NCARB Certificate Portfolio Applicant Guide

The NCARB Certificate Portfolio allows you to meet the requirements of the **_NCARB Education Standard_** by demonstrating learning through your experience as a registered architect. As you complete your NCARB Certificate Portfolio, please use this guide to understand the requirements and process for the preparation, submission, and review of your portfolio. You must include descriptions and documentation as evidence of learning in relation to the subject areas you are assigned. The _NCARB Education Standard_ includes five subject areas:

1. Liberal Arts
2. History, Theory, and Human Behavior
3. Design Synthesis
4. Building Technology
5. Professional Practice

Your portfolio is customized per your education background and will identify subject area assignments based on your Education Evaluation Services for Architects (EESA) report. For applicants who choose not to obtain an EESA, all subject areas will be assigned.

Once you have been made eligible to pursue NCARB certification through the NCARB Certificate Portfolio option, you may access the portfolio system by logging in to **My NCARB**, select NCARB Record, go to the "Education" tab, and select the "NCARB Certificate Portfolio" link.

Requirements

You are required to provide evidence of learning through a prescribed number of exhibits for each assigned category within the relevant subject area. An exhibit includes three critical elements:

1. Descriptions

You must describe how you gained learning through experience as a registered architect. These experiences must relate directly to the documentation submitted and your specific education deficiencies. Descriptions must also include your involvement, how decisions were made, challenges you faced, etc. It is important to tell the story for each exhibit to give the reviewer context and also to provide enough information to be able to make a proper assessment.

2. Documentation

There are a number of experiences that can result in learning at the appropriate level. These experiences may include but are not limited to various aspects of practice, architectural projects, professional responsibilities, seminars and training programs, continuing education, and professional volunteer and community activities. You may recreate missing steps in the design process for the purpose of telling the story—for example, a bubble diagram completed during the schematic design phase that may have been thrown out or misplaced. Any recreation of documents must be identified/acknowledged as such in your annotations or descriptions.
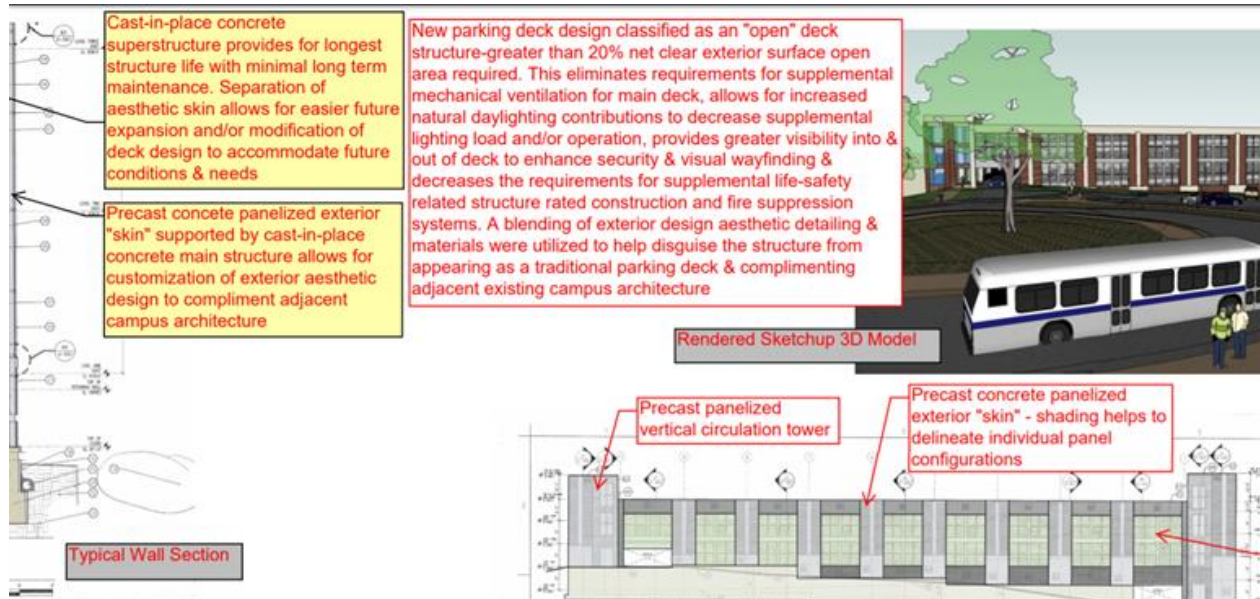
3. Annotation

