

EDUCATIONAL SPECIFICATIONS

FOR

New Forest Hill / Liverpool K-5 School

Anglophone West School District

June 2024

Department of Education and Early Childhood Development

Educational Facilities and Pupil Transportation Branch

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INTRODUCTION

01.1 PROJECT SPECIFIC DIRECTIVES

Anglophone West School District requested of the Minister of Education and Early Childhood Development in their 2024-25 Capital Budget submittal that a new K-5 school to replace Forest Hill and Liverpool School with a combined catchment area. The existing schools were deficient in learning platforms and suboptimal support spaces. The design phase was approved as part of the Government's 2024-25 Capital Budget.

The target date for completion for occupancy of the school is summer 2028 with a preference of an earlier completion / occupancy date, being mindful that the school community commences in September. The target design enrolment is 510 grade K-5 students with 27 groupings.

The school will be designed/constructed based on these Educational Specifications authored by the New Forest Hill / Liverpool School Planning Committee and designed/constructed according to the Department of Transportation and Infrastructure (DTI) standard document "Design Guidelines for Educational Facilities" latest edition.

Vison

Where deemed appropriate by EECD, DTI and ASD-W, new school design concepts will be sought for spatial arrangements and finish materials. Unless otherwise advised during the planning, EECD's and DTI's standard guidelines will apply.

The overall intent of the design is creating an inviting environment that actively engages learners of all ages and personalities, promote concepts of Deeper Learning and promote general well-being of occupants.

Conceptual solutions are expected to be flexible, encourage flexible, different types and ways of learning, and will allow for classroom, individual, collaborative, formal and informal learning activities. Designers are encouraged to be creative in brining the vision in the Educational Specifications to life.

Exposed aggregate polished concrete floors will be considered the standard flooring for the building. Moveable walls and sliding / folding whiteboards will optimise the classrooms connectivity and collaborative space through the school.

The main entry of the building will be open and inviting, leading into the school as a showcase space such as the dining, student commons, assemble area, library with a circulation stair to the upper section, integrated with a learning stair(s) on the ground floor.

The facility will provide bright and open collaborative space for group learning and social gatherings, as well as smaller and more intimate nodes for individual's needs of quieter environments for individual learning.

Establish security guidelines must be respected and considered in all aspects of the design:

The design will encourage community groupings as K-2 & 3-5 but must take into consideration the fact that spaces such as the cafeteria, library, commons, gymnasium, are areas shared amongst all grade levels, but will not feel segregated or separate from the remainder of the building.

The design should carry patterns and colour selection to transition from one area to the next fluidly to be appealing and welcoming.

Flexibility within the built environment is very important and will foster flexible teaching, thinking, scheduling and curriculum delivery. Accommodations are to be made in the design so the instruction can take place not only in the classrooms, but in spaces such as the learning commons, cafeteria, break-out rooms, and project work areas that are located off the corridors.

Dispersed technology through out the school will allow the instructors and students to take advantage of learning opportunities throughout the school and outside; therefore, infrastructure must be built to expect and embrace innovation of this expanded environment. The design will focus on creating diverse and distinctive spaces within the school, while at the same time being mindful of efficiencies in infrastructure that comes with patterns and repetition.

Design Notes:

- Exposed aggregate polished concrete flooring throughout, use different aggregate colour, staining or aggregate size or combination of, for those areas where visual contrast is required with sound acoustic treatment in the large areas with the hard finish.
- Maximize the use of movable wall partitions between classrooms with whiteboard material finish as surface choice for the ability to combine rooms.
- The learning stairs must not be too steep and should be geared to the designated age groups with interest of including a quiet reading cubby/cave under the learning stairs, with the ability to supervise the area.
- Gymnasium with bleachers on the sideline and support (data & power) for score board (By District).
- Location one of the Resources Rooms centrally and adjacent to the Guidance Department and the other 4 Resource Rooms divided to support in each grade groupings.
- Guidance Department centrally located in close proximity to the main office area.

- Visiting Professionals located centrally in close proximity to the main office administration area with the ability to interact with the school staff.
- Breakfast program adjacent to the dining area, with stove, small walk in Fridge and Freezer, food preparation counter with outlets to support toasters and microwave. Pass through to serve students in the Dining Area.
- Our vision includes some project work areas off the corridors open with resource room(s) adjacent and one (1) project work area located off the corridor with access to a breakout room between 2 classrooms with no glazing to the classroom and access off the corridor with glazing on the corridor side for supervision.
- One resource space for Guidance centrally adjacent to the administration area and other 4 allocations (2 for each wing). Refer to project work areas.
- Two (2) Multi Function rooms on the ground floor that are interconnected with movable partition, located between the grade communities with a counter and sink in each room.
- Multi Function room on the seconds floor located between the grade communities with a counter and sink.
- Library seminar room to be accessible from the library and the common or corridor area.
- Early Childhood Development Room to be at the end of the classroom Kindergarten section with a dedicated entrance and separate exterior yard space.
- Power and data to be included in storage room(s) which are spaced out from the administration area to support the use of photocopiers through-out the school to support the staff.
- Washrooms on each floor to support the students throughout the facility and in the cafeteria area, with added capacity on the ground floor in location to support in the event of an expansion of modular classroom(s) or an addition pending site conditions.
- Allocate space on the site for future expansion or modular classrooms if space allows.
- Based on the selected site, relocate all relative age-appropriate equipment on site based on condition, code compliance and logistics.

01.2 INTENDED USE AND EXCEPTIONS

- a) **Educational Specifications:** The *Planning Guidelines for Educational Facilities* is a valuable resource tool used to establish the Educational Specifications as described in Section 01.4. The document is a reference to be used by the Planning Committee, as defined in Section 02.2, for planning a new facility or a major capital improvement of an existing facility.
- b) **Schematic Design:** The *Planning Guidelines for Educational Facilities* should be referenced by the architectural firm to aid in the schematic design phase of the project.
- c) **Types of Facilities:** The types of facilities referred to in this document are limited to elementary, middle and high schools and combinations thereof.
- d) **Not for Detailed Design:** The *Planning Guidelines for Educational Facilities* does not deal with the technical provisional needs for educational facilities. The document *Design Guidelines for Educational Facilities*, as outlined below in Section-01.4.b, governs more detailed and definitive requirements for performance, quality and function to aid the professional design consultants when developing detailed plans and specifications for construction tender documents that describe any given project. The two documents will work in conjunction with one another.
- e) **Exceptional Circumstances:** To adapt to the distinctive needs of a particular school, it is recognized that these guidelines exist to create a thorough and fair standard across the province; however, sometimes differences necessitate deviations from the guidelines. The final decision will require approval by the EECD.
- f) **Exceptions for Existing Facilities:** When renovating existing facilities, the guidelines will apply to the extent reasonably achievable for the allotted improvement. It is understood that in many cases when partial renovations are required, it will not be practical to amend the existing facility to comply with the current guidelines. The final decision will require approval by the EECD.
- g) **Community Partner Facilities:** Although the government encourages appropriate community partnering, as per Policy 407, and this may involve integrating other community facilities within a design, this document does not outline any specific standards related to twinning with other facilities; however, it does outline expected relationships related to safety and security between the school and potential community facilities.

01.3 OTHER DOCUMENTS

- a) **Educational Specifications:** This document is prepared by the EECD in consultation with the Planning Committee. It is unique to each school project and outlines the size and use of that particular facility. It is the Educational Program that is created in direct response to this Planning Guideline Document and in response to particular requirements of a school and its location. This document supersedes all other planning documents but does not supplant mandatory codes, bylaws or other regulations. See *Section 02.1. Step 5* for further details pertaining to the Educational Specifications.
- b) **Design Guidelines for Educational Facilities:** This document is administered by the Department of Transportation and Infrastructure. Its purpose is to provide the consultants who are commissioned to design educational facilities with definitive, detailed requirements for building performance, quality and function. The Design Guidelines have been developed jointly by the EECD and the Department of Transportation and Infrastructure. The intent is to standardize system elements based on proven success, so that the final product is cost-effective, energy efficient, functional and maintainable. The Educational Specifications supersede the *Design Guidelines* document.
- c) **Project Brief:** This document is prepared by the Department of Transportation and Infrastructure and identifies the project scope, construction budget, schedule, and fiscal year cash flows.
- d) **Schematic Designs:** These drawings are produced by the architectural firm commissioned for the project and are in response to the Educational Specifications and site-related constraints. They are scaled drawings indicating all spaces, their area, shape and relationship to one another, circulation spaces, walls and doors. The schematic designs also include a site plan indicating the position of the building, roads, walkway, pedestrian and cyclist traffic, bus loading, parent drop-off zone, parking, service and fire routes, playground areas, playing fields and any other significant site influences. They are presented to the Planning Committee for review, revisions and final approval prior to the preparation of tender documents.
- e) **Tender Documents:** Tender documents are plans, specifications and other written legal documents prepared by the architectural firm and other professional sub-consultants necessary for contracting and constructing the facility. The Department of Transportation and Infrastructure oversees the architectural firm and consulting professionals in producing these documents. They are also reviewed at periodic stages by the EECD. The *Design Guidelines for Educational Facilities*, as well as the approved schematic plans, form the basis for the development of tender documents.
- f) **Other Mandatory Regulations:** These Guidelines do not supplant other mandatory codes or regulations.

01.4 DOCUMENT UPDATES

The *Educational Facilities Planning Guidelines* will be formally updated periodically, as required. The Educational Facilities and Pupil Transportation Branch of the EECD is responsible for preparing any required revisions in response to changes in the delivery of education, curriculum or technology for the Minister's approval.

PART A
GENERAL DIRECTIVES

New Forest Hill / Liverpool K-5 School

Anglophone West School District

June 2024

**Department of Education and Early Childhood Development
Educational Facilities and Pupil Transportation Branch**

PLANNING PROCESS

02.1 SUMMARY

The planning process involves a close liaison between the school district and the Educational Facilities and Pupil Transportation Branch of the EECD. In general, the school district is responsible for understanding and communicating the specific needs of the proposed infrastructure, and the EECD uses its experience and expertise to orchestrate the planning process and administers established standards as described in this document. Together, both parties are responsible for helping to develop the schematic design with the architectural firm commissioned for the project.

The production of tender documents, which constitute the construction contract and deal with more technical aspects of the school's design, will be managed and administered by the Department of Transportation and Infrastructure Buildings Division in consultation with the EECD. The Department of Transportation and Infrastructure applies its construction experience and expertise and administers the established standards as outlined by the *Design Guidelines for Educational Facilities*.

