The ARE: Advice from the Trenches

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The following advice is based on the ARE experiences of recent test-takers and is intended to be a general resource for ARE candidates. Remember, this advice is geared at giving you a bit of guidance and should be taken with the proverbial grain of salt -- no two people will have the same experience with the ARE.

AUTHORIZATION TO TEST

After you successfully complete the IDP (hallelujah!), you will receive a congratulatory letter from NCARB saying that your state board will process your information and inform the Chauncey Group, the test administrators, that you are now eligible to take the ARE. In Pennsylvania this turnaround time is negligible – I got my NCARB letter and my Authorization to Test package on the same day. In Delaware this process can take a few weeks as files are held for review at the monthly board meeting. Be patient, and if things start to drag on feel free to call the state board to check on the status of your file. The Authorization to Test letter will have your Candidate ID number, and that's basically all that you need to get started. To schedule your testing appointments I suggest that you call your local testing center directly. NCARB's web site, www.ncarb.org, is a very good resource for information about state registration boards and their eligibility requirements as well as a listing of test center locations throughout the U.S. and Canada.

EXAM ORDER

The first step in passing the ARE is to schedule your testing appointment. Choose a portion on which you think you'll do well to take first. Starting with one of the more narrowly focused multiple choice portions of the test is a good bet, and Materials & Methods, Mechanical/Electrical or Con Docs would be one of the best three to start off with. Traditionally, Materials & Methods has the highest pass rate of any section, but if you really don't feel that it's one of your strengths then start with a different section.

Con Docs is one of my top three choices for being the first section to take for two reasons: first, you're probably pretty familiar with at least some of the subject matter, and second, there are questions relating to contractual responsibilities peppered throughout the rest of the sections. The ALS study guides for this section are pretty good, and you can always read the actual AIA documents (A101, A201, B141, etc.) to supplement your preparations. M/E can be a good section to take early because it's a pretty narrow topic, and I felt that the study guides were good enough to get me through it even though I'm far from expert on M/E systems. If, after reviewing the study guides, you still feel apprehensive, put this section off until you have a few other sections of the exam under your belt. There is a lot of ground covered here, and some candidates thought that this was a tough section to tackle.

Almost everyone who contributed advice to this document recommended scheduling, or at least studying for, both structural portions at the same time. There is a lot of overlap between the two sections, and it's hard to figure out exactly where the scope for one section stops and the other picks up. Bob MacIntosh of O'Donnell, Naccarato & MacIntosh, usually gives a structural review session geared at preparing candidates for

the structural portions of the exam each spring, so scheduling these two portions right after that review might be wise. Also, Bob is willing to do small group tutoring, so if you're looking to take these sections in the fall, he may be able to schedule another review session for you.

After a few multiple choice sections I suggest you tackle all 3 graphic portions in a cluster. The software for the graphic vignettes is not difficult, but it can be annoyingly imprecise, so learning to be proficient with it once and scheduling all three graphic portions before you forget it and have to re-learn it is a good tip. Also, it can take 6-8 weeks to get your results back for these sections, so if you leave these till the end the suspense to find out whether or not you passed will be long and excruciating. For this same reason you may want to save a multiple choice portion in which you think you'll do fairly well for your last section. Pre-Design, since it's such a broad topic, is a good choice to schedule last. By the end of the exam you'll already have seen many of the topics which are tested in this section, and you may find that it is easier as a result.

Of the three graphic portions, it's generally agreed that Building Technology is the "easiest" section. The 6 vignettes are straightforward, and if you read the directions carefully and make sure that you address all of the testing criteria, you should do well. Site Planning and Building Planning are a bit harder (possibly because interns have had less experience with these aspects of the profession), but don't let them intimidate you.

After you sit for your first portion of the exam you'll have a better sense of what the test is all about and how much preparation you'll need to do well on the other sections. Some candidates prefer to plow straight through and get it over with, and they schedule a section every week or every 5 days. Other candidates prefer to spread things out and take a section per month, waiting to get the results of one section before scheduling the next portion of the exam. Setting some target dates for yourself can keep you on track to finish the exam in a timely manner, but allow yourself some flexibility to accommodate the rest of your life. Some people liked taking the exam at the same time as friends or colleagues – it can be good to have some friendly competition or a support group to discuss preparation strategies or anxieties – but other people prefer to treat the ARE as a private, solo effort.

