# STUDY AND SURVEY
# OSPI REPORT

## BAINBRIDGE ISLAND
## SCHOOL DISTRICT

**BAINBRIDGE ISLAND, WASHINGTON**

**AUGUST 2015**

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## STUDY AND SURVEY

# EXECUTIVE SUMMARY

The Bainbridge Island School District is among the highest-ranking public school districts in terms of academic performance in the state of Washington. Committed to addressing the educational needs along with the moral development of each student, the Bainbridge Island School District faces the educational and resource challenges associated with diminishing funding sources and higher expectations with regard to student performance.

The purpose of this Study and Survey is to analyze the physical condition and program configuration of all of the existing district facilities in relationship to their ability to support the goals of the School District.

## INVENTORY AND AREA ANALYSIS

To test that question, Mahlum began working with the capital projects office to update the 2006 Study and Survey document. This included an analysis of district-wide building assessments that were conducted in summer 2014, confirmation of district vision and goals, demographic analysis which began to establish immediate needs based on health/life-safety and core academic deficiencies, and making recommendations to the School Board on a proposed implementation of a District-wide master plan over the next fifteen to twenty years.

## LONG RANGE EDUCATIONAL AND FACILITIES PLAN

The immediate goals of the long range plan for the district are outlined in the District Improvement Plan 2015 – 2017 which outlines targeted outcomes in 5 broad areas. This is further discussed in Section 02 and can be found on the district website under: www.bisd303.org

The Educational Trends that have been identified in Section 02 have informed the immediate and projected facilities needs that are discussed on an individual facility basis in Sections 08 and 09 of this report. Embracing the core values of personalized learning, smaller class sizes, academic rigor, collaborative learning and long-term flexibility and adaptability has facility and space implications that are outlined in this report.

## CAPITAL FUNDS

The assessed valuation of the Bainbridge Island School District is $5,199,203,003. This valuation is based upon the aggregate assessed valuation, and is adjusted to exclude exempt senior citizens and to include Timber Assessed Value. The current general obligation debt is outlined in Section 04 and the eligibility for additional bonded debt is $176,130,150.

## SCHOOL HOUSING EMERGENCY

The Bainbridge Island School District does not currently have a school housing emergency due to natural disaster or limits of bonding capacity.

## RACIAL BALANCE

Bainbridge Island School District does not currently have racial imbalance in their facilities. An analysis of racial balance is included in the chart in Section 06.

## NEED FOR NEW FACILITIES | ADDITIONS

There are currently four schools in the district whose current configuration and state of infrastructure would benefit from complete replacement or major renovations with additions. The facilities identified include: Captain Johnston Blakely Elementary School, Elizabeth Ordway Elementary School, the 100 Building on the Bainbridge High School Campus and significant portions of Commodore Options School. Section 07 of this report discusses the deficiencies at each of these facilities and presents options for addressing these deficiencies.

Additionally, Sakai Intermediate School lacks a dedicated cafeteria space resulting in lost teaching time on a daily basis. Both Sakai Intermediate and Woodward Middle Schools lack a small amount of permanent teaching space. At Sakai, the original shared learning spaces have been converted to dedicated classroom space, so the school lacks appropriate collaboration space in support of the District vision. At Woodward, there are currently six portable structures that are in poor condition. It is recommended that these structures be replaced with permanent space.

## COST | BENEFIT

Modernization needs at each facility are outlined in detail in Section 08. In order to prioritize the work needed across the school district, cost analyses scenarios for each facility were developed utilizing the following categories:

:: Summary of Findings – Present physical deficiencies, organized by site, building health | life safety, building infrastructure, life-cycle replacement and repair, and educational program deficiencies.
:: Additions and Modernizations – to meet established model program
:: New-in-Lieu – New facility meeting established model program
:: Postpone, Patch & Repair – Address immediate facility needs absent any physical additions to the existing facility
:: Other Considerations – Facility infrastructure upgrades that will likely be required within the next 5 to 10 years

Detailed spreadsheets for each of these scenarios are included in this chapter, organized by school.

## CAPITAL COSTS AND TIMELINE FOR COMPLETION

The proposed capital costs, outlined in Section 08, focus primarily on replacing Blakely Elementary School and the 100 Building on the Bainbridge High School Campus. Additionally, costs have been identified to address the Postpone Patch and Repair items at Ordway Elementary School and Commodore Options School. Finally, this study has identified several items categorized as Immediate Asset Preservation at Sakai Intermediate School, Woodward Middle School, and the 300, 400 and 500 Buildings at the Bainbridge High School Campus.

The proposed implementation schedule in Section 10 assumes a February 2016 bond election and includes the following components:

Blakely Elementary School Modernization (replace) $38,964,667

Bainbridge High School 100 Building Modernization (replace) $29,970,214

**ADDRESS, POSTPONE, PATCH & REPAIR**

:: Ordway Elementary School $2,180,760
:: Commodore Options School $3,598,560

**IMMEDIATE ASSET PRESERVATION**

:: Sakai Intermediate School $599,343
:: Woodward Middle School $1,421,537
:: Bainbridge High School 300 Building $653,756
:: Bainbridge High School 400 Building $145,846
:: Bainbridge High School 500 Building $3,665,317

**TOTAL $81,200,000**

# 01 FACILITIES ASSESSMENT

An inventory and area analysis of existing school facilities within the district, a description of the types and kinds of systems and subsystems used in those facilities and their physical condition.

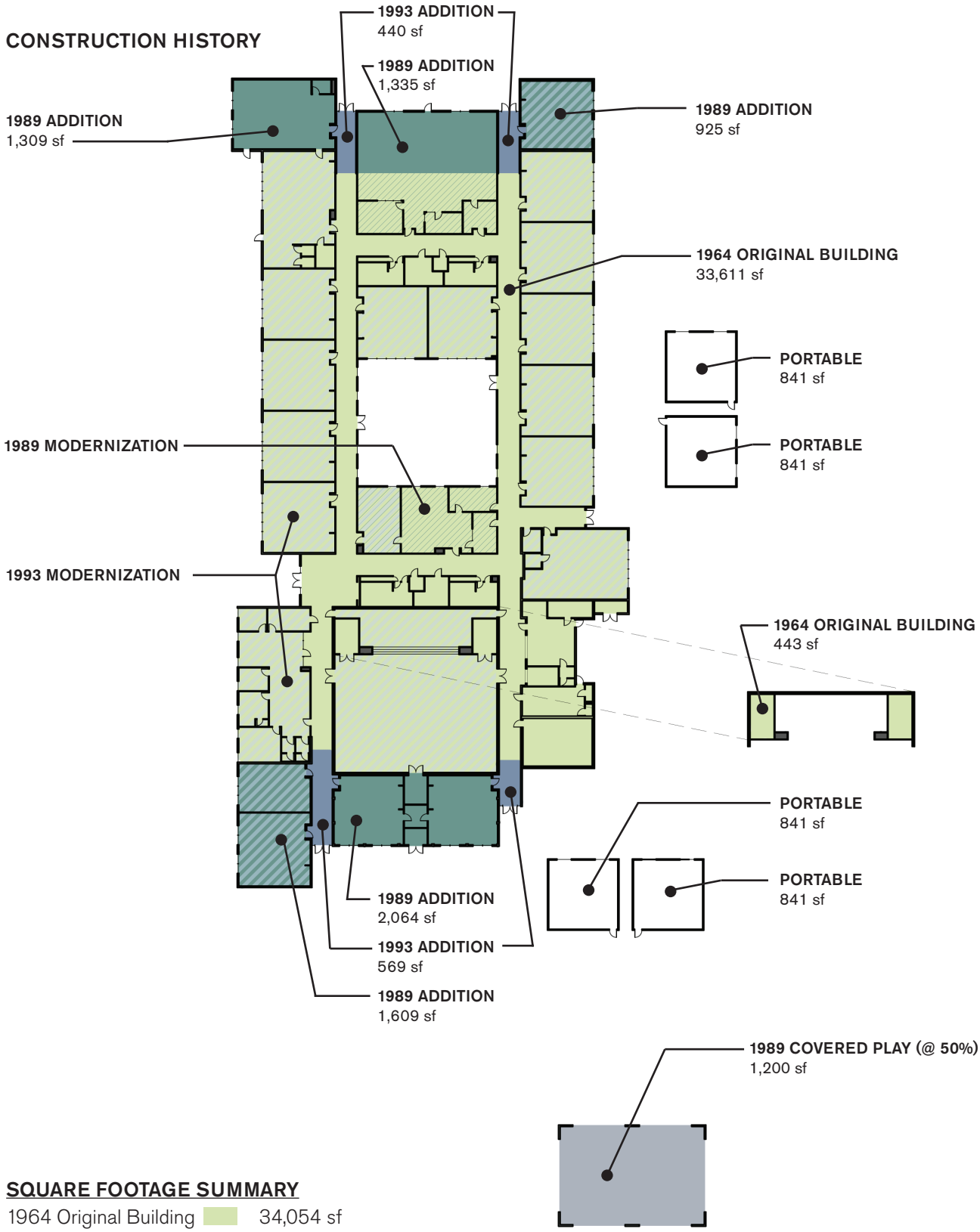
:: An overall floor plan, labeling the major buildings and features, means of access and orientation, ages of buildings, additions and major state-assisted modernizations.

:: An area analysis prepared in accordance with WAC 392-343-019 and AIA Document D-101. List the square footage of each area. Include the dates of original construction and any such modernization(s) on the plan.

:: Describe the types and kinds of systems and subsystems used in the building, their physical condition, and any recommended actions.

:: Include a BCEF summary sheet for each facility, building, or distinct portion thereof.

## CONSTRUCTION HISTORY




## SQUARE FOOTAGE SUMMARY

| | |
|---|---|
| 1964 Original Building | 34,054 sf |
| 1989 Additions | 7,242 sf |
| 1993 Additions | 1,009 sf |
| 1989 Covered Play | 1,200 sf @ 50% |
| Total SF: | 43,505 sf |


## CAPTAIN JOHNSTON BLAKELY ELEMENTARY SCHOOL (K-4)

4704 Blakely Avenue NE
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: K-4
Site Area: 11.98 acres
Current Use: educational facility
Zone: R-0.4 (allowed conditional use)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1965 Original Building | 34,054 SF |
| 1989 Classroom Additions | 7,242 SF |
| 1993 Addition & Upgrades | 1,009 SF |
| Subtotal | 42,305 SF |
| Covered Play (50%) | 1,200 SF |
| **Total Permanent SF** | **43,505 SF** |
| Portables (1990 & 2006) | 3,364 SF |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| K-4 | 16 | 22 | 352 |
| Special Ed. | 1 | 8 | 8 |

Total Classrooms: 17
Total Perm. Functional School Capacity: 360

### CURRENT ENROLLMENT (OCT 2013)

383 head count (352 FTE)

### PERMANENT PROGRAM SPACE AND USE

Core Instructional Classrooms: 16
Special Education Classrooms: 1
Elective and Specialist/PE: 3/1

Number of Portables: 4

## SITE DEVELOPMENT

### GENERAL

Blakely Elementary School is located on Blakely Avenue in an R-0.4 residential zone. Educational facilities are allowed within this zone with a Conditional Use Permit. Current County overlay maps do not indicate the presence of any critical areas on this site although further investigation and verification should be performed at the time of potential development.

This site is 11.98 acres in size and currently developed with a single-story school building, paved parking that surrounds the school on the west and south sides, grass playfields to the south and east, and an undeveloped wooded area to the north. A covered play shed structure is located to the south, two portable classroom buildings are located at the southeast corner of the school, and several large soft play areas with playground equipment are located within the grass play areas to the east and southeast of the school.

Outdoor playfields to the east of the school are located on an upper plateau of the site approximately 15 feet in elevation above the lower portion of the site which contains the school and associated parking. The play areas generally serve the school needs, but the elevation difference presents access and connection issues for the school. The playgrounds appear to be firm but there are a number of wet areas during seasonal weather. Rough areas and holes will need to be reconditioned. Play equipment at the soft play areas are old and present a risk management issue. The play structure areas should be replaced in their entirety to comply with current safety and accessibility requirements.

The covered play shed stands south of the school building and due to its height, provides inadequate shelter from wind and blowing rain. No documentation was found on the play shed construction but visual inspection indicates that this structure does not comply with seismic code requirements. Structural improvements were added in 2008 to improve seismic performance however the structure will ultimately need replacement to meet code requirements. The concrete slab of the play shed is elevated 6 inches above the paved access with no ramp access and therefore does not comply with ADA/ accessibility code requirements.

The perimeter of the site is partially fenced.

### TRANSPORTATION

Vehicular traffic circulates in a single direction through a signed one-way entry and exit from Blakely Avenue. The west parking lot (26 parking spaces) and the bus/auto loading zone are set back from the road immediately in front of the building. There is no separation of the bus and auto loading/ unloading area, creating a safety issue due to conflicts between pedestrians, especially children, and vehicles. A similar situation exists at the south end of the building where drop-off/pick up is intermixed with parking, creating vehicular congestion and similar safety issues. The south parking area contains 23 parking spaces and is used primarily by staff.

A total of 49 parking spaces and 6 bus loading areas are provided. Existing on-site parking does not serve school needs during events and is currently well below the County code required minimum for this type of facility. There are no designated spaces for vanpools, carpools, or alternative fuel vehicles.

### OUTDOOR SURFACES

The pavement and concrete surfaces are in poor condition. There are many areas with significant cracks and deformities. Sidewalks in front of the school are cracked and present uneven walking surfaces. Several of these areas allow standing water to accumulate. The paved areas immediately south and east of the school building are in very bad condition.

### STORMWATER MANAGEMENT

No on-site stormwater detention and water quality treatment systems were identified. Any significant upgrade to this facility, or additional site improvements, will require installation of an extensive stormwater management infrastructure to comply with current codes.

### SANITARY SEWER

Sanitary sewer is connected to the City's sewer main in the street. It is assumed that this system is adequate for the school.

### WATER AND FIRE ACCESS

This site was connected to the Island Utilities water system in 2001. The site was previously served by a private well and contains two underground cisterns that were installed with the original construction. Their capacity and condition is unknown. There is currently only one fire hydrant on site and the building does not have fire sprinklers or a fire suppression system. Any major renovations or additions to the school will require significant upgrades to the water and fire service infrastructure. Further investigation should be done to determine amount and pressure of available water to the site.

The existing on-site well has been retained and it is possible that this could be used for field irrigation purposes.

Emergency and fire vehicular access is provided on 2½ sides of the building but does not encircle the facility as required by current codes. This presents an additional safety issue as it does not allow fire truck access to all parts of the school.

### SITE ACCESSIBILITY / ADA COMPLIANCE

Accessibility for disabled persons around the entire campus is poor to non-existent.

The covered play area is elevated 6 inches above the south parking lot and has a continuous curb around it. An accessible route for use of this structure is required by code.

Access paths to the upper playfield exceed both the maximum slope and height between landings for accessibility. An accessible path of travel to these upper play areas is required by code.

Concrete sidewalks are cracked and provide a difficult surface for access at the main entry of the school. Patching and grinding has mitigated some of the problem areas but deterioration will continue to escalate if concrete walks are not replaced.

#### LANDSCAPING

Landscaping around the site is primarily grass and natural vegetation. The limited ornamental plantings are in marginal condition.

## GENERAL BUILDING CONDITION

#### CONSTRUCTION HISTORY

The school consists of an original building constructed in 1965. Miscellaneous additions were added in 1989 and 1993. Also in 1993, a remodel addressed some of the major deficiencies in the thermal insulation of the exterior walls, lateral systems, and ventilation throughout the building. Ventilation issues in some areas still present concerns. The entire building is one-story and under a single roof. A freestanding covered play area is located south of the school building.

#### SPATIAL RELATIONSHIPS AND PROGRAM

The classrooms are arranged traditionally along two double loaded corridors extending the length of the building. The library, gymnasium, stage, and other common resource rooms are placed in the central bay of the building providing easy access from all the classrooms. Lack of permanent specialized instructional space requires the music program, computer lab, occupational therapy and a general classroom to be located in four portables east and south of the main building.

The school currently operates three kindergarten classes. Only two kindergarten classrooms are designed into the building. Both half-day kindergarten classes utilize a regular classroom which is not equipped to meet District standards for kindergarten instruction.

Alternative educational delivery models are not supported by the current configuration of the teaching spaces. Two classrooms, added in 1989, are connected by a common storage room. A single door connects two additional classrooms. Team teaching opportunities exist at both of these locations. Otherwise the building offers minimal opportunities for program collaboration, flexibility, or adaptability to accommodate other teaching models. There are no flexible shared learning spaces for small group activities or personalized learning. Currently these activities occur in the hallway and are problematic due to limited space, difficulty of supervision from adjacent classrooms, and distraction from hallway use. In addition, students working in the hallways create a safety issue in the event of an emergency when the hallways are needed for egress.

#### DAYLIGHTING

The classrooms receive some natural daylighting from exterior windows as was typical for the age of this building. By current educational standards this facility fails to provide the type, extent and quality of natural daylighting provided in contemporary educational facilities. A majority of the rooms are poorly oriented with windows exposed to the east and west creating direct sunlight penetration and glare due to the low sun angle from these two directions. Each classroom has two 7' high by 8' wide windows. Deep overhangs provide minimal solar control on the east and west face of the building. Classrooms are 28' deep and do not have access to daylight from two directions, consequently there is not uniform light throughout the room.

The gymnasium and stage have no access to natural daylight or views.

A central courtyard provides daylight to two classrooms and support areas and offers a visual relief in the two long hallways but this is considered a very minimalistic solution by today's standards.

Most administration areas contain direct line of site glazing to the outdoors with the exception of the reception area.

The existing design and configuration of the building does not adequately incorporate natural daylighting, which results in significant energy inefficiencies and increased electrical costs.

#### SAFETY / SECURITY

The bus loading zone and vehicular parent drop-off/parking area are not separated creating a student safety issue during morning arrival and afternoon dismissal.

The administration office has a partial view of the student loading/unloading area and is adjacent to the main entry. Sightlines for security and monitoring of the main entry from the main office are non-existent.

Building access is not controlled at the multiple entrance points around the building allowing unannounced guests to enter the building. This is a significant security and safety issue.

The building does not contain security cameras. A comprehensive security upgrade should be considered.

#### GENERAL BUILDING OBSERVATIONS

Classrooms are of acceptable programmatic size and contain smart boards, ceiling mounted projectors, and aging audio/video infrastructure. Finishes and fixtures are worn and failing in many locations. Each classroom contains individual unit ventilators for heat which are noisy and provide inconsistent heat to the rooms.

The kitchen is located off the hallway. Students are served food in the hallway and return to their room to eat. Eating in the classrooms requires additional custodial cleanup effort and accelerated wear, staining, and odors that remain in the carpet. It is estimated that eating in the classrooms eliminates approximately 30 minutes of instructional time for the students each day. Teachers cannot take their lunch break nor use this time for planning while the kids are in each individual classroom for lunch.

#### ASBESTOS

Due to the early years of construction a variety of asbestos materials exist in different areas. Twice yearly surveillance reports monitor the condition of the materials. Professional consultants provide recommendations for immediate abatement should a condition change. Recent reports indicate no immediate safety concerns. However, asbestos remains in some inaccessible asbestos pipe insulation, roof drain joints in ceilings and wall cavities, fire doors, thermal coatings on sinks, mastics for wainscot and cove bases, mechanical equipment fittings, and in window putty. The exterior fascia of the building contains cement asbestos board from the original construction which should be removed and replaced with non- asbestos material.

Corridor finishes are in less than satisfactory condition, worn and dated.

#### INTERIOR SPACES AND ADA COMPLIANCE

Restrooms do not meet accessibility requirements and finishes are worn and outdated.

The ramp that serves the stage is too steep to comply with accessibility codes.

Kindergarten restrooms do not meet accessibility or health code requirements.

#### BUILDING ENVELOPE

The 1989 classroom additions have insulated windows. The original building contains single glazed windows which result in poor energy efficiencies and impacts to classroom temperatures and student comfort.

In 1993, the exterior walls of the 1965 portion of the building were insulated. The roof insulation is unknown. This building does not meet current energy requirements and standards.

Roofing consists of a white EPDM membrane (synthetic rubber). Age of roofing is unknown but plies are starting to telegraph through indicating that a full roof replacement is needed.

#### INTERIOR FINISHES AND EQUIPMENT

Casework and finishes are worn and showing their age. Wood doors and frames are deteriorating and need replacement. Carpet and ceiling tiles are stained and worn in many places. They have been in place many years longer than would be deemed acceptable in any other business environment considering appearance, maintainability, odor, hygiene, and tripping hazards.

Most interior spaces need repainting.

## STRUCTURAL EVALUATION

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Blakely Elementary School consists of the original 1965 building with an addition constructed in 1989. Seismic retrofitting was performed in 1993. A covered play area is situated south of the main building.

The main building is a single story wood framed structure with reinforced masonry bearing and non-bearing walls. The roof system appears to be constructed of pre-manufactured wood joists and typical wood framing. The foundation is a typical spread and continuous footing system with slab-on-grade concrete floors. The exterior perimeter walls are primarily glazing with some masonry piers.

The lateral system for the original construction consists of plywood roof diaphragms which transfer the lateral earthquake and wind loads to braced wood partitions and reinforced masonry shear walls. The 1989 addition is of similar construction, except that the exterior walls are plywood shear walls. The covered play area is a pole type structure.

The seismic retrofitting performed in 1993 addressed several of the original structural deficiencies. Several interior walls had plywood sheathing added to increase lateral capacities. Also, some exterior unreinforced masonry piers were backed with wood studs, and the gymnasium unreinforced masonry walls were backed with full height metal studs. It appears that the roof diaphragm was anchored to the masonry walls for out-of-plane loads.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

In general, this 50-year-old building is in fair structural condition, but it doesn't meet present building/seismic codes. We observed no significant signs of structural stress or differential settlement.

Due to the proximity of the nearby Seattle Seismic Fault, lateral design forces on the Blakely Elementary School site are higher than elsewhere in the District. The 1993 modifications appear to have addressed the primary lateral deficiencies of the original construction. Seismic design standards have changed significantly since the modifications were performed 20 years ago. Further upgrades to the primary system are necessary to improve the building's seismic performance.

#### STRUCTURAL CONCLUSION / RECOMMENDATIONS

The 1993 modifications made to the Blakely Elementary School significantly improved the condition and lateral capacity of the structure. However certain specific detailing requirements are not in compliance with current code provisions. With more experience and information, seismic design standards have increased significantly since the original 1965 and 1989 construction and since some seismic upgrades performed twenty years ago. Additional lateral force resisting elements such as plywood or masonry shear walls, as well as other modifications to the roof structure and foundation, are required to provide adequate resistance for the increased lateral forces.

The lateral seismic concerns as noted above are common for buildings of the given age and type of construction. The primary concern is the overall anticipated seismic performance of the building. The intent of the ASCE 31-03 life-safety provisions is to upgrade the building to a minimum standard based on historical performances of similar building types with similar deficiencies. However, it is not intended to upgrade the

building for compliance with current code standards. Incorporation of additional lateral force resisting elements would improve the life-safety performance of the building for a seismic event but will not satisfy all current code requirements.

## MECHANICAL EVALUATION

### PLUMBING PIPING

The majority of the original domestic water piping distribution was replaced with copper pipe. Some of the lateral piping is original galvanized piping and is problematic. The domestic water piping, though functional, provides less than desired pressure at times due to layout of the system. Waste piping is satisfactory with the exception of one main-line which serves staff restrooms. This waste line is believed to have minimal slope and is prone to clogging. As this waste line is located under the building slab, it is a difficult and expensive permanent fix.

### PLUMBING FIXTURES

Plumbing fixtures are generally old but are in fair condition. Water closets are a mix of flush-valve and tank types. They are not 'low-flow' fixtures and use more water than current standards allow. Classroom sinks are stainless steel type; faucets in classrooms were replaced in 2010 and are in fair condition. Kindergarten toilet rooms do not have lavatories in them; students have to exit the toilet room and use the classroom sink to wash their hands. This is a health code violation.

There is one AO Smith electric water heater in the boiler room and two other residential quality electric water heaters located in custodial closets in the classroom wings. All three are approaching the end of their expected service life. Due to the poor mechanical/plumbing system design it takes a long time for hot water to reach classrooms. This results in unnecessary water consumption and increased water costs. In addition, a lack of immediate access to hot water may contribute to poor student hygiene.

### HVAC SYSTEMS

Heating and ventilation is provided for all classrooms with hydronic heat unit ventilators or above ceiling cabinet heaters. Both types of equipment are loud and exceed acceptable/allowable classroom noise criteria. In addition, they are inefficient and cost more to operate than newer more efficient options. The unit ventilators are typical classroom type in a vertical configuration with rear intakes, front returns and ducted discharge. These intakes pull outside air from close to grade and potentially contribute to indoor air quality issues because classrooms at the front of the school are within 30 feet of the bus zones, vehicular travel lanes, and parking areas. The unit ventilators are at the end of their service life.

A single heat pump serves the Special Education area and is 5 years old.

There does not appear to be any air distribution into the corridor areas of the school. Many of the small restrooms and custodial spaces appear to be inadequately exhausted. This issue can lead to indoor air quality issues.

### HYDRONIC HEATING SYSTEMS

The existing Patterson Kelley N-1200 boilers are 15 years old and have a rated service life of 20 years. If one of the boilers fails there is limited redundancy and capacity to heat the school. These boilers are not as efficient as modern boilers with efficiencies in the 90+ percentile. The heat exchangers in both boilers have been replaced within the past 10 years. The design, type, and configuration of the boiler 3-way valve control could be causing premature heat exchanger failure.

Hydronic piping is a mix of copper and black steel piping without reliable dielectric separation between the two metals. Done correctly, dielectric separation reduces corrosion between the two dissimilar metals and improves the reliability of hydronic piping systems. In its current condition, the lack of adequate dielectric separation results in many new leaks each school year. These leaks can cause significant damage and disruption in interior spaces and requires the heating system to be shut down for repairs.

### HVAC CONTROLS SYSTEMS

The existing Alerton control system was updated to a Windows based operating system in 1994. Original control components are becoming obsolete and will soon be unsupported. The entire controls system at this school needs to be replaced.

### FIRE SPRINKLERS

This building is not fire sprinkled. Washington State Building Code requires all new (or substantially remodeled) school buildings to be fully fire sprinkled.

## ELECTRICAL EVALUATION

### POWER

The school main service equipment consists of a 1000 Amp 208/120 volt main switchboard with main and feeder circuit breakers. Switchgear and panel boards from original construction are Square D manufacture. The electrical service supply is underground from a PSE transformer. Some added and replacement panels have been installed that are Siemens manufactured. The main electrical service supply conduit coming into the building, the main electrical switchboard, and the remaining original electrical panel boards are well past their rated life span.

Classrooms have a minimal number of power outlets and very few are conveniently located, resulting in the use of many extension cords. This causes violation notices from the Fire marshal every year. Original branch circuit distribution does not appear to have been upgraded since the original construction.

Exposed conduit, surface mounted devices and wire mold exist in many locations as a result of data, power and fire alarm system upgrades through the years. This is not an acceptable standard.

This facility is not equipped with an emergency power generator.

### LIGHTING

General illumination is T-8 fluorescent, retrofitted from T-12 in 2010. Outdoor lighting fixtures have HID lamps. Light fixtures typically have 30-year-old type 12 acrylic lenses. There are no occupancy sensors or other automatic lighting controls for interior lighting in the building. Lighting sensors and controls save energy costs and are required by the current energy code for all new buildings.

Emergency egress lighting is provided using twin head emergency lights in some hallways and large rooms. Emergency exit lights are provided. There are inadequate integral battery packs in the corridors for emergency egress lighting, currently lasting 10-15 minutes. This is a safety issue during a power outage if the batteries are not charged or non-existent.

### TELEPHONE AND DATA SYSTEMS

Voice and data distribution was added to the school as part of a technology upgrade in the 1990's. Data station drops are Category 5 plenum rated cables, blue color. The telephone system was converted to VOIP after 2006. This system will need replacement near term. Premises distribution system (PDS) is Siemens (fiber) and Amp ACO (copper). These systems are at the end of their rated life.

### COMMUNICATION SYSTEMS

The school intercom and master clock system have been upgraded to Bogen Quantum series installed in 2010 with music, telephone handset interface.

Classroom Audio Visual Systems: Classrooms have smartboards, ceiling mounted projectors, and some FM amplified sound systems. Projectors and sound reinforcement systems do not meet current District standards.

The technology infrastructure and data closets need to be upgraded to support current District network standards.

### ELECTRONIC SAFETY AND SECURITY

Though the building doesn't have fire sprinklers the Fire Alarm System was upgraded in 1992. The system has a Fire Lite SensiScan 2000 zoned fire alarm. The dialer equipment has since been replaced with an AES Intellinet radio transmitter. Upgraded fire alarm devices include addressable manual stations at exits, addressable smoke alarms in hallways, and horn/strobes in hallways and classrooms. Addressable heat detectors are provided in all other spaces to provide complete automatic fire detection of the entire building. Fire alarm control panel is obsolete equipment.

The school does not have electronic access control or video surveillance for security. The District may want to consider a comprehensive upgrade.

## SUMMARY OF FINDINGS

### SAFETY ISSUES

:: No separation of the bus and auto loading/unloading area creates a student/pedestrian safety issue

:: Sight-lines for security and monitoring of the main entry from the main office are non-existent

:: The many exterior entries allow unannounced guests into the building

:: Access control and video surveillance does not exist creating a safety issue. The District may want to consider a comprehensive security upgrade

:: Accessible routes from emergency exit doors are not provided in all required locations.

:: Additional structural lateral force resisting elements such as plywood or masonry shear walls to resist lateral forces in earthquakes, as well as other modifications to the roof structure and foundation, are required

:: Covered play shed does not meet programmatic needs, accessibility code and structural requirements

:: Emergency access drive does not encircle the entire building and fire hydrant locations are not properly spaced around the building

:: Fire sprinkler system should be installed throughout the building per Washington State Building Code

:: Fire alarm system is out of date and at the end of its rated life

:: Intercom system does not include call switch for emergency use

:: Asbestos containing materials remain in this school building

:: Worn and dated finishes, such as carpet, flooring and wall coverings, are not hygienic and are difficult to maintain

### CODE / LEGAL

:: The building does not comply with existing energy codes, causing an increase in energy use and creating uncomfortable temperatures in classrooms and other spaces

:: Significant site stormwater management improvements are required to comply with current jurisdictional code requirement to protect water quality

:: Additional parking is necessary to meet current County Code and school requirements

:: Many aspects of the site and some interior spaces do not conform to ADA/accessibility standards.

:: Covered play area does not conform to ADA/accessibility standards

:: An ADA accessible path of travel is required for access to the upper play areas

:: Restrooms do not meet ADA/accessibility requirements and finishes are worn and dated

:: Ramp at stage is steep and does not comply with ADA accessibility requirements

:: Kindergarten restrooms do not meet ADA/accessibility or health code requirements

:: Lighting controls do not meet current energy code requirements for automatic occupancy and daylighting controls

:: Emergency egress lighting and exterior emergency lighting at building exits do not comply with Code

:: The building does not meet current Fire Safety Codes

:: There are no designated parking spaces for vanpools, carpools, or alternative fuel vehicles

### LIFE CYCLE REPLACEMENT / REPAIR

:: Asphalt play areas, walks and concrete pedestrian surfaces are in poor condition

:: Finishes and fixtures are worn and failing in many locations

:: Casework and finishes are worn and showing their age

:: Wood doors and frames are deteriorating

:: Carpet and ceiling tiles are stained, worn in many places and beyond any reasonable life cycle

:: Water heaters are at the end of their rated life

:: Water closets do not meet water conservation standards

:: Classroom HVAC equipment is at the end of rated life

:: Each classroom contains individual unit ventilators which are noisy and provide inconsistent heat to the rooms

:: Boilers will be at the end of their rated life within the next couple of years

:: 3-way valve control is not tuned to maximize performance and life of the heat exchangers

:: Dielectric connections at each copper to steel joint are not reliable and prone to ruptures.

:: Controls system is obsolete and unsupported by manufacturer

:: Electrical distribution is at the end of rated life

:: Exposed conduit, surface mounted devices and wire mold are apparent in many locations as a result of data, power and fire alarm system upgrades

:: Wiring devices are original construction and past rated life. Classrooms lack power outlets

:: Telephone voice/data distribution system does not comply with current District standards and is near the end of its rated service life

:: Abandoned Cat 3 telephone cables have not been removed

:: The technology infrastructure and data closets need to be upgraded to support current District network standards and reliability

:: Upgrade Classroom AV Systems as part of a general modernization

:: Smoke detectors need upgrading

:: Many interior spaces need repainting

### STUDENT PROGRAM

:: Alternative educational delivery models are not supported by the current configuration of the teaching spaces

:: The building offers very limited opportunities for educational program collaboration, flexibility, or adaptability to accommodate diverse teaching models

:: There are no flexible shared learning spaces for small group activities or personalized learning

:: Blakely has a small kitchen and no Commons/Cafeteria. Food serving occurs in the main hallway and students return to the classroom to eat lunch, reducing valuable instructional teaching time for students and teachers. This condition also causes additional maintenance issues in classrooms and hallways

:: In general, the facility does not take advantage of outdoor learning environment opportunities

:: This facility is not properly oriented on the site to take advantage of natural daylighting. A majority of the rooms are poorly oriented with windows exposed to the east and west allowing direct sunlight penetration and glare, which results in higher energy costs for lighting

:: Some single pane windows remain, which contribute to inadequate insulation/ thermal design and a less than desired teaching environment

:: The gymnasium and stage have no direct access to natural daylight or views.

:: The gym is small and does not accommodate a standard sized basketball court. The location near the center of the school restricts accessibility for after-hour and community use

:: Classrooms do not meet District power and technology standards.

:: Classroom sound systems do not meet District standards

:: Location of the Music Room in a portable is inadequate and does not meet program requirements

:: Only two kindergarten classrooms are designed into the building. The current program requires three kindergarten classes therefore the half-day programs are contained in a regular classroom which are not equipped to meet District standards for pre-kindergarten and kindergarten instruction

:: Covered play shed is very tall and does not provide adequate protection from wind and blowing rain

### ENERGY SAVINGS

:: Original portion of the building still contains some single glazed windows which offer poor energy performance

:: Energy efficiency of the building is very low

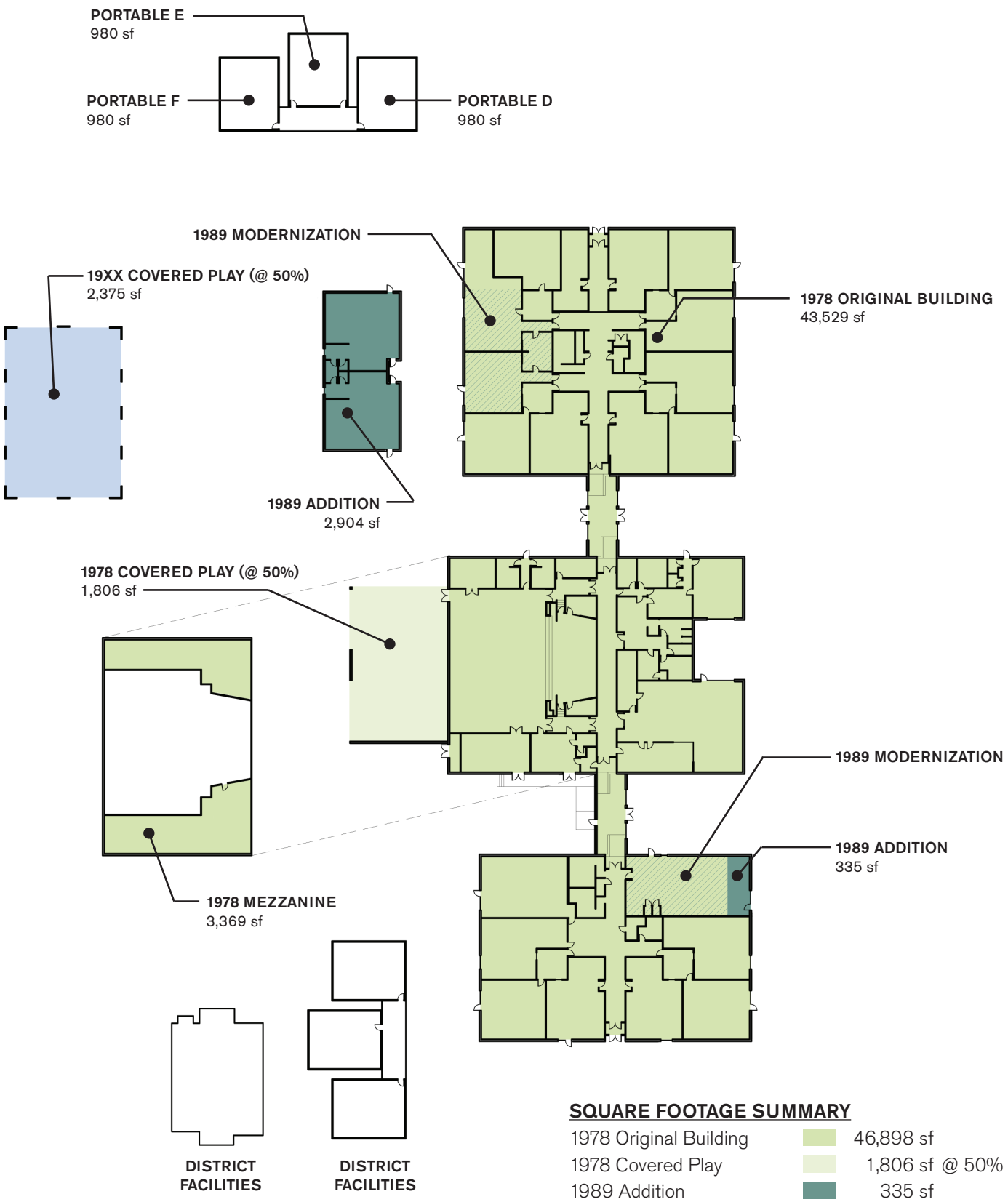
:: The orientation, layout and design of the building do not take advantage of natural daylighting resulting in more energy consumption

:: Lighting controls do not meet current energy code requirement

:: The layout of the plumbing system results in excess water consumption due to the length of time it takes for warm water to reach classrooms. This condition creates poor hygiene practices and is time consuming

:: Water closets do not meet present code and should be replaced to reduce water consumption

## CONSTRUCTION HISTORY




### SQUARE FOOTAGE SUMMARY

| | |
|---|---|
| 1978 Original Building | 46,898 sf |
| 1978 Covered Play | 1,806 sf @ 50% |
| 1989 Addition | 335 sf |
| 1989 Kindergarten Addition | 2,904 sf |
| 19xx Covered Play | 2,375 sf @ 50% |
| Total SF: | 54,318 sf |


## ORDWAY ELEMENTARY SCHOOL (K-4)

8555 Madison Avenue N
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: K-4
Site Area: 75.6 acres (shared site)
Current Use: educational facility
Zone: R-2.9 (allowed conditional use)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1978 Original Building | 46,898 SF |
| 1989 Addition | 335 SF |
| 1989 Kindergarten Building | 2,904 SF |
| Subtotal | 50,137 SF |
| 1978 Covered Play (50%) | 1,806 SF |
| 1978 Covered P Shed (50%) | 2,375 SF |
| **Total Permanent SF** | **54,318 SF** |
| Portable Classrooms (3) | 2,940 SF |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| K-4 | 15 | 22 | 330 |
| Special Ed. | 3 | 8 | 24 |

Total Classrooms: 18
Total Perm. Functional School Capacity: 354

### CURRENT ENROLLMENT (OCT 2013)

410 head count (372.5 FTE)

### PERMANENT PROGRAM SPACE AND USE

Core Instructional Classrooms: 15
Special Education Classrooms: 3
Elective and Specialist/PE: 2/1

Number of Portables: 6
Temporary Classrooms: 3 (2,940 sf)
District Office: 3 (2,940 sf)

## SITE DEVELOPMENT

### GENERAL

Ordway Elementary School is located on a 75.6-acre site off of Madison Avenue North. It shares this District property with Bainbridge High School, Commodore Options School, the District's Transportation and Maintenance Facilities, and the School District Administration offices. In addition to these school district buildings, there is a community swimming pool that is owned and operated by the City Parks and Recreation Department.

Educational facilities are allowed within this R-2.9 zone under a Conditional Use Permit. Current County overlay maps indicate the presence of wetland and moderate steep slope critical areas at the north end of the Ordway site. It is not expected that these critical areas will affect a modernization or replacement of this facility as they are located some distance from the existing school. Further investigation and verification of critical areas and their extent should be performed at the time of potential development.

The portion of property utilized by Ordway Elementary consists of a main parking lot to the east of the school, paved play and a covered play shed with a small grass field to the west, and a larger grass playfield to the northwest.

The facility has four small courtyard spaces created by the configuration of the three building wings. The main entry to the school occupies one of these courts, while the other three are not integrated into the school activities. The current building layout offers the potential to support outdoor learning environments (especially in these existing courtyards) but in its current state, fails to embrace this educational opportunity.

In addition to the covered play structure attached to the building outside the Gym, a separate covered play structure is located to the west near the fields. This structure is in good condition. A soft play area is located adjacent to the covered play structure. The play area is not ADA accessible.

A modular building to the west houses two kindergarten programs.

Three of the on-site portables to the north of the main building are currently used to house classrooms for excess enrollment for core curriculum programs that will not fit in the main building. Three additional portables to the west of the main building house the Capital Program/Projects Office and Bainbridge Child Care Center.

### TRANSPORTATION

The school fronts Madison Avenue North and is accessed by way of entry and exit drives which are shared by both auto and bus. The parking lot accommodates approximately 44 parked cars and provides a long drop-off and pick-up area along the front of the school. The drop-off and pick-up area serves both buses and auto traffic, creating a safety issue between pedestrians, especially children, and vehicles. Accessible parking to meet ADA requirements is provided by two designated stalls near the front of the school. There are no designated spaces for vanpools, carpools or alternative fuel vehicles. The parking lot is in fair condition and serves vehicular circulation in an organized manner. Additional overflow parking is available in an adjacent lot to the south and is shared with the district administration offices, the Pool, and Bainbridge Child Care Center.

This school accommodates three special needs classes in the northwest portion of the building. These classrooms are some distance from the centrally located main entrance and do not allow direct access for disabled students arriving at the main drop-off and pick-up area. Vehicles delivering special needs students are currently allowed to use the emergency access lane and paved play area around the back of the building for drop-off/pick-up, creating a safety issue due to vehicular congestion and conflicts between pedestrians and vehicles.

Fire lanes and service drives provide access around the perimeter of the building, though they are not otherwise available and must be accessed through locked fence gates for deliveries or in the event of emergencies.

### OUTDOOR SURFACES

Paved emergency access encircles the building and is in decent condition. Sidewalks are in good condition. A few asphalt paved walkways need repair due to root intrusion from surrounding mature trees that have caused cracks and bumps in the paving. Asphalt paving in the courtyard areas is deteriorating and needs to be re-paved or replaced with a combination of pavement and landscaping.

### STORMWATER MANAGEMENT

Stormwater detention and water quality treatment systems do not comply with current code. Any significant upgrade to this facility will trigger additional stormwater management requirements.

