

ACCREDITED LEARNING ENVIRONMENT PLANNER (ALEP)

TAINE WILTON ALEP 2021
RESPECTFULLY SUBMITTED TO JANELL WEIHS AND THE
A4LE COMMISSION

PROFESSIONAL EXPERIENCE

I am a licensed architect with 35 years of industry experience and 22 years focused on educational architecture. After working for multiple firms, including my own women-owned architectural firm, specializing in educational architecture, I took a project manager position with Edmonds School District (ESD) in their Capital Projects Office and have now been with them for the last seven years. As the point of contact between all parties, my role is pivotal to the planning, designing and managing of multiple new schools. My work has given me broad experience in all core competencies of educational facility planning, from formulating the academic program needs assessment and building conditions assessments, to collaborating with bond committees to prioritize schools in the upcoming bond or levy cycle. I also have extensive experience working with the School Board, Director Edward Peters, school district lawyers, community members, students, school district staff, as well as, the design teams and General Contractor/ Construction Managers(GC/CM) to shape the new schools to meet the needs of future generations. This, in addition to working with local jurisdictions for final occupancy, and the Office of Superintendent of Public Instruction, to accept the final closeout of the projects while meeting the mission, vision and goals of the project.

I am passionate about working with students. In 2002, while working for Seattle Public Schools on the Ingraham High School International Baccalaureate Program Renovations, the students on the Design Review Committee said, “if you give us a professional space, we will act professionally”. This led to a design that echoed the metaphor of both higher education, along with the comfortable intimacy of a coffee shop. In the book, Welcome to Your World, Sarah Williams Goldhagen writes, “... the built environment shapes who we are and how we move through the world physically, socially and cognitively, as well as in the sense of how we construct and reconstruct our identity” proving the student’s statements correct.

Working with ESD has allowed me to provide learning environments that nurture, inspire, and support all students in their learning endeavors. A common thread through each new school includes the natural environment. These schools bring nature into the artificial indoor environment to improve student performance, to set each student at ease, so they are ready to learn.

EDUCATION AND TRAINING

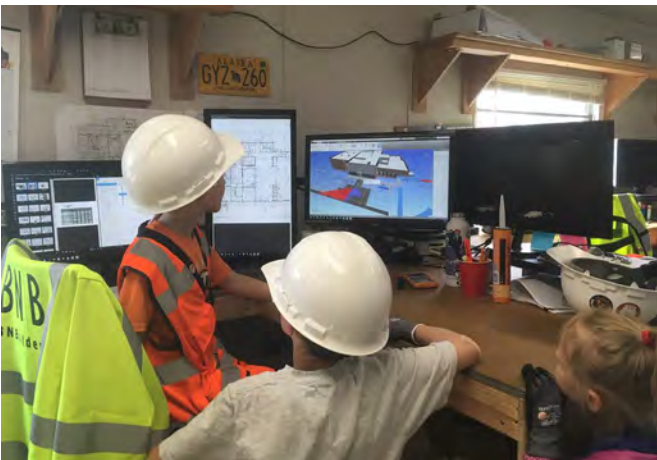
- University of Washington with a Bachelors Arts from the School of Architecture and Urban Planning
- University of Washington Hill towns Program: A summer intensive course in the hill town of Civita di Bagnoregio, Italy, where we were immersed in the community and inclusive learning
- University of Washington Certificate program - Design Firm Leadership Management
- Professional Development:
- LEED Accredited Professional
- Facilities and Advisory Committee Seattle Public Schools
- Professional Advisory Counsel - UW Architecture
- Technical Advisory Committee to the Office of Superintendent of Public Instruction
- Board to Association for Learning Environments
- Kelley Tanner Award Committee
- A4LE continued professional development.
- As a personal aside, I appreciate and value our own A4LE Washington Chapter. The many school tours help provide experience in the core competencies for those attending

SPEAKING ENGAGEMENTS

- WWU Innovative Management Guest Lecturer
- A4LE Potty Talk, Washington Chapter Conference
- A4LE Potty Talk LearningScapes International Conference

AWARDS

- A4LE LESolutions Awards
- New Learning Environment Award, The Madrona School K-8



RELEVANT PROJECT EXPERIENCE:

OSPI ESD District Wide Study and Survey 2020

Edmonds School District PM

2020 Agency Recertification

Edmonds School District PM

2020 Bond Planning

Edmonds School District Volunteer/PM

Spruce Elementary Phase 1/Phase 2

Edmonds School District Planning, Design, and Construction PM

Former Alderwood Middle School Renovations

Edmonds School District, Design, and Construction PM

Madrona K-8, New Replacement School

(Edmonds School District Planning, Design, and Construction PM

Lynnndale Elementary School, New Replacement School

(Edmonds School District Planning, Design, and Construction PM)

Former Woodway Elementary School Renovations

(Edmonds School District, Design, and Construction PM)

ESD District Wide Elementary School Educational Specification

(Edmonds School District Planning PM)

ESD Uniform Design Standards Updates

(Edmonds School District, Planning PM)

14 Portables Additions - Edmonds School District

(Principal in Charge)

Spruce Elementary Classroom Additions - Edmonds School District

(Principal in Charge)

Full Day Kindergarten Grant - Edmonds School District

(Principal in Charge)

Cascadia Elementary, New School - Ferndale School District

(Planning, Design and Construction / Principal)

Samuel E. Kelly Ethnic Cultural Center, New Construction

University of Washington

(Planning and Design / Principal)

Rainier Beach High School, Master Planning and Renovation

Seattle Public Schools

(Planning, Design and Construction /Principal)

Hamilton International MS, Programming, Ed Specs

Seattle Public Schools

(Planning / PM)

Buchanan Towers, Renovation, Fire Protection Upgrades - Western

Washington University

(Planning, Design and Construction / Principal/PM)

Biology Greenhouse and Lab, New Construction - Western Washington

University

(Planning, Design and Construction / Principal/PM)

Building C Reroof - Cascadia College

(Design / PM)

Fine Arts Building, Roofing Phases 1 & 2 - Western Washington

University (Design and Construction / PM)

Ingraham High School, International Baccalaureate Renovation and

Addition - Seattle Public Schools

(Planning and Design / PM)

2004-2006 Capital Improvements at 17 Schools - Seattle Public Schools

(Design and Construction / PM)



WHY ALEP?
ALEP is recognized as an industry leader, demonstrating a commitment to promoting and perpetuating planning excellence that benefits students. The skills that I have developed over the years working with, and for students, teachers, and communities at school districts, higher education and private schools, reflects this commitment. I would like to be recognized for not only having the skills reflected in the core competencies, but as a promoter and mentor to others in school planning excellence. The ALEP designation is a sign of trust that would allow me to share my knowledge with others and collaborate to support student achievement.

TESTAMENT:
I testify that the work listed in my following portfolio is that of Taine Wilton, candidate, and that I am the primary author of the portfolio.



CASCADIA ELEMENTARY SCHOOL



SAMUEL E. KELLY ETHNIC CULTURAL CENTER



INGRAHAM HIGH SCHOOL IB PROGRAM RENOVATION



ORCA AT WHITWORTH SCIENCE GREENHOUSE GARDEN



Taine Wilton AIA | LEED AP
Design and Construction Manager

Capital Projects Office
WiltonT@Edmonds.wednet.edu

COMPETENCIES WITHIN
LAST 5 YEARS

SCHOOLS	a. Visioning	b. Community	c. Predesign	d. Design	e. Project Management	f. Assessment	g. Ethics
CASE STUDY 1 ALDERWOOD MIDDLE SCHOOL	a	b	c	d	e	f	g
CASE STUDY 2 LYNNDALE ELEMENTARY SCHOOL	a	b	c	d	e	f	g
CASE STUDY 3 MADRONA K-8	a	b	c	d	e	f	g
CASE STUDY 4 SPRUCE ELEMENTARY SCHOOL	a	b		d	e	f	g
FORMER WOODWAY INTERIM				d	e	f	g
FORMER ALDERWOOD INTERIM				d	e	f	g
PLANNING							
CASE STUDY 1 MIDDLE SCHOOL ED SPEC UPDATE MEADOWDALE MS POST OCC. EVAL.	a	b			e	f	g
CASE STUDY 5 DISTRICT WIDE ELEMENTARY SCHOOL EDUCATIONAL SPECIFICATIONS	a	b	c		e	f	g
CASE STUDY 6 2020 BOND PLANNING		b	c		e	f	g
OSPI ESD DISTRICT WIDE STUDY AND SURVEY		b			e	f	g
ALTERNATIVE DELIVERY AGENCY STATUS					e		g
14 RELOCATEABLE CLASSROOMS		b		d	e	f	g



CASE STUDY 1 - ALDERWOOD MIDDLE SCHOOL

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
New in Lieu Replacement

Competencies
a b c d e f g



CASE STUDY 2 - LYNNDALE ELEMENTARY SCHOOL

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
New in Lieu Replacement

Competencies
a b c d e f g



CASE STUDY 3 - MADRONA K-8 SCHOOL

Location
Edmonds, WA

Role
Design and Construction Manager

Scope
New in Lieu Replacement

Competencies
a b c d e f g



CASE STUDY 4 - SPRUCE ELEMENTARY SCHOOL

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
New in Lieu Replacement

Competencies
a b d e f g



FORMER WOODWAY INTERIM

Location
Edmonds, WA

Role
Design and Construction Manager

Scope
Program and Building Renovations

Competencies
d e f g



FORMER ALDERWOOD INTERIM

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
Program and Building Renovations

Competencies
d e f g



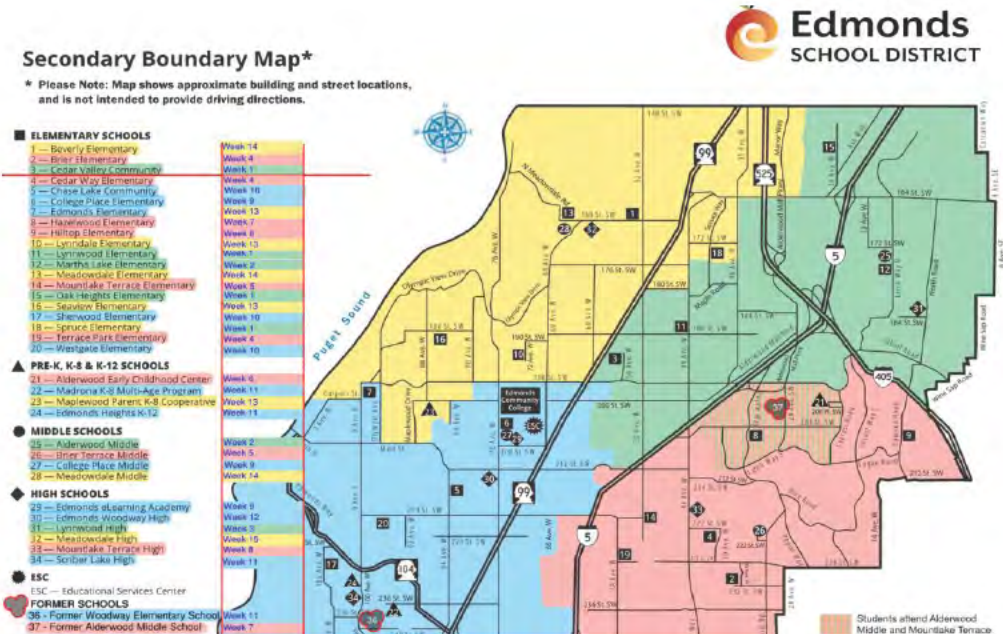
CASE STUDY 1 - MS ED SPECS MEADOWDALE MS POE

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
Middle School Planning

Competencies
a b e f g



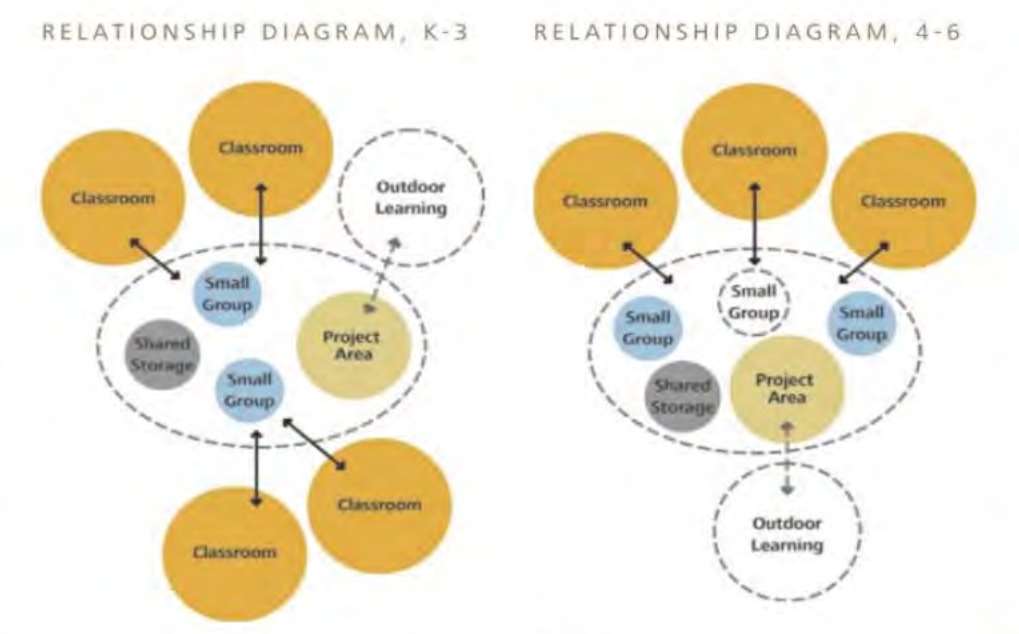
OSPI ESD DISTRICT WIDE STUDY AND SURVEY

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
Assessment and Project Planning