Your testing pace has to be something that you feel comfortable with, and remember that you can always reschedule any portion of the exam if you don't feel like you're ready for it. Keep in mind that if you fail any portion of the exam, there is a mandatory 6-month waiting period before you can retake it. Make sure that you're well prepared to save yourself the time and expense of having to retake anything. If, despite diligent preparations, you anticipate having difficulties on a particular section you might want to consider taking that portion earlier on in your testing schedule so that if you do fail your waiting period will be shorter. Finally, make sure that you have current information on the exam structure – if there is a scheduled price increase down the pike, that might affect the timing/pace of your testing schedule.

PREPARATION STRATEGIES

Your study strategies should reflect your strengths – if you're a good test-taker, you may be able to get through the exam with only a few days of preparation for each section, but that strategy won't work for everyone. Most people try get into a routine and set aside a certain amount of time each day/week to help prepare for the exam. One candidate notes, "The ALS study guides, the ALS computer multiple choice mock exams and the NCARB graphic mock exams make a good package to prep for the exam. They are probably not completely comprehensive, but they are broad and thorough. All you need to do here is prep for the exam, not recall everything you were supposed to learn in school; not learn all you need to know to practice Architecture. Prep for the exam – that's all you need and this package will do it for you."

Local AIA chapters or regional architectural groups often sponsor annual review sessions for the ARE. AIA Philadelphia typically offers a series of review sessions each spring which covers all nine portions of the exam. While some sessions were better than others, I found that they provided a good overview which supplemented, rather than regurgitated, the material in the ALS study guides.

One person commented, "Be prepared to write off a few questions in each division due to poorly written questions, questions with no answers, questions with three answers, unintelligible questions. Each division of the exam will contain questions more appropriate to some other division. If you have the time and inclination to read all of the study guides before you sit for the test, it would probably be helpful, but quite frankly, few of us have that kind of patience or discipline. With nine separate divisions and then the graphic divisions further broken down into vignettes, the focus of any one part is fairly narrow. With the graphic divisions being arranged for computer grading, the tasks are simplified. That does not necessarily mean easy, it just means you shouldn't expect to see any realistic, complicated problems."

Some of the ALS manuals are better than others in terms of covering the scope of material that you will see on the exam. There is a fair amount of overlap between various different sections, so don't be surprised if you see questions on contracts or passive heating/cooling issues in sections other than Con Docs and M/E, respectively. For these reasons, you may want to take Con Docs early on and read up on the passive heating/cooling section of the Pre-Design study guide even if you don't plan to take that section until later. There are history questions sprinkled throughout the multiple choice divisions. They are not particularly obscure so you will probably recall some answers. If you have a memory for such things, you may know them all. ALS sells a separate history study guide which may be of some use, but you can probably get by without it. One candidate says, "The structural guide has a history section. It's helpful. I didn't find it until five divisions into the exam. Definitely read the history chapter of the structural guide before you sit for anything."

For both structural sections you'll want to be solid on the concepts. I tried to determine what I thought were the "archetypal" or typical problems, like simple loading calculations on a beam, retaining walls, overturning moments, shear stresses in bolts, etc. and I made sure to work through the sample problems for those types of questions.

There were also some history questions, but they were OK -- I'm not really strong in architectural history, and I think I managed to get most of these questions right no matter which section of the exam they appeared in. The majority of both structural sections consists of conceptual problems, and knowing the concepts will help you narrow down your choices for the math problems, too. The portion on Lateral Forces seems to be mostly theoretical with only a few calculations.

I thought that Pre-Design was a very broad topic, and the ALS study guide didn't address front-end areas of projects like contract documents or financing information -- topics that I really wasn't expecting to run into when I took that portion. I took this section first, and while I passed, I don't really recommend starting with it. The AIA Manual of Practice has a few sections with information pertaining to the front-end areas of projects, and these could be a good supplement to the ALS study guide. Scheduling Pre-Design later in the exam sequence will make it easier to study for since it overlaps with so many of the other sections. Materials & Methods is pretty straightforward, but you may find it helpful to review the CSI categories.

One candidate described his preparation for multiple choice portions as follows, "Generally I would take a couple of days to read through the ALS guide for a division taking the chapter quizzes as I went along. Occasionally I would re-read a guide. Then I would take the mock exam at the end of the guide. Then I would re-take the quizzes and the mock exam one or two more times. Last I would spend half a day with the computer multiple choice mock exam. I would just sit and work through all the questions until I consistently got them all right. That's it – off to the test."

For the multiple choice sections, most candidates that I spoke with relied heavily on the ALS study guides. Several people mentioned that the ALS computer exams were helpful and some also made use of the computerized flash cards, Architecture Exam Review, Volume 2 (non-structural topics) by David Kent Ballast, Oct. 1998 and, for Construction Documents, a review of relevant AIA documents.