### SANITARY SEWER

A gravity sanitary main in Madison Avenue that belongs to the City of Bainbridge Island serves the site. The City system appears to be adequate for the school.

### WATER AND FIRE ACCESS

The site is served with domestic and fire water systems by the City of Bainbridge Island. The distance between fire hydrants exceeds the required 300 foot minimum resulting in a code and life-safety issue.

### SITE ACCESSIBILITY / ADA COMPLIANCE

There are several doors from the building that do not have ADA accessible routes away from the building in the event of an emergency, creating a code and life-safety issue.

The fields and asphalt play areas west of the building do not meet ADA guidelines. The ramps are too steep and do not have intermediate landings.

### LANDSCAPING

Some areas of landscaping around the building need replacement. Large evergreen trees exist near the northeast corner and southern portion of the building which deposits foliage onto the roof and requires constant maintenance to keep the roof drains free and clear for proper drainage.

## GENERAL BUILDING CONDITION

### CONSTRUCTION HISTORY

The main building at Ordway was completed in 1978 and is a single-level structure of steel post and beam construction with a masonry veneer exterior and a concrete slab-on-grade floor. The main building consists of three separate structures that are connected by enclosed corridors and has a total area of 46,898 SF.

In 1989, a separate 2,904 SF one-story kindergarten building was added to the west, behind the north wing, providing two classrooms with individual toilet rooms and a small shared workroom in the rear.

In 1993, a renovation took place in the main building, which involved the installation of a new terminal HVAC unit and controls connected to four existing electric rooftop air handling units. The administrative area was also remodeled in 1993. Some electrical upgrades were completed at this time, which included additional circuits and electrical outlets for some of the classrooms. The fire alarm system was also upgraded. New lighting was installed in the gym and administrative areas. In 1997, the 4 rooftop main air handling units (AHU) were replaced with new Trane AHUs with R-22-based DX cooling.

In 2000, the HVAC system DDC controls were upgraded.

Three portable classrooms were added to the north end of the site and are used for both core instruction and classrooms to accommodate the student overflow at this school.

### SPATIAL RELATIONSHIPS AND PROGRAM

The configuration of the building places the classroom areas in the north and south wings of the facility. Enclosed corridors link these wings to the central building containing the Administration, Library, Gym and support spaces. The classrooms are typically arranged in groups of three surrounding a shared activity space that branches from the main corridor circulation spine. The corner classrooms are accessed through a vestibule space that functions as a valued small group meeting area and workroom. The shared activity area is underutilized because of its relatively small size, lack of supervision (visual connection to teachers), and disruption caused by the circulation in and out of the classrooms to the building's main hallway/corridor. However, these spaces are utilized because of the lack of alternative small group areas and the sink/counter space provided in this space.

The Administration, Gym and Library are conveniently grouped at a centralized location. However, due to the large number of students with special needs at this facility, travel distances create some difficulties. The gym facilities are small for a typical elementary school. Its location at the back of the school restricts accessibility for after-hour and community use. Location of the Music room on the stage next to the Gym is disruptive due to a lack of acoustical separation between the two spaces and surrounding areas. The music room on the stage has no ADA access that meets the current code.

The building in its current configuration offers limited opportunities for collaboration, flexibility or adaptability to accommodate more contemporary teaching models. The facility does not adequately support the integration of the Special Needs and Functional Skills classrooms with the traditional classrooms.

The main entrance is not clearly identifiable. Once inside, you find yourself in the main hallway without a welcoming lobby or sense of clear direction to the Main Office.

### DAYLIGHTING

Natural daylight can't penetrate many parts of the school, increasing electrical consumption for lighting and creating less than optimum educational spaces.

### SAFETY / SECURITY

The bus loading zone and vehicular parent drop-off/pick-up area are not separated creating conflicts and a safety issue for children, parents, autos and buses during morning arrival and afternoon departure.

The Administration Office orientation and layout does not allow supervision of the main and secondary entries to the school, which is a safety concern.

Building access is not controlled at the multiple entrance points around the building, allowing unannounced guests to enter the building without being observed. This is a significant security and safety issue. The building does not contain security cameras. A comprehensive security upgrade should be considered.

### GENERAL BUILDING OBSERVATIONS

Minimal modifications or upgrades have been made to this facility over its 35-year life. Classrooms are of acceptable programmatic size and contain smart boards, ceiling mounted projectors, and aging audio/video infrastructure.

The Kitchen is located off the main hallway near the Gym. Students are served food in the hallway and return to their classroom to eat. Eating in the classrooms requires additional custodial cleanup effort and accelerated wear and staining (including odors) of the carpet. It is also estimated that eating in the classrooms eliminates approximately 30 minutes each day that could be otherwise used for instructional time for students. Teachers cannot take their lunch break nor use this time for planning while the students are in each individual classroom for lunch.

The Gym is small for an elementary school and does not accommodate a standard sized basketball court. Its location at the back of the school restricts accessibility for after-hour and community use. When it must be opened for after hour events, the rest of the building is vulnerable and accessible and cannot be secured.

### ASBESTOS

Due to the early years of construction, a variety of asbestos materials exist in

different areas. Twice yearly surveillance reports monitor the condition of the materials. Professional consultants provide recommendations for immediate abatement should a condition change. Recent reports indicate no immediate safety concerns. Asbestos remains in the main building in some inaccessible hard fittings/ pipe insulation for heating and plumbing, insulation for electrical light wiring, Gym ceiling tiles/mastic, VAT tiles/cove bases/ mastic, wainscot mastic, joint compounds/ tape/wallboard systems, fire doors, thermal sink coatings, and ceramic tile grout/mastic. On the exterior, asbestos remains in the soffit's stucco, and the cement boards under windows. In portables some ceiling panels/ texturing, mechanical piping fittings, vinyl flooring/cove bases/mastics, and joint compounds/tape/wallboard systems contain asbestos.

These elements will be abated during any future major upgrades or remodels.

#### INTERIOR SPACES / ADA COMPLIANCE

No accessibility issues were observed.

#### BUILDING ENVELOPE

A new single-ply roofing system was added to Ordway in 1999 and is reported to be functioning well. It is estimated that this roof is approximately 50% through its serviceable life, and should not need to be replaced for approximately 15 years. All flashings and mechanical roof curbs are in good condition. The existing stucco soffits have been damaged and repaired over the life of the building due to water damage from clogged roof drains above. It appears that the soffit framing is sound and this issue is purely cosmetic.

The exterior masonry walls are in good condition. No cracking or excessive deterioration was noted.

Exterior windows are single glazed and should be replaced to improve energy efficiency. Most exterior doors are in fair condition but almost all are in need of replacement hardware.

#### INTERIOR FINISHES AND EQUIPMENT

The interior finishes are commensurate with the age of this 35-year-old building. Interior floors, walls and finishes need upgrading or replacing throughout. Many of the interior walls terminate at the underside of the ceiling, allowing for reconfiguration of spaces without extensive structural complications, but this existing condition also allows for sound transfer between classrooms.

Casework throughout the building is worn and has surpassed its useful life and should be replaced.

Restrooms are in good condition and generally comply with ADA accessibility standards due to the partial renovation in 2010.

Most interior spaces need re-painting.

## STRUCTURAL EVALUATION

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Ordway Elementary School consists of the original 1978 building and a small wood-framed building added in 1989. Minimal modifications or upgrades have been made to the facilities since they were originally constructed.

The main structure, built in 1978, is a single story steel framed structure that is separated into three buildings (south, central, and north) that are tied together with enclosed hallways. Steel columns support wide flange girders and open web steel joists with a metal roof deck. The foundation is a typical spread and continuous footing system with a concrete slab-on-grade. The exterior perimeter walls consist of brick veneer and metal studs. The mezzanine in the central section is constructed of a concrete slab supported by steel beams. The lateral system for the building consists of a metal deck roof diaphragm that transfers the lateral earthquake and wind loads to the braced frames. The frames are constructed of tension-only straps connected directly to the steel frame. The straps transfer the lateral forces from the roof diaphragm to the foundation.

The 1989 building is a one-story wood framed structure, supported by a reinforced concrete foundation. It is of standard wood framed construction and appears to meet the structural intent of the current building code.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

In general, the building is in reasonable structural condition for a 35-year-old building with the exception of seismic design. No signs of structural distress or differential settlement in the primary structure were observed. Some areas of the exterior sidewalk have settled, but this is not impacting the building itself.

The majority of the interior walls are non-structural. This provides flexibility to adjust interior layouts without affecting the primary structural framing.

#### STRUCTURAL CONCLUSION / RECOMMENDATIONS

To mitigate significant seismic design deficiencies, it will be necessary to tie the mezzanine structure directly to the metal roof diaphragm frames, and upgrade and replace the lateral force resisting system to improve the seismic design of the building.

The existing building's seismic load resisting system consists of tension-only steel straps. The nature of this system (tension only braces) has very little redundancy and needs to be upgraded. Structural designs have significantly changed to improve structural systems performance in seismic events based on what the industry has learned from past seismic events in other facilities, better understanding of seismic forces, and the impact and performance of similar structural systems during earthquakes, Structural lateral force code requirements have significantly increased over the last few decades. A moderate earthquake may cause large lateral deflections in this facility, which in turn would exceed the structural ability of the brick veneer system to withstand an event. Isolated failure of portions of the lateral resisting system could occur in a significant seismic event. A replacement lateral load resisting system is needed and should be a priority. This may consist of

strategically placed wood shear walls, or a light gauge plate shear wall system.

The lateral seismic concerns as noted above are common for buildings of the given age and type of construction. The primary concern is the overall anticipated seismic performance of the building. The intent of the ASCE 31-03 life-safety provisions is to upgrade the building to a minimum standard based on historical performances of similar building types with similar deficiencies and is not intended to upgrade the building for compliance with current code standards. Incorporation of additional lateral force resisting elements will improve the life-safety performance of the building for a seismic event but will not satisfy all current code requirements.

## MECHANICAL EVALUATION

### PLUMBING PIPING

The existing domestic water piping is copper pipe. There are no known issues with the domestic water piping supply. Issues associated with clogged waste lines have been reported by maintenance.

### PLUMBING FIXTURES

All main toilet room plumbing fixtures were recently replaced and are in good condition; water closets are water conservation, flush-valve type. Classroom sinks are stainless steel type with Chicago Faucet faucets and are in fair condition. Plumbing fixtures within the health room area are aged and should be updated; water closets are floor mounted flush-tank type.

Water heaters have been replaced within the last five years and are in fair condition.

### HVAC SYSTEMS

Four main rooftop HVAC units provide heating, cooling and ventilation. Units have electric resistance heat with economizer and DX cooling. These units contain R22 refrigerant which is being phased out due to environmental concerns. These units were installed in 1997 and are approaching the end of their expected life.

Each exterior zone is also served by a fan-powered VAV box with an electric resistance reheat coil. These distributed HVAC units were installed in 1993 and are at the end of their expected life.

The HVAC unit that serves the administration area also serves the computer lab. The computer lab needs to be kept cooler than the administration area. This zoning creates comfort issues with the administration area getting too cold. In 2014 the administration area's 5 units were upgraded to fan terminal units with reheat capabilities to address the comfort issues.

HVAC distribution is by fiberboard duct and flex-ducts with a common return air plenum between the ceiling and the roof structure. This system is well below today's design standard. Due to the nature of the design it may contribute to indoor air quality concerns because of the dirt that accumulates within the plenum. This system is in need of replacement.

### HVAC CONTROLS SYSTEMS

The existing Alerton control system was updated in 2000 but is now approaching 15 years old and in need of replacement. Components are becoming obsolete and will soon be unsupported, resulting in a system that cannot be maintained.

### FIRE SPRINKLERS

The stage and mechanical mezzanines are fire sprinkled. The rest of the building is not fire sprinkled. Washington State building Code requires all new (or substantially remodeled) school buildings to be fire sprinkled.

## ELECTRICAL EVALUATION

### POWER

The school main service equipment consists of a fused 1600 Amp 480/277 volt main switchboard with six main disconnects. Switchgear and panel boards are Square D manufacture. Dry step down transformers are located on roof except for one transformer located in MDS room. The electrical service/ supply does not meet current design standards or code. The school's primary electrical panel requires the operation of six circuit breakers to shut down power. The panel does not meet current code, which now requires a singular main switch for power disconnection. The service transformer is 1000KVA. This school is an all electric building. The school distribution is within 5 years of its rated life.

Classrooms have a minimal number of convenience power outlets resulting in the use of extension cords and inadequate electrical supply. Branch circuit distribution has not been upgraded since original construction.

This facility is not equipped with an emergency power source (i.e. generator).

### LIGHTING

General illumination is T-8 fluorescent, retrofitted from T-12 in 2010. Outdoor lighting fixtures have HID lamps. There are no occupancy sensors in classrooms or automatic time switch control for interior lighting. Exterior lighting is controlled with time switch or photo sensor.

Emergency egress lighting is provided using twin head emergency lights in hallways and large rooms. Emergency exit lights are provided.

### TELEPHONE AND DATA SYSTEMS

An MDF room was created in the attic mechanical space and (5) 4-inch signal conduits were brought into the school. Voice and data distribution was added to the school as part of a technology upgrade in the 1990s. Data station drops are Category 5 plenum rated cables, blue color. The telephone system was converted to voice over internet protocol (VOIP) after 2006. Premises distribution system (PDS) is Siemens (fiber) and Amp ACO (copper). These systems are at the end of their rated life and need replacement.

### COMMUNICATION SYSTEMS

The school master clock system is the original Simplex 6400 with analog clocks. The school intercom is a Bogen Quantum

series replacement intercom system head end installed in 2010 with music, telephone handset interface, and call in switches from classrooms.

Classroom Audio Visual Systems: Classrooms have smartboards, ceiling mounted projectors, and some FM amplified sound systems. Projectors and sound reinforcement systems do not meet current District standards.

#### ELECTRONIC SAFETY & SECURITY

Fire alarm system was upgraded in 1992. The system has a Notifier AM2026 addressable alarm panel with 8 zones of addressable devices. A Radionics dialer has since been replaced with an AES Intellinet radio transmitter. Upgraded fire alarm devices included addressable manual stations at exits, addressable smoke alarms in hallways and classrooms, and horn/strobes in hallways and classrooms. Addressable heat detectors are provided in all other spaces to provide complete automatic fire detection of the entire building. Smoke detectors are now past their rated life. The Fire Alarm panel is an outdated discontinued product.

The school does not have electronic access control or video surveillance for security. A comprehensive District-wide security upgrade should be considered.

## SUMMARY OF FINDINGS

#### SAFETY ISSUES

:: No separation of the bus and auto loading/unloading area creates a safety issue, and conflicts between pedestrians and vehicles

:: Parent drop-off and pick-up for special needs students occurs behind the building by way of the fire lane creating congestion and safety issues due to the resulting conflicts between pedestrians and vehicles

:: Lack of a perimeter site fencing around the play area creates a safety concern

:: Spacing of existing fire hydrants around the site does not comply with current fire code

:: Accessible/ ADA compliant routes from emergency exit doors are not provided in all locations

:: The general office area does not allow adequate supervision of the main and secondary entries to the school

:: Asbestos containing materials remain in this school. Asbestos elements in the building will need to be abated in any major upgrades or repairs

:: Seismic design does not meet current code nor reflect increased understanding of seismic forces and structural design needs. A replacement lateral load resisting system is needed and should be a priority

:: This school does not have a fire sprinkler system as required by the Washington State Building Code

:: Emergency exit lighting isn't adequate

:: Adding access control and video surveillance is recommended. A comprehensive District-wide security upgrade should be considered

#### CODE / LEGAL

:: The building does not comply with existing energy codes, increasing energy consumption and causing too cool or warm interior spaces seasonally in classrooms and other areas

:: Significant site stormwater management improvements are required to meet current standards

:: Upgrades are needed around the site to comply with current ADA/accessible code guidelines

:: Exterior emergency lighting is required to comply with Code at required exits

:: The Fire Safety system doesn't meet present codes

:: There are no designated spaces for vanpools, carpools or alternative fuel vehicles

#### LIFE CYCLE REPLACEMENT / REPAIR

:: Portions of the asphalt paving (especially in the courtyards) is deteriorated

:: Large evergreen trees adjacent to the building deposit foliage onto the roof and require constant maintenance to keep roof drains free and clear for proper drainage

:: All exterior door hardware is at the end of its serviceable life

:: Original casework installed in teaching areas is past its serviceable life

:: Interior finishes are at the end of their serviceable life

:: Most interior spaces need repainting

:: A dedicated air conditioning unit should be provided for the computer lab to allow that space to be adequately cooled without creating comfort issues for the other zones in that area

:: The electrical distribution system is at the end of its serviceable life

:: Electrical service wiring is original construction and past rated life. Classrooms lack adequate power outlets

:: Telephone voice/data distribution system does comply with current District standards but is near the end of its rated service life and needs updating

:: The technology infrastructure and data closets need to be upgraded to support current District network standards

:: Abandoned Cat 3 telephone cables should be removed

:: Master clock system is not integrated into the 2010 Bogen Quantum system rack

:: Classroom AV Systems do not meet District standards

:: Fire alarm control panel is an outdated discontinued product. Smoke detectors are past rated life

#### STUDENT PROGRAM

:: Alternative educational delivery models are not supported by the current configuration of the teaching spaces

:: The building offers very limited opportunities for educational program

collaboration, flexibility, or adaptability to accommodate diverse teaching models

:: There are limited flexible shared learning spaces for small group activities or personalized learning

:: Ordway has a small kitchen and no Commons/Cafeteria. Food serving occurs in the hallway and students return to the classroom to eat lunch, reducing valuable instructional teaching time for students and teachers. This condition also causes additional maintenance issues in classrooms and hallways

:: Classrooms do not meet District power and technology standards

:: Classroom sound systems do not meet District standards

:: Some instructional areas lack natural daylighting

:: Many interior walls do not extend to the underside of the structure creating sound transfer issues in classrooms

:: The Gym is small and does not accommodate a standard sized basketball court. The location at the back of the school restricts accessibility for after-hour and community use

:: Location of the Music Room on the stage next to the Gym is disruptive due to a lack of acoustical separation between the two spaces and other adjacent areas

:: The gymnasium and stage have no direct access to natural daylight or views

:: The building layout offers the potential to support outdoor learning environments, but in the current state fails to embrace this educational opportunity

:: Single pane windows and inadequate insulation/thermal design contribute to a less than desired teaching environment

### ENERGY SAVINGS

:: Exterior windows are single glazed which causes poor energy performance

:: Mechanical control system requires retro-commissioning for energy savings and better occupant temperature comfort

:: Lighting controls do not meet current energy code requirement

:: Natural daylight can't penetrate many parts of the school, increasing electrical consumption for lighting

## CONSTRUCTION HISTORY


Crawlspace NIC
Mechanical Mezzanine NIC
Exterior Storage NIC

**SQUARE FOOTAGE SUMMARY**

| | | |
|---|---|---|
| 2012 | | 64,034 sf |
| 2012 | | 1,320 sf |
| Total SF: | | 65,354 sf |

## WILKES ELEMENTARY SCHOOL (K-4)

12781 Madison Avenue N
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: K-4
Site Area: 9.71 acres
Current Use: educational facility
Zone: R-1

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 2012 Original Building | 64,034 SF |
| 2012 Covered Play (50%) | 1,320 SF |
| **Total Permanent SF** | **65,354 SF** |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| K-4 | 19 | 22 | 418 |
| Special Ed. | 1 | 8 | 8 |

Total Classrooms: 20
Total Perm. Functional School Capacity: 426

### CURRENT ENROLLMENT (OCT 2014)

380 head count (358 FTE)

### PERMANENT PROGRAM SPACE AND USE

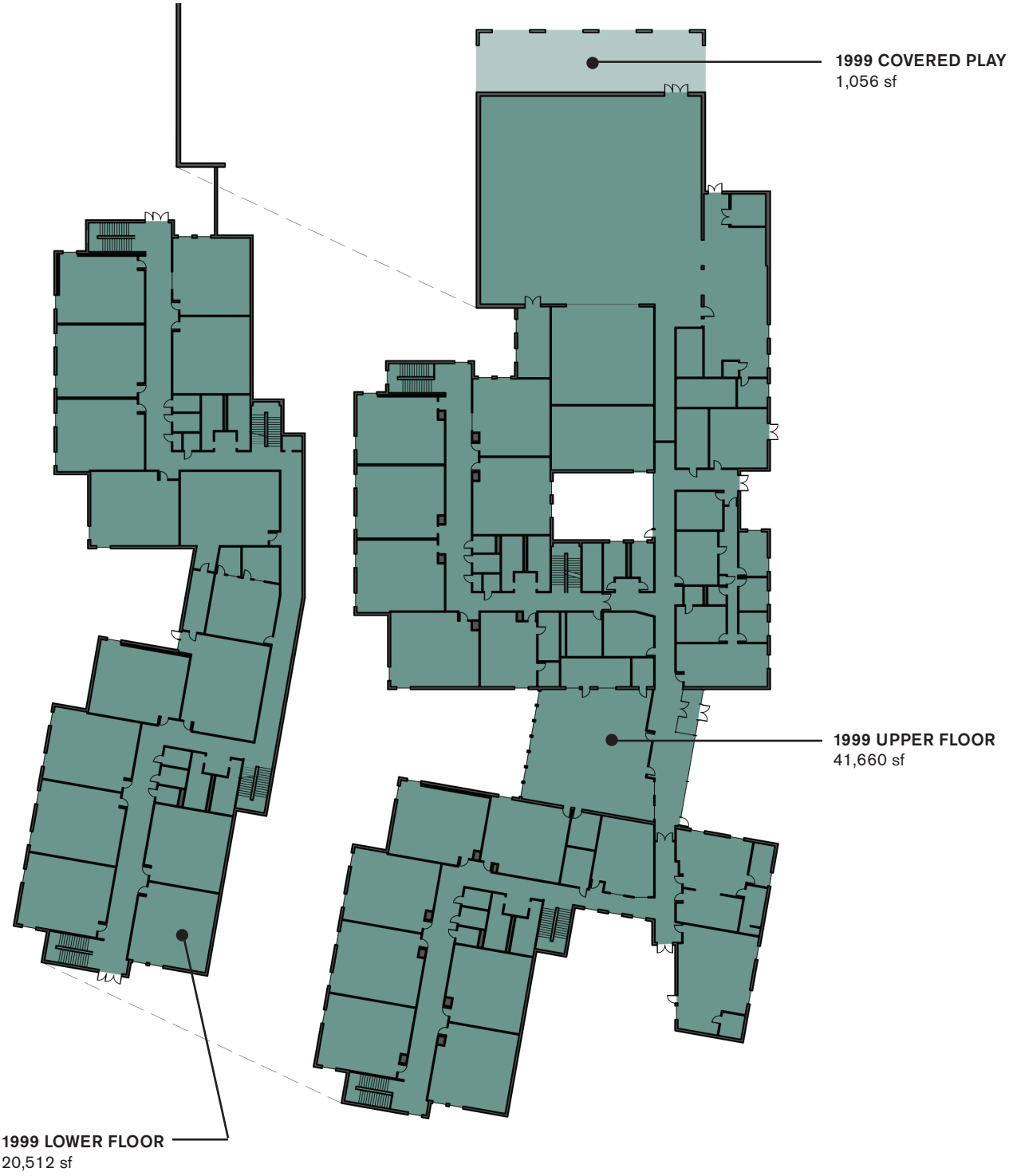
Core Instructional Classrooms: 19
Special Education Classrooms: 1
Elective and Specialist/PE: 3/1

Number of Portables: 0
PK Enrollment: 26 (included in current)

## BUILDING CONDITION SUMMARY

Captain Charles Wilkes Elementary School is a replacement facility which received its first students in September 2012. As a brand-new facility, it currently meets all the educational and program needs of the District.

## CONSTRUCTION HISTORY




### SQUARE FOOTAGE SUMMARY

| | | |
|---|---|---|
| 1999 | | 62,172 sf |
| 1999 | | 1,056 sf @ 50% |
| Total SF: | | 63,228 sf |

## SONOJI SAKAI INTERMEDIATE SCHOOL (5-6)

9343 NE Sportsman Club Road
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: 5-6
Site Area: 67.22 acres (shared with Woodward Middle School)
Current Use: educational facility
Zone: R-0.4 (critical area overlay district)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1999 Lower Level | 20,512 SF |
| 1999 Main Level | 41,660 SF |
| 1999 Covered Play (50%) | 1,056 SF |
| **Total Permanent SF** | **63,228 SF** |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| 5-6 | 22 | 25 | 550 |
| Special Ed. | 2 | 8 | 16 |

Total Classrooms: 24
Total Perm. Functional School Capacity: 566

### CURRENT ENROLLMENT (OCT 2014)

574 head count (572.13 FTE)

### PERMANENT PROGRAM SPACE AND USE

Core Instructional Classrooms: 22
Special Education Classrooms: 2
Elective and Specialist/PE: 5/2

Number of Portables: 0

## SITE DEVELOPMENT

### GENERAL

The site is located on Sportsman Club Road in an R-0.4 residential zone and within a Critical Area Overlay District. Educational facility use is allowed within this zone with a Conditional Use Permit. The Critical Area classification means the site falls within an aquifer recharge area, fish and wildlife habitat, frequently flooded area, geologically hazardous area, wetland, or stream area. Development and land use activities must follow the Critical Areas Ordinance of the City of Bainbridge Island. The zoning of the area intends to allow for low density housing while protecting rural environments and preserving natural systems and open spaces.

The school entry is clearly identified through a landscaped court and prominent building façade. Sports fields are located on an elevated clearing to the south of the school building and also on a lower elevation to the north of the school. Playground space and site amenities to the west (rear of the school) are minimal and need to be supplemented.

The school is set back from the main road. Native landscaping provides a buffer from the busy street and generally screens the building and parking from Sportsman Club Road. Some classrooms have views to the forest, and a sense of the surrounding natural environment, is evident. A pedestrian path connects the school with Woodward Middle School located to the south.

### TRANSPORTATION

The site has two access drives from Sportsman Club Road. The main south entry drive was designed to serve the visitor parking lot and parent drop-off. A second parking lot is accessed by the drive to the north which was designed to serve staff parking and a student bus loading area. Current use of these areas is reversed. Currently the buses unload students for both Sakai and Woodward at the main south lot at Sakai and the Woodward students use the pedestrian path to walk to their school. The afternoon bus pickup is reversed and the Sakai students walk to the north lot at Woodward and load the buses there. Sakai parent vehicular drop off and pick up now occurs at the north lot of Sakai along with the main parking. This appears to be working satisfactorily although improved permanent signage for vehicular traffic is recommended.

The service area located at the northeast corner of the school is accessed through the north entry drive.

Pedestrian paving provides safe paths to the building entries.

A fire lane with emergency vehicular access connects the two lots with a loop around the west side of the school.

Sixty-two parking spaces and six bus loading areas are provided. There are no designated spaces for vanpools, carpools or alternative fuel vehicles.

### OUTDOOR SURFACES

The pavement and concrete surfaces are in generally good condition.

### STORMWATER MANAGEMENT

The site is connected with an extensive on-site detention system compliant with 1999 storm drainage codes. The code requirements have changed since then and any major site improvements or building additions may require the stormwater system be brought up to current code.

### SANITARY SEWER

The site is connected to the City of Bainbridge Island sanitary sewer system with an onsite pump station and force main. The system is reported to be functioning properly.

### WATER AND FIRE ACCESS

The site is served by the City of Bainbridge water system. There are fire hydrants on the site and the building has fire sprinklers. No measurements were made of the spacing between the fire hydrants, but it is believed they are spaced to meet current codes. A fire lane completely surrounds the school. It is assumed that available fire flow meets or exceeds code requirements at this time.

### SITE ACCESSIBILITY / ADA COMPLIANCE

A curb cut needs to be provided from the covered play onto the paved fire lane at the north end of the building to improve accessibility to the field. Emergency egress from the gymnasium and the covered play area requires an accessible route to extend at least 20 feet from the building for safety. Currently the covered play is surrounded by a concrete curb that is 6 inches above the asphalt emergency drive. A curb cut is recommended in this location to comply with current codes for safe and accessible evacuation. This will also provide accessibility to the covered play area from the outside play areas.

The existing fire lane is not an accessible route. It is not known if an accessible route is desired along this route to the west side of the building, or to the playfields.

The north end of this school is undeveloped in regards to clear paths of student travel to the playground and playfield areas. Much of the area is sloped and contains a combination of gravel and grass. Area is conducive to falls, walking through mud (which can be tracked into the building) and constant grounds maintenance. It is recommended to consider development of ramps, stairs and paved pathways to direct regular paths of travel including ADA compliant routes.

### LANDSCAPING

Landscaping is minimal and generally in decent condition. The field irrigation system does not provide full head to head coverage. A booster pump should be considered. There is no irrigation elsewhere for plantings and grass areas.

## GENERAL BUILDING CONDITION

### CONSTRUCTION HISTORY

Building footprint was constructed in 1999 and has maintained its original configuration. The playfield and track to the south has recently been reconstructed to provide a new

rubberized track surface and new natural turf grass field. This is part of the Woodward Middle School and is shared with Sakai.

#### SPATIAL RELATIONSHIPS AND PROGRAM

The facility contains four-classroom clusters located in two floors of two wings. Each cluster contains five general use classrooms and one open shared learning area. All four of these areas have been converted into a sixth general use classroom. Two specialized science classrooms are clustered together on the lower level and linked through a common prep area.

The library is situated at the heart of the school on the main level immediately adjacent to the entry and between the two classroom wings.

The gym anchors the north end of the building and is used as a commons and assembly area. The band room functions as a stage for performances in the gym.

The building offers limited opportunities for flexibility or adaptability to accommodate other teaching models. Shared learning areas and small group meeting rooms have been eliminated from the classroom wings with the conversion of the shared learning spaces. Specialized science rooms do not offer flexibility or equitable spaces for all subjects. Sixteen classrooms are equipped with operable walls to allow team teaching. Currently the opportunity to team-teach was not observed as being utilized by any instructors.

#### DAYLIGHTING

In general the classrooms provide poor natural daylighting. Most general use classrooms have access to some daylight and views, however they all have inadequate window area. Each has two 5' high by 5' wide windows. Classrooms are approximately 33' deep and do not have access to daylight from two directions.

Two science classrooms, three classrooms located on the lower level, and the gym have no access to natural daylight or views.

Windows on two sides of the library allow the opportunity for good natural daylighting. However the lack of solar control devices on the east windows requires the blinds to be closed during certain times of the day.

The administration areas generally contain direct line of site glazing to the outdoors.

#### SAFETY / SECURITY

There are many access points to the building. These may present a security issue.

Only two security cameras are installed throughout the entire building. Both cameras are at the gym. The District may want to consider a comprehensive upgrade.

The main office is adjacent to the main entry of the school with good visibility. The main office has views of the south parking lot and entry vestibule.

#### GENERAL BUILDING OBSERVATIONS

The interior of the building is in need of new paint. In addition, the exterior hollow metal doors and frames are weathered and require painting.

Doors, frames and door hardware are in good condition.

Paint is peeling in the corridor above the chair-rail due to the use of tape for display of art, banners and posters. This is a typical condition where painted veneer plaster is used and not enough tackable surfaces are provided. District should consider installation of additional display surfaces

The vinyl wall surface at operable partition in the gym is torn and missing in several areas. This is an aesthetic issue, but should be replaced to prevent further deterioration.

The Gymnasium/Commons has poor acoustics. Consideration should be given to enhance the acoustical performance of this space with installation of acoustical wall panels or similar attenuation.

Restrooms appear to be in good condition and well maintained.

Televisions were observed sitting on top of a 6-foot high cabinet in many of the classrooms. It does not appear that these televisions are secured, which could be a safety issue in a seismic event.

#### INTERIOR SPACES / ADA COMPLIANCE

No ADA accessibility issues were observed.

#### BUILDING ENVELOPE

Exterior of the building consists of masonry CMU and metal siding. The exterior metal siding is showing signs of severe irregular discoloration and surface wear. This appears to be aesthetic only and no signs of material defect were observed. The CMU appears to be in good condition. Downspouts are galvanized steel and appear to be functioning properly.

All windows are aluminum frame with insulated glazing and appear in good condition. Classroom windows have integral blinds.

Moss is accumulating on the northwest slopes of the roof. The moss needs to be removed. Gutters need to be cleaned on a regular maintenance schedule. Translucent panel skylights into the science classrooms on the lower level are discolored and should be replaced. Also, there are leaks around these skylights during heavy rains or wind and rain conditions. This area has been an ongoing issue and the roofing and flashing should be addressed.

#### INTERIOR FINISHES & EQUIPMENT

Interior finishes and equipment appear to be in good condition.

## STRUCTURAL EVALUATION

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Sakai Intermediate School is a steel and masonry building constructed in 1999. Minimal structural modifications or upgrades have been made to the facility since it was originally constructed.

#### CONSTRUCTION

The structure is a one and two-story steel/masonry framed building. The roof system consists of open web and wide flange joists supported by a steel frame and masonry walls. The foundation is a typical spread and continuous footing system with a concrete slab-on-grade. A portion of the facility is a daylight basement. The exterior perimeter walls consist of brick veneer and metal panels, supported by metal stud infill framing or masonry walls.

The lateral system for the building consists of a metal deck roof diaphragm and composite concrete floor diaphragm which transfers lateral forces to steel concentrically braced frames and masonry shear walls.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

In general, the building is in good structural condition. We observed no signs of structural distress or settlement.

While the structure appears to be well detailed for the era in which it was built, a few details do not conform to current code requirements. For instance, it does not appear that out-of-plane anchorage of the masonry walls fully conforms to current provisions. Additionally, continuous diaphragm cross ties are not provided at the commons and gymnasium roofs. Braced frame details, width/thickness ratio, and slenderness ratios of the braces also don't appear to conform to current code provisions. However, these are not considered life/safety issues and pertains more to the damageability of the structure.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

No structural modifications are recommended at this time to comply with the intent of the current building code.

Overall, the structure is in good condition and shows relatively little signs of deterioration. It appears to have been well maintained. We do not recommend any structural modifications at this time.

The lateral seismic concerns as noted above are common for buildings of the given age and type of construction. The primary concern is the overall anticipated seismic performance of the building. The intent of the ASCE 31-03 life-safety provisions is to upgrade the building to a minimum standard based on historical performances of similar building types with similar deficiencies, and is not intended to upgrade the building for compliance with current code standards. With the incorporation of the recommendations noted above to mitigate the current building deficiencies as identified, the life-safety performance of the building will be improved for a seismic event.

## MECHANICAL EVALUATION

#### PLUMBING PIPING

The existing domestic water piping is copper pipe. There are no known issues with either the domestic water piping or the waste piping. There is acid resistant piping in some of the science classrooms. The main waste exits the back of the school and goes to a sewage lift station. The sewer pumps had to be replaced within about 5 years of occupancy and are nearing the end of their expected life.

#### PLUMBING FIXTURES

Plumbing fixtures are generally original to the constriction and are in fair condition; water closets are flush-valve types. Eventually toilet fixtures should be replaced with more efficient fixtures that use less water. Classroom sinks are stainless steel type.

There are two AO Smith propane-fired water heaters in the boiler room. These are original construction.

#### HVAC SYSTEMS

Heating and ventilation is provided for all classrooms with hydronic heat fan coil units located in mechanical mezzanines, or above suspended ceilings in the upper level hallway.

Excess outside air brought into the building for cooling is relieved through louvers with barometric backdraft dampers. When wind blows from the south, cold air can blow through these relief assemblies on southern facing walls, creating cold drafts, and creating uncomfortable temperatures for occupants in the Administration area. This condition is further complicated by inadequate coil sizing of the equipment, or inability to achieve sufficient delta to heat spaces during the coldest days.

Dampers and/or combustion air ducting to the induction burner itself should be provided long term to prevent excess air and cold drafts in the Mechanical room.

#### HYDRONIC SYSTEMS

The existing Patterson Kelley N-1700 boilers were installed as part of the original construction and typically have about a 20-year service life. Unlike modern boilers with efficiencies in the 90s, these boilers are 80% efficient and are nearing the end of their life.

#### HVAC CONTROLS SYSTEMS

The existing control system is by Siemens. The actuators are prone to failure but can be replaced as they fail.

#### FIRE SPRINKLERS

This building is fire sprinkled.

## ELECTRICAL EVALUATION

#### POWER

The school's main electrical service equipment consists of a 1200 ampere 480/277 volt with GFI main circuit breaker and feeder circuit breakers. Switchgear and panelboards are original construction. Electrical service, main switchboard, and panelboards are in good condition.

Typical Classroom has 8 or more convenience power outlets in addition to grouped outlets for student computer stations.

No general upgrades are recommended at this time.

#### LIGHTING

General illumination is T-8 fluorescent. Outdoor lighting fixtures have HID lamps. Light fixtures typically have type 12 acrylic lenses. There are occupancy sensors in classrooms and automatic time switch control for exterior lighting. There are no other automatic lighting controls for interior lighting except in classroom spaces.

Emergency egress lighting is provided using an emergency diesel generator.

#### TELEPHONE AND DATA SYSTEMS

Voice and data distribution have been upgraded since originally constructed in 1999. Data station drops are Category 6 rated. Wireless access points have been added throughout the building. Telephone system was converted to VOIP after 2006. No general upgrades are recommended at this time.

#### COMMUNICATION SYSTEMS

The school intercom and master clock system is a Bogen MultiCom 2000. System was not upgraded to the Bogen Quantum series as in other district schools.

The gym sound system wireless microphone feature does not work properly and should be replaced.

Classroom Audio Visual Systems: Classrooms have smartboards, ceiling or wall mounted projectors, and amplified sound systems.

#### ELECTRONIC SAFETY AND SECURITY

The fire alarm system is original Edwards EST 3 addressable system. The dialer equipment has been replaced with an AES Intellinet radio transmitter. Fire alarm devices include addressable manual stations at exits, addressable smoke alarms in hallways and classrooms, and horn/strobes in hallways and classrooms. Addressable heat detectors are provided in all other spaces to provide complete automatic fire detection of the entire building. Smoke detectors originally installed are now past their rated life. The fire alarm control panel is aging and requires significant upgrading. The building has fire sprinklers monitored by the fire alarm system.

The school does not have electronic access control and has some video surveillance for spaces used by the public after hours.

## SUMMARY OF FINDINGS

#### SAFETY ISSUES

:: There are many access points to the building. These may present a security issue

:: Building contains only two security cameras (both in the gym). District may want to consider a comprehensive upgrade

:: Adding access control and additional video surveillance is recommended

:: Upgrade intercom system to include call in switch for emergency use is recommended

:: Replacement of the Fire Alarm Control Panel and smoke detectors is recommended

#### CODE / LEGAL

:: Any major site improvements or building additions may require the stormwater system to be brought up to current code

:: An accessible curb cut needs to be provided from the covered play area to the fire lane to comply with code for emergency exiting from the gym. This should also be done to make the covered play area more accessible and conform to code

:: Additional parking spaces may need to be provided to meet current code

:: There are no designated spaces for vanpools, carpools or alternative fuel vehicles

#### LIFE CYCLE REPLACEMENT / REPAIR

:: The interior of the building and exterior hollow metal doors and frames need new paint

:: Vinyl surface on gym operable wall needs replacement

:: Exterior metal siding is showing signs of severe irregular discoloration. This appears to be an aesthetic issue. No sign of weatherization failure was observed

:: Moss is accumulating on the northwest slopes of the roof. The moss needs to be removed

:: Translucent panel skylights into the science classrooms are discolored and should be replaced

:: Consider adding additional tackable surfaces or display opportunities in the corridors for student work and announcements and to reduce wear on wall surfaces

:: The sewer pumps are nearing the end of their expected life

:: The boilers are nearing the end of their useful life and will need replacing in the next few years

:: The coils in the classroom air handling units need to be replaced to increase their size enabling them to manage cold air temperatures during cold weather

:: An upgrade to Bogen Quantum series to match other systems throughout the district should be considered

#### STUDENT PROGRAM

:: Paved play areas are minimal and could be expanded to better serve programs

:: Consider improvement of permanent signage to direct vehicular traffic

:: Develop exterior walkways, stairs and ADA ramp to improve pedestrian access to the field at the north end of the building

:: In general, the classrooms provide poor natural daylighting

:: Two science classrooms, three additional classrooms located on the lower level, and the gym have no access to natural daylight or views

:: Lack of solar control devices on the east library windows requires the blinds to be closed during certain times of the day

:: Shared learning areas and small group meeting rooms have been eliminated from the classroom wings in favor of additional support spaces

:: The Gymnasium/Commons has poor acoustics. Consider the addition of acoustical wall panels for improved performance

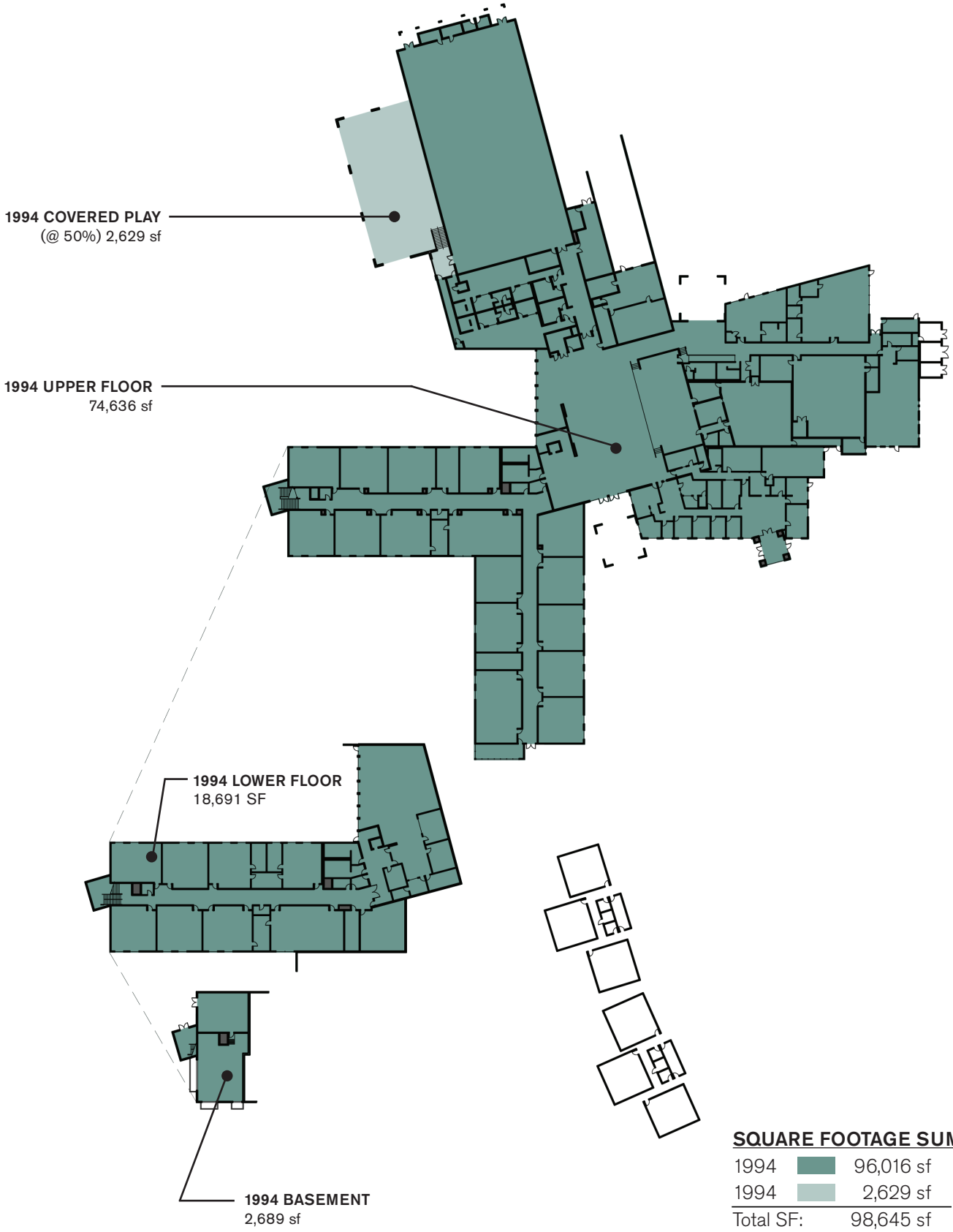
### ENERGY SAVINGS

:: Upgrade lighting controls to meet current energy code requirements for automatic occupancy and daylighting controls is recommended

:: Recommend revising relief assemblies on the south side of the building to prevent cold winds from blowing into the building

:: Upgrade toilet fixtures to save water consumption

## CONSTRUCTION HISTORY




**SQUARE FOOTAGE SUMMARY**

| | | |
|---|---|---|
| 1994 | | 96,016 sf |
| 1994 | | 2,629 sf |
| Total SF: | | 98,645 sf |

## WOODWARD MIDDLE SCHOOL (7-8)

9125 Sportsman Club Road
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: 7-8
Site Area: 67.22 acres (shared with Sakai Intermediate School)
Current Use: educational facility
Zone: R-0.4 (critical area overlay district)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1994 Upper Level | 74,636 SF |
| 1994 Lower Level | 18,691 SF |
| 1994 Basement | 2,689 SF |
| Subtotal | 96,016 SF |
| 1994 Covered Play (50%) | 2,629 SF |
| **Total Permanent SF** | **98,645 SF** |
| Portables (6) | 5,400 SF |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| 7-8 | 21 | 26 (21.6) | 550 |
| Special Ed. | 3 | 8 | 24 |
| Electives | 6 | 26.7 (22.2) | 133 |
| PE | 2 | 35 (29.1) | 58 |

Total Instructional Spaces: 31 (Includes 2 teaching spaces in gym)
Total Perm. Functional School Capacity: 669

### CURRENT ENROLLMENT (OCT 2014)

538 head count (537.44 FTE)

Number of Portables: 6
Temporary Classrooms: 4
Non-Classrooms: 2

The current Middle School program operates on a six (6) period schedule. Each teacher requires a preparation period. The District's practice of having Middle School teachers use their classrooms for their preparation period, without students present, requires the classroom to be vacant for one period a day. Therefore, a utilization factor of 83.3% (5 divided by 6 = 83.3%) is used to determine maximum enrollment capacity.