02.2 STEPS AND RESPONSIBILITIES (See Summary Table 2-1 on page 2-7)

The roles and responsibilities of the school district and the EECD are best explained in the context of the overall process for project planning and execution. The following steps are in a recommended sequence. However, it is conceivable that the process could be altered for health or safety emergencies or any other reasons the Minister deems important.

STEP 1-A - The Capital Project Priority List:

As per the *New Brunswick Education Act*, and EECD Policy 409, it is District Education Councils who have the authority and responsibility of preparing a district multi-year school infrastructure proposal, for submission to the Minister. The proposal must be updated annually. The submission will identify priorities respecting capital construction projects within the school district, and the District Education Council through the Superintendent will evaluate the health, safety and general fitness of existing school facilities to deliver the provincial curriculum and to provide support services. As well, the Superintendent is responsible for determining the placement of students within the district's facilities. In order to compile this list, at times a complete space utilization study across the district may be necessary. The district is to keep the EECD informed of current priorities and proposed projects. The Educational Facilities and Pupil Transportation Branch will make itself available to assist and share knowledge and expertise if requested by the school district.

STEP 1-B - Establishing Community Partner Relationships:

The school district is responsible to stay abreast of any potential community partnering that might be capable of enhancing a capital school project, as referenced in Policy 407. This step is performed on an ongoing basis and in concert with Step 1-A. Partnership opportunities that create potential mutually beneficial liaisons should be actively sought. It is expected that when a capital project is announced much of the legwork is in place for partnerships to form. The collecting of knowledge and building of relationships through an ongoing process of consultations with the community at large, local municipal government, local service district, other government departments or appropriate non-profit organizations is also expected. Likely candidates may be libraries, daycares, recreation or theatrical facilities, municipal parks and playing fields, community policing offices, etc. All community partnering shall be in compliance with EECD's Policy 407. *See part 02.3 of this section.*

STEP 2 - Additions to Capital Construction Program:

Once each year at the request of the department, district educational councils (DEC) submit their prioritized major and capital improvement project lists to the Minister for consideration. All present and proposed capital projects are reviewed to determine which will be incorporated into the capital construction program for the EECD.

The methodology used to prioritize the major projects submitted is the quadruple bottom line multi-criteria analysis (QBL). QBL is a methodology for assessing the impact of a project against key objectives. The EECD provincial QBL includes the following four quadrants:

- Economic
- Environment
- Social
- Cultural

The selections are recommended to Cabinet Committee by the Minister of Education and Early Childhood Development, acting on the advice of senior staff. A project's acceptance, at any stage, is contingent on the urgency of need relative to the provincial context, and on short and medium-term projections of available capital funds. Results of the selection process are announced by the Minister of Education and Early Childhood Development in the Legislative Assembly, normally at the time of the speech on estimates.

STEP 3 - Formation of the Planning Committee:

The Superintendent is requested by the Educational Facilities and Pupil Transportation Branch to identify individuals to sit on a planning committee. It is suggested that the committee be a seven-member body composed of a representative of the District Education Council, the school district, the community, and the EECD and other stakeholders as necessary. The EECD is responsible for guiding and directing the planning process. The Planning Committee has the mandate to assist the Educational Facilities and Pupil Transportation Branch of the EECD in determining the educational specifications requirements. The Planning Committee also reviews the schematic design and must accept them before the project proceeds to design development.

STEP 4 - Development of the Educational Specifications:

The Planning Committee determines the scope of the project by performing a demographic analysis of the current and projected student population. The space requirements will be identified based on a 10-year future projection from the construction start. This projection will permit the district to deliver the prescribed educational curriculum and support services over time. The facility's floor areas will be determined by the standards defined within this document.

The educational specifications will include the following:

1. project identification
2. school enrolment history
3. demographic analysis of projected 10-year enrolment
4. an inventory of site specific requirements
5. list of all spaces and defined floor areas
6. a general description of building and site design considerations
7. list of desired spatial relationships
8. list of building design principles regarding the overall nature and quality of the desired learning environment

During the process, the EECD and school district will require meetings and consultations with the school administration and the facility users, personnel, community groups, and/or other related stakeholders.

These specifications will form the basic requirements on which the building design will be based. This phase involves ongoing consultation with the Educational Facilities and Pupil Transportation Branch and the school district. The Educational Facilities and Pupil Transportation Branch is responsible for coordinating the development of the educational specifications and producing the document in a form suitable for review by the school district.

It is important to note that ideally, if a community facility is to be planned for within the project, all legal agreements must be resolved and completed at this stage. **See Sections 02.3 and 03.1 for further detail.**

STEP 5 - Approval of the Educational Specifications:

The educational specifications are presented to the District Education Council by the Superintendent or Superintendent designate. The District Education Council acknowledges to the Minister its support of the document developed by the Planning Committee. The Minister makes the final decision and informs the District Education Council.

STEP 6 - Site Selection and/or Acquisition:

The Department of Transportation and Infrastructure in cooperation with the EECD evaluates all potential sites available within the locality in which a new project is proposed. The findings are submitted to the Minister of Education and Early Childhood Development, accompanied by comments and recommendations.

Based on the recommendations, the Minister will select the most desirable site in accordance with considerations outlined in Sections 03 and 04 of this document. The Department of Transportation and Infrastructure will have appraisals, geotechnical investigations, surveys and other work completed prior to approval by the Minister.

The Department of Transportation and Infrastructure will negotiate the acquisition of the desired land once a selection has been made. All legal services for title searches, preparation of deeds, etc., will be obtained by that Department.

In instances where a school district is planning to modify existing facilities, the need for additional land is often present. The purchase of additional land adjacent to existing school properties must follow the same procedure as new sites for evaluation, approval, purchase and development.

STEP 7 - Preparation of the Schematic Design:

The architectural phase of the project is announced by the Minister. The Department of Transportation and Infrastructure appoints an architectural firm to the project. Under the instruction of the Educational Facilities and Pupil Transportation Branch, and in consultation with the Department of Transportation and Infrastructure, the architectural firm develops the schematic design and the general drawing arrangements of the facility based on the educational specifications. The schematic design and the general drawing arrangements are presented to the Planning Committee by the Educational Facilities and Pupil Transportation Branch.

Upon approval, the mandate of the Planning Committee is now complete.

STEP 8 - Design Development:

The architectural design is then developed by the architectural firm with the assistance of the sub-consulting engineers to produce a design development drawing set. This is under the supervision of the project manager at the Department of Transportation and Infrastructure, in consultation with the Educational Facilities and Pupil Transportation Branch. The school district, is informed and consulted during the process.

STEP 9 - Preparation of Tender Documents:

The design is further developed by the assigned architectural firm and sub-consulting professionals under the supervision of the project manager at the Department of Transportation and Infrastructure to create tender plans and specifications which will later form the basis for the construction contract. The EECD's Educational Facilities and Pupil Transportation Branch reviews the development of the tender drawings at different steps of completion. The drawings are submitted to the school district at each stage of development. Ongoing consultation with the Educational Facilities and Pupil Transportation Branch is expected throughout this step.

STEP 10 - Construction Tender and Awarding of the Contract:

The Department of Transportation and Infrastructure is responsible for administering tenders and awarding the contract in accordance with the *Crown Construction Contracts Act*.

STEP 11 - Construction and Occupancy:

Inspection during construction is the responsibility of the Department of Transportation and Infrastructure, working in cooperation with architectural firms, engineering consultants, school district representatives and the EECD.

Once the new facility has been declared substantially completed by the architectural firm, the Department of Transportation and Infrastructure transfers the responsibility for the school to the school district.

STEP 12 - Post-Construction Review:

The Department of Transportation and Infrastructure and the EECD will review the successes and failures of the school's performance after two school years of operation following construction. A site visit will be performed which will gather feedback from seeing the school and consulting with the users and administrators in order to gain insight to assist in designing future projects. It will also be used as a research tool when updating the Guidelines. The EECD will be responsible for keeping records of the review.

02.3 COMMUNITY PARTNERING AND THE PLANNING PROCESS

The EECD supports the planning and design of joint school and community projects. When the community or another government body wishes to build a public facility and integrate it within or on the same property as a school facility, and when it is deemed appropriate and mutually beneficial to the school and the education of students by the Minister, the EECD's Policy 407 applies.

As mentioned in *Section 02.2 Step 1B*, it is suggested that the school district keep abreast of any potential capital community project planned that might be mutually beneficial.

In the planning and design process of a joint school-community project, it is recommended that a separate committee be formed consisting of members of the school district and the municipality or other community or government players involved. This joint planning committee reports to the District Education Council for approval of the project. The project is then subject to approval by the Minister of Education and Early Childhood Development.

Capital and operation cost agreements must be agreed upon prior to the undertaking of architectural plans. The development of the design will be supported by the EECD. The committee must clearly define the relationship between the educational facility and the community facility to ensure compatibility, particularly as they relate on the level of safety and security of the student.

Refer to the EECD's *Policy 407* attached in Appendix A which stipulates the responsibilities of different parties as well as the procedures to follow when planning for the community use of school facilities.

Table 2-1 - PLANNING STEPS AND RESPONSIBILITIES

STEPS	Deliverables	Involvement and Responsibilities
1a	Capital Project Priority List (ongoing)	School District (SD) produces and maintains list. Department of Education and Early Childhood Development (EECD) assists if requested.
1b	Community Partner Relationships (ongoing)	SD /Community School Liaison Officer to keep abreast of potential partnerships.
2	Addition to Capital Construction Program	Once a year District Education Council (DEC) presents priority list. Minister selects and recommends to Cabinet. Minister announces project in Legislature.
3	Formation of Planning Committee	Superintendent selects representatives from SD and DEC. EECD chairs committee.
4	Educational Specifications	Planning Committee steers process and signs off on the Educational Specifications. EECD produces document.
5	Approval of Educational	DEC recognizes support of document.

	Specifications	Minister's approval.
6	Site Selection	Selection and/or acquisition of land.
7	Schematic Design Drawings	Department of Transportation and Infrastructure (DTI) appoints architectural firm. Architectural firm produces schematic drawings in consultation with EECD and the planning committee.
8	Design Development Drawings	Architectural firm produces preliminary drawings under supervision of DTI and in consultation with EECD and SD.
9	Tender Drawings and Building Contract Documents	Architectural firm produces the tender package under supervision of DTI and in consultation with EECD and SD.
10	Tender and Awarding of Contract	DTI is responsible in accordance with the <i>Crown Construction Contracts Act</i> .
11	Building Construction	DTI assumes the owner's responsibilities in the construction process. The architectural firm and engineering consultant provide periodic reviews and administer contract.
12	Two Year – Post Construction Review Report	DTI and EECD will review the successes and failures of the school's performance after two school years.

