



MEETING MINUTES

Project Name: Whitewater Innovation Center
Precis Sustainability Consult Meeting
UW Whitewater, Hyer Hall

EUA Project Number: 709052-01

Meeting Date: June 25, 2009

Recorded By: Cliff Goodhart

Attendees:	Richard Telfer	UW Whitewater Chancellor, Technology Park Board President
	Jeff Knight	CDA Member, Technology Park Board Member
	Mike VanDenBosch	Walworth County Representative, Board Member
	Jim Caldwell	First Citizens State Bank
	Denise Ehlen	UW Whitewater ORSP Director, Board Member
	Steve Holzhauer	EU:A
	Cliff Goodhart	EU:A
	Paul Raisleger	EU:A
	Scott Easton	Affiliated Engineers, Inc. (AEI)
	Mike Walters	Affiliated Engineers, Inc. (AEI)
	Ken Saiki	Ken Saiki Design

The purpose of the meeting was to discuss sustainable design strategies and options for the project.

Meeting Discussion

1. Two incubator suite modules were discussed (15 X 35 vs. 20 X 33). A 20-foot wide module has the advantage of providing space for two standard office cubicles with an aisle between. The 15 X 35 module is 525 sf and the 20 X 33 module is 660 sf in area (conversations with Greg Hyer at the University Research Park suggest that a 20-foot module is preferred.
 - The Board will review these options and determine the preferred size for a single incubator suite.
2. The quantity of modules was also discussed. The spreadsheet program developed by EUA on June 16 totaled over 56,000 sf. Massing studies were presented comparing a three-story 56,000 sf building and a 40,000 sf two-story building. If the building is 56,000 sf or larger, a three-story building may be more efficient from a mechanical/electrical standpoint and could promote better tenant interaction compared to a two story building of the same overall area.
 - The Board will continue to work with the design team to determine the best overall size and occupant mix for the building.
3. CESA might occupy most of a second or third floor. Their overall space requirements need to be confirmed.

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4. The massing studies show a 17-foot high clear structural bay for the light manufacturing component. Jim Caldwell asked that the design team consider bringing this up as high as 24 feet. Further discussion is required to determine an optimal height.
5. Jim asked whether a three story building would provide views of the campus. This could be determined if the city could provide a platform lift from which photographs could be taken. Jeff Knight asked about vertical elements that could be incorporated into the design that would visually landmark the building from far away.
6. Advantages and disadvantages to locating incubator spaces on upper floors vs. lower floors were discussed. An upper floor advantage would be the ease of providing exhaust ventilation from a laboratory space directly through the roof. A lower floor advantage would be for tenants with equipment that is difficult to move or vibration sensitive.
7. Occupants with equipment that generates large heat loads would be best located in areas of the building that experience high solar loads, such as the south side, since the HVAC equipment is already sized for a higher demand.
8. Chancellor Telfer reiterated the desire that public spaces be interspersed throughout the building to encourage informal collaboration and networking. The design team was encouraged to visit Upham Hall and the new Business School building. *This was done after the meeting.*
9. The placement of the building on the site was reviewed. It is important to consider the building's relation to the site as well as the site's relation to the building. Considering the building's role as focal point to the Technology Park, two site concepts were reviewed:
 - One shows a new road internal to the park, running west of the building and intersecting with Howard Road.
 - The second shows a new road internal to the Park running east of the building connecting with the eastern end of Main Street. This concept also moves the entrance and "head" of the building to the east side.
 - Both concepts show a shared parking lot for CESA training occupants and the soccer fields.
 - Both concepts remove the entrance to Kettle Moraine Park from the Corporate Drive curve and incorporate a shared drive further east.
 - Both concepts offer increased flexibility for future subdivision of the Tech Park.
10. The feasibility of a road that is internal to the Park is prohibitive since the purchase of the residential property on Howard Road will not be pursued and also because there needs to be developable land on both sides of the roadway in order to be cost effective.
11. The design team will pursue a design that combines the CESA and soccer field parking lots and brings a main entrance to the Tech Park closer to the midpoint of Corporate Drive. A secondary Tech Park entrance can be shared with Kettle Moraine Park and it can be moved from the curve further east.

12. The building's location should encourage visual and physical connections from its public areas to the detention pond toward the west.
13. A building's envelope, mechanical and electrical systems must be developed on a parallel track. A well-performing building envelope considers the occupants, their activities as well as site orientation. Mechanical and electrical systems that have to overcome design flaws will be less economical to own and operate.
14. Early solar path analyses suggest optimal glass vs. solid wall percentages as well as insulation values for walls and roofs. Shading studies can demonstrate the relative reductions in the solar loads and impact on daylighting. Maximum daylighting must be balanced with concerns about glare and winter heat loss.
15. Lighting contributes 30-40% of typical office building's cooling load. To lessen this impact, daylighting, occupancy sensors, task lighting and heat recovery systems can be utilized.
16. The design approach for building HVAC systems will identify zones based on use and orientation.
 - Training, meeting and common areas may benefit from a displacement air approach where air is distributed low and returned high, permitting lower supply temperatures and air velocities.
 - Incubator and office areas may utilize traditional ceiling-height distribution, allowing greater flexibility in the location of occupants' furniture, equipment and partitions. Options for this type of system include a variable volume system (that modulates the temperature and amount of air entering a space based upon occupant load and activities) and a radiant system (that heats and cools air using individual terminal units in tenant spaces).
 - High bay manufacturing spaces could be conditioned using conventional rooftop units with energy recovery modules as is customary in many warehouse buildings.
17. Renewable energy techniques may be incorporated. Two of the most promising strategies involve:
 - Energy recovery wheels. This system utilizes a heat exchanger to warm and cool incoming fresh air from outside the building using energy from the exhaust stream before it leaves the building.
 - Geothermal system. The constant temperature of the ground temperature is used to supply and reject heat using a closed-loop bore field. More investigation is required to determine whether this site has adequate soil conditions to result in an efficient system.

Next Steps

1. EUA will contact Gary Albrecht and Dan McGuire to get more information about their specific space requirements.
2. EUA will review the overall space program document and develop scenarios based upon larger/smaller incubator modules and various master tenant assumptions (i.e. Crossroads Counseling and Nano Imaging).



3. The Board will review incubator planning options and determine the preferred size for a single suite.
4. The Board will investigate whether the city can provide a platform lift from which photographs could be taken.
5. The Board will investigate whether the Geology Department has information regarding the site's soils characteristics for depths as low as 300 feet.
6. The next design progress meeting will be held on Wednesday, July 1 at 10:00 in Room 422 Hyer Hall.

To the best of our knowledge, the items above represent the information discussed. If there are any discrepancies or omissions, please contact me with any questions at (608) 442-6684.

cc: Kevin Brunner
Bud Gayhart
Pete Zaballos
John Chenoweth
Mary Nimm
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END OF MINUTES