

Greenwich CMS – Community Forum #1

Responses to Mentimeter + Index Card Q&A from 3/8/23

Sustainable Design:

1. What design considerations are being planned for “active transportation” (human powered - bikes, walking, scooters, etc) to / from the new school? Bike parking, multipurpose paths, etc?

The walkways and drives will all be designed to allow for free and unimpeded access to and from the building and throughout the site including the athletic fields and other amenities. Bike racks will be provided in various locations throughout the site to allow for convenient storage and securement of bikes and scooters.

2. Request to include walking paths alongside the school grounds like Cos Cob School. Currently students from Coachlamp, Jeffery, and Pine Ridge must walk on the fields to get to the entrance.

Access points from Orchard Street and from Indian Rock Lane will be provided and interior campus sidewalks from these locations will provide continuous connection to the building and site amenities. The Building Committee is working with the town regarding exterior sidewalks along the roadway frontage

3. Currently, SB961 is being considered by the General Assembly to require new school buildings to be built with net-zero energy. What provisions are being made to comply with this law should it pass.

The Building Committee has asked for a net-zero ready design to be developed, subject to funding constraints. SLAM is tracking the progress of this legislation through the Committee and will continue to communicate with the State about the implications and timing of the approval of this potential legislation and the funding aids that will be associated with the required sustainability measures.

[SB 961 - Connecticut Senate \(2023\) - Open States](#)

4. Has SLAM designed and built a net-zero school?

SLAM has designed net-zero buildings in our higher ed and health care markets, and “net-zero ready” buildings in the public education market.

5. Is SLAM committed to carbon-free goals and design?

Yes, SLAM is a signatory of the SE 2050 Initiative for carbon-free buildings and of the AIA 2030 Commitment for net-zero operational energy.

6. While we understand that a net-zero build would save substantially

Question is incomplete.

7. What do you estimate energy bills to be, if you construct a conventional building dependent on fossil fuels?

When further along in the design process, and after mechanical systems have been selected, an energy model will be developed to predict energy use of the building and estimated fuel costs.

8. What plans are being made to protect taxpayers from fluctuating and unpredictable costs?

The project will be designed to CT High Performance requirements (LEED Silver equivalent), will be reviewed by the State of CT Office of School Construction Grants and Review, and will be further reviewed and tested by an independent Commissioning Agent.

Given supply chain variables, the committee will consider early procurement of specialty items such as structural steel, rooftop mechanical equipment, electrical switchgear, etc.

9. Under what circumstances would you consider building a net-zero CMS? State-wide changes in power generation policy: Public Act 22-5 requires CT to achieve a zero-carbon electric grid by 2040.
The Committee is considering net zero ready elements as part of the design process, however all decisions will be based on allowable funding.

10. What measures or equipment are being considered to reduce waste? Commercial grade dishwashers? Designs for cafeteria sorting stations to divert waste?
Food service design will be evaluated moving forward as a part of the detailed design process. Currently, there is a dishwasher planned for the use of reusable trays. Decisions will be made in conjunction with GPS Food Services

11. At what point in the process does the decision to build a sustainable, net zero energy school need to be made?
The decision to build net-zero will need to be made at the end of the Schematic Design phase.

12. Are you considering new technologies for windows, enhanced insulation, photovoltaic arrays, geothermal wells/heat pumps, room CO2 sensors and LED lighting, to conserve energy and reduce footprint
Yes.

13. While we understand that a net-zero build would save substantially on energy and life cycle costs, what is an example of how it could reduce first costs?
*Net-zero strategies typically cost a little more initially, but save operating costs in the long run. Grants and other incentives can potentially help offset those first costs.
The building can be designed to receive a PV panel array after construction under a separate PPA arrangement, the first costs of that on-site energy can be amortized through the duration of that contract.*

14. Will we include conduits for further charging stations in the parking lots given the 75 year design.
Yes.

15. Will there be an energy management system in place, how selected, what KPIs will it measure?
A building management system (BMS) will be provided in conjunction with the selected mechanical system. Key Performance Indicators to be monitored by the BMS can be customized and selected by the Owner. Some owners also choose to have an energy dashboard installed for students to monitor building energy production and use.