For the graphic portions you're better off if you have manuals that have been updated since the exam was computerized. In particular, the old ALS study guides for Site Planning go into great detail about the guidelines for parking design, site layout, etc, but now there are no longer any multiple choice questions for site portion, so please don't waste your time memorizing the recommended slope for various site elements (while this is undoubtedly valuable knowledge, it will not help you pass the ARE). Of the six site vignettes, I'd say that two are easy (buildable area & grading), two are moderate, and the two that deal with parking or arranging buildings on the site are a bit more difficult.

The ALS manual that covers Building Planning/Building Technology is very good -- it walks you through some sample solutions to computer vignettes, and as the problems are different than the computerized practice vignettes, they are helpful. Building Technology was perhaps the easiest section of the exam, very much like the practice exams. As for Building Planning, it was also pretty straightforward, but you definitely

need to figure out how much time you'll need for each vignette. I've heard people complain about running out of time with that section, so be warned.

For all 3 graphic portions, all of the contributors to this document agreed that you MUST do the practice vignettes that come with the NCARB software. These vignettes will give you a good idea of what you'll see on the exam as well as how long it will take you to get through any given part. Be sure to compare the time it takes you to run through the practice vignettes with the recommended time guidelines in the ARE manual. For example, one candidate knew that on the Building Planning section that there was no way that he could finish the interior layout within the recommended 45-minute time period, but he felt pretty comfortable with the bubble diagram. He chose to spend about half an hour on the bubble diagram and used an hour and ten minutes for the interiors to finish under the wire.

One candidate mentioned that Norman Dorf's <u>Solutions</u> (available at his web site: <u>www.are-solutions.com</u>) are well worth getting as they give a thorough walk-through of practice vignettes for the three graphic divisions. Unlike the ALS study guides, Dorf provides some insight as to the grading criteria, and he gives examples of passing and failing solutions. Some people found it useful to work through some pencil and paper mock exams to review the issues as well. Another candidate noted, "ALS has new guides for the graphic divisions of the exam. These were good prep, worth a read. After spending a day with the guide, I would work through the computer mock exams over the course of the week. I worked through each vignette for the division, once. Then I went back through all of the vignettes four or five times just to gain speed and confidence."

THE EXAM DAY

The folks at the testing center will always tell you to show up half an hour early for your testing session. If you're taking the test first thing in the morning, the testing center at Centerville Road in Wilmington officially opens at 7:30 am, but their doors are sometimes unlocked before then. It may be worth it to try to show up a few extra minutes early to get your name on the sign-in sheet first as the test administrators set up each person on a first-come, first-served basis. While several people preferred to schedule their testing sessions on Saturdays for the privacy that it afforded (no awkward questions from co-workers about where they had been for part of the day), you may want to save your weekends for other things. One candidate says, "I generally scheduled my exams for 9:00 on Tuesday mornings. No line, walk right in. The center is busy first thing in the morning and even busier on Saturdays. If you schedule an exam at these times, come early."

I've gotten mixed messages about taking a calculator into the testing room, but I always brought one anyway. The best advice seems to be to take your own scientific calculator with you – you can usually bring your own calculator in as long as it's not programmable. Your own calculator will be easier to use than the onscreen version, and as you're already familiar with it you won't have to waste any time in learning where all of the buttons are located.

If you ever reschedule an appointment, be sure to call a few days before the new testing date to confirm that the change has been properly entered into the computer. I rescheduled once, and to my horror I was told when I tried to check in for my new appointment that the testing center didn't have me in the computer at all for that day. They had to call the national appointment people, and while they were on the phone my name finally appeared on the computer for my new testing date. I got to take the test, but there were a few anxious and frustrating moments while I waited for them to figure out what was going on.

When I took the multiple choice portions, I typically answered everything I was fairly sure of and marked anything that I wanted to take another look at, then I ran through again and answered the questions that I had skipped, then I ran through all of the marked questions, and then I read through every single question again just to make sure that I was comfortable with my answers. Time is not likely to be a big problem with the multiple choice portions, but you may run into difficulties on the graphic portions. One candidate advises, " Keep your eyes open. Occasionally the answer to one question can be found within a question somewhere else in the division."

Be sure to keep an eye on the clock -- there is no pop-up message or anything to warn you that time is running out, and on the graphic sections it's easy to get sucked into what you're doing. It can be very tempting to go back into a vignette to futz around and try to improve your solutions.   In comparing the graphic sections to the multiple choice sections, one person noted, "The time on the graphic divisions is a little tighter. Again, I worked through all the vignettes, in order, once. Then I went back and checked each one. Then I re-checked. The time is adequate to work all the vignettes, but it is not adequate to miss anything. If you miss any small component or requirement and have to go back and work it into your solution, time will be very tight."

