CANTON PUBLIC SCHOOLS

Dr. Jennifer Fischer-Mueller
Superintendent of Schools

Patricia Kinsella
Assistant Superintendent

Debra L. Bromfield
Director of Student Services

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Barry S. Nectow
School Business Administrator

www.cantonma.org

To develop students who are competent and creative thinkers, curious and confident learners, and compassionate citizens.

Superintendent's Report
School Committee Meeting of Thursday, January 3, 2019

Jennifer Fischer-Mueller, Ed.D.
Superintendent of Schools

Superintendent Activities Highlights

New CPS Website: I am delighted to announce that the Canton Public Schools has a new website. Thank you to the Website Transition Committee, April Goran, Joanne Teliszewski, Julie Foley, Julie Shore, Justin Martin, Lauren Mahan, Lisa Hansen, Sarah Donovan, Patricia Kinsella and Mike Barucci for their countless hours and careful work to complete this transition. We hope you will find the new site an efficient tool for meeting our community's needs. A special thank you to Mike Barucci and Patricia Kinsella for their steadfast work on this monumental task. Please see attached memo for additional information.

Updates

Dean S. Luce Principal Search Process:

Before sharing details of the hiring process, I would like to take this opportunity to thank Principal Robie Peter for 32 years of tireless service to the students, staff, and families of the Canton Public Schools. Her contributions are gratefully acknowledged, and we wish her the very best of luck in her retirement from the Canton Public Schools at the end of this school year.

The principal search process includes multiple opportunities for families and staff members to share their thinking about the qualities and skills they see as most important in a new Luce Principal. Based upon that profile, and after gathering input throughout the entire search process, I will appoint a new Principal, in accordance with Massachusetts law (Ch. 71, Section 59B) and Canton School Committee policy (CBC). Currently, the plan is to bring the candidate to the School Committee meeting on either February 7 or February 28.

We have asked the Canton Teachers Association, the Canton Educational Support Personnel Association (Unit E), the Administrative Assistants Union and the Luce CAPT to recommend members for inclusion on the Search Committee. Discussion dates have been scheduled to focus on identifying the qualities and skills necessary in the next Principal. Luce staff discussion dates are January 8 at 7:10am and January 9 at 3:15pm. The Luce parent discussion date is January 8 at 9:00am and 7:00pm. In addition to these discussions, an anonymous survey is available

[https://www.surveymonkey.com/r/7G5MYR6] where staff and parents are invited to share their thoughts. The survey will remain open until Tuesday, January 8, 2019 at 5:00 p.m.

Assistant Superintendent, Ms. Patricia Kinsella is Co-Chair of the Search Committee with me. If you have any questions about the search for a new Principal for Luce Elementary School, please feel free to contact me or Ms. Patricia Kinsella. Staff and community voices will be critical to developing a clear profile of the dynamic and inspiring leader we seek for the Dean S. Luce Elementary School.

Indicators of Excellence

CHS Freshman Chess Champion: Congratulations to Suraj Ramanathan who finished 13th out of 100 grade 9 participants at the National K-12 chess championship held in Orlando, Florida on December 14-16. Suraj has been playing chess since he was in kindergarten.

Important Dates and Events

Jan. 7	8th Grade Open House and Showcase, *6-8pm,* CHS
Jan. 9	Early Release - PK-5 Common Planning, 6-12 PD
Jan. 11-12	Senior Districts Music Festival For students in grade 9-12 who were accepted for the Senior Districts Music Festival.*The Rodman parking lot will have extra cars and there may be some congestion in the morning as students will be arriving from *8:15-9:00am.*
Jan. 14	Hansen 4&5 Grade Winter Concert Families Welcome- *10am* Hansen Elementary School
Jan. 15	GMS Grade 6 Winter Concert Public Welcome- *7pm* CHS Auditorium
Jan. 15	JFK 4&5 Grade Winter Concert Families Welcome - *10:30am* JFK Elementary School
Jan. 16	Luce 4&5 Grade Winter Concert Families Welcome - *10am* Luce Elementary School
Jan. 17	GMS Grade 6 Winter Concert SNOW DATE
Jan. 17	Rodman Early Childhood Open House, *6-7pm* Snow date: Jan 22, *6-7pm* Acceptance for the lottery are due by Friday, Jan. 25th. *(see attached)*
Jan. 17	School Committee Meeting *Starts at 7pm*

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MEMO

To: Jennifer Fischer-Mueller, Superintendent
From: Patricia Kinsella, Assistant Superintendent
Date: January 3, 2019
Re: CPS Website Transition 2018-19

The new Canton Public School website launched on 12/31/18. This report provides an update on the district's transition to the new site.

Rationale for the transition

The vendor that previously hosted the district's website ceased hosting operations on 12/31/18. In anticipation of this deadline, the district established a Website Transition Committee in fall 2017.

Website Transition Committee

Patricia Kinsella, Assistant Superintendent, and April Goran, former Administrator for Instructional Technology, co-chaired the Website Transition Committee (see member list at bottom). The Committee conducted a needs assessment with staff and community members to provide a direction for vendor selection and design direction. The Committee also researched potential vendors and made a final vendor recommendation to the Superintendent.

Transition Committee Actions

- Develop and implement community survey and analyze over 400 responses regarding district needs and priorities in new website
- Review existing websites of schools, districts, non-profits, and universities to identify features that would and would not serve CPS well
- Develop list of criteria to evaluate potential vendors
- Consult with neighboring districts that have conducted vendor searches in recent years
- Review 40 websites and identify vendors for each
- Identify five vendors to make presentations to Committee
- Participate in and evaluate vendor presentations
- Score each vendor and identify top three
- Once Campus Suite emerged as top candidate, conduct reference checks with seven districts currently under contract with Campus Suite

- Evaluate Campus Suite's draft Service Level Agreement (SLA); share SLA with Barry Nectow, Mike Wentland, and Mike Barucci for review
- Conduct follow-up calls and web conference with Campus Suite to ensure all questions relating to criteria for selection document had been answered fully
- Develop bid selection document
- Send the contract out to bid with the three top-scoring vendors

Final recommendation to Superintendent

Campus Suite emerged as the highest-scoring vendor, with 10 of 12 Committee members voting it their first-choice candidate. In accordance with MA procurement regulations, we invited Campus Suite and two other vendors, Edlio, and FinalSite, to submit bids. Campus Suite returned the lowest of the three bids.

Compelling features of Campus Suite product

- Lowest pricing of five vendors analyzed
- Clean, streamlined design, with choice of preset templates or custom design
- Excellent support during and after design phase, including best online support documents of any vendor reviewed
- Management of data migration from old website to new
- Consistent favorable reviews from districts currently under contract
- Significant attention to ADA compliance, including favorable pricing for ADA monthly monitoring service
- Full HTML control, allowing CPS staff flexibility when administering site
- Hosted on Amazon Web Services, ensuring stability, security, and durability (i.e., minimizes chances that website will be 'down')
- District retains full ownership of all content posted on site

To review several examples of Campus Suite's work, see Bishop Stang, Elmwood Park Community Unit School District, Academy of Notre Dame, and Norwood.

Post-purchase process

April Goran and Mike Barucci, Interim District Technology Specialists, began leading the coordination with Campus Suite on data migration in the early summer. Summer work included establishing early design parameters, as well. Mike Barucci and Patricia Kinsella led design work through the fall, including coordination with Campus Suite regarding compliance with the Americans with Disabilities Act (ADA).

Mike Barucci and the elementary Instructional Technology Teachers provided professional development to teachers in how to manage their classroom websites on Campus Suite. All staff received a survey inviting classroom website owners to let us know whether they wanted to transfer their page to the new district site. In addition, classroom site owners were offered PD during early release days to learn how to use the site editing tools.

The draft timeline for transition included a test period in the fall of at least several weeks during which the new website would be available offline to a small group of users, including parents. The test period would help us identify and remediate design and functionality issues before the website went live. Because of decreased

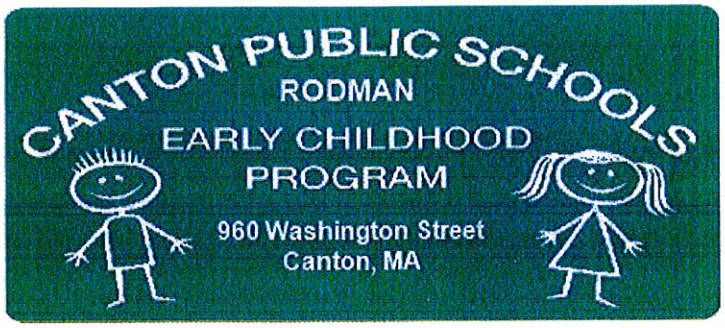
administrative capacity with the departure of Ms. Goran, however, we were unable to complete the website in time for the offline test period. We appreciate the willingness of staff and families to identify trouble spots as we launch in January.

Next steps: January - March

January	Identify and remediate functionality issues
	Identify and remediate high-priority content issues
Late Jan.	Provide training to key staff on managing school and department webpages
February	Continue cleanup and design with school and department staff
End of Feb.	Provide first analysis of launch, including Google analytics of usage patterns
March	Expand training to include additional staff

Website Transition Committee members

- April Goran and Patricia Kinsella, Co-Chairs
- Joanne Teliszewski, CHS Librarian
- Julie Foley, JFK Webmaster
- Julie Shore, CHS Dean of Students
- Justin Martin, Hansen Instructional Technology Teacher
- Lauren Mahan, Hansen Webmaster
- Lisa Hansen, Hansen Webmaster
- Mike Barucci, GMS & Hansen Technology Specialist
- Sara Donovan, GMS Instructional Technology Teacher
- Additional participants in vendor presentations:
- Catherine DeMassi, GMS Home/School Interventionist
- Katie Doherty, Elementary Home/School Interventionist
- Leanne Kaplan, Elementary School Evaluator, School Psychologist



781-821-5060 x1505 Donna Kilday, Early Childhood Coordinator kildayd@cantonma.org

Rodman Early Childhood Program

OPEN HOUSE

Thursday, January 17th from 6:00 - 7:00pm

(Snow Date – Tuesday, January 22nd)

The Canton Public Schools would like to invite you and your preschooler to visit our quality, developmentally appropriate, multisensory early childhood program. In our language based classrooms, led by highly qualified teachers, preschoolers of all ability levels play and learn together in an inclusive environment that nurtures diversity, cooperation, understanding, and acceptance. Additional information including schedules, tuition, and our application can be found on our website at http://www.edline.net/pages/RodmanEarlyChildhoodProgram.

Spots will be awarded through a lottery system the week of January 28th.
Acceptance letters will be sent through the mail the week of February 4th.

To learn more about the preschool program, please contact Donna Kilday, Early Childhood Coordinator, at 781-821-5060 x1505 or kildayd@cantonma.org.

If you have any questions regarding the lottery, please contact Susan Crespi, Administrative Assistant, at 781-821-5060 x1503 or crespis@cantonma.org.

***APPLICATIONS FOR THE LOTTERY ARE DUE BY FRIDAY, JANUARY 25th.**
OPEN TO CANTON RESIDENTS ONLY.

Rodman Early Childhood Program

2018 Preschool Tuition Comparison-Community Preschools

Area Integrated Preschools and Community Preschools Yearly Tuition

	Canton current (9-2)	Canton 2% increase	Canton 3% increase	Walpole	Norwood	Stoughton	Sharon	Blue Hills	Canton Community kindergarten
2 day 10 hours per week	$2622	$2674	$2727	$2650	$3400 (comparable to ten hours)	$3000	N/A	N/A	N/A
3 day 15 hours per week	$3933	$4012	$4051	N/A	N/A	N/A	$3953	12 hours per week $2160 year	N/A
4 day 20 hours per week	$5244	$5349	$5402	N/A	N/A	$5000	N/A	N/A	$3310
5 day 25 hours per week	$6555	$6686	$6752	$4600	$6000	N/A	$7183	N/A	N/A

Information on Tuition Assistance:

- Current Net Tuition Assistance for families for the 18-19 school year = $75,000
- Of families receiving assistance, 60% are in a five day program
- There are currently 18 families receiving assistance. This constitutes 28% of our community peers

INCREASE SPECIAL EDUCATION STABILIZATION FUND

To see what sums of money the Town will vote to raise and appropriate or transfer from any available funds or borrow pursuant to any applicable statute, in order to increase any Special Education Stabilization Fund of the Town established pursuant to MGL Chapter 40, section 13E, or to take any other action related thereto.

Canton Public Schools

Feasibility Study

… establishing a pathway forward

Final Report

December 13, 2018

Dore & Whittier Architects, Inc.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

Dore & Whittier Architects, Inc. would like to acknowledge the following individuals from the Canton School District for their assistance in the Canton Public Schools Feasibility Study

Dr. Jennifer Fisher-Mueller	Superintendent
Patricia Kinsella	Assistant Superintendent
Barry Nectow	School Business Administrator
Bob McCarthy	Chairman, Canton Building Renovations Committee
Brian Lynch	Director of Facilities
Deborah Bromfield	Director of Student Services
Donna Kilday	Early Childhood Coordinator
Debbie Rooney	Director of Teaching & Learning Pre-Kindergarten-8th
Derek Folan	HS Principal
Sarah Shannon	Galvin MS Principal

DESIGN TEAM

Brad Dore	Dore & Whittier, Principal
Jason Boone	Dore & Whittier, Educational Planner
Mike Pirollo	Dore & Whittier, Educational Planner
Maria Fernandez-Donovan	Dore & Whittier, Project Manager
Mehul Dhruv	Engineers Design Group

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EXECUTIVE SUMMARY

Study Overview

In May of 2018, the Town of Canton, through its Building Renovation Committee, hired Dore & Whittier Architects to conduct a feasibility study to explore topics identified in the District-wide Master Plan Report of October 2017. The purpose of this study was to include cost estimates for a potential repurposing of the Marilyn G. Rodman Building as an 8th-Grade Academy, the design and construction of modular classrooms at one or more of Canton's elementary schools, and potential options for renovating District offices. D&W structured the feasibility study around these three tasks in order to achieve the following goals:

1. Evaluate the feasibility of renovating the Marilyn G. Rodman Building to potentially serve as an 8th-Grade Academy
2. Evaluate the feasibility of relocating Pre-K students in several scenarios:
    a. At each elementary school, in modular classrooms
    b. At each elementary school, integrated into the building
    c. At the Rodman building
3. Evaluate the feasibility of renovating the Marilyn G. Rodman Building to,
    a. improve the quality of spaces for District offices and,
    b. support both District offices and an expanded Pre-K program.

Task One - Evaluate the feasibility of renovating the Marilyn G. Rodman Building to potentially serve as an 8th-Grade Academy

The District's Master Plan explored a variety of grade configurations to support current and projected student enrollment. One configuration – an option where 8th grade was removed from Galvin Middle School and relocated to the Rodman building as a stand-alone 8th-Grade Academy next to the Canton High School rose to the top as one worth more study.

Task One began with an exploration of current 8th-Grade Academies in Massachusetts along with academic research on 8th-Grade Academies as a transitional tool to ease the shift from middle school to high school. Currently, nine districts in the state have an 8th-Grade Academy as part of their overall program, and academic research leans more toward 9th grade as the more typical year for transitional, academy-type programs.

Task One also included structural investigations at Rodman and further research into Canton Public Schools' educational goals to determine the feasibility of implementing an 8th-Grade Academy at the Rodman Building.

The completion of Task One focused primarily on responding to the following questions:

1. Would the Rodman Building's structural design support a renovation that would not require a substantial structural intervention?
2. Why have an 8th-Grade Academy? What does academic research and current precedents reveal?
3. What is the student educational experience? What are students doing? How are they demonstrating learning? Communicating? Working?
4. What are the potential impacts of this program on students, staff, culture, schedule, transportation, budget, etc.?

In order to more closely examine educational program questions and potential solutions, D&W took the District's Working Group through a series of gallery walks and round-table conversations during an 8th-Grade Academy workshop. As part of the conversation, District administrators agreed on the vision for an 8th-Grade experience as one in which students would be active participants and leaders of their own experiential, interdisciplinary, and personalized learning. An in-depth review revealed, however, that the additional cost to renovate Rodman and the cost associated with District-wide impacts to staffing, transportation, scheduling, and resources would most likely not be supported by the Town at this time. Though the focus group philosophically agreed with the academic, social, and emotional benefits of an 8th-Grade Academy, they could not fully justify having the academy in this separate building given the cost and the fact that a similar program could be developed at the current middle school.

Due to the District's determination that an 8th-Grade Academy is not currently feasible, Dore & Whittier did not pursue cost estimates for this option.

Task Two – Evaluate the feasibility of relocating Pre-Kindergarten in several scenarios

The District's Master plan revealed a public desire to explore the possibility of decentralizing Pre-Kindergarten so that students could attend Pre-K in their neighborhood school. In response, Task Two focused on evaluating options for the placement of Pre-K students using three different scenarios:

Option 1: Pre-K placed in modular classrooms at each elementary school
Option 2: Pre-K integrated into each elementary school
Option 3: Pre-K placed at the Rodman building where they currently reside.

In each scenario, a total of 8 and 9 classrooms were used given the District's estimated Pre-K enrollment number of 175 students, as determined during the Master Plan Study. D&W tested feasibility using the following program needs provided by the District:

- 8-9 Pre-K Classrooms (with internal bathrooms)
- Family Room
- OT/PT Room
- Speech and Language Room
- Staff Room
- Administration Area
- General Office/Waiting Area
- Nurse
- Indoor Motor Room

Option 1 – Modular Additions at Each Elementary School

D&W tested the feasibility of a modular addition at each elementary school, including three 1,200 sf classrooms with internal bathrooms per MSBA guidelines. The configuration of classrooms at each school varied based on site constraints and options for connecting the modular addition to the main building. At both the John F. Kennedy Elementary School and Dean S. Luce Elementary School classrooms were configured along a single corridor, however, at Lt. Peter M. Hansen Elementary School, where more space was available, classrooms were configured in a double-loaded corridor with an additional space to be used as a teaching space, office space, or student support space at the District's discretion. D&W determined two alternative options for modular placement at Hansen Elementary School and one option at both JFK and Luce Elementary Schools. In all three locations, Pre-K would need to utilize their connection to the main building to meet all program needs. This would include sharing student support services, the nurse, administration areas, and the gymnasium, and would in general, place a greater demand on the staff at each school.

Option 2 – Pre-K Integrated at Each Elementary School

D&W tested feasibility of Pre-K being integrated into each building, with a possible shuffling and relocation of another grade level into the modular additions at each school as identified in Option 1. At first glance, this relocation of another grade appeared more cost effective given that Pre-K classrooms required 1,200 sf with internal bathrooms per MSBA guidelines whereas classrooms for grades 1-8 required 950 sf with no bathroom requirements. Upon further investigation, D&W determined that relocating another grade would be challenging since each school has, on average, a total of 4 sections per grade level, one more than the 3 modular classrooms planned for Option 1: Pre-K at each school. This would result in splitting grade level clusters and/or the adding a fourth modular classroom at each location, which, in some cases, the site would not support. Overall, Option 2 could potentially be more expensive than Option 1 and could ultimately disrupt a larger population of students given the relocations of multiple grade levels. As is the case in Option 1, Option 2: Pre-K would need to leverage staff and space within each main building to meet program needs. It is worth noting, that the program

requirement for classrooms with internal bathrooms would not be fulfilled in this option as not all classrooms with internal bathrooms would be available for Pre-K at each school. Again, as in Option 1, sharing student support services, the nurse, administration areas, gymnasium, and would in general, place a greater demand on the staff at each school.

Option 3 – Pre-K to Remain at Rodman Building

In Option 3, D&W tested feasibility of Pre-K to remain at the Rodman Building and share the space with District offices. In this option, D&W explored layouts for an 8- and 9-classroom configuration spread out on two floors – the lower and main level – with the remaining space utilized by District offices and/or a future tenant. On the main level, where space is shared by Pre-K and District offices, a set of security doors would provide additional separation.

As a means of limiting overall cost and project scope, D&W worked to remain within the existing partition walls at Rodman, which limited classroom sizes to approximately 726-943 sf, smaller than MSBA guidelines but in line with Pre-K classroom sizes if they were to relocate into the main building at each school. In this option, the added benefit would be the inclusion of internal bathrooms for each classroom. Both 8- and 9-classroom options leverage a new entry location and entry sequence to improve security, overall space layout, and options for relocating the playground closer to the building.

Of all options considered, allowing Pre-K to expand its program at the Rodman Building appears to provide the greatest overall benefit. Leveraging the existing building allows Pre-K to spread out on two floors where clusters of classrooms can create small neighborhoods within the larger space. Pre-K staff and students have their own specific space tied directly to the developmental needs of the age group without sharing spaces designed for older students. Specifically, classrooms would all have internal bathrooms, and an assigned Indoor Motor Room wouldn't need to double as a gym for an entire student body. Ultimately, however, this solution would not support the interest in decentralizing Pre-K.

Task Three – Evaluate the feasibility of renovating the Rodman Building for District offices

Task Three focused on the feasibility of repurposing the Marilyn G. Rodman Building to simultaneously support both District offices and the growing Pre-K program, with the assumption that the Pre-K program would need to accommodate up to eight or nine classrooms with internal bathrooms and additional spaces for staff and student support services.

Dore & Whittier tested the feasibility of supporting both programs within the Rodman building using two guidelines: 1) the idealized space summary as identified in the District-wide Master Plan report of October 2017, and 2) Pre-K program needs as identified by the District. D&W also considered the current location of Pre-K classrooms, District Offices, and spaces used by a third-party tenant as a way of understanding how the building currently functions.

For this portion of the feasibility study, District offices were placed on the main and upper levels, leaving the Pre-K program in the same location as Task 2, Option 3. D&W evaluated a repurposing of the Rodman Building using the assumption that if Pre-K was to decentralize in the future, the same renovated vacant space with its own entry could then be utilized by a third-party tenant. Similarly, if District offices were ever to relocate, the main and upper levels could be rented.

Costs Estimates

D&W worked with cost estimator, PM&C, to prepare the conceptual cost estimates for each option described in Task 2 and Task 3. Cost estimates include hard costs and soft costs to determine overall project costs. Each estimate represents a total project cost calculated using the following methodology:

Constructions Costs (Materials, Contractor Overhead and Profit, escalation)
A: Direct Construction Costs = Cost Quantity x Unit Cost plus 3% escalation per year
B: Design contingency = A x 15%

Given the conceptual nature of this study, the design contingency represents the level of uncertainty of specific design choices.

C: Bonds and Insurance = (A+B) x 1.75%
D: Overhead and Profit = (A+B) x 4%
E: General Conditions = (A+B) x 10%
F: Total Construction Cost = A + B + C + D + E

Soft Costs (Design fees, Consultant Fees, Testing Services, Commissioning, etc.)
G : Soft Costs were estimated individually approximately = F x 25%

Owner's Contingency

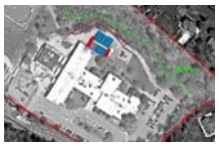
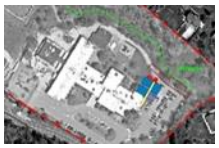
H : Owner's Contingency = F x 10%

An Owner's contingency is typical in most construction projects and represents the Owner's choice and ability to change their mind about design and construction decisions.

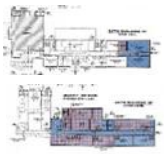
Total Project Cost

J : Total Project Cost = F + G + H

Cost estimates and worksheets are included in Appendix IV. The following page summarizes all options within Tasks 2-3 and the costs associated with each.

Option 1 - Modular Addition at Each Elementary School				
Option				
	1.a.i **Lt. Peter M. Hansen Elementary School**	**1.a.ii** **Lt. Peter M. Hansen Elementary School**	**1.b** **John F. Kennedy Elementary School**	**1.c** **Dean S. Luce Elementary School**
Total Cost	**$2,654,744**	**$2,629,126**	**$2,648,766**	**$2,593,260**

Option 2 - Pre-K Integrated at Each Elementary School				
Option				
		2.a **Pre-K Integrated into Lt. Peter M. Hansen Elementary School**	**2.b** **Pre-K Integrated into John F. Kennedy Elementary School**	**2.c** **Pre-K Integrated into Dean S. Luce Elementary School**
Total Cost		**$2,629,126**	**$2,648,766**	**$2,593,260**

Option 3 - Pre-K at Rodman Building & District Offices at Rodman				
Option				
		3.a **8 Pre-K Classrooms**	**3.b** **9 Pre-K Classrooms**	**District Offices**
Total Cost		**$5,200,886**	**$5,646,738**	**$9,782,278**

General Findings & Recommendations

- Dore & Whittier confirms that renovating the Rodman Building to serve as an 8th-Grade Academy as defined by the District, is feasible, however, after further consideration, the District chose not to pursue the Rodman Building as a location for an 8th-Grade Academy.
- Dore & Whittier confirms that renovating the existing Rodman Building to serve both the Pre-Kindergarten program of eight or nine classrooms and District offices is feasible. The existing building requires a moderate level of renovation and financial investment (from a strictly facility point-of-view) to continue to serve as an educational facility for the long-term.
- Dore & Whittier confirms that maintaining centralized Pre-K classes at the Rodman Building can support all aspects of the Pre-K program.
- Dore & Whittier confirms that placing modular additions at each elementary school to house a decentralized Pre-Kindergarten program is feasible, though sharing certain spaces inside the main buildings will be necessary to meet Pre-K program requirements.
- Given the limitations at each site, Dore and Whittier confirms that a moderate level of site work would be required to adjust access roads, playgrounds, and parking to accommodate modular classroom placement at each elementary school.
- Dore & Whittier confirms that integrating Pre-K students into each elementary school and relocating another grade level cluster into the modular classroom additions is feasible. However, Dore & Whittier notes that this swapping of grade levels could potentially be more expensive and/or disruptive given that all elementary schools have, on average, more than three sections per grade level, requiring an additional modular classroom for a total of four at each school. Not all aspects of the Pre-K program would be supported in this option as some classrooms within the building used by Pre-K do not have internal bathrooms.

At this stage, Canton Public Schools has three potential pathways forward for its Pre-Kindergarten program:

1. Continue the current practice of District offices and Pre-Kindergarten at the Rodman Building and renovate the space for long-term use.
2. Continue the current practice of District offices at the Rodman Building and decentralize Pre-K students into neighborhood schools using modular additions.
3. Continue the current practice of District offices at the Rodman Building and decentralize Pre-K students into neighborhood schools, integrating them into the existing building and relocating another grade level into modular additions.

Should the town of Canton wish to pursue options 1-3, additional facility and site assessments will be required.

TASK ONE – EVALUATE THE FEASIBILITY OF RENOVATING THE RODMAN BUILDING TO SERVE AS AN 8TH-GRADE ACADEMY

Overview

Task One focused on developing the necessary understanding of current 8th-Grade Academy precedents, existing facility conditions, and Canton Public Schools' educational goals to determine the feasibility of implementing an 8th-Grade Academy at the Rodman Building. Given the previous exploration of the facility itself, the completion of Task One focused primarily on the following areas:

- Structural evaluation of the Marilyn G. Rodman Building
- Why an 8th-Grade Academy?
- What is the student educational experience?
- What are the potential impacts of this program?

Structural Evaluation of the Marilyn G. Rodman Building

D&W and its structural engineers conducted an on-site review and investigation of the Rodman Building to determine if the existing structural framing system could support renovation and expansion without having to conduct a major structural intervention. The structural engineer's assessment confirmed that the building's framing system would allow for interior wall relocations (with some limited structural interventions) to facilitate modifying and improving interior building layouts. The structural evaluations performed by Engineers Design Group are included in Appendix I.

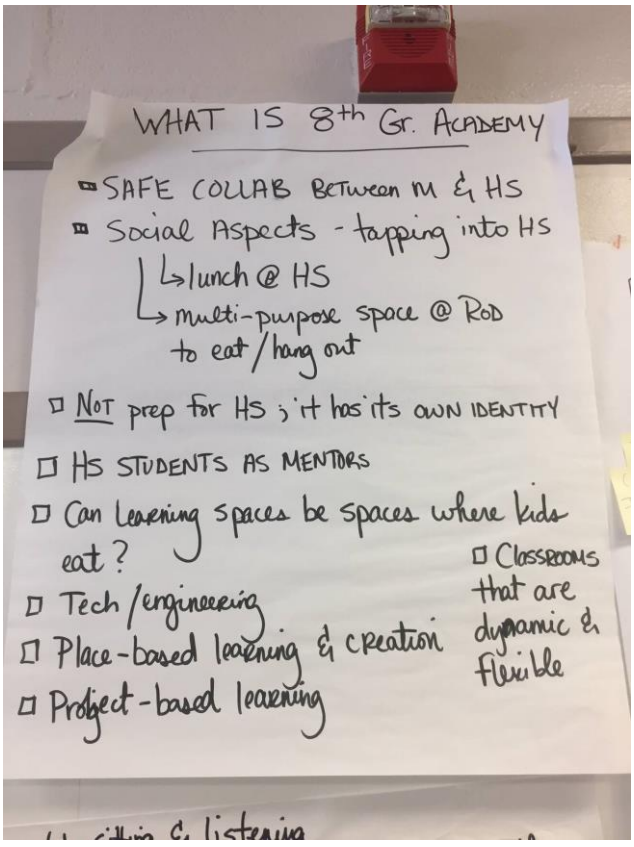
Why an 8th-Grade Academy?

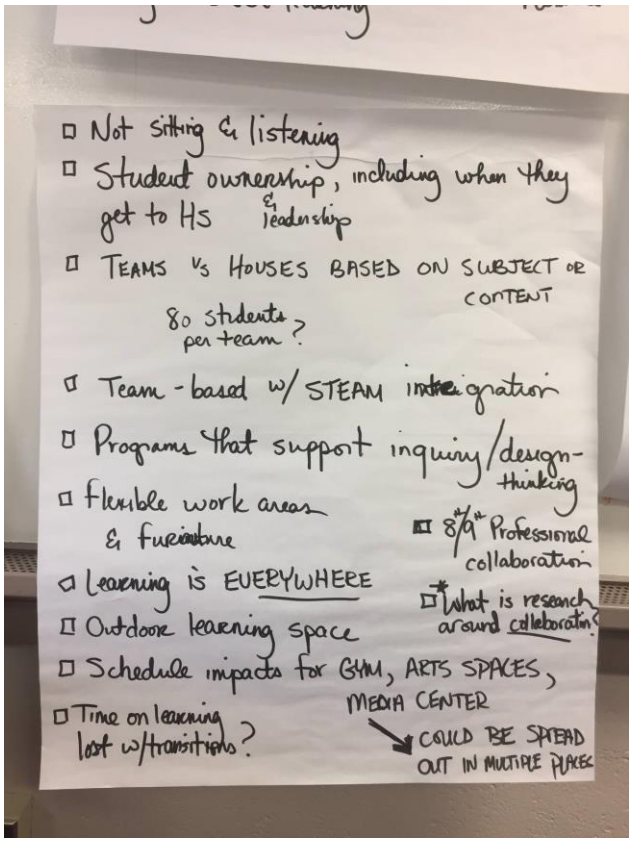
On July 25, 2017, D&W met with the Working Group from Canton Public Schools to determine the feasibility of an 8th-Grade Academy at the existing Rodman Building. The conversation began with a review of academic research highlighting the importance of 9th-Grade academies to ease the transition between middle and high school. A correlation was made to the potential similar benefits with an 8th-Grade Academy in Canton. The group reviewed some existing 8th-Grade academies in Massachusetts, although examples are limited. Currently, only nine districts in the state have an 8th-Grade Academy as part of their overall program, and academic research leans more toward 9th grade as the year for transitional, academy-type programs.

To determine feasibility, the group began with the question, *why an 8th-Grade Academy?* Moving 8th grade students to the Rodman building separate from the existing middle school could allow 5th grade students to move up to the middle school and relieve overcrowding at each of the elementary schools. As of 2017, during the Master Planning phase, all three elementary schools exceeded capacity by 100+ students per school.

Programmatically speaking, an *8th-Grade Academy* would afford Canton the opportunity to provide a unique educational experience focused specifically on the developmental needs of the age group. It would also help ease the transition from middle to high school given the Rodman Building and the Canton High School adjacency could support potential space sharing and advanced educational opportunities. Being on campus would allow advanced 8th grade students to take high school-level courses in addition to high school students serving as mentors to 8th graders. Additionally, a single staff solely committed to that developmental level could be advantageous.

Below are images documenting our first round-table conversation where the Working Group defined what an 8th-Grade Academy would be in Canton:





Based on the conversation, several questions were posed:

a. Does an 8th-Grade Academy need to be in a separate building? Can it happen within the existing middle school or in a new 5-8 school?
b. If 8th graders take classes or participate in activities at the high school, would it be with high school students or not?

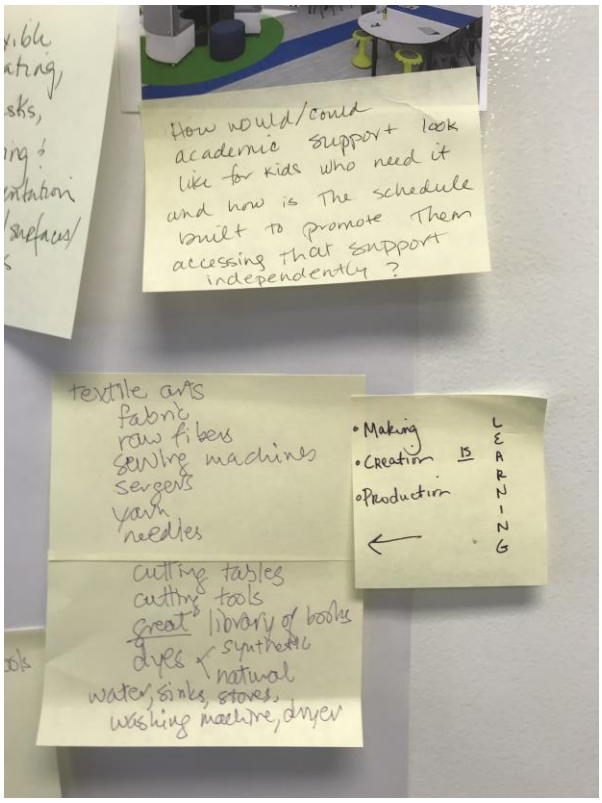
The Working Group felt that an 8th-Grade Academy could work at either the Rodman, the existing middle school, or at a new 5-8 middle school. If the 8th-Grade Academy was to take place at Rodman, levels of separation would need further exploration as the Working Group felt the 8th grade needed to maintain its own identity.

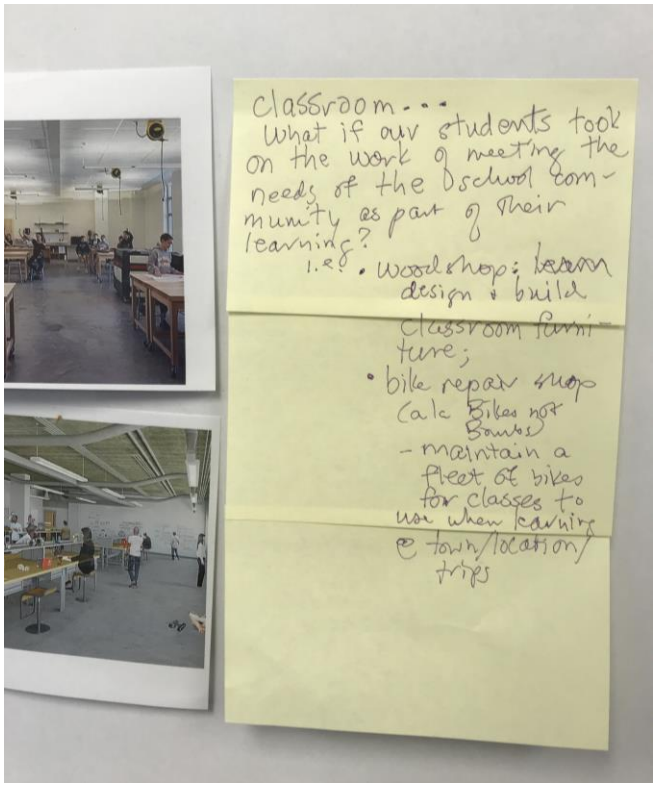
What is the Student Educational Experience?

Using a Chart/Gallery Walk activity, D&W guided the Canton focus group through a series of overarching questions to help further define the vision for an 8th-Grade Academy, and thus determine required spaces tested in the feasibility study. These questions included the following:

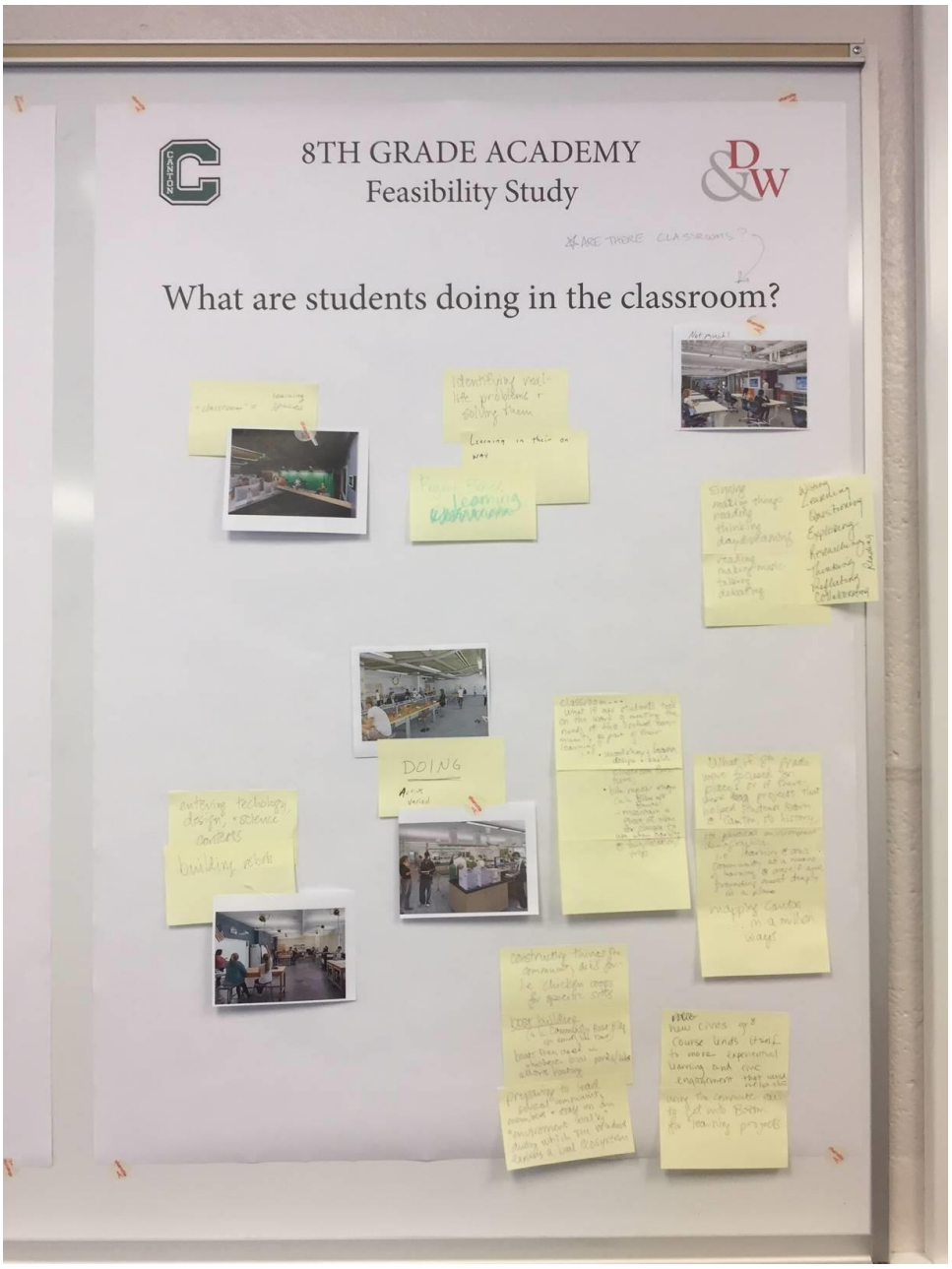
a. How do 8th graders & high school students participate within the same community (i.e. – extracurriculars, electives, lunch, etc.)?
b. What are students doing in the classroom?
c. How are students organized?
d. What programs and services are offered?
e. What does choice and independence look like (i.e. – within course selection, furniture, the learning environment itself)?
f. What tools and resources can students access?
g. What does professional culture & collaboration look like?

