



**RDG... PA**

## UO Student Recreation Center Integrated Design Meeting – 12/15/11

User Group:	Dennis Munroe	UO	PE & Rec	present
	Mike Eyster	UO	Student Affairs	
	Bryan Haunert	UO	PE & Rec	
	Brent Harrison	UO	PE & Rec	
	Sue Wieseke	UO	PE & Rec	
	Geoff Hale	Student	SRC Advisory Bd	
	Michelle Vander Heyden	Student	ASUO	
	Derick Olsen	Student	SRC Student Emp	
	Kristen Gleason	UO	Club Sports	
	Jen Phillips	UO	Neuroscience	
	Julie Haack	UO	Chemistry	
	Rob Thallon	UO	Architecture	
Support	Gene Mowery	UO	Planning	present
	Emily Eng	UO	Planning	present
	Charlene Lindsay	UO	FS Cap Con	present
	Darin Dehle	UO	FS Cap Con	present
Design Team	Jack Patton	RDG	Architect	
	Jeff Schaub	RDG	Architect	present
	Michael Andresen	RDG	Energy	present
	Jim Henry	RDG	Architect	present
	Otto Poticha	Poticha	Architect	present
	Carl Sherwood	RSA	Architect	present
	Dave Guadagni	RSA	Architect	present
	Scott Stolarczyk	RSA	Architect	present
	Matt Koehler	CM	Landscape Arch	present
	Charlie Brown	ESBL	Energy	present
	Matt Keenan	KPFF	Civil Eng	present
	Mark Richards	MRR	Structural Eng	present
	Steve Dacus	IE	Mechanical Eng	present
	Chris Larson	IE	Electrical Eng	present
UO Phys plant	Drew Standridge	UO	EHS	present
	Art Corliss	UO	Mechanical	present
Guests	Deb Stock	Observer		

### MEETING MINUTES

Diagrams and other visual information presented at this workshop and noted below are available at the UO project web site: <http://pages.uoregon.edu/eeng/src.html>

1. Purpose of meeting is to look at the goals as they relate to and enhance our developing design

2. Reviewed Scheme 11 and 12 along with new scheme 13 with its pools down and gym above.
3. Building goals will be to have building well day lit, efficient and to minimize loads. Building will need to tell a story. Energy strategies will have to be quantifiable and measurable in order to make rational decisions. We will not be guessing about how far we take things, we are looking at real measurable steps to validate and support our choices
4. The future yellow zone development to the west was explained. Our choices in Phase 1 should support this future yellow zone growth.
5. Review of known site restraints:
  - a. 4-hour walls exist or are required at current face of Esslinger and any construction in Phase 1 or Yellow Zone build-out that abuts Esslinger
  - b. There are existing footings at SRC, Leighton Pool and Esslinger that should not be undermined.
  - c. There is an existing electrical room at the field level basement just to southeast of Leighton Pool that would be very difficult and expensive to move so should remain intact if possible.
  - d. There are fire lanes at south and east of project site that will need to be maintained and perhaps improved at east.
  - e. We will need to divert construction traffic from 15th
6. Strategies to consider:
  - a. Storm water cistern at Leighton pools. Cistern can also be used for heat storage (thermal battery). Might partition 1/3 for flushing and 2/3 for cooling. Possible use of surge tank for flushing. Cistern / Heat sink used for peaking strategy.
  - b. Natural ventilation for cooling and ventilation at large volumes (but not at pools) up to 60% of spaces. 30 to 40 percent of time ventilation can occur without fans.
  - c. Ceiling fans used for cooling.
  - d. Heat recovery at natatorium.
  - e. Avoid smoke control (\$500,000 cost) that would be required for an atrium concept design. Atrium sides do not need to be open could be glazed and allow for stacked ventilation
  - f. Consider night ventilation of mass with a night purge. Might need to upsize outside air system or use windows. With the window option we will either need to have controls or possibly have them student operated. With student operation we will have to anticipate changes in management over time and whether the funding or willingness to continue with student labor will be maintained.
  - g. Control glazing: Not all glazing will be same type, u-value, or shaded the same way.
  - h. Earth tubes for pre-cooling. This would require lots of surface area and about 4' minimum burial depth. Not a likely strategy
  - i. Use irrigation line water for cooling. This will warm irrigation water and should be verified for plant tolerance.
  - j. Recover heat from tunnel system and pool equipment rooms.
  - k. Can we reuse on campus the excavate materials – not likely except rock fill under Tennis Courts. Eugene formation rock is not suitable for structural fill and excavated subsoils are not desirable anywhere on campus.
  - l. Could campus or project use salvaged lumber from Covered Tennis Courts?
  - m. Might be asbestos in Esslinger. UO to check.
  - n. Solar thermal for pool water heating and possible for showers.
  - o. 1.5 percent of budget to be spent on solar as requirement by state. UO tries to use this wisely and not necessarily for solar panel. Solar heating for water or expansion of existing solar array a possibility.

- p. Sever mechanical and electrical connection between Esslinger and 99 SRC addition.
  - q. Retain existing Leighton Electrical room.
  - r. Green roof – only do if it is visible, tells a story, is efficient and not a maintenance problem.
  - s. Planters for storm water on upper patio are a possible smaller green roof type.
  - t. Zone pools and use covers when unoccupied. Through the architecture make it easy to do set and remove pool blankets.
  - u. Zone fitness spaces if possible. They open to other spaces so there is a problem with shutting them down individually.
  - v. Cooling PV panels with water makes them more efficient.
  - w. Exercise equipment as energy source – good story but very minimal source.
  - x. Reuse pool back wash heat energy, especially from hot tubs.
  - y. No on “black water” reuse.
  - z. Dampers on louvers
  - aa. Consider indoor umbrellas under skylights for light distribution.
  - bb. Double façade is not desirable from UO point of view.
7. Gyms:
- a. Radiant heated floor probably better than radiant walls since walls will have padding and are remote from interior.
  - b. There will need to be a thermal gap between warm natatorium below and cooler gym above.
  - c. If a plenum is created between gym and natatorium there could be a condensation problem.
  - d. No mechanical cooling to Gyms is necessary.
  - e. Wind powered generators?
  - f. Control glazing and shade at south sides
  - g. Thermal mass?
8. Natatorium
- a. Use of pool blankets is important along with scheduling of pools to limit there placement and removal cycles.
  - b. Need more top day lighting than shown in scheme. Could gyms be spread to allow light to go through to natatorium?
  - c. Should the pools be zoned by wall separation between two pool tanks with spa on each side? Not favored by Dennis. Need to test solution in order to decide.
  - d. Will need drains under pools and in pits. The adjacent storm and sanitary systems are shallow so we will need to pump.
9. The next integrated design session will be January 19<sup>th</sup> at 1:00.
10. Design team need consultants to prepare diagrams and narratives for use by CMGC and independent cost estimator by Monday morning, Jan 9<sup>th</sup>.

End of Report