## SITE DEVELOPMENT

### GENERAL

The site is located on Sportsman Club Road in an R-0.4 residential zone and within a Critical Area Overlay District. Educational facility use is allowed within this zone with a Conditional Use Permit. The Critical Area classification means the site falls within an aquifer recharge area, fish and wildlife habitat, frequently flooded area, geologically hazardous area, wetland, or stream area. Development and land use activities must follow the Critical Areas Ordinance of the City of Bainbridge Island. The zoning of the area intends to allow for low density housing while protecting rural environments and preserving natural systems and open spaces.

The school is set back from the street across a large parking lot. The development sits in a wooded area in a large clearing with paths connecting to the surrounding environment. The playfields are located north of the school and are accessed from the gym wing or the adjacent parking lot on the eastern side of Woodward, or to the north from Sakai Intermediate School. A service drive/ fire access loop surrounds the Woodward building and also provides access from the gym wing to the fields. The playfield areas include a recently improved, state of the art, rubberized track surrounding a new natural turf soccer field, Directly south of the new track is a large multi-use field for soccer and other field sports with two backstops for occasional baseball activities. The northeast corner of the multi-purpose field has a new discus cage station to support track and field activities on the new track to the north.

### TRANSPORTATION

The site has two entry drives from Sportsman Club Road. The main drive serves a large visitor parking lot and student drop-off area to the south of the building. There are two primary building entries from this lot. The entry to the Commons space is the most recognizable due to the prominence of the large entry tower canopy. The Commons is heavily used by the public and its entry location responds to this function. Supervision and entry control issues arise because the main visitor/office entry, through which all visitors must pass when school is in session, is identified with a smaller tower/canopy to the east of the main tower. Reconfiguration of entry points should be studied or at least better signage to access points should be added. A parent drop-off zone is located along the curb with immediate access to the building. The length of the drop-off area is not sufficient for the number of students being driven to the school. The southern end of this parking lot has water flowing from the buffer area east and creates a significant icing issue during the winter months. A curtain drain or diversion swale should be considered.

The second northern site access drive from Sportsman Club Road is north of the building and serves as the bus access point and loop for the site. A covered tower/canopy on the northeastern side marks the entry point for students arriving by bus. This lot also has some staff parking, the service delivery area, and serves as a parking lot for the large fields to the north when school is not in session.

Due to the volume of vehicular school traffic before and after school, adjacent roadways experience traffic congestion and significant back-ups onto Sportsman Club Road and New Brooklyn. Waits can be as long as 10-15 minutes. Consideration should be given to a lighted intersection or alternative means of egress to the south onto New Brooklyn Road.

There are 202 parking spaces and ten bus loading areas on site. There are no designated spaces for vanpools, carpools, or alternative fuel vehicles.

### OUTDOOR SURFACES

Outdoor paved surfaces are in satisfactory condition in most areas.

### STORMWATER MANAGEMENT

The site was constructed with an on- site detention system and met the storm drainage codes in 1994. It may not fully conform to current code requirements, but no changes are required unless this building undergoes substantial changes or additions. Except for the southern parking lot, no apparent drainage issues on this site were noted.

### SANITARY SEWER

The site is connected to the City of Bainbridge Island sanitary sewer system with an onsite pump station and force main. There have not been any reported operational issues with this system.

### WATER AND FIRE ACCESS

The site is served by the City of Bainbridge water system. There are fire hydrants on the site and the building has fire sprinklers. A fire lane completely surrounds the school. Flow rates of fire hydrants may not meet current standards.

### SITE ACCESSIBILITY / ADA COMPLIANCE

No major site accessibility issues were observed.

### LANDSCAPING

Minimal landscaping is generally in decent condition around the front of the school. Parking lot trees are maturing and their roots are pushing up close to the surface and may soon impact the paving and curbs.

## GENERAL BUILDING CONDITION

### CONSTRUCTION HISTORY

The school consists of one main building constructed in 1994. The playfields and track to the north were recently improved to upgrade field drainage. A new rubberized track surface and a new natural grass turf athletic field were installed.

### SPATIAL RELATIONSHIPS AND PROGRAM

The facility is arranged around a central Commons area. Two classroom wings house three classroom clusters. Each cluster contains six or seven general use classrooms, one hybrid math/science classroom and one specialized science classroom. Initially conceived as a three grade facility (6th, 7th, and 8th grades), the current configuration of

two teams for 7th and 8th grades requires four classroom clusters. As a result, the teams do not all have distinct areas in the school.

The Commons is heavily used for food service, before and after school activities, school assemblies, and community uses. The central location serves the use well although some congestion occurs at the convergence of the two classroom wings. The school gym and locker rooms are located in a third wing to the north of the Commons. The specialty classrooms are grouped in a fourth wing to the east of the Commons.

The library is located on the lower floor below the Commons. Although centrally located, the noise from activity in the Commons above often disrupts quiet learning in the library.

The building offers limited opportunities for flexibility or adaptability to accommodate other teaching models. Shared learning areas and small group meeting rooms are not provided in the classroom wings. Team teaching opportunities could be expanded with more operable walls. Currently, three pairs of classrooms are equipped with this option.

#### DAYLIGHTING

In general, the classrooms have fair natural daylighting. While all classrooms have access to some daylight and views, the majority of the classrooms have minimal window area. Each classroom contains two 5' high by 6' wide windows. Classrooms are approximately 28' deep and do not have access to daylight from two directions.

The Computer/Technology Rooms, and the Home and Family Life Sciences Room contain poor daylighting. Windows provided are inadequate for the size of the rooms.

The Gym, Wood Shop and Band Rooms have no access to natural daylight or views.

Two offices and two workstations in the Administration area do not have natural daylighting.

#### SAFETY / SECURITY

The administration area has good views to the main entry and parking lot areas. Security cameras are installed in a limited number of locations. The District may want to consider a comprehensive upgrade for security.

#### GENERAL BUILDING OBSERVATIONS

The school needs a space to house its wrestling program. It is possible that the covered play area that adjoins the building could be enclosed to accommodate this program and double as an auxiliary gym.

The Gym PE Equipment Storage room is small and much of this equipment has to be stored in other locations around the building.

#### INTERIOR SPACES / ADA COMPLIANCE

No ADA compliance issues were observed.

#### BUILDING ENVELOPE

The exterior material of this building is Concrete Masonry Units (CMU) and Dryvit (exterior finish system). Given the age of the Dryvit it is doubtful that the system contains a drainage plan. Regular inspection and care of the finished surface and caulked joints is needed to maintain proper weatherization. Overall, the Dryvit exterior stucco cladding appears to be in decent condition with only minor cracking noted. Some clad stucco surfaces are stained and should be cleaned and recoated. In addition, the CMU does need to be cleaned and recoated with anti-graffiti and waterproof coatings in the near term to prevent water intrusion. No observation of water intrusion was noted or reported.

The windows are white vinyl with insulated glazing.

The roof was replaced in the summer of 2014.

#### INTERIOR FINISHES & EQUIPMENT

Interior finishes and equipment are in reasonable condition for a 20-year-old building.

Floor tile is aging with tiles sporadically needing replacement.

Vinyl wallcovering in the corridors is used as a tackable surface to display notices and student work. This tackable surface is showing signs of wear and hard to keep clean. This appears to be due to the light color of the material and not the product itself. Consideration should be given to replacement of the existing vinyl wallcovering in the corridors with a darker or multi-colored product that is easier to maintain.

Most interior spaces of the building need repainting.

## STRUCTURAL EVALUATION

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Woodward Middle School is a wood, steel and masonry building constructed in 1994. Minimal structural modifications or upgrades have been made to the facility since it was originally constructed.

#### CONSTRUCTION

The structure is a one and two-story wood/steel/masonry framed building. In general, the classroom wings consist of pre-manufactured wood roof and floor joists supported by wood stud walls. The Commons and Gymnasium portions of the building consist of a steel framed roof supported by masonry walls. The foundation is a typical spread and continuous footing system with a concrete slab-on-grade. The exterior perimeter walls consist of brick veneer and exterior insulation system (Dryvit) panels, supported by wood stud framing or masonry walls.

The lateral system for the building consists of a metal deck roof diaphragm at the commons and gymnasium, and wood framed roof and floor diaphragms at the classroom wings. The lateral forces are then transferred to plywood and masonry shear walls.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

In general, the building is in good structural condition. We observed no signs of structural distress or settlement. There are cracks in the concrete masonry unit (CMU) walls, and several repairs have been completed on flooring in the classroom wing halls next to classroom doors.

While the structure appears to be well detailed for the era in which it was built, a few details do not conform to current code requirements. For instance, it does not appear that out-of-plane anchorage of the masonry walls fully conforms to current provisions. Additionally, continuous diaphragm cross ties are not provided at the Commons and Gymnasium roofs. However, these are not considered life/safety issues and pertain more to the damageability of the structure.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

No structural modifications are recommended at this time to comply with the intent of the current building code.

The lateral seismic concerns, as noted above, are common for buildings of the given age and type of construction. The primary concern is the overall anticipated seismic performance of the building. The intent of the ASCE 31-03 life-safety provisions is to upgrade the building to a minimum standard based on historical performances of similar building types with similar deficiencies, and is not intended to upgrade the building for compliance with current code standards. With the incorporation of the recommendations noted above to mitigate the current building deficiencies as identified, the life-safety performance of the building will be improved for a seismic event.

## MECHANICAL EVALUATION

#### PLUMBING PIPING

The existing domestic water piping is copper pipe. The waste piping appears to be a mix of cast iron and ABS with some acid-resistant piping servicing science classrooms and prep rooms. Waste from the Kitchen has backed up into the Boy's Locker Room on the lower level on multiple occasions. This occurs when excessive amounts of food waste are sent through the food disposal. This condition should be corrected.

#### PLUMBING FIXTURES

Plumbing fixtures are, for the most part, original but are in fair condition; water closets are flush-valve type. Health toilet room does not have a sink in it. Students have to exit the toilet room and use the Health Room sink to wash their hands. The toilets should eventually be updated to reduce water consumption.

There are four electric water heaters in the building. All four are original to the building construction and are approaching the end of the expected service life.

#### HVAC SYSTEMS

Heating and ventilation for the building is provided by large electric heat air handling units located in mechanical mezzanines. Some units are constant volume unit; others are variable air volume (VAV) type with fan powered VAV boxes with electric reheat serving each zone. Variable Frequency Drives (VFDs) have begun to fail. The existing air handlers were improperly stored during construction and condensation collected between the inside liner and the exterior casing causing some unit liner corrosion. This system will need to be replaced within the next 5-8 years.

There are several areas where the level of exhaust and ventilation is inadequate for the space usage. In the Home and Family Life Classroom, range hoods are the recirculating type and do not exhaust air to the exterior of the building. In at least one Science Classroom, standard range hoods provide minimal exhaust for science stations. There is a laminator in the Library Audio Video Room that does not appear to be exhausted properly. There is excessive clay dust debris accumulation in the 3-Dimensional Art Room due to inadequate ventilation.

The MDF room near the Library is not air conditioned; excessive heat builds up in that space, causing maintenance issues and premature failure of equipment.

#### HVAC CONTROLS SYSTEMS

The existing Alerton control system was updated to a Windows-based operating system in 1994. Original control components are becoming obsolete, out of production, difficult to obtain and support. This may require complete replacement of the system.

#### FIRE SPRINKLERS

This building is fire sprinkled, but the piping system is showing its age. Joints, connections, and rubber gaskets are starting to leak and need repair or selective replacement.

## ELECTRICAL EVALUATION

#### POWER

The school's main electrical service equipment consists of a 4000 ampere 480/277 volt main fusible switchboard with two 2000 ampere main GFI fusible switches. Woodward is an all electric school and is primary metered by the Puget Sound Energy (PSE). The service disconnecting means is a medium voltage pad mounted switch, and the School District owns the oil filled transformer serving this equipment. Switchgear and panelboards are original construction and manufactured by Westinghouse. The electrical service, main switchboard, and panelboards are in good condition.

A typical classroom has 8 or more convenience power outlets, in addition to grouped outlets for student computer stations.

No general upgrades are recommended at this time.

#### LIGHTING

General illumination is T-8 fluorescent. Outdoor lighting fixtures have HID lamps. Light fixtures typically have type 12 acrylic

lenses. There are occupancy sensors in classrooms and automatic time switch control for exterior lighting. There are no other automatic lighting controls for interior lighting except in classroom spaces.

Emergency egress lighting is provided using an emergency diesel generator.

#### TELEPHONE AND DATA SYSTEMS

Voice and data distribution have been upgraded since originally constructed in 1994. Data station drops are Category 6 rated. Wireless access points have been added throughout the building. Telephone system was converted to VOIP after 2006. The telephone system will need to be replaced in the near future.

#### COMMUNICATION SYSTEMS

The school intercom and master clock system have been upgraded to Bogen Quantum series installed in 2010 with music, telephone handset interface. Original Rauland clocks remain in use.

Classroom Audio Visual Systems: Classrooms have smartboards, ceiling or wall mounted projectors, and amplified sound systems.

#### ELECTRONIC SAFETY AND SECURITY

Fire alarm system is original Notifier AFP-200 addressable system. The dialer equipment has been replaced with an AES Intellinet radio transmitter. Fire alarm devices include addressable manual stations at exits, addressable smoke detectors in hallways and classrooms, and horn/strobes in hallways and classrooms. Smoke detectors originally installed are now past their rated life. Addressable heat detectors are provided in most spaces to provide automatic fire detection of the building but some locations are not individually addressed and should be to provide better area detection. The fire alarm control panel is obsolete equipment. It is difficult to support, not all devices are individually addressed, and it should be replaced. The building has fire sprinklers monitored by the fire alarm system.

The school does not have electronic access control. Additional video surveillance/cameras may be warranted. The comprehensive District-wide security upgrade should be considered.

## SUMMARY OF FINDINGS

#### SAFETY ISSUES

:: Intercom system does not include call switch for emergency use

:: Smoke detectors are at the end of their rated life

:: Access control does not exist, creating a safety issue

:: Additional video surveillance may be warranted. A comprehensive security upgrade should be considered

#### CODE / LEGAL

:: Health toilet toom does not have a sink in it; students have to exit the Toilet Room and use the Health Room sink to wash their hands

:: Site stormwater management improvements are required to comply with current jurisdictional requirement to protect water quality

:: There are no designated spaces for vanpools, carpools, or alternative fuel vehicles

#### LIFE CYCLE REPLACEMENT / REPAIR

:: Parking lot trees are maturing and the root system may soon impact paving and curbs.

:: Existing vinyl wallcovering in the corridors show excessive wear and need replacement.

:: The roof is at the end of its serviceable life and in need of replacement.

:: During heavy rains, the rainwater overshoots the gutter at the main entry and cascades onto the sidewalk below.

:: Regular inspection and care of the exterior finish system (Dryvit) and caulked joints is required to maintain proper weatherization.

:: The tower entry steel lintels are rusting and need repair

:: Waste from the Kitchen backs up into the Boys Locker Room on the lower level on multiple occasions and needs to be corrected.

:: Water heaters are at the end of their expected life.

:: Variable frequency drives (VFDs) have begun to fail and will need to be replaced within 5-8 years.

:: Exhaust ventilation in all specialized learning areas should be improved to comply with health and safety regulations.

:: The MDF room requires a stand-alone AC unit to preserve equipment.

:: Light fixtures have 20-year-old lens technology.

:: Fire alarm control panel needs to be replaced.

:: HVAC control components are obsolete and will need to be replaced.

:: Most interior spaces need repainting.

#### STUDENT PROGRAM

:: The building offers limited opportunities for flexibility or adaptability to accommodate other teaching models. Shared learning areas and small group meeting rooms are not provided in the classroom wings

:: Building was originally designed as a three grade configuration. Currently used for two grades, there are not distinct areas within the school for each grade level

:: Although centrally located, the noise from activity in the Commons above often disrupts quiet learning in the Library

:: The Computer Rooms and Home and Family Life Room contain poor daylighting

:: The Gym, Tech Classrooms, Wood Shop and Band Room have no natural daylight or views

:: Two offices and two workstations in Administration lack natural daylighting

:: Consideration should be given to retrofit the outdoor covered play area to

accommodate more athletic activities

:: Additional Gym PE equipment storage space is needed because the existing storage room is too small, requiring gym equipment to be stored around other parts of the building

:: After-school vehicular traffic backs up due to the amount of traffic trying to exit onto Sportsman Club Road. Waits can be as long as 10-15 minutes. Consideration should be given to a lighted intersection or alternative means of egress to the south onto New Brooklyn Road

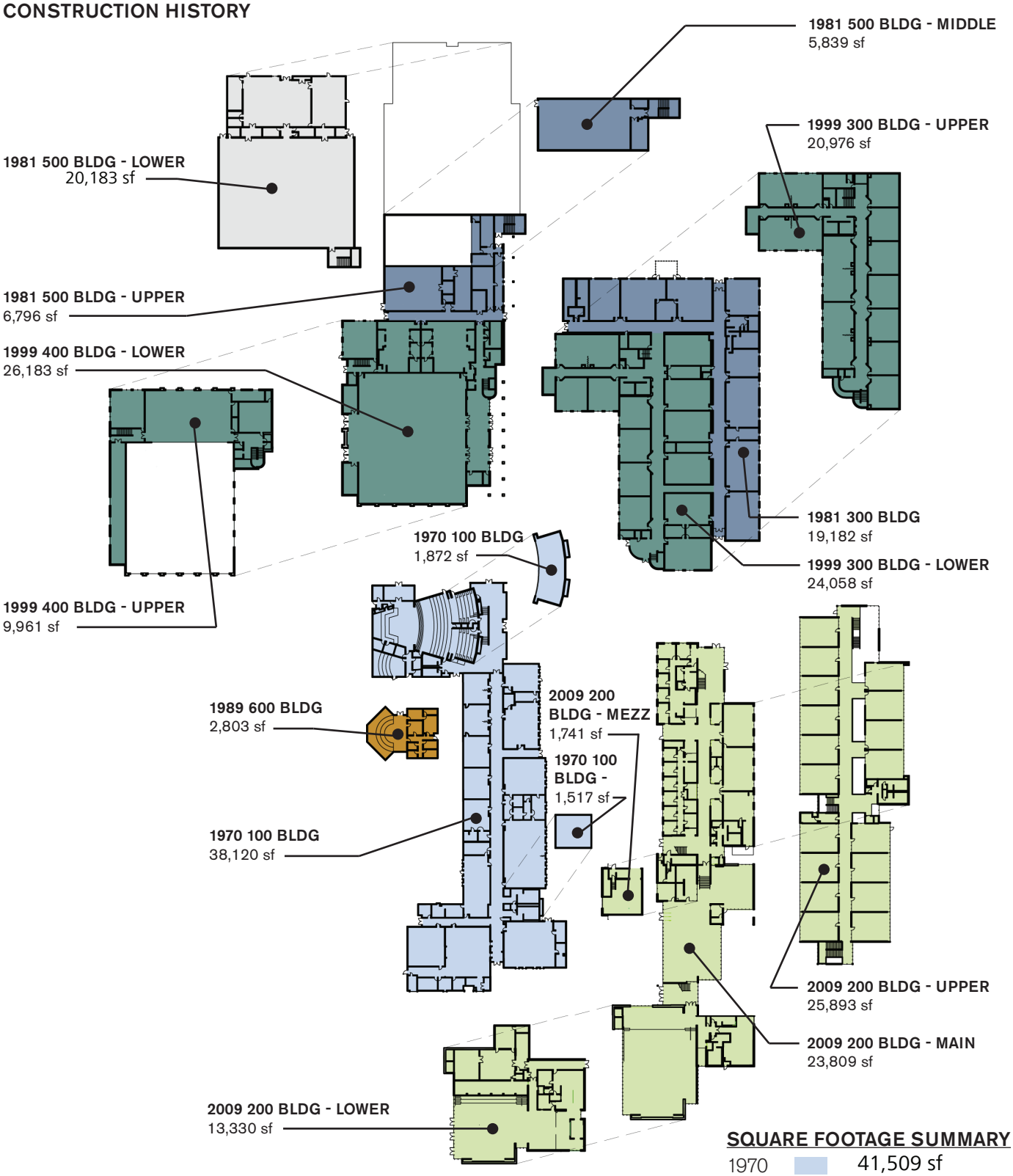
:: The length of the drop-off area is not sufficient for the number of students being driven to the school

### ENERGY SAVINGS

:: Lighting controls do not meet current energy code requirements for automatic occupancy and daylighting controls

:: Toilet fixtures should be eventually replaced to conserve water

## CONSTRUCTION HISTORY




**SQUARE FOOTAGE SUMMARY**

| | |
|---|---|
| 1970 | 41,509 sf |
| 1981 | 52,000 sf |
| 1989 | 2,803 sf |
| 1999 | 81,178 sf |
| 2009 | 70,024 sf |
| Total SF: | 247,514 sf |

## BAINBRIDGE HIGH SCHOOL (9-12)

9330 NE High School Rd
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: 9-12
Site Area: 75.6 acres (shared site)
Current Use: educational facility
Zone: R-2.9 (critical area overlay district)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1970 100 Building | 41,509 SF |
| 1981 300 Building | 19,182 SF |
| 1981 500 Building | 32,818 SF |
| 1989 600 Building | 2,803 SF |
| 1999 300 Building Addition | 45,034 SF |
| 1999 400 Building | 36,144 SF |
| 2009 200 Building | 70,024 SF |
| **Total Permanent SF** | **247,514 SF** |

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Rooms | Class Size | Capacity |
|---|---|---|---|
| 9-12 | 51 | 26 (21.6) | 1,102 |
| Special Ed. | 6 | 8 (6.7) | 40 |
| Electives | 9 | 26.7 (22.2) | 200 |
| PE | 3 | 36 (29.1) | 87 |
| Ancillary | 2 | 26 (21.6) | 43 |

Total Instructional Spaces: 71
Total Perm. Functional School Capacity: 1,472

### CURRENT ENROLLMENT (OCT 2014)

1,234 head count (1,245 FTE)

### PERMANENT PROGRAM SPACE AND USE

Core Instructional Classrooms: 51
Special Education Classrooms: 6
Elective and Specialist/PE: 9/3
Ancillary space used for Programs: 2

Number of Portables: 0

The BHS 500 Bldg is 32,818 SF however, Commodore shares one-half of the BHS 500 Building Gym or 6,825 SF (total gym 13,650 SF) for PE and another 4,381 SF of this building is their Kitchen/Commons. In addition the BISD School Board room and adjacent storage is about 2,190 SF of this building. However for ICOS/eligibility and tracking purposes these portions of the 500 Building are still included with BHS.

The current High School program operates on a six (6) period schedule. Each teacher requires a preparation period. The District's practice of having High School teachers use their classrooms without students for their preparation period requires the classroom to be vacant for one period a day. Therefore, a utilization factor of 83.3% (5 divided by 6 = 83.3%) is used to determine maximum enrollment capacity.

## SITE DEVELOPMENT

### GENERAL

Bainbridge High School (BHS) is located on NE High School Road, on the southwest portion of the 75.6 acre central campus shared with the Commodore Options School, Ordway Elementary School, District Administration offices, District Maintenance Facilities, the District Transportation facilities, and the Bainbridge Island Aquatic Center. The High School campus is composed of four main buildings that are arranged around a central open exterior space. The newest building on campus (200-Building) fronts NE High School Road and provides a clear main entry to the campus.

The High School athletic fields are north of the BHS buildings on the campus. A service road divides the school from the fields. The athletic facilities include a football field with a track and covered stadium, a baseball field, softball field, and soccer field. Six tennis courts are provided northwest of the BHS parking lot.

### TRANSPORTATION

Primary vehicle and bus access points to the campus are located on NE High School Road. Parking is spread throughout the campus in various lots accommodating 225 spaces. Total on-site parking is not sufficient for normal school operations or large community events. Parking for events spills over into the adjacent school district facility lots and the community. The parking areas are difficult to monitor causing a security issue.

Bus loading and unloading occurs at the west side of the site and accommodates seven buses. Students have safe walking routes through campus from this location.

Vehicular drop-off and pick-up area at front of school is limited, only accommodating approximately 11 vehicles at a time. The area allows for curb-side loading and unloading with convenient safe walking routes through the campus.

Eleven short-term parking spaces are located off NE High School Road south of the 300 Building.

### OUTDOOR SURFACES

Concrete paved walkways are in good condition.

### STORMWATER MANAGEMENT

Site development associated with the 200 building incorporated extensive rain gardens to accommodate water quality treatment for roof run-off and run-off from impervious surfaces around the 200 Building, and a large stormwater detention and rain garden system adjacent to the entire length of the vehicle drive in the southwest portion of the site.

In 2008 an extensive stormwater drainage detention system was built into the new athletic field at BHS when it was converted to artificial turf.

The 1999 additions to the 300 & 400 Buildings included underground detention in a 36-inch pipe located between the two buildings.

Additional upgrades to the stormwater management system will be required in conjunction with any new development or significant building construction on the BHS Campus.

### SANITARY SEWER

A City of Bainbridge Island gravity sanitary sewer main in NE High School Road serves the site. The City system is adequate for the school.

### WATER AND FIRE ACCESS

The water for domestic use and fire suppression are provided by the City of Bainbridge Island. Site development related to replacement of the 200 building improved fire access to the center of the campus and provided additional fire hydrants at the west and south sides of the property. Emergency vehicles can now access the center of campus between the 200 and 300 buildings and utilize the center outdoor plaza between buildings for emergency 'turn-around.' Not all campus buildings are fire sprinkled and therefore it is not known if adequate fire flow exists to serve all buildings.

### SITE ACCESSIBILITY / ADA COMPLIANCE

No accessibility issues were noted on the overall campus.

### LANDSCAPING

A variety of landscaping exists throughout the campus. For the most part, landscaping is generally in decent condition.

## GENERAL BUILDING CONDITION

### CONSTRUCTION HISTORY

The 100 building, constructed in 1970, is the oldest remaining building on the BHS campus. It has received only minor improvements over the last 44 years and is reaching the end of its serviceable life. The 200 Building was replaced in 2009 and is in very good condition. The 300 and 500 Buildings were originally constructed in 1981. In 1999, a major two-story addition was added to the 300 Building and the new 400 Building replaced the old gym. The 600 Building was constructed in 1989.

### ASBESTOS

Due to the early years of construction of the older buildings (100, 300 older portions, and 500) a variety of asbestos materials exist in different areas. Twice yearly surveillance reports monitor the condition of the materials. Professional consultants provide recommendations for immediate abatement should a condition change. Recent reports indicate no immediate safety concerns. Asbestos is identified in hard mudded pipe fitting insulation associated with fiberglass lagging on mechanical and plumbing piping; cement asbestos board; floor tile; thermal undercoating; sprayed fireproofing; vermiculite inside CMU walls; joint compound; adhesives, cove base and associated mastic.

Remaining asbestos elements will need to be abated with any major upgrades or replacement of buildings.

#### SPATIAL RELATIONSHIPS AND PROGRAM

The school campus is organized with separation of the various school functions into different buildings. One building contains general classrooms and common support spaces, another contains elective and science classrooms, a third contains specialty and vocation spaces, and athletic facilities are contained in a fourth building. The result is a relatively traditional departmentalized arrangement.

Specialized program spaces do not meet current educational program needs.

#### DAYLIGHTING

With the exception of the new 200 Building, most of the classrooms and common spaces in the other buildings provide poor natural daylighting. While most classrooms have access to some daylight and views, the majority of the rooms are inadequately lit due to limited window area. A few classrooms are located in the center of buildings and do not have access to exterior wall and daylight. The 300 Building renovations attempted to address this issue by providing skylights. While these helped to alleviate the problem, there is not sufficient quantity to adequately daylight the classrooms without any additional windows. Also, no opportunity for view windows exists. An exception to the daylighting inadequacy is the Art room in the 100 Building. Two large north facing clerestory windows provide very good daylighting for this room.

#### SAFETY / SECURITY

The campus style building arrangement creates security issues, particularly with regard to access to the buildings. Electronic access control and video surveillance should be provided campus-wide for security.

Dispersed parking lots are difficult to supervise, creating safety and security issues.

#### BUILDING ENVELOPE

100 Building - Exterior walls and the roof are inadequately insulated. The windows are single pane and provide poor energy performance.

Roofing is past its serviceable life and in need of replacement.

300 and 400 Buildings - Metal roofs are showing premature aging. The 15 year old metal roofing system shows corrosion around mechanical fasteners and the finish coating is showing early wear. Left untreated this condition will lead to early failure and could result in water infiltration into the structure below.

Asbestos soffits and fascia panels should be replaced around the perimeter of the 300 Building and some portions of the 500 Building.

Anti-graffiti coatings should be applied on all masonry exterior services on a regular maintenance schedule.

#### INTERIOR FINISHES & EQUIPMENT

100 Building - All interior finishes and equipment are old and have surpassed their serviceable life. The exposed aggregate floor in the corridor is noisy and disruptive to classes. Some glue-on ceiling tiles are missing – others are stained and in poor condition. Exposed interior masonry walls are stained and worn. Extensive cracking of the gypsum board walls exists in several locations. Flooring is in need of replacement. Casework is old and damaged. Much of the door hardware does not comply with current code and is in poor condition. The restrooms are in poor condition. Most areas of the building need repainting.

200 Building: Interior finishes and equipment are in good condition.

300 Building (1981 portion) – Interior finishes and equipment are aging. Corridor ceilings are low and susceptible to continued abuse. The exposed aggregate floor in the corridor is noisy and disruptive to classes. The restrooms in the older portion of the Building need replacement, being original installation. Much of the door hardware does not comply with current code and is in poor condition. The Art room has poor ventilation and the arrangement of multiple small rooms restricts function of program. In 2006, updates to the 1981 portion included new rooftop HVAC units and controls, as well as remodeling 3 classrooms and 1 laboratory.

Many interior areas of the building need repainting.

400 Building - Many interior areas of the building need repainting. Some elements in the gym locker rooms and restrooms need upgrading due to heavy use.

500 Building – Gym interior needs complete renovation. Other interior areas of the building need repainting. Restrooms need upgrading, as they are mostly original equipment.

600 Building - Needs interior renovations, as all finishes and equipment are original.

## STRUCTURAL EVALUATION - 100 BUILDING

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

The 1970 building is a single story wood framed roof structure with reinforced masonry bearing and non-bearing walls. The building is supported on conventional strip footings and spread footings with portions of the building supported on grade beams and piles. The roof framing above the theater is open web steel joists supported by metal deck.

The lateral system consists of a plywood roof diaphragm that transfers the lateral earthquake and wind loads to reinforced masonry shear walls and gypsum board shear walls.

In 1998 improvements were made to the structure's roof to provide out-of-plane support for the masonry and concrete wall panels.

## ORIGINAL CONSTRUCTION

### STRUCTURAL OBSERVATION AND COMMENTS

No signs of settlement to the primary structure were observed.

The interior gypsum board walls appear to be overstressed due to lateral forces. While the walls may be damaged in a moderate earthquake, it is not anticipated that the structure would be in danger of collapsing.

The roof and floor diaphragms appear to be overstressed in some locations. This could cause excessive deflections and result in building damage in a moderate earthquake.

The reinforced piers and grade beams on the west end of the building appear to act in bending to resist lateral forces. It is likely that this system is inadequate to resist code level forces. While large displacements may occur, it is unlikely that the structure would collapse.

The canopy and open atrium roof at the east end of the building is showing significant signs of rot and deterioration. Some of the wood decking at this area is deflecting significantly. The glulam beams at this location are also showing signs of rot. The mechanical room on the east end of the building is below grade and has water infiltration issues. To remedy this situation, it may be necessary to provide new foundation drains and waterproofing membranes on the below-grade walls.

### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

Add plywood to interior wood stud walls to increase lateral capacity.

Provide additional interior shear walls to reduce roof and floor diaphragm shears, and/or provide blocking and additional edge nailing to the existing roof and floor diaphragms to increase capacities.

Provide concrete shear walls at the perimeter of the west end of the building (at the pier/grade beam locations).

Repair/replace the canopy open atrium roof framing as required to address the rot issues.

## STRUCTURAL EVALUATION - 200 BUILDING

### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

200 Building is a one and two story, concrete and steel framed building. The roof and floor framing consists of wide flange steel beams, with a metal roof deck and composite concrete floor deck.

The lateral system consists of steel braced frames and concrete shear walls.

### STRUCTURAL OBSERVATIONS AND COMMENTS

The building is in very good structural condition. We observed no signs of structural distress or settlement.

### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

No structural modifications are recommended.

## STRUCTURAL EVALUATION - 300 BUILDING

### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

The older portion of 300 Building is a single story steel framed roof structure with reinforced masonry infill shear walls. The building is supported on conventional strip footings with portions of the building supported on grade beams and piles.

The lateral system consists of a metal deck roof diaphragm that transfers the lateral earthquake and wind loads to reinforced masonry shear walls.

In 2006, mechanical upgrades were performed in the single story portion of the building. At this time additional metals stud/plywood shear walls were added to improve the performance of the facility.

### STRUCTURAL OBSERVATIONS AND COMMENTS

No signs of structural distress or differential settlement were observed.

The existing drawings do not indicate any provisions of bracing for the corridor walls. This could be a life-safety issue in a moderate seismic event.

It appears that a portion of the corridor wall adjacent to the 1998 construction may have been part of the original 1955 construction. If it is, it should be verified if the wall is reinforced and tied adequately to the roof structure.

### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

Additional study should be conducted to determine if the corridor walls are braced up to the roof structure. If no bracing exists, specific bracing should be provided and tied to the roof structure.

Additional study should be conducted to determine if the older wall adjacent to the 1998 construction is reinforced. If not, provide infill reinforcing or metal stud backing walls. The wall should be anchored to the existing roof as necessary.

## STRUCTURAL EVALUATION - 300 & 400 BUILDING

### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

The newer portion of the 300 Building is a two story steel framed structure. The roof system is curved bar joists supported by steel beams, columns, and reinforced masonry walls. The floor system is a composite metal deck supported by steel beams and columns and reinforced masonry walls. 400 Building is a partial two-story gymnasium structure with a curved bar joist roof system and a hollow core floor deck. The walls are constructed of reinforced masonry. Both structures are supported on geo-pier piles and grade beams.

The lateral system for both structures consists of metal roof deck diaphragms

and composite and/or hollow core floor deck diaphragms that transfer the lateral earthquake and wind loads to reinforced masonry shear walls.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

The buildings are in good structural condition except for cracks in CMU walls from the Nisqually quake in the upper mechanical space and the roofing issues. The 15 year old metal roofing system shows corrosion around mechanical fasteners and the finish coating is showing early wear. Left untreated this condition will lead to early failure and could result in water infiltration into the structure below.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

No structural modifications are recommended. However, metal roofing system should be evaluated for appropriate repairs.

## STRUCTURAL EVALUATION - 500 BUILDING

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Building 500 is a single story steel framed roof structure with cast in place foundation walls, pre-cast concrete wall panels, and some reinforced concrete masonry walls. The building is supported on conventional strip footings that step up the sloped site.

The lateral system consists of a metal deck roof diaphragm which transfers the lateral earthquake and wind loads to pre-cast concrete walls.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

The building is in good structural condition for its age. No signs of structural distress or differential settlement were observed. The covered walk on the Southwest corner of the building has rotting decking and beams and will need to be addressed soon.

Some of the foundation walls exhibit signs of water infiltration. Some of the panel connections show minor signs of rusting and deterioration. Most of the infiltration appears to be occurring at the panel joints.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

The building exterior needs to be examined to determine where water infiltration may be occurring and then be appropriately repaired. To remedy this situation it may be necessary to provide new foundation drains and waterproofing membranes on the below grade walls.

## STRUCTURAL EVALUATION - 600 BUILDING

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

Building 600 is a single story wood framed structure with plywood sheathed wood stud walls supported by conventional spread and continuous footings. The roof structure above the music rehearsal area is wood joists supported by rigid steel frames.

The lateral system consists of a plywood roof deck diaphragm that transfers the lateral earthquake and wind loads to plywood shear walls.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

The building appears to be in decent structural condition in view of the age of the building. No signs of structural distress or settlement were observed.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

No structural modifications are recommended.

## MECHANICAL EVALUATION - 100 BUILDING

#### PLUMBING PIPING

Restrooms are plumbed with the original galvanized piping. The original galvanized piping has been replaced in some areas of the building. The waste piping is original and is currently functioning. Floor drains in the mechanical basements are served and connected to the waste sewers

#### PLUMBING FIXTURES

Fixtures in classrooms were replaced in 1998-1999. Plumbing fixtures in restrooms are original, chipped and showing wear. Drinking fountains are mostly inoperable. The hand wash sink in the wood shop was retrofitted with an emergency eye wash but may not meet ADA requirements. Water closets are flush-valve types. They should be replaced to reduce water consumption.

Water heaters were replaced in 1989-1999 with electric tank-type.

#### HVAC SYSTEMS

Building is heated and ventilated by hydronic heating air handlers located in the mechanical basement. Zoning is provided by hydronic reheat coils. All of this equipment was installed during the original construction and is at the end of its expected service life. Limited access to the mechanical basements will make equipment replacement extremely difficult.

Return and outside air to the heating system is through the 100 Building crawlspace/ mechanical basements which act as the air plenum for the building. These return air plenums (the basement/crawlspaces) have open floor drains served and connected to the waste sewer lines serving the building, causing air quality and odor issues in the building. Issues with moisture and difficulty keeping the crawlspaces clean have further caused indoor air quality issues in the past.

There are specialized classroom areas in the building that are inadequately ventilated. These include:

:: The Home and Family Life Room where there are no range hoods

:: The Art Room where air filter controls are located in a separate room, equipment is too loud to operate during class, and kiln exhaust does not meet code safety

requirements

:: The Wood Shop, where the dust collector is of questionable accessibility and effect

Complete replacement of the entire HVAC system is recommended if the building is retained.

#### HYDRONIC SYSTEMS

The entire campus is served by two large Scotch Marine type boilers located in 400 Bldg. There is a chilled water loop installed around the campus for future use, although it is not utilized for the 100 Building currently.

#### HVAC CONTROLS SYSTEMS

The campus controls are a mix of Alerton and Siemens controls. The 100, 300 and 400 buildings underwent a Siemens Bacnet controls upgrade including 2 way valves and actuators replacing the original 3 way valves to enable slower pump speeds on the main circulation pumps. This upgrade allowed the 2 control systems to communicate with each other and also reduced the electricity used by the main circulation pumps by 25%.

#### FIRE SPRINKLERS

This building is not fire sprinkled, except for the theater stage. Washington State Building Code requires all new or substantially remodeled school buildings to be fully fire sprinkled.

## MECHANICAL EVALUATION - 200 BUILDING

#### PLUMBING PIPING

There are no issues with either the domestic water piping or the waste piping.

#### PLUMBING FIXTURES

Plumbing fixtures are in good condition.

#### HVAC SYSTEMS

Classrooms in 200 Building are heated by convection heaters; the commons, cafeteria, library, offices and the administration are served by hydronic air handlers. Cooling is provided through natural ventilation with mechanical cooling available to augment systems in the administration and commons areas when needed. There are no known issues in 200 Building.

#### HYDRONIC SYSTEMS

The campus is served by two large Scotch Marine type boilers located in 400 Building. There is a chilled water loop installed around the campus for future air conditioning applications if needed. Currently there is only one small chiller (air conditioning application) serving the 200 Building.

#### HVAC CONTROLS SYSTEMS

The campus controls are a mix of Alerton and Siemens controls. All systems are less than 10 years old.

#### FIRE SPRINKLERS

The 200 Building is fully sprinkled.

## MECHANICAL EVALUATION - 300 BUILDING

#### PLUMBING PIPING

There are no known issues with either the domestic water piping or the waste piping. Piping behind the walls in the older portion of the 300 Building is the original construction.

#### PLUMBING FIXTURES

Water heaters are electric tank-type and are at the end of their rated life. The restrooms and fixtures in the older portion of the 300 Building were not updated with the 1999 and 2006 renovations, and are very worn and inefficient, consuming more water than new fixtures. They should be replaced to reduce water consumption.

#### HVAC SYSTEMS

The 300 Building classrooms are served from hydronic fan coil units located in the mechanical mezzanine. These are not quality units, their design is problematic, and their service life is questionable.

