COMMITTEE MEMBER Q'S FOR OPM 12/10/24

When calculating design and construction costs, environmental remediation and clean up should not be in the cost estimates. This clean-up has to occur regardless of site selection. Please separate out current costs and estimates for remediation.

1. The 340 Route 6 site may have similar environmental contaminants and PFAs issues as well. Has there been any discussion regarding this as a potential?
2. To the OPM, what makes this project so expensive versus your other projects for DPW construction of similar size?
3. To the OPM, what will task 3 accomplish at this point?
4. When demo and construction begin on THH, what will be the plans for current DPW staff and equipment?
5. Will we have a plan for THH with design and costs ahead of ATM?
6. Will the design of 21000 sq ft meet the needs of the current and future DPW as well as result in Town energy goals for 2030 and 2050?
7. Has there been any discussion or calculations on the "cost of time"? If an alternative site (e.g., 340 Route 6) is selected, there will be considerable delays. These delays will drive up the cost to build as well as the cost to finance with rising interest rates.
8. There's been mention of a future expansion of Town Hall - does this play into the design of the DPW at THH?
9. Will you be convening weekly/bi-weekly OAPM, (Owner, Architect, Project Manager), during the Design process to hold to the schedule? Will this be included in the Design Professional fees?
10. Will you be convening weekly OAC meetings during construction and will the Design Professionals be part of these?
11. How many budgets during design will be provided? (Schematic, Design Development, 90% complete CD's?)
12. How will you handle "Value Engineering" to reduce costs without sacrificing Energy efficiency requirements?
13. What is the plan for addressing Environmental issues during Design and Construction?
14. Do you plan on participating in Design Charettes convened by the AHBC?
15. Do you anticipate rebidding of the project if the first set of bids exceed the budgets? If so, see question 11.

Design Professional Questions:

16. Will energy models be included in the design? If so, will they be done in house or by an outside consultant and will fees include this service?
17 Do you plan on participating in Design Charettes convened by the AHBC?
18. Will the design team include a LEED Accredited Professional?
19. See OPM questions above Re meetings, budgets and cost controls.

20. Will you provide CVs for**?**

a. MEP and FP Engineers?
b. In house Project team?
c. Other outside consultants?

21. Will your fee include obtaining LEED certification or similar?

In no particular order:

22. Mr. Paul Millette (EP) mentioned the 4X bust in cost of Truro over Yarmouth. This has subsequently been raised on several occasions (twice by me alone). Please provide explanation why Truro's proposed facility is so much more expensive. Yarmouth (I believe) had the team of EP and Weston & Sampson.

23. Cost inflation - can OPM provide insights into materials and labor cost escalations (PPI/CPI) since previous estimates?

24. What materials would be used in building a new DPW facility are ones that would affect by tariffs on imports from Canada and China in particular? Quantify potential price impacts.

25 Has OPM laid out a feasible schedule under which a realistic design would be ready by Spring 2025 town vote? What is it?

26 Is OPM assessing potential benefits from new technologies and materials? Factoring in potential impacts on facility design of injecting productivity tools (e.g., enhanced preventative maintenance software and tools, more efficient inventory management etc.) which might reduce square footage requirements?

27 Have alternative time-staging (of building and build-out) scenarios been evaluated? Impacts of anticipating increased electrification?

28 Can OPM identify and isolate pure design and building elements from costs associated with potential environmental remediation? The latter are burdens on the Town regardless and so shouldn't bias analysis pro or contra for any town site.

Further Questions in Bold Blue Resources in plain black text

29 .How can Truro integrate feasibility of Ground source heat pumps and the IRA direct pay option into the design?

RESOURCES:

Large system Geothermal Design (GSHP**)** IRA eligible

Facilities Management Town of Manchester Connecticut
Contact Christopher Till 860-647-3145 **Cell 860-463-3516**

Manchester has been doing Deep Energy Retrofits on school buildings for a few years They also are familiar w/ IRA of the IRA

Manchester CT Boston Based Designer

Jess E. Farber, PE, WELL A Vice President
CMTA, a Legence company
C: 508.745.9206

https://www.masscec.com/sites/default/files/documents/green_school_works_webinar_presentation_240723.pdf

Geothermal Designer MIT grad/affiliate (untested)

Rick Clemenzi
https://intelli-products.com/geothermal/

Dandelion Energy Presented to Truro Energy Committee
Bryan Roberts 845-853-5039 brobert@dandelionenergy.com

Smaller scale modular systems BUT they say they could also consult on system design
I have spoken with them several times

They are also familiar w/ the IRA's direct pay option

30.How. when and where can the designer and OPM include Embodied Carbon and Life Cycle analysis, long term ROI etc into the project?