Competencies
b e f g



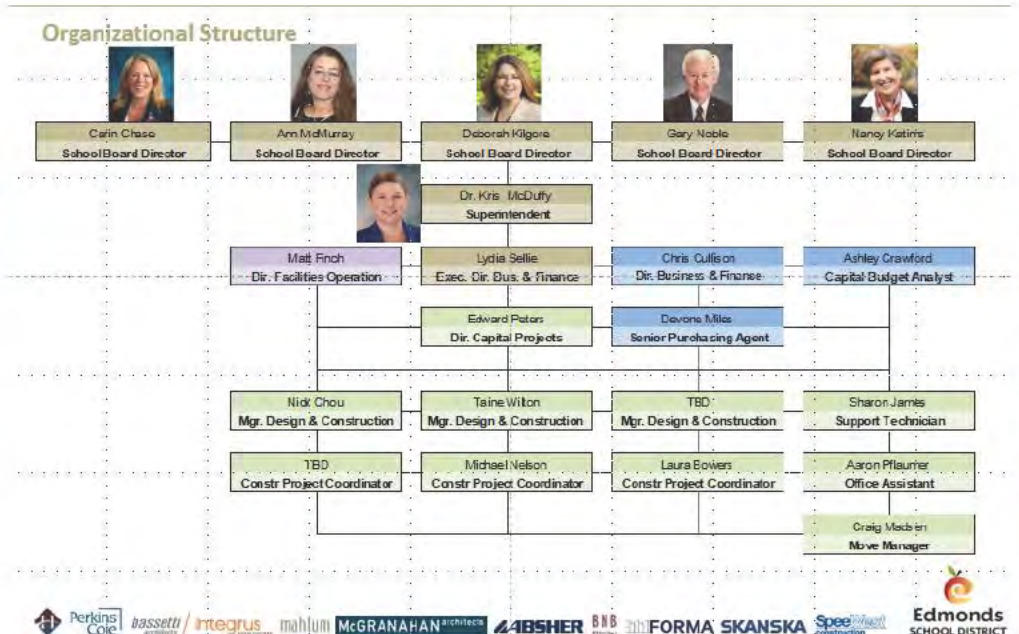
CASE STUDY 5 - DISTRICT WIDE ES ED SPECS

Location
Lynnwood, WA

Role
Design and Construction Manager

Scope
Bond Elementary Schools Planning

Competencies
a b c e f g



ALTERNATIVE DELIVERY AGENCY APPLICATION

Location
Edmonds, WA

Role
Design and Construction Manager

Scope
Construction Delivery Planning

Competencies
e g

Capacity Values				2017 Attendance			2022 & 2027 Enrollment and Capacity Forecasts				
Grade Level	Quad	Attendance Area / 2018-19 portable count	Adj 2018 Capacity*	2017 Building Attendance	2017 Enroll/ Capacity w/ Portables	2017 Enroll/ Capacity No Portables	2017 attend/ residing %	2022 Enroll/ Capacity with portables	2027 Enroll/ Capacity with portables	2022 enrollment	2027 enrollment
ES	NW	Beverly - 5 portables	575	583	100.17%	128.13%	92.10%	100.00%	100.00%	613	625
ES	SE	Brier	456	455	99.78%	99.78%	86.17%	93.54%	99.21%	427	452
ES	NE	Cedar Valley	449	440	98.00%	98.00%	89.61%	100.00%	118.75%	483	533
ES	SE	Cedar Way - 2 portables	488	564	115.57%	128.16%	85.20%	118.27%	113.65%	567	555
ES	SW	Chase Lake	451	374	82.93%	82.93%	118.35%	78.99%	81.09%	356	366
ES	SW	College Place	504	499	99.01%	99.01%	84.01%	99.51%	99.51%	502	549
ES	NW	Edmonds	358	334	93.30%	93.30%	75.91%	98.81%	94.36%	354	338
ES	NE	Hazelwood - 2 portables	519	488	94.03%	103.81%	92.78%	96.71%	99.03%	502	514
ES	NE	Hilltop - 2 portables	562	525	93.42%	100.00%	93.58%	96.71%	99.03%	577	604
ES	NW	Lynnwood	582	438	75.26%	75.26%	86.90%	78.54%	66.31%	457	502
ES	NE	New Lynnwood - 2018	618	525	84.95%	84.95%	84.81%	114.41%	126.08%	707	742
ES	NE	Martha Lake	462	468	101.30%	101.30%	92.31%	100.00%	114.08%	490	536
ES	NW	Meadowdale	455	533	117.14%	117.14%	99.63%	100.00%	100.00%	483	488
ES	SE	New Mountlake Terrace 2018	486	402	82.72%	82.72%	91.16%	91.16%	97.91%	443	476
ES	NE	Oak Heights - 4 portables	528	626	118.56%	163.02%	88.29%	144.51%	183.67%	762	806
ES	NW	Seaview	396	402	101.52%	101.52%	91.99%	92.92%	90.13%	368	357
ES	SW	Sherwood - 4 portables	526	531	100.95%	100.95%	77.86%	100.00%	100.00%	545	518
ES	NW	New Spruce - now 4 portables*	642	543	84.58%	100.00%	82.90%	94.26%	110.02%	605	706
ES	SE	Terrace Park (non-Challenge)	348	315	90.52%	90.52%	101.61%	100.00%	100.00%	362	376
ES	SW	Westgate - 5 portables	480	505	105.21%	140.26%	81.45%	113.84%	111.87%	547	537
subtotal			9,885	9,550	96.61%	100.00%	88.67%	100.00%	100.00%	10,150	10,581
ES		Challenge (@ TP)	330	331	100.00%	100.00%	100.00%	100.00%	100.00%	330	330
ES		E-Leaning	2	2	100.00%	100.00%	100.00%	100.00%	100.00%	0	0
ES		Edmonds Heights K-12	225	224	100.00%	100.00%	100.00%	100.00%	100.00%	225	225
ES		Madrona K-8	485	485	100.00%	100.00%	100.00%	100.00%	100.00%	485	485
ES		Maplewood K-8	375	373	100.00%	100.00%	100.00%	100.00%	100.00%	375	375
ES		SPED Contract/Unassigned Out of District (attend multiple sites)	17	17	100.00%	100.00%	100.00%	100.00%	100.00%	0	0
Elementary School Totals			11,312	11,194	98.90%	100.00%	103.94%	100.00%	100.00%	11,687	12,199

CASE STUDY 6 - 2020 BOND PLANNING

Location
Edmonds, WA

Role
Design and Construction Manager

Scope
Bond Schools Planning

Competencies
b c e f g



RELOCATABLE CLASSROOMS

Location
Multiple Jurisdictions, WA

Role
Architect, Principal in Charge

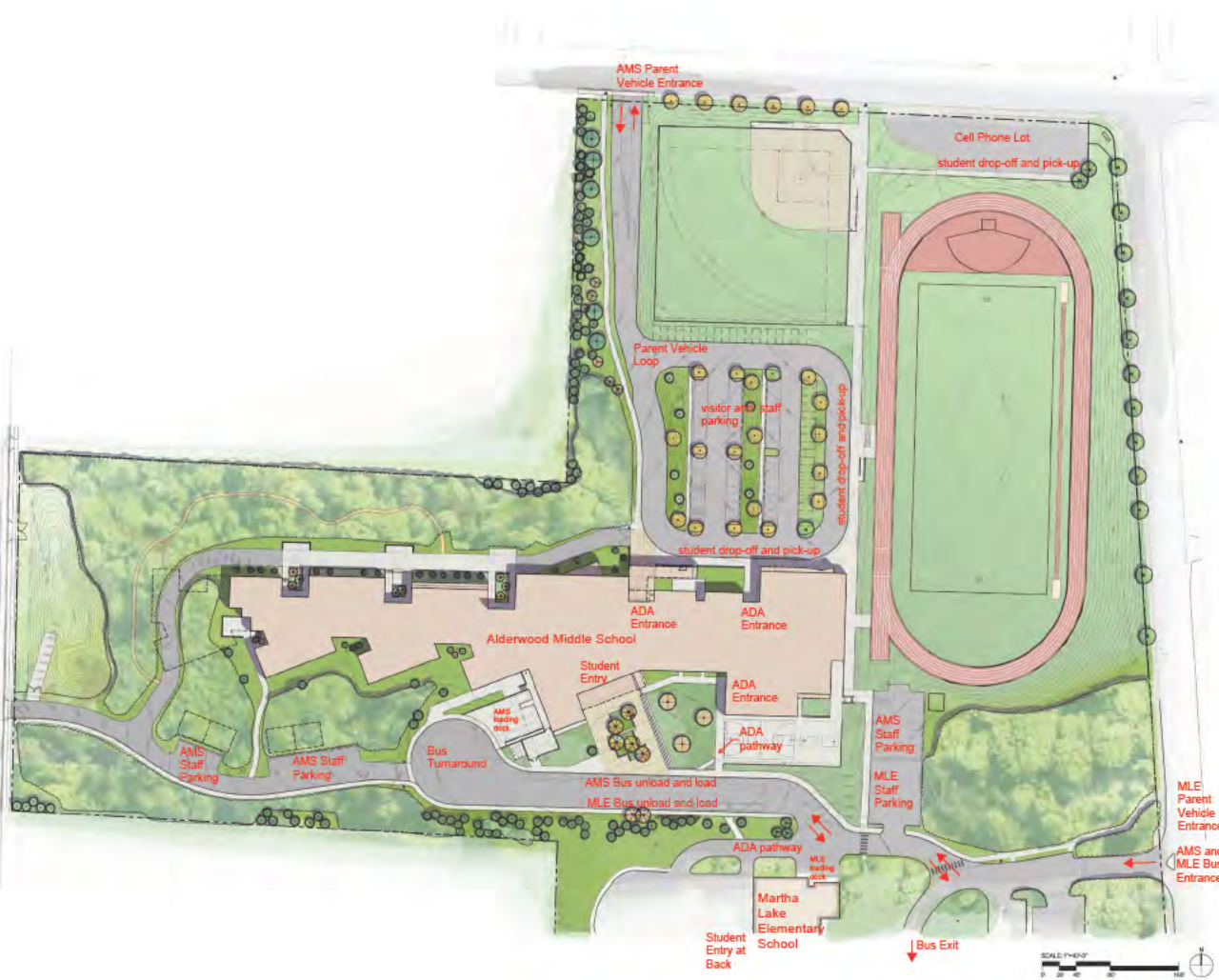
Scope
Planning, and Permitting

Competencies
b d e f g

CASE STUDY 1
ALDERWOOD MIDDLE SCHOOL
MIDDLE SCHOOL ED SPEC
MEADOWDALE MS POE



A 125,000 SF new-in-lieu, comprehensive middle school, to reimagine the 50-year-old existing middle school and relocate it to a joint use site with Martha Lake Elementary School, a more centrally located site within the school boundary area. Designed to accommodate up to 800 students, and divisible into as many as five personal learning communities, AMS consists of new sports fields, separated parent vehicle loop and parking, and shared bus loop with Martha Lake Elementary, significant neighborhood pedestrian pathways on all sides of the academic settings, and performing arts/commons, music, arts and gymnasium spaces. A school in the woods, with views of nature for nurture, and supporting students with an inspirational learning environment. Designed with a “string of pearls” metaphor in mind for multiple program delivery modalities, departmental, personal and professional learning community configurations, and student safety.



Design Review Committee Charrette



Student Visual Programming Charrette

Mustang Pride: prepared, respectful,
independent, dedicated to safety,
and empathetic

a. Educational Visioning

Establishing best and next practice visioning opportunities with a tenured teaching staff that was deeply vested in current practice, was the critical first step in our journey towards a highly flexible, student-centered solution for the new Alderwood Middle School.

