

Montana Society of Engineers

A state society of the National Society of Professional Engineers



Founded 1887

President's Message

Dan Munson, PE, President

It's been a pleasure to serve the Professional Engineering community of Montana for the last 5 years as a member of the MSE state board. When I look at the strengths of MSE, I see us being successfully involved in:

- The Joint Engineers Conference, which keeps getting bigger and better every year, helping over 300 area engineers network together with high quality continuing education offerings.
- MATHCOUNTS, which involves over 500 middle school mathletes each year.
- Dissolving society and professional boundaries by fostering collaboration with other engineering societies, the MPELS board, and other design professionals.
- Partnering with the Montana Board of Professional Engineers and Land Surveyors on issues that affect our profession in the state.
- Working in collaboration with the MBPELS and the state architecture folks to discuss issues of common concern like public education, building codes, need for design professionals, and incidental practice.
- Monitoring Montana legislative issues for opportunities to enhance the engineering welfare and image.

There is still a lot more that we want to get accomplished including:

- Continue to grow a Montana Engineer's premiere website.
- Continue to grow the Engineering Outreach program to Montana schools.
- Continue to look for opportunities to educate the public on the need for design professionals.
- Continue to welcome and acknowledge newly registered PE's into our ranks.

If you can see yourself helping along with any of these initiatives, please contact any of the MSE board members. Our society can make an impact only when all of us team together for the common

good. Please consider enhancing the profession's reputation and reach by pitching in and doing your part. It's a great profession with great people. Thanks for making a difference.

Next MSE State Board Meeting

The next MSE State Board meeting will be held on November 2nd in Helena at 5:30 pm in connection with the Joint Engineers Conference to be held at the Red Lion Colonial Inn. All of the membership is welcome to attend.

MATHCOUNTS National News

The 2006 MATHCOUNTS season officially wrapped up on May 12th when 228 "Mathletes" from around the nation gave it their best at the National Competition in Washington D.C. Daesun Yim, an 8th grader from West Windsor, NJ answered this challenging math problem in less than 45 seconds to win the MATHCOUNTS National Champion title:

A jar contains 8 red balls, 6 green balls and 24 yellow balls. In order to make the probability of choosing a yellow ball from the jar on the first selection equal to 1/2, Kerry will add x red balls and y green balls. What is the average of x and y? Answer: 5



The Montana MATHCOUNTS Team pose at the National Competition in Washington DC. From left: Dower, Bentley, Shackleton, Patterson, Toller.

The official Montana state team consisted of Alec Patterson from Missoula's Washington Middle School, Aidan Shackleton from Missoula's Sussex School, Glen Dower from Cascade County

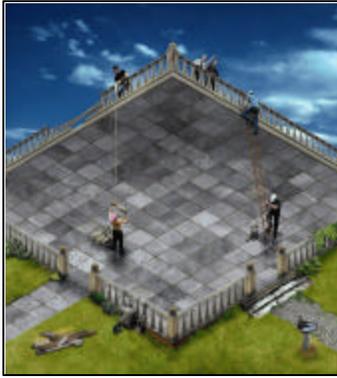
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June, 2006

The next MSE State Board meeting will be held on November 2nd in Helena at 5:30 pm in connection with the Joint Engineers Conference to be held at the Red Lion Colonial Inn.

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Project requiring advanced architectural knowledge.

Stray Thoughts

By Tom Abel, PE, Secretary-Treasurer

In this article the "A" word will be used numerous times. If you find this topic distasteful and disgusting, please skip over to another article. For those readers with strong fortitude, read on.

Architects. Here is what is happening in this state for those who are not involved in construction engineering or design. The "architects" in this state are combing the building permit files looking for jobs that were turned in without an architect's stamp. When they find such a job a complaint is filled out and sent to the board of architects. While it is hard to believe that professional "architects" have nothing better to do with their time than look at old building permits, this is exactly what is happening. Here is what happened to us at Abel Engineering Inc. and it happened with at least two of our clients.

