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MEMORANDUM

January 22, 2009

To: Bill Faucher, Allied Engineering
Anthony Davis, Allied Engineering

CC: Gunnar Hubbard, Fore Solutions

From: Jay Waterman, Fore Solutions

Subject: Acadia Gateway Center – Sustainability Strategy – 60% Design Review Comments

The following are comments, questions or requested information based on the 60% Design Development drawings for Acadia Gateway Center project in Trenton, Maine. These comments supplement the LEED related drawing comments attached to the email of the same date.

1. WE credits 1, 2 & 3 – Is there potential for potable water usage to be offset by rainwater for flushing of toilets, washing of busses and irrigation? This could affect also SS credit 6.1 & 2.
2. EA credit 1 - The VAV & ERU system is noted. Please explain/confirm the energy use and thermal comfort issues that arise with the VAV & ERU system in a building of this usage.
3. EA credit 1 – Optimize Energy Performance – Has a preliminary energy model been performed? Please provide a narrative description of the mechanical systems of the building.
4. EApre1 – Fundamental Commissioning – Has a commissioning agent been hired? Has the owner and mechanical engineer written an Owner Project Requirements and a Basis of Design? Please provide these documents upon their completion.
5. EA credit 3 – Enhanced Commissioning – We assume this has been discussed, and determined not targeted for the project. Please verify.
6. EQ credit 1 – Outdoor Air Delivery Monitoring (CO₂) – What is the strategy for CO₂ monitoring to meet the intent of the credit? We did not note any CO₂ Sensors.
7. EA credit 2 – On-site Renewable Energy. Solar thermal hot water will help with this credit. Preliminary energy model can help determine what percentage of energy usage the solar thermal will produce and if the addition of solar thermal will reach the LEED threshold of 2.5% of energy use or beyond. We assume most likely not achievable.

8. EQ credit 2 – Increased Ventilation – Is the project intending to supply ventilation air at a rate of at least 30% above AHRAE 62.1-2004?
9. EQ credit 5 – Indoor Chemical Pollutant Source Control - LEED requires filtration of both outside and return air that is to be delivered as supply air. Is MERV 13 filtration of supply and return air feasible? Are walk-off areas at entryways mats or sunken grates? We are assuming sunken grates/mats in the slab. Please confirm.
10. EQ credit 5 - The Janitor closets on the first floor and Second floor need to have full partition walls. At shaft it notes wall section “E”. We have concern this would allow air/toxics to migrate vertically.
11. EQ credit 5 – Battery room and Lube room, and Parts/Equipment rooms should be treated like Janitor closets – from a LEED perspective
12. EQc6.1 – Controllability of Systems – Lighting Mini Z Daylighting Management System is noted. Please provide more information on this system and how it will affect energy performance.
13. SSc6.2 - Need discussion of how pollutants are being removed from storm water. Is there a "capture and treat" strategy? Must achieve an 80% total suspended solids removal; Reduction of impervious cover, promotion of local infiltration; What percentage of rainwater could project capture? How will rainwater be treated and used? Local storm water best management practices should be identified and noted on plans. Is pervious paving an option?
14. SSc7.2 – Heat Island – Roof – All roofs more than a 2:12 pitch can use a roofing material of a minimum of 29 SRI for heat reflectance. Discuss color and reflectance. Flat roofs should be a white roof. Notes state materials will be SRI of minimum 78. Please confirm selection to be White TPO. (see spec comments)
15. NOTE: Insulation details need improvement at horizontal locations and some slab edge locations
 - a. Detail 3 – A4.01 at Storefront
 - b. Details 7 & 8 – A4.03 at doors and windows.
 - c. Review potential for slab edge insulation in addition to sealant and expandable fill
 - d. Detail 10,11,12,13 – A4.04&05. Parapet detail needs insulation/thermal break.
16. Consider doors along Lift Bay 01/02 to separate from work areas & provide secondary separation from exhaust. This is discussion point, not a mandate.
17. We recommend (require?) Occupancy Sensors at Janitor Closets & Storage areas.
18. Recycling bins noted. Additional note/area needed in Garbage room.
19. Add reference to LEED requirements on S-000.
20. On plumbing schedule, please put field/column to list flow rates. (No calculation performed yet – next steps). Noted in specs Dual Flush, 1/8 gal flush, .5 flow on lav.
21. 410A refrigerant noted.
22. SS c8 - Confirm overall energy of full cut off site lighting fixtures.