



2.0 Facility Condition Analysis

To summarize and augment Facility Conditions Surveys conducted as part of the 2005 bond planning the District commissioned a Facility Assessment Report prepared by McGranahan Architects, dated March, 2007. The following is an excerpt from the report. A copy of the full report is available at the District office.

Facilities Assessment – Overview

Vashon Island SD main campus facilities have been assessed for condition, maintainability, suitability to support the District's educational goals, building code compliance, and capability of technology systems. The assessment process included three major components:

- **Condition Assessment:** In 2005 representatives from the Washington Department of General Administration (Division of Engineering and Architecture), PCS Structural Solutions, and BCE Engineers were engaged by the District to evaluate the physical condition of VISD schools and other District facilities. This condition assessment was conducted with the intent of identifying physical and code related deficiencies within each of the District's facilities. Primary building systems, interior materials and finishes, mechanical / electrical systems, and building code compliance were evaluated for each building.

As indicated above, the facility condition assessment identifies several District facilities with code related deficiencies. Given the age of some of the buildings, this "code deficiency" phenomenon is not particularly surprising. Code related facility design requirements in this country are in virtually a constant state of change. With each new issuance of building codes (approximately every 3 years) new design requirements are included and others are eliminated. This evolutionary process is driven primarily by the constant learning process associated with how existing buildings respond to various hazardous conditions. Identified code deficiencies can have a variety of characteristics. Some represent a significant hazardous condition that should be eliminated as soon as is practicable. Others identify conditions that should be addressed in the course of a long term capital improvement process. Still others represent changing societal norms and can often represent legal exposure for building owners (e.g. handicap accessibility).

The results of this condition assessment were documented on Building Condition Evaluation Forms provided by the Washington State Superintendent of Public Instruction. This report compiles and summarizes the findings from that assessment process.



- **Program Compatibility Assessment:** In February 2007, a team composed of District and school administrators, faculty members, District facilities and technology staff, and a representative from McGranahan Architects reviewed VISD schools for suitability to support the District's educational vision and goals. Individual learning spaces, administrative areas, faculty spaces, and support spaces within each school were evaluated for appropriate size, location, configuration, and quality of the environment. Spaces that are needed, but not provided, were also identified during the assessment process. The results of this program assessment were documented on specially prepared assessment forms, compiled and summarized herein. Individual assessment forms, completed by each of the evaluators, are also bound in a separate binder and available upon request.
- **Technology Assessment:** Also in February 2007, a team composed of District facilities and technology staff reviewed VISD schools and selected facilities for suitability of technology systems. Instructional areas, learning resource spaces, administrative areas, learning support spaces, and faculty spaces were evaluated for the appropriateness of technology systems. The availability and configuration of power, network access, physical connectivity, and layout of space were evaluated in each of the selected areas. The results of this technology assessment were documented on specially prepared assessment forms, compiled and are summarized herein. Again, individual assessment forms are bound in a separate binder and available upon request.

Condition Assessment

In general, the physical condition of individual VISD facilities is commensurate with the age of each of the buildings. However, the initial installed quality of individual building's systems and materials also plays an important role in determining the longevity, cost to maintain, and durability of the building and its systems.

The condition assessment team reviewed the following systems and materials in each of the District facilities:

1. Primary Building Elements: Foundations / structure, exterior walls, roof, windows / doors, trim / finishes
2. Interior Building Elements: Ceilings, interior walls / doors, floors, fixed equipment & furnishings
3. Building Systems: Heating / ventilation, plumbing, electrical (power, data, alarm, communications), lighting
4. Code Compliance: Means of exit, fire control, emergency lighting, fire resistance, handicap accessibility

Facilities were rated on the following scale:

80 – 100: *The overall building condition is Good to Excellent*

60 – 80: *Building is generally suited for its intended use. Minor improvements are needed to improve building performance and longevity*

40 – 60: *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*

20 – 40: *Building has serious deficiencies*

Under 20: *Building is unsuitable for its intended use*

The District has facilities in every category. A brief summary of the condition of each facility follows:



Vashon High School

Vashon High School occupies most of the southern portion of the main contiguous campus and represents an assemblage of facilities that vary in age, type of construction, and relative condition.