#### HYDRONIC SYSTEMS

The campus is served by two large Scotch Marine type boilers located in the 400 Building. There is a chilled water loop installed around the campus for future use. At this time, it is not utilized for the 300 Building.

#### HVAC CONTROLS SYSTEMS

The campus controls are a mix of Alerton and Siemens controls. All systems are less than 10 years old, however the Siemens software is an old version and will need to be updated/ replaced before it becomes unsupported in the near term.

#### FIRE SPRINKLERS

The 300 Building is fully sprinkled.

## MECHANICAL EVALUATION - 400 BUILDING

#### PLUMBING PIPING

There are no known issues with either the domestic water piping or the waste piping.

#### PLUMBING FIXTURES

Water heaters are LP gas fired tank-type. Toilets should be replaced to reduce water consumption.

#### HVAC SYSTEMS

Heating and ventilation in Building 400 is provided by hydronic air handlers. There are no known issues with the equipment; there are some damaged grilles in the gym that should be replaced. These should be replaced with heavy-duty grilles.

#### HYDRONIC SYSTEMS

The campus is served by two large Scotch Marine type boilers located in the 400 Building. There is a chilled water loop installed around the campus for future use, but at this time, it is not utilized for the 400 Building.

#### HVAC CONTROLS SYSTEMS

The campus controls are a mix of Alerton and Siemens controls. All systems are less than 10 years old.

#### FIRE SPRINKLERS
Building 400 is fully sprinkled.

## MECHANICAL EVALUATION - 500 BUILDING

#### PLUMBING PIPING
The piping is original. There are no known issues with either the domestic water piping or the waste piping.

#### PLUMBING FIXTURES
Plumbing fixtures are from original construction in the 500 Building and near the end of their serviceable life. Toilets should be replaced to reduce water consumption.

Water heaters are electric tank-type. The water heater in the 500 Building is of insufficient capacity and doesn't keep up with hot water demand in the building. In 1998, a laundry room was built utilizing LP fired dryers and water heaters.

#### HVAC SYSTEMS
Plumbing fixtures are from original construction in the 500 Building and near the end of their serviceable life. Toilets should be replaced to reduce water consumption.

Water heaters are electric tank-type. The water heater in the 500 Building is of insufficient capacity and doesn't keep up with hot water demand in the building. In 1998, a laundry room was built utilizing LP fired dryers and water heaters.

#### HYDRONIC SYSTEMS
The campus is served by two large Scotch Marine type boilers located in 400 Building.. There is a chilled water loop installed around the campus for future use, but at this time it is not utilized for the 500 Building.

#### HVAC CONTROLS SYSTEMS
The campus controls are a mix of Alerton and Siemens controls. All systems are less than 10 years old.

#### FIRE SPRINKLERS
Building 500 is not fire sprinkled. Washington State Building Code requires all new or substantially remodeled school buildings to be fully fire sprinkled.

## MECHANICAL EVALUATION - 600 BUILDING

#### PLUMBING PIPING
There are no known issues with either the domestic water piping or the waste piping.

#### PLUMBING FIXTURES
The water heater is a small electric tank-type.

#### HVAC SYSTEMS
Heating and ventilation in the 600 Building is provided by a rooftop, electric resistance air handler; this unit was installed during the original building construction and is nearing the end of the rated life for the equipment. Electric duct heaters controlled with mercury relays provide zoning for the building, are original to the building and are nearing the end of their rated life.

#### HVAC CONTROLS SYSTEMS
The Building controls are Siemens controls that are less than 10 years old.

#### FIRE SPRINKLERS
Building 600 is not fire sprinkled. Washington State Building Code requires all new or substantially remodeled school buildings to be fully fire sprinkled.

## ELECTRICAL EVALUATION - 100 BUILDING

#### POWER
The building main service equipment consists of an 1800 Amp 208/120 volt switchboard that was upgraded in 2000. This building is served underground from a utility company (PSE) transformer. Some panels have been replaced with GE and Siemens manufactured equipment. Some original distribution panels are past their rated life.

Classroom electrical distribution is a mix of a year 2000 remodel and older construction. Pedestal floor box outlets are a maintenance problem, are inadequate and need to be replaced.

Electrical distribution panels and circuitry is older than 30 years and should be replaced.

#### LIGHTING
General illumination is T-8 fluorescent, retrofitted from T-12 in 2010. More fixtures still have 30-year-old lens technology. Light fixtures typically are 1X4 pendant and surface fixtures with type 12 acrylic wrap lenses. Outdoor lighting fixtures have HID lamps. Automatic time switch control for exterior lighting is provided. General illumination in theater area was recently converted from incandescent to LED down lights. Theatrical dimming system was upgraded in 2000.

There are Twin Head emergency lights in large rooms, and minimal egress lighting in hallways. Exit lights are not emergency type. Egress lighting needs to be upgraded.

There are no occupancy sensors or other automatic lighting controls for interior lighting in the building. To meet 2012 Washington State Energy Code, a new digital lighting control system must be provided. This requires photocells and daylight dimming, automatic shut-off occupancy sensors, and smart digital switches and controllers. If this building is retained, this will need to be provided.

#### TELEPHONE AND DATA SYSTEMS
Voice and data distribution was added to the school as part of a technology upgrade in the 1990s. Data station drops are Category 5 plenum rated cables, blue color. Telephones were converted to VOIP after 2006. Premises distribution system (PDS) is Siemens (fiber) and Amp ACO (copper). The equipment is near the end of its rated service life.

The telephone and voice/data distribution system does not comply with current District standards, is near the end of the rated life for the equipment, and needs to be replaced.

Abandoned Cat 3 telephone cables should be removed. The technology infrastructure and

Data Closets need to be upgraded to support current District standards.

#### COMMUNICATION SYSTEMS

The school intercom and master clock system have been upgraded to Bogen Quantum series.

Upgrade of the intercom system to include call in switch for emergency use is recommended.

#### ELECTRONIC SAFETY AND SECURITY

Fire alarm system was upgraded in 2000. The system has an Edwards EST-3 fire alarm. The alarm transmission equipment has since been replaced with an AES Intellinet radio transmitter. Upgraded fire alarm devices include addressable manual stations at exits, addressable smoke detectors in hallways and classrooms, and horn/strobes in hallways and classrooms. Addressable heat detectors are provided in all other spaces to provide complete automatic fire detection of the entire building. Smoke detectors are now past rated life and replacement is recommended.

This building does not have electronic access control or video surveillance for security. A comprehensive security upgrade should be considered.

## ELECTRICAL EVALUATION - 200 BUILDING

#### POWER

The building main service equipment consists of a 1200 ampere 480/277 volt main fusible switchboard with GFI protected main circuit breaker. Point of service is utility company (PSE) transformer. Building 200 was constructed in 2009. Electrical service, main switchboard, panel boards, distribution, and convenience power are in good condition.

No general upgrades are recommended at this time.

#### LIGHTING

General illumination is T-8 and compact fluorescent. Outdoor lighting fixtures have HID lamps. Automatic time switch control for exterior lighting is provided. Occupancy sensors, time switch controls, and automatic daylight sensing controls are installed.

Light fixtures with integral battery units and twin head emergency lights with self diagnostics are provided for emergency egress lighting.

No general upgrades are recommended at this time.

#### TELEPHONE AND DATA SYSTEMS

Voice and data distribution installed in 2009 meets current district standards.

No general upgrades are recommended at this time.

#### COMMUNICATION SYSTEMS

The school intercom and master clock system installed is district standard Bogen Quantum series installed with music, telephone handset interface, and classroom call in switches.

No general upgrades are recommended at this time.

#### ELECTRONIC SAFETY AND SECURITY

Fire alarm system installed was an extension of the existing high school Edwards EST-3 fire alarm system and complies with current IBC requirements for fire alarm and detection.

This building does not have electronic access control or video surveillance for security. An access control and video surveillance upgrade is recommended. A comprehensive security upgrade should be considered.

## ELECTRICAL EVALUATION - 300 BUILDING

#### POWER

The building main service equipment consists of an 800 Amp 480/277 volt Square D main distribution panel (MDP) with main circuit breaker. Building 300 is served underground from a utility company (PSE) transformer outside the building. The new portion of the building was constructed in 1998 and select science labs were upgraded in 2006. Electrical distribution is in good condition.

No general upgrades are recommended at this time.

#### LIGHTING

General illumination is T-8 fluorescent, retrofitted from T-12. Light fixtures typically are 2X4 lay-in fixtures with Type 12 acrylic and/or deep cell parabolic lenses. The older portion of this building has 30-year-old lens technology. The newer portion of the building has 15-year-old lens technology.

Outdoor lighting fixtures have HID lamps. Automatic time switch control for exterior lighting is provided. Occupancy sensors are provided for classrooms.

Twin head emergency lights are provided for egress lighting in hallways. Exit lights are emergency type.

Lighting controls do not meet current energy code requirements for automatic daylighting controls and should be upgraded to meet present codes.

#### TELEPHONE AND DATA SYSTEMS

Voice and Data station drops are Category 5 and 5E plenum rated cables. Telephone was converted to VOIP after 2006. Current district standard for VOIP/Data is Category 6. The equipment is near the end of its rated service life.

The telephone voice/data distribution system does not comply with current District standards and should be upgraded. The technology infrastructure and Data Closets need to be updated to support current District network standards.

#### COMMUNICATION SYSTEMS

The intercom and master clock system are Bogen MultiCom 2000 series. The Intercom system does not comply with current District standards and should be upgraded to a Bogen Quantum series.

Classroom Audio Visual Systems: Classrooms have ceiling or wall-mounted projectors and

sound systems.

Classrooms do not consistently have voice/ enhancement audio systems.

#### ELECTRONIC SAFETY AND SECURITY

Fire alarm system is an extension of the high school Edwards EST-3 fire alarm. The alarm transmission equipment has since been replaced with an AES Intellinet radio transmitter. Fire alarm devices include addressable manual stations at exits, addressable smoke detectors in hallways and classrooms, and horn/strobes in hallways and classrooms. Smoke detectors are now past rated life. The building is protected by fire sprinklers.

This building does not have electronic access control or video surveillance for security. A comprehensive security upgrade should be considered.

## ELECTRICAL EVALUATION - 400 BUILDING

#### POWER

The building main service equipment consists of a 1000 Amp 480/277 volt Square D main distribution panel (MDP-4) with main GFI circuit breaker. Building 400 is served underground from a utility company (PSE) transformer. Electrical distribution is in good condition.

#### LIGHTING

General illumination in the locker rooms is T-8 fluorescent. The Paski Gym and the Weight Room have recently been converted to new fixtures with T5HO lamps. Outdoor lighting fixtures have HID lamps. Automatic time switch control for exterior lighting is provided.

Twin head emergency lights are provided for egress lighting. Exit lights are emergency type.

#### TELEPHONE AND DATA SYSTEMS

Voice and Data station drops are Category 5 and 5E plenum rated cables. Telephones were converted to VOIP after 2006. Current district standard for VOIP/Data is Category 6. The telephone system is near the end of its rated service life.

Voice/data distribution system does not comply with current District standards and should be upgraded.

The technology infrastructure and Data Closets need to be updated to support current District network standards.

#### COMMUNICATION SYSTEMS

The intercom and master clock system are Bogen MultiCom 2000 series. Upgrade of intercom system to District standard Bogen Quantum should be considered.

#### ELECTRONIC SAFETY AND SECURITY

Fire alarm system is an extension of the high school Edwards EST-3 fire alarm. The alarm transmission equipment has since been replaced with an AES Intellinet radio transmitter. Fire alarm devices include addressable manual stations at exits, addressable smoke detectors in hallways and classrooms, and horn/strobes in hallways and classrooms. Smoke detectors are now past their rated life. The building is protected by fire sprinklers.

This building does not have electronic access control or video surveillance for security. A comprehensive security upgrade should be considered.

## ELECTRICAL EVALUATION - 500 BUILDING

#### POWER

The building main service equipment consists of a 400 Amp 480/277 volt older Westinghouse main switch and laundry room sub panel from Building 400 service switchboard. The switchboard and electrical distribution is nearing the end of its rated life. In 2005, there was a remodel of the locker rooms into commons, kitchen, and board room and a 200 Amp 480/277 volt main switch was added.

#### LIGHTING

General illumination in training rooms and offices is T-8 fluorescent, retrofitted from T-12. Light fixtures typically are surface mounted and/or lay-in fixtures with Type 12 acrylic lenses. Occupancy sensors are not provided. The Commodore Gym lighting has been upgraded to new fixtures having T5HO lamps and occupancy sensors. Outdoor lighting fixtures have HID lamps. Automatic time switch control for exterior lighting is provided.

Twin head emergency lights are provided for egress lighting in hallways. Exit lights are emergency type.

Except in gym, most light fixtures have 30-year-old lens technology and replacement electronic ballasts are probably within 5 years of rated life. Upgrade of general illumination should be considered.

Upgrade of lighting controls to meet current energy code requirements for automatic daylighting control is recommended.

#### TELEPHONE AND DATA SYSTEMS

Voice and Data station drops are Category 5 and 5E plenum rated cables. Telephones were converted to VOIP after 2006. Current district standard for VOIP/Data is Category 6. Equipment is nearing the end of its rated service life.

The telephone voice/data distribution system does not comply with current District standards and should be upgraded. The technology infrastructure and Data Closets need to be updated to support current District network standards.

#### COMMUNICATION SYSTEMS

The intercom and master clock system are Bogen MultiCom 2000 series. Upgrade of intercom system to District standard Bogen Quantum should be considered.

#### ELECTRONIC SAFETY AND SECURITY

The fire alarm system is an extension of the high school Edwards EST-3 fire alarm. The alarm transmission equipment has since been replaced with an AES Intellinet

radio transmitter. Fire alarm devices include addressable manual stations at exits, addressable smoke detectors in hallways and classrooms, and horn/strobes in hallways and classrooms. Smoke detectors are now past rated life. The building is protected by fire sprinklers.

This building does not have electronic access control or video surveillance for security. A comprehensive security upgrade should be considered.

## SUMMARY OF FINDINGS

### SAFETY ISSUES

:: The campus-style multiple building arrangements create security issues, particularly with regard to access to all of the buildings. Dispersed parking lots are difficult to supervise, adding to this concern. Few security cameras are installed on the campus. Electronic access control and additional video surveillance cameras should be provided. A comprehensive campus-wide security upgrade should be considered

:: 100, 300 (older portion), & 500 Buildings - Seismic design does not meet current code or reflect current structural design knowledge based on increased understanding of seismic forces and structural needs to resist seismic events

:: 100 Building - The electrical service and circuitry is mostly original equipment, does not meet present standards, and causes safety concerns

:: 100 Building - Return and outside air to the units is through the crawlspace. Issues with moisture and difficulty keeping the crawlspaces clean may contribute to indoor air quality issues

:: 100, 300 (older portion), & 500 Buildings – A variety of asbestos materials exist in various areas. Twice yearly surveillance reports monitor the condition of the materials. Professional consultants provide recommendations for immediate abatement should conditions change. Recent reports indicate no immediate safety concerns. Asbestos materials will need to be abated with any significant building updates

### CODE / LEGAL

:: Water quality treatment and stormwater management has only been updated to current standards/code for a portion of the site

:: 100, 300 & 500 Buildings are not fire sprinkled, except for the 100 Building theater stage

:: 100 Building - There are no occupancy sensors or other automatic lighting controls for interior lighting in the building

:: 100, a portion of the 300, 500, and 600 Buildings do not meet present energy codes/building design standards, are inefficient and result in uncomfortable spaces and high energy consumption

:: 100, 300, 400 & 500 Building - Smoke detectors are now past rated life

:: 100 Building, the 1981 portion of the 300 Building, and the 500 Building - door hardware does not comply with current code and is in poor condition

:: 300 Building - Lighting controls do not meet current energy code requirements for automatic daylighting control

:: 500 Building - Except in the gym, lighting controls do not meet current energy code requirements for automatic daylighting control

:: 100, 300, 500, 600 Buildings do not meet present seismic codes

### LIFE CYCLE REPLACEMENT / REPAIR - 100 BUILDING

:: Constructed in 1970, The 100 Building is the oldest remaining building on campus. It has received only minor improvements over the last 44 years and is reaching the end of its serviceable life. Serious consideration needs to be given to building replacement

:: Roofing on the building is past its serviceable life and in need of immediate replacement

:: All interior finishes and equipment are old and have surpassed their serviceable life

:: The interior gypsum board walls appear to be overstressed due to lateral forces

:: The roof and floor diaphragms appear to be overstressed in some locations

:: The reinforced piers and grade beams on the west end of the building appear to act in bending to resist lateral forces. It is likely that this system is inadequate to resist code level forces

:: The canopy / open atrium roof at the east end of the building is showing significant signs of rot and deterioration

:: Some of the wood decking at the canopy / open atrium roof is deflecting significantly

:: The glulam beams at the canopy / open atrium roof are showing signs of rot

:: Plumbing fixtures were replaced in 1998-1999 but are chipped and showing other signs of wear; drinking fountains are mostly inoperable. Toilets do not meet present energy standards

:: HVAC equipment is at the end of its expected service life

:: There are specialized classroom areas that are inadequately ventilated

:: Original 1970 electrical panels and circuitry are well past their rated life

:: Pedestal floor box outlets are a maintenance problem

:: Minimal egress lighting in hallways

:: Exit lights are not emergency type

:: Most light fixtures have 30 year old lens technology

:: Abandoned Cat 3 telephone cables should be removed

:: Telephone voice/data premises distribution system is near the end of its rated service life and does not comply with current District standards. It should be replaced and upgraded.

:: Intercom system does not include a call-in switch for emergency use

:: HVAC units at this building are not quality units and their service life is questionable

:: Most light fixtures have 30 year old lens technology

### LIFE CYCLE REPLACEMENT / REPAIR - 300 AND 400 BUILDINGS

:: Telephone voice/data building distribution system does not comply with current District standards and should be upgraded

:: Intercom system does not comply with current District standards

:: The roofing system needs repair near term to prevent water infiltration

:: Damaged grilles in the gym should be replaced

:: Smoke detectors are now past rated life

:: Restrooms need to be updated in the 300 Building and toilet fixtures need to be updated in both facilities to reduce water consumption and costs

### LIFE CYCLE REPLACEMENT / REPAIR - 500 BUILDING

:: Some of the foundation walls exhibit signs of water infiltration

:: The lower Gym needs a total upgrade, natural daylighting, floor, walls, wall coverings, doors, hardware, signs, equipment and paint. Lighting was updated in 2010

:: The water heater in the original section of the Building has insufficient capacity and cannot keep up with hot water demand

:: This building is significantly over-pressurized: exterior doors are held open by escaping air and air whistles out all closed doors. The HVAC system needs updating

:: The Wrestling Gym exhaust does not handle odors and humidity adequately

:: Damaged grilles in the gym should be replaced

:: Switchboard and electrical distribution is nearing the end of its rated life

:: Except in Gym, most light fixtures have 30 year old lens technology and replacement electronic ballasts are probably within 5 years of rated life

:: Telephone voice/data distribution system does not comply with current District standards

:: Intercom system does not comply with current District standards

### LIFE CYCLE REPLACEMENT / REPAIR - 600 BUILDING

:: Odors throughout the building suggest that the space is inadequately ventilated

:: Building is subject to overheating and does not have controls that allow the occupants to override the system for after-hours events

:: The HVAC system is near the end of its rated service life and will need to be replaced near term

### STUDENT PROGRAM

:: Specialized program spaces do not meet current educational program requirements

:: Performing Arts isn't supported

:: With the exception of the 200 Building, most of the classrooms and commons spaces provide poor natural daylighting. Classrooms are located in the center of buildings and do not have access to exterior wall and daylight

:: The Art Room in the 300 Building lacks proper ventilation, and arrangement of multiple small rooms restricts function of program

:: The lower Gym in the 500 Building is inadequate to meet current educational program requirements and community use

:: Total on-site parking is not sufficient for normal school operations or large community events

### ENERGY SAVINGS

:: 100 Building – The roof, exterior walls and windows of Building 100 are not insulated or at best poorly insulated, provide substandard energy performance, and don't meet current code

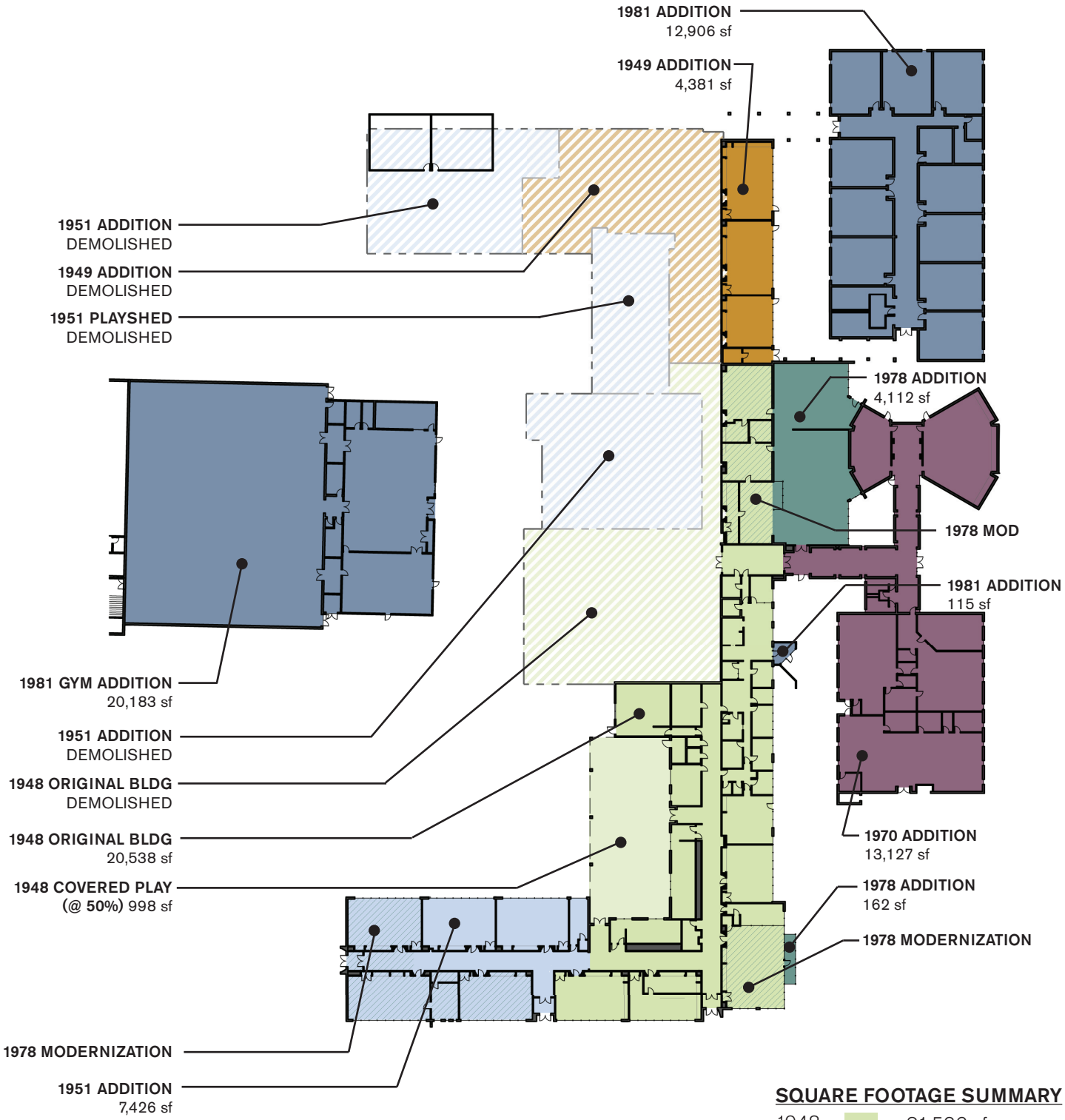
:: 500 & 600 Buildings – These buildings are poorly insulated and do not meet current energy standards or codes. For the most part, they have single pane windows

:: The older portion of the 300 Building's insulation doesn't meet current energy codes and has some single pane windows that need to be replaced

:: Restroom toilet fixtures should be replaced in the 300, 400 & 500 Buildings, and in the 100 Building if it's retained, to reduce water consumption and associated costs

:: Efficient automated lighting systems and controls need to be added in the 100 Building and parts of the 300, 400, and 500 Buildings to reduce energy consumption

## CONSTRUCTION HISTORY




### SQUARE FOOTAGE SUMMARY

| | | |
|---|---|---|
| 1948 | | 21,536 sf |
| 1949 | | 4,381 sf |
| 1951 | | 7,426 sf |
| 1970 | | 13,127 sf |
| 1978 | | 4,274 sf |
| 1981 | | 33,204 sf |
| Total SF: | | 83,948 sf |


## COMMODORE OPTIONS SCHOOL

9530 NE High School Road
Bainbridge Island, WA 98110

### QUICK FACTS

Grade Level: 1-12
Site Area: 75.6 acres (shared site)
Current Use: educational facility
Zone: R-2.9 (conditional use permit)

### CONSTRUCTION HISTORY AND SQUARE FOOTAGE

| | |
|---|---|
| 1948 Original Building | 20,528 SF |
| 1949 Addition | 4,381 SF |
| 1951 Addition S. Wing* | 7,426 SF |
| 1970 Addition | 13,127 SF |
| 1978 Addition | 4,274 SF |
| 1981 Addition | 33,204 SF |
| Subtotal | 83,948 SF |
| 1948 Covered Play (50%) | 998 SF |
| **Total Permanent SF** | **83,948 SF** |

*1951 Addition has been vacated. This portion of the building is in unusable condition and has been identified for removal by the BISD School Board.

### PERMANENT FUNCTIONAL SCHOOL CAPACITY

| Grade | Room | Class Size | Capacity |
|---|---|---|---|
| Mosaic | 3 | 22 | 66 |
| Odyssey 1-6 | 3 | 25 | 75 |
| Odyssey 7-8 | 2 | 25 | 50 |
| Eagle Harbor | 6 | 26 (21.6) | 130 |

Total Instructional Spaces: 14
Total Perm. Functional School Capacity: 321 (265.64 FTE)

### CURRENT ENROLLMENT (OCT 2014)

1,234 head count (1,245 FTE)

Number of Portables: 0

Commodore Options School uses the BHS Gym and Cafeteria in the High School 500 Building which is not included in the square footage listed.

The current High School program operates on a six (6) period schedule. Each teacher requires a preparation period. The District's practice of having High School teachers use their classrooms without students for their preparation period requires the classroom to be vacant for one period a day. Therefore, a utilization factor of 83.3% (5 divided by 6 = 83.3%) is used to determine maximum enrollment capacity.

## SITE DEVELOPMENT

### GENERAL

The Commodore Options School is located on the Southeast corner of a 75.6-acre site owned by the Bainbridge School District. It shares this property with Bainbridge High School, Ordway Elementary School, the District's Transportation and Maintenance Center, and School District Administration offices. In addition to these school district buildings, there is a community swimming pool that is owned and operated by the City Parks and Recreation Department.

Commodore Options School, including the grass playfields to the North and West, occupies approximately seven and a half acres of the 75.6-acre property. The site is located on the corner of NE High School Road and Madison Avenue North.

### TRANSPORTATION

Vehicular access to the school's main parking lot is by way of a singular entry/exit from NE High School Road. This access drive is close to the intersection round-about at High School Road and Madison Avenue, creating a City code and safety issue which will need to be addressed as part of any major renovation or redevelopment. The parking lot accommodates thirty-nine (39) regular parking spaces, two (2) handicap accessible spaces and a drop-off/ pick-up lane that accommodates 10-15 cars. The asphalt paving at this lot has deteriorated with age and is exhibiting cracking and degradation which will continue at an accelerated rate if not repaired. The entire parking lot is in need of re-surfacing, new striping, and concrete curb replacement.

A second parking lot, shared with the high school is located behind the building between Commodore and Bainbridge Island High School. This lot has recently been re-paved and is in good condition.

Buses serving this school are required to load and unload along Madison Avenue or at Bainbridge Island High School which are less than desirable locations for convenient access, safety and supervision. Parent vehicular loading and unloading also occurs along Madison Avenue, creating congestion and potential safety issues when mixed with buses and local traffic. The student drop-off area along Madison does not accommodate a reasonable ADA accessible route to the school.

### OUTDOOR SURFACES

The paved walkways surrounding the site consist of a mix of old and new concrete sidewalks and asphalt paths. Some of the older sections of concrete sidewalk are deteriorating with age but all appear in manageable condition.

Commodore has an irrigated grass playfield to the North. It is surrounded on 3 sides by a 6-foot high chain-link fence and has an aging baseball backstop at the northwest corner. Surface water drainage is managed by collection into the storm drain system through yard drains along the east side of the field. A large underground stormwater detention system is located under the eastern portion of this playfield. The field is in satisfactory condition.

The site contains two soft play areas with big-toys, an aging hard-surface play area, a separate grass play area to the west of the building, and a greenhouse with associated garden areas used as part of the school's program. Access to the covered play is around the side of the building through the west parking lot.

### STORMWATER MANAGEMENT

Stormwater detention and water quality treatment systems are inadequate and do not meet current codes. Any significant upgrade to this facility will trigger extensive stormwater management requirements. Significant drainage problems exist throughout the site. The original septic system was abandoned many years ago prior to mandated decommissioning requirements. The system is now providing pathways for groundwater to backflow into the distribution tanks. The abandoned system should be decommissioned properly to avoid further groundwater contamination.

### SANITARY SEWER

Building sewer lines have continual problems with tree root invasion and require extensive clearing periodically. As these lines date back to 1948, they are at the end of their life expectancy and will require complete replacement in the near future. They are very difficult to access given the many changes on this site since they were constructed.

### OTHER UNDERGROUND UTILITIES

Size, condition and operation of all other underground utility services were not fully investigated but are known to be problematic due to the many changes, additions and portions of buildings demolished on this site through the years.

### WATER AND FIRE ACCESS

Water service is provided by the City of Bainbridge Island. There are seven hydrants currently on the site within 300 feet of the building and four hydrants that are within 150 feet of the building, but there are not fire hydrants within 150 feet of all points of the building as required by current fire codes. The building also does not contain fire sprinklers. The lack of fire hydrant coverage is worsened by the existing courtyards between the wings of the building. There is no requirement to add additional fire hydrants or sprinklers unless a new addition or remodel is undertaken.

### SITE ACCESSIBILITY / ADA COMPLIANCE

Given the nature and extent of all of the additions and modifications, campus circulation is circuitous and inefficient. Ramps, handrails, and pavement issues exist and do not comply with current accessibility codes. The most significant issue is the lack of an accessible route from the east side of the building to Madison Avenue NE, where the bus loading/unloading area is located for this facility.

### LANDSCAPING

Landscaping around the site consists of grass and very mature overgrown vegetation. The north and west grass playfields are irrigated. Due to the extent of the surrounding

landscaping, the mature nature of the vegetation, and the lack of specifically defined planting areas, maintenance of the school grounds is time consuming and labor intensive. Some of these areas provide habitat for pests and rodents. Many of the plants and shrubs around the building should be replaced in defined areas, reducing the time and labor for maintenance, and to improve the appearance of the site.

## GENERAL BUILDING CONDITION

### CONSTRUCTION HISTORY

The current facility totals approximately 63,765 SF and much of the original 1948 building remains intact. Since the original construction, there have been five separate additions, numerous smaller upgrade projects, and significant portions of the building were demolished in 2004. The remaining portion of the original 1948 building is approximately 21,536 SF in area and contains administrative and counseling offices, unused instructional space, and the main electrical and boiler rooms that serve the entire facility. In 1949, an addition was added to the north end of the original building. All but 4,381 SF of this addition has been demolished. Two years later, in 1951, a classroom wing was added at the southwest corner of the existing building (which remains) and another addition added at the northwest corner (which has since been demolished). In 1970, two music rooms and additional classroom space were constructed on the east side of the existing building and connected to the 1948 building. The total floor area of this 1970 addition is approximately 13,127 SF. The construction of the last two additions in 1978 and 1981 added a large library/resource room and an additional classroom building totaling 12,906 SF. In 2006, significant portions of the west side of the old buildings were demolished. As part of this update, the eastern portion of Bainbridge High School's 500 Building was renovated to provide a new Commons, lunchroom and kitchen area for the Eagle Harbor Options School.

In 2008, two classrooms in the north wing of the 1978 portion of the building were combined and updated to create a new science room and science labs for the Eagle Harbor School.

### GENERAL BUILDING OBSERVATIONS

This facility has undergone many changes over its 65-year-life. The multitude of additions and demolished areas has created a facility with varying aged systems, numerous types of materials and products, and inefficient organization of spaces and relationships with circuitous routes between spaces and different school functions. A few observations related to the overall organization of the school include:

:: Circulation around the school from one instructional space to another is circuitous and very inefficient

:: The main office at the school, although centrally located, is not easily identifiable for visitors. Also, its location and configuration does not allow for visible monitoring of campus visitors as they come and go from the various parts of the building complex

:: Separate buildings, numerous access points (including exterior doors to classrooms), and complex circulation patterns present security challenges

:: Approximately 30% of the existing facility, the portions of the 1949-1951 building adjacent to High School Road, are not being used and are currently vacant

:: The variety of existing systems, building materials and products, and their respective age require extensive effort and cost for the District's maintenance and custodial staff

:: The majority of the facility is outdated, very worn and aesthetically unappealing. It is in need of substantial updating or replacement to create a better, more inviting learning environment expressing the values of the District and the community it serves

:: The facility lacks natural daylighting in most classrooms and offices

### BUILDING ENVELOPE - 1949 THROUGH 1951 ORIGINAL CONSTRUCTION

The exterior walls are a mixture of unreinforced masonry (with and without brick veneer) and masonry cavity walls. Exterior finishes include brick, concrete and stucco. Construction drawings do not indicate insulation of the exterior walls. This vintage of the building contains steel sash windows with single pane glazing which have surpassed their intended life expectancy. Portions of the window system include blank panels and caulking that contain asbestos. In almost all cases, the metal windows sit on deteriorated wood sills which show signs of water intrusion and rot. Exterior doors are a mix of hollow metal and composite fiberglass with hollow metal frames. All show excessive wear and have surpassed their useful life. Most door hardware does not meet ADA code, is old, and requires replacement.

The north ends of the 1948 and 1949 buildings have undergone subsequent exterior modifications since their original construction. They now contain painted cement panel siding with vinyl reveals. The siding needs re-painting, but of greater concern is the deterioration of the vinyl reveals which have cracked and separated, exposing the vapor barrier within the wall construction. This condition may allow water intrusion into the exterior wall of the building. Upgrades to this portion of the building incorporated small vinyl windows with insulated glazing which appear to be performing adequately. The south elevation of the 1949 addition has sheet metal downspouts of which most are heavily dented/damaged and a few are disconnected.

Surface-mounted conduit is visible around the exterior of the building, accommodating electrical service to post-construction building/site lighting.

The majority of the roofing at this portion of the building consists of a built-up asphalt roofing system with a granular cap sheet which was installed in 2006. It is in fair condition and estimated at 25%-30% through its life expectancy.

#### BUILDING ENVELOPE - 1970 THROUGH 1981 ADDITIONS

Exterior walls are constructed with structural CMU and metal studs with brick veneer. The drawings indicate R-11 wall insulation at the 1970 & 1978 buildings and R-19 wall insulation at the 1981 addition. A concrete bond beam runs above the masonry around the exterior perimeter of the buildings. Windows are aluminum framed with double pane glazing. Many windows have insulated cement asbestos board panels below. Window area is small, providing minimal natural daylighting to instructional spaces. Concrete roof scuppers direct water into exposed steel downspouts that appear to be in good condition. A fair amount of graffiti was observed around the exterior masonry walls of the buildings. This is difficult to remove from the brick unless anti-graffiti coating is applied. This coating will help to reduce labor associated with removal, but graffiti continues to be an ongoing maintenance/custodial issue, and residual graffiti remains even when removal efforts have been undertaken. Exterior doors are hollow metal with hollow metal frames. These require periodic painting but are in satisfactory condition. Door hardware is in need of replacement.

The 1970 and 1978 portions of this building were re-roofed in 2004 with a single ply membrane roof, which is anticipated to be 30% through its expected life. The 1981 building roofing was replaced in 1999 and is 50% through its useful life.

#### INTERIOR FINISHES AND EQUIPMENT - 1949 THROUGH 1951 ORIGINAL CONSTRUCTION

The south portion of the 1951 addition adjacent to High School Road, consisting of 7,426 SF of instructional space, is currently vacant and not being used. The south end of the original 1948 building, consisting of approximately 12,024 SF of instructional space, is also currently vacant. These areas have vinyl asbestos floor tiles (VCT) that will need to be abated when this building is removed or if any upgrade to this area is undertaken. The walls are cement plaster and in need of cosmetic repair and paint. Ceilings consist of acoustical tile (glue-on at the corridor and suspended panels in the classrooms) and are all in a deteriorated condition in need of replacement. Asbestos tiles remain in this area of the building and need to be abated if the building is retained or when it is removed. Exposed conduit related to an older fire alarm upgrade project is visible throughout. Lighting is in poor condition. Casework and other accessories such as chalkboards, projection screens, window shades, etc., are in very bad condition and worn out. Drinking fountains and restroom facilities require total replacement.

The northern end of the original 1948 building, currently being used for the administrative offices and instructional spaces, has had cosmetic upgrades to finishes and equipment. The administrative office area of the school has relatively new flooring consisting of rubber, vinyl composition tile, and wood, all in decent condition. The carpeted areas are worn and in need of replacement. Wall finishes are showing signs of wear. Acoustical ceilings range from fair to poor. There is a mixture of door types and a variety of door hardware, much of which needs to be replaced. The windows are the original single pane windows and difficult to operate.

The staff restrooms are not ADA compliant and are in need of full renovation. There is little acoustical separation between staff offices, allowing for private conversations to be heard in the hallway and other spaces.

#### INTERIOR FINISHES AND EQUIPMENT - 1970 THROUGH 1981 ADDITIONS

A majority of the spaces within this era of construction at Commodore have durable concrete floors that remain in decent condition. Masonry walls and metal lockers provide durable corridor surfaces and are still in decent condition. The corridor connection into the 1970 wing has a very low ceiling (approximately 7'-0") and appears dark and oppressive. The ceiling tiles at this location are mismatched and contain numerous water stains from leaking pipes and roofing. Most area wall surfaces need repainting.

Band and music rooms are adequately sized, but lack of exterior windows make them feel dark and isolated. The art room is large and conducive to its intended use, except that very little outside natural light comes through the small number of windows.

Some interior fire doors contain asbestos and should be replaced.

The Resource Center addition is large and divided into a variety of teaching spaces. This space is similar to others, where all materials are showing their age and in need of selective replacement.

## STRUCTURAL EVALUATION

#### TYPE OF CONSTRUCTION / STRUCTURAL SYSTEM

The Commodore Options School is a complex that has undergone many additions and modifications. The original construction occurred in approximately 1948, with subsequent additions occurring in 1949, 1951, 1970, 1978 and 1981. Portions of the building were demolished in 2004, and structural upgrades were performed to address several life-safety issues.

#### ORIGINAL CONSTRUCTION

The 1949 through 1951 buildings are of similar construction throughout. Most of the classroom wings are constructed of a wood framed roof system with wood decking, supported by steel beams and columns, wood stud walls, unreinforced masonry walls with and without brick veneer, and unreinforced masonry cavity walls. The lateral resisting elements are primarily wood deck diaphragms that transfer the lateral earthquake and wind forces to unreinforced masonry shear walls or wood studs walls with gypsum/plywood sheathing. Portions of the facility were upgraded in 2004 (see the following section for additional information).

The 1970 construction consists of a wood roof system, framed with solid dimensional lumber and pre-manufactured wood joists. The roof is supported by perimeter reinforced masonry walls and a conventional concrete foundation. The lateral load system for the

building consists of a plywood roof deck diaphragm, which transfers lateral forces to the masonry shear walls.

The 1978 and 1981 structures are single story steel framed buildings with in-filled reinforced masonry walls and brick veneer. The exterior walls are constructed of infill light gauge metal studs supporting veneer. The structures are supported by conventional spread and continuous concrete footings. The lateral load system for the buildings consists of a metal roof deck diaphragm, which transfers lateral forces to the masonry shear walls.

2004 Seismic Upgrades/Mitigation - In 2004, the original gymnasium/auditorium areas (1949/1951) were torn down, as was a northern portion of the 1951 classroom wing and the 1978 enclosed play-shed. The northern wing of the 1949 facility was reinforced by installing plywood sheathing on the roof, plywood shear walls, and concrete shear walls. At the same time, seismic mitigation was addressed in the south wing of the 1949/51 building, with the primary focus being to anchor the exterior walls to the roof system. Roof diaphragm upgrades and shear wall improvements were not addressed in the south wing.

Seismic upgrades have not been performed to the 1970, 1978, or 1981 facilities.

#### STRUCTURAL OBSERVATIONS AND COMMENTS

The 1949/51 buildings need to be completely upgraded, if they are even retained. In earlier plans, these buildings were intended to be removed. Significant signs of distress or differential settlement is not apparent though interior and exterior surfaces are extremely worn. Several soffits show signs of water intrusion and many window sills are rotting. The deterioration of the window sills may allow moisture to get back into the wall cavity. Some cracking occurred in the brick veneer system and in some of the unreinforced masonry parapets during the Nisqually Earthquake. Some of these cracks have been repaired.

The 1970/78/81 buildings need seismic upgrades to improve the structural condition. No significant signs of distress in the primary structures were observed.

The majority of the interior and exterior walls are structural, providing both vertical and lateral support to the facility. This provides minimal flexibility to remove interior walls without performing structural upgrades.

#### STRUCTURAL CONCLUSIONS / RECOMMENDATIONS

The issues and recommendations below outline the work anticipated to mitigate structural concerns related to the anticipated seismic performance of the existing buildings. Recommendations are based on a walk-through evaluation; review of available construction drawings, and on our experience in renovations of similar building types in the Puget Sound area. The ASCE 31-03 structural checklists were used as a benchmark to identify building deficiencies that have historically resulted in damage or collapse of structures under seismic loading. The issues noted below are a summary of deficiencies identified for the entire building campus.

:: 1949/51, South Wing: If this wing is retained, provide a redundant structural wall adjacent to the unreinforced masonry walls. This would consist of light gauge metal studs adequately anchored to the foundation and roof, and also anchored to the existing masonry walls. Plywood sheathing should also be applied if it's necessary for the wall to transfer lateral shear forces

:: 1949/51, South Wing: The capacity of the existing wood roof diaphragm is deficient. The concern is with the overall strength of the building during an earthquake. If this building is retained, sheath the existing roof decking with plywood sheathing to increase the lateral shear strength of the building. The shear transfer mechanism at the structural walls must be improved if the building is retained

:: 1949/51, South Wing: The capacities of the existing shear walls are deficient. The concern is with the overall strength of the building during an earthquake. Additional plywood and/or masonry shear walls should be provided to increase the lateral shear strength of the building if retained

:: 1949/51: If the buildings are retained, repair any masonry/veneer that shows signs of deterioration/damage

:: 1970/78/81: The masonry bearing/shear walls are dependent on the roof diaphragm for lateral support against out-of-plane forces and are not adequately anchored. In a major earthquake, there is potential for the roof to separate from the walls if they are not properly tied together. The anchorage of the exterior masonry walls should be improved by adding steel anchor straps

Work performed in 2004 addressed several significant structural deficiencies in the 1949 and 1951 portions of the Commodore Options School, either by retrofitting or demolishing. While it appears that many of the life-safety issues have been addressed, several code compliance issues still exist in other portions of the building. These deal primarily with unreinforced masonry walls, localized overstressed diaphragms, and inadequate shear walls. These code issues will need to be addressed if this building is retained.