SITE SELECTION

03.1 ANTICIPATING POPULATION CHANGE

Ideally, land should be acquired before the need becomes critical and when sufficient and reasonably priced acreage is still available. Site acquisition should anticipate rather than follow population increases. This can be achieved through long-range planning subsequent to the development of educational specifications for each project. Careful analysis of demographic data and the reference of reliable and expert resources on population projections should be fully utilized. (**See Section 02.2 Step 6 in regard to the process of site acquisition**).

03.2 SURROUNDING CONTEXT

The following is a list of considerations when selecting a site relative to its surrounding context:

a) Community Amenities:

When selecting a site, its context as it relates to the community should be considered. What mutually beneficial relationships might result from the location? It should be understood that existing or proposed public resources within the community may offer reciprocal shared uses with the school that can create richer community links for positive learning.

b) Community School Use:

Proposed or possible utilization of the school site or facility for community programs should be considered.

c) The Catchment Area:

It is desirable for a school to be located as close as possible to or preferably within the community in which the majority of the student population lives.

d) Accessibility of Site:

Any natural or man-made features that limit accessibility to a site or the expansion of a site are best avoided.

e) Planning Bylaws:

Local planning regulations should be reviewed and found compatible. Consultations with any relevant local planning authorities and/or other appropriate agencies are advised to develop a cooperative and compatible approach and to fully understand the site's limitations or assets.

f) Available Utilities:

A site should be selected with utilities that can be provided at a reasonable cost. Local government water and sewer extension policies and codes should be reviewed. Where municipal systems are not available, the installation of water supply and sewage disposal systems will require investigation. Utility companies should be consulted for assurance that the required services such as electricity, gas, oil, roads, telephone, etc., can be installed without excessive construction costs of mains and distribution lines. Lack of these facilities or excessive costs to obtain them may be a deciding factor in the selection of a site.

03.3 TRANSPORTATION

Accessibility to public transportation and ease and safety of pedestrian and vehicular travel is paramount when choosing a site. Safe bicycle routes are an asset.

Transportation strategies must be considered. In walking areas, schools should be located near the centre of population. Where students are transported, the site should be conveniently accessible and bus travel time must be carefully analyzed.

03.4 MITIGATING SAFETY RISKS

The following are some safety risks to be avoided when selecting a site:

a) Heavy Vehicular Traffic:

Arterial highways, heavily travelled streets, or congested intersections.

b) Undesirable Neighbors:

Airports, taverns, bulk storage plants for inflammable materials or property zoned as industrial.

c) Undesirable Environmental Conditions:

- i. Potential soil-borne contaminants such as industrial wastes or previously imported fill. The history of the use of the site should be researched.
- ii. Potential air-borne contaminants such as those generated from railroads, airports, and industrial developments.
- iii. Potentially dangerous natural site conditions such as bodies of water, flood plains, cliffs or other dramatic natural changes in topography.
- iv. Excessive noise or other disruptive effects should be avoided

03.5 NATURAL SITE CONDITIONS

a) Flat Site:

A school facility's footprint requires a fairly level topography in order to maintain a single main floor level with easily accessible entrances and service accesses. A relatively flat site is ideal.

b) Soil Conditions:

Before the site is purchased, a geotechnical engineer shall be engaged and soil investigations should accurately determine soil condition.

Adverse conditions can usually be overcome by construction techniques, but they should be accepted only when the costs of such improvements are justifiable. The following factors should be considered in regard to drainage and soil conditions.

- i. Manageable water table.
- ii. Good soil drainage.
- iii. Presence of unsatisfactory fill, or other undesirable sub-soil conditions requiring special footings or pilings to support the building should be avoided.
- iv. The need for extensive hauling of earth should be avoided.
- v. The presence of rock or other conditions will affect the cost of necessary excavations.
- vi. The need for removal of large boulders, clay and the need for filling or capping old wells or pits will affect cost.

03.6 SITE SIZE

Based on the experience of the EECD in planning construction over recent years, as a rule of thumb where land is available and costs reasonable, school sites with the following usable acreages will be considered:

Elementary:	18 acres + 1 acre/100 students
Middle:	18 acres + 1 acre/100 students
High:	19 acres + 1 acre/100 students

These acreage requirements should be calculated based on future expanded enrolments. The site size is based on single story construction requirements. The site acreage may have to be increased if the following needs exist:

- i. Sewerage treatment plants and retention ponds are required.
- ii. If additional playing fields are required.
- iii. Community partner facilities are planned.

In urban areas site size may be reduced when land availability is limited and/or existing community field or other facilities are used offsite.

SITE DEVELOPMENT

04.1 PURPOSE

This section addresses site development on a broad schematic level. When developing the site schematic, the designer shall also refer to *DTI Design Guidelines for Educational Facilities* for sustainable site principles.

04.2 SITE DESIGN

a) The Street and Site Services:

The building shall be located as close and as conveniently as possible to the street and service connections while balancing the location of site components and other concerns outlined.

b) Entrances:

The building's main entrance shall be readily visible, inviting and in a practical location relative to the street, bus drop-off, parking area and parental drop-off. The entrance should be in clear view of the main access drive when entering the school grounds.

c) Building Orientation:

If possible the building's orientation should provide for classroom wings or clusters that allow windows in a north or south facing direction. See *DTI's Design Guidelines for Educational Facilities* for good quality daylight. If possible, the orientation should capitalize on views and natural assets of the surroundings.

d) Sloped Areas:

- i. A maximum slope of 30% is allowed for grassed slopes.
- ii. Hard surfaces are to be set back 3 m from the foot of a slope.
- iii. The need for steps and ramps should be avoided if possible.

e) Existing Natural Conditions:

The design will work to optimize inherent natural site conditions.

- i. Design should consider the best location that, where possible, preserves the natural features of the site. Site disturbances shall be kept to a minimum, preserving existing trees, ground covers, grades and land forms when possible. Any existing deciduous trees to the south of the structure should be carefully considered for preservation.
- ii. Earthworks should optimize the balance between cut and fill.
- iii. The main finished floor elevation level chosen for the building should allow for all entrances to be barrier-free, and ideally stairs and ramps will not be required.
- iv. A minimum slope of 2% falling away from the perimeter of the building should be maintained for 3 m around the structure.

f) Future Building Additions:

The building should be located in such a way as to maximize space for planned future expansions. The schematic plans should accurately show the potential expansion by means of scale drawings indicating all spaces and how they are connected and integrated into the proposed school. Circulation and proper exiting should be demonstrated. The designer should allow for appropriate amenities within the expansion and meet all building code regulations to allow for a minimum of remedial work on the pre-existing building.

g) Safety and Security:

The designer should exercise due diligence in identifying and mitigating any potential safety and security risks relative to the site.

- i. Playing fields located near traffic shall be fenced. See below.
- ii. Children shall be protected from natural landscape hazards.
- iii. Alcoves, cul-de-sacs, hidden areas and other places where supervision is not achievable must not be allowed or developed.
- iv. Playground areas shall be located away from any vehicular traffic and protected from the public.
- v. Entrances and other safety considerations are to be reviewed with local emergency responders

04.3 RE-LOCATABLE CLASSROOM WINGS

In areas where population is deemed to be in decline, re-locatable classroom wings, complete with a re-locatable corridor, will be provided as new construction to the extent deemed appropriate based on an analysis of demographic expectations. These wings will be relocated in the future as required. The re-locatable classrooms will meet all standards required of permanent construction except that the break-out rooms may be provided in an arrangement that is not necessarily located between classrooms. The construction will be of a quality equal to permanent construction and fully integrated into the plan. Attempts should be made to fit in with the aesthetics of the permanent structure. The wing may want to be located to be less prominent from view. Refer to *DTI's Design Guidelines for Educational Facilities* for High Performance Building (HPB) rating requirements.

04.4 SITE COMPONENTS

a) Roadways:

Roadways should be efficiently laid out with special consideration given to both safety and snow removal. Drives should be a minimum of 6 metres wide for one-way traffic and a minimum of 9 metres wide for two-way traffic.

b) Bus Loading Zone:

A bus zone should be designed to accommodate the following:

- i. Space for **4 buses**, at once. It will be separate and not in conflict with the parental drop-off zone.
- ii. Visible from main entrance and administration area.
- iii. It will allow for students to be dropped off on a sidewalk that connects to the main entrance with bus doors facing the sidewalk and school.
- iv. See DTI's *Design Guidelines for Educational Facilities* for dimensional standard.

c) Bus Storage and Charging Facility:

- i. **This school's site does not have the requirement or space for a bus storage area or e-bus charging facility.**

d) Parental Drop-Off Zone:

A parental drop-off zone should be provided to accommodate the following:

- i. Space for **20** anticipated parent vehicles dropping students off all at once.
- ii. It will be separate and not in conflict with the bus loading zone as described above.
- iii. It will allow for students to be dropped off on a sidewalk that connects to the main entrance with the passenger door facing the sidewalk and school.
- iv. See DTI's *Design Guidelines for Educational Facilities*.

e) Pedestrian and Cyclist Traffic:

A sidewalk and path system shall be designed to accommodate the following:

- i. Separate from vehicular traffic and provides maximum safety.
- ii. Direct, convenient walking routes that reflect natural expected patterns.
- iii. Connects the building to the local pedestrian walkways and streets, as well as the bus loading zone, parental drop-off area, parking areas, and auxiliary school facilities.
- iv. Main walkways shall be paved with concrete or asphalt.
- v. They will be crowned or sloped for proper drainage.
- vi. The approach to the main entrance will be paved with concrete. Bike racks will be accommodated conveniently in this paved area.
- vii. See the Design Guidelines for widths of walkways.
- viii. All walkways providing access to the public entrances of the building shall be barrier-free.
- ix. All crosswalks shall be raised asphalt, painted with appropriate warning markings and be barrier-free.

f) Parking:

- i. **Number:** Staff and visitor parking shall be provided at a rate of 2.5 stalls per teaching platform. 1 in 25 of the stalls is barrier-free. Additional parking may be provided for students based on the school's needs and availability of land at the high school level. **The district anticipates the requirement of 85 parking stalls for staff and visitors.**
- ii. **Lighting:** Provide lighting as specified in DTI's *Design Guidelines*.