Site: The paved parking areas at VHS are generally in fair condition. However, there is lack of approved emergency vehicle access to some of the buildings and the access road adjacent to “A” Building is surfaced with gravel, which is not an approved roadway material for emergency vehicles. There is no dedicated bus loading area. This condition places bus loading, automobile traffic and pedestrians regularly in the same area, thus creating a safety issue. Site lighting on the high school campus is poor which also contributes to a safety concern.

“A” Building (Overall condition: 59 out of 100, *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*):

The building is well maintained, but is plagued by indoor air quality issues (ventilation), ADA compliance, and has poor acoustical separation between spaces within the building. Other specific deficiencies include:

- Roof areas do not drain properly and, causing water “ponding” in several areas
- Code related upgrades are needed in the kitchen
- Finishes, including carpeting and wall materials are generally worn or deteriorated
- Exterior doors and hardware are generally worn or deteriorated
- Poor exterior lighting
- Phone, clock and intercom systems need to be replaced
- Faculty and student toilets need upgrading
- Minimal insulation and single pane windows
- Poor ADA compliance, including signage, toilet fixtures, and ramps
- Damaged lockers
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes

“B” Building (Overall condition: 29 out of 100, *Building has serious deficiencies*):

Overcrowded condition raise concerns regarding emergency exiting and indoor air quality

Dry rot in covered walkway canopies.

Roof is not sloped for proper drainage

Exterior walls are in poor condition

Needs fire sprinklers

Needs complete interior renovation

Poor ADA compliance, including signage and toilet fixtures

Exit signage not functional

Exit pathways are not clear

Ventilation is inadequate and there is no make up air provided

Jewelry soldering stations lack proper ventilation

Lateral design forces (earthquake resistance) are significantly less than those required by current codes



“C” Building (Overall condition: 66 out of 100, *Building is generally suited for its intended use. Minor improvements are needed to improve building performance and longevity*):

- Exterior walls and insulation are good
- No toilet rooms
- Roof downspout sizes are inadequate
- Student stations are not in ADA compliance
- Needs better exhaust system
- Needs minor interior and exterior repairs
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes

“D” Building (Overall condition: 42 out of 100, *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*):

- The Gymnasium building is generally in need of renovation
- Poor ADA compliance
- Poor insulation and single pane windows
- Poor lighting
- Poor or no ventilation
- Mechanical control system is antiquated
- Poor emergency exit signage, exit lighting, alarm and detection systems
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes

“F” Building (Overall condition: 59 out of 100, *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*):

- Minor ADA compliance issues
- Poor insulation and large single pane windows
- Needs better signage
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes

“K” Building (Overall condition: 36 out of 100, *Building has serious deficiencies*):

- Needs complete interior and exterior renovation
- Poor insulation and large single pane windows
- Needs fire protection
- Needs new HVAC system
- Needs adequate ADA rated toilet facilities
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes



“Grandstand” (Overall condition: 33 out of 100, *Building has serious deficiencies*):

Although this facility appears to be in relatively good structural condition, the “pole building” construction system used is not approved for human occupancy under current codes. The rear guard rail was recently replaced.

ADA accessibility (ramps)

Older guard rails are not code compliant

Wood steps are deteriorating and slippery when wet

No handrails

McMurray Middle School

(Overall condition: 74 out of 100, *Building is generally suited for its intended use. Minor improvements are needed to improve building performance and longevity*):

Poorly insulated

Poor roof membrane and roof slope

Main public restrooms need renovation

Poor gym lighting,

Poor locker room ventilation

ADA compliance (lower level and locker rooms).

Chautauqua Elementary School

(Overall condition: 98 out of 100, *The overall building condition is Good to Excellent*):

Chautauqua Elementary has minor ADA issues

Mechanical controls are DOS based and need to be upgraded

Unit ventilators need replacement, spare parts are very hard to find if available

Family Link

(Overall condition: 63 out of 100, *Building is generally suited for its intended use. Minor improvements are needed to improve building performance and longevity*):

Although portable facilities are not designed for the useful life of a permanent structure, the Family Link portables are in good condition. Moss maintenance is needed on the deck and roof.

Former District Offices

(Overall condition: 14 out of 100, *Building is unsuitable for its intended use*):

Signs of structural failure

Major building code violations (fire protection, emergency lighting, exit pathways).

