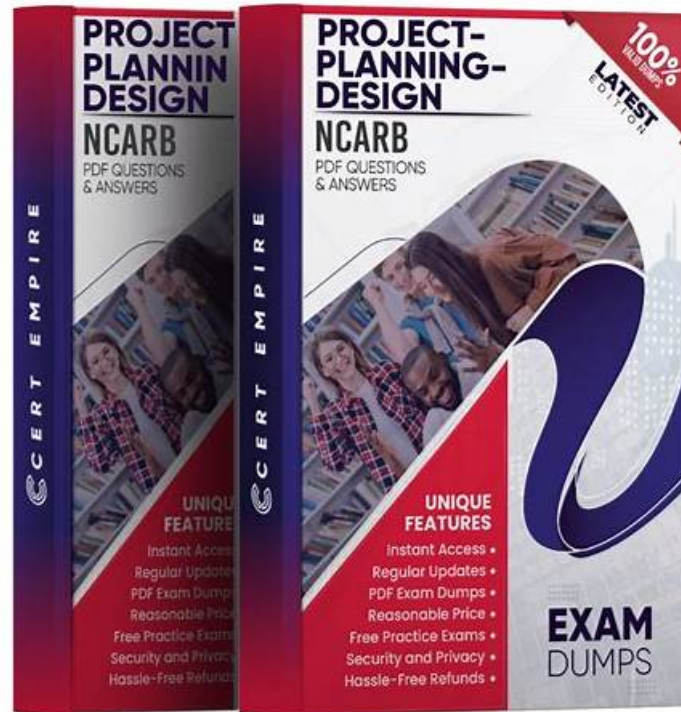


Project-Planning-Design Dumps und Test Überprüfungen sind die beste Wahl für Ihre NCARB Project-Planning-Design Testvorbereitung



NCARB Project-Planning-Design Examenskandidaten alle wissen, dass NCARB Project-Planning-Design Prüfung ist nicht leicht zu bestehen. Aber es ist auch der einzige Weg zum Erfolg, so dass sie die Prüfung ablegen müssen. Um Ihre Berufsaussichten zu verbessern, müssen Sie diese Zertifizierungsprüfung bestehen. Die Prüfungsfragen und Antworten zur NCARB Project-Planning-Design Zertifizierung von ITZert enthalten verschiedene gezielte und breite Wissensgebiete. Es gibt keine anderen Bücher oder Materialien, die ihr überlegen sind. ITZert wird sicher Ihnen helfen, diese NCARB Project-Planning-Design Prüfung zu bestehen. Die Untersuchung zeigt sich, dass die Erfolgsquote von ITZert 100% beträgt. ITZert ist die einzige Methode, die Ihnen zum Bestehen der NCARB Project-Planning-Design Prüfung hilft. Wenn Sie ITZert wählen, wartet eine schöne Zukunft auf Sie da.

NCARB Project-Planning-Design Prüfungsplan:

Thema	Einzelheiten
Thema 1	• Building Systems, Materials, & Assemblies: This section of the exam measures skills of architectural designers and covers the understanding of building systems such as mechanical, electrical, and plumbing, along with structural and specialty systems. It also involves selecting appropriate materials and assemblies to align with program needs, budgets, and regulations.
Thema 2	• Environmental Conditions & Context: This section of the exam measures skills of architectural designers and covers how to use site analysis information to determine building placement and environmental planning decisions. It emphasizes applying sustainable principles and considering the neighborhood context to guide project design.
Thema 3	• Project Costs & Budgeting: This section of the exam measures skills of architectural designers and assesses the ability to evaluate design alternatives based on program goals, perform cost evaluations, and manage cost considerations throughout the design process.

Thema 4	Project Integration of Program & Systems: This section of the exam measures skills of project architects and focuses on integrating decisions about environmental conditions, codes, and building systems into one cohesive project design. It highlights how to configure the building and incorporate both program requirements and contextual conditions in a unified design approach.
Thema 5	Codes & Regulations: This section of the exam measures the skills of project architects and focuses on applying zoning laws, environmental rules, and building codes during the planning stage. Candidates are tested on how to integrate multiple regulatory requirements into a project's design effectively.

