



Vancouver Island University – Cowichan Place Campus
MINUTES OF MEETING WITH ALL CONSULTANTS
Held at: Cowichan Campus, Duncan, BC
JULY 6, 2009 at 10:00 A.M.

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ATTENDING:

| | | |
|---|-----|------------------------------|
| Ric Kelm, Executive Director of Facilities, VIU | RK | Ric.Kelm@viu.ca |
| Maria Lauridsen, Principal of Cowichan Campus | ML | Maria.Lauridsen@viu.ca |
| Drew Taylor, Campus Planner & Developer, VIU | DT | Drew.Taylor@viu.ca |
| Jim Eaton, Beacon Construction Consultants | JE | jim@beaconconsultants.ca |
| Bruce Johnson, Read Jones Christoffersen | BJ | bjohnson@rjc.ca |
| Bob Landell, Avalon Mechanical | BL | bob@avalonmechanical.com |
| Wendy MacDonald, Advicas | WM | wmacdonald@advicas.com |
| Patrick Ryan, Herold Engineering | PR | pryan@HeroldEngineering.com |
| Randy Sharp, Sharp & Diamond | RS | randy@sharpdiamond.com |
| Jay Singh, AES | JS | jsingh@appliedengineering.ca |
| Tony Grice, AES | TG | tgrice@appliedengineering.ca |
| Tom Wilson, AME Consulting Group | TW | tomwilson@amegroup.ca |
| Rob Walter, AME Consulting Group | RW | robwalter@amegroup.ca |
| Shiv K. Garyali, Garyali Architect Inc | GAI | garyali@telus.net |
| John Armitage, Garyali Architect Inc | GAI | garyali@telus.net |

Subject

CONSULTANT START-UP MEETING

ACTION

1. Introductions and Communication Flow

- Communications to flow through GAI.
- Specific consultants' issues may be addressed directly to VIU (typically Ric Kelm), copy GAI.

2. Project Background, Scope, Budget

- Business case is based on replacement of existing facilities. Additional items will be master planned only at this stage.
- Construction budget, building: \$13 - 17 m (depending on interpretation of escalation factor) Site: \$1.5 m.
- VIU expects high building quality and durable standards.
- Refer to VIU website for design manual and performance standards.
- RK tabled Cowichan Place design guidelines plus Delcan Report for distribution to relevant parties.

AI
AI
GAI

3. Construction Manager Status

- RFP closes July 9th. Selection will be finalized by July 10th or 13th. RK to advise.

RK

4. User Consultation Process and Review

- GAI have consulted with User Groups, Community Stakeholders and Cowichan Tribes' Representatives. Minutes will be distributed.

GAI

5. Fundamental Design Principles

- This is a highly significant project for VIU, for the Cowichan Campus and for the City of Duncan.
- There are high expectations for a truly sustainable project, "beyond LEED".
- This project has a unique First Nations acknowledgement and flavour.

6. Project Schedule Review

- Draft schedule tabled.
- This will be a key driver for all decision making.
- The CM will be a key resource and team member to guide decision-making.
- Design phase is highly compressed and must overlap with the start of construction in certain areas e.g. foundations, structural shop drawings, mechanical or electrical equipment.
- Site preparation will commence this summer involving primarily Civil but also Landscape, Mechanical, and Electrical.
- Civil, Mechanical, Electrical, Landscape to collaborate to produce Site Services submission to local municipalities as a courtesy.
- VIU will be the Authority Having Jurisdiction. Development and building permits will not be required.

7. LEED Certification Status and General Discussion

- Confirmed that project will be registered with CaGBC.
- Minimum required performance standard to be Gold.
- VIU / GAI to confirm energy model consultant ASAP.

GAI

8. LEED Certification Methodology

- An all-consultant meeting (including RK and ML) to be scheduled ASAP based on LEED Scorecard. GAI to advise.
- All consultants to identify key sustainability issues and potentials in advance of meeting. These should be general and "beyond LEED".
- A subsequent meeting to be scheduled to discuss issues with user group representatives (to be nominated by RK and ML) for user input, feedback and education.