Major ADA compliance issues

No insulation and single pane windows

Electrical system deficiencies

Ventilation system deficiencies

Plumbing system deficiencies

Interior finishes are well past usable life



Building "E" Maintenance and Grounds

(Overall condition: 17 out of 100, *Building is unsuitable for its intended use*):

- No toilet facilities
- Major building code violations (fire protection, emergency lighting, exit pathways)
- ADA compliance issues
- No insulation and single pane windows
- Electrical system and ventilation system deficiencies
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes

Facilities Trailer

(Overall condition: 40 out of 100, *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*):

- This facility is not designed for permanent occupancy
- No toilet facilities
- ADA compliance issues
- Does not have fire detection or alarm systems

Technology Portable

(Overall condition: 57 out of 100, *Building has suitable characteristics, but requires specific upgrades to meet performance and operational objectives*):

- No toilet facilities
- HVAC system marginally adequate for computer equipment
- Although portable facilities are not designed for the useful life of a permanent structure, the Technology portable is in average condition.

Bus Maintenance Facility

(Overall condition: 33 out of 100, *Building has serious deficiencies*):

- ADA compliance issues
- Poor lighting
- Interior finishes are in poor condition
- Mezzanine access not in compliance with current codes
- No maintenance pits or lifts
- No insulation in walls
- Lateral design forces (earthquake resistance) are significantly less than those required by current codes



Maintenance Equipment Storage Facility

(Overall condition: 35 out of 100, *Building has serious deficiencies*):

Requires repair and painting

Inadequate size

Poor lighting

Greenhouse

(Overall condition: 39 out of 100, *Building has serious deficiencies*):

Note: See Condition Assessment Summary and “Main Campus Plan” diagram following this page



Program Compatibility Assessment

The Vashon Island School District Strategic Plan contains several components that speak to the commitment of the District to provide educational resources and opportunities for students. The Plan expresses goals for student learning, including several which can be and usually are impacted, either positively or negatively, by the quality and configuration of school facilities. A significant amount of research supports the premise that student learning is affected by the quality and arrangement of school facilities. This portion of the assessment evaluates the suitability of District facilities to support the educational programs at VISD.

The “quality” of space is certainly an issue that can garner much discussion and debate. However, it is well established through research that natural light, aesthetically “friendly” spaces, adequate air flow and temperature control, acoustical integrity, and appropriate artificial lighting support student learning. The arrangement and/or configuration of spaces to support student learning is a more tangible and measurable characteristic in schools. Whether existing spaces support the educational program, promote collaboration, and allow for an appropriate variety of learning environments is usually made clear by a simple program analysis of existing school facilities.

The during the Program Compatibility Assessment phase of the VISD facilities planning process, the District augmented much of the program related input and analysis that was completed two years ago with a formal assessment process utilizing a specific methodology for evaluating the suitability of instructional space, learning resource and support space and staff spaces. The following assessment categories were considered during the evaluation process:

1. Availability and size of space
2. Location / configuration of space
3. Quality of environment (air quality, lighting, acoustics)
4. Technology
5. Furnishings / equipment
6. Design / aesthetics

Each existing space was given a rating in each of the designated categories between 1 (good) and 5 (unacceptable). Non-existent, but needed spaces (e.g. additional classroom space), were given a rating of 10. The findings from the 2005 and 2007 facility program assessment process are summarized below.



Vashon High School

From a program compatibility perspective, Vashon High School facilities represent the most needs in the District. The arrangement of the school's eight separate structures is not conducive to effective learning. The distance between classroom buildings and the inter-relationship of those buildings makes collaboration and integration of curriculum virtually impossible. In addition traversing between the main classroom building ("A" Building) and the outlying classroom buildings is uncomfortable (minimal covered walkways), time consuming, and even hazardous (no sidewalks through the parking areas). Learning objectives are further impeded by an inadequate number, type and flexibility of teaching spaces. Many of the buildings have deficiencies in lighting levels, heating/ventilation and acoustical separation (noisy). Storage is nearly non-existent.

As part of a playfield master plan, accomplished by D.A. Hogan, McMurray Field was restored in the spring/summer of 2003 and opened for use in the summer of 2004. The existing softball and baseball fields near the high school appear to be in good condition and are not included in current renovation plans. The remaining fields between VHS and MMS/CES are in various states of disrepair and are recommended for improvement. The most significant of these fields is the stadium/grandstand. Both the track and the field require major upgrades. Overall, there are an inadequate number of fields for the number of teams that utilize them. Additional fencing and toilet facilities are needed to improve safety.