We used the existing Alderwood Middle School Creed as the foundation from which staff could evolve their thinking regarding what it means to have Mustang Pride. The Creed, in effect, became one vehicle to help the teaching staff shift their thinking from their traditional teacher-centric delivery model to a more student-focused pedagogical approach. I established various stakeholder groups consisting of the Design Review Committee, Student Charrettes, All Staff Planning, ESD Departmental Planning, and Community Planning, with the Steering Committee tasked with making final decisions. I created a graphic program scheduling workshops to culminate before the end of the school year, which allowed the architects time over the summer to continue pre-design with the

provided input. The topics of the workshops created a holistic approach to thinking about the culture of the school, the socialization of the emerging adolescent, and pushed the user groups to think about 21st century learning as a way to guide the process. Students and staff described the attributes of a current middle school and a middle schooler, and their needs in the future. All committees expressed their hopes and fears, and participated in visual programming Blink exercises for likes and dislikes and followed up with consensus building exercises. Flexible spaces with connection to natural light and nature, simple forms that suggest economic use of space and natural resources with elements engaging us to our surroundings were the consensus from these exercises. Three major goals were derived from these activities: social settings that are safe and welcoming to the community, environmental connections of enduring materials, and design and quality learning environments made up of flexible adaptable spaces to accommodate evolving pedagogies.



Student Visual Programming Charrette

CASE STUDY 1 CONTINUED



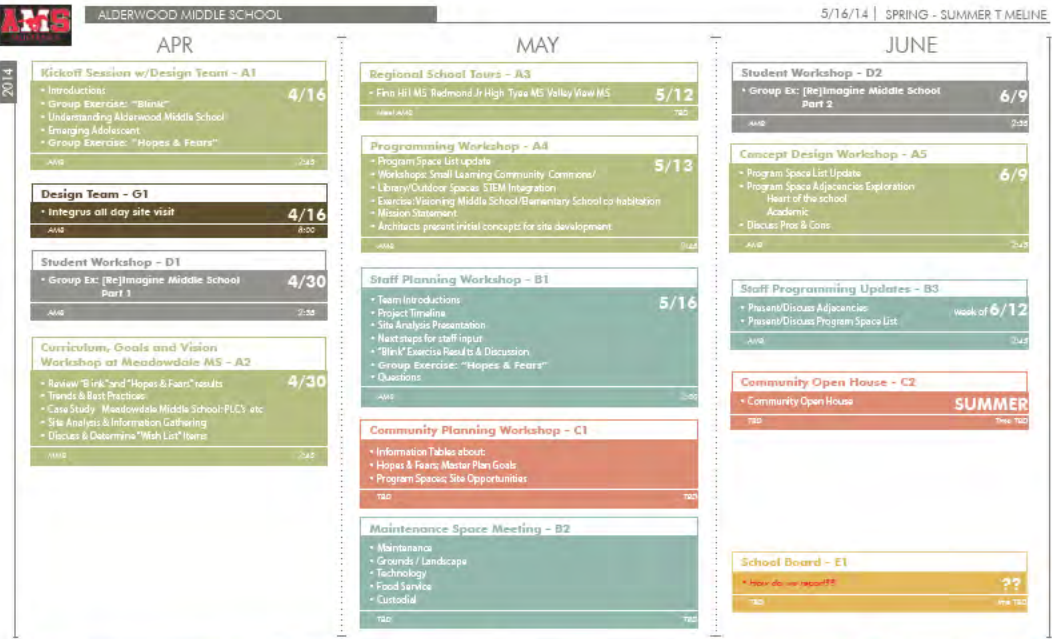
Community involvement throughout process



b. Community Engagement

My team engaged the community multiple times talking through needs and affordances for community use. Top of the list concerns were before and after school use of the gymnasium and commons, attending school performances, along with ease of access and transportation, and the ability to use fields and walking paths set among native flora. The community input helped shape the overall site plan with the location of the school, access drives, vehicle parking, bus loops, planting beds, track and fields in close proximity to the road and parking for ease of community use, while maintaining as much of the natural habitat as possible. These community affordances are the only safe recreational area in the vicinity of dense apartment complexes.

Community involvement continued throughout the project. I established joint-use agreements to minimize construction impacts, worked with the Authorities Having Jurisdiction, and our School Board to meet their specific needs. Keeping the neighbors informed along the way helped this progress smoothly by building and keeping their trust.



c. Educational Facility Pre-Design Planning

My team reflected on the configuration of Meadowdale Middle School. Five classrooms configured around a central flexible collaborative space worked incredibly well. This configuration allowed for multiple delivery models, a departmental grouping of classrooms, or as a grouping of various subjects, for more efficient student circulation. This, in addition to a flex space and maker space with ample views.

I set up an eco-charrette to assist the design team with sustainability goals for the project and toured schools, both physically and virtually, to elicit comment on next and best pedagogy. Visual programming activities helped with the color pallet, wayfinding, and material selection. Adjacencies and day-in-the-life activities were some of the tools that we used to arrive at a configuration for the school as we headed into design.

Concurrent with the site-specific Educational Specification, I led the effort with our ESD departments to update our district's Uniform Design Standards.

d. Design of Learning Environments

We selected our General Contractor/Construction Manager at the beginning of the design phase. We were able to leverage their early participation into affording more program to support students. Part of the site planning included bus loop mock-ups to ensure access for the shared bus loop between the two schools (the new middle school and existing elementary school) worked smoothly without traffic jams. Throughout the design phase the needs of the emerging adolescent with plenty of varied gathering spaces was core to the design. We met with focus groups from the various departments within the teaching staff, custodial, administration, librarian, and food service to dial into the precise affordances the learning settings should capture to support student learning. This led to standing height desks, backpack storage, collaboration space under the stairs, and colors as a wayfinding tool, and placing student selected positive quotes for encouragement throughout the school.



DRC involvement throughout process





e. Educational Facility Implementation/Project

My team of Owner/Architects/Contractors met regularly and agreed to an accelerated schedule as a way to control costs by reduced escalation. Consequently, as project Manager, I had to intervene with the authorities having jurisdiction to push permits along, help create agreements with county for traffic impact fees and waste water hookup fees, and ensure all permits were in place for the start of construction. I also made sure the design team continued to meet the needs of the Design Review Committee, community, district departments, uniform design standards, educational specifications, and while remaining on time and well within budget.

f. Assessment of the Learning Environment

When ESD commenced work on Alderwood Middle School, the Superintendent requested that we clone our McConnell Finalist Meadowdale Middle School to be designed and constructed by the same team of Architects and GC/CM as Alderwood Middle School. Instead, we completed a deep-dive into the needs of AMS, along with a post-occupancy evaluation of Meadowdale Middle to inform the vision and pre-design of our newest middle school. At Meadowdale Middle the Commons serves as the heart of the school, at AMS the Performing Arts Center is the heart of the school, with acoustics, theater lighting, sight lines, ample multilevel seating to accommodate half the school (which in actuality accommodates the entire school) as the heart of the school, first, and Commons second.

To accommodate a need to increase student privacy, the location of the councilors' offices became nestled in the Administration suite as opposed to being out in the open. The visioning processes led to increased learning settings for PE, CTE, and opportunities for outdoor learning, both covered and open. Teachers at Meadowdale elaborated on the lack of sight lines to the collaboration spaces as the reason that these spaces were unused. As a result, at AMS we improved the sight lines into the collaboration spaces for soft supervision, and reconfigured built-in affordances for increased student support, such as cyberbars and benches. Flooring and ceiling materials increase the acoustical performance of the space and set the space apart from the corridor to promote collaboration. Furniture selection and teaching aids indicate a suggested use of the spaces.

g. Ethics/Professionalism

My leadership at all levels of the project, including collecting input from individuals, communities, and professionals, helped create this new middle school. As an example, Alderwood Middle School has a unique Career and Technical Education (CTE) program that studies the strength of materials to start the middle school aged student along a path through high school, the local Edmonds Community College, and straight into a career in metallurgy at Boeing, an industry partner.

Early on in the visioning process, we met with a group of specialists and community professionals. Throughout the process, we continued to check in with them to ensure the spaces supported design within a clean academic environment, with an adjacent workshop including all the necessary tools needed to construct and test the student designs. While Meadowdale had a similar design starting out, the capacity of the school forced a change of use for the CTE academic space. We used the lessons learned from Meadowdale MS and the former Alderwood MS to create spaces that would support the program into the future of CTE. Ample visibility into these spaces and location adjacent to the heart of the school helps promote this program and it remains a pride of the school.



Performing Arts - Heart of the school

CASE STUDY 2

LYNNDALE ELEMENTARY SCHOOL

a b c d e f g

The original Lynndale Elementary was a one-story campus style facility built 50 years ago with very few affordances that warranted preservation. The 80,000 SF new-in-lieu elementary school replaced the original on a shared site with Lynnwood Parks and Recreation and Pacific Little League, and was designed for 510 students. The new educational facility squares to the street allowing for a separate parent vehicle loop and parking to the west, with the bus zone along a pullout within the city right-of-way to maximize academic use, on a constrained site. Pedestrian pathways around all sides of the school create informal exercise space for the school and community. The two story student-focused academic wing at the south connects to the more public multifunction spaces to the north, including the cafeteria/music room / presentation space adjoining the library, connected to the stage/after school program and gym/all student gathering space, as well as outdoor covered play, outdoor learning, nature play, and student gardens. The new configuration provides safety vestibules to meet the energy code, and provides a welcoming single point of entry.

a. Educational Visioning

Based on the District Wide Elementary School Educational Specifications, the project visioning began with understanding the project specific vision for the Lynndale Lions, as this school is nestled in a community of multigenerational alumni. I established a schedule for workshops and community engagement, as well as stakeholder groups consisting of the Design Review Committee, District Departments, and the Steering Committee. I engaged the students and committees with likes and dislikes and functional programming activities to push the conversation past today and into a future educational delivery model. Participants pondered, “If Lynndale was designed to be a 50-year school, then teachers at that future time have not been born yet.” Bringing the community into school, extending education to include pre-k, and incorporating intensive and emotional support programming were a few of the unique outcomes of this project. The functional programming exercises revealed the need



for various sizes of collaborative learning spaces both outdoors and indoors. Teachers were not comfortable with open collaboration spaces as part of the corridors, but sought control and visibility by increasing the number of enclosed, acoustically separated, small collaboration spaces at a ratio of one for two classrooms. Cherished attributes of the original school were the courtyards, the open campus that served the community, and the beauty of the ravine designated as a fish and wildlife habitat. Every participant requested their learning environments afford views onto the ravine, plus the integration of the ravine into the school. Design charrettes for goals with visual programming activities revealed the desire for nature to permeate all aspects of the school, including connecting education, being respectful of cultural differences, and understanding the water story and the ravine’s direct connection to the Salish Sea.

Functional Programming



Outcome of Functional Programming

Functional Program

- Large Group**
- :: 12-20 students
 - :: 200-300 square feet
 - :: Think Tank
 - :: Group Workstation/Technology
 - :: Teaching Wall/Interactive
 - :: Acoustically Separated



Functional Program

- Small Group**
- :: 4-6 students
 - :: 120-150 square feet
 - :: Think Tank
 - :: Group Workstation/Technology
 - :: Teaching Wall/Interactive
 - :: Acoustically Separated





b. Community Engagement

I held several town-square style meetings with the community. Easels at each table arranged by topic were used to collect community comment. Surveys and comment boxes were used to collect comment from those too shy to share their opinion. The District website provided updates and included contact information so I could address any concerns. These activities helped develop trust and understanding.

Big visions included: A school welcoming to the community and encouraging their use; A compact school with more open outdoor areas echoing the connection to the fish and wildlife habitat. The community desired additional parking space during game days, improved access, walking paths, and landscape screening. Neighbors requested a new covered play to take the place of the original, along with outdoor basketball areas. Playgrounds connected to the ballfields were also requested.

The City requested improved right-of-way with widened sidewalks at the bus pullout. We enacted shared parking agreements with City Parks. I worked with neighbors on an individual level, working through fence encroachments onto the school's property, our wetlands encroachment onto the neighbor's property, and trees causing hazards in extreme weather events. Through open communication, I was able to resolve issues before they became problems.

Additionally, my team participated in school-wide community celebrations. For example, on the last day within the existing school, we developed the Lynndale Tree made up of handprints from the students, families, community, teachers, and staff. This later became a full-scale art wall within the new school. The trusting relationship I developed with the neighbors and community by including their ideas for the future school into the planning, helped establish a school that everyone was proud to call their own.



c. Educational Facility Pre-Design Planning

Siting a new school on a condensed site to meet the parameters established in the visioning and community engagements was challenging. I urged the team to try multiple options to fit the school within the usable space leaving the ballfields untouched and usable by the community throughout construction. The committees all agreed on a compact configuration with community at the center.

Master planning continued with focus groups and adjacency activities that led to a clear delineation between public and private. Teachers reflected on their current teaching model and determined a configuration that facilitated aspirational team collaboration in the future as the best approach. The ground floor Pre-K, through 1st grade wing which has in-floor heating to support students' floor time activities, a second floor wing of 2nd through 4th grade, and another for 5th and 6th grades became the established plan for developing learning environments. Priority was placed on interior glazing to capture views of the ravine from all spaces and also increased safety. As a District we required maker spaces to be part of the library. The adjacencies of the library to the commons afforded the maker space, as well as lecture space when gathering half the school.