>> Project-Planning-Design Deutsch <<

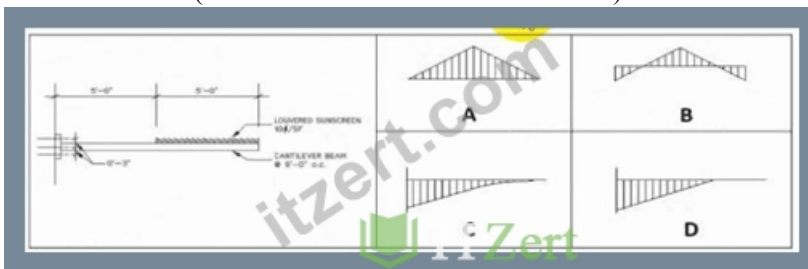
Project-Planning-Design Testengine & Project-Planning-Design Demotesten

Die NCARB Project-Planning-Design Zertifizierungsprüfung ist zur Zeit sehr beliebt bei den IT-Fachleuten. Durch die NCARB Project-Planning-Design Zertifizierungsprüfung werden Ihre Lebens-und Arbeitsverhältnisse verbessert. Daneben wird Ihre Position in der IT-Branche gefestigt.

NCARB ARE 5.0 Project Planning & Design (PPD) Project-Planning-Design Prüfungsfragen mit Lösungen (Q86-Q91):

86. Frage

Refer to the exhibit (louvered sunscreen cantilevered with beam). Assume the cantilevered beam is weightless.



Which of the following is the moment diagram?

- A. C
- B. B
- C. D
- D. A

Antwort: A

Begründung:

Comprehensive and Detailed Explanation From Exact Extract:

For a cantilevered beam loaded uniformly (such as a louvered sunscreen), the bending moment diagram is characterized by: Maximum negative moment (hogging moment) at the fixed support (where the beam is anchored to the building). This is a large negative moment because the beam is fixed and resists rotation.

The moment decreases linearly to zero at the free end of the cantilever.

Diagram C shows this pattern with maximum moment at the support tapering to zero at the free end, consistent with static beam theory.

Other diagrams show positive moments or incorrect distributions.

This is a standard result taught in structural mechanics and referenced in ARE guidelines related to structural systems.

References:

ARE 5.0 PPD - Environmental Conditions and Context, Structural Systems

The Architect's Handbook of Professional Practice, 15th Edition - Structural Analysis

87. Frage

In order to minimize stratification, in a forced-air heating system, which locations of supply and return grilles should be avoided?

- A. High supply, high return
- B. Low supply, high return
- C. High supply, low return
- D. Low supply, low return

Antwort: D

Begründung:

Comprehensive and Detailed Explanation From Exact Extract:

Stratification refers to the layering of air temperatures within a space, where warmer air rises and cooler air stays near the floor. In forced-air heating systems, minimizing temperature stratification is critical to maintaining occupant comfort and energy efficiency. The placement of supply and return air grilles plays a significant role in preventing stratification.

* Low supply, low return (Option C) should be avoided because supplying warm air near the floor and simultaneously returning air also near the floor limits effective air mixing. Warm air naturally rises, so if the return grille is also low, cooler air remains trapped above, resulting in poor circulation and uneven temperatures throughout the room. This can cause discomfort, with warmer air accumulating near the ceiling and colder air lingering in the occupied zone.

* High supply, low return (Option B) is often preferred because warm air is supplied from high points, then cools and sinks toward the lower return grille, promoting vertical circulation and mixing, reducing stratification.

* Low supply, high return (Option A) and high supply, high return (Option D) can be less effective depending on system design, but the critical issue is having both supply and return located low, which restricts air movement and stratification mitigation.

According to NCARB PPD content on building systems and HVAC design, proper grille placement is essential to maintain thermal comfort, minimize energy waste, and comply with indoor environmental quality standards. Effective grille placement harnesses natural convection to ensure even temperature distribution, reducing the potential for hot or cold spots and improving occupant satisfaction.

References:

ARE 5.0 Project Planning & Design: Building Systems, Materials, and Assemblies - HVAC Principles Black Spectacles ARE PPD Study Materials: Forced Air Heating and Cooling Systems The Architect's Handbook of Professional Practice, 15th Edition, Chapter 13: Mechanical Systems and Indoor Environmental Quality

88. Frage

An architect's client is focused on lighting energy savings and daylighting design in a new 3,000 ft² commercial building addition to expand showroom and office square footage. The client requests reasonable daylighting measures in the design.

What should the architect recommend to the client?