We had gotten a small office job that had been drawn by either the owner or the owner and a draftsman. It was basically a rectangular box with a 5/12 roof over it. Our job was to get the design through the Kalispell Building Department for permits. They had failed doing this due to lack of a site plan, and lack of engineering. We did a parking and drainage plan, and provided a few structural details. In Kalispell, the parking space available dictates the size of the building, so due to limited parking we had to shave a foot from one end of the building, which required redrawing it.

Six months later we received a letter from the Board of Architects saying a local architect filed a complaint against Abel Engineering Inc. for "practicing architecture without a license", and in the blank for suggested penalty, the complainant filled in the words "jail time". I read that and my mind immediately began to formulate the image of me being arrested for practicing architecture without a license.

Being a product of the Vietnam anti war movement at the University of Minnesota in 1968-1970, the years the war was expanded to Cambodia, the year a student at Kent State University was shot by a National Guardsman for demonstrating against the war, I had seen many arrests by overzealous police. What was learned from such observations is that you do not resist arrest, because that is against the law, but you also do not cooperate. You peacefully sit there while 2 or 3 burly cops in riot gear carry you away to the paddy wagon. Then when a group of students are occupying the same paddy wagon, a peace song is sung and you sway back and forth to the music. The swaying is just coincidentally in time with the spring constant of the paddy wagon suspension, so when the wagon takes the first corner, it falls over on it's side, taking out a few road signs with it.

This was all useful information imagining my arrest at Abel Engineering Inc. I imagined six county sheriff cars storming up to my house, Sheriff Dupont leading the charge up the stairs to my small office above my garage, our dog yapping at their heels, the Channel 9 News cameras rolling in the background. Maybe a helicopter would be called out in case I tried to bolt into the woods to avoid arrest. I am sitting at my office chair in front of the computer and the Sheriff and the boys physically lift me from my chair and haul me down the stairs at gunpoint.

Later while sitting in the Flathead County Jail along with murder suspects, meth dealers and manufacturers, wife beaters, child molesters, and just plain folks who are drying out from their D.U.I., the song "Alices

Restaurant" comes to mind only with "practicing architecture" substituted for "littering":

"And I, I walked over to the, to the bench there, and there is, Group W's where they put you if you may not be moral enough to join the army after committing your special crime, and there was all kinds of mean nasty ugly looking people on the bench there. Mother rapers. Father stabbers. Father rapers! Father rapers sitting right there on the bench next to me! And they was mean and nasty and ugly and horrible crime-type guys sitting on the bench next to me. And the meanest, ugliest, nastiest one, the meanest father raper of them all, was coming over to me and he was mean 'n' ugly 'n' nasty 'n' horrible and all kind of things and he sat down next to me and said, "Kid, whad'ya get?" I said, "I didn't get nothing, I had to pay \$50 and pick up the garbage." He said, "What were you arrested for, kid?" And I said, "Littering." And they all moved away from me on the bench there, and the hairy eyeball and all kinds of mean nasty things, till I said, "And creating a nuisance." And they all came back, shook my hand, and we had a great time on the bench

If you haven't already had such an experience, it is only a matter of time. The architects in this state are aggressively protecting their turf and will continue to turn in complaints to the board. In my case the Architecture Board did not act but turned the complaint over to the Engineering Board. The Engineering Board threw it out and returned the complaint to the Architecture Board. I was hoping it would end there, but soon in the mail came a "Cease and Desist" order signed by an attorney. It simply said that Abel Engineering Inc. was to refrain from practicing architecture without a license and gave some legal threat if it happened again.

We tried to find out just specifically we did that violated the Administrative Rules of Montana relating to Architecture. In our answer to the complaint we quoted the Architecture rule 37-65-102 (5):

"Practice of Architecture means any professional service or creative work requiring the application of advanced knowledge of architectural design, building construction, and standards..... "

The office building we turned in to the building department did not have any "advanced design to it" I was drawing boxes with roofs on them since the 1st grade with color crayons, and in 7th grade drafting class we learned how to draw floor plans. Certainly trimming one foot off of this simple box design would not require "advanced knowledge of architectural design", and it was not our design anyway, it was the owner's.

