



2007-08

### *FREQUENTLY ASKED QUESTIONS*

**NOTE: The answers below are not separated by Challenge. Any given question/answer will apply to either Challenge 1 or Challenge 2. In most instances, the specific challenge is indicated. In all cases, it should be obvious to competitors which items pertain to their Challenge.**

**Students are encouraged to discuss design issues with their faculty advisor for guidance. Competition management and the challenge creator cannot give specific design advice. It is up to students and their advisors to determine the best design for the given parameters.**

REVISED April 15, 2008

1. *Challenge 2 - Does the residential building have to be 1500 square feet per unit, or is this merely the maximum allowable square footage? Are we able to combine elements, such as kitchen and living rooms, into one, larger, communal space (i.e. three units sharing a kitchen, dining, and possibly living room)?*

A: Your overall building footprint should conform to the stated program size, but you can divide up the 4,500 feet however you'd like. Just keep in mind that two of the living spaces must reasonably accommodate at least one bedroom and the other must have room for at least two. Nothing in the challenge description would prohibit you from incorporating common areas into your design, as long as the residents also have individual living quarters to retire to (the one- and two-bedroom units). Shared kitchen, dining and other gathering spaces would be fine. Discuss these and other design issues with your advisor.

2. *Is it necessary to assume car access to these specified roads?*

A: The "roads" do not extend around the competition sites as you have shown. Assume that car access ends with the heavy line around the area labeled Access Drive AND Disabled Parking. A fire lane is an open paved area (usually a part of pedestrian walkways or plazas) that is not normally a roadway, but that can accommodate a fire truck or an ambulance during an emergency. Discuss fire lanes with your instructor for more information.

3. *Challenge 1 - How many students are there in each classroom and how many people may visit this center in a day?*

A: A 1,500 sf classroom should be able to accommodate 30 or more students fairly easily. Classrooms are flexible spaces that can accommodate desks and chairs in various arrangements depending on the instructor's preference, the number of students and the type of instruction going on.

4. *What is underground water surface height level, and does it allow us to establish a basement floor?*

A: Yes, assume that the water table and the soil conditions will support a basement level, if necessary.

5. *Challenge 1 - Would you please explain more about essential and optional furniture for classrooms and labs?*

A: Discuss furniture for laboratory classrooms with your instructor. You might visit biology style laboratory classrooms at your school to get more ideas. Generally the essential furniture is what is mentioned in the program. You should assume that in a laboratory classroom designed to accommodate all kinds of classes, the desks and tables are all moveable, except, of course the sink cabinet.

6. *Challenge 1 - I have a question about the competition regarding the Barn itself as a display location. Is it to be left alone or is it to be retrofitted with a display location.*

A: Per the program, the interior of the barn is to be modified to include the program elements given on page 2-15.

7. *Challenge 1 - I also would like to know if there will be an arena at any time present the near location of the old barn for the equestrian team? I would like to know this because It would seem more ideal to use the current barn for horses than and create one separate location for display purposes.*

A: The decision to use the barn for something other than horses is not part of the competition. Follow the program instructions for the barn. Entries who do not meet the program requirements will be disqualified.

8. *We would like to know if we are allowed to design a building that extends beyond the limits of the site onto the body of water (southwest of site) or do we really have to use the boundaries of the site?*

A: Just like in real life, architects do not get to change the client's site boundary just because they don't like it. Entries which do not use the competition site will be disqualified. No part of your design may extend beyond it, and it may not be manipulated and/or moved or changed.

9. *Can the fire lane be slightly manipulated from its noted location on the given site plan if the given width and access point is retained? I was considering the changing roads angle into the plaza.*

A: We recommend not changing the location of the fire lane, but a slight change is probably not significant. Discuss with your instructor. Note that changing the areas or locations of the two challenge sites, the plaza, or the barn is not allowed.

10. *Second of all, what type of vegetation is present on and around the site? What is the average size of trees, bushes and other plants (diameter and height) ?*

A: Please refer to Section 2 Competition Challenge for any descriptions of the vegetation on the site. It is a mixture of native California vegetation and exotic plants and trees such as the eucalyptus mentioned in the text that were planted by the previous land owners. You will have to judge the relative size of vegetation based on the photos included in Section 2.

