

CITY OF NEWTON

IN BOARD OF ALDERMEN

SPECIAL NEWTON NORTH HIGH SCHOOL
DESIGN ADVISORY COMMITTEE REPORT

WEDNESDAY, JANUARY 25, 2006

Present from the committee: Ald. Vance (acting chair); Albright, Coletti, Gentile, Johnson, Linsky, Salvucci, and Schnipper. Absent: Ald. Sangiolo

Also present from the Board of Aldermen: Ald. Baker, Burg, Danberg, Fischman, Harney, Hess-Mahan, Lappin, Lennon, Lipof, Mansfield, Parker, Samuelson, Weisbuch; from the School Committee: Members Glick, Murphy, Larner, Yeo, Heyman, Sokoloff, Laredo, and Zaleznik; from the School Department: Superintendent Jeffrey Young; from the City: Building Commissioner Nick Parnell and Chief Administrative/Chief Budget Officer Sandy Pooler; as well as representatives from the architectural design team, Gund Partnership and Dore & Whittier Architects, and the team's cost estimating firm, Rider, Hunt, Levett and Bailey.

The meeting was called to order by Board of Aldermen President Lisle Baker at 7:45 p.m. President Baker announced that this was a meeting of the aldermanic Special Newton North High School Design Advisory Committee, of which aldermanic Vice President Amy Sangiolo serves as chair. President Baker announced that Chair Sangiolo was ill and so was unable to attend and preside over the evening's meeting so that President Emeritus Verne Vance, who chaired the committee in the prior aldermanic term, would preside. President Baker also announced that there would be another meeting of the full Board of Aldermen for further discussion of the issues relating to the Newton North project on February 15.

Alderman Vance then introduced John Prokos, the principal in charge of the Newton North project for the Gund Partnership. Mr. Prokos and Graham Gund, design principal on the project, then described four possible design/siting treatments for Newton North.

Option 1 is a long linear building that would be sited along Walnut Street. The architects had several concerns about this option, including:

the massing and scale of the building presents a discrepancy between the gymnasium and the nearby neighboring houses

shadows on neighboring residences

locating parking in the front of the building

potential flooding at the building location

Option 2 utilizes the same building design as in Option 1 but rotates it 90 degrees to locate it along Elm Street. The architects see the strengths of this option as including:

- placing the gymnasium at the center of the building complex
- siting of the largest buildings away from abutting residential neighborhoods
- entries to the building complex from both Walnut and Lowell Streets
- spaces for support facilities are located away from the classrooms

The architects' concerns about this option include:

- the building would cast a large winter shadow on the abutting neighborhood
- the building is large, long and high (4 stories) (this is also a concern for Option 1, which utilizes the same building design)

Option 3a includes construction of a new building joined to reuse of 112,000 square feet of the existing building that includes the athletic and auditorium facilities. Advantages of this option include:

- reuse of more than 100,000 square feet of the existing building
- the existing building can continue to be used for school operations while this hybrid is being constructed
- the football field could be located along Walnut Street

Disadvantages of this option include:

- higher costs of a partial demolition of the existing building so as to retain a portion of that building for reuse
- higher construction costs of the new building because it would be only 30 feet from the existing building

Option 3 is a design that would place a new building at the center of the site. Advantages of this option include

- the topography and design of the building would make the building appear 30% smaller than its actual mass
- the siting of the football stadium would give it a desirable north-south orientation

parking is dispersed across 4 parking lots

the building is located away from all the residences in the surrounding neighborhood

good pedestrian access from each surrounding street, including Walnut Street

the stadium is sunk by four feet, reducing its visual impact

there are bus drop off points at both the main and secondary entrances to the building

the building's winter shadows would not adversely impact neighborhood residences

classrooms would be located on the building's second level with art and science facilities on the third level

The architects noted that they can model each option in three dimensions so viewers can get a complete sense of the building and other facilities and their relation to the site and can virtually fly through the site and the facilities under each of the four options.

The aldermen raised a number of questions regarding the various design options. The principal questions and responses included:

Q: In Option 3, which places tennis courts on top of the gym, how would natural light get into the gym?

A: Large windows around the topsides of the gym and skylights beside the tennis courts would permit natural light into the gym.

Q: In Option 3 why do you build landscaping up and around the gym so that it is in effect underground?

A: We do this to bring a feeling of interesting topography to this basically flat site.

Q: Isn't it better to locate a school along a main street rather than in the center of the site away from such streets?

A: We do not regard this site as an urban site, so we would prefer to locate the building in the center of the site to provide a somewhat more pastoral feeling to the facility. We believe that it is important for students to not just step off a main street into the school. Also, placing the building in the center would reduce the noise levels that would be experienced in the abutting neighborhoods from students coming in and out of a school building located on a main street near those neighborhoods.