I held integrated design charrettes with our District Departments with the design team for them to understand the sustainability goals and systems the District was willing to take on to reduce energy consumption. Uniform Design Standards were incorporated into early cost models for capital planning.



d. Design of Learning Environments

A hybrid L shape design rose to the top as the configuration best suited to align with the vision and goals. I worked with the design team and GC/CM to accelerate the schedule for completion a year ahead of the original bond planning schedule to avoid escalation costs. The public spaces at the north connected to the ballfields, covered play and gymnasium and to the private academic wing to the south. Affordances such as rain gardens and covered outdoor maker space, vegetated roof garden for outdoor science classroom, with indoor graphics tied to the theme of nature connected to the ravine, and the headwaters to Perrinville Creek allow students to learn about geography, nature play, and fish and wildlife conservation.

Material selection responded to the goals of sustainability and durability, especially for a school adjacent to ballfields. The siding and windows selected have integral color avoiding future repainting costs. When the mechanical systems were considered too costly, I led the team to research systems used by another school district in the region. The design team, including district facilities, capital projects, our commissioning agent, cost estimator, and 3rd party reviewer, toured the new mechanical systems, plus interviewed their maintenance department for practicality and longevity. By applying what we gleaned through the tours, interviews, and life cycle cost analysis, we decided the system we had planned originally was far superior and worth the added cost. Aspects of the system became an alternate, for bid protection, and for which I was able to accept during construction.

e. Educational Facility Implementation/Project

As the Design and Construction Manager, my primary responsibility was to work with ESD departments, community, students, families, faculty and staff, design team and general contractor/construction manager, authorities having jurisdiction, and vendors, to deliver a new school on time, and with budget surplus transferable other bond projects. All while meeting the vision and goals throughout the project, using district standards and educational specifications as guides.



Agile Commons

f. Assessment of the Learning Environment

Post-occupancy evaluations of our most recently completed elementary schools went into the development of the District Wide Educational Specifications. An assessment of the existing Lynndale School, completed during visioning, highlighted the courtyards, and views to the protected fish and wildlife designated ravine. An assessment of the site specific pedagogy revealed needs for an integrated pre-k program, science for 5th and 6th grade, intensive emotional support, learning and English language support, and a community room for community and parent use. To expand the thinking of next and best practices, we toured schools that push the needle, both regionally and those afar virtually. Multifaceted learning environments became a foundational vision to maximize the learning environment and accommodate the many affordances desired by the various committees. This meant that the commons could be used for student dining, maker space, guest speakers, and presentation space, orchestra and after school care. The stage could be for all-school performances, band, and after school care. The gym could be used primarily for PE, all-school gatherings, community use, and before and after school care. Classrooms with multiple presentation walls allowed multiple learning activities with smaller student groups within the larger classroom.



Library with Ravine beyond

g. Ethics/Professionalism

I led the team from start to finish through open communication and collaboration. I asked questions to push the team to evaluate the work and ensure it met the needs of all students and reflected the best use of taxpayer dollars, within the available time. I began an iterative process of review and assessment using collaborative tools between the owner, design team and contractor that permitted transparent communication. I advocated for our Facilities Department by requesting the contractor provide 3-D model clash detection prior to construction, as built photos of in-wall systems before wall cover embedded in drawings. This, in addition to aerial photos taken during construction progress to the school and community.



Outdoor Science Classroom, Staff Collaboration Roof Deck and Garden

CASE STUDY 3

THE MADRONA SCHOOL

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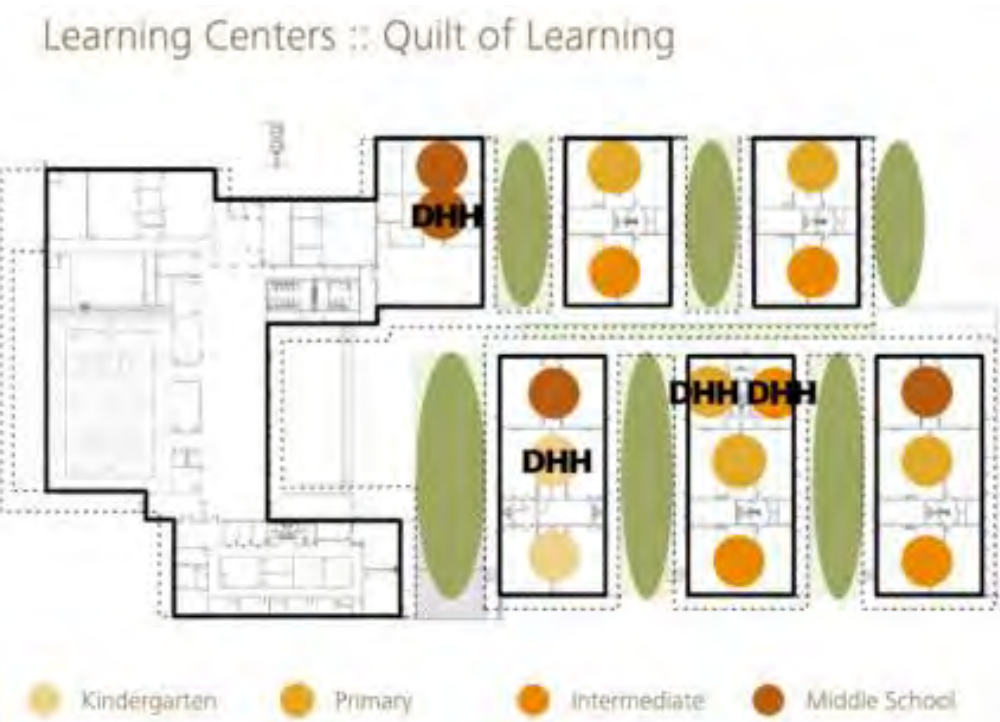
e

f

g

The Madrona School is an innovative alternative K-8 multi-age program that had been thriving for over 15 years, despite being wedged within a rambling former junior high school facility. The multi-age program, along with the colocated Regional Deaf and Hard of Hearing Program (DHH), consists of a series of learning centers with 54 students to two teachers. The collaborative team-teaching model of paraeducators, interpreters, and parent volunteers helped make this model a success. While there were aspects of the school there were appreciated by students, teachers, staff, and community, it was past its useful life. Even with multiple remodels, it still did not adequately support the academic program and students.

The outcome of The Madrona School is a truly unified multi-age program that supports students by demonstrating sustainability and green living, with ample space for the school's project-based learning and collaborative learning, that produces globally aware students in a learning environment embodying The metaphor, a “Quilt of Learning.”



a. Educational Visioning

The district hadn’t planned a K-8 program in 12 years. We were able to use the District Wide Ed Spec (DWES) as a starting point, and lessons learned from post-occupancy evaluations of the existing schools, Maplewood K-8, and Terrace Park, both schools within the district that were designed as K-8 programs. The first step was to establish review committees for strategic direction, interconnectedness, and equity to support effective learners.

I established, along with the principal and architects, the following committees: Design Review Committee (DRC) which included students, teachers, staff, parents, and community members. This committee ensured we were meeting the needs and the desires of the school program. The Visionary Committee (VC) was selected to ensure we met the pedagogy of multi-age delivery and the Madrona guiding principles: awakening minds, nourishing hearts, cultivating community. The Community provided the perspective of school impacts on their neighborhood, and ways that cultivating community and relationships could be improved. Madrona Integrated Team (MIT) the parents’ volunteer committee, provided input regarding students’ and parents’ needs. The Steering Committee made the final decisions going forward taking the best of the work from all committees. I urged my team to utilize a multitude of tools to gather the vision and goals for the project, such as school tours, (including a trip to the Washington School for the Deaf and Hard of Hearing School in Southwest Washington where one of the DRC teachers had been a student) virtual tours, spectrum charts, visual programming activities, likes and dislikes photographed by students, and charrettes.

For the charrettes, groups were formed with a balance of voices in each group. This included functional programming exercises for spatial definition, materiality, and teaching aids. My team used spectrum charts to establish the Heart of the School and reach a consensus quickly. During this activity, one student asked if the heart could be something unidentified, such as an outdoor garden or courtyard. The student presented why outdoor spaces are desirable for students: they stimulate the mind, awaken the senses, and allow for time to reflect before the next class. Thanks to this student, this became the guiding principle of the school planning and design.

Another exercise, Headlines Collective Messaging, where stakeholders write a headline to a news article about the school, helped build consensus. The headlines included, “Kids Learning Inside and Out: Empathy Learning”, and “Grand Opening Concert: Outdoor gathering spaces, amphitheater.” These directions were integrated throughout the iterative planning process. A consensus of goals became apparent:

- **Aesthetics** - natural materials nourishing through beauty of place
- **Agile facility** to meet needs of today and evolving pedagogy
- **Natural light** and natural environment
- **Diverse community** - accommodates all students
- **Visual connections** and sight lines - clear supervision, connectivity for collaboration
- **Balance** between indoor and outdoor learning
- **Acoustics** - heard and not heard depending on space. Balance between large and small groups.
- **Entire community gathering** - maintain large gym. Gathering outside - gather 600 for amphitheater presentation

Another charrette I orchestrated looked into the makeup of a learning center and required adjacencies. The learning center required the ability to gather all students at the start of the day for circle time. Then, with agility, break into small groupings supporting diversity of learning and individual needs while meeting the goals listed above.

During the visioning, a parent on the DRC indicated the need for non-gender toilet facilities. While we had Board policy regarding non-binary toilets, our District sorely lacked such facilities. I organized a Toilet Summit meeting with students, parents, teachers, administrators, Equity Alliance for Achievement (EAACH), community, and members of our Steering Committee. We learned from the student’s perspective why toilets should be universal, designed for everyone, regardless of age, gender, religion, and abilities, and that they should be labeled simply “toilet”. This need reaches not just Madrona but all schools. As a result of this research, and the power of the student voice, Madrona became the first school in the ESD with universal toilets, and spearheaded the way for other schools in other jurisdictions. This also became the topic of a local and international A4LE presentation.

b. Community Engagement

We had several town square style meetings with the community, inviting them in to glean the aspects of the original school which were most desirable to maintain or recreate in the new facility. The track and the extensive trail system rose to the top of aspects to maintain. Improved traffic safety with separate bus and parent vehicle loops, and ADA sidewalk access became a site driver. The design met these goals by locating the school further back from the road with a longer loop for greater car capacity. The all-weather track surface provided a year-round space for community healthy living. During the Covid-19 pandemic, the school track has become a community outdoor place to exercise while social distancing, an unforeseen benefit.

c. Educational Facility Pre-Design Planning

The team started with the notion that we could save existing facilities, however, after structural analysis, and review of solar angles, the original buildings were not located for optimal solar orientation and were structurally inadequate.

Multiple options were tested to meet the needs developed during the visioning process. The teachers loved the metaphor of a circular school, but when examining this configuration everyone realized the difficulty and added cost of building a school in the round, in addition to the difficulty for future expansion. This led to a plan where middle-schoolers could navigate from class to class without disrupting the rest of the school. The preferred configuration consists of a public community use learning environment closest to the community fields and the road, and private academic learning centers in smaller clustered buildings arranged along the outdoor spine. Middle school centers were located closest to the spine to minimize visual distraction and noise. The outdoor circulation spine shares space with a parallel rain garden that runs the length of the spine. This tells the water story of roof runoff captured into the rain garden that then flows into the adjoining wetlands.



d. Design of Learning Environments

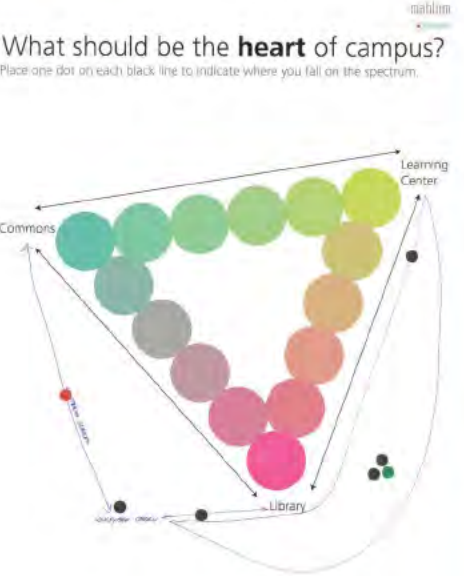
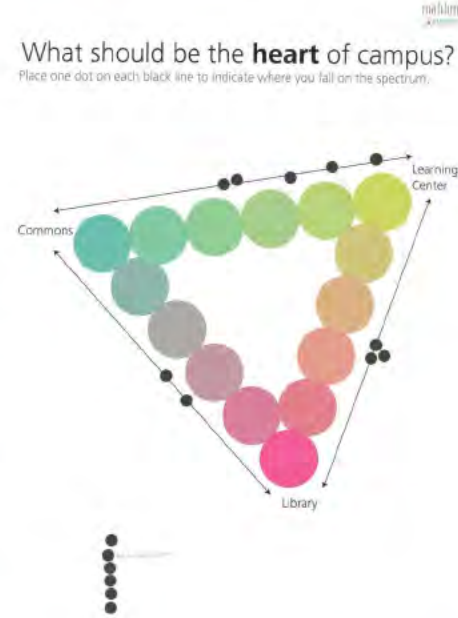
In the visioning process, collaboration spaces were analyzed and prioritized into the cost model. When the plan ended up too costly, a way to bring the design back within budget was to move some of the collaboration spaces square footage to outdoor learning settings. This way, interior small group rooms learning and exterior larger group collaboration spaces could be accommodated. This also helped meet the goal of having balanced indoor and outdoor spaces. I set up extensive focus group meetings to help fine-tune the design to meet the current and future needs of all students, parents, staff, and community. Three learning center configurations were developed to support the pedagogy of the different ages. Pre-K/Kindergarten have adjoining learning settings through a shared cubby space with access to toilet facilities for students' agency, with enclosed small group learning bisecting the larger center. The agile primary and intermediate centers have a sliding glass wall that bisected the center to facilitate full center gatherings when open, and smaller groupings forming an "L" shaped learning center on either side when closed, while still allowing passage through the open shared cubby space with access to toilet facilities. Middle School Centers have enclosed small group rooms and shared toilet facilities bisecting the centers. Ample glass walls with visibility for soft supervision support the students in all three configurations. All centers have outdoor learning space.

