis, each task of a specific job is examined to identify hazards and to determine the safest way to do the job. Job safety analysis involves the following steps: Break down the job into a sequence of steps. The analysis should be conducted on all critical tasks or jobs as a first priority. Those where frequent accidents and injuries occur. Those where severe accidents and injuries occur. Those with a potential for severe injuries. New or modified jobs. Infrequently performed jobs, such as maintenance. Job safety analysis is generally carried out by observing a worker doing the job. Members of the joint health and safety committee should participate in this process. The reason for the exercise must be clearly explained to the worker, emphasizing that the job, not the individual, is being studied. Another approach, useful in the analysis of

infrequently-performed or new jobs, is group discussion. A work procedure may consist of more than one specific task. In such cases, each separate task should be analyzed to complete a job safety analysis for that procedure. The final version of the correct work procedure should be presented in a narrative style format that outlines the correct way to do the job in a step-by-step outline. The steps are described in positive terms, pointing out the reasons why they are to be done in this way. Reference may be made to applicable rules and regulations and to the personal protective equipment required, if any. Employees who carry out the tasks should be consulted in developing the procedure.

Chapter 6 : Hospital | WBDG Whole Building Design Guide

There are a myriad of local and national regulations that can affect building a carport. Bath regulations There are a few different regulations relating to the way that baths need to be installed.

In some countries building codes are developed by the government agencies or quasi-governmental standards organizations and then enforced across the country by the central government. Such codes are known as the national building codes in a sense they enjoy a mandatory nationwide application. In other countries, where the power of regulating construction and fire safety is vested in local authorities , a system of model building codes is used. Model building codes have no legal status unless adopted or adapted by an authority having jurisdiction. The developers of model codes urge public authorities to reference model codes in their laws, ordinances, regulations, and administrative orders. When referenced in any of these legal instruments, a particular model code becomes law. This practice is known as adoption by reference. When an adopting authority decides to delete, add, or revise any portions of the model code adopted, it is usually required by the model code developer to follow a formal adoption procedure in which those modifications can be documented for legal purposes. There are instances when some local jurisdictions choose to develop their own building codes. At some point in time all major cities in the United States had their own building codes. However, due to ever increasing complexity and cost of developing building regulations, virtually all municipalities in the country have chosen to adopt model codes instead. In Europe, the Eurocode is a pan-European building code that has superseded the older national building codes. Each country now has National Annexes to localize the contents of the Eurocode. Similarly, in India , each municipality and urban development authority has its own building code, which is mandatory for all construction within their jurisdiction. All these local building codes are variants of a National Building Code , which serves as model code proving guidelines for regulating building construction activity. Antiquity[edit] Building codes have a long history. The earliest known written building code is included in the Code of Hammurabi , [2] which dates from circa BC. The book of Deuteronomy in the Hebrew Bible stipulated that parapets must be constructed on all houses to prevent people from falling off. The first systematic national building standard was established with the London Building Act of Surveyors were empowered to enforce building regulations, which sought to improve the standard of houses and business premises, and to regulate activities that might threaten public health. In the assets, powers and responsibilities of the office passed to the Metropolitan Board of Works. The City of Baltimore passed its first building code in The Great Baltimore Fire occurred in February, Subsequent changes were made that matched other cities. It served as the building code for four years. Very soon, a formal building code was drafted and eventually adopted in In Paris, under the reconstruction of much of the city under the Second Empire â€”70 , great blocks of apartments were erected [13] and the height of buildings was limited by law to five or six stories at most. This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. October Learn how and when to remove this template message The purpose of building codes is to provide minimum standards for safety, health, and general welfare including structural integrity, mechanical integrity including sanitation, water supply, light, and ventilation , means of egress, fire prevention and control, and energy conservation. Rules regarding parking and traffic impact Fire code rules to minimize the risk of a fire and to ensure safe evacuation in the event of such an emergency[citation needed] Requirements for earthquake seismic code , hurricane , flood , and tsunami resistance, especially in disaster prone areas or for very large buildings where a failure would be catastrophic[citation needed] Requirements for specific building uses for example, storage of flammable substances, or housing a large number of people Energy provisions and consumption Grandfathering provisions: Unless the building is being renovated, the building code usually does not apply to existing buildings.