In the Montana Code Annotated (MCA) 2005 (37-67-101) engineering is defined :

(6)(a)"Practice of engineering" means: (i) any service or creative work the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to the services or creative work as consultation, investigation, evaluation, planning and design of engineering works and systems, planning the use of water, teaching of advanced engineering subjects, engineering surveys, and the inspection of construction for the purpose of ensuring compliance with drawings and specifications; (ii) any of the functions described in subsection (6)(a)(i) that embrace the services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature insofar as

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Stray Thoughts —Continued from page 2

they involve safeguarding life, health, or property. (b) *The term includes other professional services necessary to the planning, progress, and completion of any engineering services.* (c) The term does not include the work ordinarily performed by persons who operate or maintain machinery or equipment, communication lines, signal circuits, electric powerlines, or pipelines.

We thought we were covered by MCA 2005 37-67-101 (6) (b). Apparently the engineering board thought yes in our case and the attorney for the architecture board thought no. To this day we have never been told what specific activity the Architecture Board considered a violation. We may still be violating the code. How do we know? We think there was nothing specific stated because there was nothing we did that violated the rules.

What is bad about this whole procedure is it is a waste of time for everyone involved. It not only wasted our time, but the time of both the engineering board and the architect board. We see this as architects attempting to protect their market area, trying to milk every bit of work out of every potential job, and if they cannot obtain new work by merit and past performance they want to get work by forcing others out of it. I doubt this was the intended purpose of the architecture and engineering laws.

What both groups need to keep in mind is protecting the public is paramount. When you start splitting hairs about whether an engineer or an architect is qualified to design beams or draw plans it seems kind of ridiculous.

What can we, as a group of engineers, do about the architectural complaints pouring into the boards?

1. Do nothing – the status quo.
2. Engineers could begin looking at building permits and filing complaints against architects who perform engineering without a license. In the wise words of Uncle Jesse, in the Dukes of Hazzard “If’n we stoop to their level, we ain’t any better than they are.”
3. Since this is an apparent turf protection tactic, we could provide the reverse result by using out-of-state architects. Engineers could make it easy and convenient for out-of-state architects to compete

NSPE National Meeting will be in Boston

Jeff Ruffner, PE, President Elect, & MSE House of Delegates Representative

In July, I will be attending the NSPE National Meeting in Boston as your representative to the newly established House of Delegates. This will be new to me and I will do my best to represent you at the meeting. To adequately represent you, I need to know your issues. If you have strong feelings on any issues, please contact me and let me know. I can be reached at 406-494-7412 or at jeff.ruffner@mse-ta.com.

with the Montana architects, by being the local contact.

4. Open a dialogue with the Architects and the boards to
 - Clean up the MCA and ARM language defining architecture and engineering. In our opinion the definitions are cumbersome and open to interpretation. They are almost useless and pave the way for non-specific “cease and desist” orders such as the one we received.
 - Clearly define what Architects and Engineers can and cannot do. The State of Texas eliminated this entire issue by allowing 100% overlap of engineers and architects. The State of North Dakota has vague definitions similar to Montana’s but they give specific examples that help clarify the vague rules. NSPE has all of the state’s laws on file and have studied this issue. There are suggestions available from our own society.

As a board we are looking at #4. Number 3 is an attractive possibility and each engineering firm can make their own choice on that one.

Enough soap box. On a more serious issue, the latest cell phone research is the time changed between mile marker 71 and 72 on the Idaho side right after the pass. I was not driving.



Clearly define what Architects and Engineers can and cannot do.

Jeff Ruffner, MSE House of Delegate Representative requests your input at the NSPE National Meeting.

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Through the financial support that these sponsors, Montana MATHCOUNTS has continued to grow and reach more students in Montana. These students are introduced to the wonderful world that mathematics can open and able to take advantage of these skills at an earlier level making their future and ours brighter. THANK YOU!

MATHCOUNTS National News
—Continued from Page 1

Homeschool, and Caleb Bentley from Lewistown Middle School along with their coach, Missoula's Washington Middle School Math teacher Teresa Toller. Our MSE State President Dan Munson attended the national competition as a volunteer who helped run the event.

This year at the national competition, the Montana MATHCOUNTS team set three all-time records.

