

SCFP SUBCOMMITTEE ON TWIN CITIES FACILITIES AND SUPPORT  
SERVICES (STCFSS)  
MINUTES OF MEETING  
NOVEMBER 21, 2002

[In these minutes: Welcome and Call to Order, Approval of September 19, 2002 Minutes, Andersen Library/MLAC Facility Issues

[These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate or Twin Cities Assembly; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate or Assembly, the Administration or the Board of Regents.]

PRESENT: Gary Jahn, Chair, Sharon Folk, Edward Kosciolk, Kent Rees, Steve Fitzgerald, Laurie Scheich, Steve Spehn, John Adams, Calvin Alexander, Cynthia Jara, Patrice Morrow, Jane Phillips, George Wilcox

ABSENT: B. David Galt, Linda Jorn, Donald Kelsey, Lorelee Wederstrom

GUEST(S): Roger Wegner and William O'Neill

I). Professor Jahn called the meeting to order and asked those present to introduce themselves.

II). The committee unanimously approved the September 19, 2002 minutes as submitted.

III). Professor Jahn welcomed Roger Wegner, Facilities Management owner's representative, to the meeting. Mr. Wegner distributed a handout that provided members with the history and commissioning of the Minnesota Library Access Center (MLAC) as well as information concerning the temperature and humidity control issues that have plagued the facility from the beginning. Presentation and discussion highlights include:

- In the spring of 2001, the original mechanical design firm, Erickson, Ellison and Associates (EEA), was put on notice and brought back to review the humidity and temperature problems at MLAC and make suggestions on how to control these problems. Facilities Management implemented EEA's recommendations, but, by the end of August 2001, it was clear that EEA's recommendations did not satisfactorily correct the issues.
- Then, in the fall of 2001, a Boston engineering firm, Einhorn, Yaffee and Prescott (EYP), was hired to review and make recommendations concerning the facility's temperature and humidity fluctuations. Both short term and long term recommendations were made by EYP.
- MLAC's problems are a result of:
  - Too much unconditioned migrant air getting into the caverns, and
  - The fans that were installed were unable to provide adequate ventilation to properly pressurize the space.

- Construction to correct the humidification problem and properly pressurize the caverns is expected to start in January 2003 and be completed by the end of March 2003. Correction costs to the MLAC facility are being completely funded by Facilities Management.
- Other examples of buildings experiencing air-handling problems were mentioned. Mr. Wegner noted that in each case a different mechanical engineering firm was involved and in each case action is being taken to correct the problems. To refute the implication that there was no thread of commonality in each of these instances, Professor Alexander noted that the common theme is that the University of Minnesota is the owner agent.
- In response to a question, it was noted that the University hires third-party 'commissioning agents' to work directly for the University and that the design engineer would never be hired as a commissioning agent. 'Commissioning agents' act in the University's best interest to try and catch costly mistakes in the construction process before they happen. Unfortunately, commissioning findings are often caught too late in the process.
- Assignment of Risk - Contract reviews are currently being conducted by Facilities Management (FM) in conjunction with the Office of the General Counsel to equitably assign risk under all contracts e.g. owner, designer, contractor, etc.
- When a problem is detected the original designer is given an opportunity to respond and the University will implement their recommendations. Facilities Management is making an effort to spend more money in the early stages during the observation plan review in order to correct problems before they happen.
- Facilities Management is also investigating the possibility of increasing the number of reviews on all its projects and especially capital projects. During the review of MLAC, an attempt was made to involve all parties with knowledge of this project to work towards solving its problems. Professor Alexander suggested that building occupants, including faculty, students and staff with first-hand knowledge of building problems, be included in this process. Of equal importance is the need for engineers speak to the University and its various constituencies in terms that can be easily understood.
- Is there something in the bidding process whereby the University only chooses the low bidder? Does this doom the University to having problems? According to Mr. Wegner, it is easier to launch a project and make sure the design documents are being followed than it is to review documents and make sure that everything will work. He further noted that many aspects of mechanical design are intuitive. Professor Jahn summarized by saying that the likelihood of constructing a 'perfect building' of a complex nature seems to be very remote.
- Steve Spehn interjected that there are also examples of successful projects on campus and believes that this can be attributed in large to "constructability". "Constructability" is the act of involving the University's trades' people, operations people, other in-house experts and the contractor as early as possible in the design phase of a project. The earlier the experts are brought in, the more likely the project will be successful.
- Examples of project delivery methods used by the University include:
  1. Design/bid/build