You <u>must</u> annotate your documentation. Portfolios without annotation will be returned for revision. The purpose of annotation is to:

- Explain personal experience and involvement with a specific aspect of a project
- Point out key aspects of a specific document
- Highlight critical areas of design and decision-making or problem resolution
- Summarize key points of the document relative to the description

Example 1:

Cast-in-place concrete superstructure provides for longest structure life with minimal long term maintenance. Separation of aesthetic skin allows for easier future expansion and/or modification of deck design to accommodate future conditions & needs

Precast concete panelized exterior "skin" supported by cast-in-place concrete main structure allows for customization of exterior aesthetic design to compliment adjacent campus architecture

New parking deck design classified as an "open" deck structure-greater than 20% net clear exterior surface open area required. This eliminates requirements for supplemental mechanical ventilation for main deck, allows for increased natural daylighting contributions to decrease supplemental lighting load and/or operation, provides greater visibility into & out of deck to enhance security & visual wayfinding & decreases the requirements for supplemental life-safety related structure rated construction and fire suppression systems. A blending of exterior design aesthetic detailing & materials were utilized to help disguise the structure from appearing as a traditional parking deck & complimenting adjacent existing campus architecture

Rendered Sketchup 3D Model

Precast panelized vertical circulation tower

Precast concrete panelized exterior "skin" - shading helps to delineate individual panel configurations

Typical Wall Section

Example 2:

EXHIBIT 2

Your exhibits should be prepared with close reference to category definitions, which are conveniently located within the portfolio template. For each exhibit, you are required to answer these questions as part of your description:

- Explain how your exhibit demonstrates competency in the assigned category. What did you learn from the exhibit?

Selecting Projects

Each exhibit must be linked to a single project or activity. However, a project or activity can be linked to multiple exhibits. While you can include multiple projects and activities per category, keep in mind there is a recommended minimum number of exhibits for each category.

All uploaded documents must be annotated. Annotation facilitates the review process by pointing out key aspects of a specific document, highlighting areas of design and decision-making, and emphasizing elements of your description relative to the category. Adding labels to drawings is NOT sufficient annotation. You may only upload documents in PDF format, so be sure to add your annotation to the documents prior to uploading them to your portfolio.

Due to the typically collaborative nature of architectural projects, it is important for you to clarify your specific individual responsibilities for projects that are the result of a team effort. It is important that you do not rely upon a title alone, such as "Project Architect," or a single statement of authorship as evidence of your level of responsibility for a project.

Please Note:
Your portfolio may only include projects completed post-licensure for the project duration. Projects outside of your jurisdiction(s) of registration must have been completed under the supervision of an architect licensed in that jurisdiction. All projects must be completed and/or built in a U.S. jurisdiction. You may not use projects completed or built outside of the United States to demonstrate learning as an architect registered in the United States.

Quality Over Quantity
Each category has a recommended minimum number of exhibits, and each subject area has a maximum number of total exhibits. For example, the recommended minimum number of exhibits for Structural Systems is three, and the maximum number of exhibits for the Building Technology subject area is 34. You may submit less or more than the recommended minimum number of exhibits; however, all submitted exhibits must directly relate to the subject area category and demonstrate learning in the assigned area. Exhibits that do not fully demonstrate competency in the assigned subject area category will be returned for revision.

Suggested Documents
Each category includes a list of suggested documents (see pages 5-14) to use for preparation of your exhibits. You are not limited to this list; however, you are required to provide evidence of learning through descriptions and supporting documents to address each assigned subject area category. All supporting documents must be annotated to:
- Explain your personal experience and involvement with a specific aspect of a project
- Point out key aspects of a specific document
- Highlight critical areas of design and decision-making or problem resolution
- Summarize key points of the document relative to the project description.

Portfolios without annotations will be returned for revision.

Liberal Arts

Note: Exhibits submitted in this subject area do not need to be architecture-related.