GAI / All

All

GAI / ML

9. Sustainability Potential General Discussion (beyond LEED)

9.1 LANDSCAPE - Randy Sharp

- Defining context is the Watershed: Surrounding hills, valley bottom, Somenos Marsh and local high water table.
- Responses include replicating and restoring ecosystems such as marsh, dry bluff meadows, and forest (including stumps and logs).
- Parking will be significant - consider treating as an 'orchard'.
- Emphasis on social landscape with gathering and quiet places.
- Green roof opportunity to create dry bluff ecosystem.
- Consider edible landscape elements.

9.2 COMMISSIONING - Bob Landell

- Sustainability means minimizing resources and pollution.
- Many LEED projects are not actually very sustainable with poor energy performance, typically overglazed.
- Important to honour the Owner's requirements such as times of occupancy (evenings, weekend).
- Education of users will be vital, during design phase and at occupancy, ML to organize.
- By 2050 (within lifespan of this building) society will require 85% reduction in energy use.

9.3 MECHANICAL - Tom Wilson

- Natural ventilation is contra-indicated for this site and type of occupancy.
- Carbon neutrality as a stated goal has various definitions and suggests certain choices of systems with considerable operational implications.
- Project schedule may preclude geothermal.
- Aerothermal heat pump is a likely candidate but have to resolve noise issues,
- Radiant slabs may also be viable.
- Any A/C requirements will be important.
- Detailed controllability by occupants can have considerable cost implications.
- Consider wider tolerances for personal comfort.
- Consider zoning of building for areas with after-hours occupancy.
- Heat recovery may be a challenge (fume hoods etc.).
- Grey water and storm water storage and reuse are possible but have considerable cost implications.

9.4 ELECTRICAL - Tony Grice

- Maximize daylighting in order to reduce artificial. Need to address glare control.
- Regenerative buildings are possible but very expensive. Can incorporate photovoltaics into shading devices.
- Option to buy electricity from biomass generation sources.
- Important to simplify systems, e.g. lighting controls, to preserve design intent over life of building.
- Maximize wireless controls to reduce cabling.

9.5 CIVIL - Patrick Ryan

- Existing high water table will be a challenge. Implies poor infiltration and effects storm water strategies, e.g. ditches, bio-swales.
- Consider how to manage oil and grit separators.
- Consider permeable asphalt (experimental) and unit pavers. Both have cost and maintenance implications.
- Leaf management (catch basins) may be an issue.

9.6 COST - Jim Eaton

- This project illustrates the need for a life cycle versus capital cost approach to project funding from government.

9.7 LEED CONSULTANT - Wendy MacDonald

- Should be considerable education / interaction potential.
- Thinking should be land based.
- Consider zero net energy as a goal.

9.8 MECHANICAL - Rob Walter

- Geothermal was discounted for the Aquatic Centre without full investigation. Will provide material for VIU to issue RFP for soil conductivity testing.
- Geothermal capital premium likely \$400,000 ±. VIU could consider funding from Terasen.
- Geothermal has potential to eliminate gas as back-up fuel unlike aerothermal.
- Geothermal can also provide d.h.w. unlike aerothermal.
- Hydro funding available for energy modelling.
- Potential to utilize waste heat from arena's ice-making plant. Considerable piping costs which should ideally be integrated with road construction.

AME / VIU

9.9 STRUCTURAL - Bruce Johnson

- Materials use.
- Efficient layout with future adaptability.
- Possible to achieve 15% recycled content in concrete. Not advisable for finished slabs.
- Are there any local sources of reusable structural timbers?
- Wood is more carbon efficient (is carbon neutral) than steel or concrete although this is not recognized under LEED.
- Wood use may be limited by spans, code issues.
- Consider methods such as cross-laminated components.

10. Cost Control Methodology and Coordination with CM

- Schedule will negate traditional, phased, cost-estimate process. Will be a trades-based, dynamic process using whatever consultant input is appropriate at each stage.
- JE to coordinate with CM as soon as CM is appointed.
-

All
JE

11. Functional Program Review

- RPG has met with all user groups. Draft Functional Program will be distributed. Comments to be submitted to RPG / RK by July 10, 2009.
- Final Functional Program required by July 17.

All
RPG

Meeting concluded with site visit.

ec: All
Mark Meher, RPG
George Hrabowych, Herold Engineering

All efforts have been made to present the mentioned items as an accurate record of the discussions at the meeting. Should there be any discrepancies, please contact our office.