NOTE: See DTI's *Design Guidelines for Educational Facilities* for dimension standard.

g) Emergency Vehicular Routes:

- i. Provision for firefighting and access route design shall conform to the currently adopted National Building Code.
- ii. Two separate emergency access points onto the site shall be provided in case one becomes blocked.

h) Loading, Recycling and Waste Removal:

- iii. Access for deliveries and removal of recycling materials and other waste will be accommodated and planned for on a case-by-case basis.
- iv. The design of the building should support and accommodate a recycling plan that is appropriate for the school and the community's infrastructure.
- v. Any necessary exterior garbage or recycling bins or dumpsters should be provided with hard surface paving of an appropriate area strategically located to be out of view but positioned to allow easy delivery of materials and safe vehicular pickup.
- vi. Equipment such as power transformers, fuel tanks, etc., shall be located such that they do not interfere with the use and appearance of the site. Equipment shall not be located near the main driveway access or building entrance unless approved by the Province. Where equipment is visible from public areas, it shall be completely screened with fencing and/or landscaping.
- vii. The kitchen's receiving door shall be readily accessible for truck deliveries.
- viii. Where vocational art facilities are provided, a paved single vehicular lane is required to gain access to the outdoor compound as per Section 20.

i) Bicycle Racks:

Bicycle racks are encouraged in schools that expect bicycle commuters. They shall be located near the front entrance at an approximate rate of 1 space per every 15 students and staff, depending on the area and expectations. The rack area should not infringe on pedestrians as they approach the entrance. Racks shall be located on a hard surface and shall be visible from the administration area. Racks shall not be located below canopies which are attached to the building due to conditions listed in the National Building Code of Canada. **The District has a requirement for bike racks to accommodate 36-40 bikes to support the students as a minimum.**

j) Landscaping:

- i. Existing site vegetation should be capitalized on and inherent assets recognized and retained where possible.
- ii. All areas that have been cleared and are unoccupied by other vegetation, hard surfacing or paths are to be covered with topsoil whose composition and depth is suited to existing subsoil conditions and seeded with grass or indigenous planting that will withstand light foot traffic.
- iii. See *DTI's Design Guidelines for Educational Facilities* for landscaping requirements in relation to High Performance Buildings. Also see outdoor classroom as listed below.

k) Outdoor Classroom:

- i. Provide an innovative means to assemble a minimum of one classroom for fair weather open-air learning. **Plan for or allocate space for an outdoor classroom location if space is available.**
- ii. Accessible from cafeteria to also provide an inviting outdoor area for lunches.
- iii. Use excavated fill material if available to sculpt seating spaces.
- iv. Capitalize on inherent natural aspects of the school's location.

l) School Playground Area:

In elementary schools, provide an approximate area of 7.5 m x 35 m (nominal 260 m²) up to 300 students. For larger student populations an additional space of 40 m² per 50 students will be added to a maximum of 520 m². **This school will have an open area of 420 m² of playground area**, conforming to the following:

- i. The area is visible from the kindergarten or appropriate classrooms.
- ii. Its location mitigates exposure to any safety or security risk. Specifically, it shall be located away from any vehicular traffic.
- iii. It is best shaded by deciduous trees.
- iv. It is not located in an area with a harsh climatic exposure.
- v. It will provide barrier-free access.
- vi. Protective surface to be provided as per Policy 406.

Purchase and installation of equipment is coordinated by the school district and must comply with CAN/CSA – Z614-07 and the EECD's Policy 406 (see Appendix A).

EECD will contribute up to \$80,000 to assist with the purchase and installation of playground equipment for new elementary schools. Barrier-free features are to be included in equipment and structures that are chosen.

m) Storage Structure for Outdoor Maintenance Equipment:

An unheated 35 m² shed constructed of low maintenance, vandal-proof material such as concrete block shall be provided for the storage of outdoor maintenance equipment. Combustible products such as paint will also be stored here. It shall be equipped with a man door and an overhead door and located in a discreet but convenient location.

Electrical wiring shall be supplied to the shed. The school district will install receptacles and lighting as requirements will vary by school.

n) Playing Fields:

- i. The availability of site area may limit playing fields. When limitations exist, use of other approximate community fields may be considered.
- ii. **One multi-purpose playing field** (60 m x 100 m field with 5 m wide clear sloped perimeter) is provided for all school grounds unless prevented by unusual circumstances.
- iii. If the site has limited space, the field size may be reduced to 45m x 75m with 5m wide clear sloped perimeter.
- iv. A typical field can accommodate 2 teaching stations running widthwise. Multiple fields may be provided based on groupings for physical education at the middle and high school levels. The number of teaching stations required dictates the number of fields as follows:
 - i. 1 field for 1 to 4 teaching stations at the K-8 grade levels.
 - ii. 1 field for 1 to 3 teaching stations at the high school level.
 - iii. 2 fields for or more teaching stations at the high school level.
- v. The field's size will be based on the standards associated with the sports being played at the particular school and the typical size noted above may be altered to accommodate those standards. Also see DTI's *Design Guidelines* for typical dimensions and detailed standards.

o) Hard Surface Play Areas:

- i. An all-weather surface area will be provided for all school facilities that are suitable for outdoor play activities requiring a smooth hard surface, such as basketball, volleyball, badminton, shuffleboard, etc.
- ii. Provide barrier-free accessibility to all play areas.
- iii. Allow for 0.5 m² per student with a minimum area of 250 m² and a maximum area of 500 m². **This school will have a hard surface playground area of 250m² clear of any pathways. The student's access to the playground areas should include additional asphalt surfacing to support a hard apron to keep entrances clear of mud and sand.**
- iv. **All school exits and access doors shall have a hard surface clear of obstructions for the District to maintain. Doorway shall not exit onto landscape/grass areas.**

p) Community Gardens and Green Houses

- i. In accordance with EECD policy 711 and EECD policy 315, healthy eating habits are to be promoted in schools. As such, necessary space for the inclusion of community gardens and/or green houses should be identified on the site plans.
- ii. **Identify a space on the site, possibly integrated with the outdoor class area.**

BUILDING DESIGN PRINCIPLES

05.1 PURPOSE

The following section outlines general design criteria for all school facilities regardless of their grade levels or size. It will apply to all educational facilities and is intended to guide the schematic design. More detailed information used to develop the plans and produce tender documents is found in DTI's *Design Guidelines for Educational Facilities*.

05.2 ENVIRONMENTAL SUSTAINABILITY

High Performance Buildings

All new educational facilities are to be designed, constructed and operated to be high performance buildings based on best practice design and construction principles. Building projects will comply with the Province of New Brunswick – green building policy for new construction & major renovation projects September 2015 revision 3. See *DTI's design guidelines for education facilities* for further technical information.

05.3 VISUAL CONTEXT AND THE COMMUNITY

a) Scale and Character:

All new educational facilities are to be designed to respect a scale and character that complements the neighborhood and the community at large, unless otherwise directed by the EECD.

b) Positive Influences:

Consider the use of existing materials, colours and massing forms that are positive community influences and materials that are compatible with and reflective of the positive character of the area.

c) Representative Images:

Consider imagery and/or forms that are representative of the area or historic references from the community or past schools.

d) Recycled Components:

When replacing an existing school that is to be demolished, consider the reuse of worthy materials or building elements or imagery.

05.4 EXTERIOR MASSING AND FORM

a) Reduce Massing:

The designer is to recognize the need to reduce the perception of the mass of the structure and relate to a human scale by articulating smaller volumes and using changes in texture, colour and materials to break down the scale.

b) Change in Volume-Clerestory Windows:

Articulate changes in volume and roof slopes for opportunities to create high level clerestory windows that introduce light where effective in deep spaces of the school. Snow accumulation and window cleaning must be considered when locating such windows.

05.5 MATERIALS

Low-maintenance, durable and vandal-proof materials are required for any exposed exterior or interior materials and finishes.

05.6 MAIN ENTRY

All new school facilities will have one distinguishable main student entrance. If more than one school is contained within one structure, each will have a separate main entrance. The main entry shall possess the following characteristics:

a) Exterior Canopy:

A covered canopy or cantilevered roof is required outside the main doors. This will protect the immediate area around the doors from the weather and serve as an opportunity to express a welcome or create a ceremonial quality to the school as a whole.

b) Welcoming:

The main entry is a very important design element. It should be inviting, friendly and not forbidding or institutional in appearance. It should also be readily identifiable upon approaching the school. The welcoming aspect must be balanced by the need to secure the entry. The main entry in an elementary school is to be smaller, homier, and more intimate in scale.

c) Signature:

The entry should create a notable presence in the landscape or cityscape or community. This signature element might symbolize how the school is unique and special.

d) Entrance Lobby:

The lobby should be the central organizing hub of the school. The administration area shall be located to command a full view of the lobby and visual supervision of the main doors and exterior canopy area. Visitors and students should be able to easily identify the administration's reception area.

Provide a creative format for student display in the lobby. The school may also consider locating community art pieces here. Ideally the student commons area (see Section 22) should be associated with or in proximity to the entrance lobby. The arrival lobby area should be clear and open and of an adequate size to allow for the flow of the whole student body. The area taken up by the lobby is allocated under the Services and Systems space category (see Section 29).

05.7 SAFETY AND SECURITY

Physical facility security features provide effective risk mitigation to students and staff when employed properly as a part of a more comprehensive district and school implementation of safe operational practices and communications protocols. Appropriate site conditions enable opportunities for a safer, more coordinated, and more effective response by staff, students, emergency responders, and parents/guardians in the event of a threat incident by providing: controlled school access, intrusion detection, and increase daily security for all school personnel. Effective physical and environmental design elements also increase the level of site security and facilitate emergency responses by police agencies, fire fighters, emergency medical personnel, etc.

School floor plans/blue prints must be kept current and accessible for use in effective planning and response.

a) Plan Reviews:

It is the responsibility of the architectural firm to meet and review schematic plans with fire authorities having jurisdiction in order to respond to any safety and security issues that they may recognize early in the design process.

b) Lock-down Procedures:

The designer will make him or herself familiar with the school district's lock-down procedures and will co-ordinate with the school district, the EECD and the policing authorities the planning that will respond to and be compatible with policies in place.

c) Vandalism and Illegal Entry:

Design of the school and selection of material must be resistant to misuse, vandalism, and secure against illegal entry. Consider ways to prevent undesirable access. To reduce the possibilities of access to the roof, avoid using metal siding in a horizontal pattern, climbable projections, low door and window canopies, low roof lines, and overhangs.

d) Concealed Spaces:

Hidden corners and alcoves inside and outside the facility shall be avoided.

e) Card Keying Lock System:

A card keying system will be supplied for all school main and staff access doors and any doors that access public/community-zoned areas of the school. The system will be operated and programmed from the school district and will allow cards to be programmed for specific hours of access. Compatibility with any current district equipment is to be considered. See *DTI's Design Guidelines*.

f) Entrance/Vestibule Doors:

The main entrance shall be designed so that visitors are able to enter a vestibule from the exterior, but not proceed into the building's lobby. Access through vestibule doors into the lobby will be electronically controlled via the Administration Area.

g) Alarm System:

See *DTI's Design Guidelines*.

h) School Security Features

Subject to a yearly review, the following are the security features that are to be included in all new constructions and major upgrades:

i. Surveillance Camera Systems/Closed Circuit Television (CCTV):

Signage to the effect that surveillance cameras are in use is now required at main entrance of all schools that employ these cameras. Video access is strictly controlled: restricted to designated district, school administration, and facilities staff.