11. *Challenge 1 - We would like to know if it is possible to relocate some of the functions (manager's office, staff break room, etc.) primarily located in the barn (in the brief) to the planned building.*

A: We recommend that you follow the program. Of course you are free to change it, but there is no guarantee that the judges won't disqualify your entry for not following the program. We would argue that a museum manager's office should be in the museum and not in a separate building across a plaza.

12. *Challenge 1 - Also, it is possible to make any changes to the structure of the barn?*

A: You are free to disregard the competition instructions, but you do so at your own risk. The barn's age qualifies it as an historic building. As such, any changes to its exterior should be minimal.

13. *As for the site, at the time of the barn's construction, what was the approximate area of the plot of land and the relation with the farm house and other farm buildings, if there were any?*

A: As is indicated in Section 2, when the barn was built Colin Campbell owned the 500 acres around the site. There is no information available about other buildings that might have been adjacent to the barn when it was built. The Campbells lived in the large house described on page 2-6. The house adjacent to the competition site and visible on the aerial photos was built much later and was not part of the barn site. The other metal-roofed buildings shown in the aerial photos are pole barns or sheds, probably built in the 1950s and 1960s and used for various storage purposes over the years.

14. *Regarding Challenge 2, In the Competition Site Drawing (DWG file) provided on your website, a retaining wall is present on the north side of the Challenge 2 site, which extends west of the Challenge 2 site. What is the height of this retaining wall? Also, what exactly does the retaining wall "retain," since it appears from the plan and site photos that the slope at that point on the site is minimal? Finally, can this wall be removed?*

A: The retaining wall was added to help Challenge 2 entrants deal with the slope of their site. There was the expectation that the residential unit on the north end of the site would need a retaining wall to allow the lower level of that unit to be exposed on the downhill (west) side. This may not be necessary. The wall can be whatever height the entrant wants. If you do not think a retaining wall is necessary to your design, then you may delete it.

15. *Regarding Challenge 1, is all material displayed in the history center and barn able to be displayed through graphics and text or does the designer have to allocate space for physical items to be placed on display? If so how much space? The initial idea I have for a display space would include only room for large vertical format display boards or computer screens on which to display pertinent information. Will that work?*

A: In general, display space should be as flexible as possible. Since the program didn't tell you that what kind of space to provide, you should design what you think is best.

16. *Regarding Challenge 1, when deliveries are made to the receiving/loading area of the history center, is the only vehicular access through the access drive on the west end of the site and/or the fire lane on the south side of the site, or is it possible for the designer to add vehicular access to any location on the given site?*

A: The intention is that the loading/receiving space in the history center will serve both the old barn and the new building, and that it will be from the access drive given in the competition site plan. Vehicle access can be added in, but it is not required.

17. *Regarding Challenge 1, will there be any chemical experimentation going on in either the kids labs or adult labs that will require special ventilation systems and exhaust hoods or will these features be unnecessary for the required lab spaces?*

A: No special ventilation is required for these teaching and demonstration laboratories.

18. *Regarding Challenge 1, is it possible to place any portion of the designed building below grade, even if it may be merely sloping the seating from the lecture hall into the ground to save vertical space? If so, is it discouraged by the jury?*

A: Yes, parts of the building such as the sloped seating for the lecture hall may be below grade. Keep in mind the requirement for handicapped access to all levels of the building, including a lecture hall with sloped seating. Sloped seating is not required by the program. Discuss the issue of handicapped access in a sloped seating lecture hall with your instructor.

19. *Regarding Challenge 1, can we include the new vernal pool as part of our design and will we have any control over its size and location?*

A: You may include the vernal pool as part of your design and control its size and location. However, the program does not require you to do so.

20. *Regarding Challenge 1, we are also looking for a good topography map of the site and we're having difficulties finding one. Where can we get more detailed information regarding the topography of the site?*

A: A topography map of the site is not available. Please follow the instructions in Section 2 and assume that the Challenge 1 site is flat.

