

Minutes of the Building Commission Meeting

Tuesday, February 9, 2021

Remote Meeting via Zoom

6:00 p.m.

In Attendance: Janet Fierman, Ken Kaplan, George Cole, Nathan Peck, Karen Breslawski, Building Commission; Tony Guigli, Project Administrator; Ray Masak, Project Manager; Dan Bennett, Building Commissioner; Charlie Simmons, Director of Public Buildings; Andy Felix, Hill International Staff; Rob Mulligan, Jim Craft, Skanska Staff; Andrew Jonic, Sam Lasky, William Rawn Associates Staff; Jim Rogers, Jen Carlson, Lynn Stapleton, Matt Casey, Adam Keane, Leftfield Staff; Philip Gray, Jonathan Levi, Jonathan Levi Architects (JLA) Staff; Walt Kincaid, Linda Callahan, Paul Ruggiero, Gilbane Staff; Dominick Puniello, GGD Staff; Will Spears, Margaret Clark, Miller Dyer Spears Architects (MDS) and Sasaki Staff; Helen Charlupski, Susan Wolf-Ditkoff, School Committee; Matt Gillis, School Department; Carla Benka, Advisory Committee.

Meeting Minutes

Motion made by K. Kaplan to approve the meeting minutes for January 12, 2021.

Aye: Cole, Peck, Kaplan, Breslawski, Fierman

By Roll Call Vote Approved.

Motion made by J. Fierman to approve the meeting minutes for January 26, 2021.

Aye: Cole, Kaplan, Peck, Breslawski, Fierman

By Roll Call Vote Approved.

Pierce School Project

Staff from Leftfield appeared before the Commission to discuss the Pierce School Project.

J. Carlson provided an overview of Approvals and a Schedule Update. Invoice # 3 is for Leftfield, LLC in the amount of \$15,395 for OPM Feasibility Study Services for Designer Procurement for the month of January 2021.

Motion made by K. Kaplan to approve invoice # 3 for Leftfield, LLC in the amount of \$15,395 for OPM Feasibility Study Services for Designer Procurement for the month of January 2021.

Aye: Kaplan, Cole, Breslawski, Peck, Fierman

By Roll Call Vote Approved.

Budget Revision Request # 1 will be submitted to the MSBA to transfer \$225,000 from the Classification Other Contingency to OPM Feasibility Study/Schematic Design to fund OPM Base Contract for Feasibility Study and Schematic Design and the second is to transfer \$344,466 from Classification Other Contingency to Architectural Feasibility Study and Schematic Design to fund Architectural Base Contract for Feasibility Study and Schematic Design to cover the MDS contract. After this transfer, there will be \$230,534 left in the Other classification.

J. Carlson presented the schedule of the project, as follows: the School Building Committee met on January 28, 2021; there was an Educational Visioning Kickoff Meeting on February 3, 2021; there was a MSBA Project Team Kickoff Meeting on February 4, 2021; Education Visioning Sessions are being scheduled; the Educational Programming Community Forum is scheduled for March 1, 2021; Site/Civic Use Community Forum has yet to be scheduled; during February vacation break, they are working with MDS to have the various consultants into the buildings so they can get the information that they require.

Driscoll School Project

Leftfield staff appeared before the Building Commission to provide an update on the Driscoll School project including the Mechanical System Design options comparison; Schedule; Gilbane Procurement Update; Filed Sub Bid Procurement Update; Project Approvals; and upcoming milestones.

A Mechanical System comparison of Water Source Pumps (base bid) versus the Add Alternate of Geothermal Wells was presented by D. Puniello. He provided an overview of the fossil fuel free HVAC systems; reviewed the HVAC plant equipment; and provided a system cost comparison. Both are electric, fossil fuel free systems. At this point the geothermal well system is not an option for the project as the increase in early bidding (including site work) has likely eliminated any savings in the construction budget to include the alternates.

The Base Bid is a water source heat pump heating and cooling plant with a displacement Variable Air Volume (VAV) system. It incorporates energy recovery and radiant heating panels. It has high efficiency water source heat pump chillers with fluid cooler and supplemental electric hot water boiler. The Add Alternate is a Ground source version of base bid displacement system where geothermal wells are used instead of dry coolers. Electric boilers would be provided only for back-up heating. Hot water heating and chilled water are provided by high efficiency ground-source heat recovery heat pumps. The HVAC Displacement Distribution systems are identical for both systems are fossil fuel free. The pros and cons of the Base Bid are: it has a lower first cost; maintains benefit of displacement ventilation system; and has a second lowest Energy Use Intensity (EUI) of all systems considered. The pros and cons of the Add Alternate are: benefits of displacement are ventilation; incorporates high efficiency of ground source plant; has lower maintenance costs; and has the lowest EUI of the HVAC options but a much higher "up front cost". The differences of the systems are the Base Bid uses a Cooling Tower (Dry Cooler) and Supplemental Boiler Plant for heat rejection and absorption as opposed to ground source wells. Electric Boilers for ground source would only be for emergency backup use.