The 1970, 1978, and 1981 construction appears to be in general compliance with the basic 2003 IBC code provisions, with the exception of out-of-plane anchorage of the masonry walls.

The lateral seismic concerns, as noted above, are common for buildings of the given age and type of construction. The primary concern is the overall anticipated seismic performance of the building and the masonry partition wall construction. The intent of the ASCE 31-03 life-safety provisions is to upgrade the building to a minimum standard based on historical performances of similar building types with similar deficiencies, and is not intended to upgrade the building for compliance with current code standards. With the incorporation of the recommendations noted above to mitigate the current building deficiencies as identified, the life-safety performance of the building

would be improved for a seismic event.

## MECHANICAL EVALUATION

### PLUMBING PIPING

The existing domestic water piping is original galvanized pipe. Galvanized piping is steel pipe with a protective layer of zinc which erodes over time. Lead, often present as an impurity of zinc, can cause a wide variety of health risks. As the piping breaks down, sections of the pipe walls will be reduced, increasing the potential for leaks. Material is deposited in other sections, restricting free area and reducing water pressure. Significant pipe scaling was noted during a recent pump replacement. Galvanized piping should be replaced with new Type L copper pipe.

Piping installed from 1948-1951 was routed through the underground utility tunnels. These tunnels are approximately 4'-6" high and 3'-6" wide and contain steam, condensate, hot and cold water piping and electrical conduit, making them crowded and difficult to work in.

Many of the underground waste mains are original to the 1948 construction and 1951 addition. Staff has reported that there have been multiple failures of this pipe. Sections of failed pipe have been abandoned, requiring waste to be rerouted. All mains inside and outside of the building would need to be replaced if this portion of the complex is retained.

### PLUMBING FIXTURES

Plumbing fixtures are typical of the era they were installed, and many are damaged and show signs of excessive wear. Water closets are a mix of floor-mounted flush tank and wall-mounted flush valve. There are a variety of makes and models of faucets, making it difficult to keep common replacement parts on hand. Water closets should be replaced with water conservation type. Floor inlaid urinals in the 1948 building are inoperable, with scale fouled piping as well as broken fixtures.

### HVAC SYSTEMS

Each of the various remodels and additions has introduced different types of heating and ventilating systems. The variety of equipment makes it difficult to keep common replacement parts on hand.

In the original 1948 and 1951 wings, steam radiators provide heat and there is no mechanical ventilation. There is inadequate ceiling space for ventilation ducts; adding ventilation would require an overbuilt roof or low exposed ducts. The majority of these radiators are original and do not have guards; because they operate at high temperatures, the radiators present the potential for causing injury if touched or backed into.

Steam piping runs in an underground utility tunnel along the perimeter of the 1948 and 1951 building. Most steam piping within the building is over 40-years-old, and multiple steam leaks have been reported. These tunnels are approximately 4'-6" high and 3'-6" wide and contain steam, condensate, hot and cold water piping and electrical conduit, making them crowded and difficult to work in. Due to the age of the piping, piping insulation has degraded, resulting in heat loss in tunnels, and reducing energy efficiency.

During the 1978 remodel, several classrooms in the 1948 building were converted to science classrooms, and steam coils were added above ceilings. An exhaust fan in these rooms pulls air from outside, across the steam coils and into the classroom for make-up air. This is an antiquated system that would need to be replaced if the building is retained.

In 1981, the northeast classroom wing was added. This wing is served by ducted fan coil units with steam coils. These units have surpassed their life expectancy.

In 2010, (12) rooftop heat pumps were installed in the 1970 and 1978 portions of the building to replace failing steam coil units. This is currently the only section of the building that has air conditioning.

The existing steam boiler was installed in 1999. There is only one boiler so there is no redundancy; if this boiler fails, there will be no heat to sections of the building until the boiler is repaired. Routine maintenance has to be planned during school breaks. Unlike hydronic (hot water) boilers, steam is only available at a constant temperature and cannot be lowered for milder outdoor temperatures, causing discomfort in classrooms during the spring and fall in particular.

:: The mechanical equipment HVAC equipment in this complex will need to be researched, coordinated, upgraded and/or replaced in any modernization of this facility

:: Further study would need to be done to determine the most cost-effective, energy efficient HVAC design for this facility, given the various spaces and conditions that exist in this complex of buildings that were designed, constructed, and assembled over many years and for different purposes and needs than they presently house

### HVAC CONTROLS SYSTEMS

The existing controls system in this building complex is a mix of old pneumatic controls, computerized stand-alone controls and Siemens controls on roof top heat pumps. Because the pneumatic control system is antiquated and was built over many projects, it does not automatically allow most room temperature set-points to be reduced at night, during weekends or during long breaks as required by the current Washington State Energy Code. The system is inefficient; in steam-heated areas it's not possible to remotely access to observe how the system is operating or to troubleshoot any issues.

### FIRE SPRINKLER

This school is not currently fire sprinkled.

## ELECTRICAL EVALUATION

### POWER

The school's main distribution switchboard is 2500 amp, 120/240 Delta, with fused switches (six main disconnects) installed in 1981 which do not meet present code. A second Siemens 1600 amp main fusible switch was added for a switchboard located

in the Arts Room area. Puget Sound Energy transformers are located in a vault within the confines of the building. Typically these vaults should be located outside a building. Electrical distribution installed in 1981 is approaching the end of rated life, and the rest of the building complex (1948-1970) is past rated life. The branch circuit panel board in the boiler room is an original 1948 fused panel, way behind its rated life.

Typical classrooms have minimal convenience, power and technology upgrades. Branch circuit distribution appears to be original from each remodel/addition.

#### LIGHTING

General illumination is T-8 fluorescent, retrofitted from T-12 in 2010. Outdoor lighting fixtures have HID lamps. There are no occupancy sensors in classrooms or automatic time switch control for interior lighting. Exterior lighting is controlled with time switch or photo-sensor.

Emergency egress lighting is provided by twin head emergency lights in hallways. There is no exterior emergency egress lighting. Exit lights have been upgraded to emergency type. Egress lighting upgrade is required in the unused areas of the school.

#### TELEPHONE AND DATA SYSTEMS

Voice and data distribution were added to the school, probably as part of a technology upgrade in the 1990s. Data station drops are Category 5 plenum rated cables, blue color. Telephone was converted to Voice Over Internet Protocol (VOIP) after 2006. Premises distribution system (PDS) is Siemens (fiber) and Amp ACO (copper).

The technology infrastructure and data closets need to be upgraded to support current District network standards

#### COMMUNICATION SYSTEMS

The master clock system is not operational. Battery clocks are used.

Classroom Audio Visual Systems: Projectors and sound reinforcement systems do not meet current District standards.

#### ELECTRONIC SAFETY AND SECURITY

Fire Alarm System: Notifier 4800 series panel and Radionics transmitter were replaced with Silent Knight 5208 control panel with AES Intellinet radio dialer in 2010. The fire alarm system interfaces with a panel in the BHS Building 500 Lower Gym & Commons building. Existing horn strobes, smoke detectors in corridors, and manual stations were reconnected to the Silent Knight panel. Smoke detectors are at the end of their useful life.

The school does not have electronic access control or video surveillance for security. The District may want to consider a comprehensive upgrade.

## SUMMARY OF FINDINGS

#### SAFETY ISSUES

:: Buses serving this school are required to load and unload along Madison Avenue or at Bainbridge High School which are less than desirable locations for convenient access, safety and supervision

:: Parent vehicular loading and unloading also occurs along Madison Avenue, creating congestion and potential safety issues when mixed with buses and local traffic

:: Locations of outdoor play areas create supervision issues for staff

:: The main office at the school, although centrally located, is not easily identifiable for visitors. Also, its location and configuration does not allow for visible monitoring of campus visitors as they come and go

:: Separate buildings, numerous access points (including exterior doors to classrooms), and complex circulation patterns present significant security challenges

:: The building does not contain security cameras. A comprehensive security upgrade should be considered

:: Portions of the 1949, 1951, 1970, & 1981 buildings have some blank insulated asbestos window system panels. Asbestos floor tiles, and some asbestos ceiling tiles are still present in the 1949-50 portions of the building. They should be abated in portions of the buildings that are retained

:: 1949/51 Building South Wing: provide a redundant structural wall adjacent to the unreinforced masonry walls. This would consist of light gauge metal studs adequately anchored to the foundation and roof, and also anchored to the existing masonry walls. Plywood sheathing should also be applied if it's necessary for the wall to transfer lateral shear forces

:: 1949/51, South Wing: The capacity of the existing wood roof diaphragm is deficient. The concern is with the overall strength of the building during an earthquake. Sheath the existing roof decking with plywood sheathing to increase the lateral shear strength of the building. The shear transfer mechanism at the structural walls should also be improved

:: 1949/51, South Wing: The capacities of the existing shear walls are deficient. The concern is with the overall strength of the building during an earthquake. Additional plywood and/or masonry shear walls should be provided to increase the lateral shear strength of the building

:: 1949/51: Repair any masonry/veneer that shows signs of deterioration/damage

:: 1970/78/81: The masonry bearing/shear walls are dependent on the roof diaphragm for lateral support against out-of-plane forces and are not adequately anchored. In a major earthquake, there is potential for the roof to separate from the walls if they are not properly tied together. The anchorage of the exterior masonry walls should be improved by adding steel anchor straps

:: Fire sprinkler system should be installed throughout the building per Washington State Building Code

#### CODE / LEGAL

:: The main parking lot access drive is close to the Madison Avenue and High School Road intersection roundabout, creating a City code and safety issue which will need to be addressed as part of any major

renovation or redevelopment.

:: The student drop-off area along Madison does not accommodate reasonable ADA accessible access to the school

:: The buildings do not meet present seismic standards and codes

:: Any significant upgrade to this facility will likely trigger extensive stormwater management improvement requirements

:: Most door hardware does not meet ADA code, is old, and requires replacement

:: 1949 & 1951 Building: The staff restrooms are not ADA compliant and are in need of full renovation

### LIFE CYCLE REPLACEMENT / REPAIR

:: Most of the building is reaching the end of its serviceable life – 33 to 66 years old

:: Southeast parking lot is in need of paving, striping and curb replacement

:: Some of the older sections of concrete sidewalks are deteriorating with age

:: The paved play area needs resurfacing

:: The variety of existing systems, building materials and products, and their respective age require extensive effort and cost for the District's maintenance and custodial staff

:: The facility is outdated, very worn and aesthetically unappealing. It is in need of substantial updating or replacement to create a better more inviting learning environment, expressing the values of the District and the community it serves

:: Telephone voice/data distribution system does not comply with current District standards and is near the end of its rated service life

:: The technology infrastructure and data closets need to be upgraded to support current District network standards and reliability

:: Many of the plants and shrubs around the building are overgrown and should be replaced in defined areas to improve sight lines and security, reduce the time and labor to maintain landscaping, and improve the appearance of the site

:: The building sewer lines have continual problems with tree root invasion and require extensive clearing periodically. As these lines date back to 1948, they are at the end of their life expectancy and will require complete replacement in the near future, and they are difficult to access due to the layout of the buildings

:: 1949 & 1951 Building: Entire window system (steel sash windows with single pane glazing), including sills, have surpassed their useful life and are in need of replacement. Deteriorated wood window sills, if not replaced, will continue to promote water intrusion into the existing building

:: 1949 & 1951 Building: Exterior doors are a mix of hollow metal and composite fiberglass with hollow metal frames. All show excessive wear and have surpassed their useful life

:: 1949 & 1951 Building: The siding needs re-painting, but of greater concern is the deterioration of the vinyl reveals which have cracked and separated, exposing the vapor barrier within the wall construction. This condition may allow water intrusion into the exterior wall of the building

:: 1949 & 1951 Building: The south elevation has sheet metal downspouts - most are heavily dented/damaged and a few are disconnected

:: 1949 & 1951 Building: All interior finishes and equipment in the south part of the buildings require total renovation/ replacement if these spaces are to be utilized again for educational purposes

:: 1970 thru 1981 Building: A fair amount of graffiti was observed around the exterior masonry walls of the buildings. This is difficult to remove from the brick unless special coatings are applied. This will continue to be an ongoing maintenance/ custodial issue

:: 1970 thru 1981 Building: Door hardware is in need of reconditioning

:: 1970 thru 1981 Building: The ceiling tiles at the corridor connection into the 1970 wing are mismatched and contain numerous water stains from leaking pipes and roofing

:: Galvanized water supply piping should be replaced with new Type L copper pipe and should be routed in a more readily accessible location (i.e. above T-bar ceilings or soffits)

:: As a minimum, assess the condition of the existing underground waste piping and replace as required to prevent failure

:: Toilets need replacing and wall-mounted fixtures are recommended to improve ease of cleaning floors

:: All faucets should be replaced with District standard low-flow faucets by a single manufacturer for maintenance efficiency

:: Each of the various remodels and additions has introduced a different type of heating and ventilating system. The variety of equipment makes it difficult to keep common replacement parts on hand

:: The existing steam boiler was installed in 1999. With one boiler, there is no redundancy; if this boiler fails, there is no heat to sections of the building until the boiler is repaired. Routine maintenance has to be planned during school breaks

:: All mechanical equipment needs to be replaced with the most effective energy-efficient alternative for this complex building

:: A new heating control DDC type system should be installed

:: The outdated, worn-out electrical distribution system needs replacement

:: Replace existing utility transformers located in vault with a pad mount transformer

:: Wiring devices are past rated life and additional classroom outlets are needed in pre-1981 classrooms. General upgrade is recommended

:: Upgrade lighting controls to meet current energy code requirements with occupancy sensors in classrooms and offices

:: Add emergency lighting to comply with Code throughout school

:: Upgrade egress lighting to comply with Code in unused areas of the school

:: Remove abandoned Cat 3 telephone cables

:: Provide new clock and intercom system to conform to District standard (Bogen)

:: Upgrade Classroom AV Systems as part of a general modernization

:: Upgrade old smoke detectors

:: The master clock system is not operational. Battery clocks are used

### STUDENT PROGRAM

:: Circulation around the school from one instructional space to another is very inefficient and circuitous

:: The building configuration is an inefficient use of space due to the continuous retrofitting of the school to match curriculum needs

:: The physical condition of much of this building isn't conducive to learning

:: The building offers very limited opportunities for educational program collaboration, flexibility, or adaptability to accommodate diverse teaching models

:: There are no flexible shared learning spaces for small group activities or personalized learning

:: Due to its condition, the south wing of the existing facility is not being used and currently vacant

:: The facility lacks natural daylighting in most classrooms and offices

:: 1949 & 1951 Building: There is little acoustical separation between staff offices, allowing for private conversations to be heard in the hallway

:: 1970 thru 1981 Building: The corridor connection into the 1970 wing has a very low ceiling (approximately 7'-0") and appears dark and oppressive

:: 1970 thru 1981 Building: Band and music rooms are adequately sized but lack exterior windows and natural daylighting

:: 1970 thru 1981 Building: The art room is adequately sized and conducive to intended use, but has inadequate natural lighting due to few windows

:: 1948 Covered Play Shed is inadequate due to its height and lack of amenities. It also presents a safety issue due to the adjacent parking lot. The present location is difficult to supervise

### ENERGY SAVINGS

:: 1949 & 1951 Building: Lack of exterior insulation and single pane glazing makes these portions of the existing building very energy inefficient, resulting in higher than normal utility costs

:: 1970-1981 portions of the building do not meet present energy codes, lacking adequate insulation, and appropriate glazing

:: The multiple heating systems for various parts of the building are inefficient and result in higher than required energy costs

:: Restroom fixtures need to be replaced to reduce water consumption

# 02 EDUCATIONAL AND FACILITIES PLAN

A long-range (minimum of six years) educational and facilities plan setting for the projected facility needs and priorites of the district based on the educational plan.

:: Describe the district's long-range educational plan as adopted by the school board. Show how program goals and objectives are supported by a minimum six-year capital facilities plan.

## VISION DEVELOPMENT

The initial Bainbridge Island School District Master Plan was created in 2005. In accordance with the plan, the district has been successful in completing two significant building replacement projects and several essential renovations district-wide. The replacement of the Bainbridge High School (BHS) 200 Building and Wilkes Elementary School were identified as critical replacement priorities, with the anticipation that these projects would be followed closely by addressing critical needs at Blakely Elementary School, the BHS 100 Building, Ordway Elementary School and the Commodore Options School.

The updated 2015 Master Plan has been developed through a collaborative process that incorporates input from a variety of contributors, including teachers, school principals, district staff, community members and parents. In parallel with the 2005 Master Plan, the foundation for its update is derived extensively from earlier works done by the Bainbridge Island School District in partnership with the community. Notably, those works include the current Mission, Vision and Guiding Principles along with the District Improvement Plan, as well as works completed or underway with district administrators and staff.

This Master Plan is grounded with an understanding of the District's current condition and expanded through national trends in education and a vision for the future of education on Bainbridge Island. The belief in "Strong Minds, Strong Hearts, Strong Community" is held by stakeholders of the Bainbridge Island School District. It continues to serve as a foundation for the 2015 Master Plan, as we work to ensure that facilities within the district support our vision for the education and growth of our children.

## DISTRICT MISSION

The mission of the Bainbridge Island School District is to ensure every student is:

:: Prepared for the global workplace,
:: Prepared for college,
:: Prepared for citizenship in a democratic society, and
:: Prepared for personal success.

## DISTRICT VISION

We envision the Bainbridge Island School District to be a highly successful community of children and adults that inspires the love of learning now and in the future. The Bainbridge Island School District is committed to providing each student with an excellent academic program in an engaging and supportive environment.

We commit ourselves to provide the best schools and district programs possible. We actively respond to the needs of individual students and challenge them to meet high academic standards. We offer numerous opportunities for learning in and out of the classroom. We develop and support instructional programs to ensure student needs and family interests are met. We invite parents and others from the community to actively participate in the educational process.

We strive to help our students by instilling a sense of civic and social responsibility. We seek to inspire students to reach out to their peers, their community, and others in our global society as they prepare to interact with and influence others as adult citizens.

## DISTRICT GUIDING PRINCIPLES

The Guiding Principles describe the learning environments in Bainbridge Island School District that are required to foster every student's ability to develop the knowledge, skills, and attributes that are necessary for success in career, college, and life in the 21st century.

### CHALLENGE

#### CHALLENGING & MEANINGFUL CURRICULUM

Students learn best when curriculum is rigorous, relevant, and specifies standards for performance; when performance standards are made explicit to them; and when they are able to articulate what they are learning, why it is important, and how they are progressing in their learning.

#### HIGH EXPECTATIONS & QUALITY INSTRUCTION

Students learn best in an environment where the prevailing belief is that knowledge, skills, and abilities are developed by effort; where teachers and staff expect every student to succeed; and where high quality instruction reflects educational best practice and results in students producing their best work.

#### CHALLENGE CALLS FOR:

:: Providing rigorous, standards-based courses of study for every student.
:: Providing teachers, staff and administrators with ongoing training.
:: Integrating educational technology appropriately.
:: Utilizing standards-based systems of assessment and reporting.
:: Providing multiple opportunities for students to show proficiency.
:: Instructing in a student-centered manner.
:: Using frequent formative assessments of student skills and knowledge to guide instruction.
:: Ensuring access to advanced level courses.
:: Promoting the development of self-reliance, perseverance, and a strong work ethic.

### CONNECTION

#### INTERCONNECTED LEARNING EXPERIENCES

Students learn best when new concepts and skills are explicitly linked to previous learning experiences, when programs of study are integrated and interconnected, and when students are provided with opportunities to apply what they have learned.

#### PERSONALIZATION AND INDIVIDUAL ATTENTION

Students learn best when they are known well by teachers and staff in the school, when the instruction and support they receive meets their specific needs as learners and individuals, and when they develop positive relationships with staff and peers.

#### CONNECTION CALLS FOR:

:: An articulated K-12 course of study.
:: Differentiating instruction to meet individual needs.
:: Providing choices for students.
:: Offering interdisciplinary courses of study.
:: Integrating curriculum.
:: Using information and data about student performance to make instructional decisions.
:: Providing e-learning opportunities.
:: Systematically developing and evaluating courses and educational programs to align with evolving needs and priorities.
:: Providing individual attention to students.
:: Providing students, teachers, and staff with opportunities for collaboration.

## COMMUNITY

STUDENT ENGAGEMENT & LEADERSHIP

Students learn best when they are actively engaged in authentic learning; when they are encouraged to innovate, create, and lead; and when they are provided with opportunities to be actively involved in their school, community, and the world beyond.

CARING & SUPPORTIVE ENVIRONMENT

Students learn best in an environment that is caring, supportive and collaborative; that is equitable, honors diversity, and promotes good citizenship; and that fosters mutual respect among students, teachers, and staff. Students also learn best when given high quality materials, equipment, and facilities that support excellent instruction.

COMMUNITY CALLS FOR:

:: Engaging students in self-assessment, goal setting, and progress monitoring.
:: Promoting innovation, creativity and leadership.
:: Engaging students in problem-based and real-world learning experiences.
:: Promoting community and civic engagement.
:: Providing regular opportunities for students to collaborate with peers and adults.
:: Providing academic and personal support for struggling students.
:: Ensuring that student voice influences learning and educational practice.
:: Providing the materials, equipment, and facilities that support excellent instruction.

## DISTRICT IMPROVEMENT PLAN 2015-2017

In order to prepare students for future success, the Bainbridge Island School District is committed to achieving targeted outcomes in the following areas:

:: Increasing readiness for career, college and citizenship
:: Improving student achievement
:: Ensuring academic growth for every student
:: Closing opportunity gaps
:: Providing safe and positive learning environments that support the social and emotional well-being of students

Identified targeted outcomes and specific strategies that will be utilized to achieve them are delineated in the District Improvement Plan located on the district website: www.bisd303.org

Click on the tab "Our District", then select "Strategic Planning-Mission, Vision, Guiding Principles" and "District Improvement Plan."

### GRADUATE PROFILE

The Bainbridge Island School District's graduate profile reflects the mission and beliefs of the Bainbridge Island School District. The district's vision for a well-educated Bainbridge Island graduate is defined by the knowledge, skills, and personal attributes needed by all students to become competent, capable and productive citizens.

### KNOWLEDGE AND UNDERSTANDING

Students will attain the knowledge necessary to understand the past, present and the perspective needed to shape the future. It includes the knowledge necessary to interpret and learn from personal experience and to appreciate the academic and aesthetic dimensions of life.

### SKILLS AND PROCESSES

Students will have the skills necessary to express themselves, access information, analyze and solve problems, and live and work successfully with others.

### PERSONAL ATTRIBUTES

Students will develop personal characteristics necessary for a successful life as indicated by a balanced life, self-discipline, self-awareness, and interdependent relationships.

### EDUCATIONAL TRENDS

Understanding the impact of educational trends is an important part of planning school facilities. The following list includes educational trends that are occurring across the nation and are expected to impact educational delivery and potentially, facilities within the Bainbridge Island School District.

### PERSONALIZED LEARNING

There continues to be a shift from teacher-centered instruction to more pupil-centered learning.

:: Student-centered instruction
:: Strong adult-student relationships
:: Varied instructional strategies to address different learning styles
:: Ongoing assessment and regular feedback regarding student learning
:: Project and performance-based learning opportunities
:: Opportunities to pursue areas of individual interest
:: Opportunities for e-learning

### ACADEMIC RIGOR, RELEVANCE AND STUDENT ACHIEVEMENT

Educational reform efforts at both the state and national level have focused on establishing rigorous academic standards, providing support for disadvantaged students, and holding schools accountable for increasing the level of student achievement and preparing students for future careers.

:: High academic expectations for all students
:: Equitable opportunities and resources for all schools and all students
:: Clearly defined academic standards and assessment criteria
:: Instructional support for students who are not demonstrating academic growth
:: Additional challenge for students who are exceeding standards
:: Increased emphasis on applied learning and relevance of classroom lessons
:: Accountability for student achievement
:: Opportunities for career awareness/ exploration and work-based learning

### SMALLER CLASS SIZE

:: Washington state voters have confirmed their support for reducing class size in K-12 schools by approving ballot initiatives such as I-728 and I-1351. The legislature has also committed funds to reduce class size in Gr. K-3, as mandated by the WA State Supreme Court as part of the McCleary lawsuit. Reducing class size will have implications for the size and configuration of school facilities. Reducing class size in Gr. K-3 to align with the McCleary decision will require several additional classrooms in elementary schools. Additional space may be needed for elementary specialists as well.
:: If the Gr. 4-12 class sizes stipulated in I-1351 are funded by the state in future years, there will be a significant increase in the number of classrooms needed in our intermediate, middle and high schools.
:: Operating and maintenance costs are

impacted when there is an increase in the size of the facilities.

### GREATER FLEXIBILITY

Changes in educational requirements, programs, and instructional methods require educational facilities to be multipurpose and adaptable in their design.

:: Buildings designed to adapt to changes in instructional programs
:: Core facilities and instructional spaces designed for multiple use of space
:: Instructional spaces designed for individual, small group and large group activities
:: Instructional spaces designed for a wide range of instructional methods and activities
:: Instructional spaces and meeting spaces designed to support student and staff collaboration

### INCREASING USE OF TECHNOLOGY

Learning to use technology, and using technology to learn, will continue to be integrated into all aspects of the curriculum. This will change the way students learn and the way faculty teach, requiring spaces that are flexible and systems that can be adapted over time.

:: District infrastructure to keep pace with technology needs
:: Buildings designed to support integration of technology
:: Equipment and software regularly updated to support instructional and curricular changes

### COMMUNITY CONNECTIONS AND COMMUNITY USE

There continues to be an increasing interest in bringing the community into schools to utilize equipment and facilities and in extending learning activities for students into the community. This has resulted in increased movement of students between the school and the community and the need for buildings that can be independently secured.

:: Schools serve as a community hub
:: Increased need for after-hours use by both the schools and community groups
:: Social services work in close partnership with schools
:: Closer connections between high school and community college
:: School-business partnerships
:: Increased need for durability, maintenance, and energy efficiency

### HIGH PERFORMANCE DESIGN AND SUSTAINABILITY

Sustainable building includes design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment. Additionally, there are an increasing number of studies that suggest that facilities that incorporate features such as appropriate daylighting and natural ventilation can both reduce operating costs and can positively impact learning results.

:: Reduce negative impact through:
  Environmental site planning
  Water efficiency
  Energy efficiency
  Conservation of materials and resources
  Indoor environmental quality
:: Benefits:
  Reduce impact of consumption
  Reduce operating costs
  Enhance comfort and health
  Improve educational experience

### WASHINGTON STATE SUSTAINABLE SCHOOLS PROTOCOL

Examines impacts of resource efficient techniques on K-12 construction and addresses impacts of high performance school design

:: Areas of focus include:
  Water and energy efficiency
  Site planning
  Materials
  Indoor environmental quality

### OUR BELIEF

We believe our vision is achievable. It reflects our commitment to provide each student with an excellent program and supportive environment that fosters a passion for learning and develops the intellectual, physical, and social skills necessary for success in career, college, and life in the 21st century. It is also an invitation for you to share in our aspirations and become an active member of our learning community.

# 03 DEMOGRAPHIC ANALYSIS

Demographic data including population projections and projected economic growth and development.

:: Include the OSPI Cohort Survival Enrollment Projection Report 1049, and any other pertinent data specific to growth within the district. Include form 1066 Students with Disabilities Enrollment (see Exhibit 3G).

## METHODOLOGY

Demographic and enrollment projections for the Bainbridge Island School District Master Plan have been developed utilizing the following information:

:: Bainbridge Island School District Enrollment Trends and Projections, dated July 2012 as prepared by William L. (Les) Kendrick, Educational Data Solutions, LLC.
:: Bainbridge Island School District Enrollment Trends and Projects, updated July 2015.

## INTRODUCTION

### CITY OF BAINBRIDGE ISLAND (COBI)

The demographic analysis and report that was completed in spring 2012 aligns the Bainbridge Island enrollment trends with the birth and population trends taking place in Kitsap County. However since Bainbridge Island is a short ferry ride to Seattle, and since many residents work in the Seattle area, it is possible that Bainbridge Island will realize a different trend over the next few years than is assumed in the 2012 forecast. King County K-12 enrollment, and K-12 enrollment in Seattle specifically, is expected to grow dramatically over the next decade due to larger birth cohorts entering the schools and increased population growth overall.

It may be that Bainbridge Island will be impacted by this growth, as families with children choose to reside on the island and commute to Seattle to work. Should this happen, the district could see its enrollment grow slightly in the coming decade from the 3,700 mark of the last few years to a number that is closer to the 4,100+ students that were enrolled during the last population boom of the 1990s. Much of this initial growth would be realized at the elementary level and eventually roll up into the secondary grades. Higher enrollments would be predicated by a substantial turnover in existing homes or a significant amount of new home development that is typically attractive to families with children.

### ASSUMPTIONS

County births are expected to remain relatively stable over the next decade and perhaps even trend up due to an increase of women in their child-bearing years. Birth trends are part of the reason why enrollment is expected to decline less and perhaps even grow in the latter part of the decade.

There is some uncertainty regarding population and housing growth in the next decade. Low, medium, and high range estimates of population and housing growth were created to assist in the development of alternative future enrollment forecasts. Forecasts of enrollment for the district will range between 3,545 (low) and 4,029 (high) students in 2021. Indicators suggest that recent enrollment is trending between the medium and high projections.

### CENSUS FACTS

The 2010 census reports that there is a marked increase in the population that is over 60 years of age, and a modest increase in the number of residents that are between 25 and 39 years of age. The latter group would include females in their child-bearing years, indicating that births could trend up more than expected. This is also an age group that is more likely to have young children.

The population over 60 is currently occupying single-family homes, or residences that are of interest to families with children. The aging of this population will eventually result in housing turnover that could result in greater K-12 enrollment growth.

### ENROLLMENT FACTS

Since 2010, K-12 enrollment across the school district is down slightly overall, with the exception of grades 5 through 8 which have experienced a 5% increase in enrollment. This anomaly is contrary to typical increases in pre-school and the lower grades.

The apparent explanation, substantiated by census data, is that new families are buying their second or third homes, with only a few first time buyers. Most of these buyers are moving in with children in intermediate grade levels.

### WHAT TO WATCH

The demographic balance on Bainbridge Island is quite precarious. If, for example, the current trend of development and new housing permits continues, it may translate into increased enrollment numbers.

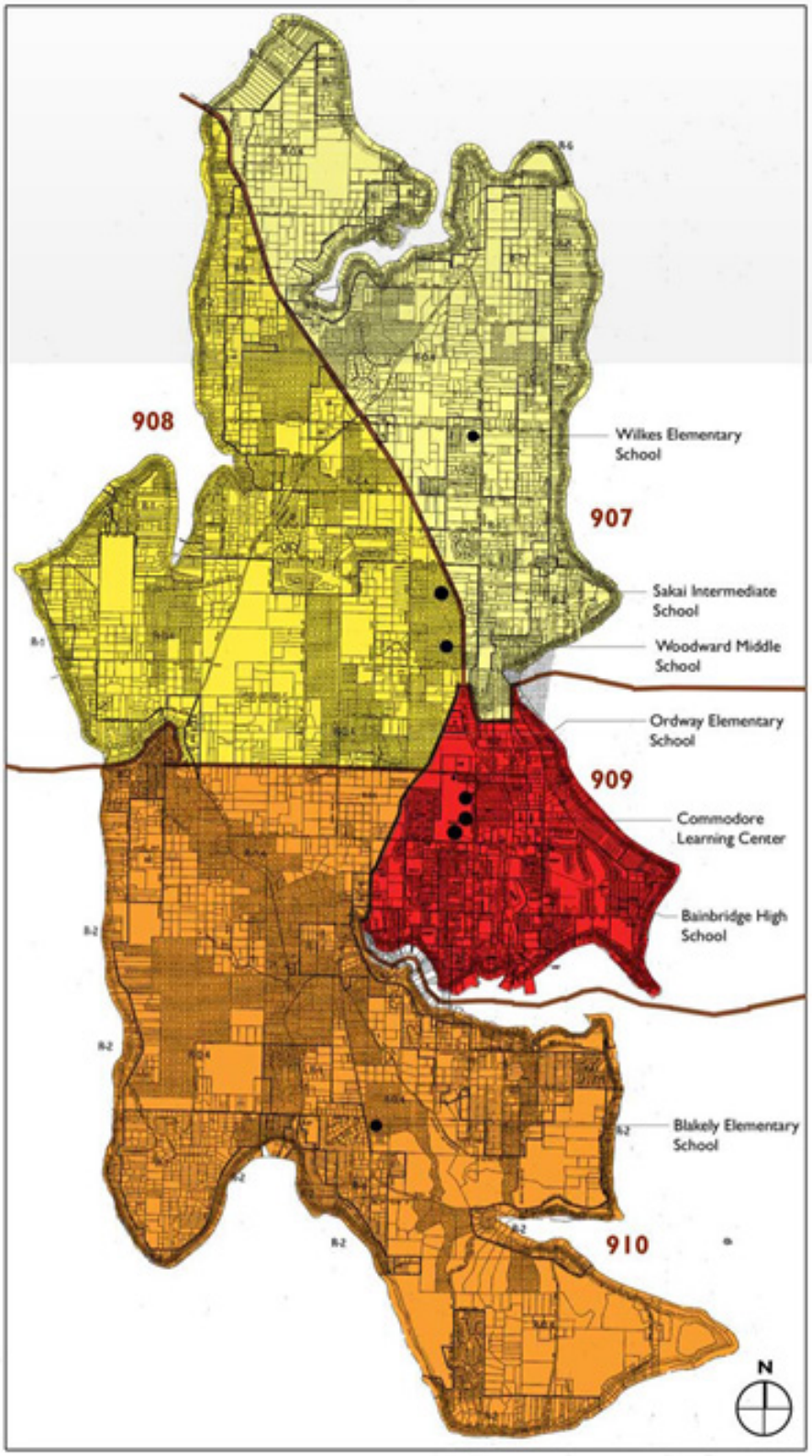
:: Monitor new housing permits with the City of Bainbridge Island.
:: Continue to watch home sales; if home sales to families increase it will have a positive impact on enrollment.
:: Watch births carefully; if annual births rise above 180 for a couple of years in succession, you will know the rules have changed.
:: Watch Seattle School District's upward enrollment trends as it is likely that Bainbridge will experience similar trends.

### CONCLUSIONS

Renew the Study and Survey every six years for school construction state assistance qualification.

Watch the housing market profile carefully and monitor this on an annual basis with the city.

## BAINBRIDGE ISLAND CENSUS ZONES



School Facilities and Organization
INFORMATION AND CONDITION OF SCHOOLS
**Enrollment Projections (Report 1049)**

**BAINBRIDGE ISLAND**

| | --- ACTUAL ENROLLMENTS ON OCTOBER 1st --- | | | | | | AVERAGE % | --- PROJECTED ENROLLMENTS --- | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grade | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | SURVIVAL | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Kindergarten | 229 | 209 | 208 | 215 | 210 | 168 | | 177 | 169 | 160 | 152 | 143 | 135 |
| Grade 1 | 269 | 264 | 237 | 230 | 242 | 257 | 114.83% | 193 | 203 | 194 | 184 | 175 | 164 |
| Grade 2 | 270 | 282 | 266 | 246 | 244 | 247 | 103.50% | 266 | 200 | 210 | 201 | 190 | 181 |
| Grade 3 | 259 | 279 | 281 | 283 | 279 | 256 | 105.53% | 261 | 281 | 211 | 222 | 212 | 201 |
| Grade 4 | 277 | 266 | 291 | 308 | 296 | 283 | 104.52% | 268 | 273 | 294 | 221 | 232 | 222 |
| Grade 5 | 289 | 286 | 269 | 303 | 325 | 313 | 103.94% | 294 | 279 | 284 | 306 | 230 | 241 |
| Grade 6 | 281 | 284 | 292 | 256 | 290 | 310 | 97.31% | 305 | 286 | 271 | 276 | 298 | 224 |
| K-6 Sub-Total | 1,874 | 1,870 | 1,844 | 1,841 | 1,886 | 1,834 | | 1,764 | 1,691 | 1,624 | 1,562 | 1,480 | 1,368 |
| Grade 7 | 295 | 296 | 289 | 308 | 283 | 316 | 106.41% | 330 | 325 | 304 | 288 | 294 | 317 |
| Grade 8 | 320 | 300 | 305 | 297 | 323 | 279 | 102.18% | 323 | 337 | 332 | 311 | 294 | 300 |
| 7-8 Sub-Total | 615 | 596 | 594 | 605 | 606 | 595 | | 653 | 662 | 636 | 599 | 588 | 617 |
| Grade 9 | 365 | 352 | 344 | 362 | 343 | 367 | 114.48% | 319 | 370 | 386 | 380 | 356 | 337 |
| Grade 10 | 413 | 384 | 356 | 341 | 364 | 348 | 101.49% | 372 | 324 | 376 | 392 | 386 | 361 |
| Grade 11 | 343 | 373 | 346 | 327 | 325 | 335 | 91.91% | 320 | 342 | 298 | 346 | 360 | 355 |
| Grade 12 | 330 | 339 | 368 | 322 | 314 | 312 | 96.51% | 323 | 309 | 330 | 288 | 334 | 347 |
| 9-12 Sub-Total | 1,451 | 1,448 | 1,414 | 1,352 | 1,346 | 1,362 | | 1,334 | 1,345 | 1,390 | 1,406 | 1,436 | 1,400 |
| DISTRICT K-12 TOTAL | 3,940 | 3,914 | 3,852 | 3,798 | 3,838 | 3,791 | | 3,751 | 3,698 | 3,650 | 3,567 | 3,504 | 3,385 |

Notes: Specific subtotaling on this report will be driven by District Grade spans.

OFFICE OF SUPERINTENDENT OF PUBLIC INSTRUCTION
School Facilities and Organization

Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200
(360) 725-6265 TTY (360) 664-3631

| ESD | CO | DIST |
|---|---|---|
| | | |

# ENROLLMENT/CLASSROOM COUNT

2014-2015

School District Bainbridge Island

**1. ENROLLMENT REPORT AS OF LATEST OCTOBER 1 COUNT**

Enter the number of students with disabilities (as reported on actual October headcount enrollment) who are assigned to a specially designated self-contained classroom for at least 100 minutes per school day. Enter pre-kindergarten students with disabilities at 50 percent of the actual headcount enrollment.

