TO: Tisbury School Building Committee
FROM: Rachel Orr
DATE: May 24, 2021

You have asked me to follow up on my statement of April 5, 2021 with a detailed list of my concerns regarding the present schematic design for the renovation and addition to the Tisbury School. The current proposal addresses building envelope, building system and program deficiencies -- as it should -- but I believe the plan still needs more design work. The aspects of it that I’m struggling with relate to light, building flexibility, future planning, energy use and accessibility. I doubt my specific concerns will come as a surprise to any of you, as they are in keeping with my previously expressed thoughts and questions. I am only sharing them again now and in document form because you have asked me to do so. I have attached copies of the plans which I have annotated to correspond with my written analysis. I hope you find this information helpful.

First floor:

1. Kindergarten: Each of these classrooms is 1,100 square feet. (For some perspective, that’s bigger than any single floor of my house.) The eastern classroom has 3 windows and a glass door on the short wall, which faces north. The plan includes construction of a wall in front of these windows to provide a barrier between the classrooms and Spring Street. The western classroom has 9 windows, 3 on the north side and 6 on the western side, and a glass door. For me, this difference in natural light between the two classrooms is significant – significant enough that I would not allow a child of mine to be assigned to the eastern classroom. I don’t want anyone else’s 5- or 6-year-old to be assigned to this kindergarten classroom either. I also am concerned about staff assigned to teach in this room. It will be a hard space to spend the day, particularly during the winter months.\(^1\) EQUITY AND FUNCTIONALITY

2. Kitchen: The kitchen and kitchen office have no windows, so no natural light. (See footnote 1.) Although larger than existing, these spaces are far less than the 1,600

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square feet said to be required in the Building Space Summary. Either the required square footage figure was incorrect in the summary, or the area provided is materially inadequate. FUNCTIONALITY

3. Western entrances: These entrances face north and south and fail to provide direct sight lines to the playground. I also find the flow to the grounds – out and around the proposed addition – awkward and limiting. This positioning of doors also means there is no sense of connection between the school and the western playground. FUNCTIONALITY

4. Conference room: The new primary conference room by the main office is even smaller than the existing main conference room and the existing main conference room is inadequate in its accommodation of the public at School Committee meetings. Has the School Committee made a permanent commitment to only hold meetings when school is not in session so that more suitable spaces within the building can be utilized for the purpose? FUNCTIONALITY

5. Media/Commons/Break-out: This space on the first floor does not meet standards for windows in classrooms -- children should be able to look out a window from a seated or standing position, with some exceptions -- so the potential future use of the space is limited. In addition to the window issue, the telephone-handle shape of the area also limits future potential uses. Providing library-type spaces through a series of commons on all three floors of the building allows for division of the media collection by grade levels, but also limits what is readily available to learners of varying interests and abilities. According to the Massachusetts School Building Authority, the type of multi-purpose “neighborhood cluster” break-out space provided in the media/commons requires advance scheduling by staff. To my mind, that extra scheduling step adds a potential hurdle or limitation for use. FUNCTIONALITY/FUTURE PLANNING

6. Cafeteria: The cafeteria on the schematic plan is labeled 3,050 square feet, but approximately 1,400 square feet of the area shown – the area colored in orange on my mark-up -- is not available for cafeteria purposes because the space serves as a connecting hallway and classroom entrance. FUNCTIONALITY/FUTURE PLANNING

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2 Massachusetts School Building Authority 963 CMR, Section 2.04 (h) [https://www.massschoolbuildings.org/sites/default/files/edit-contentfiles/Documents/StatsRegs/MSBA_Regs_Program_April-10.pdf](https://www.massschoolbuildings.org/sites/default/files/edit-contentfiles/Documents/StatsRegs/MSBA_Regs_Program_April-10.pdf)

Second and Third Floors:

7. Break-out spaces separate from the media/commons area: Third Grade is the only grade in the entire school to benefit from a break-out area that is accessed from within the classroom. This type of break-out space requires no special scheduling or staffing. The 3rd-grade teachers have won the break-out lottery! Meanwhile, the enclosed break-out space near the 4th grade has no window and can only be accessed by exiting the classroom. The same is true for the conference room/break-out space outside the third-floor math and science classrooms. The break-out space by the 7th and 8th grade language arts classroom at least benefits from a window. Except for the space shared by the 3rd grade, the spaces are not within sight lines of the classroom teachers, so either their use will be limited to independent learners or staff will have to be assigned to supervise. FUNCTIONALITY

8. Media/Commons/Break-out: The second-floor media/commons/break-out space has the same challenges as the space on the first floor. The third-floor space, while limited in potential future use, at least benefits from windows that are only blocked by a glass lean-to skylight. FUNCTIONALITY

9. Rooms: Both the second and third floors have rooms with no specific use designation although I believe they are intended to be general support rooms. The second-floor room is 382 square feet, the third-floor room is 402 square feet. These sizes make these rooms suitable for tutorial spaces or perhaps offices but not for primary classroom spaces. They provide symmetry of design – but meanwhile on the second floor the nearby health, foreign language and art classrooms are all short on square footage. Why create so many little rooms or spaces that can only serve as tutorial or office spaces when we have scant square footage elsewhere? The current plan makes no provision for an additional future full-size classroom, whether we need one because of an increase in enrollment or because of a new state mandate, such as universal pre-school, or a future unknown need. FUTURE FUNCTIONALITY/PLANNING