A diagram of the Ground Source of a closed loop well field was shown. Vertical closed loop wells are used to provide ground source condenser water to heat recovery heat pump chiller plant, which is used to provide hot water heating and chilled water cooling. The pros are: lower maintenance costs; high energy efficiency and lower operating costs; and lower

replacement costs as pumps located within building and no cooling tower or dry cooler is required. The cons are: test wells required; increased permitting; and higher first costs.

He showed pictures highlighting the differences of equipment of the non-ground source option. A Closed Cell Dry Cooler (Base Bid) has higher efficiency than open loop cooling tower; lower maintenance than open tower; and lower make-up water and chemical treatment requirements. The Supplemental Electric Boilers (both options) has boiler temperature reset controls; variable speed pumps with VFD's; maintain condenser water loop temperature in winter heating season; and increased boiler use in base. Boilers are used for backup only for ground source.

The benefit for the Displacement System for both systems are: ventilation air is provide form air handling units and supply air is delivered at low velocity and al low levels within the space; the system uses naturally occurring buoyant forces within the space to create a vertical rise of the air throughout the space; and supply air rises when heat source is contacted which displaces room air upward causing pollutants to be exhausted at ceiling returns. The pros are excellent pollutants removal; low velocity and low noise, reduced cooling loads; high ventilation effectiveness; and excellent thermal comfort.

The Energy Conservation was explained for the Displacement System. He explained that there are load calculation reductions. In the conventional system, all heat generated in the room is included in air flow calculation since all airflow is mixed. In the displacement system, only loads which occur in the occupied zone are factored and this results in smaller equipment and systems and lower installed and operating costs for displacement systems. There are additional energy efficiency measures to the system such as energy recovery. The system transfers energy from the return air stream to the supply air stream to pre-heat or pre-cool the outside air. There are variable air volume with CO2 demand control ventilation that modulated the airflow to large single zone areas in accordance to space mounted thermostat and CO2 sensors reducing energy consumption due to reduced air changes. It has a perimeter radiation heating that allows for the use of hot water heating system for nigh setback and supplemental heating.

He explained the payback period of electrical utility costs. Below is the chart of the Lifecycle Cost Analysis for a Base Bid HVAC System versus a Ground Source Ad Alt.

Base Bid All Electric HVAC System vs Ground Source Add All
 90% CD with Bid Input - 1/21/21

Using 2020 Energy Rates	Construction Cost	Elec Cost / Year	Maintenance Cost/Year	Capital Replacement Cost / Year	Combined Annual Expenses	Ground Source Payback Period- Years*
Base Bid	\$9,950,000	\$261,000	\$66,000	\$39,000	\$366,000	
Ground Source	\$12,667,000	\$170,000	\$63,000	\$13,000	\$246,000	22 Years
Delta	\$2,717,000	-\$91,000	-\$3,000	-\$26,000	-\$120,000	

Using 100% Renewable Energy Rates	Construction Cost	Elec Cost / Year	Maintenance Cost/Year	Capital Replacement Cost / Year	Combined Annual Expenses	Ground Source Payback Period- Years*
Base Bid	\$9,950,000	\$317,000	\$66,000	\$39,000	\$422,000	
Ground Source	\$12,667,000	\$211,000	\$63,000	\$13,000	\$287,000	21 Years
Delta	\$2,717,000	-\$106,000	-\$3,000	-\$26,000	-\$135,000	

*Payback period was calculated using Dept of Energy industry standards (BLCC v5.3-18) and includes future worth of each option using the DOE rates for discount (3.4%), escalation, inflation (2.0%), and interest (2.0%).

Energy Use Intensity (EUI - Lower is better)

Ridley School	28
Base Bid	27
Ground Source	21

Both Driscoll system alternatives result in a more efficient building than Brookline's most recent K-8 project

The EUI numbers were discussed. A number of 21 is better than 28 but 28 is still very good. In general, most utility companies report that if you have an average number of 25 EUI, you have a chance for net zero when you are adding renewable. Most schools now are built to net zero range and prior to that it would be in the mid 30's. R. Masak reported that the Warrant Article was set up for less than 30 EUI's.