- Our team placed 28th out of 57 nationally competing teams, breaking the previous Montana nation record of 32nd place.
- Alec Patterson individually placed 26th in the nation, breaking the previous Montana nation record of an individual 56th place.
- Alec was also Montana's first three-time national participant. This means that he won the privilege to represent Montana on the national team as a sixth grader, beating out over 400 other 7th and 8th graders in the state.

Lockheed Martin hosted the 2006 MATHCOUNTS National Competition in Arlington, Va. at the Hyatt Regency Crystal City. The mathletes got to tour the Udvar-Hazy Center, National Air & Space Museum. All of the Montana kids were really impressed with the high caliber of brain trust that they got to rub elbows with.

The National Society of Professional Engineers on a national level organizes the MATHCOUNTS program. Locally, MATHCOUNTS is organized by the Montana Society of Engineers, with local volunteer effort being provided by area engineers, students, and professionals. Montana has always had a great contingent of fellow engineers volunteering their time to make the program run smoothly.

A special thanks to all of you who have helped make this program so successful.

***Montana MathCounts
Team placed 28th out of 56
nationally competing
teams, breaking the
previous Montana nation
record of 32nd place.***

New MSE Board Will take Office on July 1, 2006

The new MSE Board will take office officially on July 1, 2006 through the fiscal year ending June 30, 2007.

The new Board consists of Sandra Anderson as President, Jeff Ruffner as President Elect, Tom Abel as Vice President and the new Board member is Kenneth Phillips as Secretary/Treasurer. Dan Munson will serve as Immediate Past President.

The Board and the MSE membership would like to thank Doug Brekke for his service on the MSE Board for over 7 years as the chairs shifted many times through his tenure. His patient, understanding and service to MSE are valued and appreciated.

Kenneth Phillips, the new kid on the Board, is a graduate of Montana State University, College of Engineering and is a Licensed Professional Engineer. Mr. Phillips career in construction started as a carpenter's apprentice and he worked as a journeyman carpenter for many years. His experience includes working for the National Parks Service in Yellowstone and ITT Antarctica Services in McMurdo Antarctica. His professional career began with the State of Montana Architecture & Engineering Division where he was project manager on architectural, civil & mechanical state construction projects. He also was the engineering section supervisor for Montana

Fish, Wildlife & Parks where he oversaw construction of parks, buildings & hatchery projects. He currently works for the State Building Energy Conservation Program identifying and promoting the implementation of energy efficiency and alternative energy projects for State owned buildings.

As an Engineer in Government he realizes the importance of licensure for both the private design engineer as well as licensure for people working in the engineering branches of the State who manage contracts with private consulting firms. Thus he is very supportive of the mission of the Montana Society of Engineers as well as the National Society of Professional Engineers.

Ken is a graduate of Montana State University, a member of MSE since 2003, a Professional Engineer in State Government. Ken believes that the Engineer's role is to better mankind and is committed to the State of Montana. He is also working hard to prove to people in general that Engineers are not boring—to do this Ken uses humor.

Come meet your new Board at the next MSE General Membership Meeting November 2nd in Helena at 5:30 pm in connection with the Joint Engineers Conference at the Red Lion Colonial Inn. All of the membership is welcome to attend. We hope to see you there!

***The new Board consists of
Sandra Anderson as
President, Jeff Ruffner as
President Elect, Tom Abel
as Vice President and the
new Board member is
Kenneth Phillips as
Secretary/Treasurer.***



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**2006 JEC
November 2-4 in
Helena, Montana**

Plans for the 2006 JEC are well underway with many of the speakers in place for this year's conference. Participants will be able to earn at minimum 14.0 CEUs. Vendors are encouraged to sign-up sooner rather than later since space is limited. As the time nears, registration and more conference information will be posted at:
www.mtengineering.org

JEC Chairman Doug Brekke can be reached at DLB@5400.TV or at 406-932-5400. Doug is always open to new ideas and suggestions that would improve the conference.

Make your plans to attend TODAY:

**Joint Engineers Conference
November 2-4, 2006
Red Lion Colonial Hotel
Helena, Montana
1-800-733-5466**

***Participants will be able to
earn at minimum 14.0
CEUs!***

05-06 MSE Board

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Deadline for the Next
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