Members of the Canton Working Group independently responded to these questions on large poster paper using Post-it Notes, inspirational imagery, and snapshots from research on existing academies. Below is a series of photos documenting this work.


How would/could academic support look like for kids who need it and how is the schedule built to promote them accessing that support independently?
textile arts
fabric
raw fibers
sewing machines
sergers
yarn
needles
cutting tables
cutting tools
great library of books
dyes synthetic natural
water, sinks, stoves,
washing machine, dryer
• Making
• Creation IS
• Production
LEARNING


classroom...
What if our students took on the work of meeting the needs of the school community as part of their learning?
i.e. • woodshop: learn design + build classroom furniture;
• bike repair shop
Cafe Bikes not Bombs
- maintain a fleet of bikes for classes to use when learning @ town/location/ trips

Following this exercise, each Working Group member took one poster and organized like and dislike responses to allow for further conversation. This graphic organization of their thoughts allowed for a robust, round-table conversation about what an 8th grade academy would really look like at Canton and the type of facility needed for that to happen.



In summary, their vision included, but was not limited to, the following:

- Safe collaboration between the academy and the high school, yet still separate enough for the academy to have its own identity
- High school students serving as mentors
- Focus on technology and engineering
- Place-based and project-based learning
- Dynamic, flexible learning environments with student choice in resources, furniture, etc.
- Student ownership & leadership
- Heavy integration of STEAM and programs that support design-thinking
- Teams or "houses" based on subjects or content area; 80 students per team
- Opportunities for outdoor education
- Spaces for students to spread out and work, collaborate, and/or eat within the teaching space
- Programs that support inquiry and design-thinking
- Professional collaboration among 8th and 9th grade teachers

What are the potential impacts of this program?

Once the Working Group determined a clearer vision for an 8th-Grade Academy, D&W posed additional questions focused around potential impacts. Several logistical issues were raised around the areas of special education, staffing, scheduling, transportation, parking, professional culture, and school culture in general. The further the conversation went, the more the Working Group began to realize the number of potential district-wide impacts associated with making this grade-level move. In summary, their comments included, but were not limited to, the following:

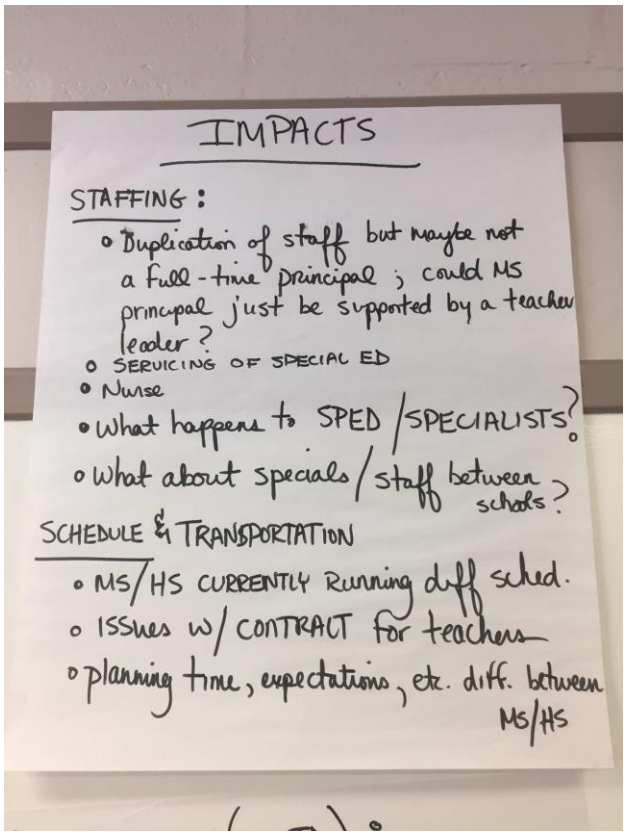
- Staffing:
  - Duplication of staff possible, including nurse, guidance, specialists, SPED
  - Is a full-time principal needed?
  - Could the MS principal be supported by an 8th grade teacher leader?
  - How are students receiving SPED services supported?
  - Staff anxiety due to moving between schools

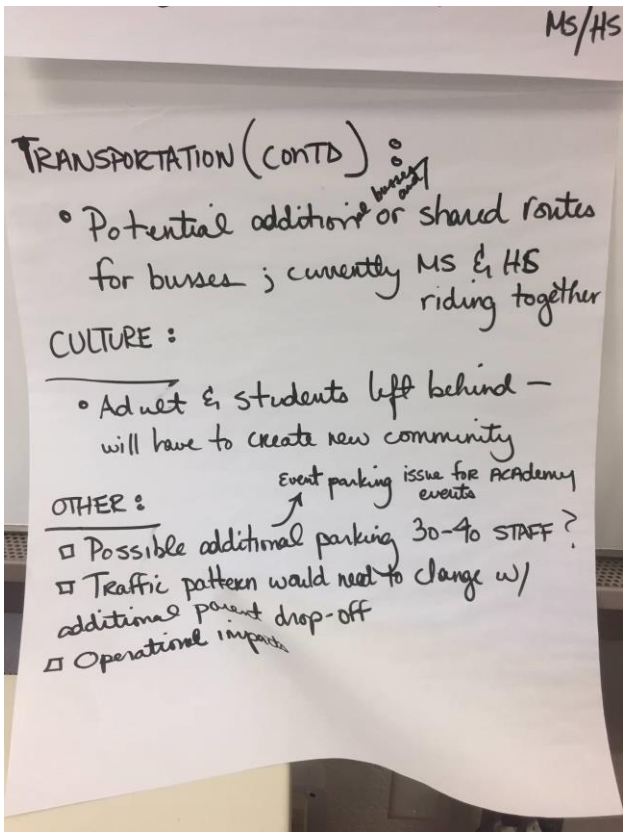
- Schedule & Transportation:
  - MS/HS currently running different schedules
  - Issues with contract for teachers
  - Planning time, expectation etc. different between MS and HS
  - Potential additional or sharing routes for busses; currently MS & HS riding together

- Culture:
  - Adults and students remaining in middle school will have to create a new community
  - What happens to professional culture?

- Cost:
  - Additional operational costs
  - Additional maintenance costs
  - Renovation costs

- Other:
  - Possible additional 30-40 staff parking spots needed.
  - Event parking issue made worse.
  - Traffic pattern would need to change with additional parent drop-off
  - Operational impacts
  - Since some kids turn 14 during 8th grade, there is an impact related to Special Education IEPs





General Findings and Recommendations

This portion of the feasibility study revealed several findings. For one, renovating the Rodman Building to support a separate 8th-Grade Academy is feasible and would require moderate levels of facility upgrades to support long-term educational goals. An 8th-Grade Academy at Rodman would also create a campus-like proximity between 8th graders and the high school, allowing advanced 8th grade students to leverage high school level classes when appropriate. Additionally, an 8th-Grade Academy could support mentorships between middle and high school students and could help ease the transition between both school experiences.

Given all the added benefits provided by a specialized, developmentally-centered program like an 8th-Grade Academy, it is important to consider whether the overall value is stronger than the costs and impacts associated with it. Though there are academic and social/emotional developmental benefits of an 8th grade academy, there are also many district-wide impacts worth recognizing, including, but not limited to staffing, scheduling, transportation, special education service delivery, operational costs, the duplication of resources, and contractual issues.

It is Dore & Whittier's understanding that the Working Group believes in the educational benefits of an 8th-Grade Academy, but also wondered if the same student experience can be established within the existing middle school. Though keeping the 8th grade at the middle school and thus keeping the 5th grade at the elementary schools would not help alleviate overcrowding, the District believed that looking ahead toward a more traditional, long-term middle school solution was more fiscally responsible.

Due to the District's determination that an 8th Grade Academy would not be appropriate at this time, Dore and Whittier did not pursue cost estimates for this option.

TASK TWO – EVALUATE OPTIONS FOR PRE-K PLACEMENT

Overview

Given the of the District's wish to grow the Canton Public Schools Pre-K program, Dore & Whittier was tasked with evaluating options for the placement of Pre-K students using several different scenarios:

- Option 1: Pre-K in modular classrooms addition at each elementary school
    a. Lt. Peter M Hansen Elementary School
    b. John F. Kennedy Elementary School
    c. Dean S. Luce Elementary School

- Option 2: Pre-K students integrated at each elementary school
    a. Lt. Peter M Hansen Elementary School
    b. John F. Kennedy Elementary School
    c. Dean S. Luce Elementary School

- Option 3: Pre-K at the Rodman building
    a. In 8 sections
    b. In 9 sections

D&W tested each possible scenario using the District's current Pre-K program needs, including:

- 8-9 Pre-K Classrooms (with internal bathrooms)
- Family Room
- OT/PT Room
- Speech and Language Room
- Staff Room
- Administration Area
- General Office/Waiting Area
- Nurse
- Indoor Motor Room

D&W worked with cost estimator, PM&C, to prepare the conceptual cost estimates for each option based on the following assumptions and methodology

- Each option was estimated as a stand-alone project.

- Each line item is estimated based on a quantity determined either from scaled drawings or field verified measurements. Dore & Whittier attempted to limit the number of lump sum quantities. However, some lump sum quantities were necessary in the cost estimate worksheets.

- Consideration of an existing building (Rodman Building) code triggers

  Sprinkler System
  Per the Comprehensive Facilities Assessment, page II-C-2-5, a building would require a sprinkler system to be installed throughout the building if any "major alteration" is performed. Major alteration is defined as 33% of the total building area *or* 33% of the value of the building.

  For Rodman, if the work area exceeds 17, 199 SF (33% of the total building area of 52,118SF) **or** if the cost of the work exceeds $2,378,838 (33% of the value of the building of $7,208,600), the project scope would be considered "major".

  Accessibility
  Per the Comprehensive Facilities Assessment page II-C-2-6, Rodman Hall would require accessibility upgrades throughout the building if the cost of the proposed work exceeds 30% of the full and fair cash value of the building.

  The threshold for Rodman Building, based on 30% of the value of the building of $7,208,600, is $2,162,580.

  All proposed new work will be required to comply with the accessibility requirements of 521 CMR (The Massachusetts Architectural Access Board, or MAAB Rules)

  Structural Upgrades
  Per the Structural Assessment of July 2018, Rodman Hall would require structural upgrades throughout the building if the proposed work area exceeds 50% of the total area of the building. All new areas being renovated are required to meet code.

  For Rodman, if the work area exceeds 26,059 SF (50% of the total building area of 52,118SF) the project scope would invoke Level 3 Alteration requirements

- Each estimate assumes no work would begin prior to November 2019. Therefore, each estimate includes one year of escalation at 3%. For any work begun beyond November 2019, additional escalation must be added at a rate of 3%-5% per year.

- Costs associated with phasing and swing space were excluded from these preliminary cost estimates.

- Each estimate represents a total project cost calculated using the following methodology:

  Constructions Costs (Materials, Contractor Overhead and Profit, escalation)
  A: Direct Construction Costs = Cost Quantity x Unit Cost plus 3% escalation per year
  B: Design contingency = A x 15%

  Given the conceptual nature of this study, the design contingency represents the level of uncertainty of specific design choices.

  C: Bonds and Insurance = (A+B) x 1.75%
  D: Overhead and Profit = (A+B) x 4%
  E: General Conditions = (A+B) x 10%
  F: Total Construction Cost = A + B + C + D + E

  Soft Costs (Design fees, Consultant Fees, Testing Services, Commissioning, etc.)
  G : Soft Costs were estimated individually approximately = F x 25%

  Owner's Contingency
  H : Owner's Contingency = F x 10%

  An Owner's contingency is typical in most construction projects and represents the Owner's choice and ability to change their mind about design and construction decisions.

  Total Project Cost
  J : Total Project Cost = F + G + H

Cost estimates and worksheets are included in Appendix IV.

Option 1: Pre-K in Modular Classrooms at Each Elementary School

As a means of providing equity throughout the District, D&W tested the location of three modular Pre-K classrooms at each of the District's elementary schools: Lt. Peter M Hansen Elementary School; John F. Kennedy Elementary School; and Dean S. Luce Elementary School. This would allow Pre-K students to remain in their neighborhood schools and would support equal distribution of the Pre-K program. In this scenario, D&W assumed a cluster of three Pre-K classrooms and, when possible, an additional modular to be used as office space, extra teaching space, breakout space, etc. to meet the needs of the current Pre-K program. Each classroom is approximately 1,200 s.f. and includes a bathroom per MSBA guidelines.

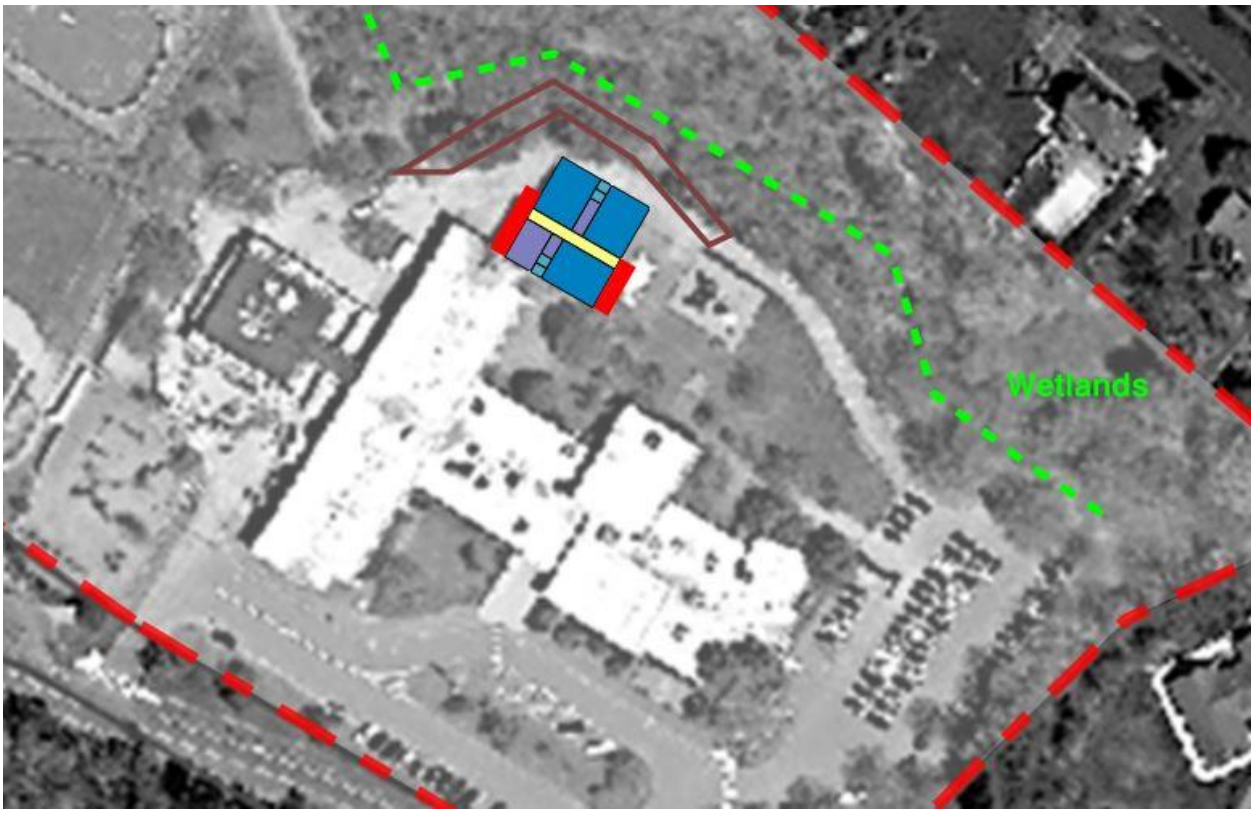
The location of modular clusters at each site was chosen using the following criteria:

- Direct access to the main building from modular classrooms
- Proximity to Kindergarten classrooms for shared materials, supplies
- Proximity to large group spaces (i.e. – gymnasium, cafeteria, library, etc.)
- Proximity to parking to support a direct Pre-K parent drop-off and pick-up without going through the main building
- Proximity to playgrounds

Option 1.a. – Modular Addition at Lt. Peter M. Hansen Elementary School

D&W found two possible options for modular additions at Lt. Peter M. Hansen Elementary, both including a 3-classroom cluster and an additional office/classroom space. The first Option 1.a.i locates the modular addition along the northwest corner of the existing structure, where a prior modular classroom addition once existed.

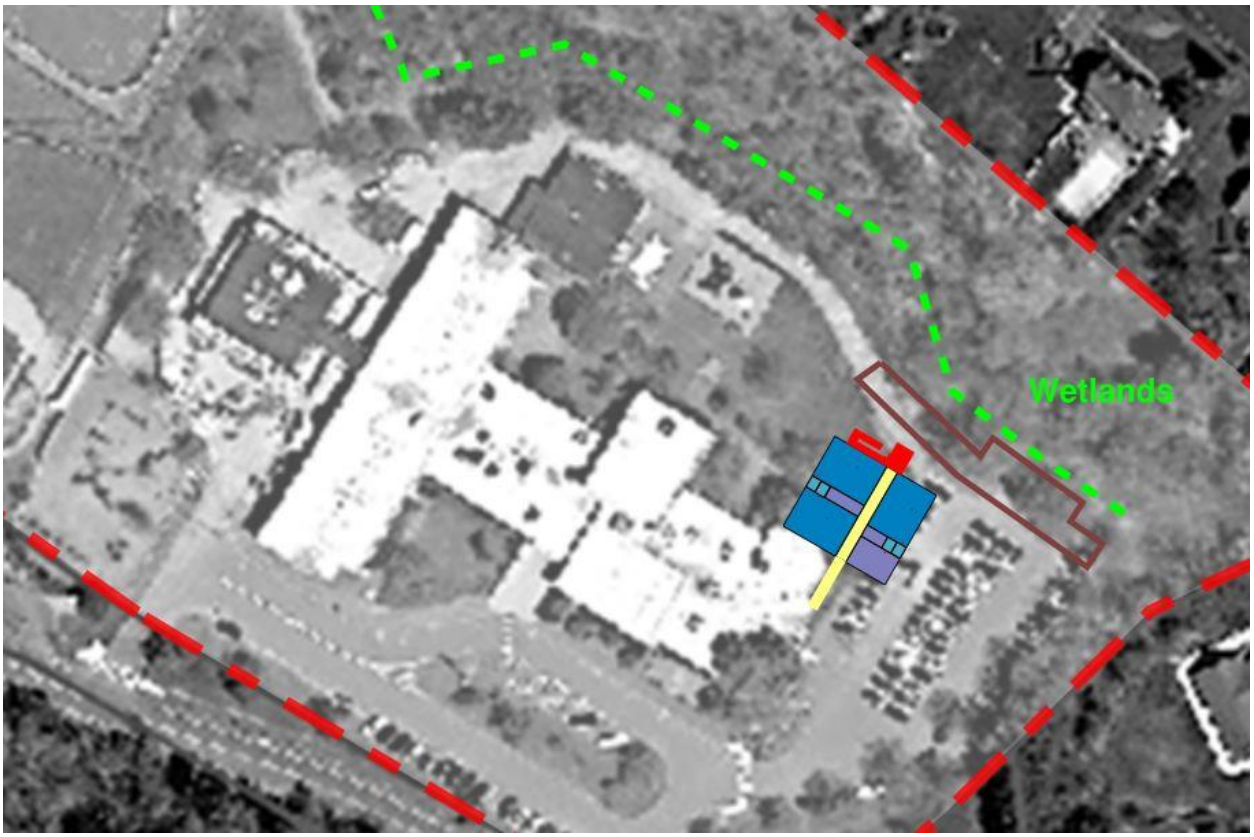
Hansen Option 1.a.i



This location supports direct access to the main building through the Kindergarten wing, which would allow for collaboration and resource sharing between Pre-K and K teachers. Common spaces, including the library, gymnasium, and cafeteria, are located on the east side of the building but not too far away for Pre-K students to access.

In terms of site, the location of this modular addition would require a reshaping and offsetting of the rear access road, which runs along an area of wetlands. There is no adjacent parking for Pre-K parent drop-off and pick-up, and with tight site constraints, adding additional parking would require further investigation. Currently, a play structure for younger grades sits to the east of the potential modular addition and to the west is the access road.

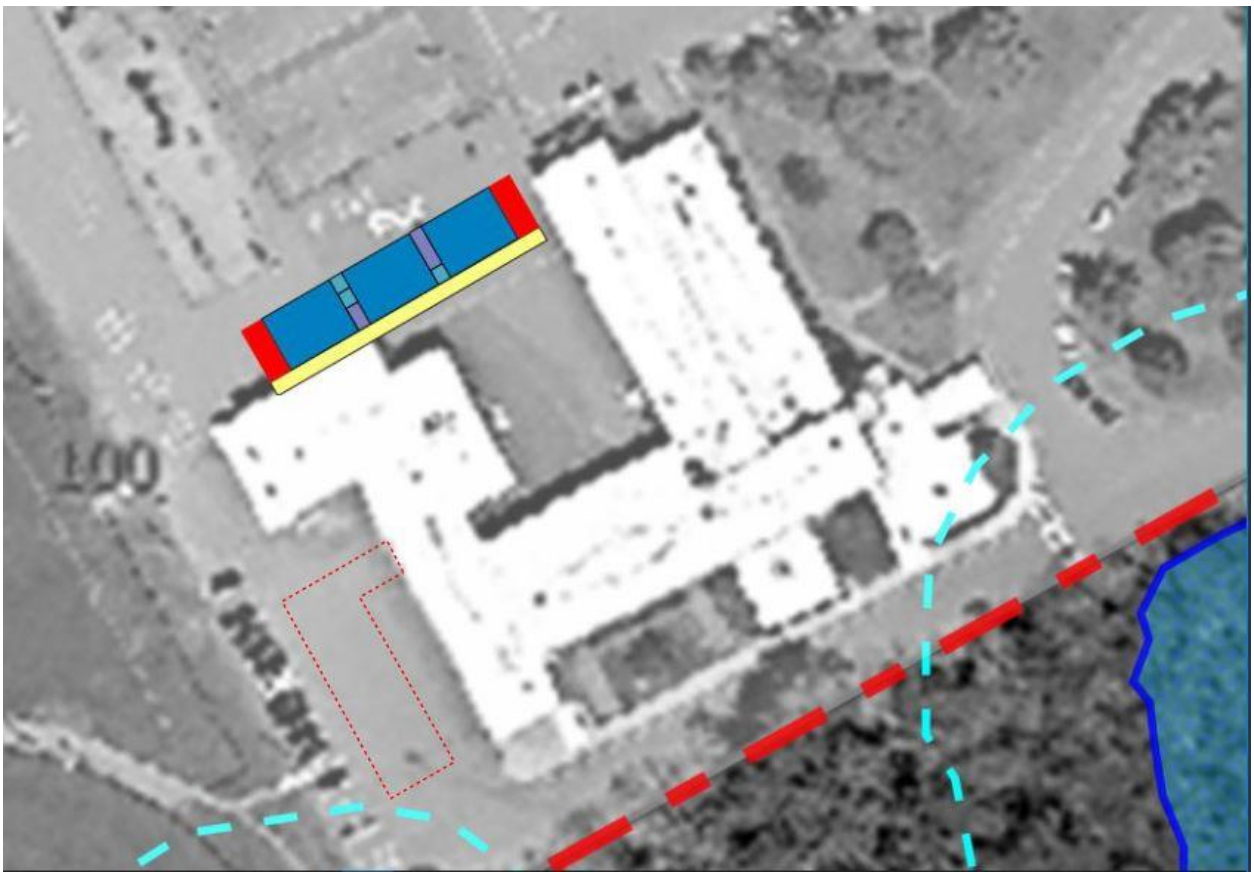
Hansen Option 1.a.ii



The Second Hansen Option 1.a.ii places the modular addition on the northeast corner of the property where parking currently exists. In this scenario, students would access the existing building using a hallway that is part-service (kitchen and boiler room) and part student circulation (cafeteria and gymnasium). In this option, Pre-K students are closer to all common spaces and down the hall from the main office area, where the nurse is located. This option may require more site work as the rear access road will need to be offset and parking spots will need to be replaced to balance out those taken from the modular addition. Adding parking and offsetting the road in this location may be challenging due to adjacent wetlands that would require further investigating. The adjacency to current parking, however, could potentially support a separate Pre-K student drop-off and pick-up per the District's request.

Option 1.b – Modular Addition at John F. Kennedy Elementary School

JFK Option 1.b



The suggested location of the modular addition at the John F. Kennedy Elementary School places the structure on the north side of the building adjacent to the gymnasium, kindergarten wing, and open courtyard. The modular structure would span and, therefore, close in the courtyard connecting the modular addition to the existing building on both the northwest and northeast sides. Pre-K students would access the main building through the northeast-side corridor, which currently houses music, art, and the cafeteria. Potentially, a second access point to the existing building could be added through the gymnasium to support collaboration and resource sharing between Pre-K and Kindergarten teachers. No exterior door connecting the modular addition to the gymnasium currently exists.

Given the limited options at the JFK site, the proposed Pre-K modular addition consists of a 3-classroom cluster with internal toilets and without the additional office/classroom space as provided in the Hansen option. An additional modular addition already allocated for the west side of the JFK site (shown as a dashed line) eliminates a second placement option that would support this 3-classroom cluster plus additional space modular version.

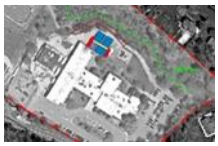
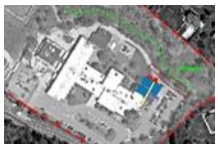
Option 1.c – Modular Addition at Dean S. Luce School

Luce Option 1.c

The suggested location of the modular addition at the Dean S. Luce School places the structure on the northwest wing of the existing building, adjacent to the first-grade cluster and down the hall from the Kindergarten wing. Though the ideal location would be adjacent to the Kindergarten wing, the site does not readily support other modular options given its tight constraints. The site location would require a reshaping of the rear access road and a reshaping of the northern tip of the playground where the modular addition would overlap. The play structure itself would remain.

The proposed modular addition includes a cluster of 3 classrooms without an additional breakout, teaching, or office space. The tight rear location of the addition would not support a separate Pre-K parent drop-off and pick-up, however, there is currently a secondary entrance for Kindergarten and first grade that could be utilized.

Below is a cost summary of all Pre-K modular options in Task 2:

Option 1 - Modular Addition at Each Elementary School				
Option				
	<u>1.a.i</u> Lt. Peter M. Hansen Elementary School	**<u>1.a.ii</u> Lt. Peter M. Hansen Elementary School**	**<u>1.b</u> John F. Kennedy Elementary School**	**<u>1.c</u> Dean S. Luce Elementary School**
Total Cost	**$2,654,744**	**$2,629,126**	**$2,648,766**	**$2,593,260**

Option 2: Pre-K Integrated at Each Elementary School

As a means of providing equity throughout the district, D&W tested the integration of 3 sections of Pre-K inside each of the District's elementary schools: Lt. Peter M Hansen Elementary School; John F. Kennedy Elementary School; and Dean S. Luce Elementary School. This would allow Pre-K students to remain in their neighborhood schools and would support equal distribution of the Pre-K program.

In this option, Pre-K students would take the place of another grade level cluster, who would then move into the modular additions proposed in Option 1.a.i; Option 1.a.ii; Option 1.b; and, Option 1.c. The swapping of another grade level, particularly one that didn't require internal classroom bathrooms, would potentially minimize the size of the modular, and thus, reduce costs and issues with site constraints.

One challenge with this option is the existing overcrowding at each elementary school, which, on average, has a minimum of four classes or sections per grade level. Swapping out a four-classroom cluster of one grade level for only 3 sections of Pre-K at each school would cause an imbalance and would require grade level clusters to be split, with all but one grade level classroom in the modular. Having only one 3rd grade classroom, for example, separated from its other grade-level counterparts would create inequity. Adding to this challenge is that, in most cases, the rooms Pre-K would take over would not have internal bathrooms.

Another challenge with Option 2 is the District's ability to maintain its current Pre-K program simply based on limited space existing at each elementary school. Though required spaces like the nurse and staff room could be supported by the existing elementary programs, other Pre-K specific rooms like the Indoor Motor Room and Family Room could not always be provided.

The integration of Pre-K classrooms in each elementary school was assessed using the following criteria:

- Proximity to Kindergarten classrooms for shared materials, supplies
- Proximity to large group spaces (i.e. – gymnasium, cafeteria, library, etc.)
- Proximity to parking to support Pre-K parent drop-off and pick-up, and when possible, to allow for a separate Pre-K entry
- Proximity to playgrounds
- Inclusion of internal bathrooms, and/or proximity to bathrooms

Option 2.a – Pre-K inside Lt. Peter M Hansen Elementary School

In this scenario, Pre-K would be integrated as a 3-classroom cluster and family room in the front of the building around the corner from Kindergarten. Two of the classrooms would be approximately 1,000 sf with internal bathrooms. The third classroom would be smaller, around 840 sf, and with no internal bathroom. The integration of Pre-K would displace one grade level into the modular addition.

Parent drop-off and pick-up would take place through the main office entry, which is around the corner from the Pre-K wing. Common spaces like the gymnasium and cafeteria are on the east side of the building, opposite of the proposed Pre-K wing. This relationship between the Pre-K wing and the common spaces would be like that of the Kindergarten wing.

Option 2.b – Pre-K inside John F. Kennedy Elementary School

In this scenario, Pre-K would be integrated in the southwest corner of the building, adjacent to Kindergarten classrooms, bathrooms, and the gymnasium. The 3-classroom Pre-K cluster would displace four classes of Grade 2 into a modular addition connected to the building. Given that only three Pre-K classrooms would be needed, the additional classroom vacated by Grade 2 would be leveraged to support Pre-K's need for a Family Room and office space.

On average, each Pre-K room would be approximately 850 sf with no internal bathroom, though bathrooms are located at each end of the Pre-K wing. Given the location of Pre-K rooms, there is potential for a separate parent drop-off and pick up through an existing exterior door connected to the Pre-K and Kindergarten wings. Additionally, proximity to the gymnasium would support Pre-K's need for an Indoor Motor Room.

Option 2.c – Pre-K inside Dean S. Luce School

In this scenario, Pre-K classrooms would be placed in the southwest corner of the building, adjacent to Kindergarten and the gymnasium. This location would support a separate parent drop-off and pick-up through a secondary entrance currently used during arrival and dismissal times. Additionally, proximity to the gymnasium would support use of Indoor Motor Room and proximity to the Kindergarten wing would support staff collaboration and a sharing of resources and materials.

In this scenario, music, science, and health would be relocated to modular classrooms attached to the main building. The justification for choosing these spaces for Pre-K is given the size of each room (approximately 1,000 sf), inclusion of internal bathrooms, and proximity to the Kindergarten wing. Additionally, pairing science and health in the modular could support interdisciplinary work and a sharing of materials and resources.

Below is a summary of all integrated Pre-K options in Task 2:

Option 2 - Pre-K Integrated at Each Elementary School				
Option				
		<u>2.a</u> Pre-K Integrated into Lt. Peter M. Hansen Elementary School	**<u>2.b</u> Pre-K Integrated into John F. Kennedy Elementary School**	**<u>2.c</u> Pre-K Integrated into Dean S. Luce Elementary School**
Total Cost		**$2,654,744**	**$2,648,766**	**$2,593,260**

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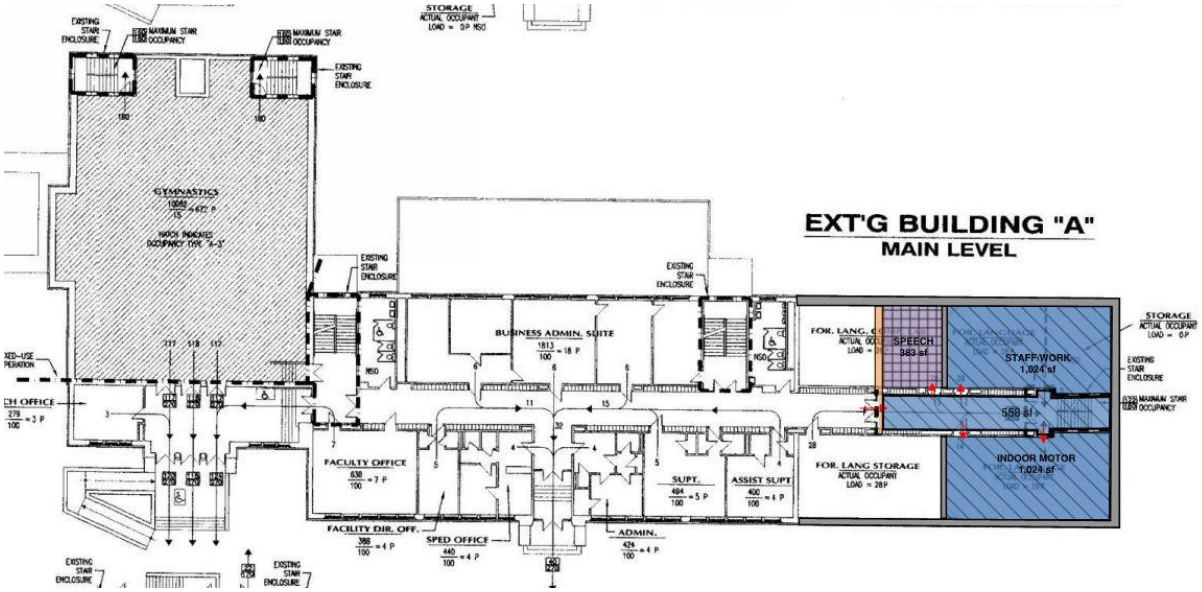
Option 3: Pre-K at the Rodman Building

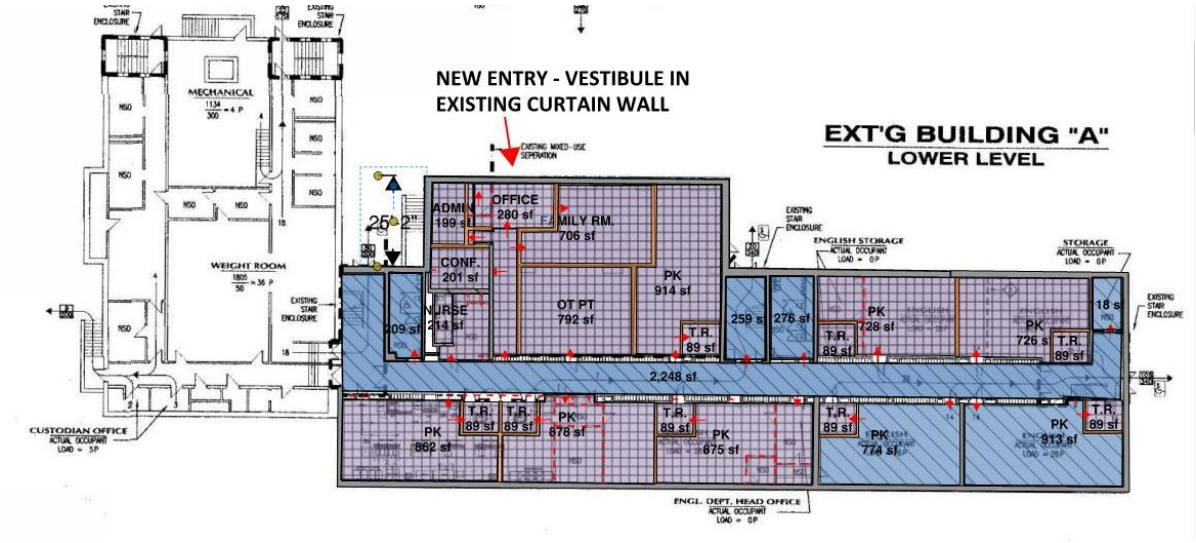
As part of Option 3, Dore and Whittier was tasked with assessing the potential for Pre-K to remain at the Rodman Building while the program grew to include eight or nine Pre-K classrooms. In this option, D&W was able to include all Pre-K program needs at Rodman while still maintaining space to house District offices. These program needs include the following:

- 8-9 Pre-K Classrooms (with internal toilets)
- Family Room
- OT/PT Room
- Speech and Language Room
- Staff Room
- Administration Area
- General Office/Waiting Area
- Nurse
- Indoor Motor Room

Though the 8- and 9-classroom options differ in their overall layout, both share similarities worth noting. Both Pre-K options spread out on two floors – the lower and main level – with the remaining space capable of housing the District offices and/or a future tenant. On the main level where space is shared by Pre-K and District offices, a set of security doors separates these spaces. In both options, classrooms range in size from approximately 726-943 sf. with internal bathrooms and exterior views. Finally, both options leverage a new entry location and entry sequence to improve security, overall space layout, and options for relocating the playground closer to the building.

