

Vancouver Island University – Cowichan Place Campus
MINUTES OF MEETING - Design Development Start Up
Held at: Garyali Architect Inc, Victoria, BC
September 3, 2009 at 8:30 A.M.

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ATTENDING:

Ric Kelm, Executive Director of Facilities, VIU	RK	Ric.Kelm@viu.ca
Drew Taylor, Campus Planner & Developer, VIU	DT	Drew.Taylor@viu.ca
Steve Hawboldt , President, Yellowridge	YR	steve@yellowridge.ca
Kevin Waite, Senior Estimator, Yellowridge	YR	kevin@yellowridge.ca
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Tony Grice, Applied Engineering Solutions	TG	tgrice@appliedengineering.ca
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Louise Smith, AME	LS	louisesmith@amegroup.ca
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Subject

1. CIVIL and LANDSCAPE:

- a. GH had discussions with North Cowichan and Delcan regarding University Way.
 - 200 diameter water service will be provided as well as 200 dia. sanitary.
 - Right out only at Beverly Street.

RS suggested that current bus drop off location on Delcan drawings be moved to salvage trees and to create a safe pedestrian crossing from south parking area to VIU ceremonial entrance. A fire lane must also be accommodated in this area.

Landscape and civil drawings to be updated accordingly and sent to DT (and GAI) to be forwarded to Delcan.

- b. Hydrant locations to be 100m apart with 1 hydrant located within 45m of main entrance. Fire Department connection to be located at main entrance.
- c. Lawn basins will be required to pick up storm water along south side of proposed building.
- d. RS and GH to send info to Yellowridge for their servicing next week.
- e. Short term parking / drop off/ service vehicle zone to accommodate 5 vehicles.

- f. Main floor slab elevation to be 9.90m to accommodate site surface drainage to 8.60m at NW corner of site.
- g. YR is proposing to crush the existing on site concrete slabs and foundations to 3" minus to be reused as parking sub base.
- h. RS to review parking lot paving options.
- i. DT to give requirements for Compost/Recycle/Garbage bins.
- j. HE to produce specification for sedimentation plan for implementation by YR. WM to review.
- k. HE will review with fire department if 4.3m fire lane is acceptable.
- l. Electrical / data and emergency phones required at parking entrance. Emergency phone also required in ceremonial entrance area.
- m. Illuminated sign stub out is required at main entrance.
- n. AES to send all electrical and conduit locations to HE to show on Civil drawings.
- o. YR to identify schedule for Consultant documents for Civil and foundation work.
- p. YR to identify how to structure tender packages.

2. MECHANICAL and ELECTRICAL

- a. AME to contact Delcan to confirm water pressure.
- b. Electrical preliminary review indicated that the building will be 90% daylight with current plan configuration. Based on Tvis of 65% (south elevation) and Tvis 85% (north elevation) during winter.
- c. Wide slat venetian blinds at windows above 2200 above fin. floor will increase perimeter daylight and allow for room darkening. Lower portion of windows may have roll down blinds. Approved by RK.
- d. RK would like WM to identify LEED features in order to produce guide for occupants and develop a sustainability guide produced by VIU.
- e. Task lighting required for white boards.
- f. RK approved use of Ledalite Voice light fixtures in project. Fixtures to be parallel to exterior wall with built in sensors with step switching. AES to provide AME with lighting load (W/sq.ft.).
- g. Real time energy (gas, electricity) consumption dash board integrated in the main entrance area required.
- h. Natural gas emergency generator to be placed inside electrical building. Upsize generator for future building (150 KW).
- i. Separate lighting / power panels.
- j. Coordinate electrical signals with mechanical.
- k. Harmonic Mitigation -Surge protectors required at main service and dedicated

panel in server room.

- l. VIU requirements for electrical closets passed on to AES.
 - m. Minimum floor plugs (computer rooms, learning commons and registration).
 - n. 2 level switching for parking lot fixtures.
 - o. Charging / recharging stations required for electric cars.
 - p. Card access and security systems to be roughed in.
 - q. DDC system: VIU prefers Energrated Systems. YR recommends fully open bid. AME to standardize on 'backnet' system which is compatible with Allerton, Delta and Energrated.
 - r. Heat pump design will be a hybrid system with cooling tower and boiler backup. Geotility on site testing underway.
 - s. Energy model will determine aero-thermal vs geo-thermal. Pump room will be required if geo-thermal design.
 - t. YR will tender Geothermal separate from Mechanical.
 - u. AME will stack AHU's in mechanical room to save floor space. Steel structure and catwalk (by RJC) will be required to support AHU.
 - v. VAV boxes will be used to zone offices for occupancy control.
 - w. Kitchen requirements to be as per existing VIU Cowichan campus. Commercial dishwasher required.
 - x. Plumbing fixtures submitted to VIU for their review.
 - y. If grey water is reused in building, then UV treatment, filter, screening, storage tank and pump will be required. This item has a long payback and will be used as a demonstration. It is a cost cutting candidate.
- 3. COMMISSIONING:**
- a. All consultants to send Bob Landell (Avalon -commissioning authority) all drawings, specs and energy models for review by end of September. WM will advise Avalon.
 - b. VIU to engage Commissioning Agent so that they are independent of mechanical subcontractor.
- 4. CONSTRUCTION:**
- a. Tender Packages: Civil - (Sept. 21-24); Foundations; rest of concrete structure; mechanical, electrical and architectural -to follow.
 - b. YR will submit estimate September 16 / 09. Foundations will be tendered before Sept. 30 if no redesign.
 - c. Reconfiguration of plans may occur if over budget. RK confirmed no major changes to footprint.
- 5. GEOTECHNICAL and STRUCTURAL**
- a. Updated letter from LEA addresses liquifaction using new standards, 2 meters of over-excavation, 5 meters beyond footprint + 2 layers of geosynthetics.
 - b. Extent of over-excavation may threaten existing trees, budget and project schedule.
 - c. LEA will review to shorten over-excavation. Consider reduced bearing pressure

with 4.5 meter square footings at columns.

- d. Excavated material can be reused in the project for non-structural fill, but may require selective handling.
- e. BJ to speak with GL regarding strategies and advise how to proceed.
- f. Duncan area is in a high seismic zone (higher than Victoria).
- g. Theatre, cafeteria and 3rd floor roof: Using 38mm decking with closer spaced glulam beams is more cost effective than 63mm decking. Theatre roof load permits 40 psf. A heavier green roof will effect all components. RS to advise.
- h. Mechanical info required to complete structural.
- i. YR can tender excavation / backfill and can start ASAP.
- j. Excavation and fill will take approximately 1 month to complete.
- k. Ric has asked that YR proceed regardless of current pricing exercise.
- l. YR prefers raft slab vs preloading due to schedule.

6. BUILDING DESIGN

- a. Building floor area (including mechanical penthouse).
GAI noted that the building was planned as per July 20/09 Functional Programme by RPG Consultants and planning relationships requested by the Staff in order to best deliver education programme. The programme area is greater than the business case area.
- b. Ric noted that the footprint as it stands is fixed. Consultants are to proceed with design development. Once estimate from Yellowridge is received, cost reductions will be achieved by re-examining the scope of site work, landscaping, fittings and finishes to accommodate the budget (if necessary).

ec: Those attending, Bob Landell - Avalon Mechanical

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.