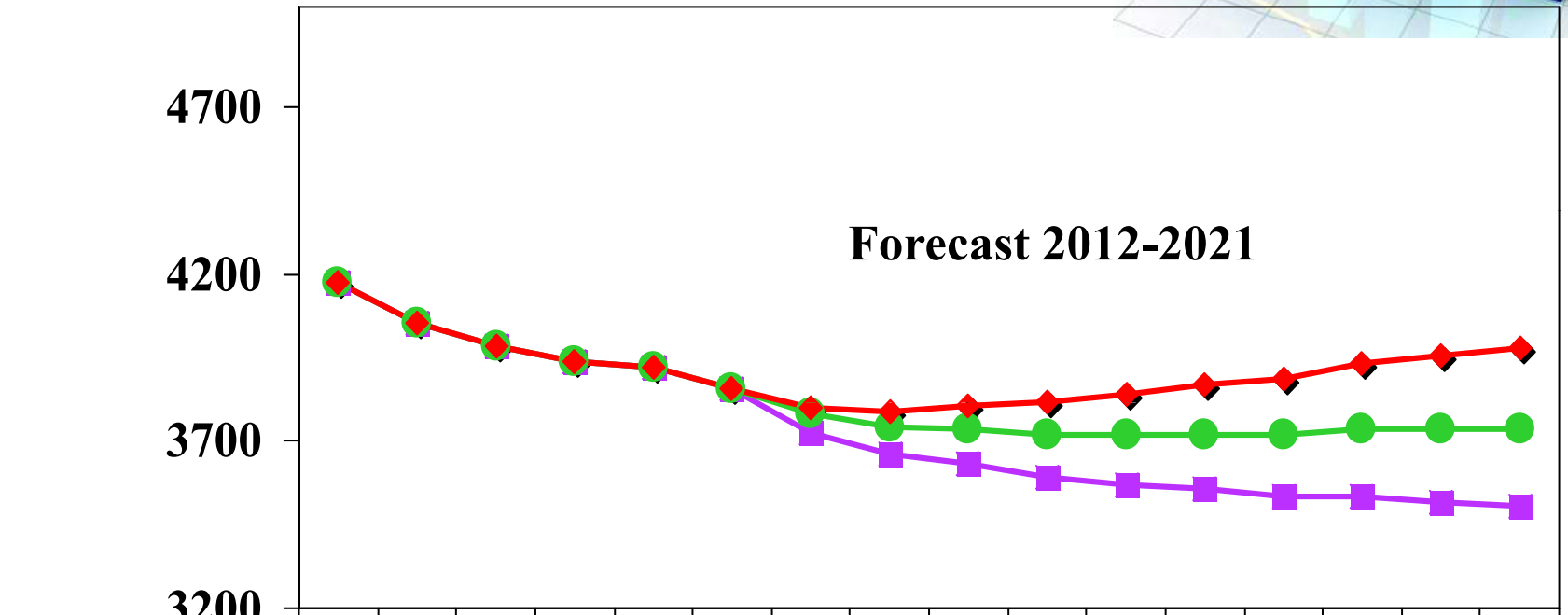
| Grade | October Enrollment per above definition |
|---|---|
| Pre-Kindergarten | 31 |
| Kindergarten | 2 |
| 1 | 0 |
| 2 | 3 |
| 3 | 3 |
| 4 | 2 |
| 5 | 8 |
| 6 | 5 |
| 7 | 7 |
| 8 | 2 |
| 9 | 7 |
| 10 | 4 |
| 11 | 1 |
| 12 | 3 |
| Total | 78 |

Return to: School Facilities and Organization
Office of Superintendent of Public Instruction
Old Capitol Building
PO BOX 47200
OLYMPIA WA 98504-7200

Fax Number: (360) 586-3946

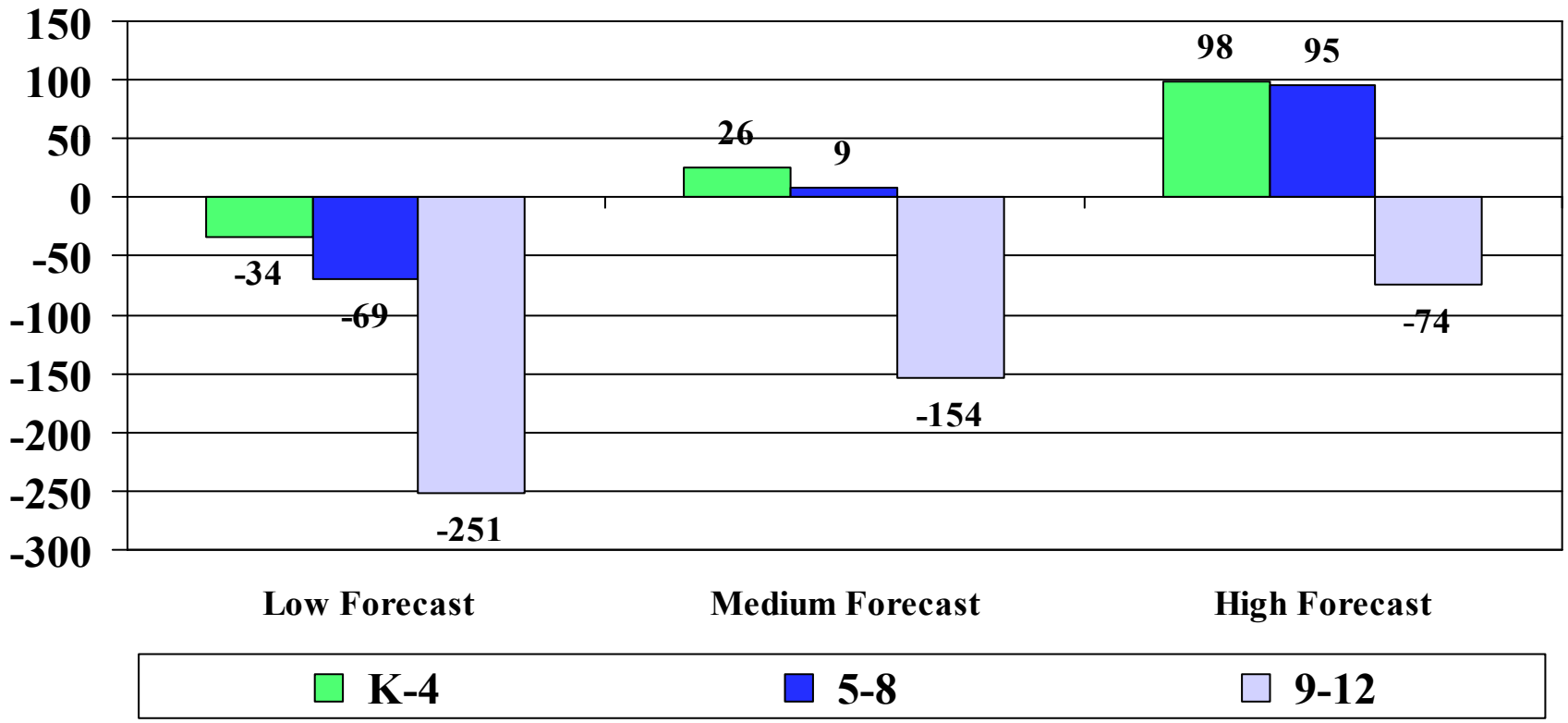
SIGNATURE OF SUPERINTENDENT/DESIGNEE DATE

# Low, Medium and High District Forecasts




| | Oct_06 | Oct_07 | Oct_08 | Oct_09 | Oct_10 | Oct_11 | Oct_12 | Oct_13 | Oct_14 | Oct_15 | Oct_16 | Oct_17 | Oct_18 | Oct_19 | Oct_20 | Oct 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Low Forecast | 4173 | 4054 | 3984 | 3940 | 3920 | 3858 | 3726 | 3661 | 3630 | 3592 | 3571 | 3555 | 3534 | 3537 | 3519 | 3504 |
| Medium Grow th Forecast | 4173 | 4054 | 3984 | 3940 | 3920 | 3858 | 3781 | 3741 | 3734 | 3718 | 3718 | 3722 | 3718 | 3739 | 3738 | 3738 |
| High Forecast | 4173 | 4054 | 3984 | 3940 | 3920 | 3858 | 3802 | 3789 | 3807 | 3816 | 3841 | 3869 | 3888 | 3932 | 3954 | 3977 |

# Projected Change by Level:
# (From October 2011 to October 2021)
# **Low, Medium, and High**



# Bainbridge Island Enrollment History

***Birth History***

| Birth Year | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cnty Births | 2,789 | 2,808 | 2,854 | 3,085 | 3,413 | 3,484 | 3,568 | 3,101 | 3,323 | 3,307 | 3,269 | 3,252 | 3,004 | 2,893 | 3,108 | 2,946 | 2,942 | 3,014 | 3009 | 2902 | 3,040 |
| Birth-to-k ratio | 7.5% | 7.9% | 7.9% | 7.6% | 7.5% | 7.7% | 5.9% | 8.0% | 6.8% | 6.0% | 7.5% | 6.1% | 7.2% | 7.5% | 7.1% | 7.8% | 7.5% | 8.0% | 7.6% | 7.2% | 6.9% |

**Enrollment History (P223 State Reported Enrollment -- Does NOT include students who are ONLY enrolled in Running Start)**

| Grd | Oct_91 | Oct_92 | Oct_93 | Oct_94 | Oct_95 | Oct_96 | Oct_97 | Oct_98 | Oct_99 | Oct_00 | Oct_01 | Oct_02 | Oct_03 | Oct_04 | Oct_05 | Oct_06 | Oct_07 | Oct_08 | Oct_09 | Oct_10 | Oct_11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | 210 | 222 | 225 | 235 | 257 | 269 | 212 | 249 | 226 | 199 | 245 | 198 | 217 | 218 | 221 | 230 | 222 | 241 | 229 | 209 | 209 |
| 1 | 214 | 218 | 226 | 245 | 258 | 272 | 297 | 248 | 282 | 256 | 239 | 279 | 238 | 256 | 252 | 254 | 243 | 262 | 269 | 264 | 238 |
| 2 | 230 | 227 | 231 | 225 | 262 | 272 | 293 | 310 | 262 | 300 | 282 | 263 | 276 | 248 | 274 | 259 | 257 | 250 | 270 | 282 | 266 |
| 3 | 271 | 237 | 244 | 242 | 259 | 269 | 296 | 323 | 326 | 263 | 305 | 293 | 280 | 302 | 271 | 283 | 271 | 261 | 259 | 280 | 282 |
| 4 | 263 | 300 | 266 | 268 | 267 | 270 | 287 | 313 | 343 | 341 | 301 | 312 | 312 | 297 | 312 | 277 | 284 | 282 | 277 | 266 | 292 |
| 5 | 253 | 277 | 306 | 281 | 292 | 282 | 284 | 295 | 330 | 342 | 356 | 311 | 323 | 323 | 330 | 314 | 281 | 287 | 289 | 286 | 269 |
| 6 | 225 | 250 | 271 | 286 | 271 | 280 | 289 | 294 | 296 | 333 | 350 | 359 | 308 | 308 | 327 | 324 | 312 | 280 | 281 | 284 | 292 |
| 7 | 219 | 235 | 229 | 264 | 291 | 293 | 281 | 303 | 292 | 301 | 340 | 360 | 358 | 321 | 319 | 339 | 327 | 312 | 295 | 296 | 289 |
| 8 | 247 | 225 | 235 | 234 | 274 | 301 | 300 | 298 | 307 | 299 | 313 | 357 | 366 | 363 | 326 | 325 | 341 | 321 | 320 | 300 | 305 |
| 9 | 247 | 245 | 254 | 271 | 277 | 349 | 355 | 377 | 331 | 358 | 350 | 371 | 410 | 421 | 443 | 385 | 383 | 405 | 365 | 353 | 345 |
| 10 | 198 | 254 | 245 | 261 | 268 | 272 | 322 | 305 | 363 | 350 | 358 | 344 | 373 | 411 | 406 | 416 | 370 | 366 | 413 | 384 | 356 |
| 11 | 221 | 192 | 245 | 240 | 239 | 248 | 262 | 299 | 303 | 322 | 323 | 326 | 326 | 346 | 401 | 399 | 394 | 345 | 343 | 374 | 347 |
| 12 | 212 | 236 | 190 | 226 | 208 | 220 | 214 | 220 | 263 | 263 | 276 | 273 | 318 | 309 | 341 | 368 | 369 | 372 | 330 | 342 | 368 |
| | **3010** | **3118** | **3167** | **3278** | **3423** | **3597** | **3692** | **3834** | **3924** | **3927** | **4038** | **4046** | **4105** | **4123** | **4223** | **4173** | **4054** | **3984** | **3940** | **3920** | **3858** |
| Change | 108 | 49 | 111 | 145 | 174 | 95 | 142 | 90 | 3 | 111 | 8 | 59 | 18 | 100 | -50 | -119 | -70 | -44 | -20 | -62 | |
| % Change | 3.6% | 1.6% | 3.5% | 4.4% | 5.1% | 2.6% | 3.8% | 2.3% | 0.1% | 2.8% | 0.2% | 1.5% | 0.4% | 2.4% | -1.2% | -2.9% | -1.7% | -1.1% | -0.5% | -1.6% | |
| **K-4** | 1188 | 1204 | 1192 | 1215 | 1303 | 1352 | 1385 | 1443 | 1439 | 1359 | 1372 | 1345 | 1323 | 1321 | 1330 | 1303 | 1277 | 1296 | 1304 | 1301 | 1287 |
| **5-8** | 944 | 987 | 1041 | 1065 | 1128 | 1156 | 1154 | 1190 | 1225 | 1275 | 1359 | 1387 | 1355 | 1315 | 1302 | 1302 | 1261 | 1200 | 1185 | 1166 | 1155 |
| **9-12** | 878 | 927 | 934 | 998 | 992 | 1089 | 1153 | 1201 | 1260 | 1293 | 1307 | 1314 | 1427 | 1487 | 1591 | 1568 | 1516 | 1488 | 1451 | 1453 | 1416 |

# Enrollment Projections

| | *Actual County Births* | | | | ***Birth Projections*** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Birth Yr* | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| *Births* | 2894 | 3053 | 2905 | 2931 | 2977 | 2989 | 3048 | 3079 | 3110 | 3141 |
| *K % of Cohort* | 6.7% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% | 7.0% |

**LOW Range Forecast**

| | Oct_12 | Oct_13 | Oct_14 | Oct_15 | Oct_16 | Oct_17 | Oct_18 | Oct_19 | Oct_20 | Oct_21 |
|---|---|---|---|---|---|---|---|---|---|---|
| **K** | 193 | 214 | 203 | 205 | 208 | 209 | 213 | 215 | 218 | 220 |
| **1** | 224 | 221 | 244 | 232 | 234 | 238 | 239 | 244 | 246 | 249 |
| **2** | 242 | 232 | 229 | 253 | 241 | 243 | 247 | 248 | 253 | 255 |
| **3** | 268 | 251 | 241 | 238 | 263 | 250 | 252 | 256 | 257 | 262 |
| **4** | 291 | 279 | 261 | 250 | 247 | 273 | 259 | 262 | 266 | 267 |
| **5** | 295 | 298 | 286 | 267 | 256 | 253 | 280 | 266 | 268 | 273 |
| **6** | 267 | 290 | 293 | 281 | 263 | 252 | 249 | 275 | 262 | 264 |
| **7** | 300 | 272 | 296 | 299 | 286 | 268 | 257 | 253 | 280 | 266 |
| **8** | 294 | 302 | 274 | 299 | 301 | 289 | 270 | 259 | 256 | 283 |
| **9** | 342 | 339 | 350 | 317 | 345 | 348 | 334 | 312 | 300 | 296 |
| **10** | 350 | 339 | 336 | 346 | 314 | 342 | 345 | 331 | 309 | 297 |
| **11** | 321 | 326 | 315 | 313 | 322 | 292 | 318 | 321 | 308 | 288 |
| **12** | 338 | 297 | 302 | 292 | 290 | 299 | 271 | 295 | 298 | 285 |
| | **3726** | **3661** | **3630** | **3592** | **3571** | **3555** | **3534** | **3537** | **3519** | **3504** |
| Change | -132 | -65 | -31 | -38 | -21 | -15 | -22 | 3 | -18 | -16 |
| Percent | -3.4% | -1.7% | -0.8% | -1.1% | -0.6% | -0.4% | -0.6% | 0.1% | -0.5% | -0.4% |
| K-4 | 1218 | 1196 | 1178 | 1178 | 1193 | 1213 | 1211 | 1225 | 1239 | 1253 |
| 5-8 | 1155 | 1163 | 1149 | 1146 | 1107 | 1062 | 1055 | 1053 | 1066 | 1086 |
| 9-12 | 1352 | 1302 | 1303 | 1268 | 1271 | 1281 | 1268 | 1259 | 1214 | 1165 |

# Enrollment Projections

| | *Actual County Births* | | | | ***Birth Projections*** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Birth Yr* | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| *Births* | 2894 | 3053 | 2905 | 2931 | 2977 | 2989 | 3048 | 3079 | 3110 | 3141 |
| *K % of Cohort* | 7.1% | 7.3% | 7.3% | 7.3% | 7.3% | 7.3% | 7.3% | 7.3% | 7.3% | 7.3% |

**Medium Range Forecast**

| | Oct_12 | Oct_13 | Oct_14 | Oct_15 | Oct_16 | Oct_17 | Oct_18 | Oct_19 | Oct_20 | Oct_21 |
|---|---|---|---|---|---|---|---|---|---|---|
| **K** | 206 | 222 | 211 | 213 | 216 | 217 | 221 | 224 | 226 | 228 |
| **1** | 238 | 236 | 255 | 242 | 244 | 248 | 249 | 254 | 257 | 259 |
| **2** | 243 | 248 | 246 | 265 | 252 | 254 | 258 | 259 | 265 | 267 |
| **3** | 270 | 253 | 259 | 257 | 276 | 263 | 265 | 270 | 271 | 276 |
| **4** | 294 | 281 | 265 | 270 | 268 | 289 | 275 | 277 | 281 | 283 |
| **5** | 299 | 303 | 290 | 273 | 278 | 276 | 297 | 283 | 286 | 290 |
| **6** | 269 | 295 | 299 | 287 | 269 | 275 | 273 | 294 | 280 | 282 |
| **7** | 302 | 276 | 302 | 306 | 293 | 276 | 281 | 279 | 301 | 286 |
| **8** | 296 | 307 | 280 | 306 | 311 | 298 | 280 | 286 | 283 | 305 |
| **9** | 345 | 344 | 356 | 325 | 356 | 361 | 346 | 325 | 332 | 329 |
| **10** | 354 | 344 | 343 | 355 | 323 | 354 | 359 | 344 | 323 | 330 |
| **11** | 324 | 331 | 321 | 320 | 332 | 302 | 331 | 336 | 322 | 303 |
| **12** | 341 | 302 | 308 | 299 | 298 | 309 | 282 | 309 | 313 | 300 |
| | **3781** | **3741** | **3734** | **3718** | **3718** | **3722** | **3718** | **3739** | **3738** | **3738** |
| Change | -77 | -40 | -7 | -16 | 0 | 4 | -4 | 21 | -1 | 0 |
| Percent | -2.0% | -1.1% | -0.2% | -0.4% | 0.0% | 0.1% | -0.1% | 0.6% | 0.0% | 0.0% |
| K-4 | 1250 | 1241 | 1235 | 1247 | 1257 | 1271 | 1269 | 1284 | 1299 | 1313 |
| 5-8 | 1167 | 1180 | 1171 | 1172 | 1152 | 1124 | 1131 | 1142 | 1149 | 1164 |
| 9-12 | 1364 | 1320 | 1328 | 1299 | 1310 | 1326 | 1318 | 1314 | 1290 | 1262 |

# Enrollment Projections

| | *Actual County Births* | | | *Birth Projections* | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Birth Yr* | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| *Births* | 2894 | 3053 | 2905 | 2931 | 2977 | 2989 | 3048 | 3079 | 3110 | 3141 |
| *K % of Cohort* | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% | 7.6% |

**HIGH Range Forecast**

| | Oct 12 | Oct 13 | Oct 14 | Oct 15 | Oct 16 | Oct 17 | Oct 18 | Oct 19 | Oct 20 | Oct 21 |
|---|---|---|---|---|---|---|---|---|---|---|
| **K** | 220 | 232 | 221 | 223 | 226 | 227 | 232 | 234 | 236 | 239 |
| **1** | 243 | 254 | 267 | 254 | 257 | 261 | 262 | 267 | 270 | 272 |
| **2** | 244 | 254 | 265 | 279 | 266 | 268 | 273 | 274 | 279 | 282 |
| **3** | 271 | 256 | 266 | 278 | 293 | 279 | 281 | 285 | 287 | 292 |
| **4** | 293 | 284 | 268 | 279 | 291 | 307 | 292 | 295 | 299 | 300 |
| **5** | 298 | 304 | 294 | 277 | 288 | 302 | 317 | 302 | 305 | 310 |
| **6** | 269 | 296 | 301 | 291 | 275 | 286 | 299 | 315 | 300 | 302 |
| **7** | 302 | 277 | 304 | 310 | 300 | 283 | 294 | 308 | 324 | 308 |
| **8** | 296 | 308 | 282 | 310 | 315 | 305 | 288 | 300 | 313 | 330 |
| **9** | 345 | 346 | 359 | 329 | 361 | 368 | 356 | 336 | 349 | 365 |
| **10** | 354 | 345 | 345 | 359 | 329 | 361 | 368 | 356 | 335 | 349 |
| **11** | 324 | 332 | 324 | 324 | 337 | 309 | 339 | 345 | 334 | 315 |
| **12** | 341 | 303 | 310 | 303 | 303 | 315 | 289 | 317 | 323 | 312 |
| | **3802** | **3789** | **3807** | **3816** | **3841** | **3869** | **3888** | **3932** | **3954** | **3977** |
| Change | -56 | -13 | 18 | 9 | 25 | 28 | 19 | 44 | 22 | 23 |
| Percent | -1.5% | -0.3% | 0.5% | 0.2% | 0.7% | 0.7% | 0.5% | 1.1% | 0.6% | 0.6% |
| K-4 | 1272 | 1279 | 1287 | 1313 | 1333 | 1341 | 1339 | 1354 | 1371 | 1385 |
| 5-8 | 1166 | 1184 | 1181 | 1188 | 1178 | 1175 | 1199 | 1224 | 1241 | 1250 |
| 9-12 | 1364 | 1326 | 1339 | 1315 | 1330 | 1352 | 1351 | 1353 | 1342 | 1342 |

# 04 CAPITAL FUNDS

The ability of the district to provide capital funds by local effort.

:: List the assessed valuation of the district, any outstanding bonded indebtedness, and the current bonding capacity. Compare the results with the estimated project cost.

# 04 CAPITAL FUNDS

## THE ABILITY OF BAINBRIDGE ISLAND SCHOOL DISTRICT TO PROVIDE CAPITAL FUNDS BY LOCAL EFFORT

**CAPITAL FUNDS BY LOCAL EFFORT**
Following is information describing assessed valuation for the 2014 collection year and existing bonded indebtedness as of December 31, 2014:

Assessed Valuation*:
$5,199,203,003

Outstanding Bonds: $83,830,000

Bond debt cannot exceed 5 percent of assessed value. The window of eligibility for additional bonded debt is $176,130,150 in 2015.

* Assessed valuation is based upon the aggregate assessed valuation, and is adjusted to exclude exempt senior citizens and to include Timber Assessed Value, which is $316,158 for collection year 2014.

## GENERAL OBLIGATION DEBT

| UNLIMITED TAX GENERAL OBLIGATION BONDS | DATE OF ISSUE | DATE OF MATURITY | AMOUNT ISSUED | AMOUNT OUTSTANDING (1) |
|---|---|---|---|---|
| UTGO 2004 Ref 1997 | 04/01/1997 | 12/01/2007 | $20,285,000 | $0 |
| UTGO 2006 | 05/31/2006 | 12/01/2020 | $24,935,000 | $0 |
| UTGO 2007 | 06/19/2007 | 12/01/2026 | $19,815,000 | $0 |
| UTGO 2009A | 12/29/2009 | 12/01/2019 | $4,925,000 | $2,920,000 |
| UTGO 2009B (BAB) | 12/29/2009 | 12/01/2029 | $16,075,000 | $14,865,000 |
| UTGO 2010 (QSCB) | 10/28/2010 | 06/29/2029 | $14,000,000 | $14,000,000 |
| UTGO 2012 REF. O6 | 05/14/2012 | 12/01/2025 | $9,995,000 | $8,580,000 |
| UTGO 2013A REF. 06 | 01/10/2013 | 12/01/2023 | $9,010,000 | $8,810,000 |
| UTGO 2013B REF. 04 | 01/10/2013 | 12/01/2016 | $7,805,000 | $6,880,000 |
| UTGO 2014 | 01/08/2014 | 12/01/2033 | $6,750,000 | $6,480,000 |
| UTGO 2014A REF. 200 | 04/09/2014 | 12/01/2020 | $6,625,000 | $6,525,000 |
| UTGO 2014 REF. | 11/25/2014 | 12/01/2026 | $13,770,000 | $13,770,000 |
| **BOND TOTAL** | | | | **$83,830,000** |

## DEBT CAPACITY

**2014 BOND ASSESSED VALUATION: $5,199,203,003**

General Obligation Debt Capacity (5%) of Assessed Valuation: $259,960,150

Less: Outstanding General Obligation Bonds**: ($83,830,000)

Cash and Investments in the Debt Service fund: $ 4,491,469.83

*Remaining Debt Capacity: $176,130,150*

** Includes $0 of outstanding conditional sales agreements.

Comparison to estimated project costs to be included in TBD bond authorization (escalated to TBD):

Total amount to be determined on final review of replacement/ modernizations by district.

*Total Funds Required: $TBD*

See Chapter VIII for detailed description of costs.

As shown above, the net available bonding capacity of the school district is less than the total funds required.

## PROJECTED TAX RATES FOR THE BOND ISSUES FOR THE BAINBRIDGE ISLAND SCHOOL DISTRICT

Final Tax Levy Amount and Rate Projection to be determined.

# 05 SCHOOL HOUSING EMERGENCY

The existence of a school housing emergency.

The Bainbridge Island School District does not have a school housing emergency due to natural disaster or limits of bonding capacity at this time (to meet OSPI requirements for additional funding.) See Chapter 01 for a detailed description of deficiencies and program needs.

# 06 ANALYSIS OF RACIAL BALANCE

The need to improve racial balance and/ or to avoid creation or aggravation of racial imbalance.

Bainbridge Island School District does not currently have racial imbalance at their facilities. Proposed facilities will neither relieve nor aggravate any racial distributions within the community.

# 06 ANALYSIS OF RACIAL BALANCE

| SCHOOL YEAR | GRADE LEVEL | AMERICAN INDIAN | | ASIAN | | AFRICAN AMERICAN | | HISPANIC | | CAUCASIAN | | PACIFIC ISLANDER | | MULTIRACIAL | | NOT PROVIDED | | TOTAL NUMBER OF STUDENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | |
| 2015 | Pre-K | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 28 | 15 | 0 | 0 | 1 | 1 | 0 | 0 | 48 |
| 2015 | K1 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 43 | 37 | 0 | 0 | 1 | 3 | 0 | 0 | 89 |
| 2015 | K2 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 3 | 40 | 27 | 0 | 0 | 3 | 6 | 0 | 0 | 83 |
| 2015 | 1 | 1 | 1 | 4 | 4 | 0 | 1 | 10 | 8 | 104 | 98 | 0 | 0 | 13 | 10 | 0 | 0 | 254 |
| 2015 | 2 | 1 | 2 | 5 | 1 | 0 | 1 | 11 | 6 | 99 | 92 | 0 | 0 | 16 | 14 | 0 | 0 | 248 |
| 2015 | 3 | 1 | 0 | 3 | 4 | 2 | 0 | 8 | 10 | 109 | 100 | 1 | 0 | 9 | 12 | 0 | 0 | 259 |
| 2015 | 4 | 1 | 1 | 4 | 6 | 1 | 1 | 12 | 12 | 117 | 104 | 0 | 0 | 19 | 9 | 0 | 0 | 287 |
| 2015 | 5 | 1 | 1 | 3 | 3 | 1 | 1 | 13 | 9 | 122 | 140 | 0 | 1 | 5 | 13 | 0 | 0 | 313 |
| 2015 | 6 | 0 | 2 | 3 | 10 | 0 | 0 | 15 | 14 | 133 | 112 | 0 | 0 | 13 | 10 | 0 | 0 | 312 |
| 2015 | 7 | 1 | 0 | 6 | 6 | 3 | 1 | 14 | 8 | 126 | 117 | 0 | 0 | 22 | 12 | 0 | 0 | 316 |
| 2015 | 8 | 1 | 3 | 4 | 7 | 1 | 0 | 10 | 7 | 114 | 103 | 1 | 0 | 9 | 20 | 0 | 0 | 280 |
| 2015 | 9 | 1 | 1 | 4 | 8 | 1 | 3 | 7 | 17 | 140 | 150 | 1 | 0 | 15 | 20 | 0 | 0 | 368 |
| 2015 | 10 | 0 | 0 | 10 | 8 | 1 | 0 | 9 | 13 | 151 | 133 | 0 | 0 | 14 | 9 | 0 | 0 | 348 |
| 2015 | 11 | 2 | 0 | 9 | 10 | 2 | 2 | 7 | 8 | 156 | 148 | 0 | 0 | 7 | 11 | 0 | 0 | 362 |
| 2015 | 12 | 1 | 0 | 3 | 5 | 2 | 2 | 7 | 6 | 139 | 143 | 0 | 0 | 10 | 11 | 0 | 0 | 329 |
| | | | | | | | | | | | | | | | | | | |
| **TOTAL** | | **11** | **12** | **61** | **74** | **15** | **12** | **127** | **122** | **1621** | **1519** | **3** | **1** | **157** | **161** | **0** | **0** | **3896** |
| | | | | | | | | | | | | | | | | | | |
| **PERCENTAGE OF DISTRICT ENROLLMENT** | | **0.28%** | **0.31%** | **1.57%** | **1.90%** | **0.39%** | **0.31%** | **3.26%** | **3.13%** | **41.61%** | **38.99%** | **0.08%** | **0.03%** | **4.03%** | **4.13%** | **0.00%** | **0.00%** | **100.00%** |

# 07 NEED FOR NEW FACILITIES/ADDITIONS

The type and extent of new and/or additions to existing school facilities required and the urgency of the need for such facilities.

:: List all new facilities or additions needed to support the long-term educational plan and any construction phases necessary to achieve the plan.

## OVERVIEW

To determine the ability of the existing spaces to meet educational needs, a model school program template was developed for elementary, intermediate, middle, high school and the options school for the maximum student enrollment projected in the demographic analysis.

While many of the district school buildings approach the current academic standards for space with a combination of permanent and portable structures, some fall short of meeting square footage requirements for maximum enrollment.

With the completion of the 200 building on the Bainbridge High School campus in 2008, classroom and building deficiencies were addressed, as was the need to expand the core facilities of administration, library, food service and student services to align with the demands of enrollment. Further, the replacement facility for Wilkes Elementary addressed un-housed need and deteriorating facility conditions, but at the same time created inequity when compared to the two other facilities serving the PK-4 population in the school district.

## ANALYSIS

There are currently four facilities whose current configuration and state of infrastructure would benefit from complete replacement of their current academic buildings or major renovations and/or additions:

:: Captain Johnston Blakely Elementary School
:: Elizabeth Ordway Elementary School
:: The 100 Building on the Bainbridge High School Campus
:: Commodore Options School

The assessment of the various buildings, including recommendations for additional/new-in-lieu facilities or modernization, is organized by grade level as follows:

ELEMENTARY SCHOOLS

:: Captain Johnston Blakely Elementary School
:: Elizabeth Ordway Elementary School

INTERMEDIATE | MIDDLE SCHOOLS

:: Beyond a dedicated cafeteria space at Sakai Intermediate School and additional permanent classroom space at Woodward Middle School, there is not a significant need for new facilities or additions at these grade levels.

HIGH SCHOOL

:: Bainbridge Island High School

OPTIONS SCHOOL

:: Commodore Options School

## CAPTAIN JOHNSTON BLAKELY ELEMENTARY SCHOOL

Blakely Elementary School needs additional space to meet the programmatic need of the school at maximum enrollment. The school is served by four portable structures in addition to the permanent facility. The buildings are deficient in space for academic instruction, shared learning, physical education and administration. The school does not have a commons or cafeteria space, and there is no appropriate space to accommodate the music or OP|PT program. The building is fifty years old and is beyond its serviceable life. The OSPI rating falls into the poor category for the building. The exterior walls are in fair condition, but a majority of the windows are not insulated. The covered play structure does not meet current seismic codes and could be a safety issue in the event of an earthquake. The building infrastructure, in particular the HVAC system and controls, and the hot water piping for heating and domestic water supply, have deteriorated and need to be replaced. The school's phone and intercom systems need to be replaced, and the technological backbone needs to be upgraded to meet current networking standards. There is no automatic fire suppression system or smoke detection system in the building. The boiler room water heater needs to be replaced.

Due to the extent of physical and functional deficiencies (refer to the analysis in Chapter 01), the District has decided to pursue replacement of the facility rather than pursuing an extensive modernization of the existing building. (See Chapter 08 for cost comparison of remodeling and expanding the existing facility versus building a new facility). The existing building is composed of a series of additions and renovations, which could make modernization difficult and expensive. In consideration of the extent of physical and functional deficiencies, the District should pursue a new-in-lieu facility rather than modernization of the existing building.

**OPTION 01 (COSTS ARE STATED IN TOTAL PROJECT COSTS)**

Address Summary of Findings

$28,821,865

**OPTION 02**

Gut and infill

14,700 GSF

Renovate

28,805 GSF

New Additions:

Classrooms, cafeteria/kitchen, gymnasium, core

21,645 GSF

Total

65,150 GSF $38,156,500

**OPTION 03**

New-in-lieu

65,150 GSF $38,964,667

## ELIZABETH ORDWAY ELEMENTARY SCHOOL

Until the new building was finished in 2011 for Wilkes Elementary School, Ordway Elementary School was the newest elementary school in the district and therefore had the least amount of renovation and addition work since its original construction. The school serves the K-4 functional skills population for the entire school district and the space needs for the program are not being met with the existing facility. The school has three portable classrooms in addition to the permanent building. The gymnasium does not accommodate a standard basketball court and there is no space to support the OT|PT program. There are no shared learning spaces in the building and there is no cafeteria space. Eating activities happen in the classroom and result in a loss of instructional time. The OSPI rating falls into the poor category for the building.

Deficiencies in the building infrastructure include the need for structural modifications to meet current seismic codes, replacement of the electrical distribution system, replacement of the master clock and intercom system and replacement of the entire HVAC and controls system. Due to the extent of physical and functional deficiencies (refer to Chapter 01), the District may decide to pursue replacement of the facility rather than pursuing an extensive modernization of the existing building. (See Chapter 08 for cost comparison of renovation, additions or replacement of the existing facility). While the programmatic needs of the school could be met with additions and modernizations, the extent and intrusiveness of the structural modification necessary would make this a difficult and expensive option. In consideration of the extent of physical and functional deficiencies, the District should eventually pursue a new-in-lieu facility rather than the modernization of the existing building.

**OPTION 01 (COSTS ARE STATED IN TOTAL PROJECT COSTS)**

Address Summary of Findings
$29,817,343

**OPTION 02**

Renovate
31,900 GSF

New Additions:

Classrooms, cafeteria/kitchen, gymnasium, core

35,230 GSF

Total
67,130 GSF $38,090,158

**OPTION 03**

New-in-lieu
67,130 GSF $38,891,842

## SONOJI SAKAI INTERMEDIATE SCHOOL

Sonoji Sakai Intermediate School serves the 5th and 6th grade populations of the island. The school was built in 1999. To accommodate an enrollment of 600 students, the existing building has a classroom deficiency of approximately 3,800 GSF, primarily to serve the need for shared learning, which is an essential element in the educational vision of the school district. Sakai was originally planned with a grouping of four to five classrooms around a shared learning space. Unfortunately, all of the shared learning spaces have been converted to general education classrooms. Additionally, the school building was constructed without a cafeteria space. Eating activities are forced to occur either in the PE space or in the classroom. Neither situation is ideal and reduces valuable teaching time on a daily basis, in addition to compromising the use of the gymnasium for a significant portion of the school day.

Other deficiencies in the building include general life-cycle replacement of systems related to HVAC, plumbing, telecommunications, technology and finishes. Some improvement to the site vehicular patterns could improve safety on-site.

**OPTION 01 (COSTS ARE STATED IN TOTAL PROJECT COSTS)**

Address Summary of Findings
$2,557,465

**OPTION 02**

New Additions:

Shared learning space & cafeteria
8,864 GSF

Total New Square Feet
8,864 GSF $5,325,387

## WOODWARD MIDDLE SCHOOL

Woodward Middle School serves the 7th and 8th grade populations of the island. The school was built in 1994. To accommodate an enrollment of 650 students, the existing building has a classroom deficiency of four classrooms or approximately 4,300 GSF.

Other deficiencies in the building include general life-cycle replacement of systems related to HVAC, plumbing, telecommunications, technology and finishes. Some improvement to the site vehicular patterns, especially in the area of the drive access to the site, could improve safety on-site. Stormwater upgrades are also needed on this site.

**OPTION 01 (COSTS ARE STATED IN TOTAL PROJECT COSTS)**

Address Summary of Findings
$13,510,203

**OPTION 02**

New Additions:

Add four new classrooms
4,300 GSF

Total New Square Feet
4,300 GSF $3,328,237

## BAINBRIDGE HIGH SCHOOL

The Bainbridge High School (BHS) campus has had several modernization and upgrade projects within the last 20 years. The most recent addition was a replacement building for the 200 Building, which replaced approximately 35,000 GSF of space with approximately 70,000 GSF of new space. This included administration, technology classroom space, student services, library, food service, commons and eighteen core classroom spaces, meeting the need for food service and core facilities for the maximum enrollment on campus. There still is a need for performance space and upgrades to the Career and Technology Education (CTE) programs, as well as accommodation for the functional skills program.

One of the five buildings that make up the high school campus dates from 1970. This building has received only minor improvements over the last 44 years and is approaching the end of its serviceable life. The 100 Building houses art classrooms, special services and functional skills space, some general education space and the large group instruction (LGI) space. Immediate postpone, patch and repair needs are itemized in Chapter 08 and include numerous infrastructure issues related to health and life safety, building codes and general systems replacement.

Immediate asset preservation needs at the 300 and 400 Buildings include fire alarm system upgrades, plumbing fixture replacement, telecommunications systems upgrades and HVAC improvements. The 500 building has similar systems upgrades that are needed as well as some exterior repairs required to prevent water intrusion into the building. The gymnasium in the 500 Building also needs to be completely refurbished. There is currently no need for new facilities and/or additions to existing facilities at the 200, 300, 400 and 500 buildings.

The extent of the deficiencies in the 100 Building (refer to the analysis in Chapter 01) may persuade the school district to pursue replacement of this building rather than pursuing an extensive modernization of this building. (See Chapter 08 for a cost comparison of remodeling the facility versus building a new building).

For clarity, options for addressing BHS are presented on an individual building basis below.

**100 BUILDING - OPTION 01 (COSTS ARE STATED IN TOTAL PROJECT COSTS)**

Address Summary of Findings
$15,378,622

**OPTION 02**

New-in-lieu
46,385 GSF $29,970,214

# 08 COST|BENEFIT ANALYSIS

A cost-benefit analysis on the need to modernize and/or replace existing school facilities in order to meet current education needs and the current state building code.

:: Describe the modernization needs for each and every school facility. List deficiencies and recommended actions. Provide a cost breakdown on a system and subsystem basis. If state funds are requested, provide the required cost-benefit analysis.

# 08 COST|BENEFIT ANALYSIS

## METHODOLOGY

The evaluation of existing facilities was conducted over the summer months of 2014 and reconfirmed with the school district the following spring. The assessment followed site visits to each facility in addition to meetings with district administrative and maintenance personnel. Further, the following documents were referenced to complete the basis of evaluation for each facility:

:: Washington State Building Code (Washington State has adopted the 2012 International Building Code with amendments)
:: Bainbridge Island Municipal Code:
  Title 15 Buildings and Construction
  Title 16 Environment
  Title 18 Zoning
  Title 20 Fire Code
:: Americans with Disabilities Act (Washington State has adopted Appendix E and ICC/ANSI A117-1.2009, and the 2012 International Existing Building Code).
:: High Performance School Facilities – Washington Sustainable Schools Protocol
:: 2005 District-wide Study and Survey – by the School District

Following review of the evaluations and meetings with district personnel, each facility was studied in depth to prepare prescriptive modernization plans. The following five (5) cost analysis scenarios were developed for each site:

:: **Summary of Findings** – Present physical deficiencies, organized by site, building health|life safety, building infrastructure, life cycle replacement and repair, and educational program deficiencies.
:: **Additions and Modernizations** – to meet established model program
:: **New-in-Lieu** - New facility meeting established model program
:: **Postpone, Patch & Repair** – Address immediate facility needs absent any physical additions to the existing facility
:: **Other Considerations** – Facility infrastructure upgrades that will likely be required within the next 5 to 10 years

Detailed spreadsheets for each of these scenarios are included at the end of this chapter, organized by school.

### BLAKELY ELEMENTARY SCHOOL

Blakely Elementary School will require significant modernization or complete replacement to meet the district model program for an elementary school at full capacity. The Summary of Findings improvements address site, health and life-safety, infrastructure, finishes renewal, and educational program needs in order to preserve basic operational and maintenance, while addressing space program needs in the facility. The total modernization costs assume that the final area of the facility will accommodate the spaces outlined in the model program.

COST SUMMARY

Summary of Findings
$33,821,865

Additions | Modernizations
$38,156,500

New-in-Lieu
$38,964,667

Postpone, Patch & Repair
$3,947,625

Other Considerations
$1,509,452

### ORDWAY ELEMENTARY SCHOOL

Ordway Elementary School will require significant modernization or complete replacement to meet the district model program for an elementary school at full capacity. The Summary of Findings improvements address site, health and life-safety, infrastructure, finishes renewal, and educational program needs in order to preserve basic operational and maintenance, while addressing space program needs in the facility. The total modernization costs assume that the final area of the facility will accommodate the spaces outlined in the model program.

COST SUMMARY

Summary of Findings
$29,817,343

Additions | Modernizations
$38,090,158

New-in-Lieu
$38,891,842

Postpone, Patch & Repair
$2,180,760

Other Considerations
$4,397,809

### SAKAI INTERMEDIATE SCHOOL

Building systems in need of improvement | replacement are described in the attached Summary of Findings spreadsheet. Sakai Intermediate School was built in 1999 and is in need of minor site upgrades and building health | life safety upgrades. A dedicated cafeteria and some classroom space is needed to fulfill the needs of the model program. The facility is at an age where minor infrastructure items are required because some systems are at the end of their expected life. The Summary of Findings improvements address site, health and life-safety, infrastructure, finishes renewal, and educational program needs in order to preserve basic operational and maintenance, while addressing space program needs in the facility. Immediate needs at this facility have been identified as Immediate Asset Preservation in the capital cost spreadsheets. The total modernization costs assume that the final area of the facility will accommodate the spaces outlined in the model program. All costs are stated in terms of total project cost.

COST SUMMARY

Summary of Findings
$2,557,465

Additions | Modernizations
$5,325,387

Immediate Asset Preservation
$599,343

Asset Considerations
$1,566,963

### WOODWARD MIDDLE SCHOOL

Building systems in need of improvement | replacement are described in the attached Summary of Findings spreadsheet. Woodward Middle School was built in 1994 and is in need of minor site upgrades and building health | life safety upgrades. Permanent classroom space is needed to replace the modular classrooms on the site which are beyond their useful life. The facility is at an age where minor infrastructure items are required because some systems are at the end of their expected life. The Summary of Findings improvements address site, health and life-safety, infrastructure, finishes renewal, and educational program needs in order to preserve basic operational and maintenance, while addressing space program needs in the facility. Immediate needs at this facility have been identified as Immediate Asset Preservation in the capital cost spreadsheets. The total modernization costs assume that the final area of the facility will accommodate the spaces outlined in the model program. All costs are stated in terms of total project cost.

COST SUMMARY

Summary of Findings
$13,510,203

Additions | Modernizations
$3,328,237

Immediate Asset Preservation
$1,421,537

Asset Considerations
$6,780,597

### BAINBRIDGE HIGH SCHOOL

The Bainbridge High School (BHS) campus is comprised of 6 buildings housing a variety of teaching spaces. Building systems in need of improvement | replacement are described in the attached Summary of Findings spreadsheet. The 100 Building is the oldest building on campus and is in need of substantial modernization or complete replacement. The Summary of Findings improvements address site, health and life-safety, infrastructure, finishes renewal, and educational program needs in order to preserve basic operational and maintenance. Immediate needs at each building have been identified as Immediate Asset Preservation in the capital cost spreadsheets. The total modernization costs assume that the final area of the facility will accommodate the spaces outlined in the model program. All costs are stated in terms of total project cost.

COST SUMMARY – 100 BUILDING

Summary of Findings
$15,378,622

New-in-Lieu
$29,970,214

Postpone, Patch & Repair
$8,452,844

COST SUMMARY – 300 BUILDING

Summary of Findings
$6,690,254

Immediate Asset Preservation
$653,756

COST SUMMARY – 400 BUILDING

Summary of Findings
$4,124,149

Immediate Asset Preservation
$145,846

COST SUMMARY – 500 BUILDING

Summary of Findings
$10,756,027

Immediate Asset Preservation
$3,665,317

### COMMODORE OPTIONS SCHOOL

The original building housing the Commodore Options School dates from 1948 with additions in 1949, 1970, 1978 and 1981. Building systems in need of improvement | replacement are described in the attached Summary of Findings spreadsheet. The Summary of Findings improvements address site, health and life-safety, infrastructure, and finishes renewal needs in order to preserve basic operational and maintenance. The school district has no immediate plans to modernize or replace this facility, so in addition to the total Summary of Findings, a separate category designated as Postpone, Patch & Repair prioritizes the systems upgrades at this facility. All costs are stated in terms of total project cost.

COST SUMMARY – COMMODORE OPTIONS SCHOOL

Summary of Findings
$9,338,651

New-in-Lieu
$33,097,790

Postpone, Patch & Repair
$5,524,225

## RECOMMENDATION

The last bond for the Bainbridge Island School District was passed in 2009 for $42 million. The major capital project funded with this bond was to replace Wilkes Elementary School.

### GOALS FOR DESIGN AND CONSTRUCTION IMPLEMENTATION

:: Replace or Modernize Blakely Elementary School
:: Update the 2006 District-wide Master Plan to continue to strategically and methodically implement facilities improvements to support academic achievement.
:: Replace or modernize the 100 Building on the High School campus.
:: Immediately address "Postpone, Patch & Repair" along with "Other Considerations" items identified at Ordway Elementary School related to Building Infrastructure and the addition of a cafeteria.
:: Address "Immediate Asset Preservation" items and "Asset Considerations" at Sakai Intermediate School and add a cafeteria.
:: Address "Immediate Asset Preservation" items and "Asset Considerations" at Woodward Middle School, replace modular classrooms with permanent structure, add a cafeteria.
:: Address "Immediate Asset Preservation" items at the 300, 400 and 500 Buildings on the High School Campus.
:: Address "Postpone, Patch & Repair" items at Commodore Options School.

## DEFINITIONS

### POSTPONE, PATCH & REPAIR
Issues identified in the Summary of Findings in need of immediate repair or replacement.

### IMMEDIATE ASSET PRESERVATION
Issues identified in the Summary of Findings that are in need of immediate repair or replacement to preserve an existing school district asset.

