

Waverley Elementary School – Feasibility Study

Project No.: 17261.00

Meeting #7

February 1, 2018

Attendees

<u>Name</u>	<u>Company</u>	<u>Email</u>	<u>Present</u>
Jan Hollenbeck	Principal, Waverley Elementary School	jan.hollenbeck@fcps.org	Y
Kathy Prichard	Elementary School Director, FCPS	kathy.prichard@fcps.org	Y
Dawn Worrell	Construction Accountant, FCPS	dawn.worrell@fcps.org	Y
Randy Connaster	Maint. Project Manager IV, Maintenance & Operations, FCPS	randall.connatser@fcps.org	Y
Ana Mejia	Community Liason at Waverley ES	ana.mejia@fcps.org	Y
Mary Jo Richmond	Supervisor of Media Services, FCPS	maryjo.richmond@fcps.org	Y
Brian Staiger	Senior PM, FCPS Construction	brian.staiger@fcps.org	Y
Beth Paseirb	Supervisor of Facilities Planning, FCPS	beth.paseirb@fcps.org	Y
Holly Nelson	Facilities Planner, FCPS	holly.nelson@fcps.org	Y
Michael Blake	Principal, Marks Thomas	michaelb@marks-thomas.com	Y
Jennifer Lyon	Senior Associate, Marks Thomas	jenniferl@marks-thomas.com	Y
Ursula Fernandez del Castillo	Project Architect, Marks Thomas	ursulaf@marks-thomas.com	Y
Shawn Benjaminson	Adtek Engineers	SBenjaminson@adtekengineers.com	Y

Meeting Notes

Meeting #7 was held to discuss to review and discuss the results of the ALTA Survey, storm water management strategies for the Design Options and the ‘one-pagers’ for the Options which include pros/cons, estimated costs, phasing building information. Discussions regarding the possible mechanical systems, preliminary cost estimates and thoughts on evaluation criteria were also part of the Meeting. Attached are the Power Point slides which provide additional context to the meeting discussion and should be viewed in accompaniment to the Meeting Notes outlined below.

Action

- I. Project Overview
 1. Schedule – past midway point of feasibility study process. In the “Refine Concept Options” phase of the study and prep for Final Report is beginning.
 2. New Community Meeting date is March 8th from 6:00 - 7:30pm at the school Cafeteria. The goal of this meeting will be to present the recommendations that our group will be presenting to the Board.
 3. Clarification was made to the timeline of the Waverley construction: start of new construction for this project will be in Summer, 2020 (after Rock Creek vacates). New Waverley building would open in the Summer of 2022 (depending on the selected Option) with 502 projected students.

- II. Site Issues

1. Alta Survey:
 - Final draft of the Survey is complete.
 - Site in IST zone (institutional) floating type zone – use is for recreation centers / schools – for public good on the property. Setbacks / restrictions are diminished to allow for activity to occur.
 - Title Report indicates two existing gas easements and a Frederick City waterline easement at the north-east corner of the site. It should be known in the next few days if the waterline is there. If it does exist, it would be relocated with any of the selected Options. The easement awkwardly dead ends.
 - If a gas line exists in the easements they can also be relocated.

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- Shawn has a call in to WSSC, it is likely that the line is there but no active utility, which is similar to other properties in the area.
- Easements do not preclude construction of SWM facilities at the north-east end of the site. If they exist, they would likely be relocated.

MT

- Scope and cost of relocating easements should be included in the site costs for the project.

2. Site constraints recap:

MT

- Optimal buildable area in the center of the site.
- There are steeper slopes on north & south corners – natural surface water flows there currently. These locations are ideal for storm water management ponds and/or structures.
- Blue Arrows indicate current pedestrian access from the surrounding neighborhoods & red arrows indicate vehicular access points. Red arrow at top left may not actually be an access point. MT to confirm.