21. *Regarding Challenge 1, is it required that the plaza be made of pervious pavement or can we use other materials for the plaza as long as they are pervious and sustainable?*

A: You may use whatever material you would like for the plaza. Pervious and sustainable would be very good.

22. *For Challenge 2, in the table listing program elements it mentions exterior balcony (facing west, upper level). Does this balcony need to be on the upper most level of the structure, or can the floor directly above a basement level be considered an upper level on the west side?*

A: The balcony may be on any level above ground. The program asks for a balcony, not a porch, which implies that there is enough clearance under the balcony for people, horses, and/or people riding horses.

23. *Challenge 2 - How does the tack room accommodate the students? Is it only accommodating the students in the residents hall? Or is the tack room accommodating the whole team? If so how many students will the tack room need to accommodate? I am also unclear about the access to the tack room. Does there need to be a separate tack room for each of the residents, or is it one large tack room that they all have access to? Or does each town house have to have a private entrance into these tack rooms?*

A: Per the program, each unit of the residential building will have its own tack room and feed storage room for the residents of each townhouse. Since students might not want to carry feed and saddles through their houses, it would make sense that at a minimum those rooms opened to the exterior. West is requested, facing the grooming and saddling areas. However, you may also have those rooms accessible from the interior of the unit. Consult with your instructor for advice about designing circulation within the residential units.

24. *Challenge 2 - Do the cross ties for the horses need to be on the 1800 sq-ft lot?*

A: As page 2-18 indicates, the exterior grooming and saddling area will be west of the competition site.

25. *Challenge 1 - We are interested in the viability of recycled materials on the existing site. Of the buildings that are planned to be demolished, what materials are available to be reused and approximately how much of those materials (i.e. structural timbers, wooden planks, cladding)?*

A: The existing metal storage sheds were constructed of corrugated metal cladding on wood framing. They are all one story, and they do not have any flooring. The amount of materials that could be recycled from each structure is not available. You are welcome to project what you think would be available based estimating the square footage of the buildings from the plans and site photos already available to you. A reasonable projection will be acceptable to the judges.

26. *Challenge 2 - It is stated that all portions of the building must be within the site boundary; does that mean to include the finished exterior?*

A: Yes, of course. It also includes building roof overhangs, porches, balconies, entry stairs etc. Just as in real life, one property's building may not extend onto the neighboring property. Of course walkways and sidewalks are exempt from this. Consult with your instructor for more information.

27. *Challenge 2 - In the DWG. files associated with the site plan, it shows an elevation change from East to West in a downward slope of 8' in 30'. Does this slope continue and if so, how far before the ground levels out, or rises?*

A: No. Assume that any areas not shown in the section are essentially flat, as the program indicates.

28. *Challenge 2 - The competition program asks to design a 4500 sq. ft residence and equestrian area combined. If the site is 30' x 60 feet= 1800sq. ft. at one level, does that mean that anything larger than the 4500 sq. ft. design requirements will be disqualified. I guess what I am asking is this; if I use the complete site for my design and I have three floors including the basement and it totals at 5400 sq. ft., does that now mean I am over the program requirements?*

A: No. The 4,500 sq. ft. residence only includes the areas summarized on page 2-18, the 'equestrian area' is outside the site. The program requires that your residential building be on the site given, as described in the question above. There is also a height limit given in the program: 50 ft from the lowest floor. If you meet these requirements then your design will not be disqualified, even if it exceeds the suggested 4500 sf. We would note, however, that for sustainable design, less is usually more. The most sustainable building materials are those that your design doesn't use: i.e. it is more sustainable to design a good building that is smaller and uses fewer building materials rather than a building that is bigger than needed and uses more materials. Your instructor should be able to provide you with examples of right-sized sustainable designs.

29. *I had a question regarding the calculations, is it required by the competition to use the values only given in the book "Mechanical and Electrical Equipment for Buildings"? There is another book which gives value more specifically, it is called "Sun, Wind and Light" can we use that?*

A: In order for all the entrants calculations to be comparable, please follow the instructions in the competition documents and use the values given in the book that is referenced. Do not substitute other values from other sources.