1. CCTV Surveillance: Interior

- Number of installations based on video surveillance areas:
 - student common/large group areas: lounges, cafeterias/auditoriums

- interior of main entrance and service entrance angled to capture facial features; interior of exit doors off of hallways;
 - main corridors
2. CCTV Surveillance: Exterior
- Exterior views of main entrance and service/delivery doors
 - Student-Parent pick up and drop off
 - Bus pick up and drop off
 - Each designated student play area
- ii. CCTV Surveillance: IP/Web-based Access to Video Feed
- Live feed, surveillance video to be accessible off-site;
 - IP-based with secure protocols; working with EECD/DTI Security Officers
 - Provide access to stored surveillance data
 - Potential to be a safe method of assessing school status in event of an intruder alarm signal, fire, etc. Alternative to having school or district staff perform initial inspections in-person
- iii. Police Access to Live CCTV Surveillance Video Feed
- According to *pending* Memorandum of Understanding (MOU) with NB RCMP, where available, the live video feed is to be accessible to the RCMP under *strictly* controlled conditions for emergency response and training.
- First responder access when activation of emergency measures occurs:
 - Emergency conditions require access to live feed to enable appropriately coordinated response
 - 'First Responder' access to live and stored video for the expressed purpose of on-site training, in the absence of staff and students; MOU with provincial RCMP in development
- iv. Double Main Doors (Vestibule)
- All exterior door(s): locked at all times except appropriate doors at designated student arrival times; video surveillance at main entrance, doorbell/buzzer access protocol system for initial entrance into vestibule and screening before entry beyond into the school proper is granted
 - Interior door of vestibule: locked until access granted remotely from reception area after individual is safely screened
 - Exterior doors – clear and visible lettering of exterior doors; according to naming patterns used by First Responders. I.e., "A"dmistration > "B" > "C", etc., moving from Administration to

the right.

- Electronic card (swipe card) for appropriate access to doors by authorized staff.
- v. Visitor Screening Procedure
 - Significant when there is only one set of access doors that must be kept locked at all times; the two sets of doors/vestibule system is preferred
 - Controlling access to the school for the protection of students and staff
 - Use of doorbell as a signalling device to contact reception
 - Video surveillance and recording of those gaining access through main entrance
 - Inside vestibule door is locked to prohibit access until identity and purpose are established
- vi. Controlled Card Access System
 - Authorized access via electronic, coded key cards through specified external doors and potentially “fire doors”; restricts access to parts of school to authorized personnel;
 - In emergency events, a “key” is required to re-open doors and hallways for school search by first responders – “swipe” electronic card is being recommended for access through these doors.
- vii. Force-resistant, “Hurricane” Glass – Reception area only
 - Provides high visibility for reception/administration area of entrance vestibule/main door while providing an acceptable level of security
- viii. Public Address School Communication System (Integrated "PA/FM")
 - The system shall provide a simple calendar-based scheduling system for bells. It shall provide the ability to have an unlimited number of bell schedules.
 - The system shall provide 2-way handsfree communication in each classroom.
 - System Classroom and Common Zone network interfaces shall be capable of utilizing standard Cat 6a infrastructure for installation from the Telecommunications Closets only to the classroom and/or zone. Distribution of all voice signaling shall utilize a shared or dedicated network. Systems that require homerun, dedicated, 18 gauge shielded wiring is not acceptable.
 - The system shall be capable of being fully integrated with the school's existing LDAP (Lightweight Directory Access Protocol) or Active Directory system. Systems that do not provide LDAP or Active Directory integration shall not be considered.

- The system shall have a Web based administration programming tool which allows the administrative personnel to easily manage Audio Sources, Class Change schedules, paging groups, time updates, holiday schedules and day/night mode operation from an internet browser. System shall support HTML5.
- The system shall automatically broadcast page emergency instructions throughout an entire school when an alarm (e.g. lockdown, lockout, security, fire) is tripped or manually activated. The emergency instructions shall be preprogrammed and require no user intervention. The system shall provide redundant alarm annunciation over intercom/paging speakers and is not meant to replace primary fire alarm or security systems.
- The system shall provide the ability to initiate school safety paging announcements, evacuation tones and take cover tones from any telephone within the facility or outside the facility to any other location within the facility or district.
- The system shall allow for integration into classroom audio system including teacher microphone as required by design. This includes integration to ensure that system notifications, pages and intercom calls take priority over classroom audio sources. Provide voice lift from teacher pendant.
- The teacher personal alert functionality shall be integrated into the classroom microphones and the teacher web screen.
- The system shall provide a trigger signal when the teacher presses and holds a button on the transmitter for more than two (2) seconds.
- The system shall be capable of providing a visual indication when the teacher initiates a trigger signal.
- The system shall also be capable of receiving a trigger acknowledgement signal back from an external source and altering the visual.
- Able to communicate with the entire school effectively from administration area with minimal complexity of operation.
- Able to communicate with louder-noise spaces (gyms, student commons, cafeterias, exterior play areas, technical shops, etc.), as well as classrooms.
- Installation of associated strobe lights for higher noise volume areas: white strobe = fire; blue strobe = Lockdown; in cafeterias, gymnasiums, trades-technology “shops”, and selectively placed externally so as to be visible to those returning to the school to indicate a threat within.

- ix. Single-Handle Door Entry Mechanism
 - o Single-handle operating mechanisms for exterior and hallway door mechanisms (pull), right-hand side door only on all double doors to prevent the use of a shaft/bar, or a link of chain in barricading the door from one side.
- x. "Panic Bar" Door Exit Mechanism
 - o Push bar exit mechanism on inside of exterior or hallway doors (push); avoids bar-type handles that could be chained or otherwise used to prevent door use
- xi. Clear View of Pickup/Drop-off Area
 - o Bus loop and student drop-off areas should be clearly seen from the administration areas. This includes receptionist/administration support area and principal/vice-principals' offices. This works in conjunction with administration areas located at main entrances.
- xii. Lockdown Button (Switch)
 - o Switch/"panic button" initiates closure and locking of internal fire doors creating isolated and inaccessible zones. Individuals can exit these zones, but not enter without an access key. Blue "Lockdown" strobes are also initiated. Potential connection to external alarm monitoring agencies/police. Button is easily accessed from a location within reception/administration areas.
- xiii. Lockdown School Zones – requires best practical use of the facility for the purpose
 - o School zones partitioned by fire doors; doors controlled in administration area
 - o Corridors: clear lines of sight
 - o Classroom numbers clearly visible from various points; recommended that signs are placed for high visibility in hallways along with, or instead of the traditional room number over a recessed door; style required is not defined.
 - o Classroom doors:
 - Are recessed to allow opening outwards without hindering student egress or corridor traffic; recessed doors also provide concealment opportunities
 - Possible blind for inside of door's window that can be closed in an emergency to block view of classroom
 - Possible secondary door locking mechanism (latch) for use in emergency situations
 - o Classroom floors: a differentiated tile/colour pattern to indicate a classroom's safer/hiding zone – an area beyond the doorway's sightlines

- xiv. Intrusion Security/Alarm System
 - o Motion alarms placed in internal spaces requiring this level of security
 - o Doors and accessible windows outfitted to detect and signal intrusion
- xv. Security System Monitored Externally
 - o External monitoring agency maintains system and responds to communications from school alarm systems; automated contact to designated school officials as required. This is in addition to other controls for fire, water pressure, temperature, etc.
- xvi. Exterior Building Security Lights
 - o Dusk-to-Dawn and/or motion sensor lights as required around the school where necessary
- xvii. Exterior Window Tint/Film
 - o Tinting is *not* permitted in current (DTI) guidelines for school buildings due to the levels of natural light required in classrooms.
- xviii. Exterior Window Blinds
 - o Restrict viewing of interior spaces from outside; obviously a sun/shade control benefit and blinds may be required in some windows for this reason. Optimization of natural daylight in teaching spaces is a requirement.
 - o Exterior window blinds – the current standard allows between 3%-5% openness depending on the building orientation and room function.
- xix. Security Fencing Installed
 - o Lockable, gated compound(s) to secure mechanical equipment or restrict access to areas considered higher risk or problem zones for the protection of unauthorized individuals. This should not be interpreted as perimeter fencing.
- xx. Restricted Public Access to instructional areas of school after the official school day
 - o Restrict after-school event and community access to designated activity areas: theatres, auditoriums, gymnasiums/change-locker rooms, community kitchens, cafeterias, student common areas, etc. and away from instructional areas. Use of lockable doors (e.g., fire doors) to restrict access as required.
- xxi. Administration is located at/near the main entrance for proper monitoring of drop-off areas and main access entrance.

05.8 BARRIER-FREE DESIGN AND UNIVERSAL ACCESS

All facilities shall be designed to the latest adopted edition of the National Building Code and CAN/CSA B-651 "Accessible Design for the Built Environment." The document that is most stringent shall apply in any given situation. The concept of universal all gender / all inclusive access will be applied. Universal access means designing facilities so that they can be used by everyone. The following is a list to apply:

- a) **Simple Circulation:**
Incorporate into the design a layout of circulation that facilitates simple, straightforward and easy way-finding.
- b) **Light, Bright and Clear:**
Ensure circulation routes are light, bright and without projections or obstacles that would impede physical movement for persons with visual impairments.
- c) **Contrasting Colour:**
Incorporate contrasting colours into the design, to assist people with visual impairments. As a minimum, ensure a contrasting colour scheme is provided in stairways. Use contrasting colours to define areas of distinction.
- d) **Good Signage:**
Ensure accessible routes have adequate signage.
- e) **Easy Entry:**
Entrances and lobbies shall be provided at grade without stairs. Ramps will be provided where required but should be avoided when possible.
- f) **Barrier-free Access:**
Barrier-free access shall be provided throughout the building and the site.

NOTE: For more specifics see the *DTI's Design Guidelines*.