### EDUCATIONAL PROGRAM (BUILDING ADDITIONS)
Identified in the Summary of Findings as Educational Program. This represents building additions of core space needed to satisfy School District curriculum comparable to similar school facilities state-wide.

### PHYSICAL ASSESSMENT
In addition to the program assessment for the Bainbridge Island School District Schools, a building assessment was developed for each site as a component of renewing the state-required 2006 Study and Survey in accordance with WAC 392-341-025.

The assessment and resultant findings were generated following site visits by the design and engineering consultants, along with principal and district capital and maintenance personnel.

Four (4) of the district's existing facilities: Blakely Elementary School, Ordway Elementary School, the south wing of Commodore Options School and the 100 Building on the Bainbridge High School campus, were identified as being in poor condition relative to OSPI evaluation criteria.

### PROGRAM ASSESSMENT
A building program is a numeric representation of the size and quantity of all spaces required to satisfy the stated vision and curriculum needs and goals of the School District.

To begin to evaluate the ability of the existing spaces at all schools to meet the educational needs, interviews were held with the superintendent and assistant superintendent. Subsequent to these interviews, model programs that were developed during the first master planning process have been confirmed and slightly modified, using the District vision, potential legislative changes and regional data as a guide for Elementary, Intermediate, Middle, High and Options School programs at the Bainbridge Island School District.

The model programs provide the basis for the space assessments at each of the school sites in the District. It is anticipated that the assumed standards for school programs will be verified once Education Specifications are developed as an initial exercise in an architectural design process.

## SUMMARY OF FINDINGS & CAPITAL COSTS CATEGORIES

Site Findings
Building Findings- Accessibility (ADA), Health, Life Safety
Building Findings-Infrastructure
Life Cycle Replacement and Repair
Educational Program
Legislative

## NON-CONSTRUCTION RELATED COSTS

### HARD "SOFT" COSTS

Architect/Engineer/Consultant Fees
Owner Consultants
Washington State Sales Tax (WSST)
Testing and Inspection
Permits
Builders Risk Insurance
Furniture, Fixtures and Equipment (FF&E)
Construction Administration Management
Staff Planning and Moving
Sustainable Schools Monitoring (State Match Requirement)
Construction Contingency
Contingency (Legal, Jurisdictional)

### VARIABLE "SOFT"COSTS

Construction Administration Management
- :: Capital Projects Staffing
- :: Legal Fees
- :: Administrative Support
- :: Bond Issuance Fees

THE ROBINSON COMPANY

# BAINBRIDGE ISLAND SCHOOL DISTRICT
# MASTER PLAN
# April 2015

**Recommended Project Development "Soft" Costs See List Below**

| | New/Replace | Add/Mod | Findings/Small Works |
|---|---|---|---|
| **Project Development "Soft" Costs vary dependent on size and scope of project.** | | | |
| Architect/Engineer/Consultant Fees | 12.5% | 15% | 17% |
| Owner Consultants | 3% | 2% | 2% |
| Washington State Sales Tax | 8.7% | 8.7% | 8.7% |
| Testing & Inspection | 1.5% | 1.5% | 0.0% |
| Permits | 1.0% | 1.0% | 1.0% |
| Builders Risk Insurance | 0.50% | 0.50% | 0.33% |
| Furnishings & Equipment (Prox. $15.00/SF + WSST) | 7.0% | 5.0% | 2.0% |
| Construction Administration/Management | 2.0% | 5.0% | 5.0% |
| Moving/Staff Planning Costs | 1.0% | 0.5% | 0.0% |
| Sustainable Schools Monitoring/Reporting | 0.5% | 0.5% | 0.0% |
| **Sub-Total Project Development Costs** | **38%** | **40%** | **36%** |
| **Project Development "Soft" Cost Contingencies** | | | |
| Construction Contingency | 7.5% | 12.0% | 15.0% |
| Project Contingency (Legal, Jurisdictional) | 3.0% | 3.0% | 3.0% |
| **Sub-Total Project Contingencies** | **11%** | **15.0%** | **18.0%** |
| **Total Project Development "Soft" Costs** | **48.2%** | **55%** | **54%** |

**Exclusions/Items Not Budgeted**

Wetlands Mitigation
Land Acquisition
Special Foundations/Piling
Unsuitable Soil Mitigation/Over-excavation/Structural Fill
Covered Walks
Latecomer Fees

***Escalation Rates***

April 2015 - April 2016 - 4% per year
April 2106 - April 2017 - 4.5% per year
April 2017 - April 2018 - 4.5% per year
April 2018 - April 2019 - 4% per year
April 2019 - April 2020 - 3% per year

# BLAKELY ELEMENTARY SCHOOL

## COST SHEETS

**BLAKELY ELEMENTARY SCHOOL**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1965 Original Building | 34,054 GSF |
| 1989 Classroom Additions | 7,242 GSF |
| 1993 Additions and Upgrades | 1,009 GSF |
| Covered Play Structure (@ 50%) | 1,200 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **SITE FINDINGS** | | | |
| Provide separate bus loop drive | 224,378 | 243,899 | 254,669 |
| Provide fire lane access | 392,152 | 426,269 | 445,092 |
| Extend fire loop and add 6 fire hydrants | 383,482 | 416,845 | 435,253 |
| Provide fire water storage - Allowance | 336,567 | 365,848 | 382,004 |
| Modify student load and unloading | 118,308 | 128,601 | 134,280 |
| Provide/modify ADA ramps/walkways | 138,298 | 150,330 | 156,969 |
| Replace all playground equipment to District Standards | 183,582 | 199,554 | 208,366 |
| Redesign and improve site stormwater management | 1,223,880 | 1,330,358 | 1,389,104 |
| **Site Findings Subtotal** | **$3,000,648** | **$3,261,704** | **$3,405,735** |
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Install fire sprinkler system | 265,174 | 288,244 | 300,972 |
| Replace fire alarm system | 122,388 | 133,036 | 138,910 |
| Replace intercom system | 15,299 | 16,629 | 17,364 |
| Allowance to upgrade toilet fixtures to ADA compliance. Assume half of all plumbing fixtures replaced | 101,990 | 110,863 | 115,759 |
| Architectural Patch and Repair at Toilet Rooms | 265,174 | 288,244 | 300,972 |
| Allowance to upgrade building to ADA compliance | 431,469 | 469,006 | 489,717 |
| Abate building of asbestos containing material | 302,028 | 328,305 | 342,802 |
| Architectural Patch and Repair for Abatement/Mech/Elect/Seismic | 690,350 | 750,410 | 783,547 |
| Upgrade egress lighting | 30,597 | 33,259 | 34,728 |
| Upgrade exterior emergency lighting | 12,239 | 13,304 | 13,891 |

| | | | |
|---|---|---|---|
| Provide keyless entry (card) at exterior doors | 71,393 | 77,604 | 81,031 |
| Replace classroom HVAC unit ventilators (indoor air quality, noise, comfort issues) Classrooms Only/Conventional System | | | |
| ***Not Feasible $800,000 Plus Mark-ups*** | 0 | 0 | 0 |
| Replace classroom HVAC unit ventilators (indoor air quality, noise, comfort issues) Entire School/Conventional System | | | |
| ***Not Feasible $1,100,000 Plus Mark-ups*** | 0 | 0 | 0 |
| Replace classroom HVAC unit ventilators (indoor air quality, noise, comfort issues) Entire School/Geothermal System | | | |
| ***Not Feasible $2,400,000 Plus Mark-ups*** | 0 | 0 | 0 |
| Replace floor and wall coverings (indoor air quality issue) | 623,472 | 677,714 | 707,641 |
| **Building Findings - Health \| Life Safety Subtotal** | **$1,691,572** | **$1,838,739** | **$1,919,935** |

| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
|---|---|---|---|
| Provide lateral and shear support to meet current earthquake code requirements | 664,975 | 722,828 | 754,746 |
| Structural modifications and upgrades to support program and system modernizations - Cut & Patch Included in Accessibility | 844,477 | 917,947 | 958,482 |
| Replace water heaters | 81,592 | 88,691 | 92,607 |
| Replace plumbing fixtures - Cost includes half of all fixtures - See ADA Upgrades for remaining fixture replacement costs | 81,592 | 88,691 | 92,607 |
| Address hot water recirculation pumps for timely delivery of water to sinks and lavatories | 24,478 | 26,607 | 27,782 |
| Upgrade lighting and controls per current energy code | 713,930 | 776,042 | 810,311 |
| Replace building boilers | 509,950 | 554,316 | 578,793 |
| Replace building controls system | 611,940 | 665,179 | 694,552 |
| Replace electrical distribution system to comply with code | 326,368 | 354,762 | 370,428 |
| Upgrade technology to District standards | 224,378 | 243,899 | 254,669 |
| **Building Findings - Infrastructure Subtotal** | **$4,083,680** | **$4,438,960** | **$4,634,976** |

| | | | | |
|---|---|---|---|---|
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | | |
| Allowance for renewal upgrades (casework, painting) | | 776,644 | 844,212 | 881,491 |
| **Life Cycle Replacement and Repair Subtotal** | | **$776,644** | **$844,212** | **$881,491** |
| **EDUCATIONAL PROGRAM** | | | | |
| Add Cafeteria and modernize food service (size similar to Wilkes) | Minor | | | |
| Renovate/Tie-in 6,852 SF | | 7,877,161 | 8,562,474 | 8,940,578 |
| Add "cafeteria" (modular quality) | | 968,905 | 1,053,200 | 1,099,707 |
| Add Music Room (size similar to Wilkes, relocate from portable) | | | | |
| 1550 GSF | | 1,787,252 | 1,942,743 | 2,028,531 |
| Add two (2) Kindergarten classrooms with toilets (3,147 GSF) | | 3,127,013 | 3,399,064 | 3,549,160 |
| Collaboration and small group learning spaces | 5,000 | | | |
| GSF Modernization and 4,950 GSF Addition | | 5,508,990 | 5,988,272 | 6,252,703 |
| **Educational Program Subtotal** | | **$19,269,322** | **$20,945,753** | **$21,870,680** |
| **TOTAL SUMMARY OF FINDINGS** | | | | |
| **TOTAL SUMMARY OF FINDINGS** | | **$28,821,865** | **$31,329,367** | **$32,712,817** |
| **POTENTIAL LEGISLATIVE MEASURES TO REDUCE CLASS SIZE** | | | | |
| **McCleary Bill** | | | | |
| 5 New Classrooms K-4 (5,780 GSF) | | 2,770,660 | 3,011,708 | 3,144,699 |
| Storm Detention/Water Quality Upgrades | | | | |
| (Additional to Summary of Findings) | | 1,667,537 | 1,812,612 | 1,892,654 |
| **McCleary Bill Total** | | **$4,438,197** | **$4,824,320** | **$5,037,353** |
| **TOTAL SUMMARY OF FINDINGS AND McCLEARY BILL** | | | | |
| **TOTAL SUMMARY OF FINDINGS AND McCLEARY BILL** | | **$33,260,062** | **$36,153,687** | **$37,750,170** |
| **TOTAL POSTPONE, PATCH & REPAIR** | | | | |
| **TOTAL POSTPONE, PATCH & REPAIR** | | **3,947,625** | **$4,291,068** | **$4,480,554** |
| **TOTAL OTHER CONSIDERATIONS** | | | | |
| **TOTAL OTHER CONSIDERATIONS** | | **$1,509,452** | **$1,640,774** | **$1,713,228** |

**BLAKELY ELEMENTARY SCHOOL**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1965 Original Building | 34,054 GSF |
| 1989 Classroom Additions | 7,242 GSF |
| 1993 Additions and Upgrades | 1,009 GSF |
| Covered Play Structure (@ 50%) | 1,200 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **SITE FINDINGS** | | | |
| Provide separate bus loop drive | 224,378 | 243,899 | 254,669 |
| Provide fire lane access | 392,152 | 426,269 | 445,092 |
| Extend fire loop and add 6 fire hydrants | 383,482 | 416,845 | 435,253 |
| Provide fire water storage - Allowance | 336,567 | 365,848 | 382,004 |
| Modify student load and unloading | 118,308 | 128,601 | 134,280 |
| Provide/modify ADA ramps/walkways | 138,298 | 150,330 | 156,969 |
| Replace all playground equipment to District Standards | 183,582 | 199,554 | 208,366 |
| Redesign and improve site stormwater management | 1,223,880 | 1,330,358 | 1,389,104 |
| **Site Findings Subtotal** | **$3,000,648** | **$3,261,704** | **$3,405,735** |
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Install fire sprinkler system | 265,174 | 288,244 | 300,972 |
| Replace fire alarm system | 122,388 | 133,036 | 138,910 |
| Replace intercom system | 15,299 | 16,629 | 17,364 |
| Allowance to upgrade toilet fixtures to ADA compliance. Assume half of all plumbing fixtures replaced | 101,990 | 110,863 | 115,759 |
| Architectural Patch and Repair at Toilet Rooms | 265,174 | 288,244 | 300,972 |
| Allowance to upgrade building to ADA compliance | 431,469 | 469,006 | 489,717 |
| Abate building of asbestos containing material | 302,028 | 328,305 | 342,802 |
| Architectural Patch and Repair for Abatement/Mech/Elect/Seismic | 690,350 | 750,410 | 783,547 |
| Upgrade egress lighting | 30,597 | 33,259 | 34,728 |
| Upgrade exterior emergency lighting | 12,239 | 13,304 | 13,891 |

# Elementary School Program Comparison

| | ELEMENTARY SCHOOL MODEL PROGRAM | | BLAKELY ELEMENTARY EXISTING PROGRAM | | ORDWAY ELEMENTARY EXISTING PROGRAM | |
|---|---|---|---|---|---|---|
| | T STA | SF | T STA | SF | T STA | SF |
| CORE INSTRUCTION | 19 | 22,720 | 16 (2) [1] | 14,430 | 16 (3) [4] | 15,089 |
| SPECIAL EDUCATION | 3 | 3,000 | 1 (1) [2] | 628 | 2 | 2,849 |
| FUNCTIONAL SKILLS | 1 | 1,510 | | | 1 | 897 |
| ARTS/SCIENCE/MUSIC/TECH | 4 | 4,550 | 2 (1) [3] | 2,615 | 2 | 2,007 |
| LIBRARY / MEDIA CENTER | 1 | 2,800 | 1 | 2,934 | 1 | 2,455 |
| PHYSICAL EDUCATION | 1 | 5,960 | 1 | 3,490 | 1 | 3,736 |
| FOOD SERVICE | | 650 | | 752 | | 559 |
| COMMONS/CAFETERIA | | 4,110 | | | | |
| ADMINISTRATION | | 1,420 | | 1,229 | | 1,392 |
| STUDENT SERVICES | 3 | 1,000 | 2 | 1,212 | 1 | 513 |
| FACULTY / STAFF SUPPORT | | 660 | | 595 | | 1,246 |
| BUILDING SUPPORT | | 2,850 | | 2,345 | | 8,425 |
| NON-SCHOOL USE | | | | | 2 [5] | 2,018 |
| BUILDING ASSIGNABLE SF (without Functional Skills) | | 49,720 | | 30,230 | | 41,186 |
| UNASSIGNABLE AREAS | | 15,430 | | 13,275 | | 13,132 |
| **TOTAL BUILDING Gross Square Footage (without Functional Skills)** | | **65,150** | | **43,505** | | **54,318** |
| Number of Teaching Stations (no Functional Skills) | 31 | | (4) | 23 | | 26 |
| Number of Students | 450 | | | 383 [6] | | 410 [6] |
| SF per Student without Functional Skills | 145 | | | 114 | | 132 |
| **TOTAL BUILDING Gross Square Footage (with Functional Skills)** | | **67,130** | | | | **54,318** |
| Number of Teaching Stations (w/ Functional Skills) | 32 | | | | (3) | 26 |
| Number of Students | 450 | | | | | 410 [6] |
| SF per Student with Functional Skills | 149 | | | | | 132 |
| Portion of Site Area for Play Areas/Fields | 91,200 | | | 174,352 | | 141,337 |
| Total Site Area Required | 10 acres | | | 11 acres | | 10 acres |

[1] (2) Core classrooms in portables at Blakely are not included in the total area and number of teaching stations.

[2] (1) Developmental Kindergarten classroom in a portable at Blakely is not included in the total area and number of teaching stations.

[3] (1) Music classroom in a portable at Blakely is not included in the total area and number of teaching stations.

[4] (3) Classrooms in portables at Ordway are not included in the total area and number of teaching stations. (2940 GSF)

[5] (2) Non-school Use classrooms at Ordway are included in the total area and number of teaching stations.

[6] Number of students based on BISD October 2014 enrollment.

THE ROBINSON COMPANY

# BAINBRIDGE SCHOOL DISTRICT

BLAKELY ELEMENTARY

MASTER PLAN ESTIMATE

April 2015

DRAFT

| | Gut and Infill 14,700 GSF<br>Addition 21,645 GSF<br>Renovate 28,805 GSF | | | New Construction 65,150 GSF | | |
|---|---|---|---|---|---|---|
| | April 2015 Construction Cost | Project Cost Escalated to 2018 Bid 13.5% | Project Cost Escalated to 2019 Bid 18% | Construction Cost | Project Cost Escalated to 2017 Bid 8.7% | Project Cost Escalated to 2018 Bid 13.5% |
| New Construction/Additions | $ 6,883,110 | | | $ 19,935,900 | | |
| Renovation | $ 11,528,825 | | | N/A | | |
| Site Development 9.6 Acres | $ 3,200,488 | | | $ 4,224,000 | | |
| Building Demolitions and Abatement | $ 435,050 | | | $ 435,050 | | |
| Off-Site Allowance | $ 280,000 | | | $ 280,000 | | |
| Off-Site Water Storage Tank | $ 165,000 | | | $ 165,000 | | |
| Sub-Total Construction Cost | $ 22,492,473 | | | $ 25,039,950 | | |
| Island Premium 5% | $ 1,124,624 | | | $ 1,251,998 | | |
| Portables Allowance | $ 1,000,000 | | | $ - | | |
| **Total Construction Cost** | **$ 24,617,097** | **$ 43,307,627** | **$ 45,024,670** | **$ 26,291,948** | **$ 43,583,504** | **$ 45,508,075** |
| 5 New Classrooms K-4 (McCleary Bill) | $ 1,734,000 | | | $ 1,734,000 | | |
| **Total Construction w/McCleary Bill** | **$ 26,351,097** | **$ 46,358,167** | **$ 48,196,156** | **$ 28,025,948** | **$ 46,457,913** | **$ 48,509,412** |

Refer to General Summary Sheet for Explanation of Assumptions, Project Development Costs and Escalation Rates

Site Development Costs assumes 2.38 Acres remain undeveloped

# Blakely Elementary School :: Project Capital Costs :: April 2015 *

65,150 GROSS SQUARE FEET

| Summary of Findings | Additions \| Modernizations | New in Lieu | Postpone Patch & Repair | Other Considerations |
|---|---|---|---|---|
| $28,821,865 | $38,156,500 | $38,964,667 | $3,947,625 | $1,509,452 |

McCLEARY BILL

| Summary of Findings | Additions \| Modernizations | New in Lieu | Postpone Patch & Repair | Other Considerations |
|---|---|---|---|---|
| $33,260,062 | $40,844,200 | $41,534,455 | $3,947,625 | $1,509,452 |

* Estimates include “Soft” costs

# ORDWAY ELEMENTARY SCHOOL

## COST SHEETS

**ORDWAY ELEMENTARY SCHOOL**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1978 Original Building | 46,898 GSF |
| 1978 Covered Play Structure (@50%) | 1,806 GSF |
| 1989 Addition | 335 GSF |
| 1989 Kindergarten Building | 2,904 GSF |
| Covered Play Structure (@50%) | 2,375 GSF |
| Total | 54,318 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **SITE FINDINGS** | | | |
| Revised Bus Load and Unloading | 89,588 | 97,382 | 101,682 |
| Fire Lane Access | 36,716 | 39,911 | 41,673 |
| Pedestrian Safety Improvements | 54,055 | 58,757 | 61,352 |
| Additional Staff Parking | 72,413 | 78,713 | 82,189 |
| Stormwater Management/Detention Vault | 509,950 | 554,316 | 578,793 |
| Access Improvements | 20,398 | 22,173 | 23,152 |
| **Site Findings Subtotal** | **$783,120** | **$851,251** | **$888,841** |
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Install fire sprinkler system | 407,960 | 443,453 | 463,035 |
| Install fire pump | 203,980 | 221,726 | 231,517 |
| Pump House/Enclosure | 183,582 | 199,554 | 208,366 |
| Replace fire alarm system (fire alarm panel is outdated and discontinued) | 142,786 | 155,208 | 162,062 |
| Allowance to upgrade building to ADA compliance (including access to the stage) | 511,347 | 555,834 | 580,379 |

| | | | |
|---|---|---|---|
| Abate building of asbestos containing material | 357,943 | 389,084 | 406,265 |
| Architectural Patch and Repair for Abatement/Mech/Elect/Seismic | 818,156 | 889,335 | 928,607 |
| Upgrade exterior emergency lighting | 17,338 | 18,847 | 19,679 |
| Teaching spaces suffer from lack of quality daylighting | 550,746 | 598,661 | 625,097 |
| Replace floor and wall coverings (floor leveling required over corridor exposed aggregate floors) | 1,046,982 | 1,138,070 | 1,188,325 |
| **Building Findings - Health \| Life Safety Subtotal** | **$4,240,821** | **$4,609,772** | **$4,813,331** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Provide lateral and shear support to meet current earthquake code requirements | 636,418 | 691,786 | 722,334 |
| Structural modifications and upgrades to support program and system modernizations | 848,557 | 922,381 | 963,112 |
| Add independent air conditioning to the Computer Lab | 50,995 | 55,432 | 57,879 |
| Replace hardware at all exterior doors and provide keyless (card) access | 108,109 | 117,515 | 122,704 |
| Replace electrical distribution system to comply with code | 387,562 | 421,280 | 439,883 |
| Master clock system is not integrated into the 2010 Bogen Quantum system rack | 20,398 | 22,173 | 23,152 |
| Upgrade technology & data closets to District standards | 265,174 | 288,244 | 300,972 |
| Replace HVAC system and controls (currently return air plenum is in ceiling space; not healthy) | 3,161,690 | 3,436,757 | 3,588,518 |
| Replace plumbing fixtures in health, kitchen, special needs and gym areas | 101,990 | 110,863 | 115,759 |
| Upgrade lighting and controls to current energy code | 846,517 | 920,164 | 960,797 |
| Upgrade classroom sound reinforcement and A\|V to meet District standards | 152,985 | 166,295 | 173,638 |
| **Building Findings - Infrastructure Subtotal** | **$6,580,395** | **$7,152,889** | **$7,468,748** |

| | | | |
|---|---|---|---|
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
| Replace exterior asphalt surfaces and concrete walkways | 0 | 0 | 0 |
| Replace suspending ceiling tiles throughout | 511,347 | 555,834 | 580,379 |
| Allowance for renewal upgrades (casework, painting) | 920,425 | 1,000,502 | 1,044,682 |
| **Life Cycle Replacement and Repair Subtotal** | **$1,431,772** | **$1,556,337** | **$1,625,062** |
| **EDUCATIONAL PROGRAM** | | | |
| Add Cafeteria and modernize food service (size similar to Wilkes) (Convert existing covered play area 6,852 SF) | 5,899,289 | 6,412,527 | 6,695,693 |
| Add "cafeteria" (modular quality) | 968,905 | 1,053,200 | 1,099,707 |
| Add four (4) general classrooms (4 Class/Shared/Small Group) 6,594 GSF | 3,900,628 | 4,239,983 | 4,427,213 |
| Add acoustic separation partition between the stage and the gymnasium | 62,826 | 68,292 | 71,307 |
| Extend classroom walls to underside of roof deck | 440,597 | 478,929 | 500,077 |
| Collaboration and small group learning spaces 5,000 GSF Modernization and 4,950 GSF Addition | 5,508,990 | 5,988,272 | 6,252,703 |
| **Educational Program Subtotal** | **$16,781,235** | **$18,241,202** | **$19,046,701** |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **Total Summary of Findings** | **$29,817,343** | **$32,411,451** | **$33,842,684** |
| **POTENTIAL LEGISLATIVE MEASURES TO REDUCE CLASS SIZE** | | | |
| **McCleary Bill** | | | |
| 5 New Classrooms K-4 (5,780 GSF) | 2,770,660 | 3,011,708 | 3,144,699 |
| Storm Detention/Water Quality Upgrades (Additional to Summary of Findings) | 2,310,074 | 2,511,050 | 2,621,933 |
| **McCleary Bill Total** | **$5,080,734** | **$5,522,758** | **$5,766,633** |

| | | | |
|---|---|---|---|
| **TOTAL SUMMARY OF FINDINGS AND McCLEARY BILL** | | | |
| **TOTAL SUMMARY OF FINDINGS AND McCLEARY BILL** | **$34,898,076** | **$37,934,209** | **$39,609,317** |
| **TOTAL POSTPONE, PATCH & REPAIR** | | | |
| **TOTAL POSTPONE, PATCH & REPAIR** | **$2,180,760** | **$2,370,487** | **$2,475,163** |
| **TOTAL OTHER CONSIDERATIONS** | | | |
| **TOTAL OTHER CONSIDERATIONS** | **$4,397,809** | **$4,780,418** | **$4,991,513** |

# Elementary School Program Comparison

| | ELEMENTARY SCHOOL MODEL PROGRAM | | BLAKELY ELEMENTARY EXISTING PROGRAM | | ORDWAY ELEMENTARY EXISTING PROGRAM | |
|---|---|---|---|---|---|---|
| | T STA | SF | T STA | SF | T STA | SF |
| CORE INSTRUCTION | 19 | 22,720 | 16 (2) [1] | 14,430 | 16 (3) [4] | 15,089 |
| SPECIAL EDUCATION | 3 | 3,000 | 1 (1) [2] | 628 | 2 | 2,849 |
| FUNCTIONAL SKILLS | 1 | 1,510 | | | 1 | 897 |
| ARTS/SCIENCE/MUSIC/TECH | 4 | 4,550 | 2 (1) [3] | 2,615 | 2 | 2,007 |
| LIBRARY / MEDIA CENTER | 1 | 2,800 | 1 | 2,934 | 1 | 2,455 |
| PHYSICAL EDUCATION | 1 | 5,960 | 1 | 3,490 | 1 | 3,736 |
| FOOD SERVICE | | 650 | | 752 | | 559 |
| COMMONS/CAFETERIA | | 4,110 | | | | |
| ADMINISTRATION | | 1,420 | | 1,229 | | 1,392 |
| STUDENT SERVICES | 3 | 1,000 | 2 | 1,212 | 1 | 513 |
| FACULTY / STAFF SUPPORT | | 660 | | 595 | | 1,246 |
| BUILDING SUPPORT | | 2,850 | | 2,345 | | 8,425 |
| NON-SCHOOL USE | | | | | 2 [5] | 2,018 |
| BUILDING ASSIGNABLE SF (without Functional Skills) | | 49,720 | | 30,230 | | 41,186 |
| UNASSIGNABLE AREAS | | 15,430 | | 13,275 | | 13,132 |
| **TOTAL BUILDING Gross Square Footage (without Functional Skills)** | | **65,150** | | **43,505** | | **54,318** |
| Number of Teaching Stations (no Functional Skills) | 31 | | (4) | 23 | | 26 |
| Number of Students | 450 | | | 383 [6] | | 410 [6] |
| SF per Student without Functional Skills | 145 | | | 114 | | 132 |
| **TOTAL BUILDING Gross Square Footage (with Functional Skills)** | | **67,130** | | | | **54,318** |
| Number of Teaching Stations (w/ Functional Skills) | 32 | | | | (3) | 26 |
| Number of Students | 450 | | | | | 410 [6] |
| SF per Student with Functional Skills | 149 | | | | | 132 |
| Portion of Site Area for Play Areas/Fields | 91,200 | | | 174,352 | | 141,337 |
| Total Site Area Required | 10 acres | | | 11 acres | | 10 acres |

[1] (2) Core classrooms in portables at Blakely are not included in the total area and number of teaching stations.

[2] (1) Developmental Kindergarten classroom in a portable at Blakely is not included in the total area and number of teaching stations.

[3] (1) Music classroom in a portable at Blakely is not included in the total area and number of teaching stations.

[4] (3) Classrooms in portables at Ordway are not included in the total area and number of teaching stations. (2940 GSF)

[5] (2) Non-school Use classrooms at Ordway are included in the total area and number of teaching stations.

[6] Number of students based on BISD October 2014 enrollment.

THE ROBINSON COMPANY

# BAINBRIDGE SCHOOL DISTRICT
## ORDWAY ELEMENTARY SCHOOL
## MASTER PLAN ESTIMATE
## April 2015

DRAFT

| | 7,500 GSF Infill<br>3,800 GSF Enclose Covered Play<br>50,137 GSF Renovate | | | 35,230 GSF Addition<br>31,900 GSF Renovation | | | New Construction 67,130 GSF | | |
|---|---|---|---|---|---|---|---|---|---|
| | April 2015 Construction Cost | Project Cost Escalated to 2018 Bid 13.5% | Project Cost Escalated to 2019 Bid 18% | Construction Cost | Project Cost Escalated to 2018 Bid 13.5% | Project Cost Escalated to 2019 Bid 18% | Construction Cost | Project Cost Escalated to 2017 Bid 8.7% | Project Cost Escalated to 2018 Bid 13.5% |
| New Construction/Additions | $ 3,287,100 | | | $ 10,850,840 | | | $ 20,541,780 | | |
| Renovation | $ 13,286,305 | | | $ 8,134,500 | | | N/A | | |
| Site Development 7.8 Acres | $ 1,930,000 | | | $ 2,915,000 | | | $ 3,900,000 | | |
| Building Demolitions and Abatement | $ 501,370 | | | $ 501,370 | | | $ 501,370 | | |
| Off-Site Allowance | $ 50,000 | | | $ 50,000 | | | $ 50,000 | | |
| Sub-Total Construction Cost | $ 19,054,775 | | | $ 22,451,710 | | | $ 24,993,150 | | |
| Island Premium 5% | $ 952,739 | | | $ 1,122,586 | | | $ 1,249,658 | | |
| Portables Allowance | $ 1,000,000 | | | $ 1,000,000 | | | $ - | | |
| **Total Construction Cost** | **$ 21,007,514** | **$ 36,957,469** | **$ 38,422,743** | **$ 24,574,296** | **$ 43,232,329** | **$ 44,946,386** | **$ 26,242,808** | **$ 43,502,046** | **$ 45,423,019** |
| 5 New Classrooms K-4 (McCleary Bill) | $ 1,907,400 | | | $ 1,907,400 | | | $ 1,907,400 | | |
| **Total Construction w/McCleary Bill** | **$ 22,914,914** | **$ 40,313,062** | **$ 41,911,377** | **$ 26,481,696** | **$ 46,587,923** | **$ 48,435,021** | **$ 28,150,208** | **$ 46,663,895** | **$ 48,724,490** |

Refer to General Summary Sheet for Explanation of Assumptions, Project Development Costs and Escalation Rates

## Ordway Elementary School :: Project Capital Costs :: April 2015 *

67,130 GROSS SQUARE FEET

| Summary of Findings | Additions \| Modernizations | New in Lieu | Postpone Patch & Repair | Other Considerations |
|---|---|---|---|---|
| $29,817,343 | $38,090,158 | $38,891,842 | $2,180,760 | $4,397,809 |

McCLEARY BILL

| Summary of Findings | Additions \| Modernizations | New in Lieu | Postpone Patch & Repair | Other Considerations |
|---|---|---|---|---|
| $34,898,076 | $40,844,200 | $41,718,608 | $2,180,760 | $4,397,809 |

*Estimates include “Soft” costs

# SAKAI INTERMEDIATE SCHOOL

## COST SHEETS

**SAKAI INTERMEDIATE SCHOOL**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1999 Lower Level | 20,512 GSF |
| 1999 Upper Level | 41,660 GSF |
| 1999 Covered Play Structure (@50%) | 1,056 GSF |
| Total | 63,228 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **SITE FINDINGS** | | | |
| Restripe student load and unload parking area | 5,100 | 5,543 | 5,788 |
| Bus load and unload signage | 5,100 | 5,543 | 5,788 |
| Drainage improvements | 15,299 | 16,629 | 17,364 |
| Provide accessible paths to playfields and covered play | 79,552 | 86,473 | 90,292 |
| **Site Findings Subtotal** | **$105,050** | **$114,189** | **$119,231** |
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Replace fire alarm system | 177,463 | 192,902 | 201,420 |
| Revise relief dampers at the south building wall to avoid letting cold air into the classrooms | 40,796 | 44,345 | 46,303 |
| Provide interior relites to transfer daylight | 50,995 | 55,432 | 57,879 |
| Upgrade intercom system to include call in switch for emergency use | 20,398 | 22,173 | 23,152 |
| **Building Findings - Health \| Life Safety Subtotal** | **$289,652** | **$314,851** | **$328,755** |

| BUILDING FINDINGS - INFRASTRUCTURE | | | |
|---|---|---|---|
| Replace boilers | 509,950 | 554,316 | 578,793 |
| Replace coils in the classroom air handling units to handle cold temperatures | 30,597 | 33,259 | 34,728 |
| Rebalance hydronic flows (imbalance could be part of the above issue) | 191,741 | 208,423 | 217,626 |
| Master clock system is not integrated into the 2010 Bogen Quantum system rack | 30,597 | 33,259 | 34,728 |
| Replace 2 water heaters | 12,000 | 13,044 | 13,620 |
| Replace 2 sewer pumps (nearing the end of their expected life) | 18,000 | 19,566 | 20,430 |
| **Building Findings - Infrastructure Subtotal** | **$762,885** | **$829,256** | **$865,875** |

| LIFE CYCLE REPLACEMENT AND REPAIR | | | |
|---|---|---|---|
| Replace vinyl surface on the gym operable wall | 44,060 | 47,893 | 50,008 |
| Repaint interior of the building including hollow metal doors and frames | 285,342 | 310,166 | 323,863 |
| Replace HVAC controls | 846,517 | 920,164 | 960,797 |
| Upgrade lighting controls to meet current energy code | 163,184 | 177,381 | 185,214 |
| **Life Cycle Replacement and Repair Subtotal** | **$1,339,102** | **$1,455,604** | **$1,519,881** |

| EDUCATIONAL PROGRAM | | | |
|---|---|---|---|
| Provide acoustic wall panels at the Gymnasium | 80,776 | 87,804 | 91,681 |
| **Educational Program Subtotal** | **$80,776** | **$87,804** | **$91,681** |

| TOTAL SUMMARY OF FINDINGS | | | |
|---|---|---|---|
| **TOTAL SUMMARY OF FINDINGS** | **$2,577,465** | **$2,801,704** | **$2,925,423** |

| | | | |
|---|---|---|---|
| **TOTAL IMMEDIATE ASSET PRESERVATION** | | | |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | **$599,343** | **$651,486** | **$680,254** |
| **TOTAL ASSET CONSIDERATIONS** | | | |
| **TOTAL ASSET CONSIDERATIONS** | **$1,566,963** | **$1,703,289** | **$1,778,503** |

# Intermediate School Model Program

72,892 GSF

Core Instruction

Special Education

Functional Skills

Science

Arts | Music | STEM | Tech

Library | Media Center

Physical Education

Food Service

Commons | Cafeteria

Administration

Student Services

Faculty | Staff Support

Building Support

*Assumptions:*

- 600 Students (5 & 6)
- Central food preparation is at Sakai
- Personalized learning is emphasized
- (2) Special Ed classrooms are included
- (1) Functional skills space for 8 students
- Lunch is served in (2) shifts
- Interior corridors

*Site:*

- Model Program recommends site size of 20 acres

# Intermediate School Program Comparison

| | INTERMEDIATE SCHOOL MODEL PROGRAM | | SAKAI INTERMEDIATE EXISTING PROGRAM | |
|---|---|---|---|---|
| | T STA | SF | T STA | SF |
| CORE INSTRUCTION | 20 | 22,160 | 20 | 18,914 |
| SPECIAL EDUCATION | 2 | 1,280 | 2 | 2,460 |
| FUNCTIONAL SKILLS | 1 | 1,510 | 2 | 1,180 |
| SCIENCE | 4 | 4,600 | 4 | 4,083 |
| ARTS/PERFORMANCE ARTS/TECH | 4 | 5,230 | 4 | 4,320 |
| LIBRARY / MEDIA CENTER | 1 | 3,822 | 1 | 2,711 |
| PHYSICAL EDUCATION | 2 | 6,610 | 2 | 7,166 |
| FOOD SERVICE / COMMONS | | 4,800 | | 1,950 |
| ADMINISTRATION | | 1,550 | | 1,411 |
| STUDENT SERVICES | 2 | 950 | 2 | 1,439 |
| FACULTY / STAFF SUPPORT | | 500 | | 595 |
| BUILDING SUPPORT | | 4,260 | | 3,281 |
| BUILDING ASSIGNABLE SF | | 57,272 | | 49,510 |
| UNASSIGNABLE AREAS | | 15,620 | | 13,718 |
| **TOTAL BUILDING GSF** | | **72,892** | | **63,228** |
| Number of Teaching Stations | 36 | | | 37 |
| Number of Students | 600 | | | 574 [1] |
| Square Feet per Student | 121 | | | 110 |
| Portion of Site Area for Play Areas/Fields | 434,320 | | | 107,405 |
| Total Site Area Required | 20 acres | | | 67.22 acres [2] |

[1] Number of students based on BISD October 2014 enrollment.

[2] Site is shared with Woodward Middle School; Sakai occupies approximately 12 acres.

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# BAINBRIDGE SCHOOL DISTRICT
# SAKAI INTERMEDIATE SCHOOL
# MASTER PLAN ESTIMATE
## April 2015

DRAFT

| | Class Addition 3,808 GSF<br>New Cafeteria \| Commons Addition 5,056 GSF | | |
|---|---|---|---|
| | April 2015 Construction Cost | Project Cost Escalated to 2018 Bid 8.7% | Project Cost Escalated to 2019 Bid 18% |
| Classroom Addition | $ 1,279,488 | | |
| Cafeteria \| Commons Addition | $ 1,842,640 | | |
| Sitework Allowance | $ 150,000 | | |
| Sub-Total Construction Cost | $ 3,272,128 | | |
| Island Premium 5% | $ 163,606 | | |
| **Total Construction Cost** | **$ 3,435,734** | **$ 5,695,331** | **$ 5,946,827** |

Refer to General Summary Sheet for Explanation of Assumptions, Project Development Costs and Escalation Rates

# Sakai Intermediate School :: Project Capital Costs :: April 2015 *

72,892 GROSS SQUARE FEET

| Summary of Findings | Additions \| Modernizations | Immediate Asset Preservation | Asset Considerations |
|---|---|---|---|
| $2,557,465 | $5,325,387 | $599,343 | $1,566,963 |

*Estimates include “Soft” costs

# WOODWARD MIDDLE SCHOOL

## COST SHEETS

**WOODWARD MIDDLE SCHOOL**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1994 Upper Level | 74,636 GSF |
| 1994 Lower Level | 18,691 GSF |
| 1994 Basement | 2,689 GSF |
| 1994 Covered Play Structure (@50%) | 2,629 GSF |
| Total | 98,645 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalaton |
|---|---|---|---|
| **SITE FINDINGS** | | | |
| Student load and unload improvements | 161,960 | 176,051 | 183,825 |
| ADA access for buses | 15,299 | 16,629 | 17,364 |
| Improve site stormwater management | 134,831 | 146,561 | 153,033 |
| Improve field stormwater management | 44,162 | 48,004 | 50,123 |
| **Site Findings Subtotal** | **$356,251** | **$387,245** | **$404,345** |
| **BLDG FINDINGS- ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Upgrade intercom system to include call in switch for emergency use | 30,597 | 33,259 | 34,728 |
| Replace fire alarm control | 254,975 | 277,158 | 289,397 |
| Add exhaust ventilation to the specialized learning areas | 101,990 | 110,863 | 115,759 |
| Architectural Cut/Patch and Ceiling Repair for Mech/Elect Work | 293,780 | 319,339 | 333,440 |
| Lack of access control at the entry creates a potential safety issue | 114,229 | 124,167 | 129,650 |
| **Building Findings - Health \| Life Safety Subtotal** | **$795,571** | **$864,786** | **$902,973** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Replace HVAC units (next 5-8 years) | 2,741,491 | 2,980,001 | 3,111,593 |

| | | | |
|---|---|---|---|
| Replace air handler variable frequency drives (VFDs) | 122,388 | 133,036 | 138,910 |
| Replace HVAC controls (obsolete) | 1,315,671 | 1,430,134 | 1,493,287 |
| **Building Findings - Infrastructure Subtotal** | **$4,179,550** | **$4,543,171** | **$4,743,789** |

| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
|---|---|---|---|
| Replace vinyl wall covering in corridors | 153,165 | 166,490 | 173,842 |
| Repaint interior of the building | 440,670 | 479,009 | 500,161 |
| Replace water heaters | 101,990 | 110,863 | 115,759 |
| Repair or replace modular buildings (6 total) | 1,040,298 | 1,130,804 | 1,180,738 |
| Upgrade lighting and controls to meet current energy code | 1,427,860 | 1,552,084 | 1,620,621 |
| **Life Cycle Replacement and Repair Subtotal** | **$3,010,818** | **$3,272,759** | **$3,417,279** |

| **EDUCATIONAL PROGRAM** | | | |
|---|---|---|---|
| Collaboration and small group learning spaces<br>4,300 GSF Modernizations and 4,300 GSF Addition | 5,014,848 | 5,451,140 | 5,691,853 |
| **Educational Program Subtotal** | **$5,014,848** | **$5,451,140** | **$5,691,853** |

| **TOTAL SUMMARY OF FINDINGS** | | | |
|---|---|---|---|
| **TOTAL SUMMARY OF FINDINGS** | **$13,510,203** | **$14,685,591** | **$15,334,081** |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | | | |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | **$1,421,537** | **$1,545,210** | **$1,613,444** |
| **TOTAL ASSET CONSIDERATIONS** | | | |
| **TOTAL ASSET CONSIDERATIONS** | **$6,780,597** | **$7,370,509** | **$7,695,978** |

# Middle School Model Program

102,825 GSF

Core Instruction

Special Education

Functional Skills

Science

Arts | Music | STEM | Tech

Library | Media Center

Physical Education

Food Service

Commons | Cafeteria

Administration

Student Services

Faculty | Staff Support

Building Support

*Assumptions:*

- 650 Students (7 & 8)
- Central food preparation is on-site
- Personalized learning is emphasized
- (2) Special Ed classrooms are included
- (1) Functional skills space for 8 students
- Lunch is served in (2) shifts
- Interior corridors

*Site:*

- Model Program recommends site size of 20 acres

# Middle School Program Comparison

| | MIDDLE SCHOOL MODEL PROGRAM | | WOODWARD MIDDLE SCHOOL EXISTING PROGRAM | |
|---|---|---|---|---|
| | T STA | SF | T STA | SF |
| CORE INSTRUCTION | 20 | 23,000 | 19 | 15,946 |
| SPECIAL EDUCATION | 2 | 1,280 | 2 (1) [1] | 1,760 |
| FUNCTIONAL SKILLS | 1 | 1,510 | 1 | 985 |
| SCIENCE | 4 | 5,600 | 3 | 5,109 |
| ARTS/PERFORMANCE SPACE/TECH | 9 | 12,230 | 7 | 12,988 |
| LIBRARY / MEDIA CENTER | 1 | 4,450 | 1 | 3,750 |
| PHYSICAL EDUCATION | 2 | 15,530 | 2 | 14,830 |
| FOOD SERVICE / COMMONS | | 8,350 | | 6,610 |
| ADMINISTRATION | | 1,580 | | 2,022 |
| STUDENT SERVICES | 2 | 1,125 | 2 | 2,724 |
| FACULTY / STAFF SUPPORT | | 1,020 | | 1,866 |
| BUILDING SUPPORT | | 4,710 | | 4,371 |
| NON-SCHOOL USE | | | (5) [2] | |
| BUILDING ASSIGNABLE SF | | **80,385** | | **72,961** |
| UNASSIGNABLE AREAS | | 22,440 | | 25,684 |
| **TOTAL BUILDING GSF** | | **102,825** | | **98,645** |
| Number of Teaching Stations | 41 | | (6) | 37 |
| Number of Students | 650 | | | 538 [3] |
| SF per Student | 158 | | | 183 |
| Portion of Site Area for Play Areas/Fields | 603,476 | | | 272,520 |
| Total Site Area Required | 20 acres | | | 67.2 acres [4] |

[1] (1) Special Education program in a portable is not included in the total area and number of teaching stations.