Whole school:

10. Historic Main Entrance: The historic main entrance, the entrance that architecturally continues to appear as the main entrance to the building, is not universally accessible. The present design precludes making this entrance accessible because the interior use of the space is a central stairway. So with this plan the historical entrance has essentially become an end-of-day egress for able-bodied
students. The arrangement also means the exit fails as an accessible emergency exit. Most primary classrooms are on the south side of the original 1929 building. I find this lack of accessibility troubling. EQUITY/ACCESSIBILITY

11. Central Stairwell: In addition to the accessibility issue, I find the area required by the central stairwell to be a problem. The stairwell uses up about 800 square feet in the middle of the south-facing side of each floor, which is about the size needed for a full-size classroom. The commitment of that much square footage in the heart of the building for stairs and elevator precludes vestibule-style or shared break-out spaces for most grades, spaces that would not require scheduling to use. I also don’t see this new location for stairs as a significant improvement to flow during the day because while the stairs connect the three floors, they are not the stairwells adjacent to the primary places students go during the day outside of their main classrooms -- the cafeteria, the gym and the united arts classrooms -- nor do they lead directly to the playgrounds. Even if the walls and doors separating the stairwell from the interior corridors are glass, the elevator in the center of the stairwell blocks most of the light coming in from the large exterior windows in this location from reaching into the main part of the building. This is a particular challenge for the first and second floors, which are already short on natural light to illuminate the halls and central common areas. FUNCTIONALITY

12. Bus Drop Off Zone: As sited in this plan, students with mobility issues must first travel down slope before turning up slope to access the entry plaza. The route is about twice as long as the route available to children without mobility issues and the grade change is not insignificant: coming off the bus, the slope is two feet down, followed by seven feet up to the entrance plaza. This bothers me. EQUITY/ACCESSIBILITY

13. Parking: The main entrance is about as far away as it can be from the main parking area. Perhaps this is not an issue during a usual school day, but when there is a special program that parents are invited to attend during the school day – a fourth-grade puppet show, for example – it’s a potential problem both for convenience and accessibility. EQUITY/ACCESSIBILITY

14. Energy: While we may be providing for the building’s energy needs with solar-panel-produced electricity rather than fossil fuels, the plan does little to limit energy consumption in the first place. Neither of the planned additions are oriented south to take advantage of passive solar gain. Rather they are oriented either north or west. This is contrary to integrated design principles, principles that I believe should underpin any net zero project. The two-story spaces – particularly the cafeteria –
are inefficient and will be hard to heat. The amount of glazing on the north side and the eastern staircase/glass tower also pose energy inefficiencies and waste.\footnote{I read numerous articles and books on energy, energy retrofits of older buildings and net zero design. Among the books I checked out of the library were Masonry, How to Care for Old and Historic Brick and Stone by Mark London, 1988, Preservation Press, 208 pages and The New Net Zero, Leading Edge Design for the Construction of Homes and Buildings for a Renewable Energy Future by William Maclay, 2014, Chelsea Green Publishing, 576 pages. I ended up buying copies of these two books.}

**FUNCTIONALITY**

**Overall project comments:**

The proposal adds 19,000+ square feet to the facility. Given the gain, it bothers me that in some ways we still end up with less than we have now. Case in point, we currently have 26 primary and unified arts classrooms and one gym. The proposed plan provides for only 24 primary and unified arts classrooms, plus one shared services classroom and one gym.

With this plan:

1. We no longer have a dedicated computer or digital technology classroom.
2. The media specialist has areas on three floors to manage but no longer has an office or dedicated space in which to catalogue and repair materials.
3. The teachers no longer have a designated teacher work/resource room.
4. The two learning resource rooms in the existing facility are replaced with 12 specialist/support/therapy rooms.

The other thing I keep thinking about is the cost and the financing. The project is expensive. To make it more affordable and to spread out its cost among more users, the plan is to borrow for a longer term than is typical for most municipal borrowing. The proposed term is 30 years, with equal payments for each of those years – so there will be no roll-off factor during the term. We have yet to reach the 30-year mark from the last renovation and addition to the Tisbury School. Nor have we reached the 30-year mark from the last renovation and addition to the Martha’s Vineyard Regional High School, another school building in need of a major overhaul. This makes me even more cognizant of the need to plan wisely. We are going to be paying for this project for 30 years and if we don’t get it right, we will not be in any position to correct our mistakes – not with all the other needs facing the town. We need the proposal to upgrade the school to be very good. I don’t think we are there yet.
TISBURY ELEMENTARY SCHOOL - SCHEMATIC DESIGN

THIRD FLOOR

15,000 SF ROOF FOR SOLAR ARRAY.

09/09/20

R.O. Annotations 5-24-21
Heat Rises

North Glazing Heat Loss

Energy Inefficient, Cold Cafeteria

R.O. Annotations 5-24-21