Take as much time as you feel is necessary: check and double (or triple!) check before you click out of the vignette -- you'd be surprised what you may have misread or misinterpreted. Taking the time to review the vignettes has helped candidates on more than one occasion, and it can help catch stupid mistakes like drawing elements of your solution on the wrong layers. Besides, the time you spend in the exam may save you the aggravation of failure, the cost of retaking, and the bother of re-studying for that section. I'm sure that all of the ARE candidates are (painfully) aware that this is an expensive exam. Do yourself a favor and be sure that you are fully prepared for each section before you sit for it. As one exam veteran puts it, "This test should be thought of by everyone as something that will be passed the first time."

One candidate advises, "The solutions for the design vignettes can be ugly, blocky and just plain not your style. Don't add any features, exits, windows or what-have-yous just because it would look nicer. Pretty does not count … A method I learned at the AIA Philadelphia review sessions was to divide the time for each vignette into three basic parts: 5-10 minutes to read through all of the information and make some brief notes; 20 minutes (more for the longer vignettes) to draw the basic shapes and arrange them to suit the program; and 10-15 minutes to run through a final check list (check off each item in the program to makes sure it was accomplished – if not done, add it now). The check

list part seemed to be one of the most important parts. This is where I discovered my misinterpretations, where I had read extra meaning into a simple requirement or where I had failed to use the drawing program to connect spaces, remove overlaps, etc." Use nothing but 36" doors whenever possible – one person used a pair of 32's and spent a month agonizing over whether it would come back to haunt him. It turns out that it didn't, but that might not always be the case.

In general, make sure that you're well prepared and ready to take each portion of the exam. Don't get too caught up in trying to be perfect – there is some margin for error, and this is a test of competence, not excellence. With the multiple choice sections there is no penalty for guessing, and as you have a 1 in 4 chance of guessing correctly you should NEVER leave any question blank. For the graphic portions make sure that you get as much of your solution down as you can -- the Gods of Partial Credit can only be merciful if there is some raw material to work with. Finally, don't psych yourself out. The passing rate for every section is well above 50%, so if all of those other people can pass, you can too.

RECEIVING YOUR RESULTS

Upon the completion of each portion of the exam the results are graded by the test administrators, then the scores are forwarded to your state registration board. Multiple choice sections are generally turned around in 2-3 weeks, and graphic sections can take 6-8 weeks to be processed. This processing time will be affected by whether or not your state board holds test results for review at a regularly scheduled board meeting before releasing them (check NCARB's web site for this info). If you're kept waiting much longer than that you can always get in touch with your state board to see what is causing the delay.

The scores will come to you on a single sheet which says up near the top whether you got a PASS or a FAIL on the section in question. If you passed, that's all the information that they'll give you, but if you failed there will be a list of the questions/vignettes in which your performance did not meet the passing standard. Unfortunately, that is the extent of the "diagnostic" feedback that will be provided, so don't expect too much information to help you formulate a more successful test preparation strategy the second time around.

PROBLEMS WITH THE TEST

If you have any irregularities with your testing experience, I strongly recommend that you write a letter about it. On my last section I ran into some computer glitches, and I sent a letter off to the testing folks to inform them that there were some bugs in their software. In my case, it probably had no impact on my performance, but it's not a bad strategy to write a CYA (cover your ass) letter. There is a woman I know of who had some sort of disaster happen with every portion of her exam, and I don't know if she actually failed any portion, but I do know that she didn't have to retake anything and she's now registered. Documentation always helps.

If you failed a section and you would like to challenge your score or have your exam reviewed, you have to contact your state registration board. Not all states allow scores

to be challenged (for example, Pennsylvania does not but Delaware does), and even for those that do, NCARB will not recognize the change from FAIL to PASS, so you will have to retake it anyway if you want to be NCARB certified (good if you will ever need reciprocal registration with another state).   Information on which states allow exam scores to be reviewed is also available on NCARB's web site.

PARTING SHOTS

Treat the exam administrator well. After going for nine exams, you're bound to see some individual get short-tempered with the administrator. It's not nice to see, and generally these administrators have very little power to do anything anyway. The exam and the exam schedule are kept at a different facility. The administrator is just a go-between.

Good luck with the exam, and if you have experiences or advice that you think would be valuable to future test-takers, send it to me at kvidal@stanfordalumni.org