16. Will interior air quality monitoring be implemented as part of the building scope?
Yes, CO2 sensors will be located in the interior spaces to monitor indoor air.

17. You note that we are required to have a number of parking spots for electric vehicles. Is there a way to get a waiver to have less?
To our knowledge, there is no waiver process for a statutory requirement.

18. Can central plant (including components of potential geothermal) be acquired through modular/prefab units for plug and play on slab to reduce lead time and time on site and increase safety for students
Opportunities for modular/prefab will be explored for mechanical, electrical & plumbing systems & components, as well as architectural elements.

19. Is there a significant cost impact to use water permeable asphalt for all new paving to mitigate water retention on fields?

Permeable pavement will be considered for key areas where permeability can be achieved, upon review of the geotechnical report and the stormwater infiltration design.

20. It would be nice to include rainwater retention for both irrigation and toilet systems.

To be used for irrigation, rainwater would need to be treated to make it potable. Alternatively, gray water collection systems internal to the building can be utilized for toilet flushing if the appropriate requirements are met. All of these strategies will be considered upon analysis of total project funding.

21. Can the current facility utility costs be applied to an Energy Savings Contract (stipulated for new build) and applied to savings from efficiencies to further offset costs?

There is an energy consultant on the project who will be assessing all utility company incentive opportunities.

22. is there a plan to use a third party net zero / carbon road map and measuring software platform

The energy consultant will provide an energy model during building design phases in order to make informed decisions for energy reduction strategies.

23. Any plan for solar panels on the roof?

On-site energy production (PV panels) will be considered if the project budget allows.

School Programming:

24. Can you speak to the programmatic spaces being created in the new building for special education.

Per the Ed Spec:

- A. Resource Rooms: instructional spaces to seat 12-15 students for pull-out instruction; distributed to one room per Team;*
- B. Life Skills Classroom and dedicated Toilet Room: hands-on instructional space for up to 8 students that includes household appliances, tables and chairs as well as other specialty equipment;*
- C. Special Ed Sensory Room: a respite space for 2-3 people to use for conversations, behavioral and emotional reset;*
- D. Occupational Therapy / Physical Therapy Room: activity space for approximately 4-6 people (including adults); environment that will house various equipment and open floor space for movement;*

25. Foregoing a Feasibility Study was deemed necessary in order to expedite the project's path to completion. How much has that decision affected the volatility in estimates for the overall project cost?

There has been no project cost estimate done yet.

26. The site should be evaluated for a space for a building that could be future BOE headquarters.

If directed by the Building Committee we can plan for and anticipate building areas onsite for a BOE facility and parking.

27. Is geothermal really efficient? It requires more electricity use.

Geothermal is extremely efficient. We can provide an analysis to compare systems when we get to that point, but geothermal will be more efficient than an air source heat pump system.

ADA Accessibility:

28. Can you speak to the ADA and code compliance you will implement in the building?

The building and site will all be ADA compliant (barrier-free/universal design) and will meet all current codes. See list below:

- A. *Building Code: 2022 Connecticut State Building Code (CSBC), based on the 2021 International Building Code (IBC)*
- B. *Fire Safety Code: 2022 Connecticut Fire Safety code (CSFSC), parts I, II and III, based on the 2021 International Fire Code (IFC)*
- C. *Fire Safety Code: 2022 Connecticut Fire Safety Code (CSFSC), part IV, based on the 2021 NFPA 1, Uniform Fire Code*
- D. *Plumbing Code: 2021 International Plumbing Code (IPC), as amended by 2022 CSBC*
- E. *Electrical Code: 2020 Edition of NFPA 70, National Electrical Code (NEC), as amended by 2022 CSBC*
- F. *Mechanical Code: 2021 International Mechanical Code (IMC), as amended by 2022 CSBC*
- G. *Energy Code: 2021 International Energy Conservation Code (IECC), as amended by 2022 CSBC*
- H. *Accessibility: ANSI A117.1-2017 as amended by 2018 CSBC*
- I. *2010 ADA Standards*
 - Other: Various National fire Protection Association (NFPA) codes and standards as referenced by the codes listed above, including the following:*
 - i. *2013 NFPA 10: Standard for Portable Fire Extinguishers*
 - ii. *2013 NFPA 13: Standard for the Installation of Sprinkler Systems*
 - iii. *2013 NFPA 72: National Fire Alarm and Signaling Code*