J. Rogers wanted to let the Building Commission know that they have a very good system with the base bid mechanical design. There is still some hope that in the remaining buy out of the project there still may be opportunities to act on the alternate and will keep the commission posted.

An update on Gilbane procurement was provided by W. Kincaid. Site work bids were reviewed. Good progress has been made. There were five bidders. They have been working with three bidders and are close to the re-allocated budget. This unknown with subsurface rock which could range from \$0 to \$800,000. The budget carried for it is \$400,000. They have reached out to MacPhail for a proposal for more investigation and M. Casey provided an explanation of it. The cost is a hard number of \$13,200. J. Rogers recommends that the funding come out of the owner's contingency. Building Commission is on board with the expense not to exceed \$13,200 and recommends moving forward with the plan. Results and amendments will be presented at the next Building Commission meeting.

P. Ruggieri provided an update on concrete and steel bids. The bids were sent out and concrete bids are due on February 10, 2021 and steel bids are due February 11, 2021. Bid documents for

trades will be let on February 15, 2021 and bids are due 15 March. Discussion took place regarding the spike in steel prices and the concern those bids to not come in favorable. J. Rodgers summarized that by March 15th through April 1st, 2021, they will be able to report 70% to 100% of the numbers in order to know where they are for a May 1, 2021 start. The goal is to be under budget, look for a May 1, 2021 start date, able to mobilize onsite and stay on schedule for a September 2023 school opening date.

Building Commission clarified its position with regards price certainty. They want to make sure Gilbane feels comfortable giving the Building Commission a GMP even if they have not bought everything out. J. Rodgers understands what they are looking for and knows it is up to the team to provide the Commission with information. He would still like to have a discussion with the Commission on or about March 15th or April 1, 2021, after they get the numbers in and have better understanding about moving forward with or without a GMP. Discussion took place on the GMP. W. Kincaid noted 100% drawings are not available yet, they are due on the 15th. He stated early packages are normal, and understands the Town's position, but he doesn't feel it's fair to ask for a GMP at this point.

J. Carlson gave an update on Filed Sub Bid Procurement. The Prequalification's subcommittee met a few times. They reviewed applicants very thoroughly. After a process, three potential bidders were not qualified. Nevertheless, all categories were very well represented. Bids will be due on March 15, 2021.

L. Stapleton presented Amendment # 3 to the Gilbane contract for extended preconstruction services. This is for the extension of time to the new planned construction start date of May 1, 2021. It is for the added three months and includes the actual preconstruction monthly costs at \$46,684 as opposed to the discounted monthly cost of \$22,500, to better reflect the current level of effort. The total of the amendment is \$140,000. Leftfield proposes using the remaining uncommitted preconstruction services budget of \$31,658 and transfer the remaining amount of \$108,342 from construction to preconstruction services line items in order to cover the delta.

T. Guigli asked to confirm that this will in effect reduce the GMP by about \$100,000. L. Stapleton confirmed yes. It is moving forward payment of some general conditions. The overall General conditions number is not going to change and it means the GMP is going to be reduced by about \$100,000. J. Rogers explained that it is an early funding of the GC's. There is not a GMP or an IGMP as of yet. By this time, it had been hoped site work would have been underway and general conditions would be billed accordingly. The amendment is s a prefunding of their GC's, it is not an add. They are bringing their fees forward. T. Guigli asked that it be confirmed that this amendment under no circumstances is a cause of delay or added cost to the project. W. Kincaid confirmed the current budget is not anticipated to change based on this amendment. Building Commission agreed to this statement.

Motion made by G. Cole for approval of Amendment # 3 to Gilbane in the amount of \$140,000 for construction management services for the Driscoll School Project.

Aye: Kaplan, Cole, Peck, Breslawski, Fierman

By Roll Call Vote Approved.

L. Stapleton presented the monthly invoices for January 2021. The total expenditures against the budget are \$346,641.20. Included in this amount are Leftfield's invoice # 11 for OPM Services for January 2021 for a total amount of \$60,879; JLA invoice # 1823-00-16 in the amount of \$257,862.20; BR+A's invoice # 1067098 for commissioning in the amount of \$5,400; and Gilbane's invoice # PC10 for CM Preconstruction services in the amount of \$22,500.

Motion made by G. Cole to approve the invoices related to the Driscoll School Project; one for Leftfield; one for JLA; one for BR+A and one for Gilbane in the total amount of \$346,641.20.

