



## Regional School District No. 14 Woodbury / Bethlehem

### Nonnewaug High School – Renovations Project

#### Public Building Committee Meeting

September 13, 2016

**PBC Attendees:**

John Chapman  
George Bauer  
Alan Rubacha  
Don Fiftal  
Tom Hecht  
Brian Peterson  
Patrick DiSarro  
Robert Piazza  
Matt Cleary

**Absent:**

JP Fernandes  
Janet Morgan  
Andie Greene

**Also Present:**

Dr. Anna Cutaia-Leonard	Region 14
Kurt Lavaway	Colliers
Scott Pellman	Colliers
Amy Samuelson	SLAM
Glenn Gollenberg	SLAM
Lorel Purcell	O&G
Mike Walsh	CES
Eric Romeo	CES

**From / Notes Prepared by:**

Kurt Lavaway / Scott Pellman - Project Manager  
Colliers International

**Attachments:** \_\_\_\_\_

A meeting of the Public Building Committee was held on Tuesday, September 13, 2016 in the LMC of Nonnewaug High School, 5 Minortown Road, Woodbury, Connecticut.

The following notes are to record the most significant issues discussed at the above referenced meeting. If anyone attending the meeting feels these notes are inaccurate, additional items need recording, or further detail is required, please forward your written comments to Kurt Lavaway for inclusion.

1. John Chapman called the meeting to order at 6:31 PM.

2. OPM Report – Kurt Lavaway reported on the following:

- The Grant application ED049 has been updated with the current program and split between the central office and main school project. The documents were signed by Dr. Anna, and hand delivered by Colliers and reviewed with Michelle Dixon of OSCG on Monday, September 12, 2016. All documents met with the States expectations.
- The next step with the State will be the Design Development review meeting (DDR). This will take place at the end of the design development phase after the DD estimates have been reconciled.
- The design team will now focus on compiling the “Renovation Status” package. Eligibility status could take 30 days once received. Anticipated delivery of this package is uncertain due to information needed to warrantee the roof for 20 years and obtaining a copy of the feasibility study completed by prior Architects.
- As part of the renovation requirements all portions of the building have to have a 20-year life expectancy, the current metal roof will be 14 years old when construction begins and is not eligible for reimbursement. The design team has not been successful finding a company that will issue 20-year warranty on the existing roof. However, SLAM and O&G have found a company that can coat the roof and provide a 10-year warranty and then re-coat the roof and provide another 10-year warranty to meet the 20-year roof warranty requirement of the State. Colliers spoke with Kermit Thompson at OSCG about the design team’s approach of coating the roof in two steps providing an aggregate 20-year warranty and the State was open to the idea. Colliers will follow up with a formal letter confirming the discussions.

The design team and District are also still trying to locate the original warranty for the roof which if issued prior to 2003 could result in some percentage of reimbursement)

- The team has contacted Antinozzi and Associates and is gathering all available information developed prior to the referendum to help support the renovation approach.
- Colliers is working on setting up a meeting with the Town planner to present the project at their scheduled Monday meetings to understand permitting requirements. The Town Planners last day is September 22nd. The team is trying to get in front of them while she is still here. The intent is to have discussions with the following departments (Inlands/wetlands, zoning, building official, fire marshal, health district and public works.
- Colliers is working to understand security needs from the District and all other interested parties responsible for security to the school campus to make sure the design approach will meet their needs. A meeting will be scheduled in the near future.

Question - Are the open projects closed out?

Response - Wayne still working on this with the Town and is putting together the required documents.

3. Design Update - Amy Samuelson presented the following:

Site Plan – The site plan has been updated to show all the separately priced options.

- The main entrance, specifically the student and parent drop off is more defined. The parking count proposed is slightly greater than existing including the current travel parking lot. The raised island at the front has been lowered to improve security. Amy mentioned this area could also be used as outside gathering space.

Question – will seating at the tennis courts be provided?

Response - Some seating is provided, the sidewalks will be HC accessible and provide areas for spectators.

Floor Plans – Amy noted that SLAM will be meeting with several departments tomorrow to review specific program elements and to fill out room data sheets that define specific requirements for the spaces.

Amy reviewed the floor plans to show changes made to address previous comments and concerns.

1st floor

- Physics has been moved to the first level with associated engineering support.
- The revised secure lobby and vestibule is shown, the existing entrance vestibule may remain however the existing canopy will be removed. The design team is looking for a purpose for that area.
- The current plan shows the original auditorium size which will be renovated. The added program space was more expensive in the auditorium so the base design shows the most cost effective renovation with a desire to include the first floor and or second floor area in the auditorium if possible.
- Art has been moved to the first level as requested.

Lower level

- The new culinary classroom will be adjacent to the current cafeteria in an existing covered but open area.
- The new health classroom will be adjacent to the culinary and existing stair
- The existing locker room and associated spaces will be completely renovated including fitness and athletic team lockers. There are currently no team locker rooms and the new plan allows for that.

2nd floor

- Stacked science rooms and hands on learning,
- video lab is now located on the second floor.