Chapter 7 : Basic OH&S Program Elements : OSH Answers

A Guide to BUILDING Tasks like paint touch-ups or basic carpentry can often be done by tenants themselves, month to review building repair needs and set.

Much of this circulation should be controlled. A better environment also contributes to better staff morale and patient care. Increased use of natural light , natural materials, and textures Use of artwork Attention to proportions, color, scale, and detail Bright, open, generously-scaled public spaces Homelike and intimate scale in patient rooms, day rooms, consultation rooms, and offices Compatibility of exterior design with its physical surroundings In addition to the general safety concerns of all buildings, hospitals have several particular security concerns: Protection of hospital property and assets, including drugs Protection of patients, including incapacitated patients, and staff Safe control of violent or unstable patients Vulnerability to damage from terrorism because of proximity to high-vulnerability targets, or because they may be highly visible public buildings with an important role in the public health system. Sustainability Hospitals are large public buildings that have a significant impact on the environment and economy of the surrounding community. They are heavy users of energy and water and produce large amounts of waste. Because hospitals place such demands on community resources they are natural candidates for sustainable design. These regulations put emphasis on acoustic and visual privacy, and may affect location and layout of workstations that handle medical records and other patient information, paper and electronic, as well as patient accommodations. This might require computer alcoves and data ports in corridors outside patient bedrooms. For more information, see WBDG Integrate Technological Tools Need to balance increasing attention to building security with openness to patients and visitors Emergence of palliative care as a specialty in many major medical centers A growing interest in more holistic, patient-centered treatment and environments such as promoted by Planetree. This might include providing mini-medical libraries and computer terminals so patients can research their conditions and treatments, and locating kitchens and dining areas on inpatient units so family members can prepare food for patients and families to eat together. Relevant Codes and Standards Hospitals are among the most regulated of all building types. However, federal facilities on federal property generally need not comply with state and local codes, but follow federal regulations. To be licensed by the state, design must comply with the individual state licensing regulations. Since hospitals treat patients who are reimbursed under Medicare, they must also meet federal standards, and to be accredited, they must meet standards of The Joint Commission. The Americans with Disabilities Act ADA applies to all public facilities and greatly affects the building design with its general and specific accessibility requirements. The technical requirements do not differ greatly from the ADA requirements. Federal agencies that build and operate hospitals have developed detailed standards for the programming, design, and construction of their facilities. Many of these standards are applicable to the design of non-governmental facilities as well. Federal Mandates and Criteria.

Chapter 8 : Emergency needs assessment - IFRC

The functional units within the hospital can have competing needs and priorities. Idealized scenarios and strongly-held individual preferences must be balanced against mandatory requirements, actual functional needs (internal traffic and relationship to other departments), and the financial status of the organization.

The ramp was designed by Simpson and Brown Architects. Geoffrey Lord, ADAPT From 1st October , owners of some historic buildings are compelled by law to carry out alterations to make their buildings accessible to disabled people. Historic buildings which have been extended or which have undergone a change of use may already have the ramps and toilets defined in Part M of the Building Regulations or the Technical Standards Scotland. Some historic building owners also provide large print and Braille user information, tactile displays, induction loops or infra red sound enhancement. The Disability Rights Commission has recently announced that the duty will be extended to include all employers and, by 1 September , the Secondary Education Needs and Disability Act SENDA will also include owners and tenants of historic buildings used for higher education, such as universities. The DDA includes a wide-ranging definition of disability as: In addition to wheelchair users and ambulant disabled persons, this definition includes those with poor manual co-ordination or little strength, for example those who are unable to turn knobs; those with sensory impairments, including impaired sight and hearing; and those who lack memory, concentration or understanding. Many more people who are not disabled experience such effects on a temporary basis, including pregnant women, children, elderly persons and those who are emotionally disturbed. Access for everyone to historic buildings open to the public may be desirable but this was not always appreciated by the original builders. Castles, for example, usually discourage access for all. Improved access can, however, considerably increase visitor numbers and hence income to historic properties by making the built heritage more attractive to as much as 40 per cent of the population. Members of the National Register of Access Consultants or other professionals with appropriate qualifications and experience should be used. Local authority access officers and disability organisations may also assist and some may also offer grants. Local user groups representing a range of disabilities should be invited to participate and contribute to the report. Some historic building owners may also wish to host disability awareness training sessions to help staff appreciate the attitudes and problems of disabled users. For many historic buildings, entrance steps and the lack of wheelchair-accessible toilets may seem to be the only problems but circulation within the building and escape from it should also be considered. Signs, lighting and sound systems and even decorative schemes should be considered. There may be other problems which should be identified from the start to ensure that effort is not wasted on what is obvious only to find that, for example, wheelchair users cannot negotiate the entrance lobby, or reach the ticket counter. The aim is to achieve independent access for most disabled people, without assistance, and the audit should identify where the building falls short of this aim and exactly why. It should also suggest possible solutions and priorities. It should be based on BS Tick-box checklists seldom provide the level of detail required and are quickly outdated. For example, if it is not possible for disabled people to use the main entrance, the new entrance should be as close possible to it, so that the dignity of disabled people is not harmed. The main entrance should be adapted in preference to a side or rear entrance. It is also important that the access point is available to all, not exclusive to disabled users. Similarly new accessible toilets should, be sited in proximity to standard toilets, if possible and they should be unisex to enable carers of the opposite sex to accompany users. Ideally these should not double as baby changing facilities, since this regularly renders them unavailable to disabled people. Access Ramp, National Gallery of Scotland: Where possible, ramps to entrances should respect the symmetry of existing elevations and not leave them with a lop-sided appearance. Steps should always be provided as well, since they can be easier for ambulant disabled people and those with visual impairments. New walls should be constructed with materials which harmonise with the existing walls. Ramps and steps should include suitable surface finishes and lighting