In addition to the pedestrian safety issues and poor traffic circulation identified in the facility condition report above Vashon High School has no identifiable "front door". This not only contributes to visitor confusion but diminishes the school as a source of pride for students, staff and the community.

Workshops and feedback forums in 2005 identified several needed improvements and / or additional spaces needs at VHS. This work was supplemented by the recent facility program compatibility assessment. Facility enhancements or additions needed to support the educational program include:

- Spaces for teacher, student and parent collaboration
- Project storage space (art, science, and vocational)
- Storage for materials, supplies and equipment (school wide)
- Work spaces for teachers (instructional preparation, research and collaboration) and resources
- Spaces for confidential conversations
- More and better computer labs
- Vocational facilities (current facilities are focused on "vocational arts"), including metal and auto shops
- Larger classrooms
- ASB offices
- Better theatre and performing arts facilities (seating capacity, stage, dressing, green room, lobby, etc.)
- Auxiliary gym
- Two sets of locker rooms, coaches' offices, referee changing, storage, etc.
- Expanded music facilities (larger band and string program), including storage and practice facilities
- Facilities to mainstream special education students
- Additional art room (pottery and ceramics)
- Conference spaces (large and small)
- Multipurpose space



- Better grandstand/concessions/storage/restrooms
- Display areas (projects and art)
- Outdoor performance space
- Outdoor learning spaces (e.g. horticulture and science)
- Independent study space
- Student store
- Spaces for expanded international baccalaureate program
- Larger and more efficient kitchen
- Integrated library/computer lab
- Larger lunchroom/commons/integrated outdoor gathering space
- Life skills center
- Student multimedia space

“A” Building (Facility Program Compatibility rating: 3.9)

“B” Building (Facility Program Compatibility rating: 4.3)

“C” Building (Facility Program Compatibility rating: 2.9)

“D” Building (Facility Program Compatibility rating: 3.6)

“F” Building (Facility Program Compatibility rating: 3.7)

“K” Building (Facility Program Compatibility rating: 3.7)

Family Link (Facility Program Compatibility rating: 2.5)

Family Link workshops and assessments identified the following program-related space needs:

- Outdoor recreation space
- Outdoor classroom space
- Additional office and reception space
- Dedicated library / computer area
- Additional classroom
- Kitchen
- General “layout” area with sink

Note: See Program Compatibility Assessment “Vashon High School” diagram following this page



McMurray Middle School (Facility Program Compatibility rating: 2.5)

McMurray classrooms, although generally adequate in size, lack storage and sinks to support instructional activities. There is a lack of conference rooms and spaces for student and faculty collaboration. The modular classroom is a very poor learning environment. MMS workshops and assessments identified the following program-related space needs:

- Spaces for positive student interaction, including outdoor gathering and environmental learning spaces

- Auxiliary gym

- Expanded band practice area

- Science lab improvements

- 6th grade science lab

- Spaces for team teaching

- Non-lab teaching space in/adjacent to science labs

- Ceramics lab

- Performing (music/drama) arts space; costume/prop storage

- Foreign language lab

- Library media lab/media storage

- Conference space

- Space to co-locate art/ceramics/photography

- Dedicated computer lab

- Gym bleacher storage

Note: See Program Compatibility Assessment “McMurray Middle School” diagram following this page



Chautauqua Elementary School (Facility Program Compatibility rating: 2.7)

As a relatively new facility, Chautauqua Elementary School's program needs center around improving on the spaces that were designed and constructed a few years ago. However, the cafeteria is completely inadequate to support lunch services to the student population. Workshops and feedback forums have also identified the following program-related space needs at CES:

- Science labs
- Student garden
- Classroom storage
- More group activity areas
- Flexible teaching spaces (projects, activities, instruction)
- Space for a "whole school" assembly
- Small group collaborative spaces
- Second art room w/kiln
- Larger cafeteria
- Gathering spaces (after drop-off and before pick-up)
- Configure spaces for better monitoring and safety
- Improve playground and playfields
- Outdoor storage
- Covered outdoor learning spaces

VHS Outdoor Facilities (Facility Program Compatibility rating: 2.9)

Program compatibility issues related to outdoor play facilities generally include the lack of toilet facilities, playfield condition, and inadequate (or non-existent) spectator facilities.