Option 3.a – Pre-K at Rodman in 8 classrooms





PLAN LEGEND:

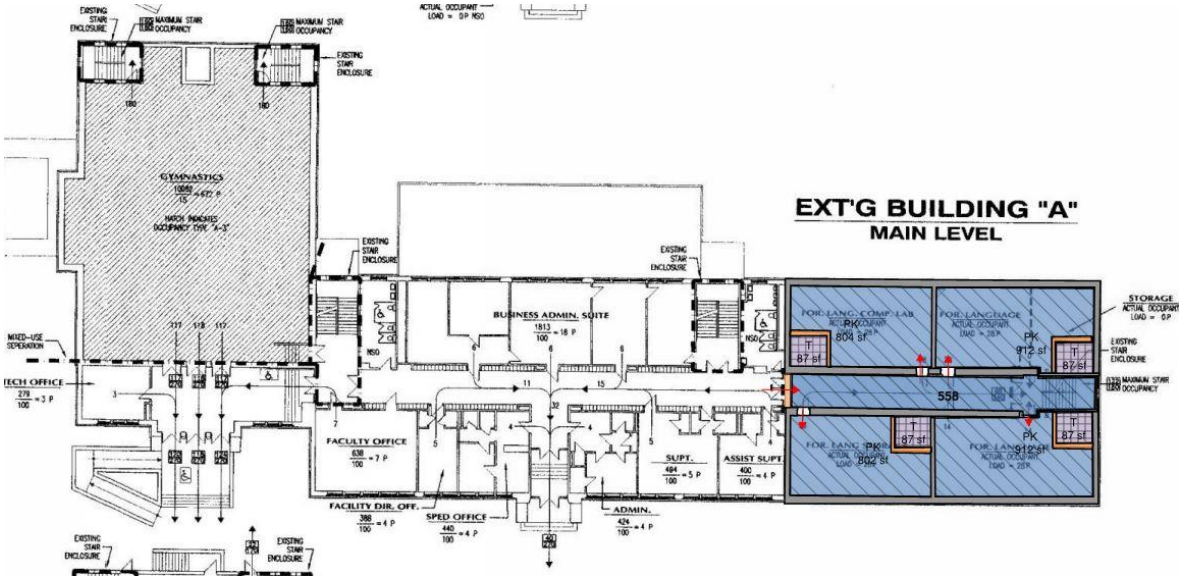
- EXISTING WALLS TO REMAIN
- LIGHT RENOVATION (PAINT & FLOOR FINISH REPLACEMENT; TOTAL 12,339 NSF)
- MEDIUM RENOVATION (REPLACE CEILINGS, DOORS, PAINT, NEW FLOOR FINISHES, REPARTITION AS SHOWN, NEW TOILET RMS./PLUMBING, MEP, LIGHTING, ELECTRICAL; TOTAL 22,971 NSF)
- NEW WALLS
- TO BE DEMOLISHED
- NEW DOOR

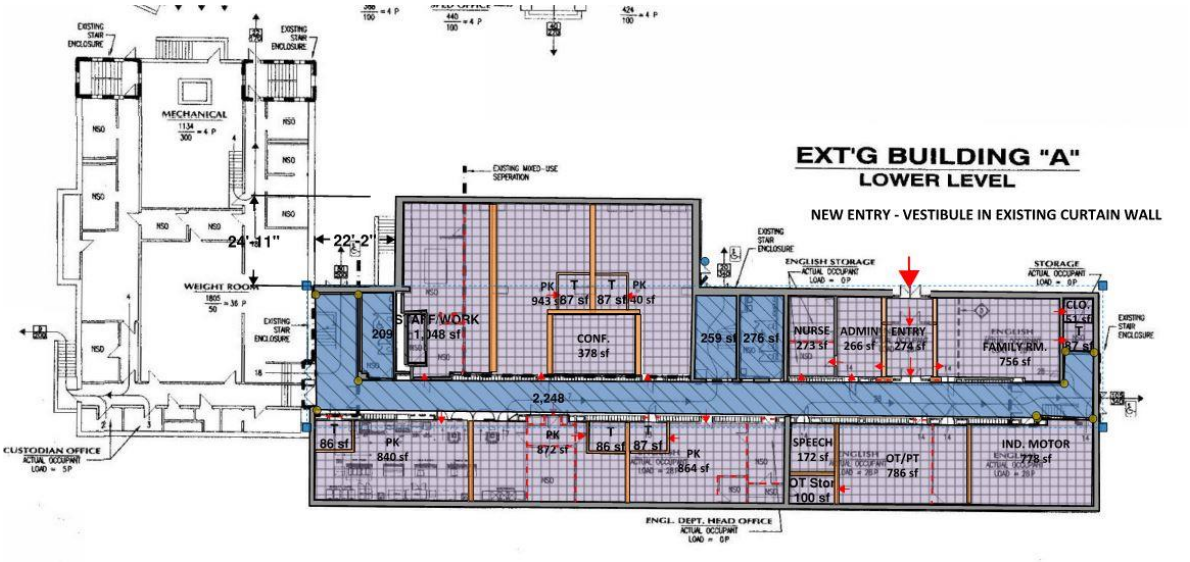
Option 3.a

This option includes eight Pre-K classrooms all on the lower floor of the building at the same level of discharge as drop-off and pick-up. In this option, Pre-K classrooms range in size from 726-914 sf. all with internal bathrooms and exterior views. The reason for such a range in classroom sizes is due to the moderate level of renovation scope, which utilizes as many of the current interior partition walls as possible.

In this option, a new secured, dedicated entry has been added in the rear lower level of the building for the Pre-K program to function independently. Visitors would be buzzed into a locked vestibule where they are checked in and then permitted to enter the main office/waiting area. Adjacent to the main office area is a Family Room, small conference room, nurse, administrator's office, and OT/PT room. Speech and Language, the Indoor Motor Room, and the Staff Room are located on the main level.

Option 3.b – Pre-K at Rodman in 9 classrooms





PLAN LEGEND:

- EXISTING WALLS TO REMAIN
- LIGHT RENOVATION (PAINT & FLOOR FINISH REPLACEMENT; TOTAL 12,339 NSF)
- MEDIUM RENOVATION (REPLACE CEILINGS, DOORS, PAINT, NEW FLOOR FINISHES, REPARTITION AS SHOWN, NEW TOILET RMS./PLUMBING, MEP, LIGHTING, ELECTRICAL; TOTAL 22,971 NSF)
- NEW WALLS
- TO BE DEMOLISHED
- NEW DOOR

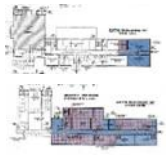
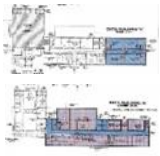
Option 3.b

This option includes nine Pre-K classrooms split on two floors with a cluster of five classrooms on the lower level and four classrooms on the main level to create a sense of neighborhood. In this option, Pre-K classrooms range in size from 802-943 sf. all with internal bathrooms and exterior views. The reason for such a range in classroom sizes is due to the moderate level of renovation scope, which utilizes as many of the current interior partition walls as possible.

In this option, a new secured, dedicated entry has been added in the rear lower level of the building for the Pre-K program to function independently. Visitors would be buzzed into a locked vestibule where they are checked in and then permitted to enter the main office/waiting area. Adjacent to the main office area is a Family Room, nurse, and administrator's office. The staff room, conference room, Speech and Language, OT/PT, and Indoor Motor Room are also located on this lower level.

The proposed location of the new secured entry would allow for a relocation of the existing Pre-K playground and play structure. Currently, Pre-K students exit the building and must cross traffic to access the playground. In Option 3.b, the proposed solution would be to relocate the play structure just south of the Pre-K entry where parking currently exists. This lost parking could be replicated where the existing playground is currently.

Below is a cost summary of all Rodman Pre-K options in Task 2. Costs of Options 3.a and 3.b include sprinkler system and accessibility upgrades for the entire building. The sprinkler system requirement is triggered due to the cost of the work estimated to be more than 33% of the value of the building. The accessibility requirements are triggered due to the cost of the work estimated to be more that 30% of the value of the building. The Structural upgrades were not required as the work area is less than 50% of the total area of the building.

Option 3 - Pre-K at Rodman Building		
Option		
	3.a **8 Pre-K Classrooms**	**3.b** **9 Pre-K Classrooms**
Total Cost	**$5,200,886**	**$5,646,738**

General Findings & Recommendations

Task Two of the feasibility study proves that placing modular additions at each elementary school to house a decentralized Pre-Kindergarten program is feasible, though sharing certain spaces inside each of the existing schools, including, but not limited to administration, cafeteria, nurse, gymnasium, and special education spaces would be necessary to meet the needs of the Pre-K program. Given the limitations at each site, a moderate level of site work would be required to adjust access roads, playgrounds, and parking to accommodate modular placement at each site.

Integrating Pre-K students into each elementary school and relocating another grade level cluster into modular classrooms is also feasible, however this option could potentially be more expensive and disruptive to a larger student population given that all elementary schools have, on average, more than three sections per grade level, requiring an additional modular classroom for a total of four at each school. Placing another grade level into the modular classrooms for only three sections of Pre-K could potentially result in the splitting of grade-level clusters.

It is important to note that enrollment analysis performed during the Master Planning phase revealed overcrowding already at each of the elementary schools. Though adding Pre-K students to modular additions at each school would not add to overall capacity numbers, having them utilize spaces within the building (i.e. the nurse) would potentially put further strain on staff and a facility that is already beyond carrying capacity.

Option 3 – keeping the Pre-K program at the Rodman building while it continues to grow and until a larger shift in grade configuration can occur within the district – does not provide the same strain on staffing. Rather, in this option, continuing to centralize Pre-K students allows the District to maintain and deepen the quality of its program within one facility where all aspects of the Pre-K program could be met through a series of medium and light building renovations. This would allow the Canton School District to fully implement their Pre-K program in a specialized environment without the additional strain on each elementary school.

TASK THREE – DISTRICT OFFICES AT RODMAN BUILDING

Overview

Task Three focused on the feasibility of renovating the Marilyn G. Rodman Building to improve spaces for both District offices and the proposed Pre-K program, with the assumption that the Pre-K program would need to accommodate up to 8 or 9 classrooms with internal bathrooms and additional spaces for staff and student support services.

Dore & Whittier tested the feasibility of supporting both programs within the Rodman building based on two assumptions: 1) the idealized space summary for District offices as determined in the District-wide Master Plan Study, and 2) Pre-K program needs as identified by the District. D&W also considered the current location of Pre-K classrooms, District offices, and spaces used by a third-party tenant as a way of understanding how the building currently functions.

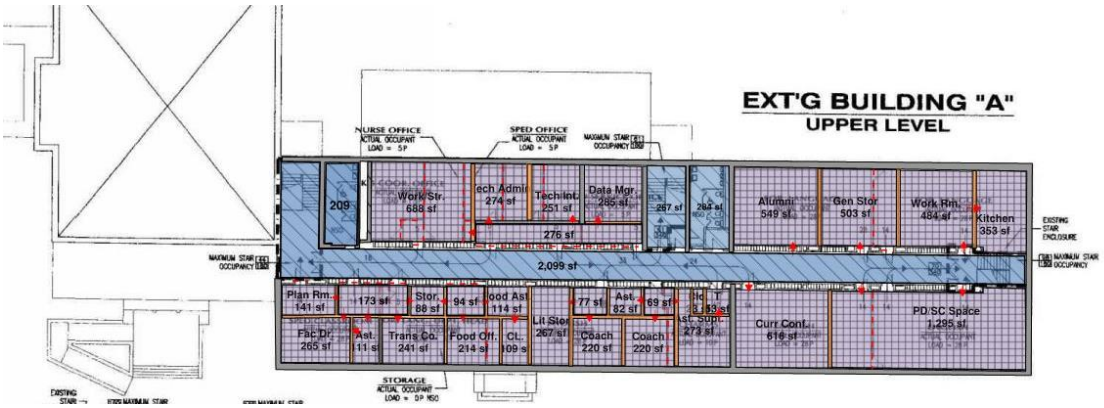
For this feasibility testing, D&W used the location of the Pre-K program as identified in Task Two, Option 3.b – the 9-classroom Pre-K option with 5 classrooms clustered on the lower level and 4 classrooms clustered on the main level. D&W utilized the remaining space on the main level and upper level for a reimagining of District offices with no changes proposed to the existing Gym wing.

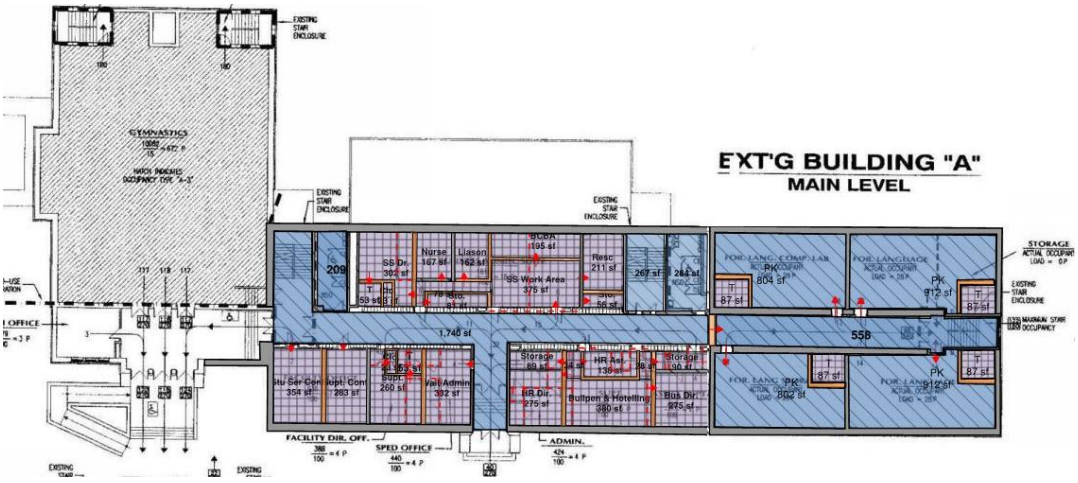
As identified in Task Two, security doors would be added to the main level hallway toward the north end of the building, separating the cluster of 4 Pre-K classrooms from District offices and any public access. This level of security would also support use of a future tenant, given the assumption that if District offices were to relocate at some point, those vacant spaces on the main and upper level could be used.

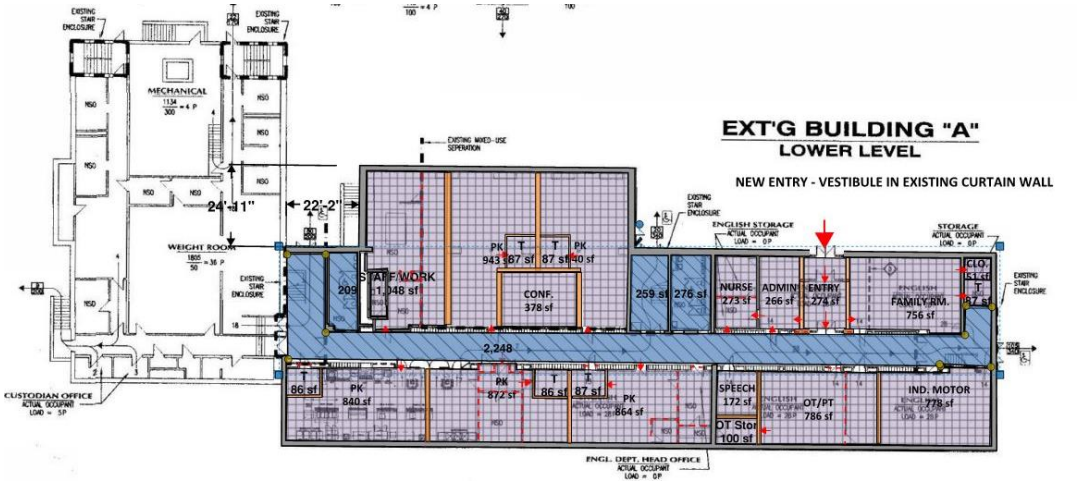
District Offices

During the District-wide Master Plan Study, several scoping sessions were held with District administrative staff to determine their needs for office space, collaborative space, professional development space, and community use space and storage. The result was an idealized space summary for District offices that defined spatial relationships and required a larger gross and net program square footage than the current District offices occupy. Dore & Whittier used this idealized space summary to test the feasibility of fitting both the Pre-Kindergarten program and District offices at Rodman.

The proposed solution for District offices is a 2-level floor plan that leverages a portion of the main level not utilized by Pre-K and the entire upper floor of the Rodman Building.







PLAN LEGEND:

- EXISTING WALLS TO REMAIN
- LIGHT RENOVATION (PAINT & FLOOR FINISH REPLACEMENT; TOTAL 12,339 NSF)
- MEDIUM RENOVATION (REPLACE CEILINGS, DOORS, PAINT, NEW FLOOR FINISHES, REPARTITION AS SHOWN, NEW TOILET RMS./PLUMBING, MEP, LIGHTING, ELECTRICAL; TOTAL 22,971 NSF)
- NEW WALLS
- TO BE DEMOLISHED
- NEW DOOR

This proposed layout, which removed and/or relocated partition walls, would require a medium level of renovation to all the office spaces and a light level of renovation to existing bathrooms and corridors. Care was taken to minimize the need for major structural modifications while still attempting to accommodate the need for a more collaborative working environment.

Nevertheless, since the Rodman Building is an existing building, and this option has a work area that exceeds 26,059 SF (50% of the total building area of 52,118SF) the project scope would invoke Level 3 Alteration requirements in order to comply with code. That results in structural upgrades require to clip the tops of all existing masonry walls to the structure above it (these will be the exterior and corridor walls) increasing the cost of the project. If this option is constructed as one project, or if it is anticipated to be done in two phases (i.e. Phase 1: Pre-k renovation and Phase Two: District Offices), the entire Level three alteration required for the entire area. Therefore, if this option is constructed in 2 phases, D&W recommends that Phase One be constructed with Level 3 Alterations, even though by itself Phase One would not invoke Level 3 Alterations. This strategy would save an extensive renovation of Phase One in the future.

The District office option was presented to the Working Group on October 11, 2018. At that time, a request was made by District administration to minimize the scope of Rodman renovations to include only those spaces needed for the Pre-K options. Members of the Working Group stated that their current spaces supported their work and that it was fiscally more responsible and cost-effective for the District to focus on Pre-K spaces at this time.

Using the existing space diagram of Canton District offices provided at the October 11 Working Group Meeting, D&W determined that the 9-classroom Pre-K proposed layout (as identified in Task 2, Option 3.b) would only impact one space currently used as District conference space at the north end of the building on the main level. It was determined by members of the Working Group that this space could easily be relocated to another area of the building not used by the proposed Pre-K layout or a third-party tenant.

In order to fully complete the Feasibility Study as defined in its scope, Dore & Whittier submitted the proposed plan for District offices for cost estimating purposes only, even though the District expressed a desire to remain in their office spaces as is.

The following page summarizes the costs associated with Task 3.

Task 3 - District Offices at Rodman Building		
Option		
		District Offices
Total Cost		**$9,782,278**

General Findings & Recommendations

Dore & Whittier confirms that it is feasible for the Rodman Building to be renovated using medium and light levels of renovation to support District offices as per MSBA guidelines. Given the District's request to leave District offices as they are, Dore & Whittier also confirms that the Rodman Building would be able to support the current layout of District offices and the new Pre-K Option 3.b – the 9-classroom option – as identified in Task 2.

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

DATE OF MEETING: June 21, 2018

PROJECT: Canton Public Schools Pre-Feasibility Study

PROJECT NO.: 18-0773

SUBJECT: Focus Group Meeting: 8th Grade Academy Workshop

ATTENDING:

Dr. Jennifer Fisher-Muella,	Superintendent
Patricia Kinsella,	Assistant Superintendent
Barry Nectow,	Business Manager
Debbie Rooney	K-8th
Sarah Shannon	Galvin MS Principal
Brad Dore	Dore & Whittier, Principal
Jason Boone	Dore & Whittier, Educational Planner
Mike Pirollo	Dore & Whittier
Maria Fernandez-Donovan	Dore & Whittier, Project Manager

PURPOSE

The primary purpose of this meeting is to discuss the option of an 8th grade academy in the Canton School System.

NOTES	ACTION BY
1. All present introduced themselves.	
2. D&W provided a description of the structural system of the Rodman Building based on an investigative site visit by the Structural Engineer, EDG and Maria Fernandez-Donovan, D&W. The building has concrete structure, floors, roof and exterior walls with columns along the interior corridors. Most interior partitions along the corridor and between the corridor and the exterior wall are not load bearing. Therefore, most interior walls can be removed. This provides flexibility for future designs and uses for the building. Even though the existing masonry walls along the corridor and demising walls between classrooms are not load bearing, the walls are considered shear walls. If the proposed renovations require reconfiguration of these walls, a structural analysis would be necessary and may include the addition of new masonry shear walls.	

ARCHITECTS
PROJECT MANAGERS

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NOTES	ACTION BY
3. It is probable that the Rodman Building can be renovated to house an 8th grade academy. Therefore, the following questions need to be answered: a. Is an 8th Grade Academy is a good idea for the Canton School District? b. If it is a good idea, what does it look like? c. What is the program to be used to truth test the Rodman Building?	
4. D&W emailed a research package related to Academies before the meeting. Comments: a. Most academies in the research package were 9th grade academies. b. Canton has the opportunity to define something new for an 8th grade academy by translating the information to 8th grade as appropriate. c. A grade Academy provides the opportunity to soften the transition between to the next grade by providing an educational experience tailored for that age. d. It is important *not* to consider the 8th grade as part of the High School to maintain athletic competition 9-12.	
5. The group discussed an 8th grade Academy at Canton School District. a. An 8th grade academy separate from the existing Middle School would relieve overcrowding at the Middle School and, consequently, the Elementary Schools. b. An 8th grade academy would provide Canton the opportunity to have a unique 8th grade educational experience which is attractive to some, although not all. c. It is understood that 8th Grade Academy would soften the transition between 8th and 9th grades, d. A single staff body that is solely committed to that developmental level. e. The transition to an academy can begin to happen before a compatible facility exists for it by adjusting the program. f. Does an 8th grade academy need to be in a separate building or can it happen within at 5-8 school? 8-12? g. There has been negativity around the 8th grade academy idea. The Building Committee would need to make a good case, with successful precedents. h. The 8th grade academy could impact the students earlier and therefore speed up the master plan 5B1.	
6. The group discussed an 8th grade Academy at Rodman Building: a. Rodman is an underutilized building close to the High School that could provide the benefits of an 8th grade academy plus some benefits at the high school after a renovation, at a cost. b. Rodman could provide a small school experience with opportunities of a bigger school. A small school at another location would also be OK, but would need to find way to support students who might be at higher level c. 8th at Rodman would be less part of MS and more part of HS. d. Advanced students could take courses at higher grade level in the High School, e. All students could have more elective options offered at the high school.	

NOTES	ACTION BY
f. Possible space sharing economy by utilizing spaces at the high school for 8th graders, therefore not necessary to include those spaces at the 8th grade academy or include them in different forms. g. High school students would have the option to mentor 8th graders. h. If 8th graders take classes or participate in activities, would it be with HS students or not? Scheduling could help with the separation. Others see academic and social benefits in not separating 8th graders from high schooler grades. i. It is important for the High School is that the 8th grade not be considered part of the High School due to athletics. (Do not want to change their division). j.	
7. The group discussed what if no 8th grade Academy at Rodman a. If an 8th academy existed elsewhere from Rodman, the Masterplan would need to "pivot."	
8. Rodman was turned down as part of the High School in the past: a. Too expensive to renovate b. Safety and security c. Going back and forth between Rodman and HS was not desirable. Jenn will look for the related document and pass it along to D&W.	Jenn
9. D&W guided the Focus Group through a series of activities to explore the 8th grade academy at Rodman Building. Topics explored: (See attached photographs) a. How do 8th graders & high school students participate within the same community (i.e. – extracurriculars, electives, lunch, etc.)? b. What are students doing in the classroom? c. How are students organized d. What programs and services are offered? e. What does choice independence look like (i.e. – within course selection furniture the learning environment itself)? f. What tools and resources can students access? g. What does professional culture & collaboration look like? Conclusions: What is an 8th Grade Academy? • Safe collaboration between MH and HS • Social aspects-tapping into HS o Lunch at HS o Multi-purpose space at Rodman to eat and hangout • Not prep for HS; ithas its own identity • Not sitting and listening • HS as Mentors	

NOTES	ACTION BY
• Can learning spaces be spaces where kids eat? • Tech/Engineering • Classes that are dynamic and flexible • Place based learning creation • Project-based learning • Student ownership & leadership, including when they get to HS • Teams vs Houses based on subject or content; 80 students per team? • Team based with STEAM integration • Programs that support inquiry/design thinking • Flexible work areas and furniture • Leaning is everywhere • Outdoor learning space • Schedule impacts for Gym, Art spaces, media center, could be spread out in multiple spaces. • 8th/9th professional collaboration • What is the research around collaboration? • More learning time is lost during transitions between classrooms far apart. Impacts of having 8th grade academy in Rodman Staffing • Duplication of staff possible • Is a full time principal needed? • Could the MS principle be supported by an 8th grade teacher leader? • Servicing of Special Education? • Nurse? • What happens to SPED/Specialists? • Staff between schools Schedule &B Transportation • MS/HS currently running different schedules • Issues with contract for teachers • Planning time, expectation etc different between MS and HS • Potential additional or sharing routes for busses; currently MS & HS riding together Culture: • Adults and students left behind in middle school will have to create a new community Other • Possible additional 30-40 staff parking spots needed. • Event parking issue made worse. • Traffic pattern would need to change with additional parent drop-off • Operational impacts	
10. If the 8th grade academy is not at Rodman Building, what is the disposition for Rodman? Potential options mentioned: a. District offices (as present or renovated) b. Teen Center c. Adult education	

NOTES	ACTION BY
d. Multi-purpose space for building, maker-space e. PD Space 11.	
12. Next Steps and Timeline a.	D&WA

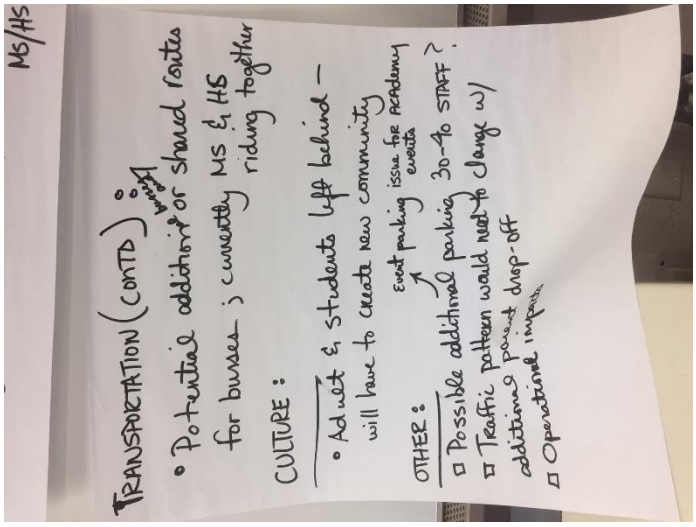
The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

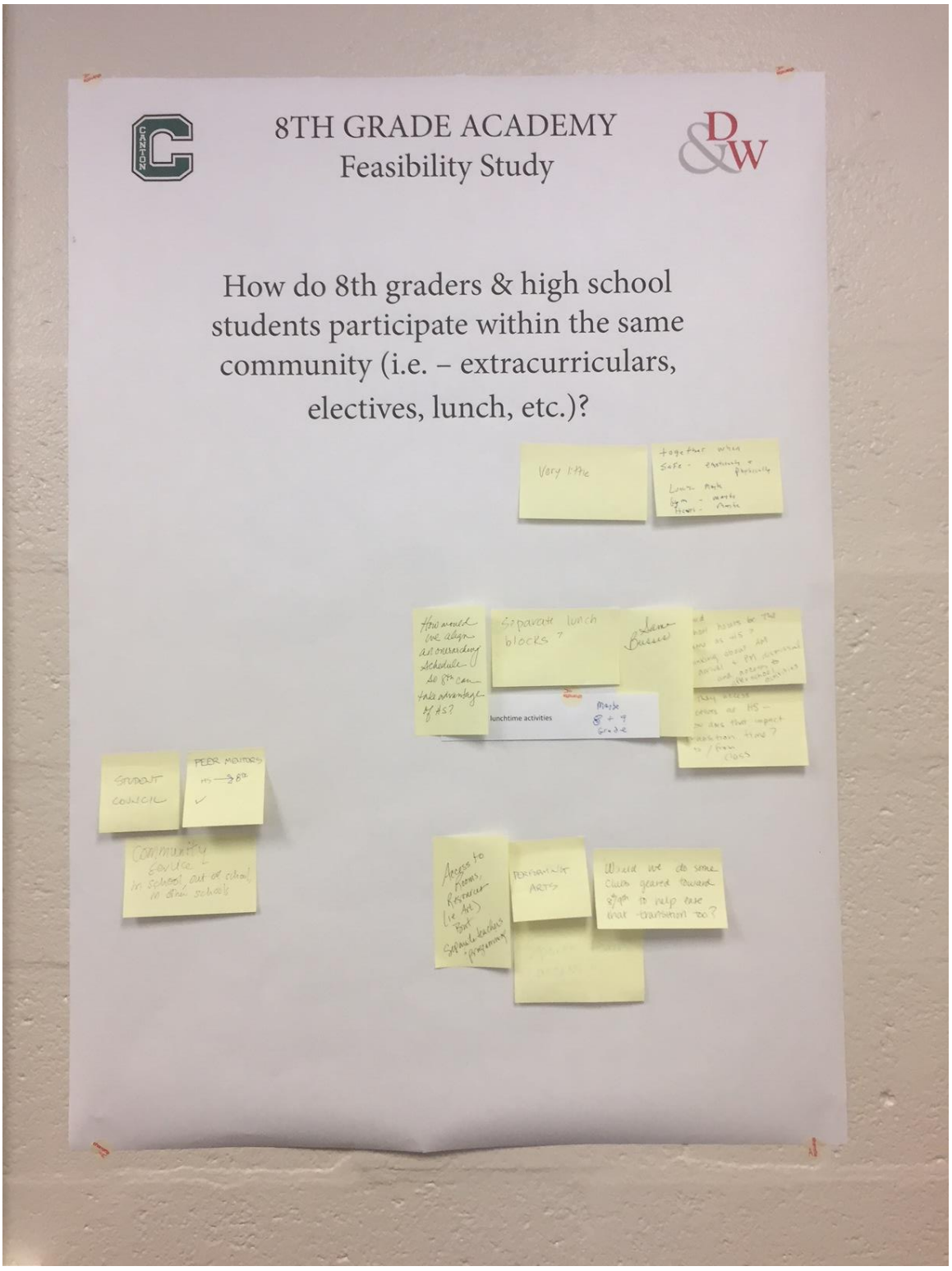
Sincerely,

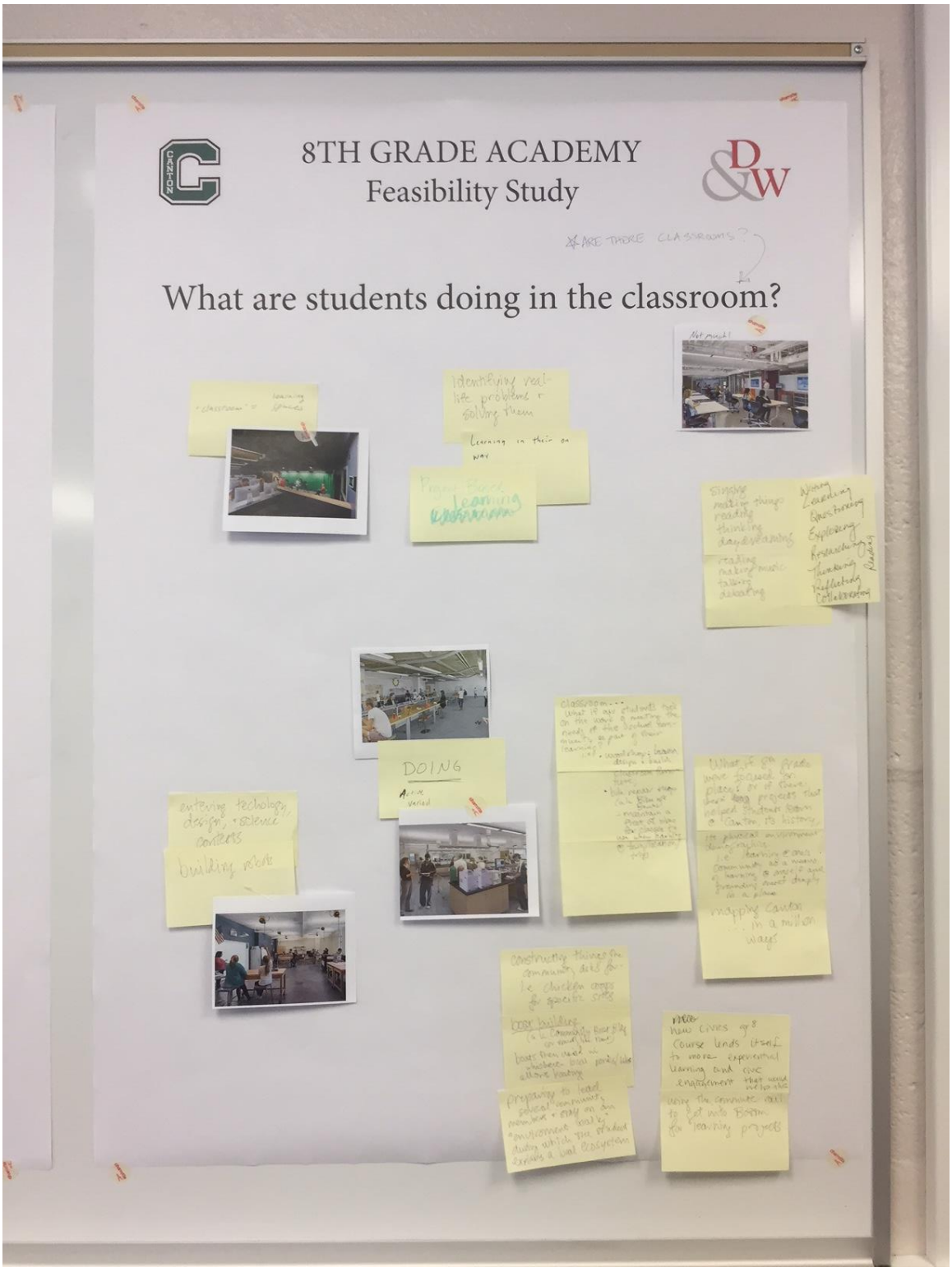
DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

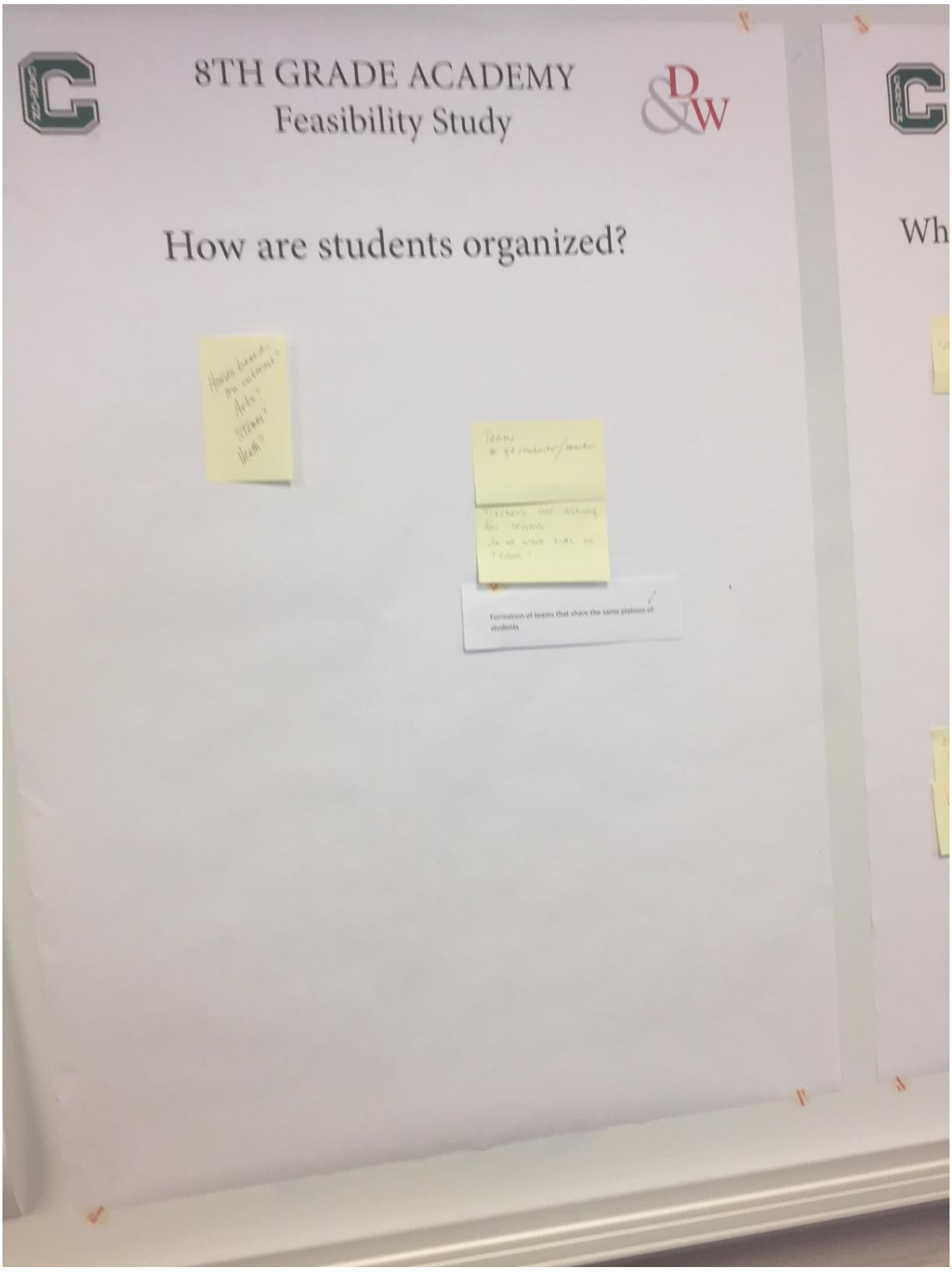
Maria Fernandez-Donovan AIA, LEED AP BD+C
Project Manager