Q: Options 1, 2 and 3a all seem to have a long linear design of the building. But Option 3 has a very different design that includes smaller mass elements. Why is that?

A: Under Option 3 30% of the mass of the building can be hidden by building up the land around the building. That cannot be done under the other options.

Q: The School Committee has properly included as a key concept in the design of the building the ability to modify the building for possible future expansion. Can that be done under the four options that have been presented?

A: To this point, we have not explored possible expandability because an option for detailed design has not yet been chosen.

Q: Are the four options that have been presented this evening the only possible options?

A: We could explore additional options, but we believe that these four are the only reasonable options. The building cannot be moved around the site too much without losing playing field space.

Q: Why does the location of classroom spaces in the building seem to be secondary to the location of other spaces in the building?

A: In the present conceptual design athletic facilities and public spaces are located on the first floor. Classrooms are located on the second floor and above to take advantage of natural light. At this point the final layout is yet to be determined. The purpose of the conceptual design has been to determine that the School Committee's 400,000 square foot educational program can be fitted into an appropriate building on the site.

Q: How will you determine if the proposed building can be built at the desired location on the site while the old tunnels and foundations are in the ground?

A: We will retain a geotechnical expert to determine if the proposed building can be built at the desired location.

Following the discussion of the building design/siting options, cost estimator Craig Holmes of Rider, Hunt, Levett and Bailey presented the details of the construction-cost estimates that were the basis of that firm's December 25, 2005 budget report. He distributed a document setting forth a project cost comparison of cost estimates for four building options, with estimated cost ranges reflecting various annual cost-escalation rates. A copy of that document is Attachment A to this report. The four options were Option 3 of the design options (building sited at the center of the site); Option 3a of the design options (the hybrid of new construction plus reuse of part of the existing building); the so-called "large hybrid" set forth in the 2003 report of the Newton North High School Task Force; and the renovation plan set forth in that task force report. The cost estimates are:

Option 3 -- \$139,781,000 to \$164,924,000

Option 3a -- \$139,749,000 to \$176,091,000

"Large hybrid" -- \$115,270,000 to \$145,246,000

Renovation -- \$95,668,000 to \$124,449,000

Mr. Holmes described how construction-cost escalation is adversely affecting all building programs. The aldermen raised a number of questions about the cost estimates. The principal questions, and Mr. Holmes' responses, included:

Q: The 2004 cost estimates for the project included the cost-escalation effects of inflation. Do your present cost estimates that increase substantially the 2004 cost estimates based on estimated inflation levels include double-counting of inflation effects – the inflation in the 2004 estimate plus the inflation in your present cost estimate?

A: No, we adjusted the inflation numbers so that they are not double counted in our cost estimates.

Q: Were the costs of dealing with underground conditions at the site included in your present cost estimates?

A: Cost adjustments for dealing with those underground conditions will depend on which option, and which building siting, are chosen. No such adjustments are included in our cost estimates at this time.

Q: Based on your past experience, how accurate have you found your cost estimates to be?

A: The accuracy will depend on which option is chosen and which escalation factor is selected.

Q: How do you expect that use of the construction manager at risk model would affect the cost estimates?

A: It is our sense that use of that model would have a favorable impact on construction costs.

Q: On use of what construction materials are your cost estimates based?

A: The estimates are based on a building with a masonry finish.

Q: How does the School Committee's desire for expansion-capability of the building affect your cost estimates?

A: New construction allows for future expansion more easily than renovation or reconstruction. One must also look at the life-cycle costs of a new building as compared with a renovated building.

Q: Are the costs of energy to operate the building included in your cost estimates?

A: No energy or other operating costs are included in our cost estimates, which are just estimated costs of construction.

Q: Do your cost estimates include use of the prime interest rate for the interest costs of borrowing funds for construction of the project?

A: Estimates of interest rates on borrowed funds are outside the scope of our building-construction estimates. We expect annual long-term interest rates to be 6 to 8 per cent.

Q: Did you base your escalation estimates on the mid point of construction?

A: Yes. Use of that mid point rests on the assumption that the escalation curve is the same both before that mid point and after.

After the discussion of the cost estimates Building Commissioner Nick Parnell presented information concerning the construction manager at risk process and the differences between that process and the traditional design-bid-build process. The information presented comes from the

state's Division of Capital Asset Management (DCAM). A summary of that information is set forth in Attachment B to this report, which was distributed at the meeting.