In addition to complying with building codes, we are also required to comply with State statutes including but not limited to:

- i. *EV Parking and Charging stations*
- ii. *Interior acoustic requirements*
- iii. *Potential legislation on carbon-free school buildings*

29. And as a follow up to my question about ADA and code compliance issues, how does that impact the square footage we hear so much about being bigger than the current building?

As one example, wheelchair access must be provided throughout the building. This includes requirements listed below and more:

- A. *Each space must be sized so that with the required quantity and layout(s) of equipment or furniture:*
 - i. *Anyone in a wheelchair or other mobility assistance has access to that equipment, furniture, and plumbing fixtures; (fixed equipment must have a clear floor space associated with it for a person in a wheelchair to access and operate that equipment);*
 - ii. *A clear turning area (5'-0" diameter) is required to be implemented clear of all equipment, furniture, or building elements.*
 - iii. *Anyone in a wheelchair or other mobility assistance can maneuver through any space as needed for day-to-day circulation as well as for emergency egress;*
- B. *Every single-leaf door requires approximately 40 NSF of clearance throughout the building for accessible push/pull clearance requirements.*
- C. *Every multi-fixture toilet room must have at least one accessible toilet stall that accommodates the 5'-0" turning space; and those toilet rooms with more than 6 stalls also require an ambulatory toilet stall.*
- D. *Every single-occupant toilet room must accommodate the 5'-0" turning space; minimum room area is 65 NSF;*

30. In addressing ADA accessibility, we often hear about adding an elevator, or a ramp, but isn't ADA a holistic challenge that must be done throughout the structure?

Yes, accessible design must be carried throughout the facility and site.

Construction Process:

31. How does the team propose to minimize the neighborhood disruption while this construction will be taking place during a 2-year bridge replacement on the Post Road? Indian Rock is heavily traveled

Will be based on coordination and communication between the Construction Manager, the school staff and neighboring community, deliveries will be controlled to avoid drop-off and pick-up times. Truck routes will be reviewed and planned to mitigate the conflicts with the Post Road bridge construction.

32. With design 1, would the playing fields be open during the construction phase?

In both design options, the building and anticipated construction area will incorporate the existing playing fields. We anticipate that the tennis courts will be available throughout the construction.

33. How would the issue of playing fields be addressed during construction of the new school. What options would CMS student athletes have?

The current fields will not be in use and will be coordinated with Parks and Recreation. After school activities will be coordinated to other locations.

Building Design:

34. WELL Building Standards: Can you explain what WELL standards are & how they might influence the CMS design?

The WELL Building Standard™ applies the science of physical and social environments to benefit the health, well-being and performance of your people. There are ten concepts in WELL v2: Air, Water, Nourishment, Light, Movement, Thermal Comfort, Sound, Materials, Mind and Community. Each concept is comprised of features with distinct health intents. These concepts will be considered during the design process for possible implementation.

35. What type of security measures are planned for the new building regarding school safety (lockdown, intruder entry etc)?

The design team will incorporate the State guidelines as published by the School Building Projects Advisory Council (formerly known as the School Safety Infrastructure Council (SSIC)) and will work closely with the building committee, school administrators, and local first responders on the State required "Security Committee" to achieve the appropriate level of security for the new Central Middle School. ([School Safety and Security--Documents \(ct.gov\)](#))

36. Where is the gym and auditorium?

The design team is developing building plan options that co-locate the Gym and Auditorium, zoned separately from the academic areas of the school, and in close proximity to the majority of the parking on-site to facilitate after-hours access for community uses.

37. Looking at the elevation drawing, it's noted that the roof elevation is 95'. Will there be any mechanicals placed on the roof putting it over 95'?