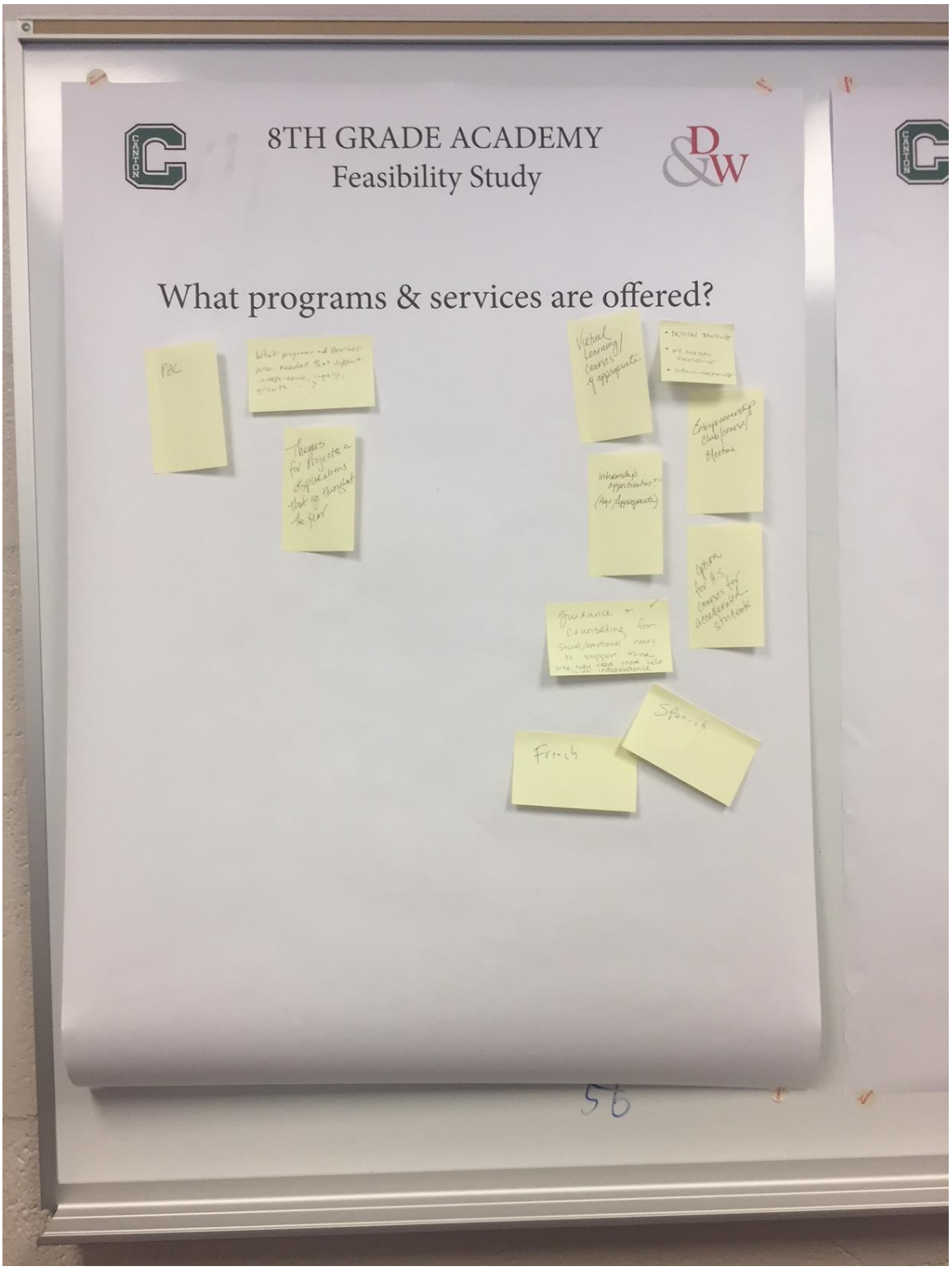
c: Attendees and File

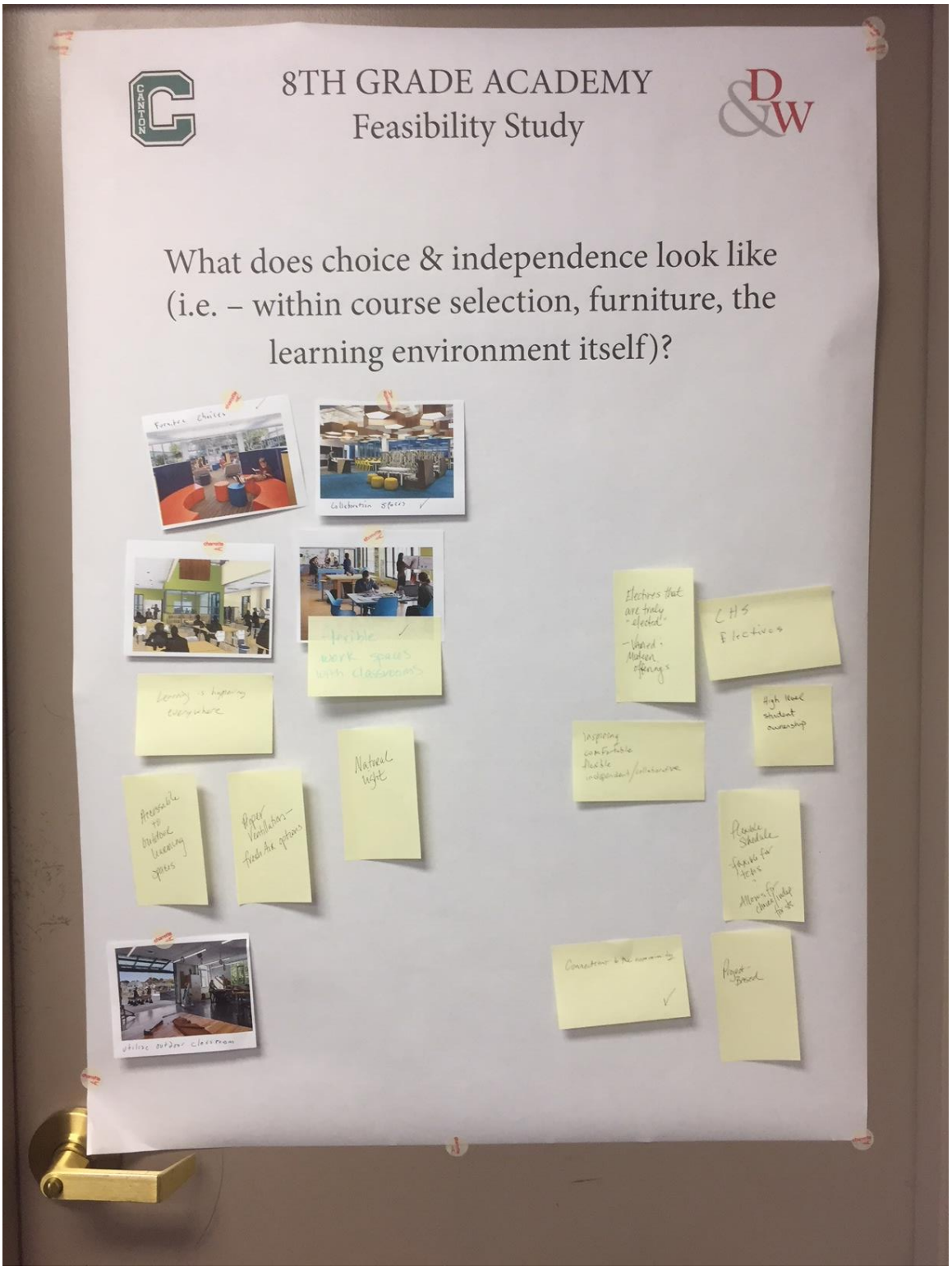


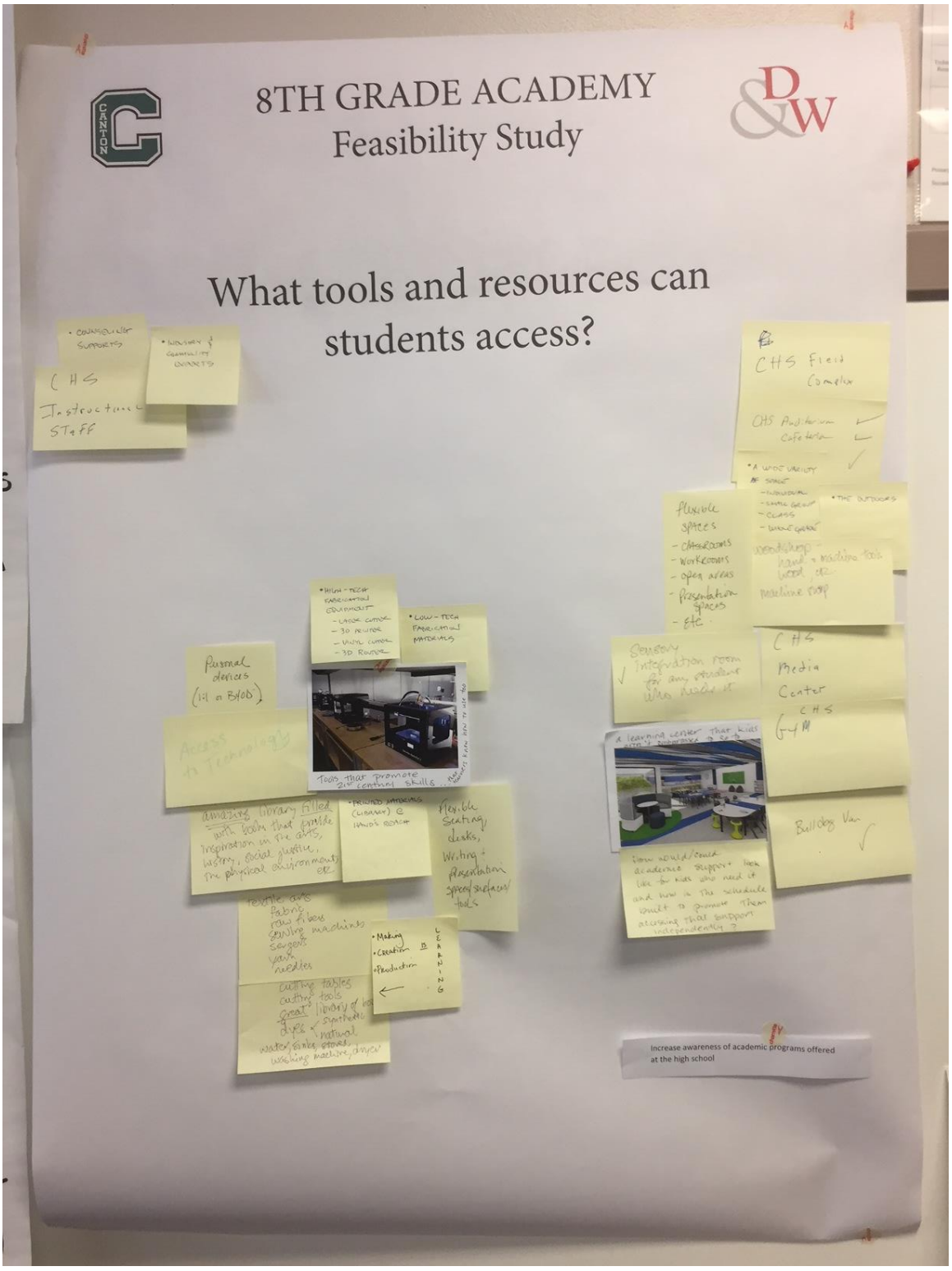

8TH GRADE ACADEMY
Feasibility Study
How do 8th graders & high school students participate within the same community (i.e. – extracurriculars, electives, lunch, etc.)?
Very little
separate lunch blocks?
lunchtime activities
STUDENT COUNCIL
PEER MENTORS
COMMUNITY SERVICE
Access to rooms, Resources (i.e. Art)
PERFORMING ARTS

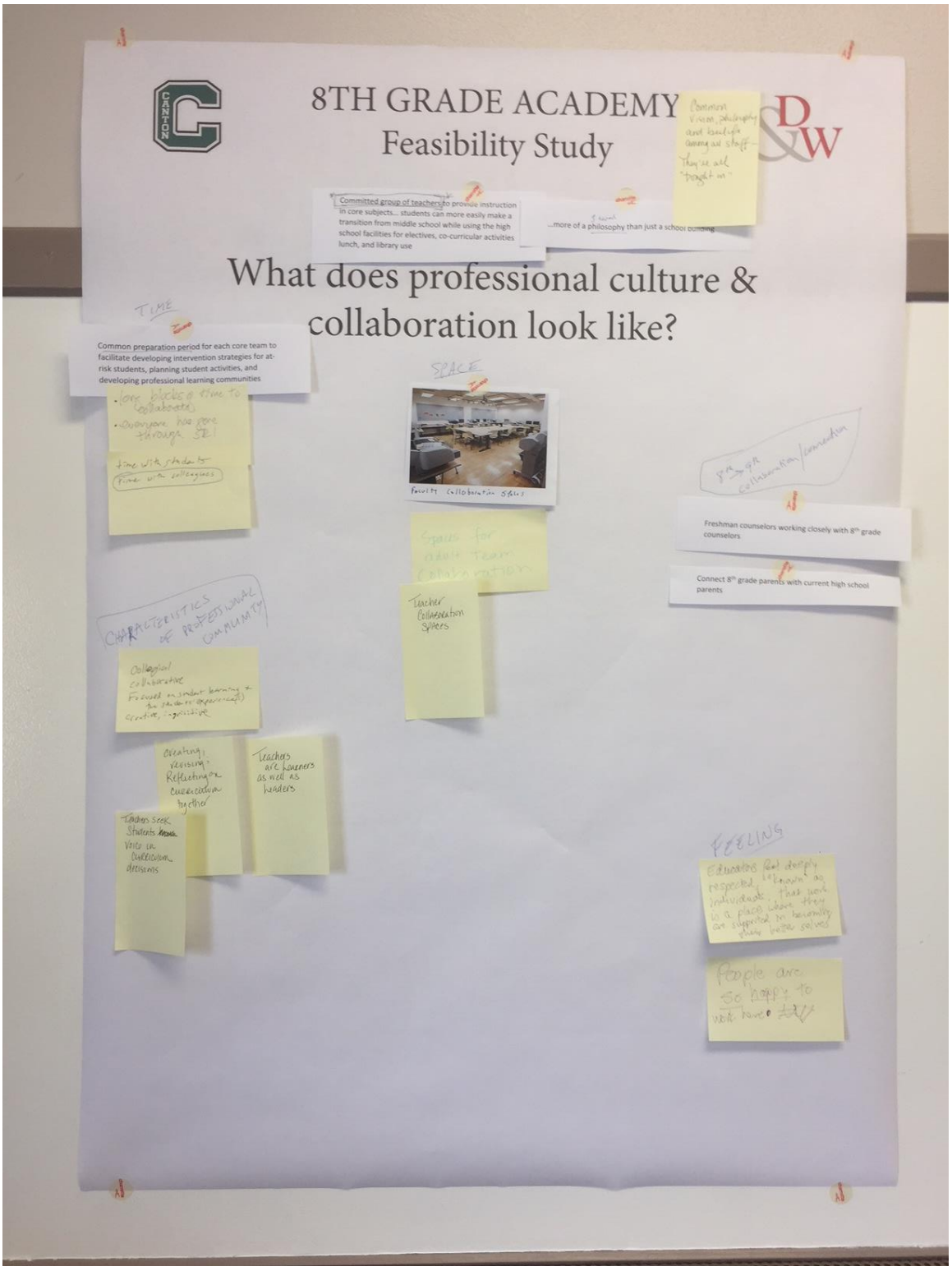

8TH GRADE ACADEMY
Feasibility Study
What are students doing in the classroom?
DOING

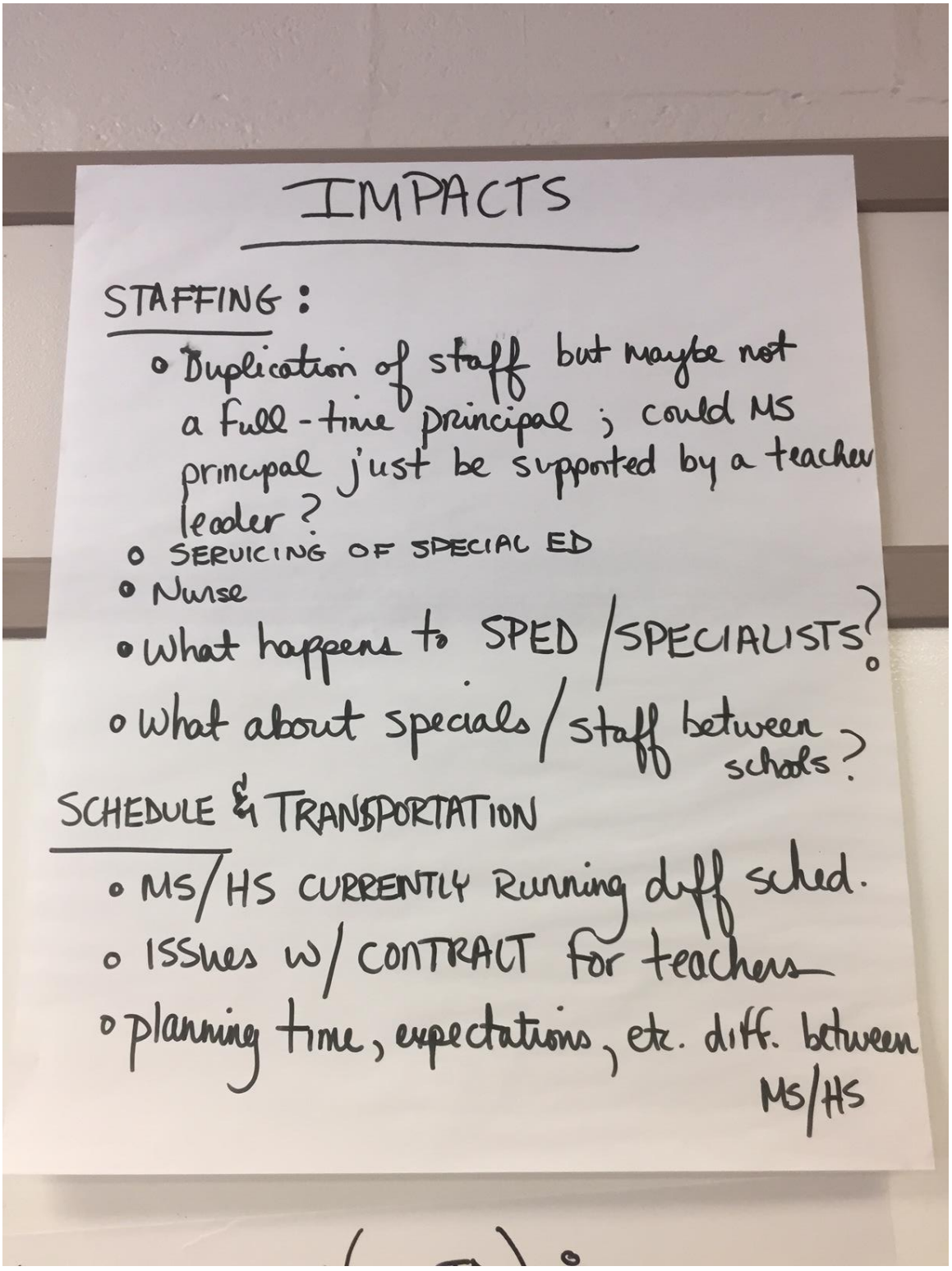

8TH GRADE ACADEMY
Feasibility Study
D&W
How are students organized?
Wh
Formation of teams that share the same platoon of students

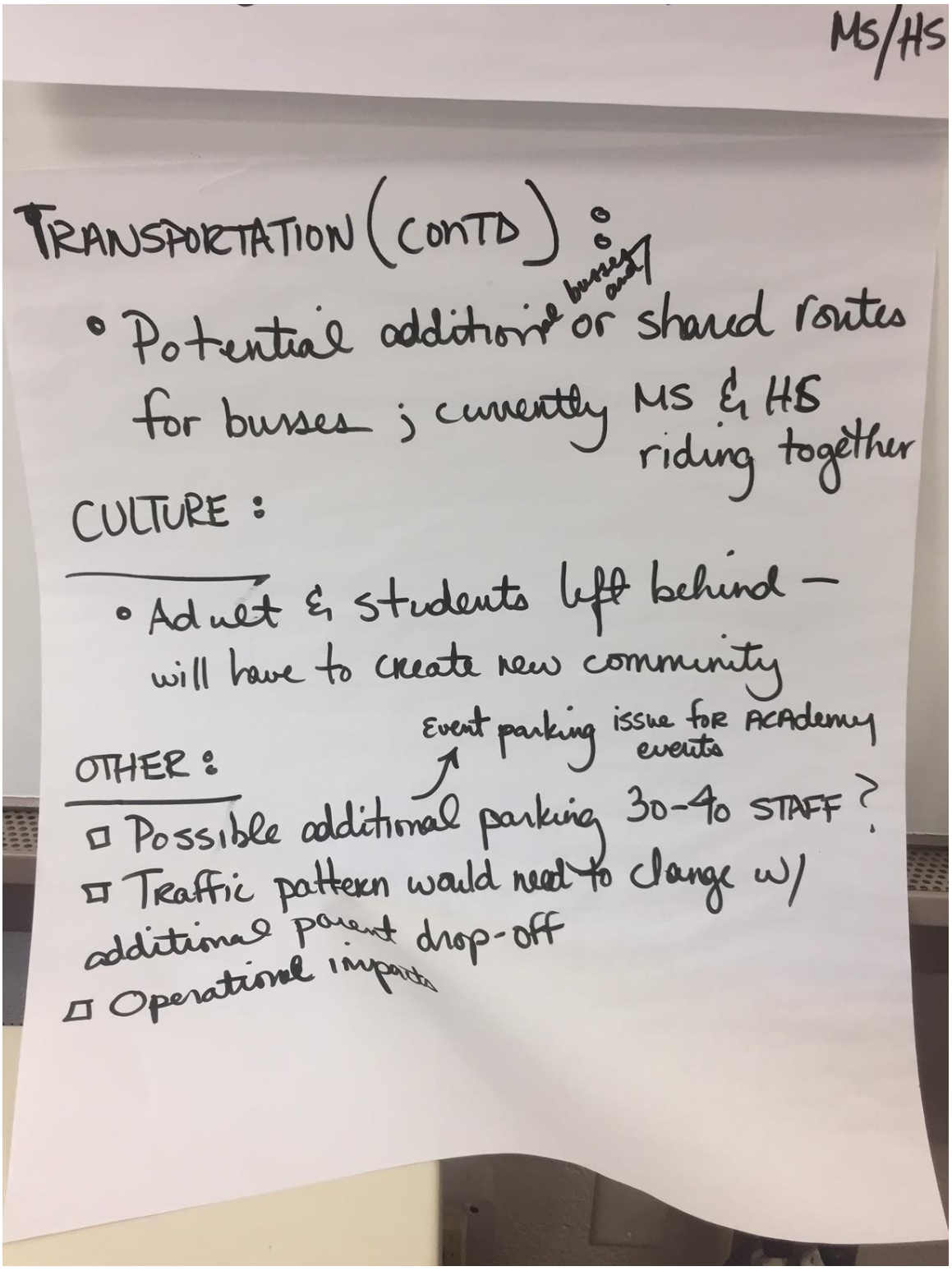

8TH GRADE ACADEMY
Feasibility Study
What programs & services are offered?
PBL
Virtual Learning/ Courses if appropriate
Internship opportunities (Age Appropriate)
Guidance + Counseling for social/emotional needs to support those who may have more intensive
French
56

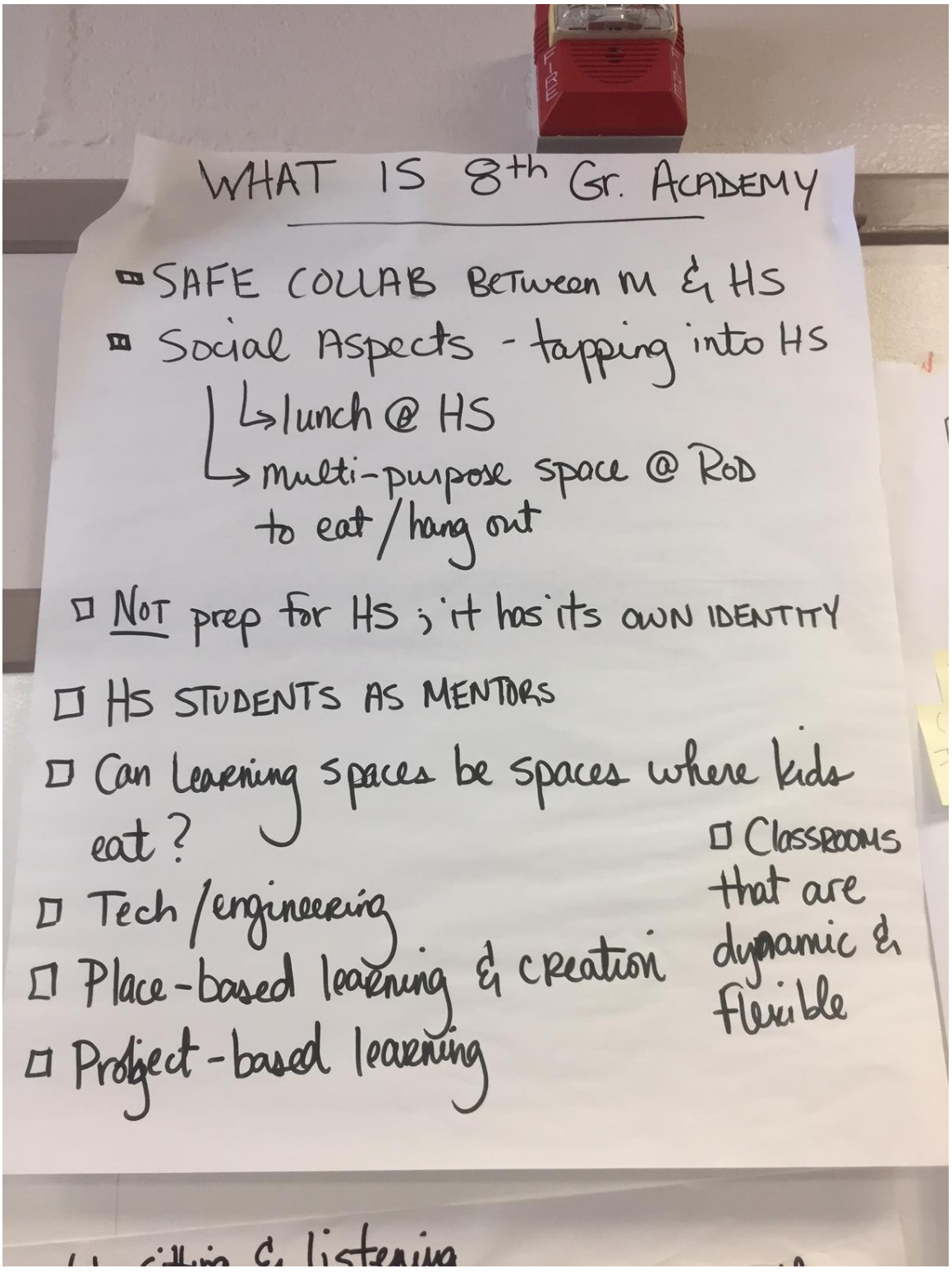

8TH GRADE ACADEMY
Feasibility Study
What does choice & independence look like (i.e. – within course selection, furniture, the learning environment itself)?
Electives that are truly "elected"
CHS Electives
Natural light
Inspiring comfortable flexible independent/collaborative
High level student ownership
Connection to community

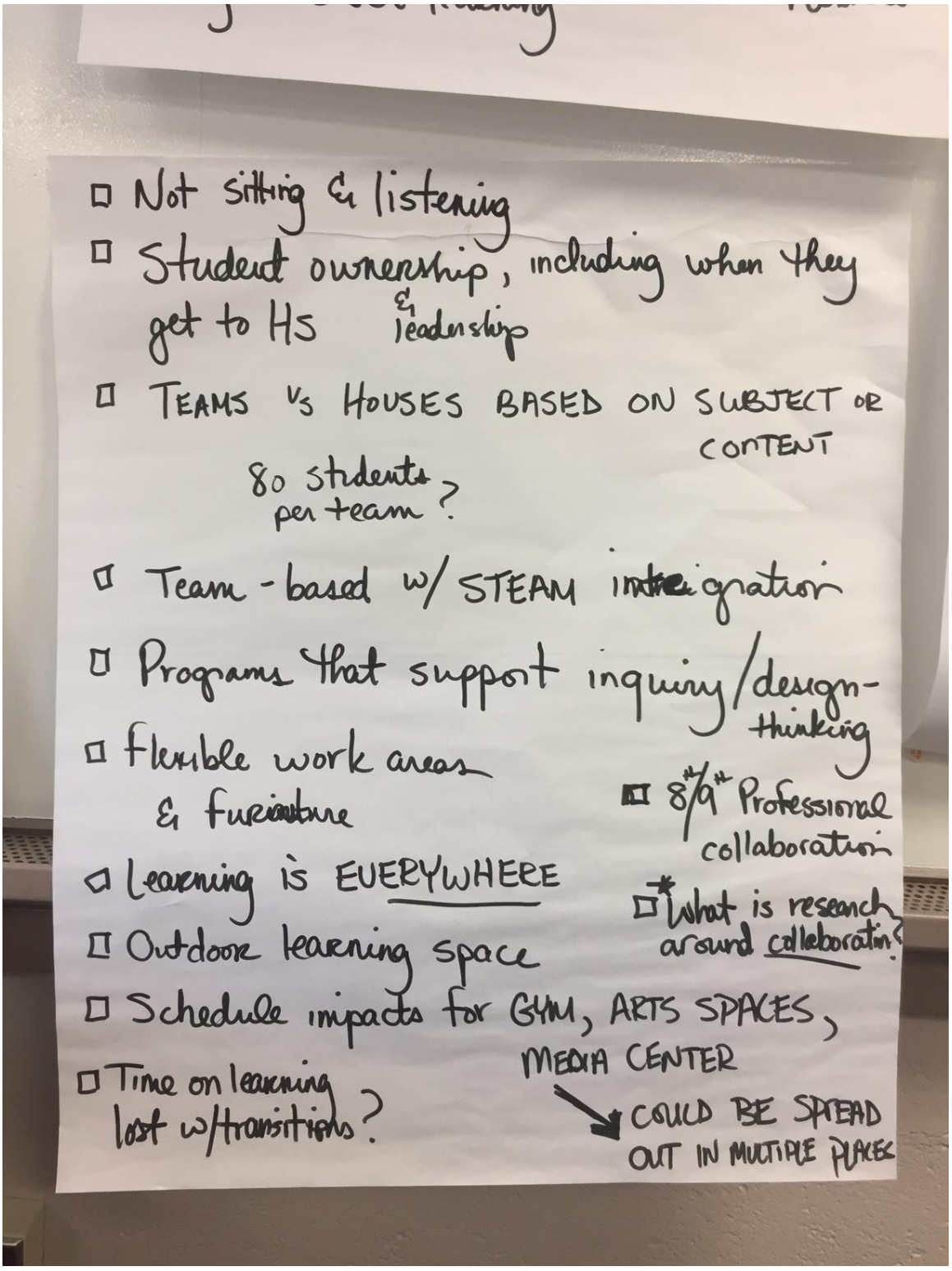

8TH GRADE ACADEMY
Feasibility Study
What tools and resources can students access?
CHS Field
CHS Auditorium
Cafeteria
Flexible spaces
- classrooms
- workrooms
- open areas
- presentation spaces
- etc
Sensory integration room for any student who needs it
CHS Media Center
CHS Gym
Bulldog Van
Tools that promote 21st century skills
Flexible Seating, desks, Writing + presentation space/surfaces/tools
Making
Creation
Production
LEARNING
Increase awareness of academic programs offered at the high school

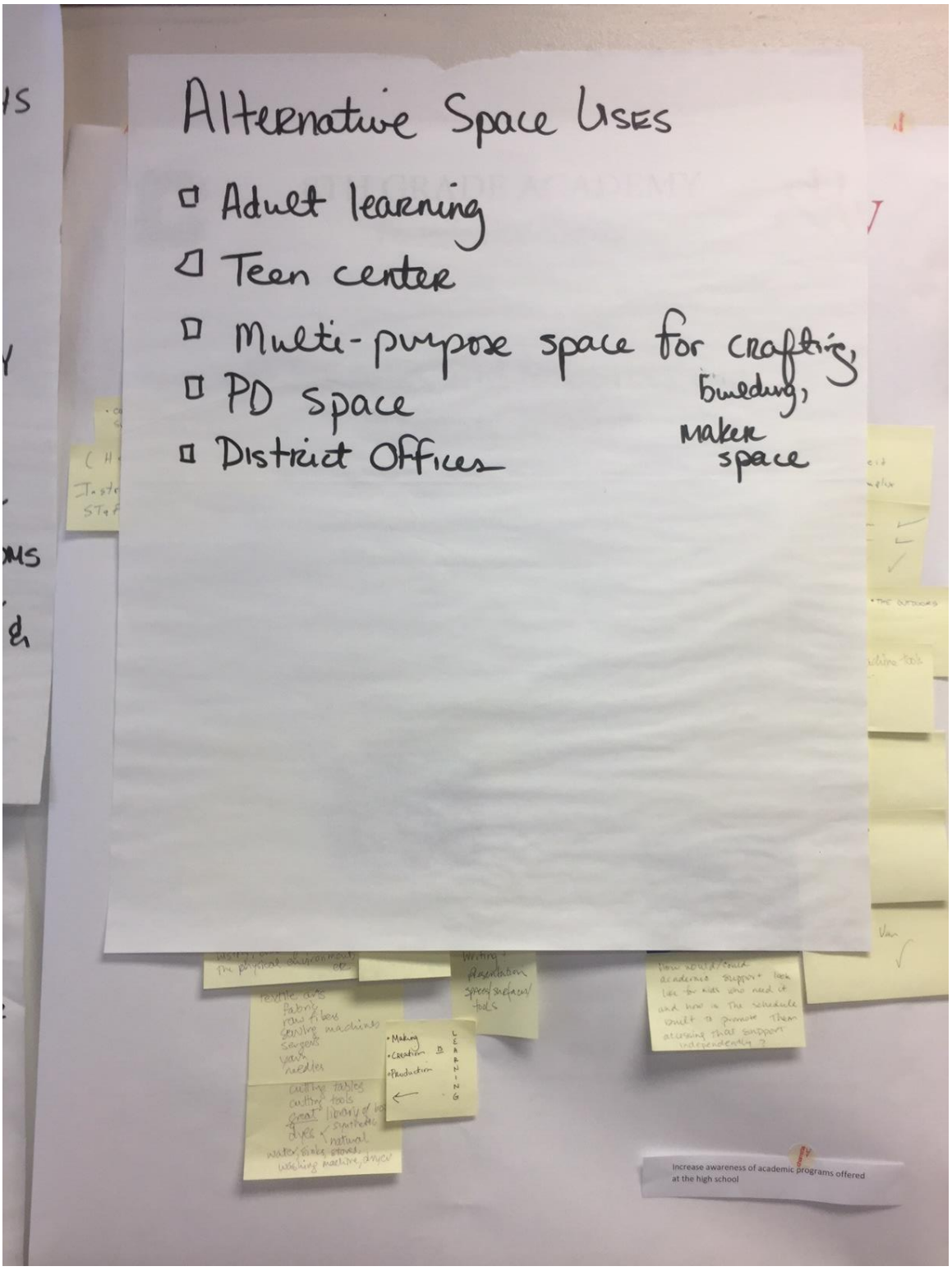

8TH GRADE ACADEMY
Feasibility Study
&W
Committed group of teachers to provide instruction in core subjects... students can more easily make a transition from middle school while using the high school facilities for electives, co-curricular activities lunch, and library use
...more of a philosophy than just a school building
What does professional culture & collaboration look like?
TIME
Common preparation period for each core team to facilitate developing intervention strategies for at-risk students, planning student activities, and developing professional learning communities
SPACE
Freshman counselors working closely with 8th grade counselors
Connect 8th grade parents with current high school parents
Teacher Collaboration Spaces
CHARACTERISTICS OF PROFESSIONAL COMMUNITY
Collegial
Collaborative
Teachers are learners as well as leaders
FEELING
People are so happy to work here

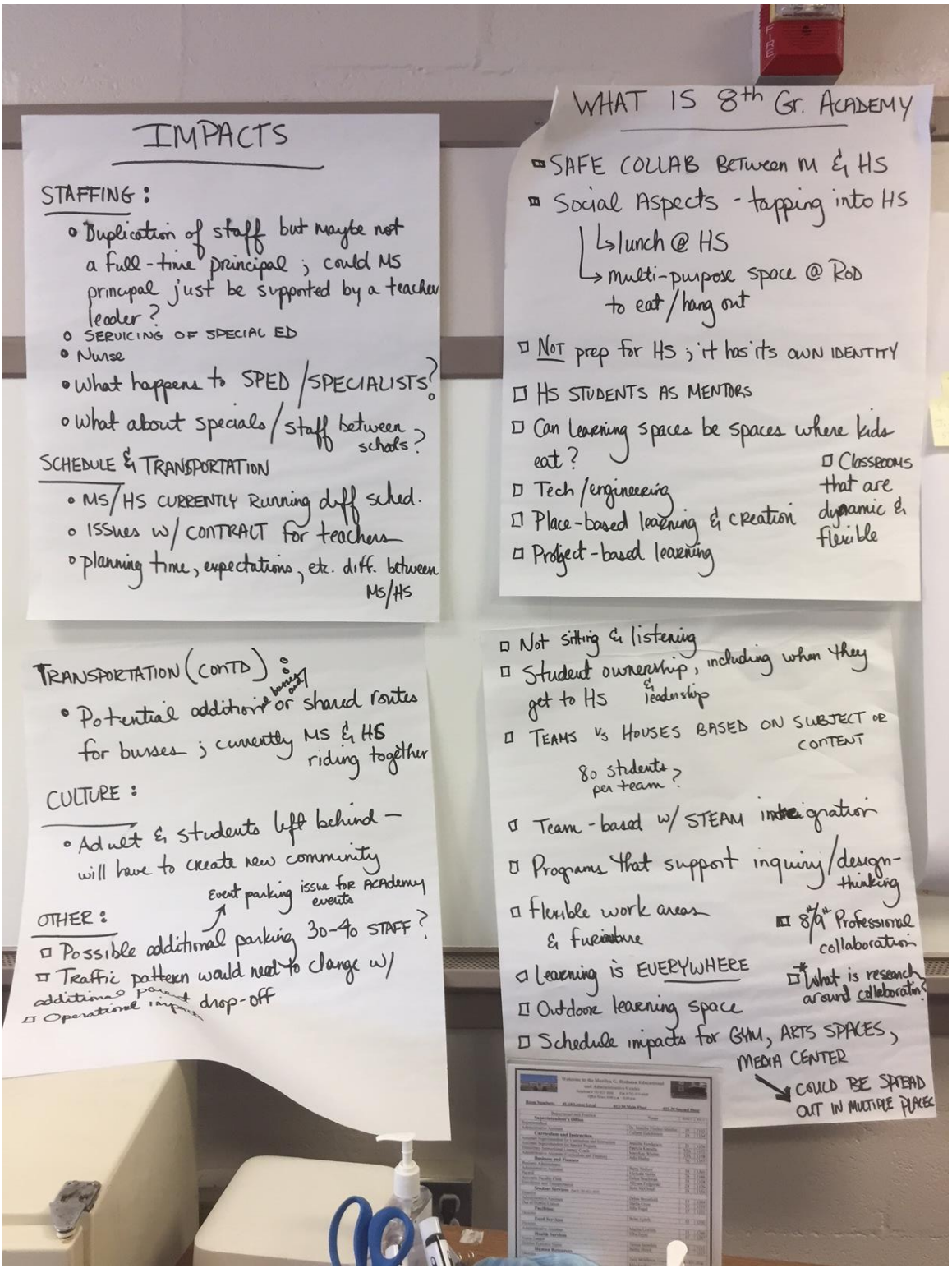

IMPACTS
STAFFING:
Duplication of staff but maybe not a full-time principal; could MS principal just be supported by a teacher leader?
SERVICING OF SPECIAL ED
Nurse
What happens to SPED/SPECIALISTS?
What about specials/staff between schools?
SCHEDULE & TRANSPORTATION
MS/HS CURRENTLY Running diff sched.
ISSues w/ CONTRACT for teachers
planning time, expectations, etc. diff. between MS/HS


MS/HS
TRANSPORTATION (CONTD):
• Potential additional busses or shared routes for busses; currently MS & HS riding together
CULTURE:
• Adult & students left behind — will have to create new community
OTHER:
Event parking issue for ACAdemy events
□ Possible additional parking 30-40 STAFF?
□ Traffic pattern would need to change w/ additional parent drop-off
□ Operational impacts


WHAT IS 8th Gr. ACADEMY
SAFE COLLAB Between M & HS
Social Aspects - tapping into HS
↳ lunch @ HS
↳ multi-purpose space @ ROD to eat / hang out
NOT prep for HS ; it has its own IDENTITY
HS STUDENTS AS MENTORS
Can learning spaces be spaces where kids eat?
Tech / engineering
Place-based learning & creation
Project-based learning
Classrooms that are dynamic & flexible


Not sitting & listening
Student ownership, including when they get to HS & leadership
TEAMS Vs HOUSES BASED ON SUBJECT OR CONTENT
80 students per team?
Team-based w/ STEAM integration
Programs that support inquiry/design-thinking
flexible work areas & furniture
8th/9th Professional collaboration
Learning is EVERYWHERE
*What is research around collaboration?
Outdoor learning space
Schedule impacts for GYM, ARTS SPACES, MEDIA CENTER
Time on learning lost w/transitions?
COULD BE SPREAD OUT IN MULTIPLE PLACES


Alternative Space Uses
Adult learning
Teen center
Multi-purpose space for crafting, building, maker space
PD space
District Offices
Increase awareness of academic programs offered at the high school


IMPACTS
STAFFING:
Duplication of staff but maybe not a full-time principal; could MS principal just be supported by a teacher leader?
SERVICING OF SPECIAL ED
Nurse
What happens to SPED/SPECIALISTS?
What about specials/staff between schools?
SCHEDULE & TRANSPORTATION
MS/HS CURRENTLY Running diff sched.
ISSUES w/ CONTRACT for teachers
planning time, expectations, etc. diff. between MS/HS
TRANSPORTATION (CONTD):
Potential additional or shared routes for busses; currently MS & HS riding together
CULTURE:
Adult & students left behind — will have to create new community
OTHER:
Possible additional parking 30-40 STAFF?
Traffic pattern would need to change w/ additional parent drop-off
Operational impacts
Event parking issue for Academy events
WHAT IS 8th Gr. ACADEMY
SAFE COLLAB Between MS & HS
Social Aspects - tapping into HS
lunch @ HS
multi-purpose space @ ROD to eat/hang out
NOT prep for HS; it has its own IDENTITY
HS STUDENTS AS MENTORS
Can learning spaces be spaces where kids eat?
Tech/engineering
Place-based learning & creation
Project-based learning
Classrooms that are dynamic & flexible
Not sitting & listening
Student ownership, including when they get to HS & leadership
TEAMS vs HOUSES BASED ON SUBJECT OR CONTENT
80 students per team?
Team-based w/ STEAM integration
Programs that support inquiry/design-thinking
Flexible work areas & furniture
8th/9th Professional collaboration
Learning is EVERYWHERE
What is research around collaboration?
Outdoor learning space
Schedule impacts for GYM, ARTS SPACES, MEDIA CENTER
COULD BE SPREAD OUT IN MULTIPLE PLACES

Canton
8TH Grade academy

Feasibility Study

User Group Meeting

7.25.18

Welcome & Introductions

Gather Information

- Why an 8th Grade Academy?
- What is the 8th Grade experience?
- What are the impacts?
- What spaces are we testing for feasibility?