05.9 INTERIOR AND EXTERIOR SIGHT LINES

- a) **Create Sight Lines:**
The designer is to be aware of sight lines and is encouraged to create visible lines of sight that extend as far as possible for vistas within the interior of the school as well from the interior to the exterior that generates interest.

b) Showcase Learning:

Showcase, where possible, physical aspects of the school that celebrate learning.

c) Connections to the Outdoors:

An indoor-outdoor visual connection is encouraged wherever effective and practical.

d) Light and Colour:

When creating sight lines, consider highlights and variations, nodes and endings with use of light and colour.

05.10 NATURAL LIGHT AND AIR

Daylight and fresh air are considered critical in providing human comfort and a healthy learning environment.

a) Daylight:

All teaching spaces, project work areas, library, cafeteria, student commons and administration area are to be provided with good quality daylight in accordance with best practice principles for high performance buildings. See *DTI Design Guidelines for Education Facilities* for further technical information.

b) Operating Windows:

All classrooms shall be provided with operating windows that do not create a safety hazard nor limit the use of the room when in their open position. Operating windows shall be complete with insect screens.

c) Blinds:

For security, privacy and light control, blinds are to be provided on all exterior windows.

05.11 ARTIFICIAL LIGHTING

The design shall provide for a variety of direct, indirect and directional lighting. Consider paths of travel and the experience of the user as noted under sight lines in this section.

Minimum light levels for all spaces are outlined in *DTI's Design Guidelines*.

05.12 COLOUR

a) Colour:

Skilled use of colour is expected. Architectural firm is to consult with the school users to select colour. Colour/material boards are to be presented for the school district's approval. The architectural firm may wish to consult an interior designer or other colour expert.

b) Primary and Bright Colours:

Primary colours are encouraged in elementary schools but should be used strategically in small amounts. Bright colours may also be used, but in moderation, perhaps on special highlight walls, etc.

c) "Trendy" Colours:

Uses of current distinctive colours that are popular are discouraged for embedded permanent use but can be considered as a paint choice.

d) Define and Distinguish Areas or Zones:

Changes in colour schemes are encouraged to distinguish and define areas or zones.

e) Floor Patterns:

Ensure floor tile patterns support and identify circulation or special nodes or spaces that might be desirable to highlight. Entrance ways to all teaching spaces are to be identified with a unique floor colour to identify it as an entrance/exit area. "Sight-line free zones" in classrooms shall also be identified by unique floor colours or patterns. These zones are occupied by students and teachers during lock-downs or lock-down drills.

f) Visual Impairment:

Incorporate contrasting colours into the design to assist people with visual impairments as outlined in 05.8.

05.13 DISPLAY SPACE AND EXHIBITS

Student displays shall be provided for in creative ways throughout the school. Fire regulations must be respected when designing display and exhibit areas. The designer is to work directly with the school district to coordinate their needs and wishes. Special art pieces or other educational and community artifacts that are available may be and are encouraged to be incorporated.

The environmental green components of the building's design shall be interpreted in

some visual way that is educational.

As mentioned above, the entry lobby is an ideal space for displays.

05.14 COMMUNITY USE

Schools are encouraged to be used after hours by the community. This is a secondary function of the building. The facility should be planned to accommodate the community without compromising its effectiveness to deliver education to the student. In some cases, the building will require access by the community during school hours but, most commonly, after-hours use will be required. Use will vary from project to project. Therefore, the planner must have a clear understanding of how this use needs to be organized in order for the building to function well and the students to be protected and secure.

The following areas will typically be considered for dual use by the community:

Gymnasiums	Music and Performing Arts Rooms
Cafeteria	Stage
Seminar/Conference room	Library/Learning Commons
Washrooms	Breakfast Program / Club
Student commons	

05.16 OVERALL SPATIAL CONSIDERATIONS AND RELATIONSHIPS

a) Central Organization:

A sense of the schools organization should be readily understood as a visitor or student enters through the main entrance. The administration will be located nearby and visually welcoming. It will have visual control over both students and visitors and will be the circulation hub. Affiliated with and approximate to this hub will be the student commons space (in high schools), the cafeteria and the gymnasium. Guidance and its waiting space should also be central but less publicly displayed. The arrival space should be open enough to allow for a smooth flow of all the student body.

b) Flexibility:

i. Range of Learning Spaces:

Flexibility in space utilization is required to offer opportunities for a range of learning, for individual, small group or large group gatherings.

ii. Multi-functional Space:

Space should be designed as often as reasonably possible where the need exists to be multi-functional. When planning such a space, account for any conflicting needs that might result and ensure that such conflicts are surmountable.

iii. Moveable Walls:

When identified in the educational specifications, classrooms will be connected by moveable folding walls, keeping in mind some of the acoustical separation issues.

iv. Break-out Rooms:

When identified in the educational specifications, the break-out rooms provided off the classrooms may also be used for other meeting spaces.

v. Project Work Areas:

Within the project spaces, small seating alcoves might be provided for individuals studying or reading alone or in pairs.

c) Clustering of Classrooms:

Clustering of related age groupings when arranging classrooms is encouraged to help form small schools within a school to create more personal and less institutional environments. Clusters or wings of classrooms ideally should comprise six to eight classrooms per wing or cluster. Clustering is often a repeated geometrical form with a shared focus. The focus area may be the project area space.

d) Community Use Zoning:

Areas of the school supporting community and after-hours use should be zoned, contained and be separately lockable from the remainder of the school. For security reasons, it is essential that the facility provide for the ability to separate community accessible spaces from student learning spaces. After-hours spaces should be complete with the appropriate amenities such as washrooms. Separate access doors may be required, depending on the planning and the needs of the school. Exiting and code issues must be in compliance when access to the remainder of the school is not allowed. Light controls and the operation of required equipment must be considered. Areas such as gymnasiums, the cafeteria, stage, student commons, music rooms, library/learning commons, the performing arts room, and washrooms may require after-hours access and may be best grouped together and affiliated with the central core. Each school will be used differently, and the users may have different preferences; therefore, thorough consultation is expected.

e) Sound Control and Isolation:

- i. Classrooms:** Classrooms shall be separated from other spaces by walls and floor systems with a Sound Transmission Rating of no less than 50.
- ii. Spatial Isolation:** Rooms whose activities generate noise such as mechanical service spaces, music/performing arts rooms, skilled trade workshops, or gymnasiums will be spatially and/or acoustically isolated from other learning spaces.

- iii. **Buffering Spaces:** Consider using utility spaces such as washrooms, storage rooms, and custodial rooms for sound and vibration buffers between sensitive areas.
- iv. **Administration:** The administration areas shall be equipped with glass service windows and solid doors that can be closed to alleviate noise entering from the central lobby when there is heavy traffic.
- v. **Multi-storey Schools:** When designing a multi-storey school sound transfer between levels will be carefully considered. Open atrium areas that connect two storeys must consider means to mitigate sound amplification and transfer.
- vi. **Moveable Walls:** Moveable walls specified are to be of the highest quality affordable on the market in terms of sound transmission control (STC) ratings and a minimum of 50 STC. They will be supplied for team teaching and to allow the flexibility of creating larger or smaller teaching spaces.
- vii. **Mechanical Space:** Mechanical/boiler rooms shall be acoustically isolated and located with care such that main air handling duct lines do not transfer noise to learning spaces. Insure sufficient space is provided for properly sized duct, to minimize noise generated by air handling systems.

f) Washrooms:

Washrooms should be conveniently distributed throughout the school. Particular care will be taken in elementary schools to provide washrooms close to the classrooms that may be easily supervised by teachers and staff. One set of student washrooms should be provided in each cluster or wing, sized appropriately for number students in that cluster or wing. A staff washroom will be located in every wing.

g) Staff/Personnel Areas:

Lounge and staff work areas will be located centrally such that the balance in travel distance is approximately equal for all staff. Ideally, the staff area should be located close to the administration area, so that the administration can share washrooms and amenities. In larger schools where travel distances are greater, the school may wish to divide the staff areas such that they are located closer to their relative teaching spaces.

h) Resource Rooms and Visiting Professional's Offices:

It is generally accepted that the resource rooms be located near the classrooms they serve. It may be such that a resource room is located in each wing or cluster, but stakeholders should ultimately direct the space location. As well, the meeting rooms for visiting professionals will be located according to the stakeholder directives. One resource room will be complete with a special care washroom. A special care washroom will be provided.

i) Custodial:

One custodial closet will be located in each wing or cluster within the school. The main custodial accommodation will be located conveniently for deliveries. A separate exterior door may be provided.

j) Recycling:

The design of the building should support and accommodate a recycling plan that is appropriate for the school and the community's infrastructure.

PART B
SCHOOL TYPES
AND
SPACE ALLOCATIONS

New Forest Hill / Liverpool K-5 School

Anglophone West School District

June 2024

Department of Education and Early Childhood Development
Educational Facilities and Pupil Transportation Branch

ELEMENTARY SCHOOL

06.1 PURPOSE

The elementary school accommodates grade levels kindergarten through five, and on average it houses an enrolment of 350 to 500 students. This section relates to elementary schools of 200 students or larger. For a facility with an enrolment of less than 200 elementary pupils, see *Section 10-Small School*.

Refer to Part A of this document for general directives regarding site design and building design. Part C of this document explains typical functions of the spaces allocated in Part B. Part B of this document lists all spaces required in an elementary school, their area requirements and explains the differences between them and other school facilities.

06.2 DESIGN APPROACH

The design approach for an elementary school is significantly different from that of middle or high school because of the sensitivity required to recognize the transition of the young child from the home, daycare or preschool environments to the larger public school setting. The design should provide a comfortable step and facilitate self-confidence in the child by providing a less institutional and smaller scale facility. Care should be taken not to design large or intimidating spaces. Strive to keep corridors shorter, views to the outside more intimate, and amenities such as washrooms closer. For the student in an elementary school, the classroom is more of a cocoon and classmates are more like a family, with the teacher providing the education in a care-giving way. Awareness of provisional needs for safety and security of the younger more vulnerable child is very important.

The use of vibrant colours is generally seen as positive in elementary schools. Primary colours used in strategic ways to identify and accent is encouraged. See *Section 05.12* for further notes on colour.

Personal storage of boots and coats for students are managed without the lockers seen in middle and high schools. Boot and coat racks will be provided in the corridors.

Boots and coat rack – 4.5m per classroom

The kindergarten room shall be located on the ground level.