2. 'Construction Manager at Risk'
3. Design/build – this approach promotes “constructability” according to Mr. Spehn.
  - In Professor Alexander’s opinion, over the years there has been a lack of communication between those that build and operate the buildings and building occupants. As he remembers the events in the fall of 1999 and the spring of 2000 as MLAC went on-line, building occupants immediately started raising concerns about the facility but either their voices were never heard or they were simply ignored. Professor Alexander does agree that good things are starting to happen but wonders why it took 3 years. Ms. Folk added that over the past year to year and a half as ‘players’ have changed and investigations have been conducted, communication channels have opened and many positive changes have taken place.
  - New strategies are being put in place to make improvements in the old process. In the early to mid 1990’s the University experienced problems with its contractual relationships. It was unclear how much input the University, as the owner, could give without taking on too much risk. Since that time concerted efforts to delineate and clarify the risk factor continue to take place.
  - How often does the contingency fund cover problems? The contingency fund is not there to cover design errors or programmatic changes but to cover large problems. Designers are, however, required to have ‘errors and omissions’ insurance and abide by a “standard of care”, a guide to the prudent practice of their profession. Industry standards allow designers 3 – 5% change order errors on errors and omissions matters before a designer would be pursued legally.
  - Professor Jahn summarized the discussion by stating that projects have two phases:
    1. Design Phase (philosophy involved in design)/Construction Phase
    2. Review and acceptance of design/construction phase
  - Capital projects there are three review phases:
    1. Schematic
    2. Design Development
    3. Ninety-Five Percent Construction Documents
  - A question was raised concerning whether Andersen Library has been completely paid for? Steve Spehn and Roger Wegner were unsure and asked that they be given the opportunity to look into the matter and will report back to the committee. Mr. Spehn stated that typically the University holds a 5% retainer until a project has been accepted and signed off on.

Professor Jahn thanked Mr. Wegner and Mr. O’Neill for attending today’s meeting.

IV). Next, Professor Jahn called on Professor Calvin Alexander to share his findings on Andersen Library with the committee. Professor Alexander began by identifying four major problems with the facility:

1. External Flooding – Andersen Library is built below the 50 and 100-year flood plain. Although such events have an infrequent recurrence interval, the

- fundamental problem is the failure by those managing the facility to retain this knowledge.
2. Contaminated water leaking from the cavern ceilings.
  3. Humidity issues.
  4. Shotcrete failure in the portal area of the ceiling. Shotcrete is liquid concrete that is sprayed, under pressure, on surfaces as a sealant. The University paid to have 3” of shotcrete applied but what was actually applied was severely under specifications. The Department of Health and Safety have since declared this space a hard-hat area.

Professor Alexander raised the important question of who is inspecting and monitoring a contractor’s performance? In order to protect the University he believes strongly that this is an issue that this committee needs to investigate further.

Members were encouraged to visit the Andersen Library URL at <http://andersen.lib.umn.edu/aboutandersen.html> to learn more about the facility.

Besides storing University of Minnesota materials, MLAC stores collections for entities outside of the University of Minnesota. The University promises to store these materials in a safe environment, free of temperature and humidity fluctuations. Based on two humidity charts and other evidence presented by Professor Alexander this is not occurring. Because the committee was concerned about the University’s potential liability if it were charging for storage services it was not delivering, Sharon Folk volunteered to investigate the matter further and report back to the committee.

Professor Adams noted that whether or not the University is charging for these services is secondary to the real issue. The real issue is how to fix the problem because each time an entity gives the University materials to archive they are doing so with the understanding that they will be stored in perpetuity and a contractual agreement is established. If those materials are lost, damaged or destroyed that presents a very real problem. Currently FM and EYP are working closely to resolve the problem.

Professor Jara asked if mold is currently growing in the facility and if there are defined standards on humidity limits for items in storage? Ms. Folk noted that mold has been found in the facility, and, as a result, since last year efforts continue to clean the collections.

Mr. Spehn acknowledged that poor communication early on has been a contributing factor for why it has taken 3 years for something to be done about the problems with MLAC. While design and construction problems are not unique to the University this does not mean that steps can’t be taken to improve the University’s processes. Facilities Management is implementing new strategies to stay ahead of the curve.

Other questions from the committee included:

- Is the University over-designing what it needs?

- Is the University willing to pay the price for good design?
- Is this an overall construction/design industry problem not limited exclusively to University projects? Does this go beyond the boundaries of the University?

The committee unanimously agreed this issue needs to be brought before the parent committee, SCFP. Members agreed to support Professor Jahn and Professor Alexander to bring this matter before SCFP on behalf of the committee. It was decided that Steve Spehn also be part of the presentation to SCFP in light of his position and information he possesses on the subject. The goal would be to use Andersen Library/MLAC as a single example of what appears to be a common problem. Important questions to raise to SCFP include but are not limited to:

- Where is the oversight and what can be done to improve the process?
- Where in the process can someone with the necessary experience be brought in to review designs?
- Is there a way to systematically orchestrate communication between key players, and, if so, who will pay for this?
- Where are the safeguards working and not working in the system now?

It was agreed that there was no need to specifically bring up the possibility of contractual violations when going before SCFP. If SCFP is concerned they can pursue the matter further with the Office of the General Counsel (OCG).

Mr. Spehn made special note that FM has established an Oversight Steering Committee that is currently reviewing its processes and expects to make recommendations and changes to its project delivery process. This initiative is getting the attention of the Board of Regent's, the Department of Audits and the Office of the General Counsel (OGC).

V). With no further business, Professor Jahn adjourned the meeting.

Renee Dempsey  
University Senate