3. Review of Storm Water Management Strategies for each Option:

- Site drains to Carrol Creek. 100-year storm event volume will be accommodated by new SWM facilities / structures.
- Existing and proposed areas on site could flow against grade for some distance, which would limit the cost of any new infrastructure to be provided.
- Likely all new SWM features would be underground. Anything to the north of the site would terminate into a surface pond. Anything called for to the south of the site would all run and remain underground.
- Challenge for SWM strategies happens in the phased construction situations. There is currently a storm drain line that runs next to the Portables. Portables may have to be relocated to help with the temporary drainage of the site during construction work. This would be more cost effective than bypassing existing drainage and running new pipe.
- More intensive treatments likely will be required in the Options where the building is focused towards the south end of the site due to the impervious area.
- In building SWM features for the interim, use during construction activities as well as for future permanent use need to account for the 4' vertical difference between the two existing building floors.
- Mimicking what is there in spirit will help impact of new work – there is an inlet in the drive aisle loop that would want to be revised where possible.
- In the 1,019 Options, the facilities will need to be larger due to the larger building footprint.
- In the Combined Option, SWM should run under the building. With acknowledging the 4' difference between building elevations, an alternate routing of drain pipes could get cumbersome. The City would allow it to be placed under the building as it is a private site and line. The cost to do this would also be better than running lines around the building. If the SWM lines were to move to the north, the portables would have to come out, install the line, then put portables back in, or, provide alternate location for swing space for students.

III. Feasibility Study Options

1. General Statements:



- MT - Parks & Recs alternate can be eliminated as they will be located at the new Butterfly Ridge.
- MT - Judy Center and International Office spaces will need to relocate during construction in an Option which builds over the Rock Creek building. There are opportunities to place them in front of Waverley or on the north side of the site by the other Portables. Report should acknowledge spaces as a project requirement and should be included in the project costs.
- MT - Judy Center space will be in base program; International Office spaces will be indicated as an add-alternate.
- MT - Parking for both programs should be mapped out in the 725 Options. In the 1,019 Options that will be more difficult and parking may need to be shared with spaces for the school during construction work.
- FCPS - In the 1,019 Options – it may be possible to discuss with the City the temporary use of the Park area across the entry driveway for parking or as an overflow construction area with temporary entrances.
- MT - Swing space: acknowledge in Report that if there were off site spaces available, the 1,019 Options could be more favorable. The 725 Options allow for more construction space as well as the possibility to add more portables if needed.
- FCPS - The Hillcrest portables are spoken for. Brian suggested other school sites for swing space (and space to add portables for Waverley use) – Butterfly Ridge? Benefit (or drawback) to this would be to empty out the Waverley site for construction. No impediments to work due to students and staff being present on site – construction schedule may become quicker.
- MT - The Board asked that the Feasibility Study consider both a 725 and 1,019 school, but they haven't thought much about the larger school. Report to be presented in a way that if the Board decides to move forward with a 725 school, this is our recommendation. If the Board decides to move forward with a 1,019 school, this is our recommendation.
- MT - Recommendations to be crafted for both 725 & 1,019 Options separately. Devise a way to make the recommendations more than a chart with the costs. If one Option has a lower cost than another it still may not be viable due to the other constraints (Pros/Cons) it may have.
- MT - Report should mention that on all 1,019 Options the phasing and swing space logistics are very challenging.
 - Possible issues with using Rock Creek as a swing space – 3-6-month time for getting the building ready to reuse as a school; eliminates ground area for construction staging; classrooms would be oddly sized as described in Meeting #6. Money would be spent to get RC building ready for use, just to then eventually demolish it in the end.
 - There are only 14 Classrooms available at the RC building. That may not be enough for what is needed in a temporary situation. Relocating existing portables from Waverley side of site to RC side adds cost. Additional portables may still be necessary which will add cost.
- MT - Longer construction time – additional cost should be determined.
- MT - There are also many other programs at Waverley that will need a temporary space.
 - There are 3-year olds on site in one PreK Classroom – the temporary swing space / phasing situation may create undue chaos for the younger children. The younger grades can be inside the building if adding portables could start in the Spring to save time.
- MT - It may be beneficial to describe a couple of scenarios considered by the group for a 1,019 Option with an occupied site. Analyze cost and schedule