Aye: Cole, Peck, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

BHS Expansion Update

Staff from Hill, Skanska and WRA appeared before the Commission to discuss the BHS project.

DOR/Status Warrant Article

A. Felix reported that on January 29, 2021, the Massachusetts Department of Revenue issued a letter to Town of Brookline authorizing up to \$30,970,830 of additional borrowing within the debt-exclusion vote. The project budget can increase from \$205.6M to \$236.5M. This is in comparison to the Warrant Article submitted in the amount of \$32.2M. There was a reduction in the authorization and they have adjusted accordingly.

Based on the approval of funds from the Mass. DOR, A. Felix shared a list of the contracts that can be released for the project.

<u>Item</u>	<u>Company</u>	<u>Contract/PO Amount</u>
Deferred Maintenance	N.B. Kenney Co. Inc.	\$3,075,000
3 rd Floor & Tappan Gym Reno	CTA Construction Managers, LLC	\$7,821,340 (includes Bid Alt #1)
Cypress Playground	Heimlich Landscape/Const	\$5,263,523
Cypress Playground - CA	Weston & Sampson – Construction Admin. Services	\$96,000
Furniture, Fixtures and Equipment	various vendors (W.B. Mason, direct science equipment purchases by Science Dept., etc.)	\$3,100,000 (not-to-exceed budget)
Security	Lan-Tel	\$181,167.97
Technology	various ToB procured vendors	\$1,500,000 (not-to-exceed budget)
A/E	WRA Amendment #20 – Schedule extension beyond original schedule in Amendment #1	\$588,751
OPM	Hill Amendment #6 – extend Site Representative Services thru July, 2021	\$161,910
OPM	Hill (future) Amendments: reconcile MBTA-related tasks; managing (2) additional contractors; services extension (if required); some projected costs were already included within Warrant Article.	TBD and negotiated w/ToB
A/E	WRA (future) Amendments: managing (2) additional contractors; some projected costs were already included within Warrant Article.	TBD and negotiated w/ToB

A. Felix reviewed a revised summary of the Total project budget showing \$205.6M Budget versus the increased Warrant Article \$236.5M budget. Both Hill and Town of Brookline staff compare numbers at the end of the month and make sure they are reconciled.

Traffic Signal bidding will be bid through DPW for a completion of scope of work in November 2021.

Streetscapes and Pavement markings will be re-bid through DPW for a completion of scope of work in August 2022, at the same time as Cypress Playground.

MBTA Status

A. Felix reported that the Town of Brookline Staff, State Representatives, and Hill Staff met with the MBTA Executives on February 1, 2021 to review platform diversion and the plaza schedule and cost certainty. MBTA did not make any commitments when the diversions can start. Town

is trying to get cost certainty. Town would like to know what MBTA can and cannot do. MBTA hope to get more information in the next week.

Construction Status

R. Mulligan showed progress photos on STEM and 22 Tappan. At the STEM wing south elevation, glazing has all been set and windows have been sealed in this elevation. In one photo, it showed within the staging the brick progress on northeast elevation, mason is underway with brick façade work; the third floor lab is underway showing the view of the third floor windows; photo showed level two of mechanical systems -- there's inspections complete insulation and interior drywall are started; stair two looking at light monitor; at the Cypress Building, the glazing progress on north curtain wall is showing progress, scaffolding is on right side the roof, mason is mobilized and looking for mortar system set up; the cafeteria curtain wall frame is installed; south elevation shows glass installed; stair 2 was shown; and level one showed misc metals locker cubbies installed. Skanska is working on the schedule update. Skanska is showing a two and half slip from July 7, 2021 for STEM. They are looking at various options with plumbers and mechanical contractor. Brick progress is going well.

Change Order Summary

A. Jonic presented The Overall Change Order Summary Log. The good news is the total value has decreased by \$25K. R. Masak reported that Skanska has reduced costs for Emergency Repairs and there was a lot of Value Management. VAV temperature sensors (a recent change) are nice to have but are not required. It would cost about \$60K. He will report back on his position.

Change Order/Amendment(s)

A. Felix presented Skanska Change Order # 8 in the amount of net zero consisting of 33 separate Authorization Request items.

Motion made by K. Kaplan to approve Skanska GMP Change Order # 8/PCCO # 15 in the amount of net zero for the Brookline High School Expansion Project.

Aye: Cole, Peck, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

A. Jonic presented WRA Contract Amendment # 20 in the amount of \$588,751 for construction schedule extension for STEM and 22 Tappan. The original schedule for substantial of completion for STEM was December 2020 and is now July 7, 2021. This is an additional seven months of services needed. The original schedule for substantial of completion for 22 Tappan was July 2021 and is now November 15, 2021. This is an additional four months needed for services. Hill recommends approval.