Miscellaneous

- Renderings of an interior corridor study were presented; railings were shown on the second floor at 48" high but this could be enclosed with glass similar to the existing condition. The existing glass walls contain asbestos glazing compound and will be removed.
- The central hall areas may be opened back up through the existing roof openings to provide natural light or skylights may be explored that would be cut into the existing blue roof.



- Penthouse and roof plan – It will be difficult to replace mechanical systems due to the roof framing. Also the old roofing is hot with asbestos and this will have to be coordinated and abated where disturbed

4. Mechanical Systems Update – Eric Romeo presented the following:

- Per state requirements the engineering team must exceed the code by 21% for Connecticut High Performance Design as required for school funding.
- The current 4 existing penthouses do not have cooling equipment.

The Engineering Design Team presented three different options for the HVAC systems, CES started with nine options and narrowed it down to the three best options that fit the building.

System selection criteria

- Current systems were reviewed, the existing heat is provided through oil boilers currently burning gas.
- Most systems in the building only provide heating and fresh air, there is limited AC in the facility.
- All MEP systems are beyond their useful life and must be replaced.
- Proposed system needs to be flexible, provide for air conditioning and improved controls.
- Maintenance and operating costs were considered.

SYSTEMS - all three options listed below will have surface mounted chiller close to generator. discussed pro and cons of the following:

System #1

Dedicated outside air (DOAS) perimeter radiation and fan coils (FCU)

Disadvantage – filters, larger equipment, condensate issue

System #2

DOAS with perimeter radiation and chilled beams

Disadvantage – possibility of condensation, chiller size, don't make up quickly, very envelope dependent

System #3

DOAS with perimeter radiation and variable refrigerant volume (VRV or VRF)

Disadvantage – distributed filters

Advantage – heat recovery, part load efficiency, heat pump weight, easily phased for installation, can be value engineered to eliminate cooling for certain spaces.

### CES is recommending System #3

CES recommendation of a VRV system is due to the fact that there is minimal ceiling space required, limited roof weight, good energy efficiency, reliability, low system noise, occupant thermal comfort, works with phasing, installation speed and efficiency. CES believes system #3 is the most cost effective and would provide for the following

- Outdoor heat pump under blue roof require air flow, units that are semi protected will provide a longer life.
- Chiller would not be used in the winter, would not run below 50 degrees, would use outside air, suggest putting glycol in the system.
- The system would be designed with sufficient fin tube capacity to handle the heat load at night.

Question – How many days require AC for a school?

Response – Between 15 and 35, this does not include summer school

Question - What is the difference in efficiency between VRV vs Chilled Beams?

Response - A VRV system has a 37degrees cut off before switching to condensing boilers, VRV will heat down to -5 but you lose efficiency, outside air in cooler months can be used, not preferred to put air through VRV's

Question - What about issues associated with operable windows?

Response - If operable windows are installed you could look at turning off the systems with sensor in windows when the windows are open.

Question - What is the current BMS system?

Response - Andover, but the project will get a new system.

- The proposed system works very well in spring and fall.
- The design team looked at air cooled chillers – the maintenance is low but for large load spaces chilled water works better in part load situations. The committee noted that there are compressors that are staged and requested that the design team look at the larger spaces, Gym and Auditorium and price air cooled vs water cooled and review and report on both options.
- The design team is recommending gas fired condensing boilers which are much more efficient.
- ASRAE 62.1 – ventilation rates 400 CFM for classrooms, new ductwork will be smaller than existing as it will be ventilation only. Will measure CO2 in all classrooms.
- CES is recommending new duct work throughout the building.

Question – What is the life span and maintenance for a VRV system, will it last as long?

Response – Since you are still dealing with chillers and compressors, the VRV will not fail premature to the chiller. The systems have a good track record, are very reliable and provide a 7 year warranty. The design team will specify 3 manufacturers with solid histories.

Next step, Colliers will continue meeting with the District facilities staff, Commissioning Agent and Design Team to review the projects requirements and develop the Owner's Project Requirements (OPR), for all MEP systems.



#### 5. Geotechnical Proposal

Colliers passed out a draft of the RFP for Geotechnical Services which will also include pricing to have the geotech engineer available during construction to review field issues on a "Not-To-Exceed" (NTE) amount. Unit costs for additional borings will also be requested if needed. The RFP contains the information required by the engineer for the design. The committee suggested that the design team review any available information from previous projects. Colliers is looking to get a quick response and will call engineers directly.

#### 6. Meeting minutes from the last meeting were distributed.

#### 7. Public Comment

- When will the project start and be completed?

Response – Colliers responded that demo/abatement work will start next summer and full construction will begin in the fall. The majority of the school renovations will be completed for the beginning of the 2019/2020 school year.

- What can we do to make this go quicker?

Response – Colliers responded that a detailed schedule and plan has been developed with the design and construction teams input and is being managed. The team will take advantage of any opportunity to advance the schedule whenever possible but it was pointed out that there is a process that needs to be followed in order to adhere to the State requirements.

The next meeting will be held at **6:30 PM** on **Tuesday, September 27, 2016** in the High School Library Media Center, located at 5 Minor Town Road, Woodbury, CT. Additional meetings will be determined.

Motion to adjourn made by John Chapman, seconded by George Bauer.  
Meeting Adjourned at 8:19 PM.