The indication of a roof elevation on the site section presented on 3/8/23 is to show the approximate height of the top of the upper level of the building. As the building design evolves, pitched roofs may extend above that horizontal line and mechanical equipment and roof screens may also be located on the building. All of this will be explored during the local approvals process with Greenwich Planning and Zoning and the Architectural Review Board before any final designs are completed.

38. From the way the building is stacked, isn't the building effectively a 3-story building. Why not make it a 3 story then. Less expensive to build, more open space on site.

Many program areas in a school need direct egress to "grade level" exterior. Proposed designs accommodate those requirements as well as a compact footprint and utilize the area of the site to provide proper separation and safety during construction for the existing school.

There are also Zoning restrictions that the design team needs to work within so the proposed building meets requirements of the R-12 zone for lot coverage, height limitations, lot setbacks and floor area ratios.

39. The idea is that all people will enter on 1 level and then all classrooms will be on 2 other levels? Is that efficient?

Yes, as long as the vertical circulation (stairs and elevator) are thoughtfully planned, this is a very efficient manner to move occupants through the building.

40. Which features of the Well Building standard are you including and are you getting certified to any level at all?

The design will take all WELL Building standards into consideration and implement as many as possible, but we have not been directed to have the building certified for this or any other Health/Sustainability standard (i.e., LEED).

41. How do you envision the new CMS as a resource for the community?

The new facility and site is planned to have spaces like a performing arts venue, gymnasium, and cafeteria and sports fields that can be offered as spaces used outside of educational purposes. The use of these spaces will be determined by the GPS district.

42. How do you envision the CMS as a resource for the community? Will it serve as a cooling center? A shelter for severe weather events? Will it be independent of the grid?

See response to #41. This facility is not intended to be an emergency shelter as defined by the building code. However, the district may choose to utilize this community resource for a cooling or warming center, charging center, etc. (To be determined by the GPS district.)

43. How will building statistics (live info on carbon impact, waste impact, solar power generated...) be communicated to students and community?

If budget allows, the district can choose to have an energy dashboard installed for students to monitor building energy production and use.

44. Is a living roof being assessed to increase insulation and reduce HVAC associated energy (perhaps also flow in outdoor learning sports on North side)?

A green roof will be considered as a part of the design process for the project.

45. But what about emergency use during extreme weather events?

This facility is not intended to be an emergency shelter for use during severe weather events. See also response to #42.

46. If the school is being considered multi-level, will that require additional elevators that then use up the limited space.

The design team anticipates a single, centrally located, elevator to provide ADA access and the ability to transport equipment and supplies to all levels of the building.

Site Design:

47. Would there be a sidewalk added on Orchard? Between Coachlamp and Indian Rock?

Sidewalks are being evaluated as part of the site plan design, where feasible given project constraints. The Building Committee is coordinating with Public Works to review options for safety along the roadways. All plans are subject to Planning and Zoning review and approval. Scope outside the property line and within the town right of way is not eligible for School Grant reimbursement.

48. How many stories did you consider?

The design team evaluated a single-story option, several two-story options, and a few three level options. Building design is in progress and multiple options will be narrowed down with input of the building committee and school administration and the latest will be presented to the Community at our next presentation.

49. Would there be a sidewalk added to the Stanwich side for kids to walk from that street? And will they be able to walk to the front of the building from that access driveway?

See response to #47.

50. There is currently a school garden and composting bin in active use. Will these be part of the outdoor learning space?

Yes, the design team is aware of the current use and anticipates incorporating this great learning opportunity into an appropriate area for the new building.

51. So except for buses, all vehicular traffic (in and out) is on Indian Rock Lane? This is a very short road. Why didn't the design consider at least one or 2 two other options?

Parent and visitor access is currently proposed at one of the 2 existing driveway entrances to the CMS building site. Service/delivery and bus access options from Stanwich and/or Orchard are being assessed as a part of the traffic study. The design team continues to look at all options for site access and circulation and will reassess upon completion of the traffic study.