- A. Isolate electric lighting for daylight-responsive control to within a single zone
- B. Increase sunlight in the vicinity of critical visual tasks
- C. Limit ample access to daylight to the interior spaces only
- D. Provide for daylight-responsive control of electric lighting

Antwort: D

Begründung:

Comprehensive and Detailed Explanation From Exact Extract:

Daylight-responsive control systems automatically adjust electric lighting based on available natural light, reducing energy use and improving occupant comfort.

Isolating lighting to a single zone (A) limits effectiveness.

Limiting daylight access (C) reduces benefits.

Increasing sunlight near tasks (D) can cause glare.

Thus, providing daylight-responsive electric lighting control is recommended.

References:

ARE 5.0 PPD - Environmental Conditions and Context, Daylighting
The Architect's Handbook of Professional Practice, 15th Edition - Lighting Design

89. Frage

Which strategy enhances passive solar residential design in the northern hemisphere?

- A. Installing an electric baseboard heating system
- B. Eliminating insulated glazing along the northern walls
- C. Reducing heat storage capacity
- D. Locating deciduous trees along the south side of the house

Antwort: D

Begründung:

Comprehensive and Detailed Explanation From Exact Extract:

Passive solar design in the northern hemisphere relies on maximizing solar gain during the winter while minimizing overheating during summer.

Deciduous trees located on the south side provide shade during the summer (when they have leaves), reducing cooling loads, and allow sunlight to penetrate in the winter after leaf fall, enhancing solar heat gain. This seasonal shading improves comfort and energy efficiency.

Eliminating insulated glazing on the north walls (B) increases heat loss, which is undesirable in cold climates.

Reducing heat storage capacity (C) lowers the building's thermal mass, decreasing its ability to moderate temperature swings, which is counterproductive.

Installing electric baseboard heating (D) is a mechanical solution and does not enhance passive solar design.

Therefore, option A is the best strategy consistent with passive solar principles.

References:

ARE 5.0 PPD - Environmental Conditions and Context, Passive Solar Design The Architect's Handbook of Professional Practice, 15th Edition - Sustainable Design Strategies

90. Frage

An elementary school requires a renovation, selective demolition, and a major addition in order to accommodate a growing student population. An architectural firm has prepared schematic design plans incorporating the school's increased programmatic needs, including an enlarged library, cafeteria, and gymnasium; a secure courtyard; and additional space for administrative offices and classrooms. The main entrance was relocated in order to improve the traffic and pedestrian flow at the beginning and end of the school day, and additional parking was provided to comply with current zoning requirements.

The existing single-story masonry building was built in 1950. Two small additions were built later: the north addition will be kept and repurposed, but the south addition will be demolished. The building contains asbestos and lead in roof soffits, floor tiles, pipe insulation, and window paint. All existing mechanical systems need to be replaced; new systems have not been selected.

Considerations for the renovation include:

- * The relocated front entrance must be easily recognizable, highly visible, and secure.
- * Interior and exterior materials need to be durable and maintainable in order to withstand frequent student abuse, but also economical due to strict budget limitations.
- * Good indoor air quality and increased energy efficiency are priorities for the selection of mechanical equipment.

After completion, the entire school should look uniform, without a distinctive difference between the existing building and new addition.

Building information:

- * Construction Type is II-B.

The following resources are available for your reference:

- * Existing Plans, including site and floor plans
- * Proposed Plans, including site and floor plans
- * Cost Analysis
- * Zoning Ordinance Excerpts, for off-street parking requirements
- * IBC Excerpts, showing relevant code sections
- * ADA Standards Excerpts, showing relevant sections from the ADA Standards for Accessible Design When the addition is completed, the school will be fully sprinkled per NFPA 13 Standard for the Installation of Sprinkler Systems requirements, with a continuous 24-foot wide fire access lane provided around the building perimeter.

Through a code analysis, the combination of construction type, occupancy, and building area present a compliance problem.

- A. Add firewall to design
- B. Reduce building area
- C. Check frontage area increase

Antwort: C

Begründung:

Comprehensive and Detailed Explanation From Exact Extract:

When a building's size and occupancy cause non-compliance with allowable building area or frontage requirements, the architect should first check frontage area increase provisions allowed by the code. The frontage increase can allow a larger building area based on the length of street frontage and fire access, especially when sprinklers and fire lanes are provided.

Adding firewalls (A) is a method to subdivide building area but is typically considered after exploring frontage increases.

Reducing building area (C) is a last resort if other allowances are insufficient.

ARE 5.0 PPD - Codes and Regulations

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[illegible]