Why an 8th Grade Academy?

- Current Considerations
  - Relieve overcrowding at elementary schools
  - Leverage Rodman facility for higher and better use
- Academic Research & Current Models

What is the 8th grade experience?

- Chart Walk to explore…
  - What programs & services are offered?
  - How are students organized?
  - What are students doing in the classroom?
  - How do 8th graders & high school students participate within the same community (i.e. – extracurriculars, electives, lunch, etc.)?
  - What does choice & independence look like (i.e. – within course selection, furniture, the learning environment itself)?
  - What tools and resources can students access?
  - What does professional culture & collaboration look like?

What is the 8th grade experience?

- Review & Synthesis
  - What is common in our vision?
  - What are some differences or areas for further discussion?
- Working Mission Statement – Canton 8th Grade Academy

What are the impacts?

- Staffing & Service Delivery
- Space
- Schedule
- Transportation
- Curriculum
- Extracurriculars & the school community
- Other?

Next steps?

- Questions & topics for further exploration
- Upcoming School Committee Meeting

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

DATE OF MEETING: September 13, 2018

PROJECT: Canton Public Schools Feasibility Study and JFK Modular Classrooms

PROJECT NO.: 18-0773 and 18-0776

SUBJECT: Working Group Meeting: Pre-K at Elementary Schools

ATTENDING:

Dr. Jennifer Fisher-Mueller (JFM)	Superintendent
Patricia Kinsella (PK)	Assistant Superintendent
Barry Nectow (BN)	Business Manager
Debbie Rooney (DR)	K-8th
Bob McCarthy (BM)	Building Renovations Committee
Sarah Shannon (SS)	Galvin MS Principal
Donna Kilday	E.C.C.
Deborah Bromfield	Director of Student Services
Brad Dore (BD)	Dore & Whittier, Principal
Jason Boone (JB)	Dore & Whittier, Educational Planner
Mike Pirollo (MP)	Dore & Whittier
Maria Fernandez-Donovan (MFD)	Dore & Whittier, Project Manager

PURPOSE

On September 13, 2018, D&W met with the working group from Canton Public Schools to discuss feasibility options for Pre-K classrooms at the 3 Canton elementary schools and Rodman Hall.

NOTES	ACTION BY
1. The meeting began with an update of a meeting that took place at Canton Rodman Hall with Barry, Donna and D&W to determine a planning target for the number of Pre-K modular classrooms needed to support the current and future educational program. Meeting conclusions: a. There is need for 9 Pre-K classrooms. b. Options to investigate: • 9 Pre-K classrooms at Rodman Hall with related program • 3 Pre-K classrooms at each elementary school (3)	

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NOTES	ACTION BY
c. Items to keep in mind • A separate entry is ideal • Pre-K classroom size goal: 1,200SF • Related Program: i. Family Room ii. OP/PT iii. Office space iv. Nurse v. Speech/Language vi. Teachers Room vii. Parking/Drop-off; independent entry is ideal	
2. D&W presented the following 2 options for a consolidated Pre-K center at Rodman Hall: Option 1 • 9 classrooms - size compromised (not 1,200SF) • Smaller OT/PT • Layout appears feasible despite smaller classroom sizes • Lacks speech and language, Family Room, Teachers Room • Parking is an issue now, so added enrollment would worsen parking situation • This solution is not meeting program. Option 2 • A variation of Option 1; with smaller classrooms and more office space. • This solution is not meeting program. Conclusion: One level of Rodman Hall does not have enough square footage to house the entire Pre-K program as originally intended.	
3. D&W presented options for 3-classroom additions at each existing elementary school: Three 1200 SF classrooms with bathrooms and new offices, meeting program by sharing other spaces with the existing school. a. Hansen Elementary School Option 1 – Addition to be located at a similar place as pre-existing modular addition: • This addition is far from the main entry. If dedicated entry was added, parking and drop-off area would need to be added. • It appears that the existing service road is at the edge of wetlands and so this option may be problematic because the new road may be encroaching on wetlands or/and may not be able to go around the building. Space it tight. • Pre-K is close to Kindergarten and considered a good thing. • Large travel distance to spaces like Gym, music, etc. may be acceptable.	

NOTES	ACTION BY
• Close to existing playground: dedicated playground could be added next to existing. Option 2- Attached at east of the school. • Location at edge of parking lot allows for independent entry and parking lot may be easily extended to accommodate additional enrollment. Nevertheless, there is a potential wetlands issue at the north side of parking lot. • Dedicated playground could be added next to the existing. • Large separation between Pre-K and Kindergarten is not ideal. • Pre-K classrooms separated from the other grade classrooms. b. JFK Elementary School – 3 classrooms with a single loaded corridor creating a courtyard. • The courtyard created is a potential location for a dedicated playground. Potential issues: playground noise for classrooms at courtyard perimeter, fire chief may be concerned regarding access. • Easy access to existing playground; the existing playground could be adapted for both K and Pre-K. • Good drop-off sequence. • Pre-k would be close to Kindergarten. • Direct dedicated entry into Gym. There are plans underway to occupy the south site space with a modular classroom addition, therefore, that location is not an option for a Pre-K addition. c. Luce Elementary School-single loaded corridor close to north site perimeter. o Addition would create an open courtyard south of it. o If the classrooms face the north site boundary, there would be minimal impact on the existing playground. If the classrooms face the courtyard, the existing playground would need to be relocated. o The service road would need to squeeze between the addition and the site boundary. o Drop-off would need to be through the existing front door (quite far) or the existing secondary entry used by Kindergarten (a bit less far), as there is no space for an independent entry. o The existing 1st grade would divide K from new Pre-K. o This site is very tight	
4. Preference for Pre-K to be close to Kindergarten or other spaces at the elementary schools: ▪ Very positive if possible.	

NOTES	ACTION BY
▪ Staff feels more part of the school if Pre-K and Kindergarten are close to each other. ▪ Long distance from Gym, music, etc. may be OK because Pre-K kids are "cute" when they walk thru the school creating a positive environment.	
5. Other options talked about: a. 5th graders from all elementary schools would move to new modular classrooms at Galvin Middle School so Pre-K can move into each of the existing elementary schools: • All 5th graders added to the existing Middle School building is seen as too burdensome given the amount of space and staff of shared activities (gym, music, art, etc.) without additional FTEs. • 12-13 modular classrooms would be required to house the 5th grade; more than needed to house the Pre-K. • Pre-k would be in smaller existing spaces. b. Pre-K at Rodman Hall occupying more than the lower floor to meet the entire program. • Playground could be relocated to the front of the building to address the vehicular cross circulation conflict. • Additional parking would be required. • Rodman Hall has available space that would be used by the Pre-K program. • Jason pointed out that this plan can be executed any time between now and when the MSBA funds the main project. • D&W Whittier to explore this option. c. Pre-K at Rodman Hall occupying one lower floor only and meeting the entire intended program • The group understands that the program spaces will need to be reduced in order to make it fit in one floor. D&W to provide options b and c layouts for Pre-K in Rodman Hall.	D&W
6. Discussion about individual spaces: a. Family room: a place to meet with families for new and existing students, IEP, special ed, waiting area for service, faculty room, struggle space. This space is best ideally near the school entry. b. Indoor motor room is a need for young children that can be located in the gym. c. The goal is to have pre-k to 4th in one school.	
7. D&W requested access to JFK elementary school to confirm fixture count. D&W visited the school after the meeting.	
8. D&W provided two options of cost information for survey work at the JFK. CPS informed D&W to proceed with surveying the entire school site.	D&W

NOTES	ACTION BY
9. Next Steps: *a.* D&W to provide additional options for Pre-K at Rodman Hall *b.* Next Meeting September 27, 2018	D&W

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Maria Fernandez-Donovan AIA, LEED AP BD+C
Project Manager

cc: Attendees and File

Canton Public Schools

Feasibility Study Update

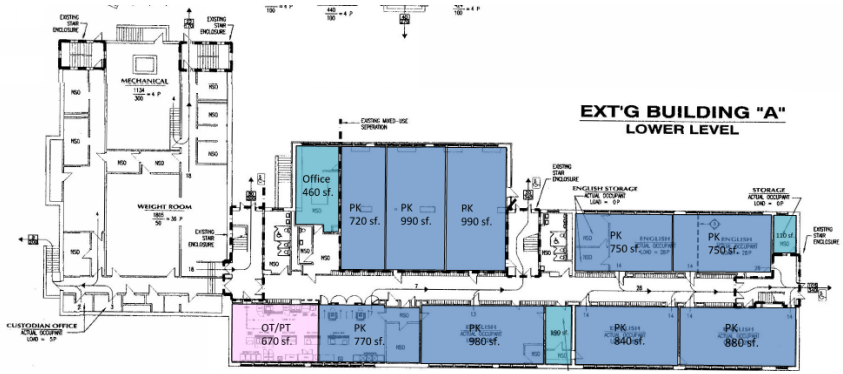
9.13.18 Working Group

Agenda

- Review Pre-K Modular Options:
  - 9 at Rodman in 2 ways
  - 3 at each elementary school
- Next Steps

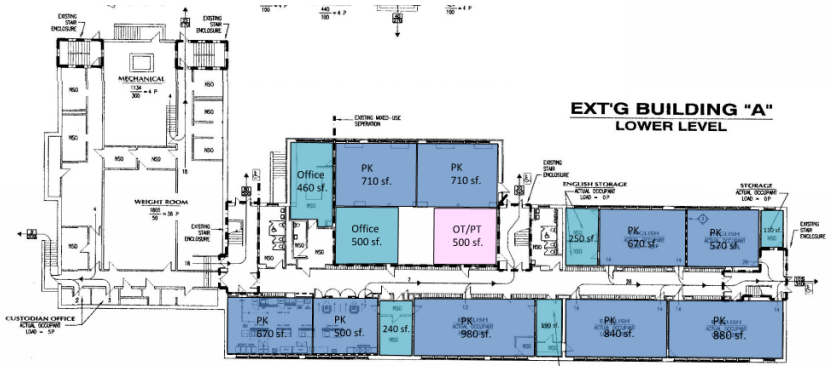
Rodman Option 1:

Maximize Space Strategy



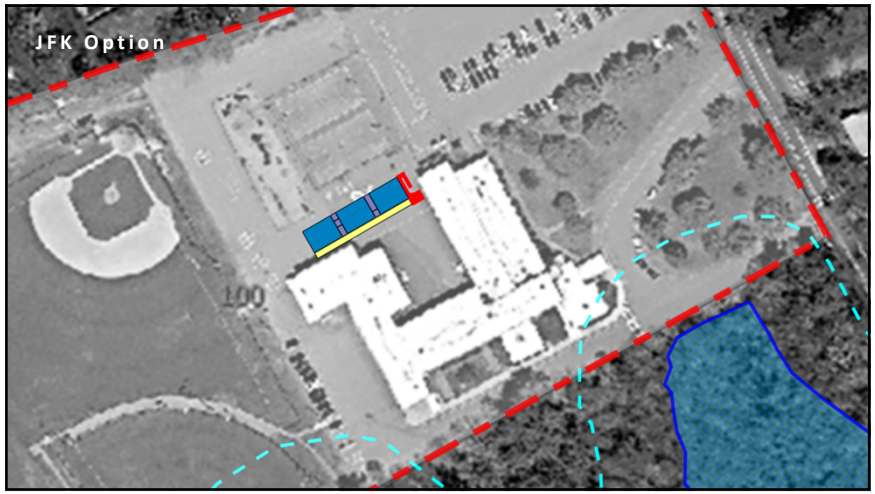
Rodman Option 2:

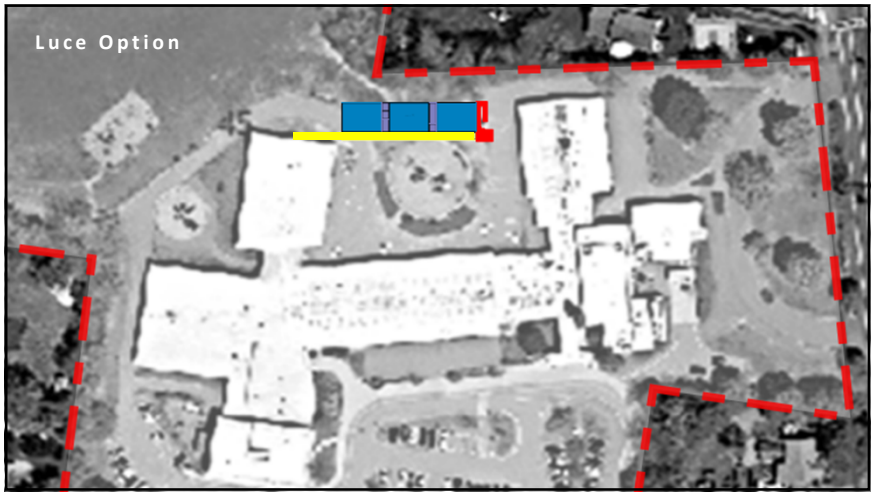
Minimal Intervention Strategy




Hansen Option 1


Hansen Option 2


JFK Option


Luce Option

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

DATE OF MEETING: September 27, 2018

PROJECT: Canton Public Schools Feasibility Study and JFK Modular Classrooms

PROJECT NO.: 18-0773 and 18-0776

SUBJECT: Working Group Meeting: Pre-K at Elementary Schools

ATTENDING:

Dr. Jennifer Fisher-Mueller (JFM)	Superintendent
Patricia Kinsella (PK)	Assistant Superintendent
Barry Nectow (BN)	Business Manager
Debbie Rooney (DR)	K-8th
Bob McCarthy (BM)	Building Renovations Committee
Donna Kilday	E.C.C.
Mike Pirollo (MP)	Dore & Whittier
Maria Fernandez-Donovan (MFD)*	Dore & Whittier, Project Manager

PURPOSE
To provide update and discuss feasibility options for Pre-K classrooms at the 3 Canton elementary schools and Rodman Hall as well as discuss JFK modular classroom addition.

NOTES	ACTION BY
1. D&W presented 2 options for Pre-K at Rodman Building a. Option 1: All classrooms on the lower floor, some program on the second floor. • Classroom size range: 793-870 SF. • Donna stated that this scheme would give her at least a capacity of 150 children for the program. • Speech on the upper floor is not advantageous. • OT/PT and Indoor Motor work well together. • Speech and OT/PT also work well together. • Indoor Motor was perceived as too big initially. It was concluded that more space is better for the children to move more. Overall size for Indoor Motor can be similar to a standard classroom. • For security concerns, the addition of a door at the second floor to control public access was suggested.	

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NOTES	ACTION BY
• A new entry proposal is welcome, yet it conflicts with a proposed relocated playground that the group had been thinking about. b. Option 2: 4 classrooms at the upper level while the rest of the program at the lower level. • The location of the entry works well with the alternate location for the playground. • Donna likes the layout: 1. Add a security door at upper level. 2. Better entry location 3. Indoor Motor, OT/PT and Speech make sense together. 4. The nurse is close to all at this location. 5. Parking works well when classrooms are divided in two levels because parking at both sides of the building can be used. 6. This scheme offers better construction phasing. 7. Noise created by Indoor Motor is not an issue at the lower floor. 8. The staff room looks too long. (con) 9. The Family Room can be used for meetings. 10. Classroom locations create more sense of security for the children. • Classrooms all along the one hall create a runway affect that does not provide the same neighborhood cluster as the 4 rooms on the upper floor. D&W to work through an alternative option where 2 classrooms are switched with Indoor Motor and OT/PT.	D&W
2. D&W presented the options for Pre-K within the existing elementary schools. a. Luce: • Pro: Science, health, & music would be relocated to 850 sf. Modular classrooms could be smaller and potentially less expensive than if PK was in the modular classrooms. • Pro: The Music Room size would be similar to other music rooms in the district • Pro: PK configured inside the building in rooms with internal toilets, may result in less costly renovation. • PK and Kindergarten switch would improve the layout. • Con: Despite a smaller modular classroom addition, the site is very tight; the playground would be affected, the wetlands would be encroached; the road would need to be relocated in an already tight area. • Con: Drawing shows OT/PT where there is currently and entry that the school does not want to lose. • The consensus is that this option is not great.	

NOTES	ACTION BY
b. Hansen • Con: PK configured inside the building displacing one grade to the modular would consist of 4 classrooms, so the modular addition would not be smaller; no site benefit. • 3 PK classrooms and 1 family room would take the four grade classrooms. • The site constraints remain the same as previously proposed addition options, at either side of the building, the same as if PK was in the modular. • The consensus is that this option is not great. c. JFK • PK would replace the grade 2 classrooms in the main building near K. • CON: 4 classrooms of Grade 2 would be relocated to modular classrooms, therefore making the additions larger. • The consensus is that this option is not great. In general, the group felt that putting PK within the existing building has no benefit to either school.	
3. D&W presented two options for the JFK Modular classroom expansion. Both maintain fire department access and require parking relocation. a. Five (5) 850 SF Modular General Classrooms, no bathrooms b. Three (3) 1200 SF Pre-K/K Classrooms with Toilets • The group agreed that more than three classrooms are needed and that it is not necessary for these classrooms to have internal bathrooms as the Pre-K solution will be elsewhere. • The options on the table are: a. Five classrooms, although the school would prefer them bigger than 850SF and closer to 1000SF. b. Four bigger classrooms if 5 large classrooms do not fit in the site. • Either options should remain within the budget.	D&W
4. The group discussed the advantages of having PK in Rodman Building. a. Renovating Rodman for PK seems more economic than addition or renovation at all three elementary schools. b. Renovating Rodman for PK seems less disruptive than addition or renovation at all three elementary schools. c. Rodman renovation works better with controlled growth and phasing- renovate what is needed as it is needed. d. One PK area is better for the staff instead of dispersed into 3 areas. e. Both Rodman Building options offer great natural light.	

NOTES	ACTION BY
5. Next Steps: a. Survey JFK site - Staff is being CORI'd so survey can be scheduled. b. Complete preliminary cost estimates 1. 2 options for PK at Rodman building 2. PK modular at each school 3. PK inside at each school w/ modulars to house alternate grade 4. 8th grade academy at Rodman (for study purposes) c. D&W and Working Group will recommend best option following the cost estimates and site survey	
6. Next meeting: October 4, 2018.	ALL

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Maria Fernandez-Donovan AIA, LEED AP BD+C
Project Manager

cc: Attendees and File

MEETING MINUTES

DORE & WHITTIER
ARCHITECTS, INC.

DATE OF MEETING: October 11, 2018

PROJECT: Canton Public Schools Feasibility Study and JFK Modular Classrooms

PROJECT NO.: 18-0773 and 18-0776

SUBJECT: Working Group Meeting: Pre-K at Elementary Schools

ATTENDING:

Barry Nectow (BN)	Business Manager
Brian Lynch	CPS Director of Facilities
Debbie Rooney (DR)	K-8th
Bob McCarthy (BM)	Building Renovations Committee
Donna Kilday	E.C.C.
Mike Pirollo (MP)	Dore & Whittier
Maria Fernandez-Donovan (MFD)*	Dore & Whittier, Project Manager

PURPOSE
To provide update and discuss feasibility options for Pre-K classrooms and District Offices at Rodman Hall as well as discuss JFK modular classroom addition.

NOTES	ACTION BY
1. D&W presented 3 options for Pre-K at Rodman Building a. Option 1: All classrooms on the lower floor, some program on the second floor. • This option was not preferred previously due to the locations of the entry in conflict with proposed playground location. b. Option 2: 4 classrooms at the upper level while the rest of the program at the lower level. • This option was presented previously, liked with requested revisions. c. Option 2 revised 4 classrooms at the upper level while the rest of the program at the lower level clustered in the middle of the building as opposed to a row. • The location of the entry works well with the alternate location for the playground with glass front door. • Donna likes the layout the best: 1. Add a security door at upper level. 2. Better entry location	

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NOTES	ACTION BY
3. Indoor Motor, OT/PT and Speech make sense together at new location. 4. The nurse is close to all at this location. 5. Parking works well when classrooms are divided in two levels because parking at both sides of the building can be used. 6. Noise created by Indoor Motor is not an issue at the lower floor in new location. 7. The staff room layout was improved. 8. The Family Room can be used for meetings near entry. 9. Classroom locations create more sense of security for the children.	D&W
2. Playground location is acceptable where proposed: I deal for Pre-K. . No need to replace the parking spots taken as there is enough on site.	
3. The group discussed the advantages of having PK in Rodman Building. a. Renovating Rodman for PK seems more economic than addition or renovation at all three elementary schools. b. Renovating Rodman for PK seems less disruptive than addition or renovation at all three elementary schools. c. Rodman renovation works better with controlled growth and phasing- renovate what is needed as it is needed. d. One PK area is better for the staff instead of dispersed into 3 areas. e. Both Rodman Building options offer great natural light.	
4. D&W presented District Offices options at Rodman. a. One option placed the District Offices at space left after Pre-K Option 2 revised would be build. Part of main floor and all the top floor. b. Next options showed the District offices with our Pre-K in the building, occupying main floor and half of lower floor. The group stated that the District offices do not need to be renovated in Rodman. The existing space less that space that the Option 2revised would leave is acceptable without renovation. D&W will price the District Office with Pre-K option for reference.	
5. JFK Options -5 Class rooms options is beyond Canton's budget. -4 classroom option is with budget and fits well on site. -Consider options with 4 classrooms with the 5th classroom as an add-alternate. Barry will think about the options an provide direction to D&W.	

NOTES	ACTION BY
6. Next Steps: • Complete preliminary cost estimates: o 2 options for PK at Rodman building o PK modular at each school o PK inside at each school w/ modular classrooms to house alternate grade o 8th grade academy at Rodman (for study purposes) • D&W to proceed with Working Group's JFK selection 7.	ALL
Next meeting: October 25, 2018.	

The above is my summation of our meeting. If you have any additions and/or corrections, please contact me for incorporation into these minutes. After 10 days, we will accept these minutes as an accurate summary of our discussion and enter them into the permanent record of the project.

Sincerely,

DORE & WHITTIER ARCHITECTS, INC.
Architects ▪ Project Managers

Maria Fernandez-Donovan AIA, LEED AP BD+C
Project Manager

cc: Attendees and File

Canton Public Schools

Working Group Meeting 10.11.18

DORE & WHITTIER ARCHITECTS, INC.

AGENDA

- Rodman:
  - Pre-K Option (Revised)
  - Pre-K Playground
  - Pre-K & District Combined
  - District Only
- JFK Modular Classrooms
- Next Steps

DORE & WHITTIER ARCHITECTS, INC.

Rodman – PK Option 1

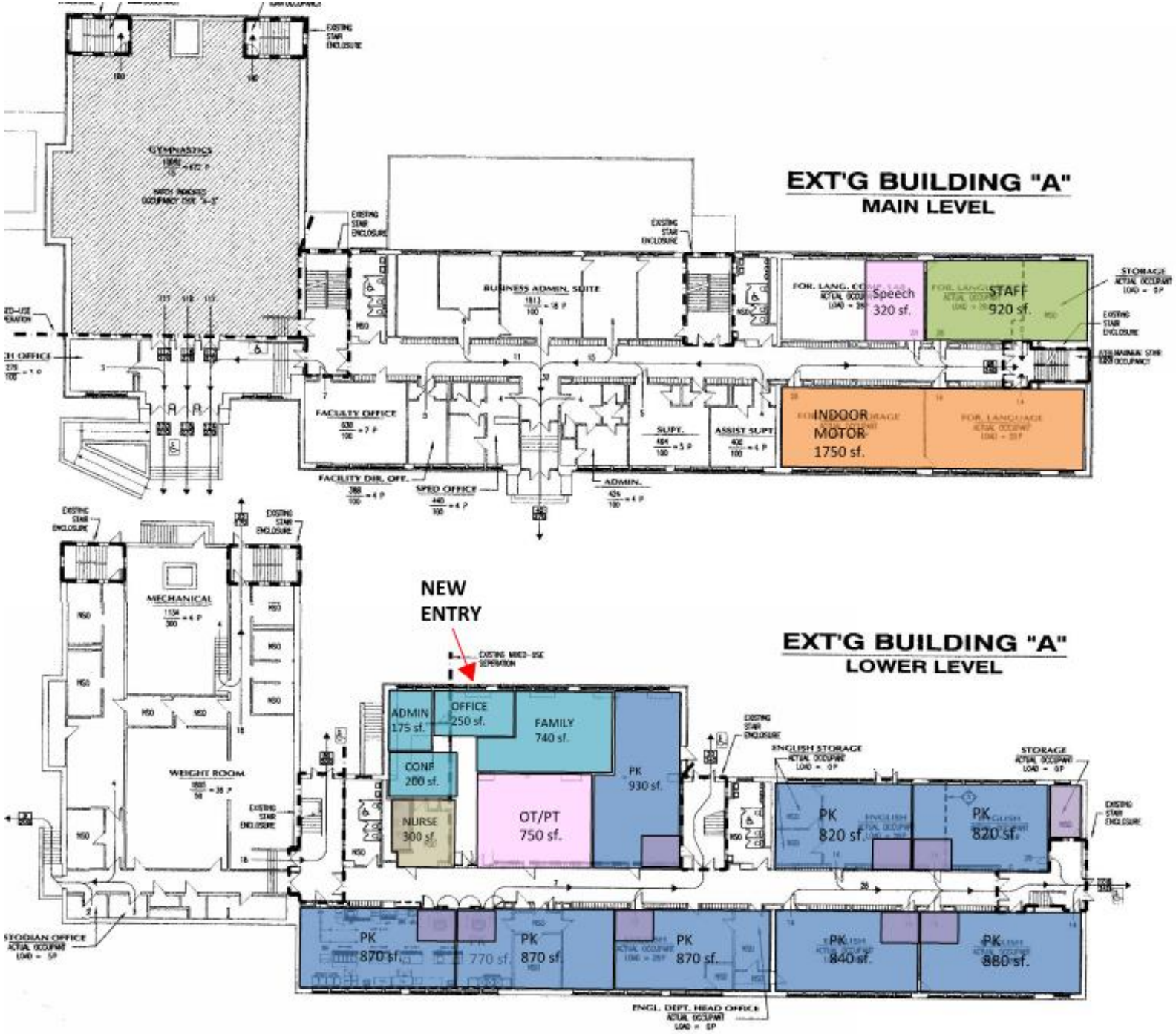
Pros:

- ❑ PK classrooms (8) w/internal toilets
- ❑ Admin Suite
- ❑ Meets Program Needs

Cons:

- ❑ Room sizes are inequitable
- ❑ Indoor Motor, Speech, Staff Rm. disconnected on 2nd floor

Moderate level of construction



Rodman - PK Option 2

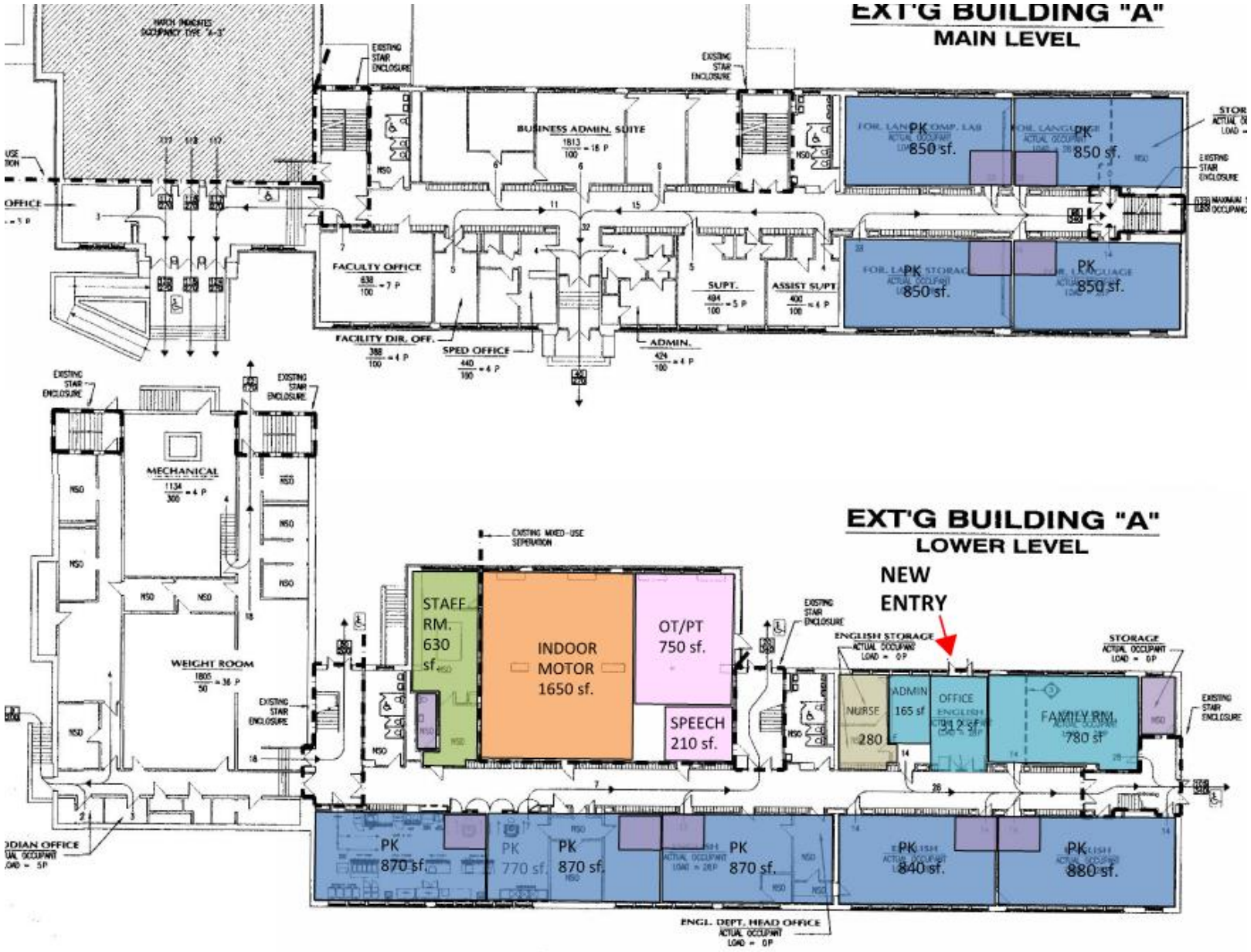
Pros:

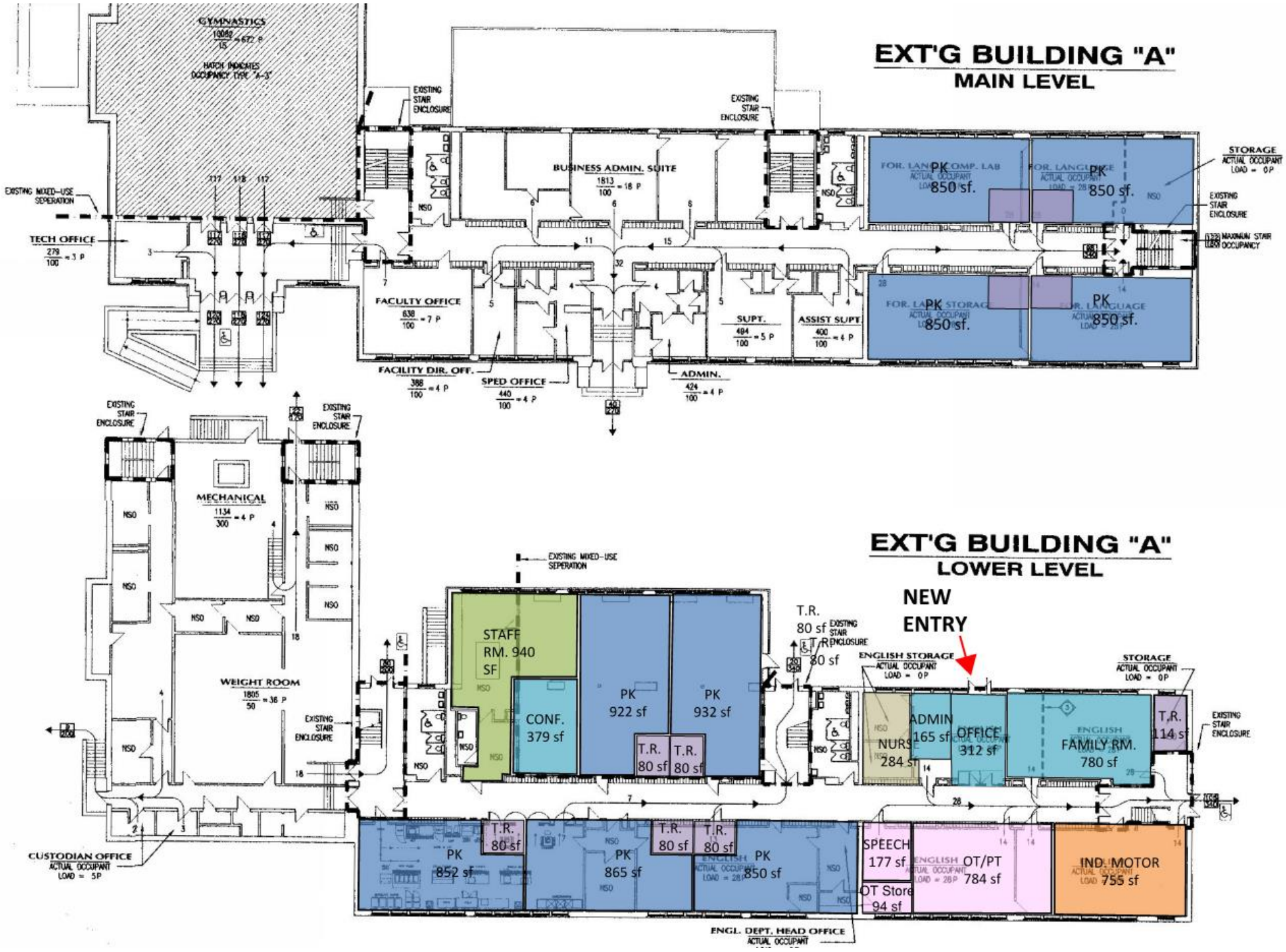
- ❑ PK classrooms (9) w/internal toilets
- ❑ Admin Suite
- ❑ Meets Program Needs
- ❑ Indoor Motor, Speech, Staff Rm. connected on 1st floor