- **Ground floor classrooms to have an entry area off school yard into cubby areas for the wing on the ground floor if space allows to consolidate the dirt and debris from the play yard in one area.**

06.3 ELEMENTARY SCHOOL: K TO 5 - SPACE ALLOCATIONS

SEC. NO.	SPACE	AREA M ²	FORMULA-NOTES
TEACHING-RELATED SPACES			
GENERAL			
11	Kindergarten	90	70 m ² classroom plus 20 m ² - (storage room and one barrier-free WC). Number of classrooms based on groupings: 21 per class.
12	General Classroom Grades 1-5	70	Sinks are provided in every classroom.
		75	75m ² when Breakout Rms are included
12.4	Common Storage Room	3.5 per class	One shared storage room per classroom wing or cluster with a contributory area of 3.5 m ² per general classroom.
12.5	Breakout Room	-	11 m ² shared per every 2 classrooms – ½ the area is accounted for in the general classroom total
13	Early Childhood Development Space	110	Layout to be determined during the planning stage. Could be used as a daycare space.
14	Project Work Area	35	One per every wing or cluster- unless stated otherwise. Open to corridor.
SPECIALIZED INSTRUCTION			
17.2	Music Room	110	90 m ² classroom plus 20 m ² storage room.
17.5	Performing Arts	110	Mixed-Use
18 PHYSICAL EDUCATION AND RECREATION			
18.3	Double Gymnasium	821	Based on groupings and curriculum. Represents two teaching stations.
18.5	Instructor's Office	10-14	One to two instructors- includes shower.
18.6	Gym Auxiliary Washrooms	18	2 @ 9 m ² (one set per gym).
18.6	Changing Rooms	44	2 @ 22 m ² (one set per gym).
18.7	Gym Storage	70	Equipment storage shelving provided.
18.8	Community Storage	15	

COMMON STUDENT AREAS			
23	STUDENT SERVICES		
23.2	Resource Room	35	One per classroom wing or cluster plus one additional resource room for literacy/numeracy may be provided if required based on particular needs.
23.3	Special Care Washroom/ Changing	12-17	Associated with one resource room. Equip with barrier-free shower/tub and toilet, lift, therapy table, provisions for a washer and dryer. Two layout options exist.
23.4	Guidance Offices	9	One per full-time guidance officer. May be grouped with visiting professional's offices and waiting area shared. If guidance officer is part time may also be used as a visiting professional office.
23.5	Visiting Professional's Office	9	Time-shared offices for itinerate professionals, such as Social Worker, Speech Therapist, Hearing Specialist, Police, Psychologist, Occupational Therapist, Physiotherapist, Literacy Specialist, Math Lead, Behaviour Intervention Worker, Autism Support Worker, etc. Number of offices based on school's identified needs. Number of offices determined at the planning stage.
23.6	Waiting Area	5-10	Size depends on number of offices it serves and amount of display materials
23.7	Health Room	13	Attached WR included in allocation. Equip with cot, sink and lockable medicine cabinet.
23.9	Multi-Function Room		110 m ² – enrolment up to 350 students. 220 m ² – two rooms of 110 m ² for enrolment of 350 students and more. Layout to be determined during the planning stage. Could be used as a daycare space.
23.11	Breakfast Program		25 m ²
24	LIBRARY / LEARNING COMMONS		
24.1 TO 24.6	Library/Learning Commons	0.40 m² per student	0.40 m ² x enrolment with a minimum of 100 m ² . -75%...Main library space. -10%...Circulation, control and work desk. -8%.....Technical processing and equipment storage. -7%.....Computer terminals.
24.7	Seminar/Activity Room	20	To be accessible both from library and public corridor. May be used for student/teacher/parents and after-hours community meeting space.

25	CAFETERIA		
25.1 To 25.3	Dining and Assembly		1.2 m ² x ½ enrolment. Dining area is sized based on 2 lunch periods.
25.4	Kitchen	36 55 85 180	Enrolment up to 200. Enrolment of 201 to 400. Enrolment of 401 to 800. Enrolment of 801+.
25.5	Stage	72	Stage may adjoin both cafeteria and gym.
STAFF AREAS			
26	PERSONNEL CENTRE/STAFF ROOMS		
26.1	Staff Lounge and Lunch Room		1.2 m ² x number of teaching stations. Minimum 20 m ²
26.2	Staff Work Room		1.85 m ² per teaching station or a minimum of 20 m ² .
26.3	Staff Washrooms	8	One barrier-free washroom per sex
27	ADMINISTRATION:		
27.2	Reception	10 18	Enrolment up to 525. Enrolment of 526 to 750.
27.3	General Office	20 25	Enrolment up to 525. Enrolment of 526 to 750.
27.4	Principal's Office	14	One per school.
27.5	Vice-principal's Office	11	Provide as required, based on current collective agreement.
27.6	Storage Closet	4	
28	CUSTODIAL:		
28.2 28.3	Central Custodial Space Custodial Closet		10 m ² + 5 m ² for every 100 students or part thereof. Area includes one 4 m ² janitor closet per wing or cluster.
28.4	Recycling Storage Room	15	

SERVICES AND SYSTEMS			
29.1	Overall Services and Systems	45% *Net	*NET AREA – Equals the total of all programmed spaces listed above.
29.2 29.3 29.4 29.5 29.7	Circulation - Corridors - Stairwells - Lobbies/Vestibules - Elevator - Bleachers	Approx 23-25% *Net -	Includes corridors complete with lockers. Width of corridors shall be no less than 2.4 metres clear with locker doors open in high schools. 2.2 metres clear required in elementary and middle schools. Other areas included are staircases, entry lobbies, vestibules. Space allocated in services and systems.
29.6	Student/Public/Staff Washrooms	3% *Net	Approximate area only. As a minimum, washrooms are to be provided as per the National Building Code. This figure does not include washroom areas that are listed elsewhere such as staff washrooms, gymnasium staff washrooms, locker room washrooms, etc.
29.1	Walls	14% *Net	Approximate area only.
29.8	Mechanical and Electrical Room	5% *Net	Approximate area only.
29.9	Communications Closets/Rooms	-	One per wing – data closet will be provided as required.

06.4 NUMBER OF TEACHING STATIONS

A teaching station is defined as an instructional space that is capable of accommodating one full class. A homeroom is defined as a teaching station that a student is required to report to every day. A homeroom can be a classroom or any other teaching station capable of accommodating a full class or group of students to deliver the regular morning messages. A grouping is defined as the number of groups of students per grade level. The enrolment per class listed in the 'Formula-Notes' column in the above table is the maximum class size as defined by the current collective agreement between Board of Management and the New Brunswick Teachers Federation as of the date of issue of this document. These numbers are subject to change based on changes in the collective agreement.

Spaces considered as teaching stations include:

- Kindergarten classrooms
- General instruction classrooms
- Music rooms
- Performing arts rooms
- Gymnasias

PART C

SPACE DESCRIPTIONS

New Forest Hill / Liverpool K-5 School

Anglophone West School District

June 2024

**Department of Education and Early Childhood Development
Educational Facilities and Pupil Transportation Branch**

KINDERGARTEN

11.1 PURPOSE

The role of the kindergarten is both educational and social. The kindergarten facility should be suitable for water-related activities (painting, crafts), quiet activities (reading, sleeping) and noisy activities (music). The classroom should create a sense of lightness, brightness and playfulness. The design should strive to be warm in character and avoid an institutional coldness. The educational dimension deals with ensuring each child's maximum self-development, keeping in mind that this space is a transition for the child from the home or day care to the public school system.

Space allocations are found in *Part B - Section 6*.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for kindergarten in Section A-1 and contain a sample plan as well as an outline of general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the Supply and Services' *Design Guidelines*. The standard millwork shall be provided as per the *Design Guidelines*.

11.2 LOCATION

- a) Located on the ground level of the school.
- b) Adjacent to first grade classroom and within the same wing or cluster as other primary grades.
- c) Protected and private from busy circulation areas of the school and separate from any community accessed areas.
- d) The exterior playground area will be within view of the kindergarten.
- e) Visual connections to the outdoors.
- f) Boot and coat racks (4.5m in length) for students will be located in the corridor immediately outside the classroom door.

11.3 CHARACTERISTICS

- a) All finishes for walls and floors within reach will allow for easy cleaning, be vandal-proof and durable. Equipment supplied within contract, millwork,

windows, and doors shall also be the same. Carpet is not recommended for flooring.

- b) Natural light with fresh air to a minimum as outlined in Section 05.10. Allow for all items detailed in Section A-1 of the Design Guidelines. Inclusive of two sinks, cupboards, storage room and barrier-free washroom.
- c) Consider use of colour to define areas in room or highlight walls.
- d) The room should be acoustically isolated from any adjoining spaces by walls that provide a minimum of a STC of 50.
- e) Section of cubbies with 24 units to be provided within the kindergarten classroom to support the students storage.

GENERAL CLASSROOM

12.1 INTRODUCTION

The general classroom will be designed to provide for the delivery of non-specialized academic education. It will accommodate lecture-style delivery as well as provide for project-based learning, individual learning, and team teaching when possible and desirable. The introduction of the break-out room off the general classroom allows for quiet one-on-one instruction as well as small group breakaways that may be supervised from the classroom. When desired by the school district, classrooms will be designed to be able to open to the adjacent classroom or other spaces to provide larger assembly areas or larger classrooms. Flexibility within the classroom is important.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the General Classroom in Section A-1 and contain a sample plan as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*. Standard millwork shall be provided as per the *Design Guidelines*.

In elementary schools, the classroom provides a full range of functions to deliver a wide range of curriculum. At the elementary level, the delivery of science takes place in the general classroom. Experiences are built around ease of accessibility to unsophisticated equipment. Quantitative measurement has begun. A component of storage space is consumed for metre sticks, spring scales, and thermometers. Also, in the elementary grades, art is an integral part of the class activities; therefore, the general classroom is most frequently the venue for art instruction. In these circumstances, a sink with hot and cold water, a storage cupboard, and one or two moveable tables should be available.

12.2 LOCATION

- a) The classroom will be grouped with other classrooms of close grade levels in wings or clusters no greater than eight in number unless directed otherwise. These groupings or clusters are encouraged to interact like a small community in innovative ways.
- b) Conveniently located relative to student washrooms, student project areas, resource rooms, general store room and janitor's closet.
- c) Classrooms that abut student project areas will be provided with glazing strategically located in the wall that joins them for supervisory reasons.

- d) Boot and coat racks (4.5m in length) at the elementary level and lockers serving the middle and high school levels will be located in the corridor immediately outside the classroom door.
- e) The classroom will provide direct access and visual connection to a break-out room, where break-out rooms are included.
- f) The exterior window wall will preferably be oriented north or south rather than east and west.
- g) Provide visual connections to the outdoors and green vegetation. Consider views and lines of sight to the outdoors and indoors.

