

Attending:

Leah Smith, Chair
Mark Mazer
Paul Levine

Public:

Camron Adibi
Dan Waters
Nelia Decker
Max Skjoldebrand
Tim Twombly
Ernie Mendenhall
Kathy Logue
Anna Edey
Beth Kramer

There was not a quorum so there were no votes taken, nor invoices signed.

Add/alt – Leah referred to the list that Conrad had revised based on the last meeting (please see attached)

-Discussed the Foundation's willingness to fund some of these

-Dan spoke to the idea of funding "green" aspects (PV, possibly denitrification) and landscaping/hardscaping – the Foundation is waiting for the Building Committee to determine firm costs and what will actually be on the add/alt list

-Leah pointed out that there is a "back up plan" should the Foundation not raise the funds by going to Vineyard Energy and possibly leasing the roof

Pervious asphalt

-how to collect runoff

-sensitivity to the condition of the Jones family donation to the Town

-Leah pointed out that this land was accepted by the Town with this condition and that she will speak to this point at the next Selectmen's meeting (March 7th)

-Tucker will also appear at that meeting to discuss Temporary Quarters

-Dan will give update on design

-Leah will discuss safety and welfare as it relates to the shared parking lot

-Mark asked that if this condition had not been specified by the Jones family at that time, would asphalt be the right material for the parking lot –

-Ernie stated that the Town Hall project decided that paving was the right solution for that project as they are able to collect runoff – Kathy explained that DEP required this due to the proximity of a public well and that although the new well is not close there are other wells and a stream nearby

Camron stated that a pervious solution would be better in the long term. He and Conrad will be meeting prior to the next Building Committee meeting on Monday, March 5th

Moved to a discussion of flooring alternatives – Beth and Nelia will investigate whether there are examples of public libraries with cork and/or bamboo (Cambridge Public Library has bamboo) – discussion of sound and possible lack of durability of these materials.

Anna will send Beth a link for “green” carpets

Discussion of sill treatments – Kathy pointed out that wood veneer would have the same maintenance issues as painted wood. Leah said that the Committee should look at solid wood – Kathy mentioned the use of Corian at the school

Discussed acoustical tiles – questioned whether it was for aesthetic or sound reasons – waiting for more information and samples

Discussion of door – wood sliding versus roll down metal grille – how easy are these to use? How frequently will the library be closing off the rest of building?

-Dan asked about temperature control – If the program room is being used do we need to close off the rest of the building for temperature control?

-Denitrification – This would depend upon the use of composting toilets which has not yet been decided. Camron pointed out that there had been a discussion about using the existing septic for grey water. Discussion of composting toilets – how they have evolved, vacuum flush, etc.

Committee arranged the add/alt list as follows:

1. Daylight sensors
2. Flooring
3. Solid wood trim
4. Ceiling tiles (if more than just aesthetic)
5. Door closure versus grille
6. Shower

Three items were moved to further discussion:

- Geothermal
- Denitrification
- Parking lot

Four items were moved to the Foundation:

- PV
- Landscape plantings
- Bluestone at North Terrace
- Bluestone at West terrace

Leah asked Tim as a member of the Town’s Energy Committee to speak to the memo the Committee had received regarding geothermal (please see attached).

-Tim pointed out that the heating and cooling loads used in the example were not adequate for the building

-he said that he agreed with the designers' conclusion that geothermal was not an appropriate solution for the project

Leah then asked for the formation of two task forces:

Energy Task Force:

Paul Levine, Sandy Shapiro, Tim Twombly, Glenn Hearn, Mark Mazer

Site Task Force:

Prudy Burt (?), Camron, Ian, Trina Gay (landscape architect)

Discussed the plans that Conrad had sent us with design of the parking area – a combination of surfaces – Kathy pointed out that the Committee needs to remember who will be using this lot – people in wheelchairs and with walkers; also, how to keep cars from driving onto the abutting green areas

Leah passed out a memo that Anna Edey had written (please see attached) and asked for public comment.