Nick reported that the construction manager at risk provides a range of pre-construction services and construction-management services, including cost estimation; consultation regarding the design of the building project; the preparation and coordination of bid packages and sub bids; scheduling and cost control; value engineering; acting as general contractor during construction; detailing the scope of work of the various trade contractors; holding the trades and other subcontracts; prequalifying and evaluating trade contractors and other sub contractors; and providing management and construction services, all at a guaranteed maximum price. That maximum price includes the work of the general contractor and a fee payable to the construction manager at risk.

Use of the construction manager at risk process would give the city the opportunity to have an experienced building firm to coordinate all work involved in the project. For the services of a construction manager at risk the owner – here the city – pays a premium for those services but that premium gives the owner a manager who will be fully involved throughout the pre-construction and construction process and who assumes the risk of any cost increase of the project in excess of the guaranteed maximum price.

Nick noted that the construction manager at risk process can be used only for projects in excess of \$5 million and that have an architect designer, a project manager, and an outside legal counsel. The process can be used only after application to and approval by, the state's Inspector General. The city currently has on board an architectural team (Gund and Dore Whittier) and a project manager (Turner Construction) and is working on its application to the Inspector General with outside legal counsel David Rogers of the Palmer and Dodge law firm. The aldermen raised a number of questions about the construction manager at risk process. The principal questions and responses by Nick were:

Q: If a firm that bids to become the construction manager at risk has the needed bond and is the low bidder, must the city accept that low bid?

A: The construction manager at risk is selected from a pool of three pre-qualified firms that have been qualified by DCAM. The construction manager at risk process allows that pool of bidders to be narrowed to include only companies that DCAM is satisfied can complete the work on the project.

Q: How do you identify the construction manager at risk firm to use and how do you ensure that it will be able to guarantee a maximum price for the project that is not excessive?

A: The construction manager at risk works with the team to establish the cost number. The contract will state quite clearly what the guaranteed maximum price is to be. Then you look very carefully at the construction firm's financial statements, its demonstrated ability to perform large construction contracts, whether the firm has ever filed for bankruptcy or insolvency, and whether there has ever been direct payments against the firm. There is a list of 15 points that must be examined for the city to satisfy itself that the construction manager at risk firm can fully perform its contractual obligations to the city.

Q: What other communities have used the construction manager at risk process?

A: Nick will provide us with the list of those communities.

Q: What is the risk that the construction at manager at risk assumes?

A: The construction manager at risk assumes the risk of the costs of the project if they go over the budgeted amount in the guaranteed maximum priced. The construction manager at risk can assume that risk because it has more control over the selection of subcontractors who have demonstrated the ability to do within their bid prices the work for which they have bid.

Q: Can we seek an exemption from Chapter 149 instead of using the construction manager at risk process?

A: Such exemptions are granted only in extreme circumstances. Chelsea obtained such an exemption only because that city was in bankruptcy and was trying to rebuild its entire school system.

Q: What assurance do we have that the construction manager at risk model will be more advantageous to the city than the traditional design-bid-build model?

A: We will have a team of experienced reputable people who will carefully oversee every step of the project.

Q: When will the construction manager at risk be identified?

A: We will be filing the application for the approval of the Inspector General to use the construction manager at risk model within a month's time. The process of approval and selection of the firm will take 60 to 90 days.

Q: Do you negotiate with the three companies in your pool of bidders for the job of construction manager at risk on the basis of their qualifications alone and/or on the basis of their quotations on guaranteed maximum price?

A: The Request for Proposals will require that the bidders include the fee for their services, the subcontractor costs through the end of construction, and any other costs or fees. With that information in hand, the city's team will assess which bidder is the most appropriate. Final agreement on the guaranteed maximum price is then reached at the 60% point.

Q: When will the aldermen get a cost number for the project for our consideration and vote?

A: The request for funds for construction of the project will be docketed with the Board at the same time that the request for site plan approval is docketed with the Board. Those requests could come to the Board sometime this spring.

After Nick's presentation Chief Administrative/Chief Budget Officer Sandy Pooler gave a brief status report on his work on a plan for funding the Newton North project. He will present the results of that work to the Board at its next meeting on Newton North that is scheduled for February 15. Sandy's report at that meeting will include the following:

1. A joint analysis with City Comptroller David Wilkinson of the impact of the Newton North funding plan on future operating budgets of the city
2. The history of the city's taxing capacity and its levels of taxable new growth
3. A comparison of the city's debt ratios with those of other Massachusetts communities
4. The history of the city's debt levels and the percentages that the city's debt service have been of the city's operating budgets
5. A timeline for the financial decision making by the Board of Aldermen

The meeting was adjourned at 10:50 p.m.

Respectfully submitted,

Verne Vance, Acting Chairman