Special attention was given to the design of spaces to support all students, including those with unique abilities. For example, we employed glass corners for improved sight lines, and acoustical treatment throughout the school. Light green acoustical panels in the learning centers of solid color reduced visual noise to assist with sign language clarity. Other affordances incorporated to support all students included specialized sound systems, intercom clocks that scroll messages on multiple lines, light doorbells, special colored lights that signify various emergencies, passing periods, or return to class. The lights were located throughout the school, playground, toilet rooms and corridors.



DRC

Parents



Heart of the school visioning exercise, lower left dots reveal: Outdoor Courtyard



e. Educational Facility Implementation/Project

This was the first project in our Capital Projects Office to use GC/CM 2.0 (the blending of GC/CM with Integrated Project Delivery). We had been disappointed with the first three projects in the bond package and the inability to come to a strategic consensus to balance the costs. Our GC/CM 2.0 began with a Target Value Analysis Charrette where the full design team, contractors, contractor’s cost estimators, capital projects, capital projects’ consultants and capital projects’ cost estimator came together to devise target values for all the broad bid packages. Going forward, if the cost estimates came in too high, it was easy to pinpoint which bid package was over budget and where value analysis had to take place to bring the bid package back into alignment with the original target values. This approach was included in the RFQ for our GC/CM selection. The contractor selected for the project had ample experience using target values at the onset of the project to control costs.



f. Assessment of the Learning Environment

In order to design a replacement school, it was very important for my team to analyze multi-age programs. Without examples to tour, we completed an in depth assessment and tour of Madrona. Over the years, the learning spaces of the junior high had been decommissioned and repurposed without ever meeting the program’s needs. For example, the wood shop had been converted to a primary center (54 students of grades 1-3). However, the adaptations the teachers made to the learning center with furniture, informed the new learning center configuration.

I set up focus group meetings for my team to understand the nuances of The Madrona School “tribes” and “Learning Centers”. The tribes consist of cohorts of students in multi-age Learning Centers: Pre-k and Kindergarten, Primary grades 1-3, Intermediate grades 4-6, and Middle School 7-8 graders. The Learning Centers all required different attributes. By studying them all, and incorporating the required affordances into every learning center, the school was able to provide agency for all learners within the agile learning center.



Student Art: Respect, Kindness, Empathy, Responsibility, Perseverance

g. Ethics/Professionalism

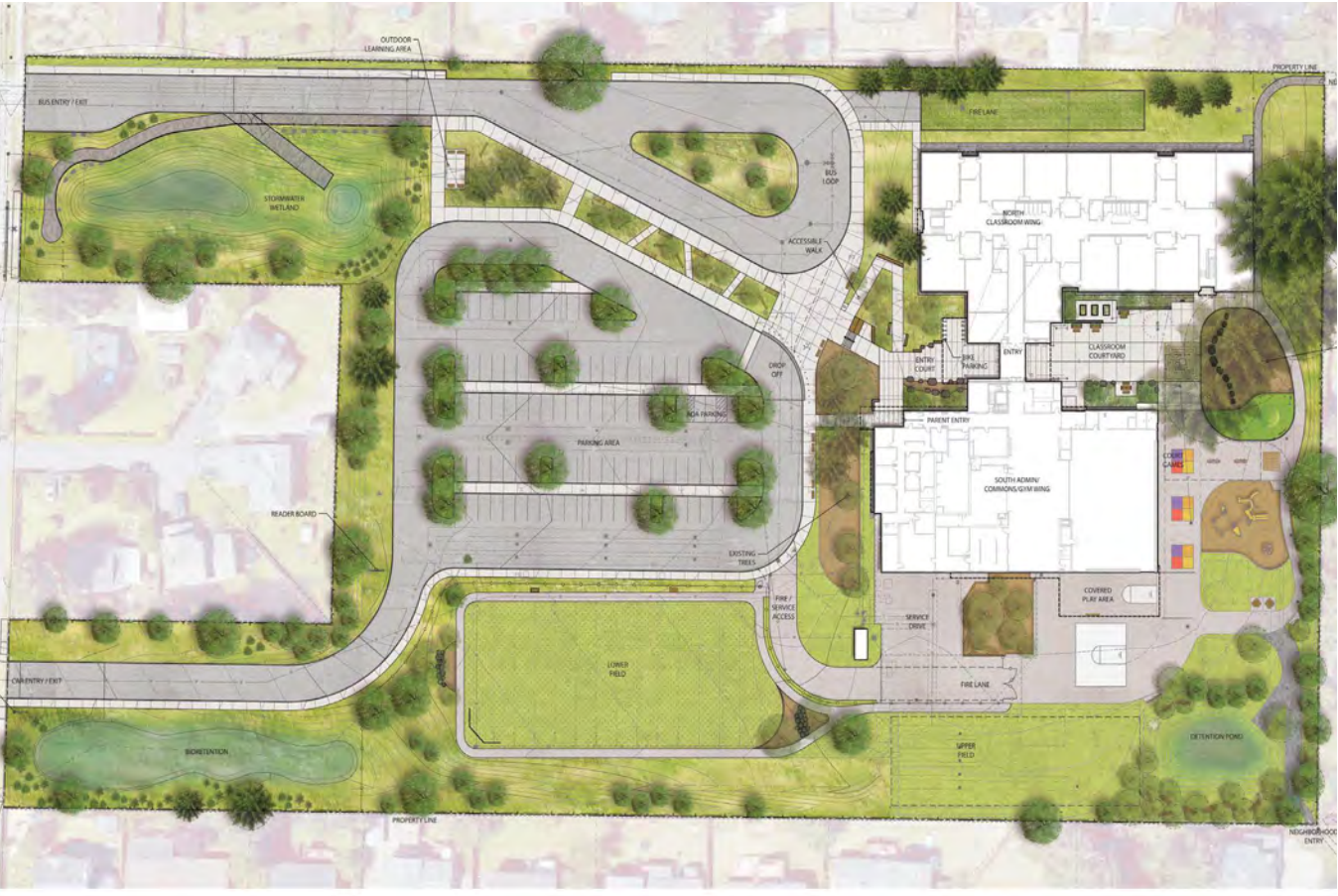
While ethics and professionalism are always part of my everyday work, this project pushed into realms we hadn’t experienced before. The Madrona site had an opportunity to take advantage of a highly sustainable low cost solution to stormwater, by returning the clean water back into the ground to recharge the aquifer. My team complied with local, state and federal codes, and yet our Water and Sewer District denied us water, until we met their demands. This impacted the project schedule and budget. To break the log jam, we held community meetings, educating the community on the sustainable aspects and code compliant construction in place per permitted design. Aside from all the research, data, agreements, and additional documents, it ultimately came to trust. Maintaining a high degree of professionalism throughout the entire process, my shuttle diplomacy helped build a trusting relationship for all involved. We were finally able to meet the needs of the Water and Sewer District and move the school into their new facilities over winter break. Opening the school in January was still nine months ahead of the original bond schedule.

CASE STUDY 4

SPRUCE ELEMENTARY SCHOOL REPLACEMENT

a b d e f g

This 80,100 SF new-in-lieu elementary school with phased construction located in Lynnwood, WA is designed to serve 650 students. The building is configured to connect to nature while offering safe and flexible learning environments. The public south wing contains a welcoming entry, community rooms, music, band/stage, commons, and PE connected for whole school gatherings and a private two story academic wing to the north with 28 classrooms arranged in four flexible pods with shared enclosed maker spaces supporting every 2 classrooms, and open flexible space supporting every four classrooms. The library connects the public and private spaces on the second floor with views out to the Olympic Mountains to the west, and an outdoor maker space balcony overlooking the playground to the east.



Revised Phase 2 Site Plan with residential lot

a. Educational Visioning

Visioning for this project happened with another project manager in our department. However, it is based on the District Wide Elementary School Educational Specifications that I led as described in Case Study 5. Further, the visioning doesn't stop at the beginning of the project, but is an iterative process that is refined and actualized as the project progresses.

Spruce was the last project to be completed in the 2014 bond package. It was clear early on, even with the savings that we were able to transfer from my first two projects that there would not be enough funds to cover a New-in-Lieu School. Consequently, the project was broken up into Phases. Phase 1 consisted of the public side of the school along with the main power plant, sized for the total school. As Project Manager, I oversaw the construction of Phase 1 and the design of Phase 2, yet to be constructed. In my role, it was important to go back and review the previous visioning, community engagement, and predesign to ensure the project continued to meet the vision and goals throughout the process. I helped develop several visions into a more cohesive design reflecting that vision. As one example, the

vision of the school anchored within the community, drawing on the history and pride of place. Working with the school's principal, we had a parent/photographer spend a year photographing the former Spruce throughout the seasons. Each season will be used as supergraphics denoting the arrival to each of the four clusters of learning environments, small group room, and collaboration space. I worked with the principal, teachers, students and design team to translate another vision of healthy and comfortable learning and work environment into a design of universal toilets for Phase 2. This will also help meet our District's long-term goals of "All means All." Spruce will only be the second school in our district with this affordance.

During the design phase, I had my team work with the school staff regarding furniture fixtures and equipment they envisioned for their learning environments, so that the District Wide Ed Spec could be adjusted to meet this particular school program needs: collaboration spaces with built-in theater style seating for lower grades, and cyberbar collaboration space, all with power for recharging devices, became the notable outcome of these exercises.

b. Community Engagement

Though my role as project manager began at the start of construction of Phase 1, community engagement was and continues to be an ongoing piece to the success of any project. The Spruce Elementary school is a flag lot with a very narrow connection to Spruce Way. All bus and parent vehicle traffic access and leave the school site through the narrow gap among dense residential community. Traffic backs up and impacts the neighborhood and community twice daily posing a safety hazard. Part way through Phase 1 construction a neighbor indicated their willingness to sell us their residential lot so that our property could be a U-shape with two connections to Spruce Way. Of course we agreed. I held community meetings to gather input on the school use of the recently acquired property.

The entire community agreed that an open field planted to promote habitat, safe pedestrian and bicycle access, and separation of parent vehicles from bus traffic was the best use. The revised site plan now includes a separate bus loop in the northerly street connection, along with safe pedestrian access and bicycle trails, and in the southerly connection, there is parent vehicle access, parking, along with ADA pedestrian access, landscape screening and wildlife habitats.

Cultural artifacts at schools require care and attention. The Spruce totem pole, a gift from a Haida carver, is currently located in the library, the only space tall enough for the 12' tall sculpture. The school desires to relocate it to the new school. I met with, and engaged Tulalip tribal carvers for their expertise regarding the optimal relocation. The totem design had been a house pole presiding over the longhouse potlatch area. For that reason it was determined to relocate the totem to the Commons, but set on a plinth to protect the sculpture, and give it the respect it deserves. The tribe would like another totem celebrating the our local Coast Salish carving traditions to stand next to this one, and the space and structure for the future totem has been included in the design.



Students and staff signing beam at Topping Out Ceremony

d. Design of Learning Environment

Using our GC/CM 2.0 protocols my team completed cost estimating along with budget options logs to track the bid packages that were over their target values. Value analysis, constructability review and lessons learned from Phase 1 were applied to the design of Phase 2 to help rein in the costs. Using the latest collaborative design review software, my team of departments at ESD, the design team, and GC/CM reviewed the same design documents simultaneously. Comments were color coded by discipline, making corrections easy to track until all were incorporated. I included sustainability goals into the review and vetted features that deviated from our Uniform Design Standards with our Maintenance and Operations. The site plan was updated to incorporate the new residential property and the various requests from the community engagement.