Category	Min.	Max.	Suggested Documents
Communication Skills	3		Exhibits in Communication Skills must demonstrate applicant's correct written use of the English language. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following: • Official project-related correspondence • Project proposals • Reports or articles substantially authored by applicant • Architectural building program • Written and graphic presentation authored by applicant • Basis of design describing design included with applications for design award programs • Written design narrative
Humanities and Arts	2		Exhibits in Humanities & Arts must demonstrate learning related to humanities and arts. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following: • Travel report with graphic documentation articulating lessons learned • Research reports on project context (including graphic documentation) • Candidate-created artwork including narrative of creative process • Video and/or photography journals articulating learning opportunities
Mathematical Sciences	2		Exhibits in Mathematical Sciences must include mathematical calculations. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following: • Structural load analysis / calculations • Building egress / travel distance analysis • Construction cost estimate • BOMA or equivalent rentable / usable floor area calculations • Zoning analysis (FAR calculations, lot coverage, parking, etc.) • Value engineering study • Occupancy load calculations
Natural Sciences	2		Exhibits in Natural Sciences must pertain to scientific evaluation or analysis. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following: • Application of geotechnical report in design • Materials research

			• Presentations narrating project design in response to natural science factors • Plant selection for the environment/climate • Wetlands analysis and management • Storm water management design • Solar orientation analysis/daylighting/wind • Building envelope hygrothermal analysis
Social Sciences	2		*Exhibits in Social Sciences must address response to social needs. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Zoning presentations/review • Evidence of active participation in community service project • Site selection studies (community, access, orientation, historical context, climate, etc.) • Project documentation reflecting relationship to social needs • Travel report with graphic documentation articulating lessons learned • Project master planning addressing community needs
Total Exhibits	**11**	**15**	

History, Theory, and Human Behavior

Category	Min.	Max.	Suggested Documents
History and Theory of Architecture	3		*Exhibits in History and Theory of Architecture must demonstrate applicant's understanding of the history and/or theory of architecture. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Evidence of active participation in historical building societies • Travel report with graphic documentation articulating lessons learned • Reports or articles substantially authored by applicant (buildings, sites, theory, etc.) • Application for historical building or landmark status • Documentation of research conducted on project site from a cultural or historical perspective
History and Theory of Urbanism	3		*Exhibits in History and Theory of Urbanism must demonstrate applicant's understanding of the history and/or theory of urbanism. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Evidence of active participation in urban planning project • Documentation of research conducted on urbanism from a historical perspective • Travel report with graphic documentation articulating lessons learned • Reports or articles substantially authored by applicant (cities, sites, theory, etc.) • Urban renewal studies/analyses
Human Health and Behavior	3		*Exhibits in Human Health and Behavior must demonstrate applicant's response to human health and behavior issues. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Post occupancy evaluation • Documentation demonstrating an understanding of the principles of cultural diversity • Site/building design (accessibility, circulation, security, etc.) • Space planning/furniture design and layout responding to human behavior • Document demonstrating knowledge of ergonomics • Evidence-based design report • Project commissioning report • Urban renewal studies/analyses • Planning/zoning presentation • Evidence of active participation on a planning/zoning commission
Total Exhibits	**9**	**13**	

LET'S GO FURTHER

Design Synthesis			
Category	**Min.**	**Max.**	**Suggested Documents**
Fundamental Design	4		*Exhibits in Fundamental Design must contain drawings, diagrams, or sketches illustrating applicant's ability to produce fundamental architectural design. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Documentation of interaction with regulatory and planning agencies including drawings or diagrams describing proposed design • Sketchbook studies, bubble diagrams illustrating design thought process • Narrative of design concept and process illustrated with drawings, sketches or diagrams • Plans, elevations, sketches, or diagrams showing organizational elements such as solid/void, public/private, and transparency/opacity
Investigative Design	4		*Exhibits in Investigative Design must present research conducted to inform design decisions. Exhibits must include drawings, sketches, and/or diagrams supplementing the research. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Building section studies and analysis • Site research and analysis (alternative locations, cost, etc.) • Research on precedents and/or building type • Floor plans or elevations / sections with analysis of ordering systems such as balance/symmetry, geometry, hierarchy, and layering. • Code research and description of effect on design • Sketches or diagrams comparing two or more systems considered for a project • Building related data analysis and projections
Design Building and Integration	4		*Exhibits in Design and Building Integration must contain documents demonstrating applicant's ability to integrate building systems in project design. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Design for complex project describing incorporation of complex program requirements • 3D BIM coordination model view, showing relationships of systems • Renewable energy study • Coordination drawings for a complex project integrating required services and systems (MEP, structural, electrical, communications, etc.) • LEED certification application and documentation • Description and illustration of special systems integrated into architectural design (solar design, green roofs, wind design, etc.)