[2] (5) Non-school use portables at Woodward are not included in the total area and number of teaching stations

[3] Number of students based on BISD October 2014 enrollment.

[4] Site is shared with Sakai Intermediate School; Woodward occupies approximately 18 acres.

THE ROBINSON COMPANY

# BAINBRIDGE SCHOOL DISTRICT
# WOODWARD MIDDLE SCHOOL
# MASTER PLAN ESTIMATE
# April 2015

DRAFT

| | General Classroom Addition 4,300 GSF | | |
|---|---|---|---|
| | April 2015 Construction Cost | Project Cost Escalated to 2017 Bid 8.7% | Project Cost Escalated to 2018 Bid 13.5% |
| Classroom Addition | $ 1,505,000 | | |
| Demo 6 Portable Classrooms (2 RR Portables) | $ 40,000 | | |
| Sitework Allowance | $ 500,000 | | |
| Sub-Total Construction Cost | $ 2,045,000 | | |
| Island Premium 5% | $ 102,250 | | |
| **Total Construction Cost** | **$ 2,147,250** | **$ 3,559,443** | **$ 3,716,621** |

Refer to General Summary Sheet for Explanation of Assumptions, Project Development Costs and Escalation Rates

# Woodward Middle School :: Project Capital Costs :: April 2015 *

102,825 GROSS SQUARE FEET

| Summary of Findings | Additions \| Modernizations | Immediate Asset Preservation | Asset Considerations |
|---|---|---|---|
| $13,510,203 | $3,328,237 | $1,421,537 | $6,780,597 |

*Estimates include “Soft” costs

# BAINBRIDGE HIGH SCHOOL

## COST SHEETS

**BAINBRIDGE HIGH SCHOOL - 100 BUILDING**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | |
|---|---|
| 1970 Main Floor | 41,509 GSF |
| Total | 41,509 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Upgrade fire alarm system. Replace smoke detectors at the end of their useful life | 101,990 | 110,863 | 115,759 |
| Upgrade intercom system to include call in switch for emergency use | 12,239 | 13,304 | 13,891 |
| Add fire sprinkler system | 326,368 | 354,762 | 370,428 |
| Fire Service to Building | 41,306 | 44,900 | 46,882 |
| Replace non-functioning drinking fountain s (all are non-functioning) | 24,478 | 26,607 | 27,782 |
| Replace galvanized domestic water piping with copper | 530,348 | 576,488 | 601,945 |
| Replace egress lighting with emergency type | 17,950 | 19,512 | 20,374 |
| Teaching spaces lack adequate access to daylight | 0 | 0 | 0 |
| Add exhaust ventilation to the specialized learning areas *(Includes Home & Family Life, Art Room and Wood Shop)* | 183,582 | 199,554 | 208,366 |
| **Building Findings - Health \| Life Safety Subtotal** | **$1,238,261** | **$1,345,989** | **$1,405,426** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Replace roofing (add insulation to entire roof) | 1,372,041 | 1,491,408 | 1,557,266 |
| Repair \| replace the canopy open atrium floor framing and deck to address rot | 305,970 | 332,589 | 347,276 |
| Replace the entire HVAC system (assume rooftop hydronic unit type, also potential health issue) | 2,753,730 | 2,993,305 | 3,125,484 |
| Provide lateral and shear support to meet current earthquake code requirements | 803,681 | 873,601 | 912,178 |

| | | | |
|---|---|---|---|
| Structural modifications and upgrades to support program and system modernization | 1,227,960 | 1,334,792 | 1,393,734 |
| Architectural Patch and Repair for Mech/Elect/Seismic | 677,360 | 736,291 | 768,804 |
| Replace electrical distribution panels and circuitry | 305,970 | 332,589 | 347,276 |
| Replace voice and data system to meet District standards | 112,189 | 121,949 | 127,335 |
| **Building Findings - Infrastructure Subtotal** | **$7,558,901** | **$8,216,526** | **$8,579,353** |
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
| Most door hardware is failing and does not meet current code (replace) | 202,552 | 220,174 | 229,897 |
| Repaint interior of the building | 211,675 | 230,091 | 240,251 |
| Modest renewal allowance for the entire building (ceilings, flooring, paint; $800,000 theater \| large group instruction space (LGI) allowance) | 5,865,343 | 6,375,628 | 6,657,164 |
| Replace all plumbing fixtures throughout the building | 301,890 | 328,155 | 342,646 |
| **Life Cycle Replacement and Repair Subtotal** | **$6,581,461** | **$7,154,048** | **$7,469,958** |
| **EDUCATIONAL PROGRAM** | | | |
| Collaboration and small group learning spaces | | | |
| **Educational Program Subtotal** | | | |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **TOTAL SUMMARY OF FINDINGS** | **$15,378,622** | **$16,716,562** | **$17,454,736** |
| **TOTAL POSTPONE, PATCH & REPAIR** | | | |
| **TOTAL POSTPONE, PATCH AND REPAIR** | **$7,183,578** | **$7,072,258** | **$7,384,557** |
| **TOTAL OTHER CONSIDERATIONS** | | | |
| **TOTAL OTHER CONSIDERATIONS** | **$1,269,266** | **$2,115,982** | **$2,209,421** |

**BAINBRIDGE HIGH SCHOOL - 300 BUILDING**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | | |
|---|---|---|
| 1981 | Main Floor | 19,182 GSF |
| 1999 | Main Floor | 24,058 GSF |
| 1999 | Second Floor | 20,976 GSF |
| Total | | 64,216 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Abate \| replace cement asbestos board soffits and fascia panels around perimeter of the building | 199,248 | 216,582 | 226,146 |
| Upgrade intercom system to include call in switch for emergency use | 196,482 | 213,576 | 223,007 |
| Science classrooms on the first floor lack adequate access to daylight - add relites to 5 classrooms | 30,597 | 33,259 | 34,728 |
| Add fall protection to the vaulted roof | 101,990 | 110,863 | 115,759 |
| Upgrade fire alarm system. Replace smoke detectors at the end of their useful life | 163,184 | 177,381 | 185,214 |
| **Building Findings - Health \| Life Safety Subtotal** | **$691,500** | **$751,661** | **$784,853** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Corroding roofing fasteners \| worn finish - Replace metal and membrane roof and add insulation | 1,886,223 | 2,050,325 | 2,140,864 |
| Replace water heaters | 20,398 | 22,173 | 23,152 |
| Replace plumbing fixtures in 1981 portion of the building | 122,388 | 133,036 | 138,910 |
| Upgrade telephone, technology infrastructure and data closets to District standards | 265,174 | 288,244 | 300,972 |

| | | | |
|---|---|---|---|
| Improper ventilation in the Art Room | 81,592 | 88,691 | 92,607 |
| Upgrade master clock to Bogen Quantum series | 21,418 | 23,281 | 24,309 |
| **Building Findings - Infrastructure Subtotal** | **$3,182,516** | **$3,459,395** | **$3,612,156** |
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
| Modest renewal allowance for the entire building | 2,816,238 | 3,061,250 | 3,196,430 |
| **Life Cycle Replacement and Repair Subtotal** | **$2,816,238** | **$3,061,250** | **$3,196,430** |
| **EDUCATIONAL PROGRAM** | | | |
| Daylighting | 0 | 0 | 0 |
| **Educational Program Subtotal** | | | |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **TOTAL SUMMARY OF FINDINGS** | **$6,690,254** | **$7,272,306** | **$7,593,439** |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | | | |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | **$653,756** | **$710,633** | **$742,013** |

**BAINBRIDGE HIGH SCHOOL - 400 BUILDING**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | | |
|---|---|---|
| 1999 | Main Floor | 26,183 GSF |
| 1999 | Upper Floor | 9,961 GSF |
| Total | | 36,144 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Upgrade intercom \| telephone \| voice/data system to current District standards | 73,433 | 79,821 | 83,346 |
| Upgrade fire alarm system. Replace smoke detectors at the end of their useful life | 61,194 | 66,518 | 69,455 |
| **Building Findings - Health \| Life Safety Subtotal** | **$134,627** | **$146,339** | **$152,801** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Corroding roofing fasteners \| worn finish | 1,431,980 | 1,556,563 | 1,625,298 |
| Replace Boiler Room burners | 199,900 | 217,292 | 226,887 |
| Add fall protection to the vaulted roof | 101,990 | 110,863 | 115,759 |
| Upgrade master clock to Bogen Quantum series | 11,219 | 12,195 | 12,733 |
| **Building Findings - Infrastructure Subtotal** | **$1,745,090** | **$1,896,912** | **$1,980,677** |

| | | | |
|---|---|---|---|
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
| Replace damaged mechanical grilles in Gymnasium | 32,637 | 35,476 | 37,043 |
| Modest renewal allowance for the entire building (especially the locker rooms) paint, refinish floors, new lockers, new equipment | 2,211,796 | 2,404,222 | 2,510,388 |
| **Life Cycle Replacement and Repair Subtotal** | **$2,244,433** | **$2,439,698** | **$2,547,431** |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **TOTAL SUMMARY OF FINDINGS** | **$4,124,149** | **$4,482,950** | **$4,680,909** |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | | | |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | **$145,846** | **$158,534** | **$165,535** |

**BAINBRIDGE HIGH SCHOOL - 500 BUILDING**
**SUMMARY OF FINDINGS AND CAPITAL COSTS**

| | | |
|---|---|---|
| 1981 | Middle Floor | 5,839 GSF |
| 1981 | Upper Floor | 6,796 GSF |
| 1981 | Lower Floor | 20,183 GSF |
| | (Includes Gym, Commodore Kitchen\|Commons, BISD Boardroom) | |
| Total | | 32,818 GSF |

| Description of Improvement | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Abate \| replace cement asbestos board soffits and fascia panels around perimeter of the building | 305,664 | 332,257 | 346,929 |
| Add fire sprinkler system | 244,776 | 266,072 | 277,821 |
| Cut/Patch/Ceilings at Mech/Electrical Upgrades | 535,537 | 582,129 | 607,835 |
| Add roof tie off system | 101,990 | 110,863 | 115,759 |
| Upgrade fire alarm system. Replace smoke detectors at the end of their useful life | 50,995 | 55,432 | 57,879 |
| **Building Findings - Health \| Life Safety Subtotal** | **$1,238,962** | **$1,346,752** | **$1,406,222** |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Upgrade exterior building envelope to increase energy performance and reduce heat loss | 3,329,443 | 3,619,105 | 3,778,918 |
| Replace plumbing fixtures | 183,582 | 199,554 | 208,366 |
| Replace water heater with larger capacity size | 101,990 | 110,863 | 115,759 |
| Upgrade telephone, technology infrastructure and data closets to District standards | 17,338 | 18,847 | 19,679 |
| Install new exhaust system and make-up air units at the Wrestling Gymnasium *(Assume **only** a new exhaust fan. Ducts/etc., not included in total)* | 132,587 | 144,122 | 150,486 |
| Replace entire HVAC system to eliminate over-pressurization of the building | 1,937,810 | 2,106,399 | 2,199,414 |

| | | | |
|---|---|---|---|
| Replace switchboard and electrical distribution system | 163,184 | 177,381 | 185,214 |
| Upgrade illumination and lighting control except in Gyms | 93,831 | 101,994 | 106,498 |
| Upgrade master clock to Bogen Quantum series | 10,199 | 11,086 | 11,576 |
| **Building Findings - Infrastructure Subtotal** | **$5,969,964** | **$6,489,351** | **$6,775,909** |
| **LIFE CYCLE REPLACEMENT AND REPAIR** | | | |
| Repaint interior of the building | 167,355 | 181,915 | 189,948 |
| Replace air grilles in the Gymnasium with heavy-duty grilles | 32,637 | 35,476 | 37,043 |
| Investigate and repair water intrusion at west wall. Renovate interior of the Lower Gym (floors, walls, wall coverings, doors, hardware, signs, equipment) | 3,347,108 | 3,638,306 | 3,798,967 |
| **Life Cycle Replacement and Repair Subtotal** | **$3,547,100** | **$3,855,698** | **$4,025,959** |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **TOTAL SUMMARY OF FINDINGS** | **$10,756,027** | **$11,691,801** | **$12,208,090** |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | | | |
| **TOTAL IMMEDIATE ASSET PRESERVATION** | **$3,665,317** | **$3,984,199** | **$4,160,134** |

# High School Model Program

Core Instruction

Special Education

Functional Skills

Science

Arts | Music | STEM | Tech

Library | Media Center

Physical Education

Food Service

Commons | Cafeteria

Administration

Student Services

Faculty | Staff Support

Building Support

*Assumptions:*

- 1450 Students (9 thru 12)
- Central food preparation is on-site
- Personalized learning is emphasized
- Increase opportunities for collaboration
- Full-time staff will be assigned to a specific classroom
- Part-time staff share classrooms
- Lunch is served in (2) shifts
- Interior corridors

*Site:*

- Model Program recommends site size of 40 acres

THE ROBINSON COMPANY

# BAINBRIDGE SCHOOL DISTRICT
## BAINBRIDGE HIGH SCHOOL
## BUILDING 100/600 REPLACEMENT
## MASTER PLAN ESTIMATE
## NOVEMBER 2015

| Model Program 46,385 | April 2015 Construction Cost | Non Construction Related Costs (48.2%) April 2015 | Project Cost Escalated to 2017 Bid 8.7% | Project Cost Escalated to 2018 Bid 13% |
|---|---|---|---|---|
| Performing Arts 600 Seat (20,260 SF) | $ 7,090,300 | | | |
| Music/Arts/Spec. Ed/CTE (26,185 SF) | $ 8,490,625 | | | |
| Performing Arts Equipment Allowance | $ 2,000,000 | | | |
| Demo/Abatement Bldg 100/600 | $ 553,900 | | | |
| Sitework Allowance 2.5 Acre | $ 1,125,000 | | | |
| Sub-Total Construction Cost | $ 19,259,825 | | | |
| Island Premium 5% | $ 962,991 | | | |
| **Total Construction Cost April 2015** | **$ 20,222,816** | **$ 29,970,214** | **$ 32,577,622** | **$ 33,866,341** |

Refer to General Summary Sheet for Explanation of Assumptions, Project Development Costs and Escalation Rates

## Bainbridge High School :: Project Capital Costs :: April 2015 *

| | Summary of Findings | New in Lieu | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| **100 Building** | $15,378,622 | $29,970,214 | $7,183,578 | | $1,269,266 |
| **300 Building** | $6,690,254 | | | $653,756 | |
| **400 Building** | $4,124,149 | | | $145,846 | |
| **500 Building** | $10,756,027 | | | $3,665,317 | |

*Estimates include “Soft” costs

# COMMODORE OPTIONS SCHOOL (K-12)

## COST SHEETS

**COMMODORE OPTIONS SCHOOL (K-12)**

| | | |
|---|---|---|
| 1948 | Original Building | 20,538 GSF |
| 1949 | Addition | 4,381 GSF |
| 1970 | Addition | 13,127 GSF |
| 1978 | Addition | 4,274 GSF |
| 1981 | Addition | 13,021 GSF |
| 1948 | Covered Playshed (@50%) | 998 GSF |
| | | 56,339 GSF |

| SUMMARY OF FINDINGS AND CAPITAL COSTS | Project Cost 2015 | Project Cost 2017 Bid 9% Escalation | Project Cost 2018 Bid 13.5% Escalation |
|---|---|---|---|
| **BUILDING FINDINGS - ACCESSIBILITY (ADA) \| HEALTH \| LIFE SAFETY** | | | |
| Install fire sprinkler system | 356,965 | 388,021 | 405,155 |
| Install fire pump | 203,980 | 221,726 | 231,517 |
| Pump House/Enclosure | 183,582 | 199,554 | 208,366 |
| Fire service to building | 40,796 | 44,345 | 46,303 |
| ADA ramp and walkway from Madison Avenue | 71,393 | 77,604 | 81,031 |
| Replace galvanized domestic water piping with copper | 611,940 | 665,179 | 694,552 |
| Provide lateral and shear support to meet current earthquake code requirements 1948/49 Wing | 1,040,298 | 1,130,804 | 1,180,738 |
| Structural modifications and upgrades to support program and system modernizations 1948/49 Wing | 693,532 | 753,869 | 787,159 |
| Architectural Patch and Repair for Abatement/Mech/Elect/Seismic 1948/51 Wing | 508,298 | 552,520 | 576,918 |
| Provide lateral and shear support to meet current earthquake code requirements 1970/78/81 Bldgs | 611,940 | 665,179 | 694,552 |
| Demolish south wing (1948/49 wing) | 607,860 | 660,744 | 689,922 |
| Structural modifications and upgrades to support program and system modernizations 1970/78/81 Bldgs | 611,940 | 665,179 | 694,552 |
| Architectural Patch and Repair for Abatement/Mech/Elect/Seismic 1970/78/81 Bldgs | 529,010 | 575,034 | 600,426 |

| | | | |
|---|---|---|---|
| **Building Findings - Health \| Life Safety Subtotal** | **$6,071,534** | **$6,599,758** | $6,891,191 |
| **BUILDING FINDINGS - INFRASTRUCTURE** | | | |
| Replace controls in areas still on steam system | 407,960 | 443,453 | 463,035 |
| Replace all plumbing fixtures | 254,975 | 277,158 | 289,397 |
| Allowance to replace underground waste mains | 285,572 | 310,417 | 324,124 |
| Replace suspending ceiling tiles throughout | 392,945 | 427,131 | 445,993 |
| **Building Findings - Infrastructure Subtotal** | $1,341,452 | $1,458,159 | **$**1,522,549 |
| **TOTAL SUMMARY OF FINDINGS** | | | |
| **TOTAL SUMMARY OF FINDINGS** | **$**7,412,986 | **$**8,057,917 | **$**8,413,740 |
| **TOTAL POSTPONE, PATCH & REPAIR** | | | |
| **TOTAL POSTPONE, PATCH & REPAIR** | **$**3,598,560 | **$**3,911,636 | **$**4,084,367 |

# Commodore Options School :: Project Capital Costs :: April 2015 *

| Summary of Findings | New in Lieu | Postpone Patch & Repair |
|---|---|---|
| $9,338,651 | $33,097,790 | $5,524,225 |

*Estimates include “Soft” Costs

# BAINBRIDGE ISLAND SCHOOL DISTRICT

## COST SUMMARIES

# Blakely, Ordway, Sakai and Woodward

| | Summary of Findings | New in Lieu Add/Mod | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| **Blakely** | $28,821,865 | $38,964,667<br>$38,156,500 | $3,947,625 | | $1,509,452 |
| **Ordway** | $29,817,343 | $38,891,842<br>$38,090,158 | $2,180,760 | | $4,397,809 |
| **Sakai** | $2,557,465 | $5,325,387 | | $599,343 | $1,566,963 |
| **Woodward** | $13,510,203 | $3,328,237 | | $1,421,537 | $6,780,597 |

# Bainbridge High School and Commodore

| | Summary of Findings | New in Lieu | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| **100 Building** | $15,378,622 | $29,970,214 | **$7,183,578** | | $1,269,266 |
| **300 Building** | $6,690,254 | | | $653,756 | |
| **400 Building** | $4,124,149 | | | $145,846 | |
| **500 Building** | $10,756,027 | | | $3,665,317 | |
| **Commodore (North)** | $9,338,651 | $33,097,790 | **$5,524,225** | | |

# Consideration #1 $25.3M

| | Summary of Findings | New In Lieu | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| Blakely | | | $ 3,947,625 | | |
| Ordway | | | $ 2,180,760 | | |
| Sakai | | | | $ 599,343 | |
| Woodward | | | | $ 1,421,537 | |
| BHS 100 | | | $ 7,183,578 | | |
| BHS 300 | | | | $ 653,756 | |
| BHS 400 | | | | $ 145,846 | |
| BHS 500 | | | | $ 3,665,317 | |
| Commodore | | | $ 5,524,225 | | |
| TOTALS | $ - | $ - | $ 18,836,188 | $ 6,485,799 | $ - |
| | | | | | $ 25,321,987 |

# Consideration #2 $60.3M

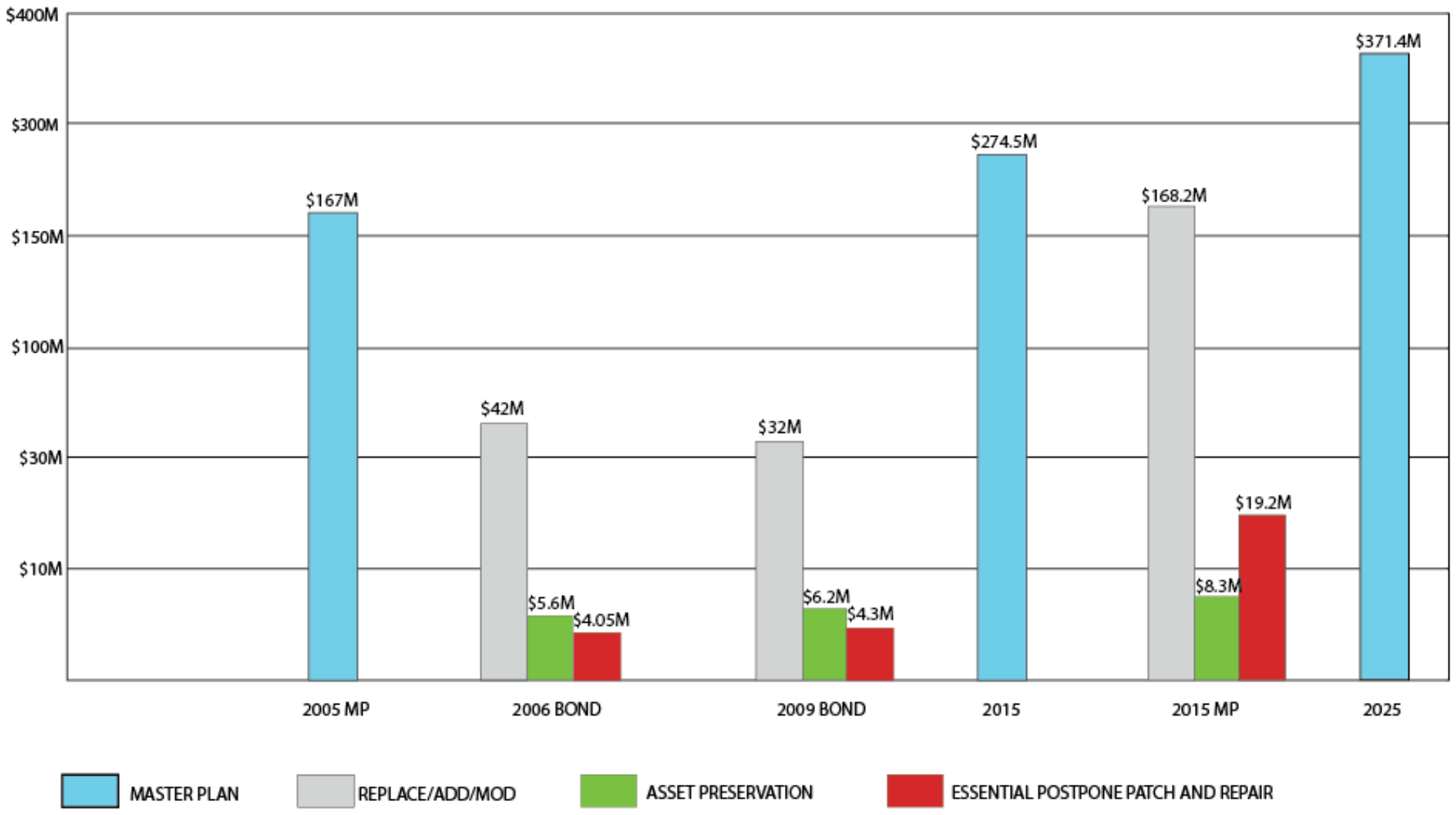
| | Summary of Findings | New In Lieu | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| Blakely | | $ 38,964,667 | | | |
| Ordway | | | $ 2,180,760 | | |
| Sakai | | | | $ 599,343 | |
| Woodward | | | | $ 1,421,537 | |
| BHS 100 | | | $ 7,183,578 | | |
| BHS 300 | | | | $ 653,756 | |
| BHS 400 | | | | $ 145,846 | |
| BHS 500 | | | | $ 3,665,317 | |
| Commodore | | | $ 5,524,225 | | |
| TOTALS | $ - | $ 38,964,667 | $ 14,888,563 | $ 6,485,799 | $ - |
| | | | | | $ 60,339,029 |

# Consideration #3

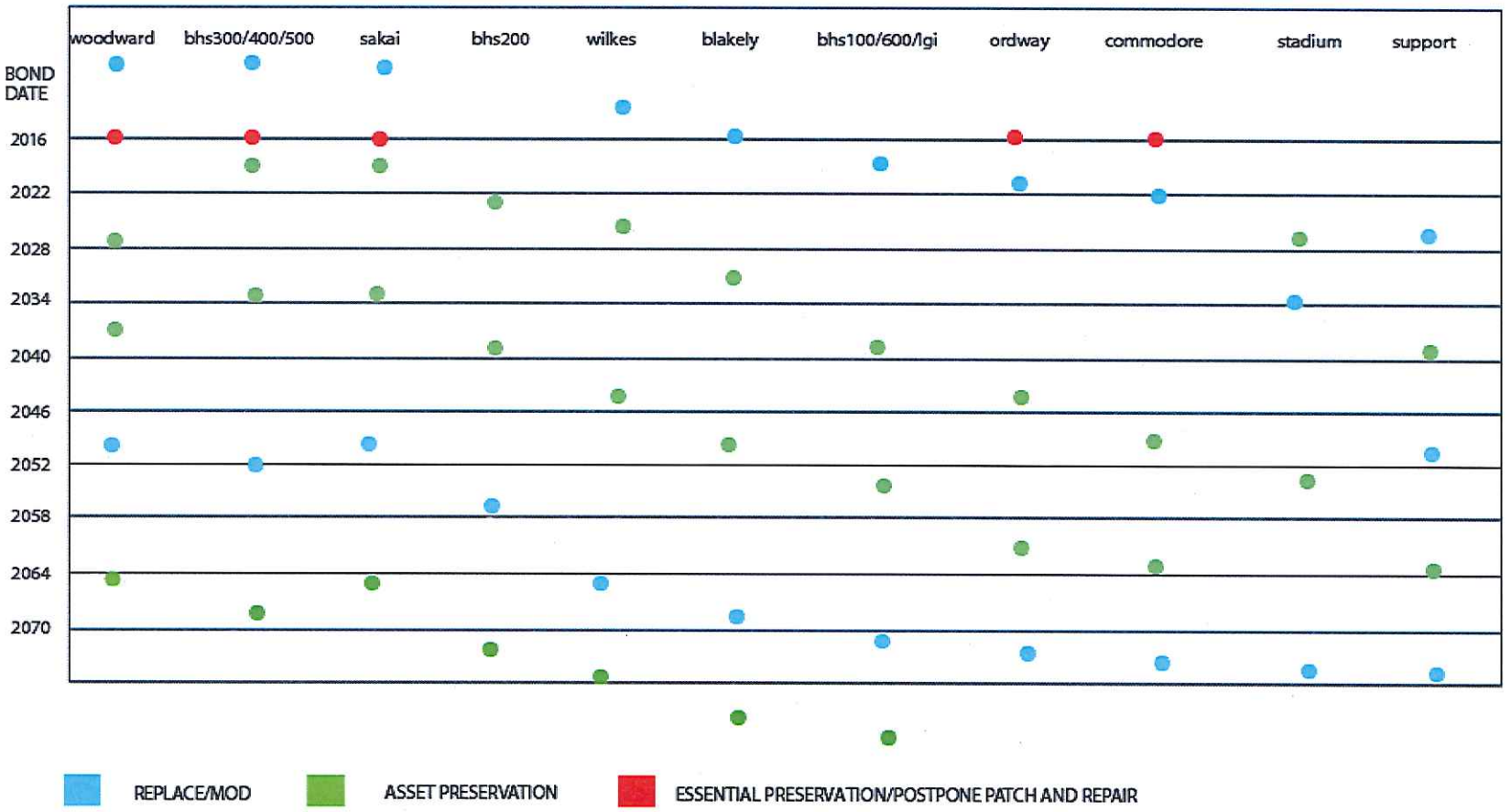
# $81.2M

| | Summary of Findings | New In Lieu | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| Blakely | | $ 38,964,667 | | | |
| Ordway | | | $ 2,180,760 | | |
| Sakai | | | | $ 599,343 | |
| Woodward | | | | $ 1,421,537 | |
| BHS 100 | | $ 29,970,214 | | | |
| BHS 300 | | | | $ 653,756 | |
| BHS 400 | | | | $ 145,846 | |
| BHS 500 | | | | $ 3,665,317 | |
| Commodore | | | $ 3,598,560 | | |
| TOTALS | $ - | $ 68,934,881 | $ 5,779,320 | $ 6,485,799 | $ - |
| | | | | | $ 81,200,000 |

# 2005-2025 COST ESCALATION



# REPLACEMENT MATRIX 2015-2070



# What is Essential?

| | Summary of Findings | New in Lieu Add/Mod | Postpone Patch & Repair | Immediate Asset Preservation | Other Considerations |
|---|---|---|---|---|---|
| Blakely | | | | | |
| Ordway | | | | | |
| Sakai | | | | | |
| Woodward | | | | | |
| BHS 100 | | | | | |
| BHS 300 | | | | | |
| BHS 400 | | | | | |
| BHS 500 | | | | | |
| Commodore | | | | | |

# 09 CAPITAL COSTS

The need and the estimated capital cost to restore to design specifications the major building systems and subsystems that have deteriorated due to deferred maintenance.

:: List the backlog of maintenance, repair and replacement needs for each and every school facility. These should be capital projects that are not included in the annual maintenance budget. Costs for deferred capital improvements are not eligible for state modernization assistance.

## RECOMMENDATION

The last bond for the Bainbridge Island School District was passed in 2009 for $42 million. The major capital project funded with this bond was to replace Wilkes Elementary School.

### GOALS FOR DESIGN AND CONSTRUCTION IMPLEMENTATION

:: Update the 2006 District-wide Master Plan to continue to strategically and methodically implement facilities improvements to support academic achievement.
:: Replace or modernize Blakely Elementary School.
:: Replace or modernize the 100 Building on the High School Campus.
:: Immediately address "Postpone, Patch & Repair" along with "Other Considerations" items identified at Ordway Elementary School related to Building Infrastructure and the addition of a cafeteria.
:: Address "Immediate Asset Preservation" items and "Asset Considerations" at Sakai Intermediate School and add a cafeteria.
:: Address "Immediate Asset Preservation" items and "Asset Considerations" at Woodward Middle School, replace modular classrooms with permanent structure, add a cafeteria.
:: Address "Immediate Asset Preservation" items at the 300, 400 and 500 Buildings on the High School Campus.
:: Address "Postpone, Patch & Repair" items at Commodore Options School.

### DEFINITIONS

:: Postpone, Patch & Repair
Issues identified in the Summary of Findings in need of immediate repair or replacement.

:: Immediate Asset Preservation
Issues identified in the Summary of Findings that are in need of immediate repair or replacement to preserve existing school district asset.

:: Educational Program (building additions)
Identified in the Summary of Findings as Educational Program. This represents building additions of core space needed to satisfy School District curriculum; comparable to similar school facilities state-wide.

## PROPOSAL FOR FEBRUARY 2016 BOND

The proposed implementation schedule in Section 10 anticipates a February 2016 bond election and includes the following components:

Blakely Elementary School Modernization (replace) $38,964,667

Bainbridge High School 100 Building Modernization (replace) $29,970,215

### ADDRESS POSTPONE PATCH & REPAIR

:: Ordway Elementary School $2,180,760
:: Commodore Options School $3,598,560

### IMMEDIATE ASSET PRESERVATION

:: Sakai Intermediate School $599,343
:: Woodward Middle School $1,421,537
:: Bainbridge High School 300 Building $653,756
:: Bainbridge High School 400 Building $145,846
:: Bainbridge High School 500 Building $3,665,317

**TOTAL $81,200,000**

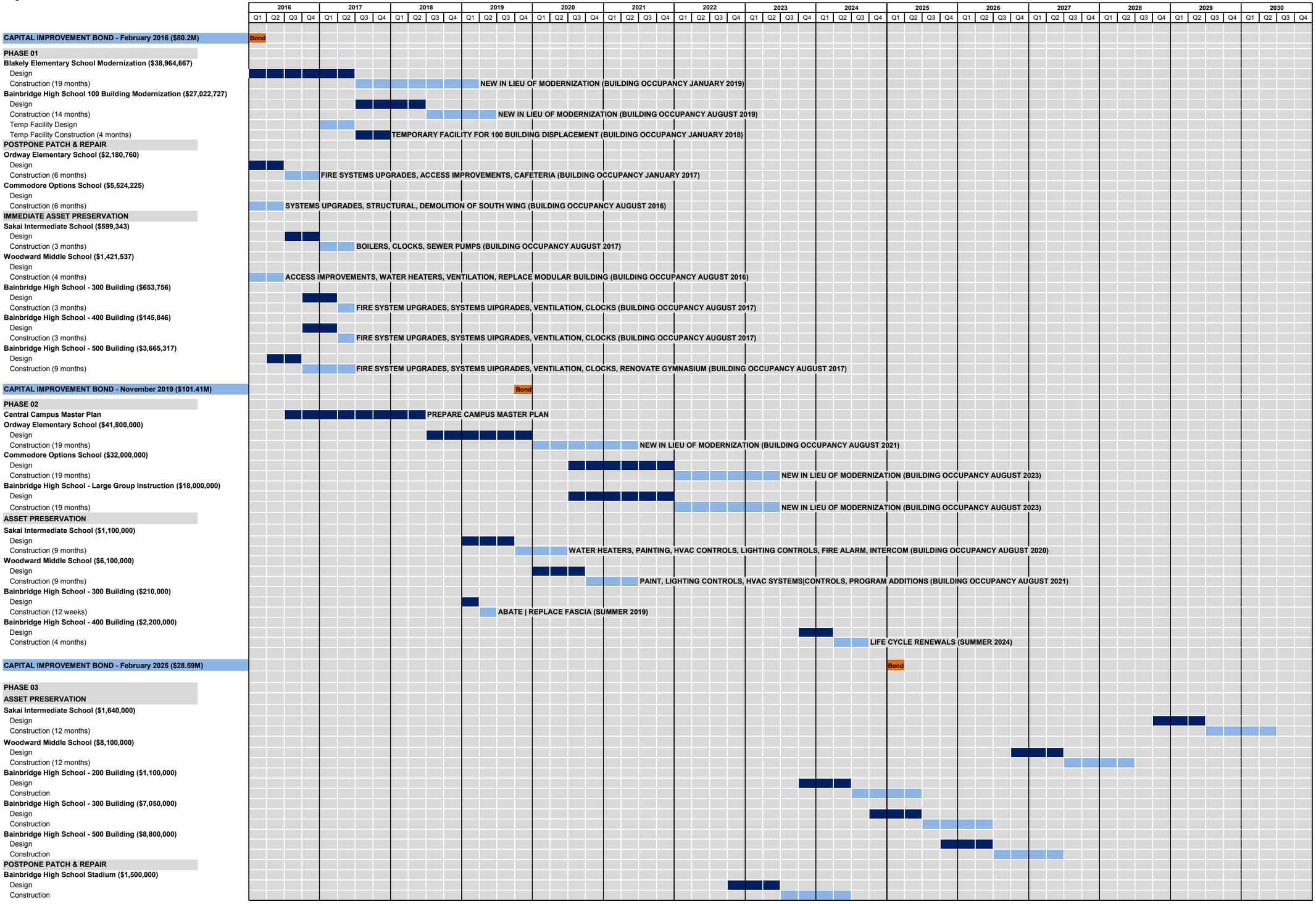
# 10 TIMELINE FOR COMPLETION

A determination of the district's timeline for completion of the school facilities projects.

Include at a minimum the major milestones of the project(s) such as:

:: Bond issue
:: Design
:: Construction
:: Project Completion
:: Board Acceptance
:: Note any long term construction phases

**Bainbridge Island School Study and Survey Update**
**August 2015**



# 11 INVENTORY OF SCHOOL FACILITIES IN NEIGHBORING DISTRICTS

An inventory of accessible, unused or underutilized school facilities in neighboring school districts and the physical condition of such school facilities.

Suitable facilities are not available in adjacent school districts to absorb Bainbridge Island School District student enrollment.

The Bremerton School District reports that they have an available facility in East Bremerton. Given the distance for transporting students from Bainbridge Island, the Bremerton facility is unsuitable.

The two-year availability in the North Kitsap School District is inadequate for our needs.

The district has contacted the adjacent districts to determine the availability of space. The responses from each district follow:

## BREMERTON SCHOOL DISTRICT

SUPERINTENDENT
Faith A. Chapel

8489 Madison Avenue NE • Bainbridge Island, Washington 98100 • (206) 842-4714 • Fax: (206) 842-2928

June 15, 2015

RE: Inventory of School Facilities in Neighboring Districts

Bainbridge Island School District Study and Survey

Dear Dr. Leavell, **Bremerton School District**

The Bainbridge Island School District is in the process of developing a long range plan for our facilities through the 2015 Study and Survey and a Facilities Master Plan. The WAC 392-341-025 (11) requires an inventory of accessible, unused or underutilized school facilities in neighboring districts as well as the physical condition of each. Please answer the following question and return this letter to me before July 17, 2015.

Does your District have any school facilities that are vacant or currently scheduled to be vacated within the next 6 years?

YES X NO _____

If yes, please explain what space exists.

We currently have one vacated facility located in East Bremerton. It was formerly East High School & Bremerton Junior High School. We still lease the gym portion and one separate, renovated wing of classrooms. Main campus building is locked down and boarded up.

Dan Leavell Bremerton S.D.

Thank you for your assistance in this matter.

If you have any questions and/or need further clarification regarding this request, please contact me at; (206) 780-1595 or e-mail me at; tvanwinkle@bisd303.org.

Sincerely,

Tamela Van Winkle
Director Facilities, Operations and Capital Projects

# CENTRAL KITSAP SCHOOL DISTRICT

SUPERINTENDENT
Faith A. Chapel

8489 Madison Avenue NE * Bainbridge Island, Washington 98100 * (206) 842-4714 * Fax: (206) 842-2928

June 15, 2015

RE: Inventory of School Facilities in Neighboring School Districts

Bainbridge Island School District Study and Survey

Dear Mr. McVicker, **Central Kitsap School District**

The Bainbridge Island School District is in the process of developing a long range plan for our District's 2015 Study and Survey and the District's Capital Facilities Plan. In response to WAC 392-341-025 (11), part of our study involves an inventory of accessible, unused or underutilized school facilities in neighboring districts and the physical condition of each. Please answer the following question and return this letter to me before July 17, 2015.

Does your District have any school facilities that are vacant or currently scheduled to be vacated within the next 6 years?

YES_____ NO ✓

If yes, please explain what space exists.

_____

_____

_____

_____

_____

Thank you for your assistance in this matter.

If you have any questions and/or need further clarification regarding this request, please contact me at; (206) 780-1595 or e-mail me at; tvanwinkle@bisd303.org.

Sincerely,

Tamela Van Winkle
Director Facilities, Operations and Capital Projects

# NORTH KITSAP SCHOOL DISTRICT

SUPERINTENDENT
Faith A. Chapel

8489 Madison Avenue NE * Bainbridge Island, Washington 98100 * (206) 842-4714 * Fax: (206) 842-2928

June 15, 2015

RE: Inventory of School Facilities in Neighboring Districts

Bainbridge Island School District Study and Survey

Dear Ms. Page, **North Kitsap School District**

The Bainbridge Island School District is in the process of developing a long range plan for our facilities through the 2015 Study and Survey and a Facilities Master Plan. The WAC 392-341-025 (11) requires an inventory of accessible, unused or underutilized school facilities in neighboring districts as well as the physical condition of each. Please answer the following question and return this letter to me before July 17, 2015.

Does your District have any school facilities that are vacant or currently scheduled to be vacated within the next 6 years?

YES X NO _____

If yes, please explain what space exists.

Breidablik Elementary School is currently vacant, however the district anticipates that the building will be re-occupied in 1-2 years.

Thank you for your assistance in this matter.

If you have any questions and/or need further clarification regarding this request, please contact me at; (206) 780-1595 or e-mail me at; tvanwinkle@bisd303.org.

Sincerely,

Tamela Van Winkle
Director Facilities, Operations and Capital Projects

## SEATTLE SCHOOL DISTRICT

SUPERINTENDENT
Faith A. Chapel

8489 Madison Avenue NE • Bainbridge Island, Washington 98100 • (206) 842-4714 • Fax: (206) 842-2928

June 15, 2015



RE: Inventory of School Facilities in Neighboring Districts

Bainbridge Island School District Study and Survey

Dear Mr. Banda, **Seattle School District**

The Bainbridge Island School District is in the process of developing a long range plan for our facilities through the 2015 Study and Survey and a Facilities Master Plan. The WAC 392-341-025 (11) requires an inventory of accessible, unused or underutilized school facilities in neighboring districts as well as the physical condition of each. Please answer the following question and return this letter to me before July 17, 2015.

Does your District have any school facilities that are vacant or currently scheduled to be vacated within the next 6 years?

YES X NO _____

If yes, please explain what space exists.

Currently, yes. However, The two or three schools vacant are under consideration in our next capital levy and are scheduled to be renovated and brought back into service.

Thank you for your assistance in this matter.

If you have any questions and/or need further clarification regarding this request, please contact me at; (206) 780-1595 or e-mail me at; tvanwinkle@bisd303.org.

Sincerely,

Tamela Van Winkle
Director Facilities, Operations and Capital Projects

# 12 ATTENDANCE ADJUSTMENTS

The need for adjustments of school attendance areas within the district.

It is not feasible to adjust school attendance areas to accommodate the changing enrollment in the Bainbridge Island School District.