provisions; steps should have contrasting nosings ugly yellow and black stripes are not necessary and wide treads. Ground surface treatments are of great importance for accessibility and surfaces which are hard to walk on or which impede wheelchairs should be avoided. For example, slip resistant hard surfaces such as brick or stone paving are more suitable than gravel, chippings, setts and cobbles. Similarly, rubber doormats are more suitable than coir, while shallow dense pile carpets, polished floorboards, wood blocks or tiles are easier for wheelchair users to negotiate than deep pile carpets. Handrails are required for two or more steps and at least one handrail should be provided for ramps more than two metres long. Where possible these should be designed to replicate or harmonise with any existing examples. If adequate records survive, it may even be possible to restore original railing designs. The handrail itself should not be greater than 50mm wide and here again, it may be possible to employ traditional sections. Moveable ramps may be a temporary expedient but where historic buildings are concerned, they should only be considered as a long term solution if all other options have been exhausted. If the front of an historic building cannot be reconciled with ramps or handrails, it may be possible to form a ramp inside the main entrance or use a side or rear entrance. The proximity of the designated blue badge parking bays and setting down points should be carefully considered and clear signposting provided to any alternative entrance. If ramps cannot be provided [deleted text: Because they are often quite bulky and require fixing to masonry, these may not be acceptable on the fronts of historic buildings, but can be useful internally, if carefully designed, and in spaces of less historic value. The requirement for suitable emergency escape provisions for users should however be kept in mind and Fire and Building Control officers consulted. At present, forming ramps and providing toilets for disabled persons is zero-rated for VAT purposes for charities including churches and residential premises, and may be similarly zero-rated for some other historic buildings. The Government wishes this to be defined by case law but the DRC Code of Practice offers a range of criteria for assessing whether physical adjustments are likely to be reasonable, including the nature of the service provided and resources available, the effectiveness, practicality, cost and disruption of the proposed adjustments. Relaxations of the building regulations may be needed and here, too, the recognition, in BS , that not all standards can be applied to historic buildings will help. If disability access provisions are treated as additions which respect existing historic fabric, rather than alterations, and skilfully integrated, they need have no more effect on historic buildings than sympathetically designed modern services, health and safety or fire precautions. Hopefully, most historic building owners concerned will recognise the considerable advantages of meeting the widest range of access needs possible, and have access provisions in place before they are faced with any possibility of compulsion Note This brief summary is not a comprehensive guide to the law or specification, each historic building will need separate consideration. Contact the Register Manager on Tel

DOWNLOAD PDF HOW BUILDING CODES AND REGULATIONS CAN BE ADAPTED TO MEET THE BASIC NEEDS OF THE POOR

Chapter 9 : Security for Building Occupants and Assets | WBDG Whole Building Design Guide

All codes & standards. Virtually every building, process, service, design, and installation is affected by NFPA's + codes and standards. Our codes and standards, all available for free online access, reflect changing industry needs and evolving technologies, supported by research and development, and practical experience.