for number of options. Demolition timeline to make improvements to RC in order to use; extension to construction time overall; students are in active construction site, moving back and forth; or, students move to RC one time and portables move over as well if needed; present pros & cons as fundamental differences in phasing – demonstrates to stakeholders that we considered both options which is why we did or don't recommend it as a suggested choice in our Feasibility Study.

2. Review and discussion of 725 Student Options:

FCPS /
MT

- a. In general, it looks like new building options are \$2 Million dollars cheaper and take half the time to construct.
- b. Two options on the table for the 725 Replacement School – do we want to move forward with one or the other as the costs are the same? As this is just a Feasibility Study, the building envelope and general site diagram are the important features between the two options. If there is not a SWM strategy, cost or construction phasing or schedule difference between the two options, then selecting one to proceed with is acceptable.
- c. Regarding Replacement Option 2, Shawn noted that with the field at the front, that may make the option not as successful. That option also allows for a location of Parking or Play Field where the existing Waverley building is, so if the building and site plans are still a strong option, showing the Play Field there may make the option more attractive.

MT

- d. **Replacement Option 1** – alternate building scheme has been developed. Building size, phasing, cost and general site layout features are like previous scheme.
- e. **Replacement Option 2** – major benefit is that demolition and new construction can start simultaneously. One concern is that the new construction occurs close to the Waverley building which would be occupied. MT to look at alternate building layout to try to give more buffer between buildings. It could be possible to move building forward, bring Play Field to the back of the site. Flipping the Gym to the north of this Option could allow the “Alternate 14” location of the Play Field on top of the Waverley building to be a better plan. SWM costs are higher due to location of building at back of site.

MT

- f. **Renovation / Addition to Waverley** – there is a premium cost in this Option to make Rock Creek useable and move Waverley over to allow building to be empty for construction (which is preferable). Existing portables will likely need to be relocated to the RC side of site and additional ones may need to be brought in. This all adds to the cost and schedule of this Option.

- If phasing for this Option is simplified, does this Option compare better in cost and phasing to the Renovation / Addition to Rock Creek? MT to review.

FCPS /
MT

- g. **Renovation / Addition to Rock Creek** - overall lowest cost option. Simplest phasing and least impact on students. Additional costs are less due to the shorter schedule. However, this is the scheme that illustrated the reused Classrooms and they ended up smaller than the program requirements (and at odd orientations). Drawback to this Option is that it is more inefficient due to reusing existing building footprint. Renovation costs are higher due to need to adapt spaces to different uses (i.e. Pool gets infilled).



- Compared to the Renovation / Addition to Waverley option, this option won't need time to get RC ready for temporary use. Kids can stay in Waverley and use that building as all construction activity will occur on RC side of site.

FCPS /
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3. Review and discussion of 1,019 Student Options:

- Replacement Options** – decide whether only one Option will move forward. Possibly show two site plans with the same cost & schedule.
 - Bigger building, higher cost.
 - Option 2 there is a higher cost on the SWM infrastructures due to placement of building at back of site.
- Renovation / Addition – Option 2** – look at making Waverley building fully available for construction (i.e. – off site swing space or fully new portable campus at south of site).
- Combined Option** – high premium costs associated with this scheme. Dealing with 4' change in level between the two buildings may be challenging.