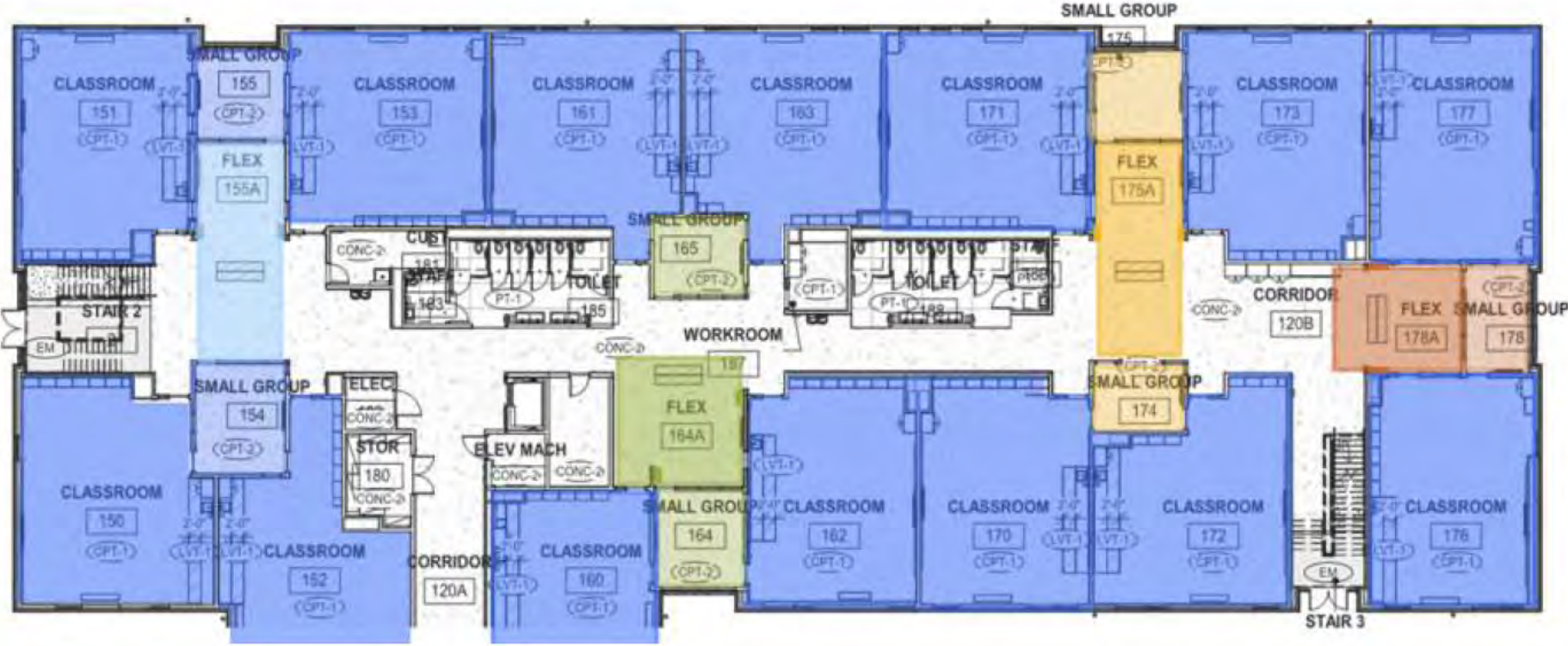
e. Educational Facility Implementation/Project

In 2020 the ESD bond issue failed to pass, halting the project until we go out to the voters for another opportunity for funding this Spring. I have been working with the City of Lynnwood on timing the issuance of the permit. I orchestrated meetings with the design team, GC/CM and the AHJ. With everyone at the table, we were able to collaborate on a schedule that would work for everyone and avoid a costly redesign due to changes in the latest building code cycle. This open communication has served all parties well.





Open Corridor to Hand wash and Universal Toilets with Translucent Transoms



f. Assessment of the Learning Environment

The design of the original school was very advanced for its time: a cross shape of adjoining clusters of learning environments around an open courtyard at the crossing. Each cluster had toilet facilities, and large and small collaboration spaces at the center with natural daylight and views onto well planted courtyards. The school’s siting was its fatal flaw, creating a circulation choke point on the flag lot.

The new design replicates the cluster design as a desired feature. Future pedagogy around collaborative or team teaching is achieved by connecting every two learning environments to a shared maker space. The notion of “Learning Happens Everywhere”, has been incorporated into the corridors, outdoor learning, and the space between with ample glazing for soft supervision and student agency.

g. Ethics/Professionalism

Students are at the heart of the importance for passing the levy in order to obtain funding to complete this project. This very diverse, underserved community of students hales from a cluster of dense apartment complexes along the northern border of our District. Families subjected to economic pressures must go where they can find jobs and 80 students have left the school due to Covid-19. Over 51% of the students receive free or reduced lunch, 39 languages in addition to English are spoken at home and slightly more than 1/3 of the students are English Language Learners. Completion of the school will help long-term solutions in addressing students’ health and wellbeing. Due to my fiscally responsible management of the Phase 1 budget, I was able to reallocate funds to the planning of Phase 2, for a shovel-ready project should the levy pass or Federal stimulus funds due to the pandemic, become available.



The Beauty of Spruce through the Seasons (above)

Spruce Totem Pole Relocation - The selected one of three options presented to the Tulalip carvers (Left)

CASE STUDY 5

DISTRICT WIDE ELEMENTARY SCHOOL EDUCATIONAL SPECIFICATIONS

a b c e f g

Edmonds School District had not planned a new elementary school for 12 years prior to beginning planning for District Wide Elementary School Educational Specification (DWES.) As planning was beginning, several major shifts were happening in primary education in the State of Washington, including mandated full day kindergarten, reduced class size for grades K - 3, and additional class size reduction in high poverty schools. We embarked on a DWES as a chart for the four upcoming elementary school bond projects. We used the prior Ed Spec as a starting point, completed school assessments for the most recently completed schools, post occupancy evaluations, focus group meetings with students, staff, school district departments to evaluate site layout, building performance with respect to program, sustainability, access, safety and learning support. We used our findings to develop lessons learned, that informed the DWES Ed Specs. The exploration allowed us to align the DWES Ed Specs, and subsequent facility programs and design solutions, with best thinking and pedagogical next practices.

a. Educational Visioning

I created workshops for visioning and goal setting. My architects and I met with every district department to understand their needs and desires and long range goals for schools of the future, not just meeting the needs of today. The departments were asked to “think big” and contemplate the shift that they imagine may happen across pedagogy, delivery, student engagement, class size, and learning support.

To help the committees think “outside the box” we used an exercise called functional programming. This investigation started with a list of activities that take place as part of learning, followed by identifying the number of participants engaged in that activity. Participants envisioned program adjacencies, furniture, fixtures and equipment and teaching aids that would facilitate learning in that activity, along with features and attributes for spatial planning. From this, we were able to extrapolate square footage to create a narrative program and adjacency diagrams creating a graphic program for the design teams to follow. Another deliverable was the numeric program that defines the types of spaces, quantity and size. I had my teams identify three school sizes based on student capacity and through ratios, scale up or

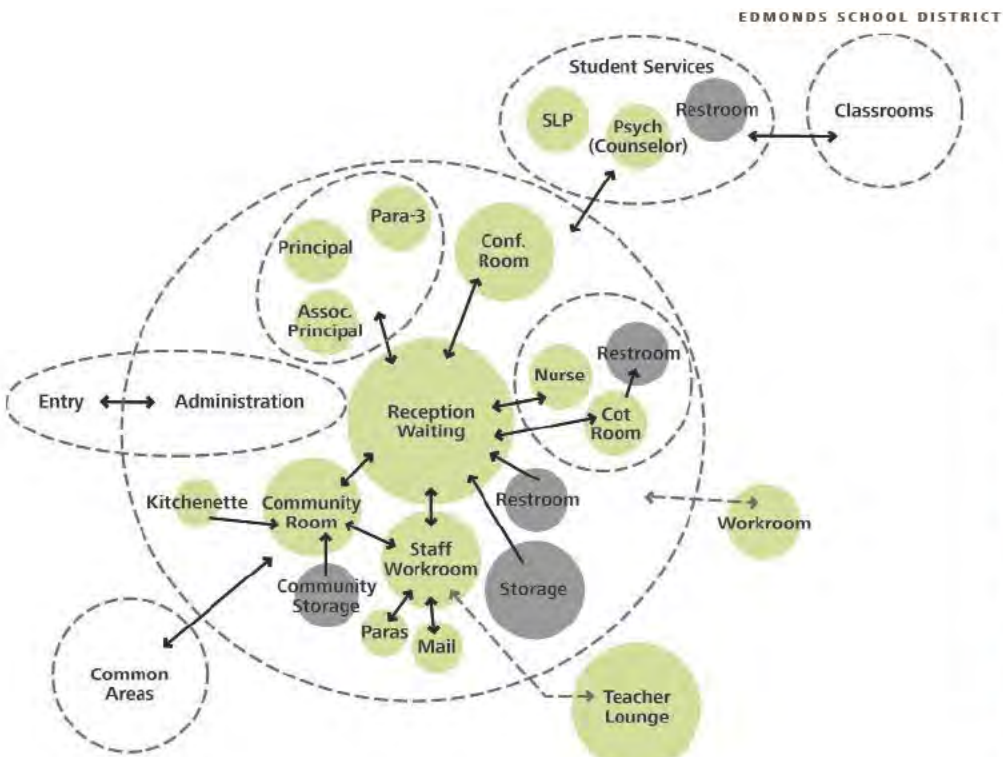


Goals and Consensus Building exercises

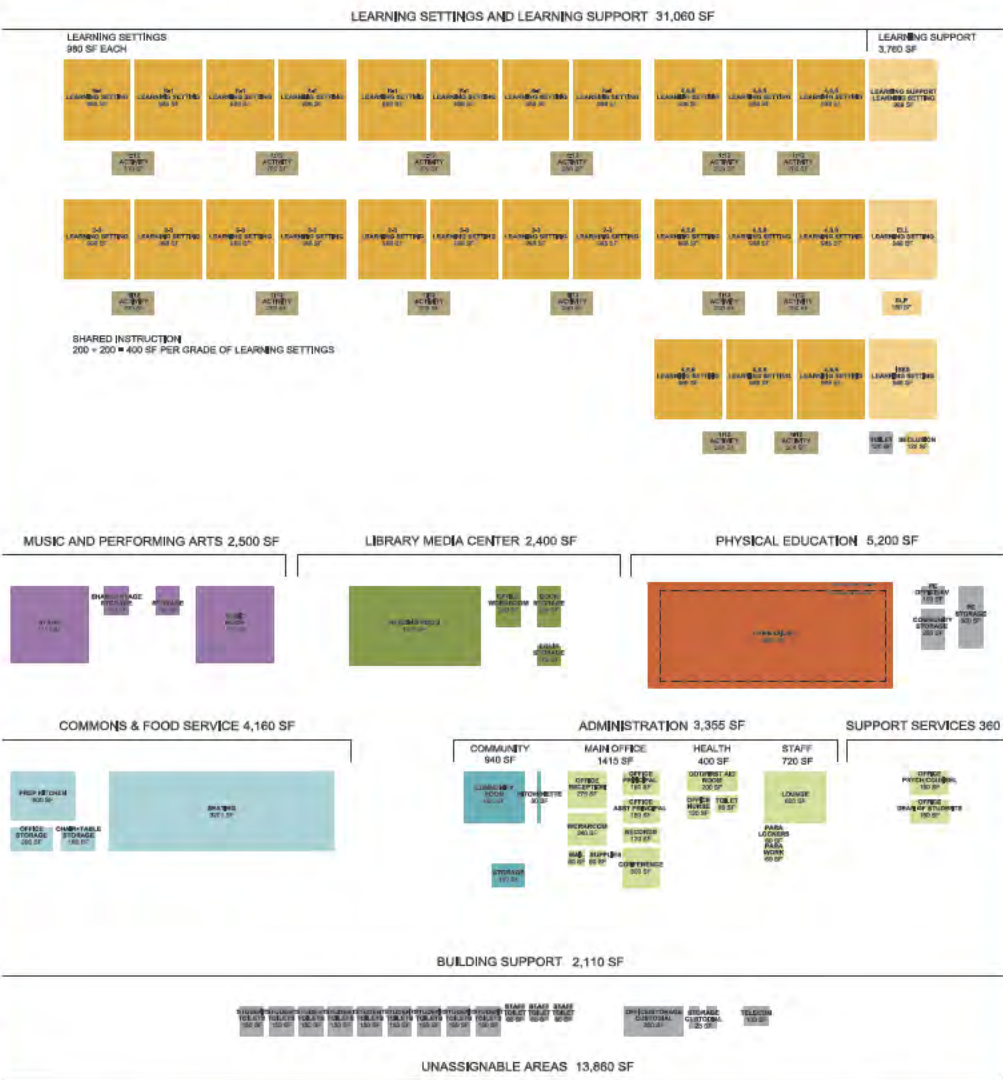


b. Community Engagement

Community engagement ran in parallel to the departmental visioning process. The team attended school bus tours discussing what works and doesn’t work. Parents, and community around the schools had definitive ideas around student drop off and pick up, and parent involvement throughout the school day. Teachers wanted a workroom free of parents, while Parent Teacher Associations (PTA’s) wanted a workroom that supported their fund raising initiatives, and involvement with student learning. Schools as a “Community Hub” with inclusion of a family health clinic functioning independently of the school with its own separate entry, was another outcome. This aspirational goal is more difficult to attain and hasn’t actually come to pass, as of yet. A community room at the entry to the school that welcomed family participation, with an activity space for younger non-school age siblings, offering English language support, and the ability to prepare cultural meals or snacks without having to use the school kitchen, or staff lounge, were additional drivers that came out of the community engagement.