Cons:

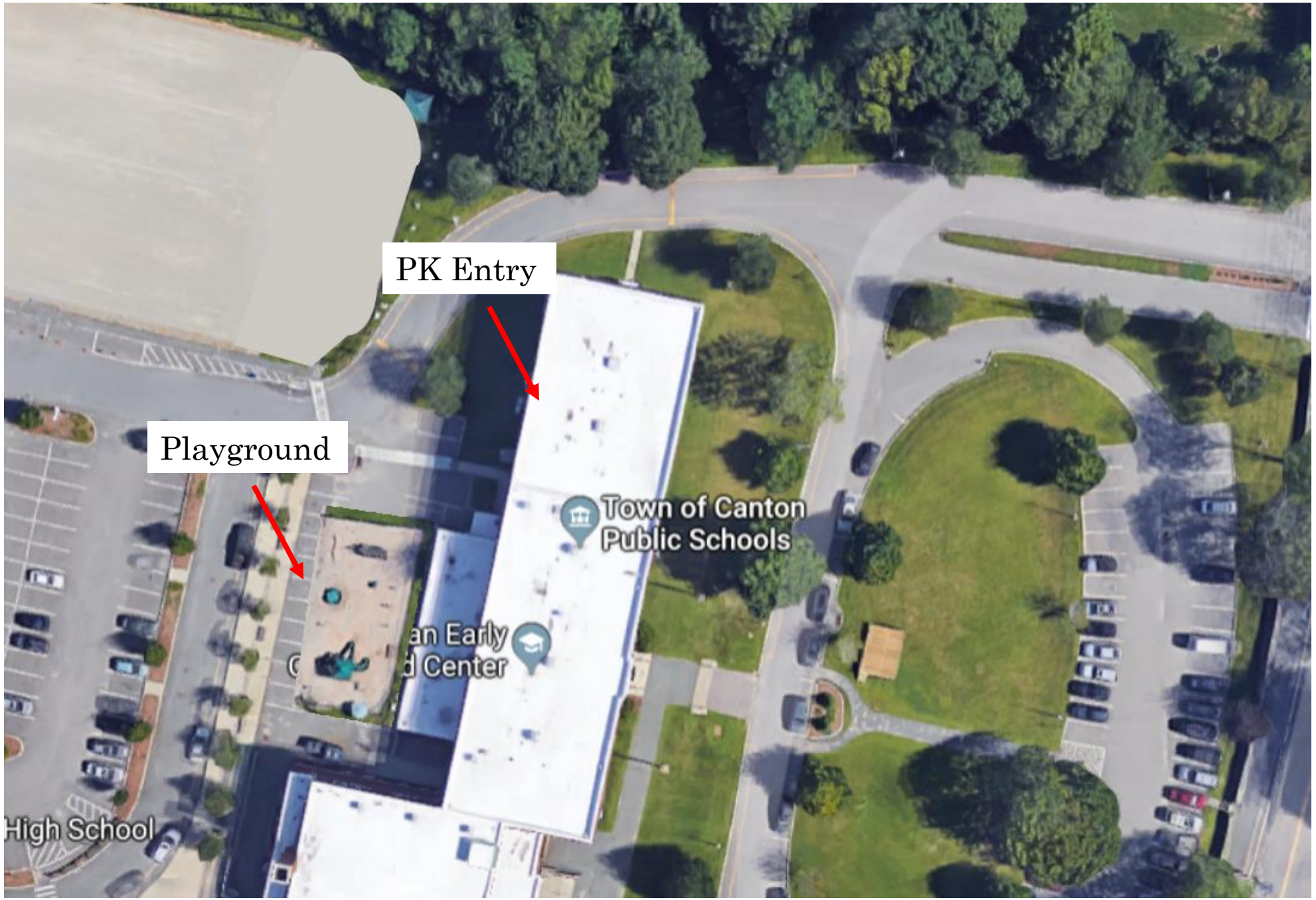
- ❑ Classrooms disconnected between 2 floors

Moderate level of construction

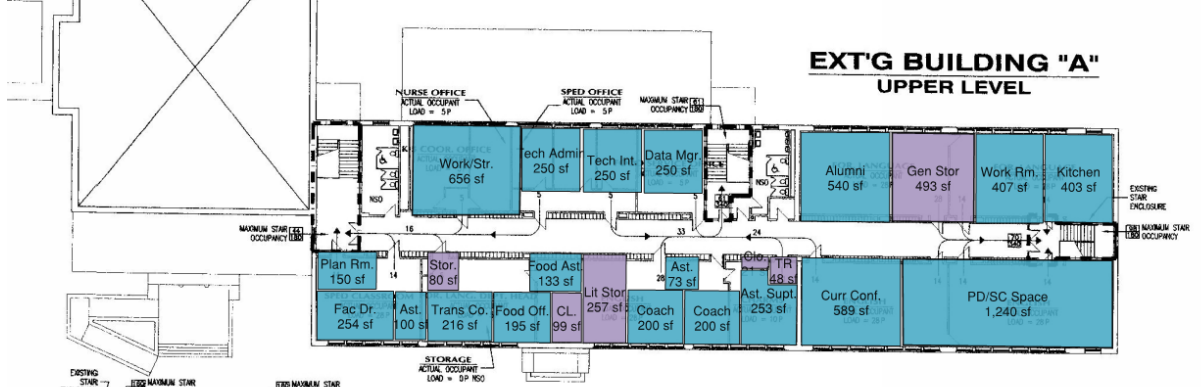


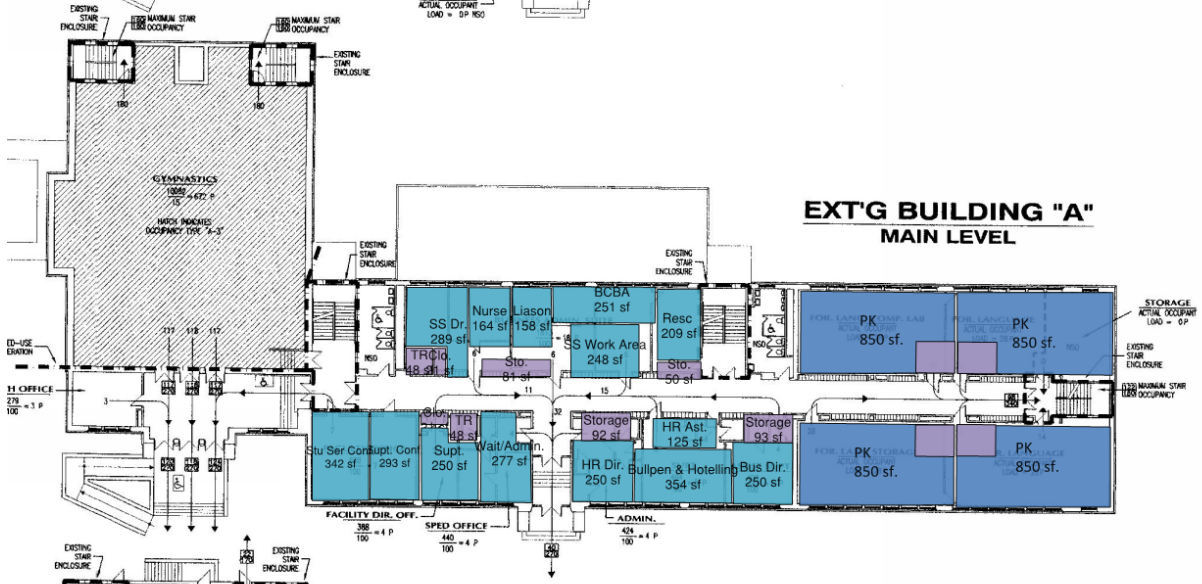


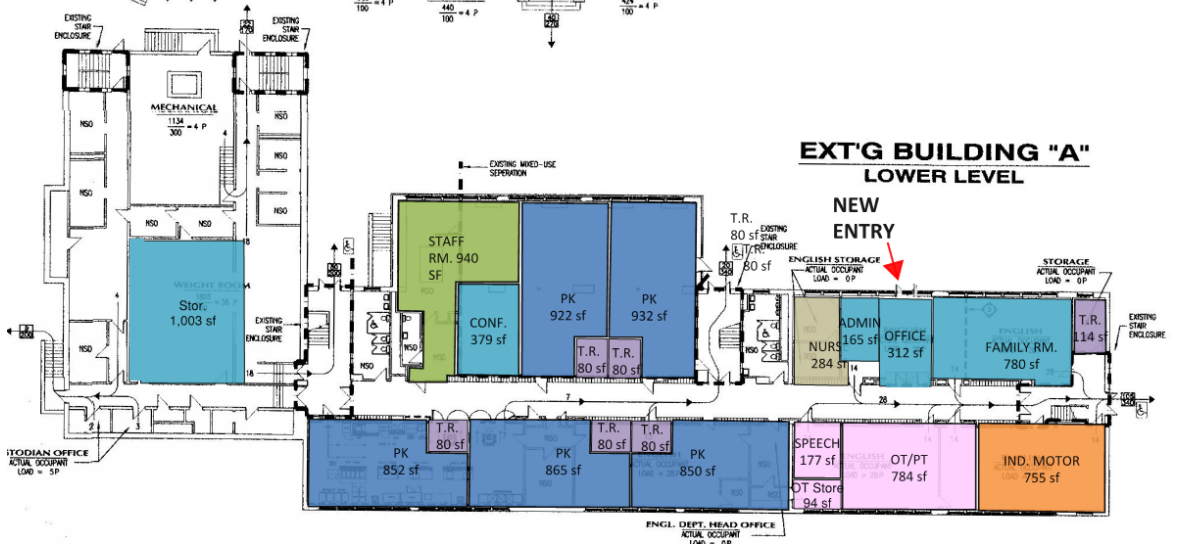
Rodman - PK Option 2 Revised



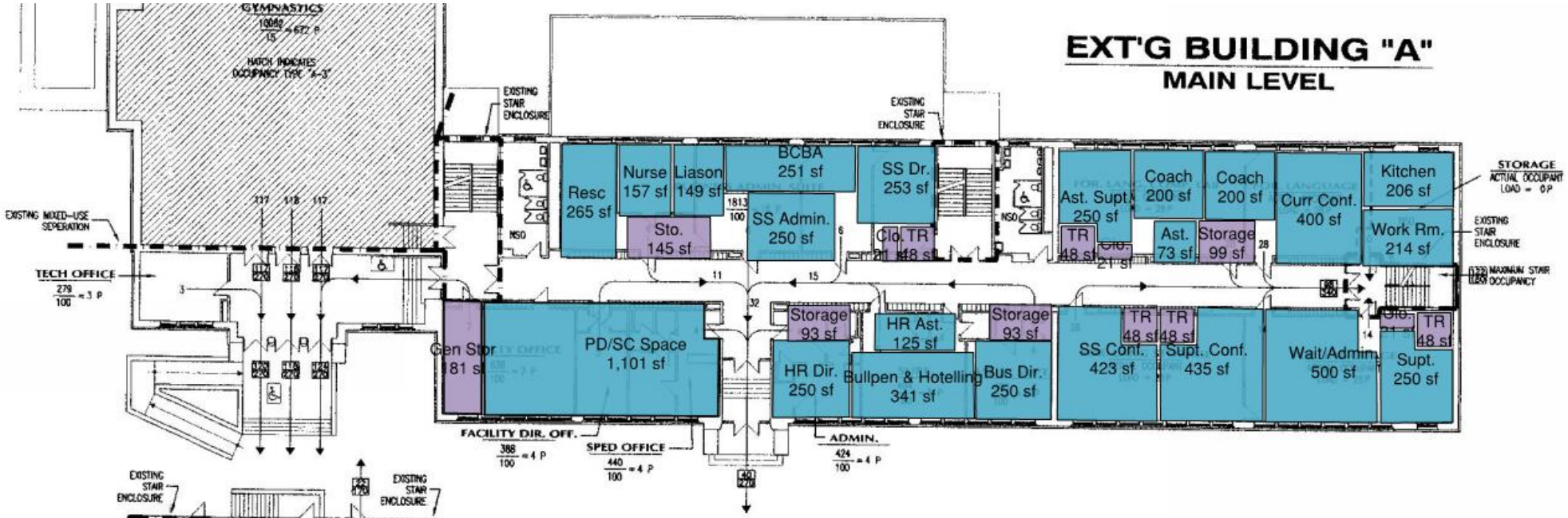
Rodman – PK Playground

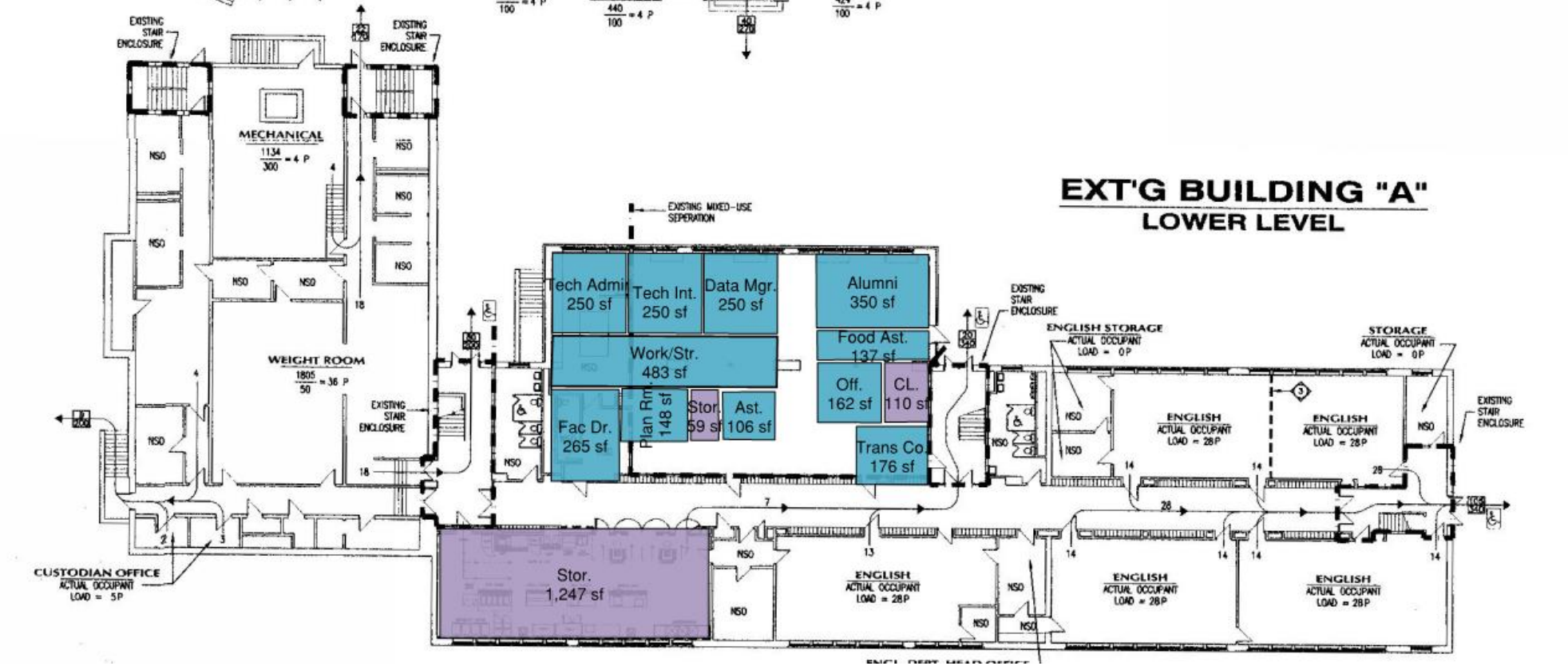






Rodman - PK & District Offices

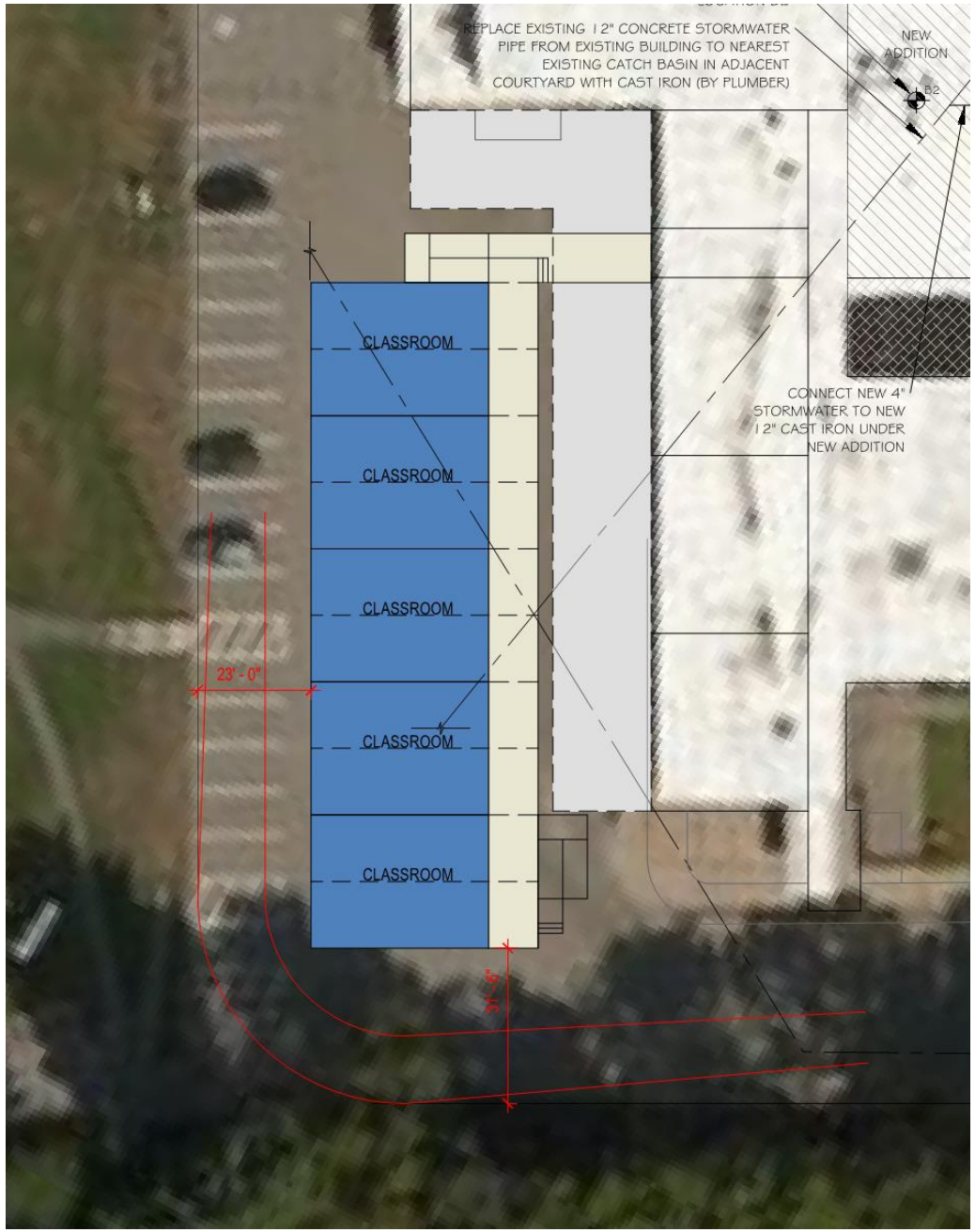




Rodman - District Only

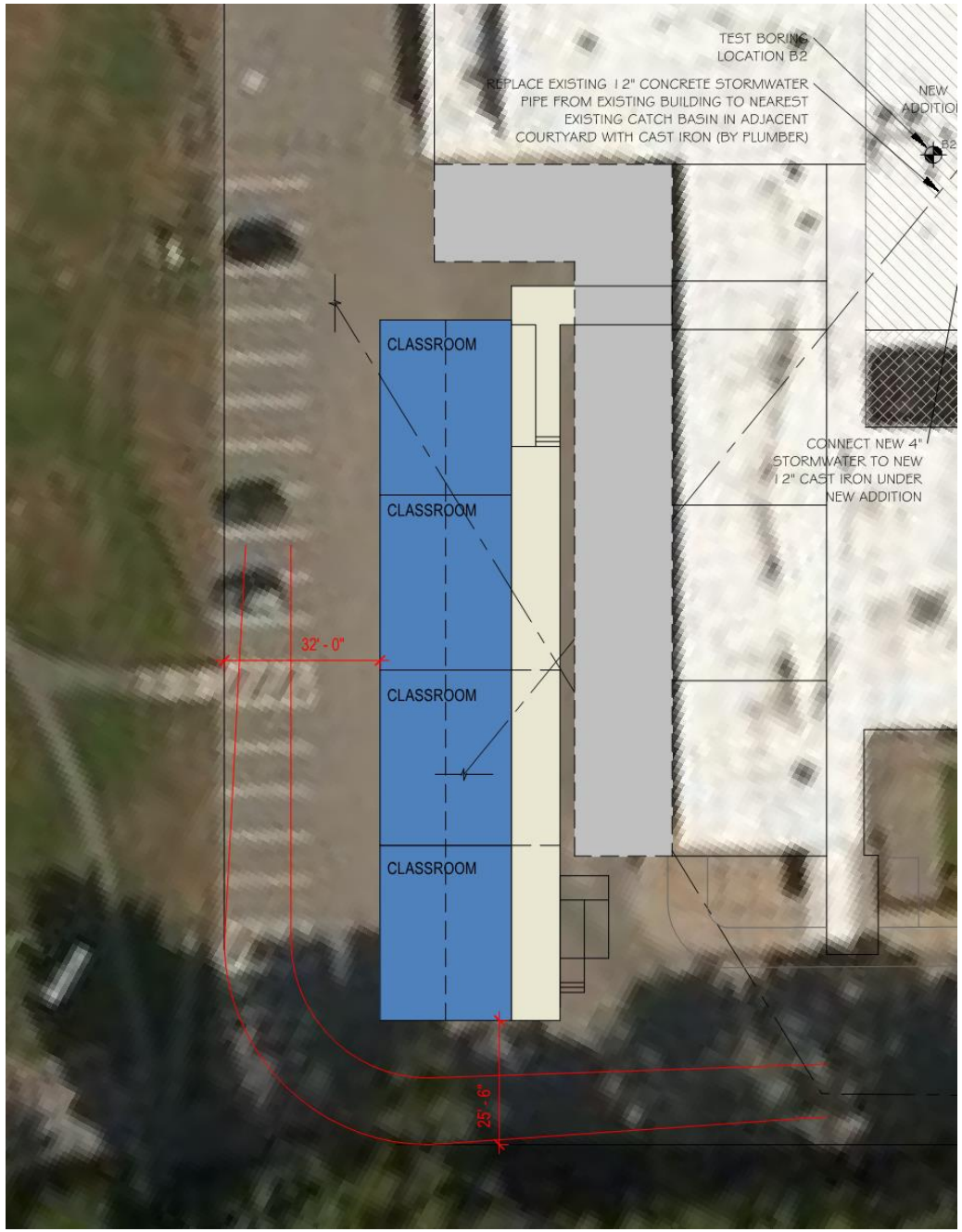
JFK Options

- 5 classrooms
- 4 classrooms
- 4 classrooms with 5th add/alt



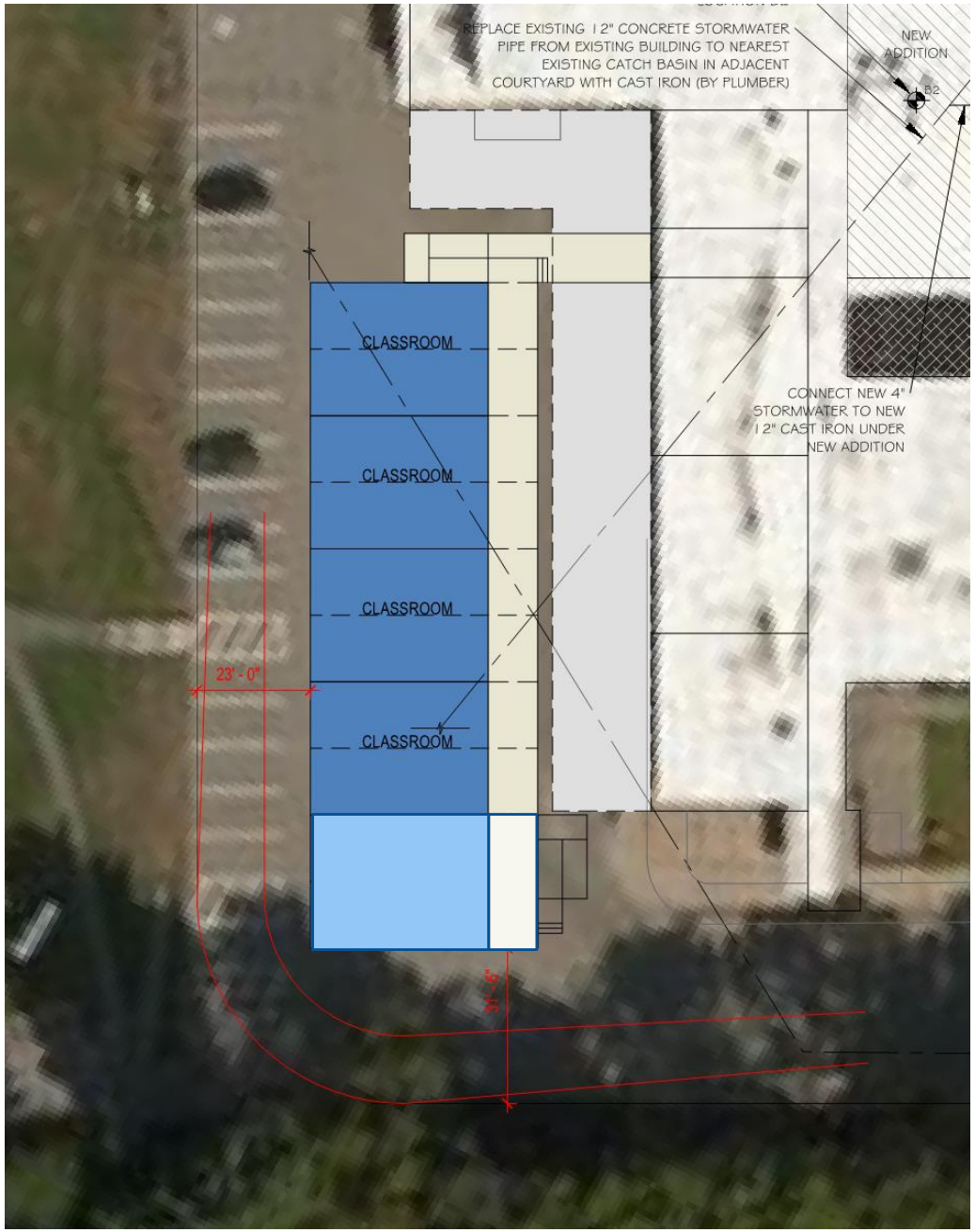
JFK ELEMENTARY MODULAR PROJECT		
October 11, 2018	*OVERALLL BUILDING GSF*	6,210
Estimated Project Budget	*Construction Cost Building $/SF*	***$401***
Option 1b, 5 classrooms		
CONSTRUCTION		
1	Construction Cost including Site work (Trade Costs)	$1,881,315
	Classrooms / Corridor (6,201 SF @ $200/SF)	$1,242,000
	Connector (500 SF @ $300/SF)	$150,000
	Secondary Ramp / Stair (250 SF @ $150/SF)	$37,500
	Sitework (6,951 SF @ $65/SF)	$451,815
2	Bonds & Insurance	$47,033
3	Overhead & Profit	$188,132
4	General Requirements/General Conditions	$225,758
5	Escalation	$56,439
6	D&P Contingency @ 5%	$94,066
7	**Construction Subtotal**	**$2,492,742**
PROFESSIONAL SERVICES		
8	Architect/Engineering Fees	$255,450
9	Owner's Project Manager (OPM)	$87,246
10	Hazardous Abatement Design/Oversight (Industrial Hygienist)	$0
11	Information Technology Procurement (Loose) (by School District)	$0
12	FF&E Procurement (Loose)	$0
13	Traffic Study	$0
14	Geotechnical Engineering (monitoring)	$0
15	GeoEnvironmental Engineering	$0
16	Survey/Wetlands	$0
17	Permitting	$0
18	**Professional Services Subtotal**	**$342,696**
OTHER SOFT COSTS		
19	Furnishings, Fixtures and Equipment (allowance)	$0
20	Loose Technology (allowance)	$25,000
21	Construction Testing (allowance)	$10,000
22	Moving Costs (by School)	$0
23	Property Title Review (allowance)	$0
24	Utility Back Charges (allowance)	$5,000
25	Legal (allowance)	$0
26	Printing (allowance)	$2,500
27	Advertising (allowance)	$500
30	Miscellaneous Expenses	$2,500
28	**Other Soft Costs Subtotal**	**$45,500**
CONTINGENCY		
29	Owner Construction Contingency (7.5%)	$186,956
30	Owner Discretionary Contingency (2.5%)	$62,319
31	**Contingency Subtotal**	**$249,274**
32	**Total Project Cost**	**$3,130,213**
	Note: All costs are estimated	
BUDGET		**$ 2,000,000**
		($1,130,213)

JFK – 5 Classrooms



JFK ELEMENTARY MODULAR PROJECT			
October 11, 2018		*OVERALLL BUILDING GSF*	5,068
Estimated Project Budget		*Construction Cost Building $/SF*	***$419***
Option 1c - 4 classrooms			
CONSTRUCTION			
1	Construction Cost including Site work (Trade Costs)		$1,601,170
	Classrooms / Corridor (5,068 SF @ $200/SF)		$1,013,600
	Connector (560 SF @ $300/SF)		$168,000
	Secondary Ramp / Stair (250 SF @ $150/SF)		$37,500
	Sitework (5,878 SF @ $65/SF)		$382,070
2	Bonds & Insurance		$40,029
3	Overhead & Profit		$160,117
4	General Requirements/General Conditions		$192,140
5	Escalation		$48,035
6	D&P Contingency @ 5%		$80,059
7	**Construction Subtotal**		**$2,121,550**
PROFESSIONAL SERVICES			
8	Architect/Engineering Fees		$255,450
9	Owner's Project Manager-OPM (est. 3.5%)		$74,254
10	Hazardous Abatement Design/Oversight (Industrial Hygienist)		$0
11	Information Technology Procurement (Loose) (by School District)		$0
12	FF&E Procurement (Loose)		$0
13	Traffic Study		$0
14	Geotechnical Engineering (monitoring)		$0
15	GeoEnvironmental Engineering		$0
16	Survey/Wetlands		$0
17	Permitting		$0
18	**Professional Services Subtotal**		**$329,704**
OTHER SOFT COSTS			
19	Furnishings, Fixtures and Equipment (allowance)		$0
20	Loose Technology (allowance)		$20,000
21	Construction Testing (allowance)		$10,000
22	Moving Costs (by School)		$0
23	Property Title Review (allowance)		$0
24	Utility Back Charges (allowance)		$5,000
25	Legal (allowance)		$0
26	Printing (allowance)		$2,500
27	Advertising (allowance)		$500
30	Miscellaneous Expenses		$2,500
28	**Other Soft Costs Subtotal**		**$40,500**
CONTINGENCY			
29	Owner Construction Contingency (7.5%)		$159,116
30	Owner Discretionary Contingency (2.5%)		$53,039
31	**Contingency Subtotal**		**$212,155**
32	**Total Project Cost**		**$2,703,910**
	Note: All costs are estimated		
BUDGET			**$ 2,000,000**
			($703,910)

JFK 4 Classrooms



- 4 classrooms with 5th add/alt
  - Classroom orientation
  - Exterior Views & Daylighting
  - Borrowed Lights
  - Massing

JFK – 4 Classrooms; 1 Add/Alt

next steps

- Complete preliminary cost estimates:
  - 2 options for PK at Rodman building
  - PK modular at each school
  - PK inside at each school w/ modulars to house alternate grade
  - 8th grade academy at Rodman (for study purposes)
- D&W to proceed with Working Group's JFK selection

thank you

STRUCTURAL ASSESSMENT

The purpose of this report is to follow-up on the structural assessment conducted in November of 2016. This report will describe, in broad terms, the structure of the existing building; comment on the condition of the existing building; and on the feasibility of renovations and expansion of the school

SCOPE

- Description of existing structure
- Comments on the existing condition
- Comments on the feasibility of renovation and expansion.

BASIS OF REPORT

This report is based on our visual observations during our site visit on July 11, 2018 and a review of the assessment report of the Childhood Center conducted in November of 2016.

During our site visit, we did not remove any permanent finishes or take measurements. Our understanding of the structure is limited to the exposed structure and the exterior facade.

BUILDING DESCRIPTION

The Rodman Early Childhood Center is located in the former Rodman School located on Washington Street in Canton, Massachusetts. The original school was constructed in 1949, followed by the addition of an academic wing housing 12 classrooms on three levels a few years later. An interior elevator and lobby was constructed in 2007. The building is essentially a three-story concrete framed structure with a double-story gymnasium above the main level.

The lower level is a concrete slab on grade. The main level floor, the upper level floor and the roof are of similar construction. The typical floor and roof of the original building is a concrete one-way slab spanning between reinforced concrete beams. The concrete beams span between concrete columns along the corridor walls and exterior concrete columns or masonry piers located between exterior windows. The corridor floor is a two-way, reinforced concrete slab spanning between reinforced concrete beams supported on columns on each side of the corridor and beams spanning across the corridor.

The later addition is framed a little differently than the original construction. The typical floor and roof is reinforced concrete slab spanning between concrete beams. We measured the thickness of the roof slab at an existing core location; the slab thickness measured was 8 in. thick.

The corridor walls and the demising walls between the classrooms are masonry; they do not appear to be load bearing, but, probably provide some lateral load resistance to the building structure.

EXISTING CONDITIONS

Based on our observations, the structure is performing well. We did not observe any signs of foundation settlement or any excessive vibrations due to footfall on supported floors. The conditions are essentially the same as we observed during the study and assessment conducted in November of 2016.

PROPOSED SCHEMES

Based on our observations and analysis of the existing drawings, no structural upgrades are required for any proposed renovations of limited scope that do not invoke any required structural modifications. The extent of the code required structural upgrades is dependent on the extents of the proposed renovations. The following is a description of the compliance methods that may be triggered depending on the extents of the proposed schemes as dictated by other disciplines.

GENERAL CODE CONSIDERATIONS

If any repairs, renovations, additions or change of occupancy or use are made to the existing structure, an evaluation of the structure is required to demonstrate compliance with 780 CMR, Chapter 34 "Existing Building Code" (Massachusetts Amendments to The International Existing Building Code 2015). The intent of the IEBC and the related Massachusetts Amendments to IEBC is to provide alternative approaches to alterations, repairs, additions and/or a change of occupancy or use without requiring full compliance with the code requirements for new construction.

The IEBC provides three compliance methods for the repair, alteration, change of use, or additions to an existing structure. The three compliance methods are as follows:

1. Prescription Compliance Method.
2. Work Area Compliance Method.
3. Performance Compliance Method.

Prescriptive Compliance Method

In this method, compliance with Chapter 4 of the IEBC is required. As part of the scope of this report, the extent of the compliance requirements identified are limited to the structural requirements of this chapter.

Alterations

- If the proposed alterations of the structures increase the demand-capacity ratio of any lateral load resisting element by more than 10 percent, the structure of the altered building or structure shall meet the requirements for the code for new construction.
- Where alterations increase the design gravity loads by more than 5 percent on any structural members, those members would have to be strengthened, supplemented, or replaced.

Additions

Additions can be designed to be structurally separate or structurally connected to the existing building. Based on the project scope, the following structural issues must be addressed: The requirements applicable to the existing structure for connected additions are similar to those for altered structures.

- All construction of all addition areas must comply with the code requirements for new construction in the IBC.
- For additions that are not structurally independent of an existing structure, the following rules apply to the existing building:
  - The existing structure and its addition - acting as a single structure - must meet the requirements of the code for new construction for resisting lateral loads. Exceptions allow that structural elements that only resist lateral forces whose demand-capacity ratio is not increased by more than 10 percent may remain unaltered.

Any load-bearing structural element for which the addition or its related alterations causes an increase in the design gravity load of more than 5 percent shall be strengthened, In order to avoid invoking required structural modifications to the existing building, any planned additions should be designed as structurally separate buildings.

Work Area Compliance Method

In this method, compliance with Chapter 5 through 13 of the IEBC is required. The extent of alterations has to be classified into LEVELS OF WORK based on the scope and extent of the alterations to the existing building. Refer to the Regulatory Overview section of this report for an explanation of the Levels of Work.

This report assumes that planned renovation schemes would affect more than 50 percent of the floor area and invoke Level 3 Alteration requirements, and the following analysis is based on that assumption. In addition, there are requirements that have to be satisfied for additions to the existing structure.

Level 3 Alterations

- Any existing load-bearing structural element for which an alteration causes an increase in the design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- If the proposed structural alterations of an existing structure exceed 30 percent of the total floor and roof areas of an existing structure, we have to demonstrate that the altered structure complies with the IBC for wind loading and with reduced IBC level seismic forces.
- Existing anchorage of all unreinforced masonry walls to the structure have to be evaluated. If the existing anchorage of the walls to the structure is deficient, the tops of the masonry walls will require new connections to the structure.
- If the proposed structural alterations of an existing structure are less than 30 percent of the total floor and roof areas of the existing structure, the project must demonstrate that the altered structure complies with the loads applicable at the time of the original construction (or the most recent major renovation) and that the seismic demand-capacity ratio is not increased by more than 10 percent on any existing structural element. Those structural elements whose seismic demand-capacity ratio is increased by more than 10 percent must be strengthened, supplemented, or replaced in order to comply with reduced IBC level seismic forces.
- Anchorage of all unreinforced masonry walls to the structure have to be evaluated.

Additions

- All additions shall comply with the requirements for the code for new construction in the IBC.
- Any existing gravity, load-carrying structural element for which an addition or its related alterations cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented or replaced.
- For additions that are not structurally independent of any existing structures, the existing structure and its additions, acting as a single structure, shall meet the requirements of the code for new construction in the IBC for resisting wind loads and IBC Level Seismic Forces (may be lower than loads from the Code for New Construction in the IBC), except for small additions that would not increase the lateral force story shear in any story by more than 10 percent cumulative. In this case, the existing lateral load resisting system can remain unaltered.

Performance Compliance Method

Following the requirements of this method for the alterations and additions may be onerous on the project because this method requires that the altered existing structure and the additions meet the requirements for the code for new construction in the IBC.

SUMMARY

The existing school structure appears to be performing well. All of the structural components that are visible appear to be in sound condition. The cracks in the interior masonry walls and the minor spalling of concrete that was observed are not a structural concern. We would recommend that these cracks in the masonry walls and spalls in the concrete foundation walls be repaired as part of the regular maintenance program.