FCPS

4. Mechanical System Options

Engineers looked at 4 primary systems:

- Rooftop units:** lowest initial cost but trickier for Renovations, high energy cost, low maintenance cost, medium impact in architecture.
- 4 pipe systems:** existing in schools now and old technology that should be only used as a last option.
- VRF system** with outdoor units. Primary recommended system for all Options by the Engineers.
- Ground Source Heat Pump:** up to 200 wells would be needed around the site for most of the Options. A cost of about \$5000 a well (a One-Million-dollar premium overall). This option is the Second recommended system by the Engineers. Wells may need to be installed after the building is completed when more site area is available, which leads to the possible need for a carry-over or hybrid system to be installed.
 - Randy mentioned the possibility of a hybrid of both VRF & GSHP systems as a possible good solution. Shawn thinks it would drive timeline up and there are enough site constraints already for the wells.
 - Another hybrid option could be VRF's with RTU's and packaged units for the Assembly spaces.
 - The payback for VRF's is more favorable than the GSHP (10-12 years). Lower energy costs over time are also observed.
 - FCPS prefers easy maintenance and an efficient system. They currently do not have any VRF systems in their buildings, however training on operation and maintenance of systems wouldn't be a problem.
 - GSHP systems have started to be used by the district, and there are no problems to note yet. Opinion is that GSHP systems are easier to maintain.
 - Long term issues with GSHP systems are a concern however. If a well goes down, what are the incurred maintenance and repair costs? How does it affect the rest of the system?
 - Mechanical Closets with access in Hallways are better than internal to Classrooms and is preferred by FCPS for maintenance.

MT



- MT - Team should acknowledge impediments to the site area with the GSHP option in the Report.
5. Preliminary Cost Estimates:
- MT a. Premiums for using Rock Creek building as a swing space option are only included where using the Waverley building during construction is not possible (where Waverley building undergoes renovation /additions).
- MT b. Phasing premium is not included in the Rock Creek renovation options because it is unoccupied.
- MT c. Limitations on revising the existing building – i.e. running new utilities, lower floor to ceiling heights, open ceilings – it may be possible that the least costly Renovation Options have components that would be unacceptable. This can be included in the Pros/Cons list on the options sheets.
- MT d. Are there other limitations we need to identify?
- Rock Creek ceilings may not provide desirable height for key spaces.
 - Rock Creek building classroom wings yield configurations that are not ideal to meet program.
- MT e. Summarize the limitations somewhere in the Report and then tie them to the Evaluation Criteria.
- MT f. Everyone reviewing the Report will want to go to the Executive Summary for the bottom line costs. If we include a summary table, it needs to have more than just dollars on it.
5. Evaluation Criteria
- FCPS /
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MT
FCPS a. Identify which criteria has a higher value. Some can't be quantified, some are subjective.
- b. Add more criteria with higher weights in the Program category.
- c. Total should be 50 or 100.
- d. FCPS: Jan, Randy, Kathy, Bryan to identify what is most important from their personal standpoints and review the categories, identify others that should be added. The same ideas or themes may be chosen by different stakeholders (schedule, student impact, level of complication in the phasing).
- FCPS e. Beth will send us a similar evaluation they did for a previous project 6-7 years ago.

Next Meeting:

The next meeting is scheduled for **February 15, 2018 from 1:30-3:30pm** at the FCPS Central Office Board Room. Meeting agenda to include initial review of Draft for Feasibility Report, presentation of refined options and discussion of Evaluation Criteria for Design Options.

The above is our interpretation of discussions held on this date. Anyone wishing to add to or otherwise correct these notes must notify our office in writing within seven (7) days of receipt.

Respectfully submitted,





Jennifer Lyon, AIA, NCARB
Project Manager

Cc: All Attendees

Additional FCPS Staff & Admin:

Glenn Fogle, Richard Gue, Rick McTighe, John Veronie, Sandra Fox, Tonya Street

Design Team Consultants:

Patty Nyikos – Nyikos Associates; Jeff Teagarden & Rose Rodriguez – Adtek Engineers; Farshad Kassiri, Abbas Lohrasbi, Kevin Matthai, Chris Sachs, Ryan Masters – Kibart M/E/P Engineers; Bill Richardson & Scott Boyd – Educational Systems Planning