Chase Lake Elementary School (Actual)		MODEL 01 (25 General Classrooms)				
		MODEL 1A (25 General Classrooms)	\$265 Building Cost		\$285 Building Cost	
			Unit Cost	\$265 Building Cost + Site	Unit Cost	\$285 Building Cost + Site
BUILDING						
Administration	2,445 SF	3,355 SF	\$220	\$738,100	\$237	\$793,458
Support Services	250 SF	360 SF	\$220	\$79,200	\$237	\$85,140
Learning Support	0 SF	2,140 SF	\$275	\$588,500	\$296	\$632,638
Commons & Food Service	3,991 SF	4,160 SF	\$357	\$1,485,120	\$384	\$1,596,504
Learning Settings	26,534 SF	29,120 SF	\$265	\$7,716,800	\$285	\$8,295,560
Music & Performing Arts	2,214 SF	2,500 SF	\$350	\$875,000	\$376	\$940,625
Library Media Center	3,440 SF	2,400 SF	\$325	\$780,000	\$349	\$838,500
Physical Education	4,625 SF	5,200 SF	\$340	\$1,768,000	\$366	\$1,900,600
Toilets	1,658 SF	1,560 SF	\$470	\$733,200	\$505	\$788,190
Support, Custodial & Receiving	592 SF	550 SF	\$160	\$88,000	\$172	\$94,600
Subtotal	45,749 SF	51,345 SF	\$289	\$14,851,920	\$311	\$15,965,814
Total Unassignable Area	11,158 SF	13,863 SF	\$195	\$2,703,314	\$210	\$2,906,063
Total (Building Only)	56,907 GSF	65,208 GSF	\$269	\$17,555,234	\$289	\$18,871,877
SITE						
Site Development Costs		65,208 GSF	\$60	\$3,912,489		\$3,912,489
Off-Site/Frontage Improvements		1,000 LF	\$400	\$400,000		\$400,000
Building Demolition & Abatement		50,000 SF	\$12.5	\$625,000		\$625,000
Total (Site Only)				\$4,937,489		\$4,937,489
TOTAL CONSTRUCTION MACC (2014)			\$345	\$22,492,723	\$365	\$23,809,366
ESCALATION						
To bid date April 2016 (@ 4%/year)	6.8%			\$1,529,505		\$1,619,037
TOTAL CONSTRUCTION MACC (2016)				\$24,022,228		\$25,428,403



c. Educational Facility Pre-Design Planning

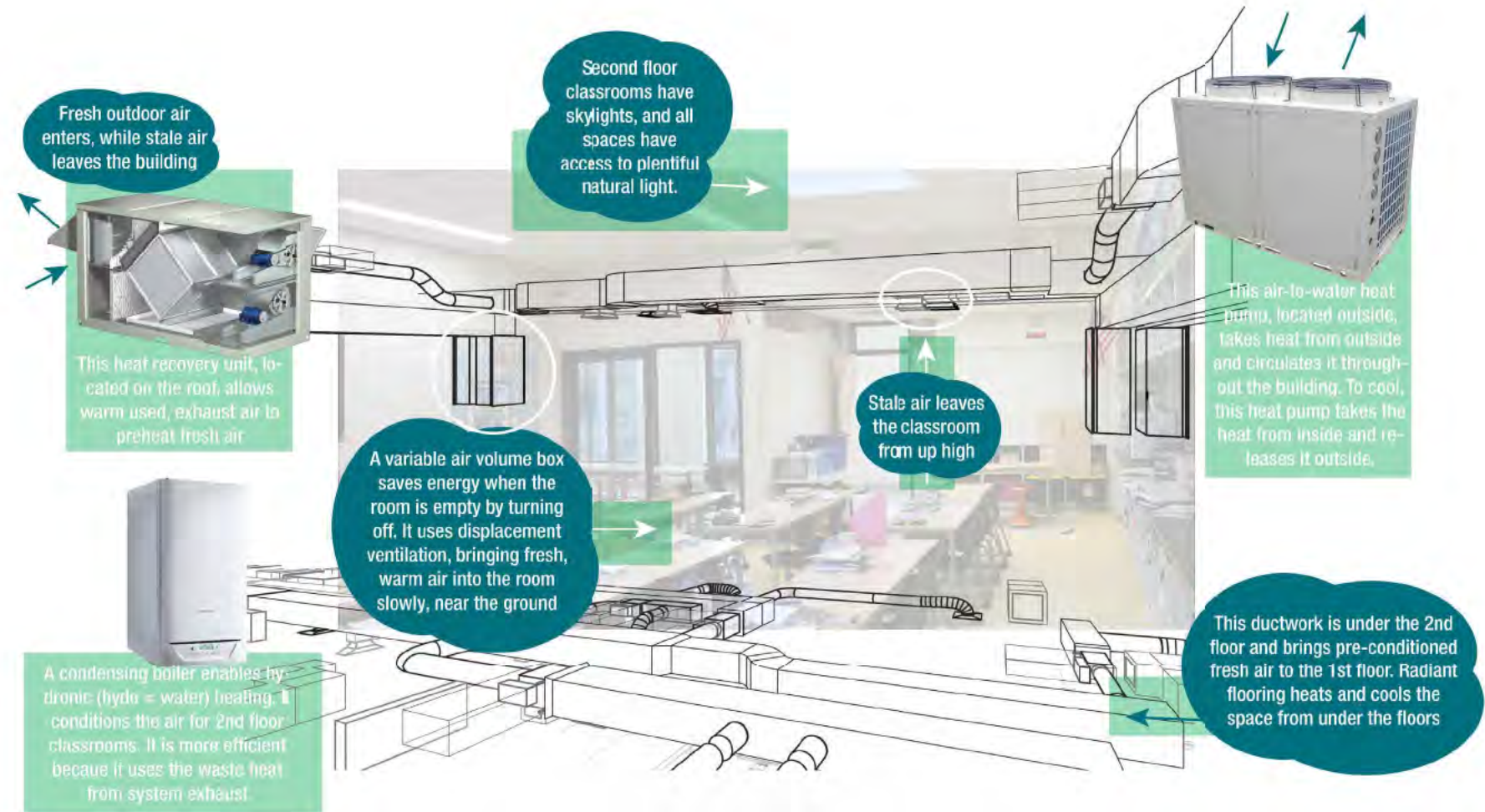
Once the answers to the above questions were synthesized into simplified diagrams, my team and I were able to determine the size of spaces to encapsulate the various school activities. With the size identified, unit costs could be added, for a planning level cost per square foot. This became a very useful planning tool for the dispersion of bond funds. My projects underway early on, minimized changes, in order to reallocate funding for the other elementary schools within the bond, allowing the district to build more new-in-lieu schools rather than just renovations as originally planned for in the bond.

The DWES was so thorough enough that it helped streamline the visioning/goal setting, community engagement, and predesign phases of all four elementary school projects. By accelerating the schedules, Capital Projects was able to appropriate the savings to other projects within the bond and most in need of funding.

e. Educational Facility Implementation/Project

As the Project Manager for the District wide Ed Specs, collaborative communication was paramount. I managed the two Design Teams inviting both to all of my scheduled meetings. Further I had them attend Steering Committee Meetings where, as a team, we were able to discuss other planning level cost, such as site development, demo and abatement costs, right of way improvements, grading and field improvements, outdoor learning and covered play, the level of quality we wished to attain, along with escalation for a total construction project cost. I then added in our ESD project costs for the total budget. My agenda for one meeting defined for the design team the meaning of “Quality” the district expected, the target unassignable square footage, the expectations around the varieties of space, the amount of collaboration space minimums, the sustainability goals, mechanical and electrical systems and commissioning. This helped streamline the process and help both teams as they planned their own Project Specific Educational Specifications.





f. Assessment of the Learning Environment

I had my teams conduct post occupancy evaluations of the four most recently completed elementary schools. I conducted interviews of the elementary school principals, teachers, custodians, administrative staff, students, parents and community to understand what worked and what didn't. I had my teams assess the spaces based on their affordances to support the current pedagogy and the ability to support a future desired student centered collaborative learning environment. We found that in all cases either the collaborative spaces were not being used for teaching because they lacked natural light, acoustical treatment, teaching and technology aids, lacked clear sight lines for soft supervision, or didn't meet their needs for an acoustically separated small group room. Two of the four lacked a separate gymnasium and cafeteria/commons, impacting their educational program and their ability to teach PE throughout the day.

Physical Plant assessments of the four schools informed the Uniform Design Standards, a separate project I conducted running in conjunction with the District Wide Educational Specifications. Here again we met with every District department reviewing the prior standards and adjusting them to meet the current vision of school safety, sustainability, ease of maintenance and operations, and durability for schools to last 50 years.

g. Ethics/Professionalism

Foundationally, my role on the projects was to balance the varied current needs of the schools' stakeholders with the need for innovative solutions that would challenge current thinking and allow for future evolution in teaching pedagogies. The schools needed to work when they opened but also be ready for the future. They needed to be completed within a constrained budget, but decisions could not be driven solely by least expensive first cost solutions at the expense of forward thinking and agility of space.

One change I have implemented requiring a "user manual" as a final deliverable from my design teams. We distribute the user manual to school stakeholders at move in. This User's Manual stems from the District Wide Ed Spec. Depending on which attributes and affordances from the DWES the team embraced during pre-design and design, then sets the parameters of the User's Manual. Teachers come and go, but the design intent remains. When new staff are hired on, part of the welcome package is this manual that allows the incoming staff to understand the many features, and care and attention that went into their new learning environment.

Ventilation system diagram (above)

	Chase Lake Elementary School (Actual)	MODEL 01 (25 General Classrooms) 2,014	Delta between Chase Lake Actual and Model 1A	MODEL 02 (28 General Classrooms) 2014	Delta between Chase Lake Actual and Model 02	MODEL 03 (32 General Classrooms) 2014	Delta between Chase Lake Actual and Model 03
Administration	2,445 SF	3,355 SF	910 SF	3,595 SF	1,150 GSF	3,595 SF	1,150 GSF
Support Services	250 SF	360 SF	110 SF	660 SF	410 GSF	660 SF	410 GSF
Learning Support	0 SF	2,140 SF	2,140 SF	2,140 SF	2,140 GSF	2,140 SF	2,140 GSF
Commons & Food Service	3,991 SF	4,160 SF	169 SF	5,000 SF	1,009 GSF	5,670 SF	1,679 GSF
Learning Settings	26,534 SF	29,120 SF	2,586 SF	32,540 SF	6,006 GSF	37,240 SF	10,706 GSF
Music & Performing Arts	2,214 SF	2,500 SF	286 SF	2,900 SF	686 GSF	2,900 SF	686 GSF
Library Media Center	3,440 SF	2,400 SF	-1,040 SF	2,400 SF	-1,040 GSF	2,400 SF	-1,040 GSF
Physical Education	4,625 SF	5,200 SF	575 SF	6,600 SF	1,975 GSF	6,600 SF	1,975 GSF
Toilets	1,658 SF	1,560 SF	-98 SF	1,800 SF	142 GSF	2,100 SF	442 GSF
Support, Custodial & Receiving	592 SF	550 SF	-42 SF	550 SF	-42 GSF	550 SF	-42 GSF
Subtotal	45,749 SF	51,345 SF	5,596 SF	58,185 SF	12,436 GSF	63,855 SF	18,106 GSF
Total Unassignable Area	11,158 SF	13,863 SF	2,705 SF	15,710 SF	4,552 GSF	17,241 SF	6,083 GSF
Total	56,907 GSF	65,208 GSF	8,301 GSF	73,895 GSF	16,988 GSF	81,096 GSF	24,189 GSF
2 Additional Classrooms (for IS, IS+, ISES and/or DK), includes unassignable areas		2,489 SF		2,489 SF		2,489 SF	

Post Occupancy Evaluation SF comparison new to old.