See cote and http: Everyone wants to operate like a tech company today. Companies like Liberty Mutua l are able to enter a new market in just six months and double the average sales rate, while government organizations are defying expectations with rapidly developed and deployed applications across the board from tax collection to war-fighting. Your cloud strategy is going to be nuanced. A recent Forrester study found that just four percent of organizations run their applications exclusively in the public cloud; 77 percent of organizations are using multiple types of clouds, both on-premises and off-premises. So do you go the public or private cloud route? It can be a complicated question. These applications are often the slow-moving fodder for your cloud strategy. They should be moved to public cloud first. For example, Gartner expects almost half of all business users to move their core collaboration and communications systems to public cloud by the end of this year, and more than 70 percent of businesses will be substantially provisioned with cloud office capabilities by Moving these types of applications off-premises seems like an easy win and, more importantly, frees resources to focus on building out larger software development and delivery capabilities, the core asset for any successful digital transformation. How do government policies shape our operations and strategies? Certain safety measures or auditing points can create huge costs and public cloud solutions might have done the work already. Do you own the data? What is the geographical definition of ownership â€" does anyone else share ownership? You can drown yourself in a soup of industry and government regulations: But while compliance issues may seem like an mindless productivity blocker understanding why they exist and working with auditors will help sort your business imperatives. These regulations are aimed at avoiding nefarious uses such as selling personal data to advertisers or stockpiling profiling data to meddle in politics. As Lauren Nelson notes in her recent analysis of public clouds in Europe , the data management needs of GDPR are driving many organizations to reconsider where they store user data. Often, running their software on private cloud affords organizations more control over data. Payments come to mind; complying with all of the payment handling and tax regulations globally might be easier to achieve with public cloud-based services rather than building it yourself. Handling sensitive documents might also be better outsourced to organizations like Merrill. Of course, pure public cloud is rarely an option. Pinning Down Technical Requirements Moving to public cloud infrastructure can sometimes cause more headaches than solutions, but nailing down a comprehensive list of technical requirements will create a good checklist. These include operatibility of different database frameworks, load balancing, licensing ramifications, and bandwidth limitations. For example, Chick-fil-A uses a mixture of private and public cloud to support operations by deploying small Kubernetes clusters in each store to support transactions. When moving to public clouds, engineering teams lose certain operational controls and often need to re-architect their code. The new runtime environments in public cloud often require new skills. None of these concerns are impossible to solve, but take these costs of change to heart in your economic considerations. For instance, airlines access an immense quantity of interrelated databases. Searching for fares, transferring tickets, tracking baggage, tracking flights, maintenance, reward programs, booking revenue, partner airlines, integrating with each airport â€" the number of integrations starts to boggle the mind. There are too many moving parts to expect a single vendor to meet all their needs. Cloud architectures are too complex and need to be visualized too far forward in time. Yet there are some basic starting points. What features of public cloud would be better than private cloud â€" and how do you assign real financial value to them? That focus on business outcomes is what should drive your choice of public versus private cloud. You want a platform that focuses on delivery speed so you can start designing better, more productive, and profit driving software. In some cases, this might mean just

modernizing your existing, private cloud-based stack. Oftentimes, organizations are operating under five, ten, or even decades old notions of how software should be developed and run. Shifting over to a more contemporary, agile approach can drive dramatic results like Allstate seeing their developers go from coding 20 percent to 90 percent of the time. For more detailed models, my old research house, Research, has long studied the question of cloud costs , providing several models and price tracking to figure out which side of the firewall is best across various IT needs. We designed Pivotal Cloud Foundry to support both private and public cloud, giving you maximal optionality when planning your cloud strategy. Even if a business needs to change providers for certain applications, the development and management layers atop it will remain consistent We constantly remind our customers to ask the basic questions. How much traffic will the application get? Will it only be used internally? Who affects the load? What data handling and process regulations do you need to follow? Will the application branch out to other areas of the business? If it touches the public â€” will it be mobile? What are your long term plans for running your own data centers? What machine learning applications do you need? How are you going to spread out the computing geographically? Over the next five years if not longer! Change is the only constant, so individuals, institutions, and businesses must be Built to Adapt. At Pivotal , we believe change should be expected, embraced, and incorporated continuously through development and innovation, because good software is never finished.