Pre-Design Stage	Schematic Design Stage	Design Development Stage
Identify owner's requirement	Site plan and principal floor plans prepared	**Detailed site plan indicating building location and site improvements prepared**
Departmental and room-by-room interaction matrix established	Views, elevations, sketches and models prepared to convey building configuration	Detailed plans, elevations, sections, schedules and notes prepared
Preliminary structural, mechanical, electrical and other engineering systems determined	**Comparative structural, mechanical, electrical and other systems analyzed**	Structural, mechanical, electrical and other building systems finalized
Block plans created showing all rooms, corridor and vertical solutions	Space and location requirement for these systems determined	**Review obtained from regulatory agencies**
Estimates prepared for total project cost and annual project operating expenses	**Preliminary screening of materials, equipment and fixtures carried out**	Code compliance check

Table 1. Typical Design Activities and Tasks Accomplished

The above table is from the AIA life cycle Analysis guide:

https://content.aia.org/sites/default/files/2016-04/Building-Life-Cycle-Assessment-Guide.pdf

Although this won't show up for a few years the OPM and designer may has well get ready

https://malegislature.gov/Bills/193/S2967

Bill promoting a clean energy grid, advancing equity and protecting ratepayers enacted November 2024 Embodied carbon and life cycle analysis is in the pipe line:

“There shall be within the division, but not subject to the control of the division, an 3embodied carbon intergovernmental coordinating council…

The council shall consider: (i) the best approaches to integrate the reduction of embodied carbon into the state building code, including the stretch and specialized stretch energy code pursuant to section 96 of chapter 143 and the state building code; and (ii) best practices to incentivize and enhance the reuse of building materials and decrease building demolition.”

31. Here is the Energy Committee’s input from its November meeting. Comments?

“DPW Requirements - by Truro Energy Committee

For the Town of Truro to meet its decarbonization roadmap prescribed by the Commonwealth, each Department in Town government must meet the goal. Departments undergoing replacement of old structures and vehicles must lead the way, as there will not be another opportunity to do so, and it is highly unlikely that another department will be able to compensate for a shortfall.

Specific requirements that are known at this time are outlined below.
The Energy Committee is actively reviewing these requirements and will revise these based on other requirements that may arise.

Goals are also listed, as those goals give rise to the requirements.

GOALS GENERALLY APPLICABLE

1. The Department as a whole to be Net Zero Carbon by 2040
2. Significantly improve thermal envelopes for a significant reduction in energy operating costs
3. Heat/cool/ventilate/light just what requires it
4. Perform Life Cycle Analysis on all elements in the pre-design and design phases
5. Repurpose existing infrastructures when feasible to recapture the embodied energy in these structures
6. Design to take advantage of passive solar gains; and southerly roofs for solar panels

7. Utilize solar canopies for vehicle sheltering where feasible
8. Model future energy requirements for all elements and the full life cycle
9. No or minimal deforestation

SPECIFIC DPW REQUIREMENTS

1. Endeavor to generate solar electricity sufficient to power DPW buildings and the DPW vehicle fleet
2. Battery Energy Storage System (BESS) to provide capability to capture solar energy during workday for vehicle charging overnight
3. Provide a BESS sufficient for supporting snow removal during 3-day power outage

SHARED REQUIREMENTS FOR TOWN HALL HILL

1. BESS would serve as microgrid capacity for overall Town Hall Hill resiliency of other departments.
2. Town Hall Hill would provide vehicle charging capacity for visitors and residents needing to charge EVs.

ASSUMPTIONS

Vehicles transition from fossil fuel to electric over the next 10 to 15-year timeframe

CODE COMPLIANCE

All conditioned buildings meet the stretch and specialized codes

Vehicles would be transitioned at the end of their current useful life

REQUEST

Energy Committee will facilitate early review by a third-party energy and envelope expert consultant of plans and designs."

END ENERGY COMMITTEE DOC

32 Would the OPM and/or designer be willing to contract with a Massachusetts third party energy consultant like Building Science Corporation per the Energy Committee request?

https://buildingscience.com/services

Building Science Corporation
68 Main Street
Westford, MA 01886
978-589-5100

33 In the spring there were various pricing options for different typologies metal building, timber building and hybrid. Will we be getting this for the design at Town Hall hill also?