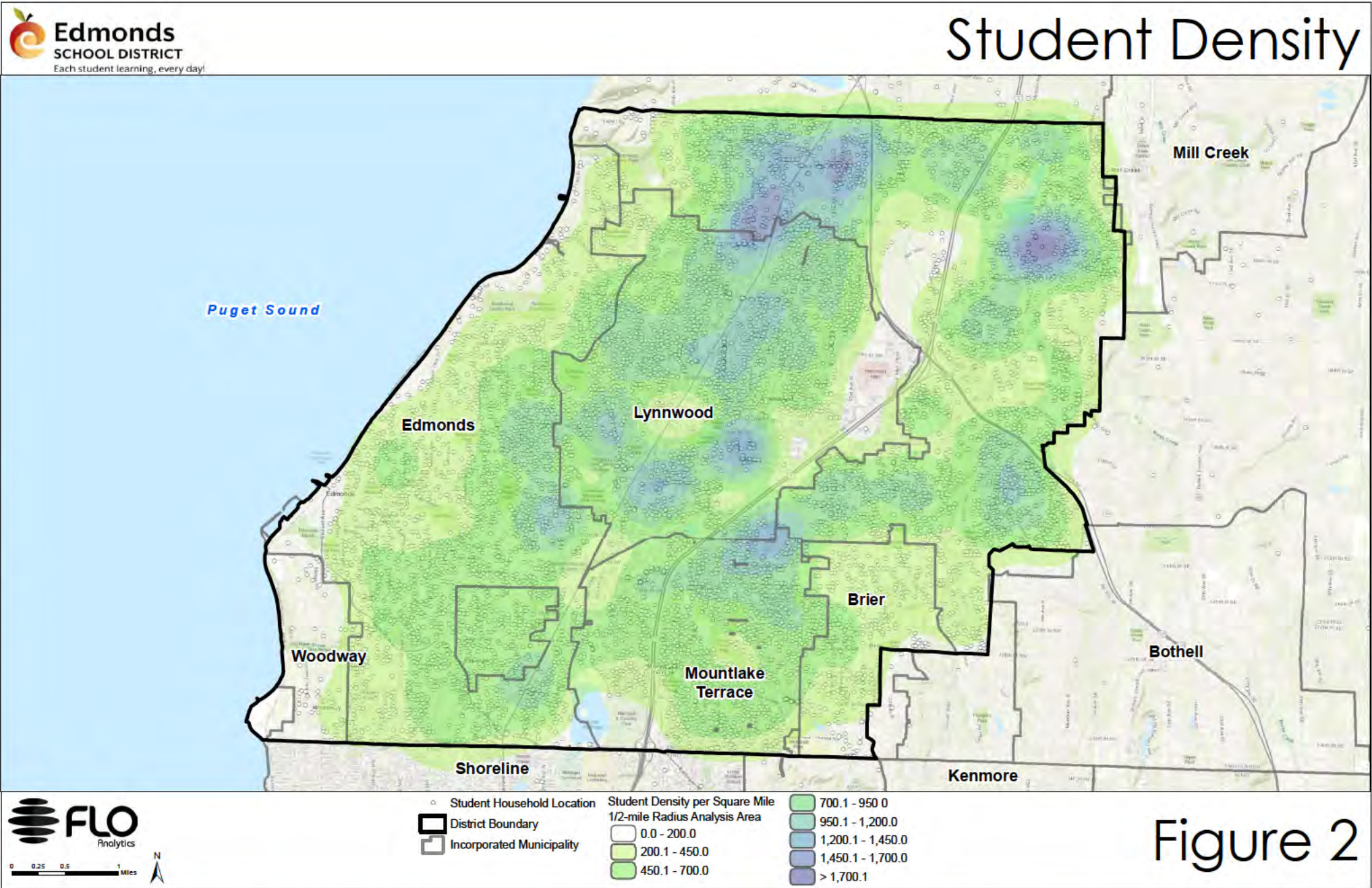
The district has been experiencing growth and capacity issues. Geographic data, revealed optimal school placement. The first task was to create a Facilities Master Plan to support the District's mission, educational goals and align with the Strategic Plan. The outcome of this two year process identified 1.7 billion in costs associated with the needs to bring the schools into alignment. The ESD created a citizens bond committee consisting of ESD Board members, ESD Cabinet, Capital Projects Team, Maintenance and Operations Team, Parents, Students, Faculty, Staff and Community. This team toured the 34 schools in the district assessing physical condition, suitability to support the educational program, and enrollment capacity.

The Bond Committee team participated in scenario planning with costs associated with the greatest needs. This helped to pare down the list and establish a recommendation to the Board of several scenarios that fit within the bonding capacity. The School Board selected their preferred option that went to the voters. Though the bond failed, the Bond Committee continued to meet, to discuss priorities for the District should funding become available. With the help of the committee's recommendation and study sessions with the Board, the District plans to go out for a much smaller levy this coming spring.

b. Community Engagement

We held Community Meetings and Bond Committee meetings discussing the need to keep the tax rate level versus the bond amount. Some groups looked at the total amount not based on need but sheer number, and shied away from any amount larger than 400 million. One group was so worried about the amount they created three phases to the bond program stretching out the amount the tax rate could generate over three 6 year intervals, meaning some schools that have a need today would possibly not receive planning for upgrades for 15 years from now.

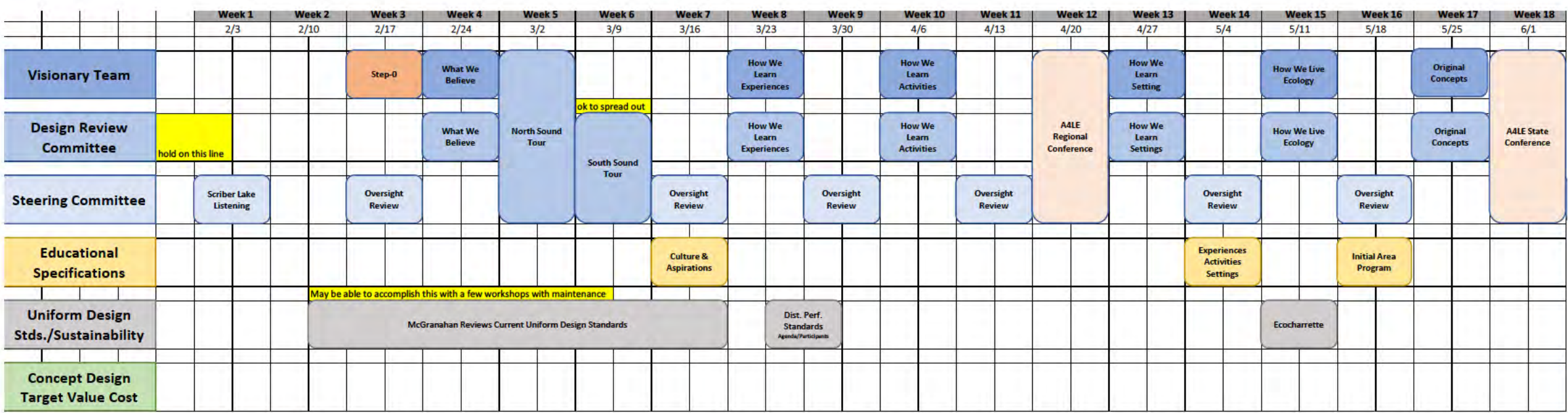
The one thing they all agreed on however was that the older buildings do not support the academic program or the students, and are past their useful life. Replacement would be more cost effective and a better value of tax payer dollars than spending more on correcting the many physical deficiencies of the older facilities.



Geographic data showing disproportional growth in the northeast quadrant

Deciding on a 2021 Capital Levy

Summer 2019:	Summer 2020:	Fall 2020:	October 2020:
<ul style="list-style-type: none">* After two years of community involvement, it was determined the capital project needs totalled \$1.7 billion* \$600 million of projects put in February 2020 bond	<ul style="list-style-type: none">Board considered:* All proposed bond projects* Proposed bond dollar amount* Impact of any new measure to future tax rates	<ul style="list-style-type: none">* Make necessary improvements to maintain buildings* Capacity improvements* Phase 2 of Spruce Elementary* Replace Oak Heights Elementary	<ul style="list-style-type: none">Board approved a Capital Levy that would provide \$30 million a year for the next six years.



Innovative Learning Center Initial Planning

c. Educational Facility Pre-Design Planning

Many of the groups on the bond committee started planning projects that could take place on the various campuses. One of the identified bond projects, Scriber Lake High School, an alternative high school program currently located at the alternative campus, has been shuffled around the District since its inception. Though the alternative campus is a high school, the building doesn't support the needs of the program.

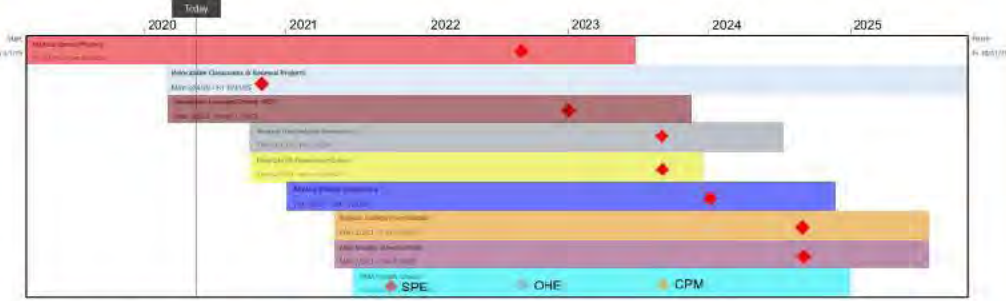
Meeting with administrators, a program assessment identified several areas of concern: The location is underserved by public transit, the mode of transportation of the majority of the students. Many students attend Running Start programs at the local college, difficult to attend both due to their lack of adjacency and lack of transit. The school lacks social gathering spaces, performing arts spaces, a green room for media production, CTE program spaces, natural light, conference and counseling spaces, universal toilets, and locker rooms. At my suggestion, the bond committee agreed to prioritize a project that relocates the program to the District headquarters adjacent to the local college, for a symbiotic relationship between the college and ESD headquarters. A name change to The Innovative Learning Center would also occur. The students who already utilize the black box theater at the college would have easy access. CTE and maker spaces used by the students could be used by the college as well. In tandem, an investigation of best and next innovative pedagogy for the school commenced. We toured nearby alternative high schools, and attended seminars to broaden our thinking of what is possible and what works. This project is currently on hold due to the bond failure.

e. Educational Facility Implementation/Project

As a member of the team, my responsibilities were to suss out the concerns and needs of the teams to include in the recommendations to the school board. I created massing model site plans for ease of cost estimating. These costs were incorporated into the scenario planning. The various groups all tended to focus on their area of expertise such as alternative high school programs, k-12 home schooling, middle school, elementary school and high school needs. For the process to be successful, I helped direct the conversation from a “Me/My program” to a We-Community/Edmonds School District program”.

Another aspect of the bond planning was helping the groups understand planning for inflation and the need for escalation in any scenario. Our region has been seeing a 6% escalation in construction costs each year due to material and labor shortages. It was hard for the group to realize that what our bond covered in 2014 would only cover 70% of the costs six years later.

The size of our District limits the number of replacements we can handle at one time comfortably. I created a bond schedule according to the priorities established by the Bond Committee. This critical tool helps us plan for success. We use the overall bond schedule to anticipate funds, plan resources and meet the needs of the tax payers. We use it to plan the rotation of schools through our interim school sites. The replacement of the interim school with a new school had to be last on the list of projects since it was needed by multiple schools throughout the 6 year bond cycle.



Simplified Bond Schedule with staggered opening dates

f. Assessment of the Learning Environment

In parallel to the Bond Planning Committee the District established an Enrollment Committee to assess enrollment across the District. The committee found that the District was currently operating at 107% capacity, detrimental to student learning. The growth some schools experienced exceeded this average. As a way to bring enrollment cost effectively into manageable limits the committee recommended a reconfiguring of grade levels. Our State considers middle school to be grades 6-8. All current research points to the benefits on student learning and student teacher relationships as improved when middle school is configured in this manner. Our District still operates our middle schools on the old model of grades 7-8. By moving 6th grade up to middle school we could solve the overcrowding at the elementary school level, Our Bond Committee agreed with the Enrollment committee.

g. Ethics/Professionalism

The board opted for replacement of schools that do not require boundary adjustments. Our district leaders were reluctant to take on the heavy lift to re-boundary the entire district that middle school reconfiguration entailed. Having to renovate the newly completed middle schools to add a 6th grade didn't feel correct either. The scenario planning that ultimately was presented to the Board, postponed the middle school reconfiguration till later in the bond cycle and dealt instead with the individual elementary schools where capacity was most egregious.

Working with the Bond Committee after the Bond failed, it was determined that the two schools most in need of funding were the completion of Spruce Elementary, and the replacement of Oak Heights Elementary. Once Oak Heights is replaced, the 8 portables located on the campus to help alleviate the capacity issues will be relocated elsewhere in the district.

In both cases projects were planned evenly across the district to make the ballot measure more appealing to voters.

