

Northland Pioneer College Construction Advisory Committee
September 29, 2009

Present: Steve Sims, Craig Green, Dane Stevens, Melvin Stein, Paul Barry (Construction Contractors); Rick Fernau (Mayor, Show Low); Mark Engle(SBDC); Chuck Marsh (Show Low High School); Matt Weber (NAVIT); John Darst, Don Richie, Betsyann Wilson, Leslie Collins, Ann Hilliard (Northland Pioneer College).

Key points and recommendations:

1. The NPC Construction Program (adult program based in Show Low) has had extremely low enrollment in the last two years, and will be placed on hold for the next 18 months.
2. NPC will be revising the program during this time period. We intend to include Green/Sustainable Construction Techniques, and need guidance from the Advisory Committee on this and other improvements.
3. NPC is very interested in bringing NAVIT students into the Construction program when it is re-started.
4. The Contractors on the committee were unanimous in recommending a large component of hands-on experience for every course taught.
5. The idea of having students actually build a house is attractive from the standpoint of understanding sequencing and dependencies.
6. Contractors expressed willingness to allow structured access to construction sites for NPC students, on an internship or job-shadowing basis. NPC could provide Certificate of Insurance for our students.
7. Matt Weber of NAVIT encouraged NPC to use NCCER (National Center for Construction Education and Research) standards and certification in the Construction program.
8. Computers are increasing being used for planning, bidding, and communication; more important for supervisors than for trades at this point.
9. Contractors are seeing increased interest in some Green construction methods, while many recommended techniques are still priced out of our market. However, learning about Green methods could give students an advantage when the industry turns around.
10. The Committee recommends that NPC offer short courses to the public in Green building methods. These courses can give insight into the interest level for various subjects, and can provide a start for full-scale courses when the program starts back up.

Discussion Notes

What is the vision for the program? John Darst –Currently using NCCER textbooks. Vision is to go green, build a house using SIPS construction. We would then sell the house, and apply proceeds to the next new project. Could be self-sustaining. Full turnkey. This would help trades learn to work together.

Don Richie – we have unique challenges. Enrollment at Show Low (adult program) is at a historic low this semester, with one lab (several courses) class of 14 students. Currently we also have programs at DOC in Winslow, plus WIC at Whiteriver with Apache Housing Authority, as well as dual enrollment and evening classes at Blue Ridge High School.

General discussion: What about modular? Build on site and move.

Rick Fernau will check with Show Low to see if city/local government fees can be waived, and explore partnering opportunities if we decide to proceed with this type of construction project.

Steve Sims – have project (near “Y”) using SIP panels. Can help with this type of project.

Don – Green construction at Hopi – Red Feather Development Group (non-profit out of Montana) has built 5 straw bale houses at Hopi. We may have opportunity to teach straw bale construction at that location, as a local non-profit foundation has recently been chartered to extend the program to several houses per year.

Matt: NAVIT needs State or National certification for students, which NCCER provides. None of the four contractors present were familiar with NCCER.

Ann Hilliard – NPC offers Certificate of Applied Science, Associate of Applied Science in Construction Technology with emphasis in Carpentry, Construction Technology, Wiring Electrician, and Supervision. NPC also offers certificates of proficiency in the above areas.

Don – construction is a community program. We need Advisory Committee guidance on how to structure the program to meet local needs.

Chuck Marsh – Since AZ is a right-to-work state, the documentation of training/trade union skills which are associated with NCCER is not as widely required. Large employers elsewhere in AZ – Sundt Construction, and other major contractors – use NCCER.

General Discussion: In White Mountains, a far larger proportion of building is residential/ single-family and multi-family homes and smaller business/industrial buildings. Instead of NCCER, UCC codes drive electrical work standards.

Melvin Stein – I really like John’s idea, which allows students to see how the theory they are learning has “real world” application.

Steve – reaffirmed above point.

Curt Casey – the community college is limited in how much hands-on experience it can build into its programs. We need to make sure that we are teaching the basics which employers require. However, BRHS has been doing one house per year.

Paul Barry -- As a contractor, far more interested in experience than in schooling. Electricians – take a day or two to rope a house; another day or so to build boxes. Having people who have done the activity/jobs several times is preferable to someone who has just built one house.

Steve Sims – The advantage of building an entire structure is understanding sequencing and dependencies -- there are people even in drafting professions who don’t understand how things go together.

What can we do to increase enrollment?

Betsyann Wilson – there’s a lot more interest around green construction, energy conservation, solar and wind energy. It’s a growth area.

Steve – should consider offering a “green” certification program vs. traditional.

General conversation regarding the experience/classroom issue. General construction knowledge should be part of any construction program. What about internships/job shadowing? This could provide more practical experience. Question: How do we insure these students? Matt/Don: would not be employees of contractor – do not need workers comp. College would have to provide certificate of insurance for interns.

Paul – graduates of the WM Apache Construction Technology program have been good hires for me. Transportation is a barrier. Apprentice program there has proven very successful, and might be a very good model for rest of NPC.

General discussion: Even if internship were not feasible, we might be able to open job sites from time to time to show students what we’re doing and why.

Steve – you can give students a head start if you incorporate green techniques into each trade. Could probably make a green certificate. Seek out industries which support green construction.

Melvin -- Already are doing many of the steps of green construction. When it becomes cost effective it becomes part of our industry, not until then.

Don – Another question we want the board to consider is how can NPC's other programs, such as computer information systems, be integrated with construction? Are "smart home" concepts popular, and will training be needed for building them?

General Discussion --Anyone who wants to go into supervision needs to have computer knowledge – everything is going paperless. Plans, contracts, etc.

Paul --Electrical – Specialized knowledge is needed. Solar panels create DC current, going to the converter to become AC in the house. Lots of the green techniques are similar hybrid.

Low VOC (volatile organic compounds) or no-VOC is becoming more desirable and affordable.

John Darst -- We get lots of students who just want to take a course or two in electrical or plumbing.

General Discussion – Committee recommends that NPC offer solar and other green classes.

Don – we need your help to determine what the needs of you as employers, and to develop a sense of the direction we need to go.

Chuck – create short courses in trendy areas of green technology and offer to public.

Dane Stephens -- certificates are not useful information; I need to know how many hours they have worked and what they can actually do. Most value would be some type of apprentice program going along with the instruction. As far as I can tell, certificates mostly say students read all volumes of manuals. But practical experience is most important – 90% of value for me is the experience factor.

General discussion –NPC is going to have to use the resources within this committee to get back on track. The advisory committee members expressed willingness to assist the college in this work.

Don expressed thanks to advisory committee members for their time and ideas.