Maintenance Facilities (Facility Program Compatibility rating: 4.5)

Technology Facilities (Facility Program Compatibility rating: 3.0)

Transportation Facilities (Facility Program Compatibility rating: 3.6)

Note: See Program Compatibility Assessments: "Chautauqua Elementary School", "Faculty Program Compatibility Assessments", and "Main Campus Plan", diagrams following this page



Technology Assessment

The instructional use of technology in the district is growing each year placing greater demand on infrastructure (power, network connections, multimedia cabling, etc.) that were not anticipated when the buildings were designed or remodeled over the years. In general we see our classroom and other facilities needing upgrades to make them more flexible in meeting the demands for integrating technology into the curriculum.

The during the Technology Assessment phase of the VISD facilities planning process, the District augmented much of the technology related input and analysis that was completed two years ago with a formal assessment process utilizing a specific methodology for evaluating the suitability of technology resources in instructional space, learning resource areas and staff spaces. The following assessment categories were considered during the evaluation process:

1. Power (condition circuits, number of outlets, ceiling power available or possible, distribution of outlets)
2. Physical Connectivity (wiring condition, exposed / unprotected wiring, containment of wiring, number and diversity of potential sources)
3. Network Access (number / distribution of network drops, suitability of WIFI, separation of teacher & student network, location of the building's network topology)
4. Layout of Space (size, furnishings, potential for flat panel displays, space for teacher desk / media devices, space for screen)

As with the facility program assessment, each space was given a rating in each of the designated categories between 1 (good) and 5 (unacceptable).

The findings from the technology assessment process are summarized below. See the attached Facility Technology Assessment Summaries for a more detailed compilation of the assessment scores:

Vashon High School

Of all the educational spaces in the District VHS on the whole rated the lowest in all areas. These low ratings were due to space constraints that limited flexibility in arranging instructional spaces to accommodate technology, poor access to conditioned power outlets requiring use of extension cords, no provision from ceiling based power or wiring to support projection systems (now the standard in many classrooms), and network access limited to no more than two network jacks in each room.

“A” Building (*Technology rating: 4.1*)

“B” Building (*Technology rating: 4.4*)

“C” Building (*Technology rating: 4.1*)

“D” Building (*Technology rating: 4.0*)

“F” Building (*Technology rating: 3.9*)

“K” Building (*Technology rating: 3.8*)



Family Link Buildings (*Technology rating: 3.6*)

Since the Family Link Bldg is a relatively new structure it is better equipped in terms of power and space layout, thus it was rated better than other facilities on the VHS campus. There are some limitations in network access and the building has some network typology constraints due to the fiber backbone setup on the VHS campus. Network service to the second FLINK structure is limited to one line.

McMurray Middle School (*Technology rating: 3.5*)

Although McMurray is the oldest school on the District campus it received higher rates than VHS due to better classroom layouts and network access. However, like VHS, McMurray does not have in-ceiling power and other cabling to support projection systems. In library there is good network access but very poor space layout for computer use. McMurray does have access to conditioned power circuits but only at one location in each room which limits the location of computers systems.

Chautauqua Elementary School (*Technology rating: 3.4*)

Chautauqua faired the best of all schools however there were a number of areas of weakness primary in terms on network access due to the network typology of the building. A single line that supports 12 classrooms serves each wing of the building. Each classroom only has one network jack. CES has a conditioned power circuit but only one in each room. Like the other school buildings there is no access to in-ceiling power or other cabling to support projectors. It should be noted that CES does have ceiling projection systems but these are powered by retrofitted cabling plugged into a wall circuit.

Maintenance Facilities (*Technology rating: 4.3*)

The maintenance building is a trailer with no conditioned power with network access via a cable run into the old district office building.

Technology Facilities (*Technology rating: 3.6*)

The Tech Bldg is a modular structure that is the “nerve center” of all District network services. It has a dedicated conditioned power circuit but may be under powered in terms of electrical service. The server room is poorly laid out and has become too small for the growing computing needs of the District. Cooling of the server room is less than ideal and given the amount of mission critical hardware in the facility it has inadequate security.