30. *Are we to be concerned about the separation of rooms by gender? Will the males and females need to have to have separate rooming areas?*

A: No, the judges are not concerned about that issue. If you'd like to make that distinction, you are welcome to, but it is not required.

31. *Page 2-18 states that this area should be located WEST of the competition site. Page 2-16 states that new corrals, paddocks and riding area are located EAST of the competition site. Does this imply that the horses are stabled EAST of the plaza in the open space/new vernal pool area?*

A: Thank you for pointing out this typographical error. The text at the bottom of page 2-16 should say "west" not "east". There is no intention for horses to be in the vernal pool area. [Note: This discrepancy in the challenge description has been corrected as of March 28, 2008. If you have already proceeded with your design using the previous version, that's fine. The judges will be aware that this change and no submission will be penalized for following the earlier version.]

32. *What are the other buildings to the northwest of the barn? They show up in aerial images (Google earth) but not on your site plans.*

A: The west campus site plan shows the existing barns and storage sheds that also appear in some of the photos in Section 2. Other small structures on the site which may be visible in Google Earth are not a part of the competition. For the purposes of the competition, you should assume that they are not there.

33. *We were wondering if we should take Challenge 1 building into account in the Challenge 2 design? For example, shadows, views and outside circulation and how they might impact our design. Or should we totally ignore the fact that a large building and parking area will be going in very close to our site.*

A: You should take the adjacent buildings into account. Note that the Challenge 1 site is north of the Challenge 2 site. Also note that there is no parking on the plaza. Be sure to discuss with your instructor how to determine sun angles and shadow directions.

34. *I have a question regarding the Leading Edge Competition 2007-2008, concerning Section 5 - Technical Requirements. In Question 4 - Heat Gains and Losses through Windows, according to the instructions the calculation is supposed to be made on south facing glass. However, our project's southern wall has no windows whatsoever, and is completely closed. Therefore, can the calculation which was meant to be done on the south facing glass be done for another wall which does have windows, say the east or west wall, instead? Or are we required to answer one of the other five calculations instead?*

A: While it is clearly not the intention of that technical exercise, you may do the calculation for a window other than a southern window. Please state so in your written documentation so the judges can understand what you are doing. Also consult with your instructor, as some of the values required in that calculation may change with the window orientation. If this is the case, get your instructor's assistance to determine how to proceed.

35. *Re Challenge 2, must each residential unit have a separate tack and storage room?*

A: No.

36. *Re Challenge 2, Can the units be stacked on top of each other and have access to the tack and feed rooms at the basement level through a shared stairwell or does each unit have to be directly on top of its associated tack/feed room.*

A: That is a design choice you can make. You can lay it out however you'd like, as long as you work with the requirements of the challenge.

37. *Re Challenge 2, can the administration office be a separate building from the student housing building as long as it is still within the 1800 sq ft footprint?*

A: Again, this is a design choice and is up to you as long as you work within the challenge requirements.

38. *Challenge 2 - Do the balconies absolutely have to face west?*

A: The program asks for the balconies to face west. You can ignore the program at your own risk. If you believe your design is better with balconies facing another direction, you may enter that design, but discuss this with your faculty advisor before proceeding.

39. *Challenge 2 - What is your definition of Townhouse? Is it the same as a Rowhouse? Or are you looking for the elevations to look like a classic Townhouse? Can the apartments be on their own floor or do you want the spaces stacked? Or is it just however we wish to lay the building out?*

A: Discuss with your instructor what the definition of a townhouse is. You are free to design the residences as you wish, within the boundaries of the site, the height limit, and the program.

40. *Challenge 2 - If the tack and feed areas are on the basement floor and mostly open to the exterior, do they still have to count as square footage in the program?*

A: Yes, they are part of the building.

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***The time for questions is now closed. Consult your instructor if you still have questions after thoroughly reviewing all materials posted on the competition website and this FAQ document.  
Best of luck to all competitors!***