			• Solution for challenging grade changes integrated to building architectural design
Total Exhibits	**12**	**21**	

Building Technology			
Category	**Min.**	**Max.**	**Suggested Documents**
Structural Systems	3		*Exhibits in Structural Systems may include structural engineering drawings, with annotations by applicant, indicating coordination of proposed solution with the architectural design. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following* • Written report with graphic documentation describing the process of evaluation and selection of a structural system for a project, articulating lessons learned • Drawings showing integration and coordination of structural systems/elements with other building systems • Structural systems analysis (load, seismic, wind, etc.) • Annotated project construction photographs showing structural framing, details, or special conditions. • Plans, sections, and details clearly documenting structural systems
Environmental Control Systems	3		*Exhibits in Environmental Control Systems may include mechanical engineering drawings, annotated by applicant, to demonstrate understanding of system concepts. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Building HVAC system selection analysis • Building envelope performance analysis (thermal, moisture management) • Plans, sections, and details clearly documenting the HVAC and environmental control systems • Description of sustainable principles and design strategies incorporated in a project • Drawings showing integration and coordination of HVAC and environmental control systems with other building systems • Implementation of smart building technologies • Environmental systems study (Passive solar shading analysis, indoor air quality assessment, acoustical, etc.)
Construction Materials and Assemblies	4		*Exhibits in Construction Materials and Assemblies must demonstrate applicant's understanding of materials selection and assembly details. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Evaluative studies (green design, life cycle, daylighting, solar, energy, fire assemblies, acoustics, net zero carbon emissions, etc.)

LET'S GO FURTHER

			• Written report with graphic documentation describing the process of evaluation and selection of construction materials and assemblies for a project, articulating lessons learned • Construction documents clearly illustrating the materials selection and assembly
Building Service and Enclosure Systems	4		*Exhibits in Building Service and Enclosure Systems must contain documents reflecting integration of building services and systems and may include annotated engineering drawings. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Plans, sections, elevations, details, and specifications clearly documenting building services, analysis, selection, and integration (MEP, etc.) • Plans, sections, elevations, details, and specifications clearly documenting building systems, analysis, selection, and integration (communications, security, etc.) • Energy efficiency studies of mechanical, electrical, and plumbing systems
Technical Documentation	4		*Exhibits in Technical Documentation must demonstrate applicant's ability to prepare clear technical drawings and specifications. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • 3D modeling • Photographs of building model • Construction phase directives, supplemental instructions, requests for information, etc. (text, data, drawings, etc.) • Project specifications • Construction documents clearly illustrating a buildable design
Project Cost Analysis	3		*Exhibits in Project Cost Analysis must demonstrate, through annotations, applicant's understanding of project cost analysis and management. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Construction project budget (data analysis, design options, design, construction, value engineering analysis, change order, etc.) • Bid alternates • Cost-loaded project schedule including design and construction activities • Preliminary project budget (financing study, feasibility study, life-cycle cost study, etc.)
Building Performance	4		*Exhibits in Building Performance must include studies investigating the impact of factors influencing design decisions. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that*

LET'S GO FURTHER

			may demonstrate learning in this category including, but not limited to the following: • Written narrative of sustainable principles related to environmental impact as incorporated into a project • Samples of specifications in support of materials selected • Energy modeling report • Daylighting/solar modeling report • Computational fluid dynamics report • Post occupancy evaluation/performance verification reports
Total Exhibits	**25**	**34**	