The compliance requirements of the two Prescriptive and Work Area Compliance methods are very similar in most respects for a major renovation. The Prescriptive Compliance Method would be more restrictive, as it

would likely require that the existing lateral load resisting systems of the existing building meet the requirements of the code for new construction of the IBC, even for small increases of design lateral loads. Based on this, we would recommend the Work Area Compliance Method for the project.

Any major proposed renovations and additions would likely require that the structure be updated to meet the requirements for the Code for New Construction. This may require addition of some shear walls, connecting the floor and roof diaphragms to the existing masonry walls and the clipping of non-structural walls to the structure. All of the existing masonry walls would have to be adequately connected to the roof and floor structure.

It should be noted that even though the existing masonry walls along the corridor and the demising walls between classrooms are not load bearing walls, the walls would be considered as shear walls. If the proposed renovations require reconfiguration of these walls, a structural analysis would be required and may require addition of new masonry shear walls.

Feasibility Estimate

Canton Schools
Design Options

Canton, MA

PM&C LLC
20 Downer Ave, Suite 1C
Hingham, MA 02043
(T) 781-740-8007
(F) 781-740-1012

Prepared for:

Dore + Whittier Architects, Inc.

December 11, 2018

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

MAIN CONSTRUCTION COST SUMMARY

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
RODMAN OPTION 1.0				
	May-19			
RENOVATIONS TO EXISTING SCHOOL		15,810	$147.09	$2,325,542
REMOVE HAZARDOUS MATERIALS				$10,000
SITEWORK - RELOCATE PLAYGROUND				$150,000
SUB-TOTAL		15,810	$157.21	$2,485,542
ESCALATION TO START OF CONSTRUCTION	3%			$74,566
DESIGN AND PRICING CONTINGENCY	15%			$384,016
SUB-TOTAL		15,810	$186.22	$2,944,124
GENERAL CONDITIONS	10%			$294,412
BONDS	1.25%			$36,802
INSURANCE	1.50%			$44,162
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$117,765
PHASING PREMIUM				NIC
TOTAL OF ALL CONSTRUCTION		15,810	$217.41	**$3,437,265**
RODMAN ACCESSIBILITY UPGRADES				**$380,880**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
RODMAN OPTION 2.0				
	May-19			
RENOVATIONS TO EXISTING SCHOOL		17,223	$149.33	$2,571,959
REMOVE HAZARDOUS MATERIALS				$10,000
SITEWORK - RELOCATE PLAYGROUND				$150,000
SUB-TOTAL		17,223	$158.62	$2,731,959
ESCALATION TO START OF CONSTRUCTION	3%			$81,959
DESIGN AND PRICING CONTINGENCY	15%			$422,088
SUB-TOTAL		17,223	$187.89	$3,236,006
GENERAL CONDITIONS	10%			$323,601
BONDS	1.25%			$40,450
INSURANCE	1.50%			$48,540
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$129,440
PHASING PREMIUM				NIC
TOTAL OF ALL CONSTRUCTION		17,223	$219.36	**$3,778,037**
RODMAN ACCESSIBILITY UPGRADES				**$380,880**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
RODMAN OPTION 3.0				
	May-19			
RENOVATIONS TO EXISTING SCHOOL		35,310	$137.93	$4,870,438
REMOVE HAZARDOUS MATERIALS				$10,000
SITEWORK - RELOCATE PLAYGROUND				$150,000
SUB-TOTAL		35,310	$142.46	$5,030,438
ESCALATION TO START OF CONSTRUCTION	3%			$150,913
DESIGN AND PRICING CONTINGENCY	15%			$777,203
SUB-TOTAL		35,310	$168.75	$5,958,554
GENERAL CONDITIONS	10%			$595,855
BONDS	1.25%			$74,482
INSURANCE	1.50%			$89,378
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$238,342
PHASING PREMIUM				NIC
TOTAL OF ALL CONSTRUCTION		35,310	$197.02	**$6,956,611**
RODMAN ACCESSIBILITY UPGRADES				**$380,880**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
HANSEN EAST				
	May-19			
MODULAR BUILDING		5,600	$200.00	$1,120,000
STAIR/RAMP (interior)		450	$300.00	$135,000
STAIR/RAMP (exterior)		450	$150.00	$67,500
SITEWORK - Allowance				$120,000
SUB-TOTAL		6,050	$238.43	$1,442,500
ESCALATION TO START OF CONSTRUCTION	3%			$43,275
DESIGN AND PRICING CONTINGENCY	15%			$222,866
SUB-TOTAL		6,050	$282.42	$1,708,641
GENERAL CONDITIONS	10%			$170,864
BONDS	1.25%			$21,358
INSURANCE	1.50%			$25,630
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$68,346
TOTAL OF ALL CONSTRUCTION		6,050	$329.73	**$1,994,839**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
HANSEN WEST				
	May-19			
MODULAR BUILDING		5,600	$200.00	$1,120,000
STAIR/RAMP (interior)		450	$300.00	$135,000
STAIR/RAMP (exterior)		550	$150.00	$82,500
SITEWORK - Allowance				$120,000
SUB-TOTAL		6,050	$240.91	$1,457,500
ESCALATION TO START OF CONSTRUCTION	3%			$43,725
DESIGN AND PRICING CONTINGENCY	15%			$225,184
SUB-TOTAL		6,050	$285.36	$1,726,409
GENERAL CONDITIONS	10%			$172,641
BONDS	1.25%			$21,580
INSURANCE	1.50%			$25,896
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$69,056
TOTAL OF ALL CONSTRUCTION		6,050	$333.15	**$2,015,582**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
LUCE				
	May-19			
MODULAR BUILDING		5,020	$200.00	$1,004,000
STAIR/RAMP (interior)		450	$300.00	$135,000
STAIR/RAMP (exterior)		550	$150.00	$82,500
SITEWORK - Allowance				$200,000
SUB-TOTAL		5,470	$259.87	$1,421,500
ESCALATION TO START OF CONSTRUCTION	3%			$42,645
DESIGN AND PRICING CONTINGENCY	15%			$219,622
SUB-TOTAL		5,470	$307.82	$1,683,767
GENERAL CONDITIONS	10%			$168,377
BONDS	1.25%			$21,047
INSURANCE	1.50%			$25,257
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$67,351
TOTAL OF ALL CONSTRUCTION		5,470	$359.38	**$1,965,799**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
JFK				
	May-19			
MODULAR BUILDING		4,536	$200.00	$907,200
STAIR/RAMP (interior)		534	$300.00	$160,200
STAIR/RAMP (exterior)		550	$150.00	$82,500
SITEWORK - Allowance				$100,000
SUB-TOTAL		5,070	$246.53	$1,249,900
ESCALATION TO START OF CONSTRUCTION	3%			$37,497
DESIGN AND PRICING CONTINGENCY	15%			$193,110
SUB-TOTAL		5,070	$292.01	$1,480,507
GENERAL CONDITIONS	10%			$148,051
BONDS	1.25%			$18,506
INSURANCE	1.50%			$22,208
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$59,220
TOTAL OF ALL CONSTRUCTION		5,070	$340.93	**$1,728,492**

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	Construction Start	Gross Floor Area	$/sf	Estimated Construction Cost
JFK NORTH				
	May-19			
MODULAR BUILDING		5,020	$200.00	$1,004,000
STAIR/RAMP (interior)		1,100	$300.00	$330,000
SITEWORK - Allowance				$120,000
SUB-TOTAL		6,120	$237.58	$1,454,000
ESCALATION TO START OF CONSTRUCTION	3%			$43,620
DESIGN AND PRICING CONTINGENCY	15%			$224,643
SUB-TOTAL		6,120	$281.42	$1,722,263
GENERAL CONDITIONS	10%			$172,226
BONDS	1.25%			$21,528
INSURANCE	1.50%			$25,834
PERMIT				Waived
OVERHEAD + PROFIT	4.0%			$68,891
TOTAL OF ALL CONSTRUCTION		6,120	$328.55	**$2,010,742**

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

This feasibility cost estimate was produced from drawings, narratives and other documentation prepared by Dore and Whittier Architects Inc. and their design team dated November 20, 2018. Design and engineering changes occurring subsequent to the issue of these documents have not been incorporated in this estimate.

This estimate includes all direct construction costs, general contractor's overhead, fee and design contingency. Cost escalation assumes start dates indicated.

Bidding conditions are expected to be public bidding under Chapter 149 of the Massachusetts General Laws to pre-qualified general contractors, and pre-qualified sub-contractors, open specifications for materials and manufactures.

The estimate is based on prevailing wage rates for construction in this market and represents a reasonable opinion of cost. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack or surplus of bidders, perception of risk, etc. Consequently the estimate is expected to fall within the range of bids from a number of competitive contractors or subcontractors, however we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.

ITEMS NOT CONSIDERED IN THIS ESTIMATE

Items not included in this estimate are:

- Land acquisition, feasibility, and financing costs
- All professional fees and insurance
- Site or existing conditions surveys investigations costs, including to determine subsoil conditions
- All Furnishings, Fixtures and Equipment
- Items identified in the design as Not In Contract (NIC)
- Items identified in the design as by others
- Owner supplied and/or installed items as indicated in the estimate
- Utility company back charges, including work required off-site
- Work to City streets and sidewalks, (except as noted in this estimate)
- Construction contingency
- Contaminated soils removal

PM&C

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 15,810

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 1.0						
A10	**FOUNDATIONS**					
	A1010	Standard Foundations	$15,000			
	A1020	Special Foundations	$0			
	A1030	Lowest Floor Construction	$73,860	**$88,860**	$5.62	3.8%
B10	**SUPERSTRUCTURE**					
	B1010	Upper Floor Construction	$21,000			
	B1020	Roof Construction	$0	**$21,000**	$1.33	0.9%
B20	**EXTERIOR CLOSURE**					
	B2010	Exterior Walls	$0			
	B2020	Windows/Curtainwall	$14,500			
	B2030	Exterior Doors	$18,000	**$32,500**	$2.06	1.4%
B30	**ROOFING**					
	B3010	Roof Coverings	$0			
	B3020	Roof Openings	$0	**$0**	$0.00	0.0%
C10	**INTERIOR CONSTRUCTION**					
	C1010	Partitions	$130,496			
	C1020	Interior Doors	$175,922			
	C1030	Specialties/Millwork	$50,952	**$357,370**	$22.60	15.4%
C20	**STAIRCASES**					
	C2010	Stair Construction	$0			
	C2020	Stair Finishes	$0	**$0**	$0.00	0.0%
C30	**INTERIOR FINISHES**					
	C3010	Wall Finishes	$73,655			
	C3020	Floor Finishes	$150,195			
	C3030	Ceiling Finishes	$232,263	**$456,113**	$28.85	19.6%
D10	**CONVEYING SYSTEMS**					
	D1010	Elevator	$0	**$0**	$0.00	0.0%
D20	**PLUMBING**					
	D20	Plumbing	$134,512	**$134,512**	$8.51	5.8%
D30	**HVAC**					
	D30	HVAC	$294,245	**$294,245**	$18.61	12.7%
D40	**FIRE PROTECTION**					
	D40	Fire Protection	$499,387	**$499,387**	$31.59	21.5%
D50	**ELECTRICAL**					
	D5010	Electrical Systems	$252,210	**$252,210**	$15.95	10.8%
E10	**EQUIPMENT**					
	E10	Equipment	$0	**$0**	$0.00	0.0%

Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 15,810

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 1.0						
E20	**FURNISHINGS**					
	E2010	Fixed Furnishings	$67,256			
	E2020	Movable Furnishings	NIC	**$67,256**	$4.25	2.9%
F10	**SPECIAL CONSTRUCTION**					
	F10	Special Construction	$0	**$0**	$0.00	0.0%
F20	**SELECTIVE BUILDING DEMOLITION**					
	F2010	Building Elements Demolition	$122,089			
	F2020	Hazardous Components Abatement	$0	**$122,089**	$7.72	5.2%
TOTAL DIRECT COST (Trade Costs)				***$2,325,542***	*$147.09*	*100.0%*

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 15,810

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 1.0						
	GROSS FLOOR AREA CALCULATION						
	Light Renovation				7,403		
	Medium Building Renovation				8,407		
	TOTAL GROSS FLOOR AREA (GFA)				**15,810** ***sf***		
	A10 FOUNDATIONS						
	A1010 STANDARD FOUNDATIONS						
	New footing for shearwall	**50**	lf	300.00	15,000		
	SUBTOTAL					15,000	
	A1020 SPECIAL FOUNDATIONS						
	No work in this section						
	SUBTOTAL						
	A1030 LOWEST FLOOR CONSTRUCTION						
	Sawcut slab for new footings	**124**	lf	15.00	1,860		
	Remove slab for new footings	**300**	sf	10.00	3,000		
	Patch slab at new footings	**300**	sf	20.00	6,000		
	Cutting and patching	**14,500**	sf	4.00	58,000		
	Equipment pads	**1**	ls	5,000.00	5,000		
	SUBTOTAL					73,860	
	TOTAL - FOUNDATIONS						**$88,860**
	B10 SUPERSTRUCTURE						
	B1010 FLOOR CONSTRUCTION						
	New shear walls, 8" CMU	**700**	sf	30.00	21,000		
	SUBTOTAL					21,000	
	B1020 ROOF CONSTRUCTION						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - SUPERSTRUCTURE						**$21,000**
	B20 EXTERIOR CLOSURE						
	B2010 EXTERIOR WALLS						
	No work in this section						
	SUBTOTAL					-	
	B2020 WINDOWS/CURTAINWALL						
	New CW at vestibule	**116**	sf	125.00	14,500		
	SUBTOTAL					14,500	
	B2030 EXTERIOR DOORS						
	New entry doors	**2**	pr	9,000.00	18,000		

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN OPTION 1.0							
	SUBTOTAL					18,000	
	TOTAL - EXTERIOR CLOSURE						**$32,500**
	B30 ROOFING						
B3010	**ROOF COVERINGS**						
	No work in this section						
	SUBTOTAL					-	
B3020	**ROOF OPENINGS**						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - ROOFING						
	C10 INTERIOR CONSTRUCTION						
C1010	**PARTITIONS**						
	Light renovation - minor patching	**7,403**	gsf	4.00	29,612		
	Medium renovation	**8,407**	gsf	12.00	100,884		
	SUBTOTAL					130,496	
C1020	**INTERIOR DOORS**						
	Light renovation - new doors/frames/hardware	**7,403**	gsf	6.00	44,418		
	Medium renovation - new doors/frames/hardware	**8,407**	gsf	6.00	50,442		
	Overall building - new hardware	**40,531**	gsf	2.00	81,062		
	SUBTOTAL					175,922	
C1030	**SPECIALTIES / MILLWORK**						
	Light renovation				NIC		
	Medium renovation						
	Toilet Partitions and accessories	**8,407**	gsf	0.80	6,726		
	Miscellaneous metals throughout	**8,407**	gsf	1.00	8,407		
	Rough blocking	**8,407**	gsf	0.50	4,204		
	Miscellaneous sealants throughout building	**8,407**	gsf	1.50	12,611		
	Code compliant signage	**8,407**	gsf	0.25	2,102		
	General Building						
	Lockers - paint existing	**56,341**	gsf	0.30	16,902		
	SUBTOTAL					50,952	
	TOTAL - INTERIOR CONSTRUCTION						**$357,370**
	C20 STAIRCASES						
C2010	**STAIR CONSTRUCTION**						
	Code upgrades to existing stairs	**8**	flts	7,500.00	See ADA Upgrades		
	SUBTOTAL					-	
C2020	**STAIR FINISHES**						

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 1.0						
108	SUBTOTAL					-	
109							
110	***TOTAL - STAIRCASES***						
111							
112							
113	***C30 INTERIOR FINISHES***						
114							
115	**C3010 WALL FINISHES**						
116	Light renovation - paint	**7,403**	gsf	2.00	14,806		
117	Medium renovation	**8,407**	gsf	7.00	58,849		
118	SUBTOTAL					73,655	
119							
120	**C3020 FLOOR FINISHES**						
121	Light renovation	**7,403**	gsf	8.00	59,224		
122	Medium renovation	**8,407**	gsf	8.00	67,256		
123	Floor prep	**15,810**	sf	1.50	23,715		
124	SUBTOTAL					150,195	
125							
126	**C3030 CEILING FINISHES**						
127	Light renovation	**7,403**	gsf	7.00	51,821		
128	Medium renovation	**8,407**	gsf	7.00	58,849		
129	General building - remove and replace for fire protection installation	**40,531**	sf	3.00	121,593		
130	SUBTOTAL					232,263	
131							
132	***TOTAL - INTERIOR FINISHES***						**$456,113**
133							
134							
135	***D10 CONVEYING SYSTEMS***						
136							
137	***No work in this section***						
138	SUBTOTAL					-	
139							
140	***TOTAL - CONVEYING SYSTEMS***						
141							
142							
143	***D20 PLUMBING***						
144							
145	**D20 PLUMBING, GENERALLY**						
146	Light renovation				ETR		
147	Medium Renovation - new plumbing - bathrooms	**8,407**	gsf	16.00	134,512		
148	SUBTOTAL					134,512	
149							
150	***TOTAL - PLUMBING***						**$134,512**
151							
152							
153	***D30 HVAC***						
154							
155	**D30 HVAC, GENERALLY**						
156	Light renovation				ETR		
157	Medium renovation - complete HVAC system	**8,407**	gsf	35.00	294,245		
158	SUBTOTAL					294,245	
159							
160	***TOTAL - HVAC***						**$294,245**

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 15,810

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 1.0						
	D40 FIRE PROTECTION						
D40	**FIRE PROTECTION, GENERALLY**						
	New water line	**1**	ls	30,000.00	30,000		
	Fire pump	**1**	ls	75,000.00	75,000		
	Sprinkler system throughout	**56,341**	gsf	7.00	394,387		
	SUBTOTAL					499,387	
	TOTAL - FIRE PROTECTION						**$499,387**
	D50 ELECTRICAL						
D5010	**ELECTRICAL SYSTEMS**						
	Light renovation				ETR		
	Medium renovation	**8,407**	gsf	30.00	252,210		
	SUBTOTAL					252,210	
	TOTAL - ELECTRICAL						**$252,210**
	E10 EQUIPMENT						
E10	**EQUIPMENT, GENERALLY**						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - EQUIPMENT						
	E20 FURNISHINGS						
E2010	**FIXED FURNISHINGS**						
	CASEWORK						
	Light renovation				ETR		
	Medium renovation	**8,407**	gsf	8.00	67,256		
	SUBTOTAL					67,256	
E2020	**MOVABLE FURNISHINGS**						
	All movable furnishings to be provided and installed by owner						
	SUBTOTAL					NIC	
	TOTAL - FURNISHINGS						**$67,256**
	F10 SPECIAL CONSTRUCTION						
F10	**SPECIAL CONSTRUCTION**						
	SUBTOTAL					-	
	TOTAL - SPECIAL CONSTRUCTION						

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 15,810

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 1.0						
	F20 SELECTIVE BUILDING DEMOLITION						
	F2010 BUILDING ELEMENTS DEMOLITION						
	Minor renovation - flooring and ceilings	**7,403**	gsf	3.00	22,209		
	Medium renovation - finishes, partitions, MEP	**8,407**	gsf	10.00	84,070		
	Temporary enclosures/protection	**15,810**	gsf	1.00	15,810		
	SUBTOTAL					122,089	
	F2020 HAZARDOUS COMPONENTS ABATEMENT						
	See summary						
	SUBTOTAL						
	TOTAL - SELECTIVE BUILDING DEMOLITION						**$122,089**

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Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 17,223

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 2.0						
A10	**FOUNDATIONS**					
	A1010	Standard Foundations	$15,000			
	A1020	Special Foundations	$0			
	A1030	Lowest Floor Construction	$73,860	**$88,860**	$5.16	3.5%
B10	**SUPERSTRUCTURE**					
	B1010	Upper Floor Construction	$21,000			
	B1020	Roof Construction	$0	**$21,000**	$1.22	0.8%
B20	**EXTERIOR CLOSURE**					
	B2010	Exterior Walls	$0			
	B2020	Windows/Curtainwall	$14,500			
	B2030	Exterior Doors	$18,000	**$32,500**	$1.89	1.3%
B30	**ROOFING**					
	B3010	Roof Coverings	$0			
	B3020	Roof Openings	$0	**$0**	$0.00	0.0%
C10	**INTERIOR CONSTRUCTION**					
	C1010	Partitions	$150,836			
	C1020	Interior Doors	$181,574			
	C1030	Specialties/Millwork	$58,387	**$390,797**	$22.69	15.2%
C20	**STAIRCASES**					
	C2010	Stair Construction	$0			
	C2020	Stair Finishes	$0	**$0**	$0.00	0.0%
C30	**INTERIOR FINISHES**					
	C3010	Wall Finishes	$85,661			
	C3020	Floor Finishes	$163,619			
	C3030	Ceiling Finishes	$237,915	**$487,195**	$28.29	18.9%
D10	**CONVEYING SYSTEMS**					
	D1010	Elevator	$0	**$0**	$0.00	0.0%
D20	**PLUMBING**					
	D20	Plumbing	$163,888	**$163,888**	$9.52	6.4%
D30	**HVAC**					
	D30	HVAC	$358,505	**$358,505**	$20.82	13.9%
D40	**FIRE PROTECTION**					
	D40	Fire Protection	$499,387	**$499,387**	$29.00	19.4%
D50	**ELECTRICAL**					
	D5010	Electrical Systems	$307,290	**$307,290**	$17.84	11.9%
E10	**EQUIPMENT**					
	E10	Equipment	$0	**$0**	$0.00	0.0%

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Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 17,223

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 2.0						
E20	**FURNISHINGS**					
	E2010	Fixed Furnishings	$81,944			
	E2020	Movable Furnishings	NIC	**$81,944**	$4.76	3.2%
F10	**SPECIAL CONSTRUCTION**					
	F10	Special Construction	$0	**$0**	$0.00	0.0%
F20	**SELECTIVE BUILDING DEMOLITION**					
	F2010	Building Elements Demolition	$140,593			
	F2020	Hazardous Components Abatement	$0	**$140,593**	$8.16	5.5%
TOTAL DIRECT COST (Trade Costs)				***$2,571,959***	*$149.33*	*100.0%*

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 17,223

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 2.0						
	GROSS FLOOR AREA CALCULATION						
	Light Renovation				6,980		
	Medium Building Renovation				10,243		
	TOTAL GROSS FLOOR AREA (GFA)				**17,223** ***sf***		
	A10 FOUNDATIONS						
	A1010 STANDARD FOUNDATIONS						
	New footing for shearwall	**50**	lf	300.00	15,000		
	SUBTOTAL					15,000	
	A1020 SPECIAL FOUNDATIONS						
	No work in this section						
	SUBTOTAL						
	A1030 LOWEST FLOOR CONSTRUCTION						
	Sawcut slab for new footings	**124**	lf	15.00	1,860		
	Remove slab for new footings	**300**	sf	10.00	3,000		
	Patch slab at new footings	**300**	sf	20.00	6,000		
	Cutting and patching	**14,500**	sf	4.00	58,000		
	Equipment pads	**1**	ls	5,000.00	5,000		
	SUBTOTAL					73,860	
	TOTAL - FOUNDATIONS						**$88,860**
	B10 SUPERSTRUCTURE						
	B1010 FLOOR CONSTRUCTION						
	New shear walls, 8" CMU	**700**	sf	30.00	21,000		
	SUBTOTAL					21,000	
	B1020 ROOF CONSTRUCTION						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - SUPERSTRUCTURE						**$21,000**
	B20 EXTERIOR CLOSURE						
	B2010 EXTERIOR WALLS						
	No work in this section						
	SUBTOTAL					-	
	B2020 WINDOWS/CURTAINWALL						
	New CW at vestibule	**116**	sf	125.00	14,500		
	SUBTOTAL					14,500	
	B2030 EXTERIOR DOORS						
	New entry doors	**2**	pr	9,000.00	18,000		

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 17,223

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN OPTION 2.0							
	SUBTOTAL					18,000	
	TOTAL - EXTERIOR CLOSURE						**$32,500**
	B30 ROOFING						
B3010	**ROOF COVERINGS**						
	No work in this section						
	SUBTOTAL					-	
B3020	**ROOF OPENINGS**						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - ROOFING						
	C10 INTERIOR CONSTRUCTION						
C1010	**PARTITIONS**						
	Light renovation - minor patching	**6,980**	gsf	4.00	27,920		
	Medium renovation	**10,243**	gsf	12.00	122,916		
	SUBTOTAL					150,836	
C1020	**INTERIOR DOORS**						
	Light renovation - new doors/frames/hardware	**6,980**	gsf	6.00	41,880		
	Medium renovation - new doors/frames/hardware	**10,243**	gsf	6.00	61,458		
	Overall building - new hardware	**39,118**	gsf	2.00	78,236		
	SUBTOTAL					181,574	
C1030	**SPECIALTIES / MILLWORK**						
	Light renovation				NIC		
	Medium renovation						
	Toilet Partitions and accessories	**10,243**	gsf	0.80	8,194		
	Miscellaneous metals throughout	**10,243**	gsf	1.00	10,243		
	Rough blocking	**10,243**	gsf	0.50	5,122		
	Miscellaneous sealants throughout building	**10,243**	gsf	1.50	15,365		
	Code compliant signage	**10,243**	gsf	0.25	2,561		
	General Building						
	Lockers - paint existing	**56,341**	gsf	0.30	16,902		
	SUBTOTAL					58,387	
	TOTAL - INTERIOR CONSTRUCTION						**$390,797**
	C20 STAIRCASES						
C2010	**STAIR CONSTRUCTION**						
	Code upgrades to existing stairs	**8**	flts	7,500.00	See ADA Upgrades		
	SUBTOTAL					-	
C2020	**STAIR FINISHES**						

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 2.0						
108	SUBTOTAL					-	
109							
110	***TOTAL - STAIRCASES***						
111							
112							
113	***C30 INTERIOR FINISHES***						
114							
115	**C3010 WALL FINISHES**						
116	Light renovation - paint	**6,980**	gsf	2.00	13,960		
117	Medium renovation	**10,243**	gsf	7.00	71,701		
118	SUBTOTAL					85,661	
119							
120	**C3020 FLOOR FINISHES**						
121	Light renovation	**6,980**	gsf	8.00	55,840		
122	Medium renovation	**10,243**	gsf	8.00	81,944		
123	Floor prep	**17,223**	sf	1.50	25,835		
124	SUBTOTAL					163,619	
125							
126	**C3030 CEILING FINISHES**						
127	Light renovation	**6,980**	gsf	7.00	48,860		
128	Medium renovation	**10,243**	gsf	7.00	71,701		
129	General building - remove and replace for fire protection installation	**39,118**	sf	3.00	117,354		
130	SUBTOTAL					237,915	
131							
132	***TOTAL - INTERIOR FINISHES***						**$487,195**
133							
134							
135	***D10 CONVEYING SYSTEMS***						
136							
137	***No work in this section***						
138	SUBTOTAL					-	
139							
140	***TOTAL - CONVEYING SYSTEMS***						
141							
142							
143	***D20 PLUMBING***						
144							
145	**D20 PLUMBING, GENERALLY**						
146	Light renovation				ETR		
147	Medium Renovation - new plumbing - bathrooms	**10,243**	gsf	16.00	163,888		
148	SUBTOTAL					163,888	
149							
150	***TOTAL - PLUMBING***						**$163,888**
151							
152							
153	***D30 HVAC***						
154							
155	**D30 HVAC, GENERALLY**						
156	Light renovation				ETR		
157	Medium renovation - complete HVAC system	**10,243**	gsf	35.00	358,505		
158	SUBTOTAL					358,505	
159							
160	***TOTAL - HVAC***						**$358,505**

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 17,223

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 2.0						
	D40 FIRE PROTECTION						
D40	**FIRE PROTECTION, GENERALLY**						
	New water line	**1**	ls	30,000.00	30,000		
	Fire pump	**1**	ls	75,000.00	75,000		
	Sprinkler system throughout	**56,341**	gsf	7.00	394,387		
	SUBTOTAL					499,387	
	TOTAL - FIRE PROTECTION						**$499,387**
	D50 ELECTRICAL						
D5010	**ELECTRICAL SYSTEMS**						
	Light renovation				ETR		
	Medium renovation	**10,243**	gsf	30.00	307,290		
	SUBTOTAL					307,290	
	TOTAL - ELECTRICAL						**$307,290**
	E10 EQUIPMENT						
E10	**EQUIPMENT, GENERALLY**						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - EQUIPMENT						
	E20 FURNISHINGS						
E2010	**FIXED FURNISHINGS**						
	CASEWORK						
	Light renovation				ETR		
	Medium renovation	**10,243**	gsf	8.00	81,944		
	SUBTOTAL					81,944	
E2020	**MOVABLE FURNISHINGS**						
	All movable furnishings to be provided and installed by owner						
	SUBTOTAL					NIC	
	TOTAL - FURNISHINGS						**$81,944**
	F10 SPECIAL CONSTRUCTION						
F10	**SPECIAL CONSTRUCTION**						
	SUBTOTAL					-	
	TOTAL - SPECIAL CONSTRUCTION						

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 17,223

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 2.0						
	F20 SELECTIVE BUILDING DEMOLITION						
	F2010 BUILDING ELEMENTS DEMOLITION						
	Minor renovation - flooring and ceilings	**6,980**	gsf	3.00	20,940		
	Medium renovation - finishes, partitions, MEP	**10,243**	gsf	10.00	102,430		
	Temporary enclosures/protection	**17,223**	sf	1.00	17,223		
	SUBTOTAL					140,593	
	F2020 HAZARDOUS COMPONENTS ABATEMENT						
	See summary						
	SUBTOTAL						
	TOTAL - SELECTIVE BUILDING DEMOLITION						**$140,593**

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Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 35,310

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 3.0						
A10	**FOUNDATIONS**					
	A1010	Standard Foundations	$30,000			
	A1020	Special Foundations	$0			
	A1030	Lowest Floor Construction	$84,720	**$114,720**	$3.25	2.4%
B10	**SUPERSTRUCTURE**					
	B1010	Upper Floor Construction	$427,713			
	B1020	Roof Construction	$0	**$427,713**	$12.11	8.8%
B20	**EXTERIOR CLOSURE**					
	B2010	Exterior Walls	$0			
	B2020	Windows/Curtainwall	$14,500			
	B2030	Exterior Doors	$18,000	**$32,500**	$0.92	0.7%
B30	**ROOFING**					
	B3010	Roof Coverings	$0			
	B3020	Roof Openings	$0	**$0**	$0.00	0.0%
C10	**INTERIOR CONSTRUCTION**					
	C1010	Partitions	$325,008			
	C1020	Interior Doors	$204,566			
	C1030	Specialties/Millwork	$109,936	**$639,510**	$18.11	13.1%
C20	**STAIRCASES**					
	C2010	Stair Construction	$0			
	C2020	Stair Finishes	$0	**$0**	$0.00	0.0%
C30	**INTERIOR FINISHES**					
	C3010	Wall Finishes	$185,475			
	C3020	Floor Finishes	$335,445			
	C3030	Ceiling Finishes	$289,232	**$810,152**	$22.94	16.6%
D10	**CONVEYING SYSTEMS**					
	D1010	Elevator	$0	**$0**	$0.00	0.0%
D20	**PLUMBING**					
	D20	Plumbing	$367,536	**$367,536**	$10.41	7.5%
D30	**HVAC**					
	D30	HVAC	$803,985	**$803,985**	$22.77	16.5%
D40	**FIRE PROTECTION**					
	D40	Fire Protection	$499,387	**$499,387**	$14.14	10.3%
D50	**ELECTRICAL**					
	D5010	Electrical Systems	$689,130	**$689,130**	$19.52	14.1%
E10	**EQUIPMENT**					
	E10	Equipment	$0	**$0**	$0.00	0.0%

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Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

GFA 35,310

CONSTRUCTION COST SUMMARY

	BUILDING SYSTEM		*SUB-TOTAL*	*TOTAL*	*$/SF*	*%*
RODMAN OPTION 3.0						
E20	**FURNISHINGS**					
	E2010	Fixed Furnishings	$183,768			
	E2020	Movable Furnishings	NIC	**$183,768**	$5.20	3.8%
F10	**SPECIAL CONSTRUCTION**					
	F10	Special Construction	$0	**$0**	$0.00	0.0%
F20	**SELECTIVE BUILDING DEMOLITION**					
	F2010	Building Elements Demolition	$302,037			
	F2020	Hazardous Components Abatement	$0	**$302,037**	$8.55	6.2%
TOTAL DIRECT COST (Trade Costs)				***$4,870,438***	*$137.93*	*100.0%*

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 35,310

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 3.0						
	GROSS FLOOR AREA CALCULATION						
	Light Renovation				12,339		
	Medium Building Renovation				22,971		
	TOTAL GROSS FLOOR AREA (GFA)				**35,310** ***sf***		
	A10 FOUNDATIONS						
	A1010 STANDARD FOUNDATIONS						
	New footing for shearwall	**100**	lf	300.00	30,000		
	SUBTOTAL					30,000	
	A1020 SPECIAL FOUNDATIONS						
	No work in this section						
	SUBTOTAL						
	A1030 LOWEST FLOOR CONSTRUCTION						
	Sawcut slab for new footings	**248**	lf	15.00	3,720		
	Remove slab for new footings	**600**	sf	10.00	6,000		
	Patch slab at new footings	**600**	sf	20.00	12,000		
	Cutting and patching	**14,500**	sf	4.00	58,000		
	Equipment pads	**1**	ls	5,000.00	5,000		
	SUBTOTAL					84,720	
	TOTAL - FOUNDATIONS						**$114,720**
	B10 SUPERSTRUCTURE						
	B1010 FLOOR CONSTRUCTION						
	Seismic clips to masonry walls	**56,341**	gsf	5.00	281,705		
	Cut and patch upper floor for new shear wall	**8**	loc	2,501.00	20,008		
	New shear walls, 8" CMU	**4,200**	sf	30.00	126,000		
	SUBTOTAL					427,713	
	B1020 ROOF CONSTRUCTION						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - SUPERSTRUCTURE						**$427,713**
	B20 EXTERIOR CLOSURE						
	B2010 EXTERIOR WALLS						
	No work in this section						
	SUBTOTAL					-	
	B2020 WINDOWS/CURTAINWALL						
	New CW at vestibule	**116**	sf	125.00	14,500		
	SUBTOTAL					14,500	

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN OPTION 3.0							
	B2030 EXTERIOR DOORS						
	New entry doors	**2**	pr	9,000.00	18,000		
	SUBTOTAL					18,000	
	TOTAL - EXTERIOR CLOSURE						**$32,500**
	B30 ROOFING						
	B3010 ROOF COVERINGS						
	No work in this section						
	SUBTOTAL					-	
	B3020 ROOF OPENINGS						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - ROOFING						
	C10 INTERIOR CONSTRUCTION						
	C1010 PARTITIONS						
	Light renovation - minor patching	**12,339**	gsf	4.00	49,356		
	Medium renovation	**22,971**	gsf	12.00	275,652		
	SUBTOTAL					325,008	
	C1020 INTERIOR DOORS						
	Light renovation - new hardware	**12,339**	gsf	2.00	24,678		
	Medium renovation - new doors/frames/hardware	**22,971**	gsf	6.00	137,826		
	Overall building - new hardware	**21,031**	gsf	2.00	42,062		
	SUBTOTAL					204,566	
	C1030 SPECIALTIES / MILLWORK						
	Light renovation				NIC		
	Medium renovation						
	Toilet Partitions and accessories	**22,971**	gsf	0.80	18,377		
	Miscellaneous metals throughout	**22,971**	gsf	1.00	22,971		
	Rough blocking	**22,971**	gsf	0.50	11,486		
	Miscellaneous sealants throughout building	**22,971**	gsf	1.50	34,457		
	Code compliant signage	**22,971**	gsf	0.25	5,743		
	General Building						
	Lockers - paint existing	**56,341**	gsf	0.30	16,902		
	SUBTOTAL					109,936	
	TOTAL - INTERIOR CONSTRUCTION						**$639,510**
	C20 STAIRCASES						
	C2010 STAIR CONSTRUCTION						
	Code upgrades to existing stairs	**8**	flts	7,500.00	See ADA Upgrades		
	SUBTOTAL					-	

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 3.0						
	C2020 STAIR FINISHES						
	SUBTOTAL					-	
	TOTAL - STAIRCASES						
	C30 INTERIOR FINISHES						
	C3010 WALL FINISHES						
	Light renovation - paint	**12,339**	gsf	2.00	24,678		
	Medium renovation	**22,971**	gsf	7.00	160,797		
	SUBTOTAL					185,475	
	C3020 FLOOR FINISHES						
	Light renovation	**12,339**	gsf	8.00	98,712		
	Medium renovation	**22,971**	gsf	8.00	183,768		
	Floor prep	**35,310**	sf	1.50	52,965		
	SUBTOTAL					335,445	
	C3030 CEILING FINISHES						
	Light renovation	**12,339**	gsf	7.00	86,373		
	Medium renovation	**22,971**	gsf	7.00	160,797		
	General building - remove and replace for fire protection installation	**21,031**	sf	2.00	42,062		
	SUBTOTAL					289,232	
	TOTAL - INTERIOR FINISHES						**$810,152**
	D10 CONVEYING SYSTEMS						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - CONVEYING SYSTEMS						
	D20 PLUMBING						
	D20 PLUMBING, GENERALLY						
	Light renovation				ETR		
	Medium Renovation - new plumbing - bathrooms	**22,971**	gsf	16.00	367,536		
	SUBTOTAL					367,536	
	TOTAL - PLUMBING						**$367,536**
	D30 HVAC						
	D30 HVAC, GENERALLY						
	Light renovation				ETR		
	Medium renovation - complete HVAC system	**22,971**	gsf	35.00	803,985		
	SUBTOTAL					803,985	

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 35,310

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
	RODMAN OPTION 3.0						
	TOTAL - HVAC						**$803,985**
	D40 FIRE PROTECTION						
	D40 FIRE PROTECTION, GENERALLY						
	New water line	**1**	ls	30,000.00	30,000		
	Fire pump	**1**	ls	75,000.00	75,000		
	Sprinkler system throughout	**56,341**	gsf	7.00	394,387		
	SUBTOTAL					499,387	
	TOTAL - FIRE PROTECTION						**$499,387**
	D50 ELECTRICAL						
	D5010 ELECTRICAL SYSTEMS						
	Light renovation				ETR		
	Medium renovation	**22,971**	gsf	30.00	689,130		
	SUBTOTAL					689,130	
	TOTAL - ELECTRICAL						**$689,130**
	E10 EQUIPMENT						
	E10 EQUIPMENT, GENERALLY						
	No work in this section						
	SUBTOTAL					-	
	TOTAL - EQUIPMENT						
	E20 FURNISHINGS						
	E2010 FIXED FURNISHINGS						
	CASEWORK						
	Light renovation				ETR		
	Medium renovation	**22,971**	gsf	8.00	183,768		
	SUBTOTAL					183,768	
	E2020 MOVABLE FURNISHINGS						
	All movable furnishings to be provided and installed by owner						
	SUBTOTAL					NIC	
	TOTAL - FURNISHINGS						**$183,768**
	F10 SPECIAL CONSTRUCTION						
	F10 SPECIAL CONSTRUCTION						
	SUBTOTAL					-	