52. Both options show the school being pushed into the hill requiring a significant demo. What is the environmental impact on the athletic fields? We STILL don't have fields at Western due to contamination

Phase 1 Environmental Site testing is in progress.

53. Is there a significant cost impact to use water permeable asphalt for all new paving to mitigate water retention on fields?

See response to #19.

54. As the site plan is further developed there should be a planned storage building for athletic equipment near the fields. And it would be nice to have a bathroom available so portable toilets are avoided

As the design unfolds, options will be evaluated. Separate storage and/or bathrooms buildings are not currently in the Ed Spec.

55. Can we segregate the infrastructure water and sewer line and electric/solar projects to seek other state funding outside the school reimbursement bonding requests

Yes possible, however any additional funding allocated to the project will be deducted from the school grant reimbursement formula.

56. Will indoor and outdoor lighting have sensors after normal hours of operating for safety and reduction in light pollution?

Yes, light sensors and control via time clock will both be implemented as a standard of design. Additionally, Greenwich zoning regulations and Greenwich Public School standards for exterior building lights will be incorporated into the design.

57. Are you aware of new EV charging platforms which can be integrated into existing outdoor lighting posts, mitigating the need cut up asphalt and leverage existing power factors in lighting poles

Yes, the electrical engineers are aware of EV chargers retrofitted into existing light poles. To our knowledge though, a 50 amp feed would need to be run to the poles to feed the chargers - the existing light poles would not have enough power to add a charger without any additional electrical work.

58. I love amphitheatres and outdoor learning, but I have also seen the amphitheater at Cos Cob Park that is uninvitingly concrete and unused in the burning sun. I have also seen the natural amphitheater at Camp Seton but it is not ADA-friendly. Thoughts on what materials / siting of the proposed amphitheater to ensure actual usage by the school community (and not just late night hang out).

The design is Conceptual at this time, however any final designs will be ADA compliant.

59. How will you ensure no flooding for years to come

The fields and site will be designed to address stormwater drainage requirements.

60. I agree that the bus lane and the parent lane should not be together. Additionally, there should not be just one way in/out all those cars

Agreed, parent lane and bus lane will be separated. Following the traffic study and discussions on life safety, the best solution will be developed.

61. Repeating an ask from the kids: they request a playground

Currently there is no playground or playground equipment in the Ed Spec, nor do these exist currently at other middle schools.

62. Request: WiFi in the parking lot/field (you can turn it off after school hours, if that's a concern)

To be determined by Greenwich Public Schools.

63. If the fields are in front of the school, where would the port a potties go, and is there a concern about flying balls into the street

There is not a concern about balls being hit toward the street based on the orientation of fields in the current design. Out-building placement per Greenwich requests will be considered as a part of the future site design development. Outdoor facilities have not been determined yet and coordinated with Parks and Recreation.

64. For the entrance on Orchard, would it be vehicular traffic only. The current pedestrian exit on to Orchard is scary for pedestrians - no sidewalk, no crosswalk, cars driving 40mph.

All proposed and existing site entrances will be assessed for vehicular and pedestrian use upon completion of the traffic study.

State Engagement

65. When do we engage with the state on infrastructure funding?

There is a Prep Meeting scheduled for late March with the State Office of School Construction Grants & Review (OSCG&R).

66. How involved is the state of CT on the budget for the project?

As part of the grant application, a full project budget will be submitted from the Town to the State. This will be evaluated as part of the grant application review.

67. When do we hold exploratory talks with the state to maximize state and federal funding sources

The State funding process starts with the Prep Meeting scheduled for late March with OSCG&R.

Other:

68. What environmental studies have been done to date and when are the results expected?

A hazardous building materials survey was conducted with samples sent to the lab for review. Results will be reported shortly. As well, a Phase 1 site assessment is ongoing and results will be reported shortly.

69. How is the project assessing/accounting for the financial impact of the new IRA bill, pending IRS approval?

The Building Committee is looking at all funding means.

Approved March 16, 2023 CMSBC Communications Sub-Committee
[Greenwichschools.org/cmsbc](https://www.greenwichschools.org/cmsbc)