Meeting was adjourned at 4:45 pm

Beth Kramer

Proposed Add Alternates (Revised 3/2/12)	Cost Estimate	Comments
1. Photovoltaic Array (1,080 SF array)	\$210,000	Vineyard Power Estimate
2. Pervious asphalt at Parking Lot	\$172,162	Includes \$11,625 Brick Pa
3. Bamboo or cork flooring in lieu of carpet	\$36,000 - 84,000	7,600 SF; \$4/SF direct co
4. Wood veneer sills and trim in lieu of painted trim	\$24,000	Cost removed from estim
5. Daylight sensor system	\$24,000 - 36,000	Added temp. control syst
6. Closed loop geothermal in lieu of VRF system	\$240,000	15,000 SF well field; adde
7. Upgraded acoustical ceiling treatment (Design team to provide more info)	TBD	Tectum panels or acousti
8. Wood sliding doors in lieu of roll down metal grille at lobby	\$54,000	Cost removed from estim
9. Septic System Denitrification	\$36,000	
10. Landscape plantings (Trees, shrubs and perennials)	\$30,000	\$14,600 removed from es
11. Staff shower (LEED credit related to staff bike use)	\$14,400	80 SF x \$150/SF
12. Bluestone in lieu of concrete at North Terrace	\$21,300	710 SF x \$25.00/SF direct
13. Bluestone in lieu of concrete at West Terrace, Entry Ramp & Stairs	\$37,110	1,237 SF x \$25.00/SF dire



MEMORANDUM

To: West Tisbury Free Public Library Building Committee
From: Conrad Ello, Oudens Ello Architecture
Copy: Matt Oudens (OEA), Richard Marks (DPI), Christina Opper (DPI), Kevin Caddle (TMP)

Geothermal System - Feasibility Analysis

1. Summary:

The design team has recently performed rough calculations to determine the feasibility and impacts of incorporating a geothermal closed loop system into the base project. In comparison to the Variable Refrigerant Flow (VRF) system currently in the project budget, our findings are as follows:

- The savings on heating and cooling electrical consumption for a geothermal system is about 33% of the VRF consumption, which translates to approximately 10% of the overall electrical consumption.
- Annual electrical savings is estimated to be 16,700 kWh or 1.22 kWh/sf. The total electrical consumption for the expanded library is currently estimated at 170,000 kWh or 12.4 kWh/sf.
- At \$0.18/kWh the annual cost savings is estimated to be around \$3,000.

2. Cost:

The direct costs to install a well field consisting of 20-25 wells at an approximate depth of 150-350 feet, as well as associated heat pump, piping and controls, are estimated at \$170,000. Design fees, general contractor mark-ups beyond the direct costs and escalation bring the total estimate to \$240,000.

3. Design Considerations:

- Wells need to be spaced 25' on center, which results in a +/-10,000 SF well field for 25 wells. Given space limitations on the existing library site, the lawn area adjacent to the Field Gallery is the best option for a well field serving the library building. The attached sketch shows the proposed location of the well field for preliminary planning purposes.
- Before traveling to the library building, fifty pipes (two per well) are consolidated into two pipes (supply and return) by way of a "collection header" housed in a buried polypropylene tank-like structure. This structure would be accessed by way of a manhole, flush with the Field Gallery lawn.
- All piping is buried. Aside from the manhole, there are no visible well field elements, post installation.
- Additional space is required in the mechanical room to accommodate geothermal pumps, controls and related equipment.

4. Recommendation/Conclusion:

Given the high up-front costs in comparison to modest annual savings we feel it is hard to justify investment in a geothermal system despite its benefits. Moreover, the Field Gallery site provides an optimal location for a well field, but it remains to be seen whether or not this location will prove problematic for the Town TBD in terms of required approvals and/or restrictive covenants tied to the acquisition of the Field Gallery property.

End of Memorandum

Comments and suggestions, March 2, 2012:

1. Reduce the window area in the Children's Room by about 50%. The way it is now, the room will get very hot all day on any sunny day, especially in the colder half of the year.
2. As a general rule, at least 90% of the south-facing façade should be maximized to absorb the power of the sun — whether for light, heat (air/water), or electricity. I would be glad to share more information with you.
3. A general rule for skylights: the longer and narrower, the better.
4. This is an addition to the point I made in the previous list, about east-facing windows: Reducing fenestration by 50% on the east side by the north corner will not only save much energy, but will also prevent the problem of overheating that space on sunny mornings, which would likely be the case with current design.
5. For the sake of acoustics, cost, longevity and comfort, I recommend carpeting throughout.
6. Two calculations on the design team's last Powerpoint presentation were erroneous by a factor of more than 100%:
 - The presentation predicted an annual output of 30,000 kWh from 1080 square feet of PV. The correct amount is approximately 13,000 kWh/year.
 - The presentation predicted an annual output of 50,000 kWh from 1830 square feet of PV. The correct amount is approximately 22,000 kWh/year.

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