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate **GFA** 35,310

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN OPTION 3.0							
	TOTAL - SPECIAL CONSTRUCTION						
F20	***SELECTIVE BUILDING DEMOLITION***						
F2010	**BUILDING ELEMENTS DEMOLITION**						
	Minor renovation - flooring and ceilings	**12,339**	gsf	3.00	37,017		
	Medium renovation - finishes, partitions, MEP	**22,971**	gsf	10.00	229,710		
	Temporary enclosures/protection	**35,310**	sf	1.00	35,310		
	SUBTOTAL					302,037	
F2020	**HAZARDOUS COMPONENTS ABATEMENT**						
	See summary						
	SUBTOTAL						
	TOTAL - SELECTIVE BUILDING DEMOLITION						**$302,037**

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Canton Schools
Design Options
Canton, MA

11-Dec-18

Feasibility Estimate

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN ACCESSIBILITY UPGRADES							
	ITEM 1						
	New 30ft long exterior ramp	**1**	ls	30,000.00	30,000		
	New stairs	**1**	ls	10,000.00	10,000		
	New ADA lift	**1**	ls	45,000.00	45,000		
	Markups	**38%**			32,300		
	SUBTOTAL					117,300	
	ITEM 2						
	New sloped walks	**1**	ls	15,000.00	15,000		
	Raise grades	**1**	ls	10,000.00	10,000		
	New exit pad	**1**	ls	5,000.00	5,000		
	Markups	**38%**			11,400		
	SUBTOTAL					41,400	
	ITEM 3						
	Resurface ramps	**300**	sf	20.00	6,000		
	Markups	**38%**			2,280		
	SUBTOTAL					8,280	
	ITEM 4						
	Remove and replace guardrails	**250**	lf	300.00	75,000		
	Remove and replace handrails	**250**	lf	110.00	27,500		
	Markups	**38%**			38,950		
	SUBTOTAL					141,450	
	ITEM 5						
	Remove and replace stair finishes wirh rubber flooring tread/riser system	**1,500**	sf	25.00	37,500		
	Markups	**38%**			14,250		
	SUBTOTAL					51,750	
	ITEM 6						
	Remove and replace guardrails		lf	300.00	See Item 4		
	Remove and replace handrails		lf	110.00	See Item 4		
	Markups	**38%**			-		
	SUBTOTAL					-	
	ITEM 7						
	Remove and replace door hardware with lever type hardware	**20**	set	600.00	12,000		
	Markups	**38%**			4,560		
	SUBTOTAL					16,560	

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Canton Schools 11-Dec-18
Design Options
Canton, MA

Feasibility Estimate

	DESCRIPTION	QTY	UNIT	UNIT COST	EST'D COST	SUB TOTAL	TOTAL COST
RODMAN ACCESSIBILITY UPGRADES							
	ITEM 8						
	Remove and replace bathroom thresholds with new ceramic tile	**60**	sf	50.00	3,000		
	Markups	**38%**			1,140		
	SUBTOTAL					4,140	

TOTAL - ADA UPGRADES	**$380,880**

Canton Schools- Feasibility Study				
Lt. Peter M Hansen Elementary School - West			**Task 2, Option 1.a.i**	
December 11, 2018		*Overall Building GSF*	6,050	
Estimated Project Budget		*Construction Cost Building $/SF*	***$333***	
			Clssrms +/- 1000SF	
CONSTRUCTION				Notes:
1	Construction Cost including Site work (Trade Costs)		$1,457,500	
1a	Classrooms / Corridor (5,600 SF @ $200/SF)		$1,120,000	included in Line 1 above
1b	Connector (450 SF @ $300/SF)		$135,000	included in Line 1 above
1c	Secondary Ramp / Stair (450 SF @ $150/SF)		$82,500	included in Line 1 above
1d	Sitework		$120,000	included in Line 1 above
2	Escalation		$43,725	3% of item 1
3		Sub Total	$1,501,225	Items 1+2
4	D&P Contingency @ 15%		$225,184	15% of item 3
5		Sub Total	$1,726,409	Items 3+4
6	Bonds		$21,580	1.25% of item 5
7	Insurance		$25,896	1.5% of item 5
8	Overhead & Profit		$69,056	4% of item 5
9	General Requirements/General Conditions		$172,641	10% of item 5
10	**Construction Subtotal**		**$2,015,582**	
PROFESSIONAL SERVICES				
11	Architect/Engineering Fees		$201,558	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)		$70,545	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)		$0	N/A
14	Information Technology Procurement (Loose) (by School District)		$10,000	Allowance
15	FF&E Procurement (Loose)		$10,000	Allowance
16	Traffic Study		$0	N/A
17	Geotechnical Engineering (monitoring)		$10,000	Allowance
18	GeoEnvironmental Engineering		$10,000	Allowance
19	Survey/Wetlands		$10,000	Allowance
20	Permitting		$20,000	Allowance
21	**Professional Services Subtotal**		**$342,104**	
OTHER SOFT COSTS				
22	Furnishings, Fixtures and Equipment (allowance)		$40,000	Allowance
23	Loose Technology (allowance)		$20,000	Allowance
24	Construction Testing (allowance)		$10,000	Allowance
25	Moving Costs (by School)		$5,000	Allowance
26	Property Title Review (allowance)		$0	Allowance
27	Utility Back Charges (allowance)		$5,000	Allowance
28	Legal (allowance)		$5,000	Allowance
29	Printing (allowance)		$2,500	Allowance
30	Advertising (allowance)		$500	Allowance
31	Cost Estimating		$5,000	Allowance
32	Miscellaneous Expenses		$2,500	
33	**Other Soft Costs Subtotal**		**$95,500**	
CONTINGENCY				
34	Owner Construction Contingency (7.5%)		$151,169	
35	Owner Discretionary Contingency (2.5%)		$50,390	
36	**Contingency Subtotal**		**$201,558**	
37	**Total Project Cost**		**$2,654,744**	
	Note: All costs are estimated			

Canton Schools- Feasibility Study			
Lt. Peter M Hansen Elementary School - East		**Task 2, Option 1.a.ii**	
December 11, 2018	*Overall Building GSF*	6,050	
Estimated Project Budget	*Construction Cost Building $/SF*	***$330***	
		Clssrms +/- 1000SF	
CONSTRUCTION			Notes:
1	Construction Cost including Site work (Trade Costs)	$1,442,500	
1a	Classrooms / Corridor (5,600 SF @ $200/SF)	$1,120,000	included in Line 1 above
1b	Connector (450 SF @ $300/SF)	$135,000	included in Line 1 above
1c	Secondary Ramp / Stair (450 SF @ $150/SF)	$67,500	included in Line 1 above
1d	Sitework	$120,000	included in Line 1 above
2	Escalation	$43,275	3% of item 1
3	Sub Total	$1,485,775	Items 1+2
4	D&P Contingency @ 15%	$222,866	15% of item 3
5	Sub Total	$1,708,641	Items 3+4
6	Bonds	$21,358	1.25% of item 5
7	Insurance	$25,630	1.5% of item 5
8	Overhead & Profit	$68,346	4% of item 5
9	General Requirements/General Conditions	$170,864	10% of item 5
10	**Construction Subtotal**	**$1,994,839**	
PROFESSIONAL SERVICES			
11	Architect/Engineering Fees	$199,484	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)	$69,819	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)	$0	N/A
14	Information Technology Procurement (Loose) (by School District)	$10,000	Allowance
15	FF&E Procurement (Loose)	$10,000	Allowance
16	Traffic Study	$0	N/A
17	Geotechnical Engineering (monitoring)	$10,000	Allowance
18	GeoEnvironmental Engineering	$10,000	Allowance
19	Survey/Wetlands	$10,000	Allowance
20	Permitting	$20,000	Allowance
21	**Professional Services Subtotal**	**$339,303**	
OTHER SOFT COSTS			
22	Furnishings, Fixtures and Equipment (allowance)	$40,000	Allowance
23	Loose Technology (allowance)	$20,000	Allowance
24	Construction Testing (allowance)	$10,000	Allowance
25	Moving Costs (by School)	$5,000	Allowance
26	Property Title Review (allowance)	$0	Allowance
27	Utility Back Charges (allowance)	$5,000	Allowance
28	Legal (allowance)	$5,000	Allowance
29	Printing (allowance)	$2,500	Allowance
30	Advertising (allowance)	$500	Allowance
31	Cost Estimating	$5,000	Allowance
32	Miscellaneous Expenses	$2,500	
33	**Other Soft Costs Subtotal**	**$95,500**	
CONTINGENCY			
34	Owner Construction Contingency (7.5%)	$149,613	
35	Owner Discretionary Contingency (2.5%)	$49,871	
36	**Contingency Subtotal**	**$199,484**	
37	**Total Project Cost**	**$2,629,126**	
	Note: All costs are estimated		

Canton Schools- Feasibility Study			
John F. Kennedy Elementary School - North		**Task 2, Option 1b**	
December 11, 2018	*Overall Building GSF*	6,120	
Estimated Project Budget	*Construction Cost Building $/SF*	***$329***	
		Clssrms +/- 1000SF	
CONSTRUCTION			Notes:
1	Construction Cost including Site work (Trade Costs)	$1,454,000	
1a	Classrooms / Corridor (5,600 SF @ $200/SF)	$1,004,000	included in Line 1 above
1b	Connector (450 SF @ $300/SF)	$330,000	included in Line 1 above
1c	Secondary Ramp / Stair (450 SF @ $150/SF)	$0	included in Line 1 above
1d	Sitework	$120,000	included in Line 1 above
2	Escalation	$43,620	3% of item 1
3	Sub Total	$1,497,620	Items 1+2
4	D&P Contingency @ 15%	$224,643	15% of item 3
5	Sub Total	$1,722,263	Items 3+4
6	Bonds	$21,528	1.25% of item 5
7	Insurance	$25,834	1.5% of item 5
8	Overhead & Profit	$68,891	4% of item 5
9	General Requirements/General Conditions	$172,226	10% of item 5
10	**Construction Subtotal**	**$2,010,742**	
PROFESSIONAL SERVICES			
11	Architect/Engineering Fees	$201,074	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)	$70,376	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)	$0	N/A
14	Information Technology Procurement (Loose) (by School District)	$10,000	Allowance
15	FF&E Procurement (Loose)	$10,000	Allowance
16	Traffic Study	$0	N/A
17	Geotechnical Engineering (monitoring)	$10,000	Allowance
18	GeoEnvironmental Engineering	$10,000	Allowance
19	Survey/Wetlands	$10,000	Allowance
20	Permitting	$20,000	Allowance
21	**Professional Services Subtotal**	**$341,450**	
OTHER SOFT COSTS			
22	Furnishings, Fixtures and Equipment (allowance)	$40,000	Allowance
23	Loose Technology (allowance)	$20,000	Allowance
24	Construction Testing (allowance)	$10,000	Allowance
25	Moving Costs (by School)	$5,000	Allowance
26	Property Title Review (allowance)	$0	Allowance
27	Utility Back Charges (allowance)	$5,000	Allowance
28	Legal (allowance)	$5,000	Allowance
29	Printing (allowance)	$2,500	Allowance
30	Advertising (allowance)	$500	Allowance
31	Cost Estimating	$5,000	Allowance
32	Miscellaneous Expenses	$2,500	Allowance
33	**Other Soft Costs Subtotal**	**$95,500**	
CONTINGENCY			
34	Owner Construction Contingency (7.5%)	$150,806	
35	Owner Discretionary Contingency (2.5%)	$50,269	
36	**Contingency Subtotal**	**$201,074**	
37	**Total Project Cost**	**$2,648,766**	
	Note: All costs are estimated		

Canton Schools- Feasibility Study			
Dean S. Luce Elementary School		**Task 2, Option 1c**	
December 11, 2018	*Overall Building GSF*	5,470	
Estimated Project Budget	*Construction Cost Building $/SF*	***$359***	
		Clssrms +/- 1000SF	
CONSTRUCTION			Notes:
1	Construction Cost including Site work (Trade Costs)	$1,421,500	
1a	Classrooms / Corridor (5,600 SF @ $200/SF)	$1,004,000	included in Line 1 above
1b	Connector (450 SF @ $300/SF)	$135,000	included in Line 1 above
1c	Secondary Ramp / Stair (450 SF @ $150/SF)	$82,500	included in Line 1 above
1d	Sitework	$200,000	included in Line 1 above
2	Escalation	$42,645	3% of item 1
3	Sub Total	$1,464,145	Items 1+2
4	D&P Contingency @ 15%	$219,622	15% of item 3
5	Sub Total	$1,683,767	Items 3+4
6	Bonds	$21,047	1.25% of item 5
7	Insurance	$25,257	1.5% of item 5
8	Overhead & Profit	$67,351	4% of item 5
9	General Requirements/General Conditions	$168,377	10% of item 5
10	**Construction Subtotal**	**$1,965,798**	
PROFESSIONAL SERVICES			
11	Architect/Engineering Fees	$196,580	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)	$68,803	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)	$0	N/A
14	Information Technology Procurement (Loose) (by School District)	$10,000	Allowance
15	FF&E Procurement (Loose)	$10,000	Allowance
16	Traffic Study	$0	N/A
17	Geotechnical Engineering (monitoring)	$10,000	Allowance
18	GeoEnvironmental Engineering	$10,000	Allowance
19	Survey/Wetlands	$10,000	Allowance
20	Permitting	$20,000	Allowance
21	**Professional Services Subtotal**	**$335,383**	
OTHER SOFT COSTS			
22	Furnishings, Fixtures and Equipment (allowance)	$40,000	Allowance
23	Loose Technology (allowance)	$20,000	Allowance
24	Construction Testing (allowance)	$10,000	Allowance
25	Moving Costs (by School)	$5,000	Allowance
26	Property Title Review (allowance)	$0	Allowance
27	Utility Back Charges (allowance)	$5,000	Allowance
28	Legal (allowance)	$5,000	Allowance
29	Printing (allowance)	$2,500	Allowance
30	Advertising (allowance)	$500	Allowance
31	Cost Estimating	$5,000	Allowance
32	Miscellaneous Expenses	$2,500	
33	**Other Soft Costs Subtotal**	**$95,500**	
CONTINGENCY			
34	Owner Construction Contingency (7.5%)	$147,435	
35	Owner Discretionary Contingency (2.5%)	$49,145	
36	**Contingency Subtotal**	**$196,580**	
37	**Total Project Cost**	**$2,593,260**	
	Note: All costs are estimated		

Canton Schools- Feasibility Study			
Rodman Building (Option 3.0)		**Task 3**	
December 11, 2018	*Overall Building GSF*	35,310	
Estimated Project Budget	*Construction Cost Building $/SF*	***$212***	
CONSTRUCTION			Notes:
1	Construction Cost including Site work (Trade Costs)	$5,411,238	
1a	Renovation to Existing School	$3,891,618	included in Line 1 above
1b	Hazardous Material Removal	$10,000	included in Line 1 above
1c	Site Work-Relocate Playground	$150,000	included in Line 1 above
1d	Sprinkler System	$499,387	Included if Item 1a+b+c exceeds $2,378838*
1e	Accessibility Upgrades	$380,800	Included if Item 1a+b+c exceeds $2,162580**
1f	Structural upgrades	$479,433	Included if work area exceeds 50%
2	Escalation	$162,337	3% of item 1
3	Sub Total	$5,573,575	Items 1+2
4	D&P Contingency @ 15%	$836,036	15% of item 3
5	Sub Total	$6,409,611	Items 3+4
6	Bonds	$80,120	1.25% of item 5
7	Insurance	$96,144	1.5% of item 5
8	Overhead & Profit	$256,384	4% of item 5
9	General Requirements/General Conditions	$640,961	10% of item 5
10	**Construction Subtotal**	**$7,483,221**	
PROFESSIONAL SERVICES			
11	Architect/Engineering Fees	$748,322	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)	$261,913	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)	$10,000	Allowance
14	Information Technology Procurement (Loose) (by School District)	$80,000	Allowance
15	FF&E Procurement (Loose)	$80,000	Allowance
16	Traffic Study	$0	N/A
17	Geotechnical Engineering (monitoring)	$10,000	interior footings
18	GeoEnvironmental Engineering	$10,000	Allowance
19	Survey/Wetlands	$0	N/A
20	Permitting	$10,000	Allowance
21	**Professional Services Subtotal**	**$1,210,235**	
OTHER SOFT COSTS			
22	Furnishings, Fixtures and Equipment (allowance)	$150,000	Allowance
23	Loose Technology (allowance)	$100,000	Allowance
24	Construction Testing (allowance)	$10,000	Allowance
25	Moving Costs (by School)	$60,000	By Owner
26	Property Title Review (allowance)	$0	Allowance
27	Utility Back Charges (allowance)	$5,000	Allowance
28	Legal (allowance)	$5,000	Allowance
29	Printing (allowance)	$2,500	Allowance
30	Advertising (allowance)	$500	Allowance
31	Cost Estimating	$5,000	Allowance
32	Miscellaneous Expenses	$2,500	
33	**Other Soft Costs Subtotal**	**$340,500**	
CONTINGENCY			
34	Owner Construction Contingency (7.5%)	$561,242	
35	Owner Discretionary Contingency (2.5%)	$187,081	
36	**Contingency Subtotal**	**$748,322**	
37	**Total Project Cost**	**$9,782,278**	
Note	**All costs are estimated**		
*	Sprinkler System	$499,387	
**	Accessibility Upgrades	$380,800	

Canton Schools- Feasibility Study				
Rodman Building (Option 2.0)			**Task 2, Option 3.b**	
December 11, 2018		*Overall Building GSF*	17,223	
Estimated Project Budget		*Construction Cost Building $/SF*	***$250***	
CONSTRUCTION				Notes:
1	Construction Cost including Site work (Trade Costs)		$3,112,759	
1a	Renovation to Existing School		$2,072,572	included in Line 1 above
1b	Hazardous Material Removal		$10,000	included in Line 1 above
1c	Site Work-Relocate Playground		$150,000	included in Line 1 above
1d	Sprinkler System		$499,387	Included if Item 1a+b+c exceeds $2,378838*
1e	Accessibility Upgrades		$380,800	Included if Item 1a+b+c exceeds $2,162580**
1f	Structural upgrades		$0	Included if work area exceeds 50%
2	Escalation		$93,383	3% of item 1
3		Sub Total	$3,206,142	Items 1+2
4	D&P Contingency @ 15%		$480,921	15% of item 3
5		Sub Total	$3,687,063	Items 3+4
6	Bonds		$46,088	1.25% of item 5
7	Insurance		$55,306	1.5% of item 5
8	Overhead & Profit		$147,483	4% of item 5
9	General Requirements/General Conditions		$368,706	10% of item 5
10	**Construction Subtotal**		**$4,304,646**	
PROFESSIONAL SERVICES				
11	Architect/Engineering Fees		$430,465	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)		$150,663	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)		$10,000	Allowance
14	Information Technology Procurement (Loose) (by School District)		$40,000	Allowance
15	FF&E Procurement (Loose)		$40,000	Allowance
16	Traffic Study		$0	N/A
17	Geotechnical Engineering (monitoring)		$10,000	interior footings
18	GeoEnvironmental Engineering		$10,000	Allowance
19	Survey/Wetlands		$0	N/A
20	Permitting		$10,000	Allowance
21	**Professional Services Subtotal**		**$701,127**	
OTHER SOFT COSTS				
22	Furnishings, Fixtures and Equipment (allowance)		$100,000	Allowance
23	Loose Technology (allowance)		$50,000	Allowance
24	Construction Testing (allowance)		$10,000	Allowance
25	Moving Costs (by School)		$30,000	By Owner
26	Property Title Review (allowance)		$0	Allowance
27	Utility Back Charges (allowance)		$5,000	Allowance
28	Legal (allowance)		$5,000	Allowance
29	Printing (allowance)		$2,500	Allowance
30	Advertising (allowance)		$500	Allowance
31	Cost Estimating		$5,000	Allowance
32	Miscellaneous Expenses		$2,500	
33	**Other Soft Costs Subtotal**		**$210,500**	
CONTINGENCY				
34	Owner Construction Contingency (7.5%)		$322,848	
35	Owner Discretionary Contingency (2.5%)		$107,616	
36	**Contingency Subtotal**		**$430,465**	
37	**Total Project Cost**		**$5,646,738**	
Note	**All costs are estimated**			
*	Sprinkler System		$499,387	
**	Accessibility Upgrades		$380,800	

Canton Schools- Feasibility Study				
Rodman Building (Option 1.0)			**Task 2, Option 3.a**	
December 11, 2018		*Overall Building GSF*	15,810	
Estimated Project Budget		*Construction Cost Building $/SF*	***$251***	
CONSTRUCTION				Notes:
1	Construction Cost including Site work (Trade Costs)		$2,866,342	
1a	Renovation to Existing School		$1,826,155	included in Line 1 above
1b	Hazardous Material Removal		$10,000	included in Line 1 above
1c	Site Work-Relocate Playground		$150,000	included in Line 1 above
1d	Sprinkler System		$499,387	Included if Item 1a+b+c exceeds $2,378838*
1e	Accessibility Upgrades		$380,800	Included if Item 1a+b+c exceeds $2,162580**
1f	Structural upgrades		$0	Included if work area exceeds 50%
2	Escalation		$85,990	3% of item 1
3		Sub Total	$2,952,332	Items 1+2
4	D&P Contingency @ 15%		$442,850	15% of item 3
5		Sub Total	$3,395,182	Items 3+4
6	Bonds		$42,440	1.25% of item 5
7	Insurance		$50,928	1.5% of item 5
8	Overhead & Profit		$135,807	4% of item 5
9	General Requirements/General Conditions		$339,518	10% of item 5
10	**Construction Subtotal**		**$3,963,875**	
PROFESSIONAL SERVICES				
11	Architect/Engineering Fees		$396,388	10% of item 10 -estimated
12	Owner's Project Manager-OPM (est. 3.5%)		$138,736	3.5% of item 10 - estimated
13	Hazardous Abatement Design/Oversight (Industrial Hygienist)		$10,000	Allowance
14	Information Technology Procurement (Loose) (by School District)		$40,000	Allowance
15	FF&E Procurement (Loose)		$40,000	Allowance
16	Traffic Study		$0	N/A
17	Geotechnical Engineering (monitoring)		$10,000	interior footings
18	GeoEnvironmental Engineering		$10,000	Allowance
19	Survey/Wetlands		$0	N/A
20	Permitting		$10,000	Allowance
21	**Professional Services Subtotal**		**$655,123**	
OTHER SOFT COSTS				
22	Furnishings, Fixtures and Equipment (allowance)		$80,000	Allowance
23	Loose Technology (allowance)		$45,000	Allowance
24	Construction Testing (allowance)		$10,000	Allowance
25	Moving Costs (by School)		$30,000	By Owner
26	Property Title Review (allowance)		$0	Allowance
27	Utility Back Charges (allowance)		$5,000	Allowance
28	Legal (allowance)		$5,000	Allowance
29	Printing (allowance)		$2,500	Allowance
30	Advertising (allowance)		$500	Allowance
31	Cost Estimating		$5,000	Allowance
32	Miscellaneous Expenses		$2,500	Allowance
33	**Other Soft Costs Subtotal**		**$185,500**	
CONTINGENCY				
34	Owner Construction Contingency (7.5%)		$297,291	
35	Owner Discretionary Contingency (2.5%)		$99,097	
36	**Contingency Subtotal**		**$396,388**	
37	**Total Project Cost**		**$5,200,886**	
Notes:	**All costs are estimated**			
*	Sprinkler System		$499,387	
**	Accessibility Upgrades		$380,800	

	A	B	C	D	E	F	G	K	L	M	N	O	P
1	**Canton Public Schools**												
2	**FY20 Budget Request**												
3													
4					**FY20**			**FY20**			**FY20**		
5					**(Superintendent's Budget Request)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
6					**(All Requests)**								
7				Line #*	FTE	$	%	FTE	$	%	FTE	$	%
8													
9	Prior Year Operating Budget			(Line 8)		***$42,396,405***			***$42,396,405***			***$42,396,405***	
10													
13	Contractual Salary Increases			(Line 24)		$1,414,954	3.34%		$1,414,954	3.34%		$1,414,954	3.34%
14													
17	Priority - Level 1 - Sub-Total			(Line 152)	20.11	$1,606,262	3.79%	20.11	$1,606,262	3.79%	10.01	$811,808	1.91%
18													
19	Priority - Level 2 - Sub-Total			(Line 265)	0.00	$474,425	1.12%	0.00	$462,626	1.09%	0.00	$180,651	0.43%
20													
21	**Sub-Total Budget Increase Requested (Above Line 13 + 17 + 19)**				**20.11**	**$3,495,641**	**8.25%**	**20.11**	**$3,483,842**	**8.22%**	**10.01**	**$2,407,413**	**5.68%**
22													
23	MINUS Projected Staff Reductions			(Line 286)	*(1.31)*	*($98,417)*	*-0.23%*	*(1.31)*	*($98,417)*	*-0.23%*	*(1.31)*	*($98,417)*	*-0.23%*
26													
27	**Total Budget Increase**		**(Above Line 21 - Line 23)**		**18.80**	**$3,397,224**	**8.01%**	**18.80**	**$3,385,425**	**7.99%**	**8.70**	**$2,308,996**	**5.45%**
28													
29	**Total Budget Request**		**(Above Line 9 + Line 27)**			**$45,793,629**	**8.01%**		**$45,781,830**	**7.99%**		**$44,705,401**	**5.45%**

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		**(All Requests)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
5										
6										
7										
8	Prior Year Operating Budget	**$42,396,405**			**$42,396,405**			**$42,396,405**		
9										
13										
14	**Sub Total**	**$42,396,405**	**0.00%**		**$42,396,405**	**0.00%**		**$42,396,405**	**0.00%**	
15										
16	**A. Contract Obligations**									
17										
19	Contractual Obligations	$1,414,954			$1,414,954			$1,414,954		
23										
24	**Total Contract Obligations**	**$1,414,954**	**3.34%**		**$1,414,954**	**3.34%**		**$1,414,954**	**3.34%**	
25										
26	**Subtotal + Contractual Obligations**	**$43,811,359**			**$43,811,359**			**$43,811,359**		
27										
28	**B. Staff Reductions**									
29	**FY20**									
30										
31	1.0 FTE JFK 5TH Grade Teacher	($71,418)		(1.00)	($71,418)		(1.00)	($71,418)		(1.00)
32	0.31 FTE Speech Language Pathologist	($26,999)		(0.31)	($26,999)		(0.31)	($26,999)		(0.31)
33										
36	**Subtotal - Staff Reduction**	**($98,417)**	**-0.23%**	**(1.31)**	**($98,417)**	**-0.23%**	**(1.31)**	**($98,417)**	**-0.23%**	**(1.31)**
37										

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		(All Requests)			("Best Case Budget")			(Superintendent's Budget Request)		
5										
38	**C. Priority - Level I**							**Priority - Level 1**		
39				FTE			FTE			FTE
40	**Requests - Maintenance of Quality - FTE's**									
41										
42	1.0 FTE District Technology Specialist	$77,500		1.00	$77,500		1.00	$77,500		1.00
43	0.2 FTE CHS Technology Teacher	$14,284		0.20	$14,284		0.20	$14,284		0.20
44	0.31 FTE DW Out of District Coordinator	$26,999		0.31	$26,999		0.31	$26,999		0.31
45	1.0 FTE PK-5 Content Specialist (Year 1 of 2)	$80,000		1.00	$80,000		1.00			
46	1.0 FTE District Data Specialist	$75,000		1.00	$75,000		1.00			
47	1.0 FTE Human Resource Director	$150,000		1.00	$150,000		1.00			
56	1.0 FTE DW Adapted Physical Education Teacher (Including Preschool)	$71,418		1.00	$71,418		1.00			
57	1.0 FTE DW District Resource Nurse	$71,418		1.00	$71,418		1.00			
58	1.0 FTE CHS Vocational Teacher	$71,418		1.00	$71,418		1.00	$71,418		1.00
59	1.0 FTE CHS Learning Center Teacher	$71,418		1.00	$71,418		1.00			
60	1.0 FTE CHS Learning Center Ed. Asst.	$0		0.00	$0		0.00	$25,000		1.00
61	0.2 FTE CHS Visual Arts Teacher (Coordinator class reduction)	$14,284		0.20	$14,284		0.20			
62	0.2 FTE CHS Performing Arts Teacher (Coordinator class reduction)	$14,284		0.20	$14,284		0.20			
63	0.1 FTE CHS Performing Arts Teacher	$7,142		0.10	$7,142		0.10	$7,142		0.10
64	0.8 FTE CHS French/Spanish Teacher	$57,134		0.80	$57,134		0.80	$14,284		0.20
65	0.7 FTE CHS Nurse	$49,993		0.70	$49,993		0.70	$49,993		0.70
66	1.0 FTE DW Speech Language Pathologist	$71,418		1.00	$71,418		1.00	$71,418		1.00
67	1.0 FTE GMS Special Education Teacher	$71,418		1.00	$71,418		1.00	$71,418		1.00
68	1.0 FTE GMS Educational Assistant	$24,536		1.00	$24,536		1.00			
69	0.2 FTE GMS World Language Teacher	$14,284		0.20	$14,284		0.20			
70	0.2 FTE GMS Visual Arts Teacher	$14,284		0.20	$14,284		0.20			
71	1.0 FTE GMS Wellness Teacher	$71,418		1.00	$71,418		1.00	$71,418		1.00
72	1.0 FTE GMS Guidance Counselor	$71,418		1.00	$71,418		1.00	$71,418		1.00
73	1.0 FTE Hansen Certified Nursing Assistant	$22,500		1.00	$22,500		1.00	$22,500		1.00
74	0.1 FTE Preschool Visual Arts Teacher	$7,142		0.10	$7,142		0.10			
75	0.1 FTE Preschool Performing Arts Teacher	$7,142		0.10	$7,142		0.10			
76	1.0 FTE Preschool Teacher	$71,418		1.00	$71,418		1.00			
77	1.0 FTE Preschool Educational Assistant	$24,536		1.00	$24,536		1.00			
78	0.5 FTE Early Childhood Teacher	$35,709		0.50	$35,709		0.50	$35,709		0.50
79	0.5 FTE Preschool Student Services Coordinator	$35,709		0.50	$35,709		0.50			
80										
86										
87	**Requests - Maintenance of Quality FTE's - Sub-Total**	**$1,395,224**	**3.29%**	**20.11**	**$1,395,224**	**3.29%**	**20.11**	**$630,500**	**1.49%**	**10.01**

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		**(All Requests)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
5										
88										
89	**Requests - Maintenance of Quality Supplies and Services**							**Priority - Level 1**		
90										
91	Bus Contractual Increase	$35,000			$35,000			$35,000		
92										
96	**Requests - Maintenance of Quality Supplies and Services - Sub-Total**	**$35,000**			**$35,000**			**$35,000**		
97										
98	**MAINTENANCE OF QUALITY - SUB-TOTAL**	**$1,430,224**	**3.37%**	**20.11**	**$1,430,224**	**3.37%**	**20.11**	**$665,500**	**1.57%**	**10.01**
99										
100	**Requests - Quality Enhancements FTE's**									
101										
133										
134	**Requests - Quality Enhancements FTE's - Sub-Total**	**$0**	**0.0%**	**0.00**	**$0**	**0.0%**	**0.00**	**$0**	**0.0%**	**0.00**
135										
136	**Requests - Quality Enhancements Supplies and Services**							**Priority - Level 1**		
137										
139	Social Studies Curriculum Resources (Grade 6-8)	$30,000			$30,000			$30,000		
140	Social Studies Curriculum Materials-K-5	$50,000			$50,000			$50,000		
141	Leveled Literacy Intervention (LLI) - Grade 1-3 (Includes PD)	$35,038			$35,038			$35,308		
142	Testing Kits-Student Services	$5,000			$5,000			$5,000		
143	Interpreter/Translation Services	$50,000			$50,000			$20,000		
144	Independent Reading Texts (English Dept.)	$6,000			$6,000			$6,000		
145										
146										
147										
148	**Requests - Quality Enhancements Supplies and Services - Sub-Total**	**$176,038**	**0.42%**		**$176,038**	**0.42%**		**$146,308**	**0.35%**	
149										
150	**QUALITY ENHANCEMENTS - SUB-TOTAL**	**$176,038**	**0.42%**	**0.00**	**$176,038**	**0.42%**	**0.00**	**$146,308**	**0.35%**	**0.00**
151										
152	**Total - Priority Level I**	**$1,606,262**	**3.79%**	**20.11**	**$1,606,262**	**3.79%**	**20.11**	**$811,808**	**1.91%**	**10.01**
153										

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		**(All Requests)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
5										
154	**D. Priority - Level II**			**FTE**			**FTE**			**FTE**
155										
156	**CHS**									
163										
164	Chemical Safety Officer Stipend (Science Dept.)	$2,500								
165	Laboratory Safety Institute Training (Science Dept.)	$199								
166	Mastering Biology with E-text (Science Dept.)	$5,799			$5,799			$5,799		
167	Engineering the Future Digital Access (Science Dept.)	$1,893			$1,893			$1,893		
168	Updates to Biotech Curriculum & Materials	$1,575			$1,575			$1,575		
169	Athletic Supplies (Uniforms)	$15,000			$15,000			$10,000		
170	Assistant Spring Track Coach	$2,142			$2,142					
171	Assistant Swim Coach	$2,142			$2,142					
172	Assistant Field Hockey Coach	$2,142			$2,142			$2,142		
173	Assistant Cross Country Coach	$2,142			$2,142			$2,142		
174	Athletic Equipment Manager	$3,600			$3,600					
175		**$39,134**	**0.09%**	**0.00**	**$36,435**	**0.09%**	**0.00**	**$23,551**	0.06%	0.00
176	**GMS**									
180	Library Books (lower reading level)	$1,000			$1,000					
181	DreamBox (language based math program)	$1,000			$1,000					
182	Science STEM Resources	$20,000			$20,000			$15,000		
183	Trade books for ELA and Reading	$6,400			$6,400			$6,400		
184	Genre Reclassification Items-Library	$1,263			$1,263					
185	Cultural Diversity Collection-Library	$1,000			$1,000					
186	Ongoing books, magazines etc.-Library	$2,306			$2,306					
187		**$32,969**	**0.08%**	**0.00**	**$32,969**	**0.08%**	**0.00**	**$21,400**	0.05%	0.00

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		**(All Requests)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
5										
188										
189	**Elementary**			**FTE**			**FTE**			**FTE**
190										
193		**$0**	**0.00%**	**0.00**	**$0**	**0.00%**	**0.00**	**$0**	0.00%	0.00
194										
195	**Professional Development**									
198										
199	GMS Curriculum Development Time (summer)	$19,800			$15,000					
200	GMS Curriculum Development Time (school year)	$8,250			$8,250					
201	GMS Project Based Learning 101 PD	$12,500			$12,500					
202	GMS Project Based Learning Sustained Support Visits	$11,000			$11,000					
203										
204										
205		**$51,550**	**0.12%**		**$46,750**	**0.11%**		**$0**	0.00%	
206										
207	**District-Wide**									
208	Field Study	$75,000			$75,000			$30,000		
209	Software	$25,000			$25,000			$25,000		
210	Mental Health Consultant	$50,000			$50,000			$40,000		
211										
212										
213										
214										
216		**$150,000**	**0.35%**		**$150,000**	**0.35%**		**$95,000**	0.22%	
223	**Visual Arts**									
227	Supplies at CHS	$700			$700			$700		
228										
229										
230										
231		**$700**	**0.00%**		**$700**	**0.00%**		**$700**	0.00%	

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		**(All Requests)**			**("Best Case Budget")**			**(Superintendent's Budget Request)**		
5										
232										
234	**Performing Arts**									
235	Stipends	$4,300			$0					
238										
239										
240										
241		**$4,300**	**0.01%**		**$0**	**0.00%**		**$0**	0.00%	
246										
247	**World Language**									
248										
249										
250	Instructional Materials (Spanish/French/German)-CHS	$151,634			$151,634			$40,000		
251	Instructional Materials (French)-GMS	$44,138			$44,138					
252		**$195,772**	**0.46%**		**$195,772**	**0.46%**		**$40,000**	**0.09%**	
253										
254										
255	**Technology**									
262										
263		**$0**	**0.00%**		**$0**	**0.00%**		**$0**	0.00%	
264										
265	**Total - Priority - Level II**	**$474,425**	**1.12%**	**0.00**	**$462,626**	**1.09%**	**0.00**	**$180,651**	**0.43%**	**0.00**
266										
267	**MASTER PLAN IMPLEMENTATION**									
268										
280	**Sub-Total - MASTER PLAN IMPLEMENTATION**									
281										

	A	C	D	E	F	G	H	I	J	K
1	**Canton Public Schools**									
2	**FY20 Budget Request**	**FY20**			**FY20**			**FY20**		
3		(All Requests)			("Best Case Budget")			(Superintendent's Budget Request)		
5										
282	**Summary**									
283										
284	**Total Contract Obligations**	**$1,414,954**	**3.34%**		**$1,414,954**	**3.34%**		**$1,414,954**	**3.34%**	
285										
286	**Staff Reductions**	**($98,417)**	**-0.23%**	**(1.31)**	**($98,417)**	**-0.23%**	**(1.31)**	**($98,417)**	**-0.23%**	**(1.31)**
287										
290	**Total - Priority - Level I**	**$1,606,262**	**3.79%**	**20.11**	**$1,606,262**	**3.79%**	**20.11**	**$811,808**	1.91%	10.01
293										
294	**Total - Priority - Level II**	**$474,425**	**1.12%**	**0.00**	**$462,626**	**1.09%**	**0.00**	**$180,651**	0.43%	**0.00**
295										
296	**Total Priority - Level I & II**	**$2,080,687**	**4.91%**	**20.11**	**$2,068,888**	**4.88%**	**20.11**	**$992,459**	2.34%	10.01
299	**Total Budget Increase Requested**	**$3,397,224**	**8.01%**	**18.80**	**$3,385,425**	**7.99%**	**18.80**	**$2,308,996**	**5.45%**	**8.70**
300	**(Level 1, 2, Staff Reduction and Contractual Obligations)**									
301	**Proposed Operating Budget Request**	**$45,793,629**			**$45,781,830**			**$44,705,401**		
302										
308										
309										