Professional Practice			
Category	**Min.**	**Max.**	**Suggested Documents**
Project Management	2		*Exhibits in Project Management must demonstrate applicant's experience in managing construction projects. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Project schedules (critical path analysis, phasing, benchmarks, etc.) • Narrative describing project delivery methods considered for a project • Narrative describing project team assembly • Project specifications document (front end - Divisions 0 and 1) • Contract development • Project fee development • Bids evaluation • Construction phase project documentation • Project plan or work breakdown structure
Business Management	2		*Exhibits in Business Management must demonstrate applicant's experience in practice management areas. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Business plan strategy/outline • Human resources manual, policies, etc. • Firm business brochure • Business data, analytics and projections • Description of marketing strategy • Professional development strategies • Insurance and risk management
Laws and Regulations	2		*Exhibits in Laws and Regulations must demonstrate applicant's understanding of laws and regulations affecting practice. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Documents reflecting integration of accessibility standards, barrier-free design guidelines, environmental regulations, life safety requirements, building code provisions, etc. • Written report articulating lessons learned through participation in continuing education courses in professional liability insurance • Written report articulating lessons learned through the process of evaluation and selection of professional liability insurance • Written report articulating lessons learned through service as an expert witness

LET'S GO FURTHER

			• Written report articulating lessons learned through the interpretation of the practice act and its effect on the services you can legally provide • Written report describing service on rule-making body or advocacy service at the local, state, or national level, articulating lessons learned • Code compliance analysis
Ethics and Professional Conduct	1		*Exhibits in Ethics and Professional Conduct must demonstrate applicant's understanding and integration of professional ethics in candidate's application of professional judgment in architectural design and practice. All supporting documents must meet annotation requirements listed in the guidelines. There are various documents that may demonstrate learning in this category including, but not limited to the following:* • Complete NCARB's Professional Conduct Continuum Education series • Written report describing your application of the AIA's Code of Ethics or NCARB's *Model Rules of Conduct* in professional practice
Total Exhibits	**7**	**12**	

LET'S GO FURTHER

Activities

Activities include anything unrelated to a specific project, such as work experiences, life experiences, workshops, seminars, continuing education courses, or other professional activities. Evidence of attending continuing education courses must include a detailed description of what you learned, how it applies to the category being addressed, and, where possible, how you applied what you learned to a specific project. A reiteration/copy of Learning Objectives is not sufficient evidence of learning.

Submission

You are encouraged to submit your initial portfolio within three months of your notice of eligibility. Please be advised that when your portfolio is submitted, you are required to meet the NCARB *Education Standard* in effect at the time of submission. ***Please be sure to proofread and correct any grammatical errors before submitting your certificate portfolio for review***. Once you submit your portfolio, you will be unable to make additional edits until your portfolio has been reviewed and returned. NCARB will be notified of your submission and will assign two architects from our pool of trained reviewers to independently evaluate your portfolio.

1. Your reviewers will review and evaluate your submitted exhibits against the subject area definition and requirements and return the portfolio to you if they need clarification or additional information. You should receive your evaluated portfolio within six weeks.
2. If your portfolio is returned to you with issues raised by the reviewer(s), you can address them through additional explanations or exhibits. If an issue is unclear, you can contact NCARB for assistance.
3. Portfolios that are returned with issues raised must be addressed and resubmitted within six weeks of receiving portfolio comments. If issues are not addressed within this time frame, your portfolio review and certification process may be delayed.
4. Your reviewers will evaluate the updated issues and either mark them as resolved or return them to you for further clarification. Once all issues are resolved, NCARB will conduct a final evaluation of your NCARB Record before an NCARB Certificate is issued.

Please Note:

- All submissions become part of your NCARB Record. NCARB reserves the right to verify information and/or documentation submitted.
- All confidential information should be redacted prior to submission.
- It is your responsibility to ensure that your portfolio conforms to all requirements and that all information and documentation is accurate and complete.
- You are encouraged to clarify any questions you may have with the Experience + Education Directorate prior to submitting your portfolio at **educationalternative@ncarb.org**.

Reciprocity

Many architects apply for an NCARB Certificate to seek reciprocal registration in other U.S. jurisdictions. Reciprocal registration requirements vary, and not all jurisdictions accept an NCARB Certificate issued upon satisfaction of the education requirement through the education alternative program. NCARB's **licensing requirements tool** includes the basic requirements of each jurisdiction and includes links to each jurisdiction's website for more information. Because requirements may change, it is important to confirm requirements with the jurisdiction in which you are seeking reciprocal registration.

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Questions? Contact our Customer Relations team **on our website** or at 202-879-0520.

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