Motion made by G. Cole to approve WRA Contract Amendment #20 in the amount of \$588,751 for the Brookline High School Expansion Project.

Aye: Cole, Peck, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

A. Felix presented Contract Amendment # 6 in the amount of \$161,910 for to extend Hill's Site Representative through July 2021. A. Felix and R. Masak will re-visit this in the summer based on the number of projects happening at STEM and Tappan, Tappan Gym, 3rd Floor, and Deferred Maintenance.

Motion made by K. Kaplan to approve Hill Contract Amendment # 6 in the amount of \$161,910 for the Brookline High School Expansion Project.

Aye: Cole, Peck, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

A. Felix reviewed the Monthly January Invoices. Skanska's Req # 29 in the amount \$5,228,619; WRA Invoices for a total in the amount of \$172,102.53; GGD Invoice in the amount of \$3,325; Briggs invoice in the amount of \$2,109; Briggs invoice in the amount of \$ 909; and Hill's invoice # 41 in the amount of \$92,900.08; for a combined total of \$6,499,964.61.

Motion made by G. Cole to approve the January Monthly Invoices for the Brookline High School Project in the amount of \$6,499,964.61.

Aye: Peck, Cole, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

S. Lasky mentioned that there will be tours provided next week for members of Select Board, School Committee and Building Commission. S. Wolf-Ditkoff will send out information to sign up for tours.

Building Department Projects Status Updates

R. Masak and T. Guigli updated the Building Commission on Building Department projects:

BC STATUS REPORT & SCHEDULE

- CIP for 2022(Funding Issues) – Building Envelopes & Roofs ; Elevators; Life Safety/ Security; Energy Conservation; Energy Management; Fire Station Renovations (on hold); Classroom capacity (leases); ADA Renovations; Climate Control; HVAC Equipment; Fire Alarm Systems; Town Building Rehabs; Solar PPA's (may change due to COVID 19)

TOWN PROJECTS

- Water Garage Repairs - construction complete.

- FS No. 6 Training & Maintenance/ MEP Renovations – project complete- contractor received occupancy on Nov 26, 2019; closeout – complete except for a handful of punchlist/ warranty items (ongoing)
- Putterham Library Bathrooms- project complete
- Harry Downes Field House - construction complete; punchlist and project closeout ongoing
- Building Envelope – Public Safety; Main Library; Soule Rec; Baker – design complete; bid to be scheduled (delayed due to COVID 19)
- Building Roofs- Heath; New Lincoln; Pierce Primary; Larz Anderson Skate Pavilion; MSC – bids received Jan 28, 2021
- Elevator Renovations- Senior Center (2), Soule Rec, MSC, Water Dept.
- Solar PPA’s- Devotion, Runkle, Tappan, HS, Heath, MSC

SCHOOL PROJECTS

- Devotion Expansion – project complete; MSBA pre-audit
- HS Expansion –refer to Hill monthly
- Pierce School- Designer Selection process- MDS selected, contract approved; refer to Leftfield monthly
- Driscoll School –refer to Leftfield monthly

Motion made by G. Cole to approve the contract with MDM Engineering in the amount of \$1,775,000 for the roofing projects at Heath, New Lincoln, Pierce Primary.

Aye: Peck, Cole, Breslawski, Kaplan, Fierman

By Roll Call Vote Approved.

C OF 7's

- Fire Stations- zoning design (on hold)

Old and New Business

R. Masak and C. Simmons reviewed the invoices with the Building Commission.

C. Simmons presented invoices for Embree Elevator for elevator upgrades at the New Municipal Garage and DiGiovanni for painting at Fire Station # 4 for approval.

Motion made by J. Fierman to approve the invoice for Embree Elevator in the amount of \$44,340 for elevator upgrades at the New Municipal Garage and approval of invoice for DiGiovanni for painting at Fire Station # 4 in the amount of \$10,537.60 for a total amount of \$54,877.60.

Aye: Kaplan, Cole, Breslawski, Peck, Fierman

By Roll Call Vote Approved.

Motion made by G. Cole to give the Chair as the authority to sign on behalf of all the Building Commission members any invoices, amendments, change orders, contracts or any other documents approved at the meeting by a roll call vote.

Aye: Cole, Kaplan, Breslawski, Peck, Fierman

By Roll Call Vote Approved.

Meeting adjourned at 8:01 p.m.

Minutes respectfully submitted by Beth McDonald.