12.3 CHARACTERISTICS

- a) All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, windows, doors and equipment supplied within the contract. Carpet is not permitted.
- b) Operable windows will not pose a safety hazard when the window is open, or impose on the functioning or limit the use of the room.
- c) Consider strategic use of colour.
- d) The room should be acoustically isolated from any adjoining spaces by walls that provide a minimum of STC 50.
- e) Allow for all items detailed in the *Design Guidelines for Educational Facilities*.
- f) Movable walls are to be considered during the planning stage.

12.4 COMMON STORAGE ROOM

- a) **Purpose:**

This storage room is a common space shared by all general classrooms within a wing or cluster. It is for storing textbooks and other classroom items on a short-term basis for use at another time in the school year. Space of 3.5 m² will be allotted per general classroom.
- b) **Location:**
 - i. One room per classroom wing or cluster.
 - ii. Located centrally off the corridor of the classroom wing it serves.

c) Characteristics

- i. Provide floor-to-ceiling, heavy-duty adjustable shelving.
- ii. Five stacked, adjustable 450-mm-deep shelves (totalling 15 lineal metres of shelf per class).

12.5 BREAK-OUT ROOM

a) PURPOSE

The break-out room is intended to be a flexible space whose main function is to allow a break-away area from the classroom that facilitates small group activities, private one-on-one mentoring and small meetings of up to seven individuals. It is visually connected to the classroom so as to allow the teacher to monitor activities. It is also visually open and connected by a door to the corridor with the intention that it be a shared amenity and available for other types of meetings or a quiet retreat space for students or teachers. One break-out room will be shared by two classrooms. It is not intended as an office for the teacher or any other staff.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the break-out room in Section A-1 and contain a sample plan as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*.

b) LOCATION

- i. Adjoins two classrooms and the corridor.
- ii. Consider locating the room directly across the corridor from another break-out room to create a focal point of interest, breaking the lineal pattern of the corridor and creating different view planes.

c) CHARACTERISTICS

- i. One whiteboard wall space.
- ii. Visually open to classrooms and corridor.
- iii. One door to each classroom.
- iv. Allow for all items detailed in Section A-1 of the *Design Planning Guidelines*.
- v. All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. Carpet is not allowed.

EARLY CHILDHOOD DEVELOPMENT SPACE

13.1 PURPOSE

The early childhood development space is intended for the delivery of services to pre-kindergarten children.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed requirements for the early childhood development space in Section A-1 and contain a sample plan as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the *Design Guidelines*.

13.2 LOCATION

- i. The room shall have a door to the exterior, to enable easy access to an outdoor grassy playspace.
- ii. Boot and coat racks (4.5m in length) will be located in the corridor immediately outside the classroom door.
- iii. The room shall be located adjacent to kindergarten classrooms.
- iv. The room shall be located in an area that can be easily accessed by the public but access to the remainder of the building will be restricted.

13.3 CHARACTERISTICS

- i. All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, windows, doors and equipment supplied within the contract. Carpet is not permitted.
- ii. Consider indirect as well as direct lighting to create variation.
- iii. Operable windows will not pose a safety hazard when the window is open, or impose on the functioning or limit the use of the room.
- iv. The room should be acoustically isolated from any adjoining spaces by walls that provide a minimum of STC 50.
- v. The room shall have (20) built-in cubbies (305 x 305 x 305mm). Cubbies shall not be located below smartboards, tackboards, etc.
- vi. The room shall have casework similar to that shown for Kindergarten

Classrooms in *DTI's Design Guidelines for Educational Facilities*

- vii.** The room shall have a dedicated washroom and storage room similar to that shown for Kindergarten Classrooms in *DTI's Design Guidelines for Educational Facilities*.
- viii.** A small office(s) may be included within the allocated space. Allow for a desk, two guest chairs and one filing cabinet. Office is to have sidelight in the door for supervision.

PROJECT WORK AREA

14.1 PURPOSE

The project work area is intended for collaborative student learning initiatives, as well as offering space for social gatherings in a safe and healthy environment. This space should be used to break the monotony and institutional feeling of the lineal corridor and provide a focal point in every classroom wing or cluster. It is one vehicle that may facilitate a sense of community within a wing or cluster.

The Department of Transportation and Infrastructure' *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the project work area in Section A-1 and contain an outline of the general specifications for architectural, mechanical and electrical particulars.

14.2 LOCATION

- a) One per every classroom wing or cluster of six or more classrooms.
- b) Open to the corridor.
- c) Located so that natural light is available.
- d) Located so that the area does not impede exiting or the flow of circulation.
- e) Located so that it does not create a concealed space and it is capable of supervision and does not conflict with the access to the coat / boot racks.

14.3 CHARACTERISTICS

- a) Built-in seating or benches may be required, allowing for individual work, study or pairs of students working together or conversing. To be discussed during planning.
- b) All finishes on walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. Carpet flooring is not encouraged.
- c) Consider strategic use of colour.
- d) Natural light available through window wall or clerestory window.
- e) Data and electrical to be provided at the planning stage.

MUSIC AND PERFORMING ARTS

17.1 INTRODUCTION

In the elementary grades, music is an integral part of the curriculum that forms the overall learning process. It may be in part experienced with the class teacher in the general classroom; however, the requirement for integrating movement with listening and the frequent formation of groups and rehearsals larger than normal class size necessitate access to a music room with adequate space and storage facilities. It should be noted that a room constructed specially for music can usually be used either as a general purpose room or for teaching other subjects, but a regular classroom is not able to perform adequately as a music room. Middle and high schools offer music curriculum. All types of facilities are provided with a music room.

In most schools of a critical size, the cafeteria with a stage associated with the dining area provides a facility for lectures and dramatic and musical performances. Each school will include a raised stage, washrooms and sound system suitable for the performance of concerts, plays and other school activities. Further details are discussed in *Section 25*.

To accommodate cultural activities, group sessions, practices and presentations in all K-8 schools, a performing arts room will be provided.

To accommodate the theater arts curriculum in high schools, in addition to the cafeteria where large assemblies can be accommodated with a stage, a performing arts room will be provided which may double as a second music room if so desired. The performing arts room serves as a teaching venue and for practice performances. The room may accommodate assemblies of multiple classes and larger lectures with its tiered retractable seating for an audience of up to eighty individuals.

The Department of Transportation and Infrastructure' *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the music room and performing arts room in *Section A-1* and contain sample plans as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the Transportation and Infrastructure' *Design Guidelines*. The standard casework shall be provided as per the *Design Guidelines*. The EECD will decide on any variation.

17.2 MUSIC ROOM

a) Purpose:

A room specifically designed for music instruction is essential to allow for a broader range of music experience and more advanced levels of activity. These activities may include:

- i. Instrumental: concert band, orchestra, string ensemble, theory exercises, music and movement.
- ii. Vocal: choirs, massed chorus, show chorus and soloist.
- iii. Small Groups: instrumental ensemble, vocal ensemble, solo.
- iv. Classroom: lecture format for music listening, music history, music theory, creative pursuits, class singing, rhythm bands, Orff groups (combined movement with music), computers, MIDI composition, electronic keyboards, etc.

b) Location:

- i. Locate close to or adjacent to the stage. If adjacent to the stage, the room will be at the same floor level and allow barrier-free access.
- ii. Room shall be located away from or isolated acoustically from other learning spaces due to noise inherent in its function.
- iii. Avoid sharing a common wall with learning spaces other than music/performing arts rooms.
- iv. No other learning spaces shall be located above or below the music room.
- v. Avoid accommodating main branches of mechanical duct and air handling equipment close to the room.
- vi. Music room should be located adjacent to the performing arts room and perhaps connected through the storage space.

c) Characteristics:

- i. Room to be a minimum of 4 metres clear in height.
- ii. Provide acoustical door seals on all doors from music room and practice rooms.
- iii. Design to minimize sound transfer to and from adjacent space. See above.
- iv. May consider non-parallel walls and provide other sound diffusing elements on side walls.
- v. Provide a minimum of 50 STC rating for walls from music room to corridor walls.
- vi. When it is not possible to locate room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.
- vii. Acoustic wall treatment should provide a minimum NRC 0.80.
- viii. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.
- ix. Reverberation Time (RT) required to be between RT 0.70 - 0.80 seconds averaged over the frequency range of 500 Hz - 2,000 Hz.
- x. Design ventilation system to minimize sound transfer to and from other areas. No main duct work shall travel over room.

- xi. Consider making portions of the ceiling reflective to promote sound diffusion and ensemble between musicians.
- xii. Provide approximately 7 metres of lockable casework in elementary and 9 metres in middle and high schools as per *DTI's Design Guidelines*.
- xiii. A deep stainless steel sink with a gooseneck faucet will be provided.
- xiv. All finishes for walls and floors within human reach be durable and vandal-proof and allow for easy cleaning. The same applies to millwork, windows, doors and equipment supplied within the contract. Carpet is not acceptable.
- xv. Operable windows shall not pose a hazard to safety when the window is open or impose on the functioning or limit the use of the room.

17.3 MUSIC/INSTRUMENT STORAGE ROOM

- a) **Purpose:**
To store more bulky musical instruments. Additional to classroom casework storage.
- b) **Location:**
Next to music room and accessible only from music room.
- c) **Characteristics:**
 - i. 900 mm lockable door to music room.
 - ii. Supply a minimum of (5) 450 mm deep x 9 lineal metres of floor to ceiling adjustable storage shelving.

17.4 MUSIC PRACTICE ROOM

- a) **Purpose:**
To provide acoustical separation for instrumental practice.
- b) **Location:**
Next to music room and accessible only from music room or performing arts room.
- c) **Characteristics:**
 - i. Acoustic wall treatment should have a minimum NRC 0.80.
 - ii. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.

- iii. Door complete with acoustical seals.
- iv. STC rating – 60.
- v. Ventilated.

17.5 PERFORMING ARTS ROOM

a) Purpose:

Provide space for cultural activities, group sessions, practices and presentations for all K-8 schools.

Theatrical arts at the high school level which combines instrumental, vocal, dance and theatre may be taught as an elective course in the high school setting in which case this multi-purpose space will be provided as outlined below to facilitate both music and theatre.

b) Preferred Location:

- i. The performing arts room should be located adjacent to the music room.
- ii. Room will be located to provide convenient community access.
- iii. Be able to be separated from the rest of the school.
- iv. Room should ideally be away and isolated from other learning spaces due to the noise generation inherent in its function.
- v. When it is not possible to locate room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.
- vi. No other learning spaces shall be located above or below the performing arts room.
- vii. Avoid area of the school where main branches of mechanical duct work travel or avoid locating air handling rooms nearby.
- viii. The performing arts room shall be located adjacent to the music room and connected through the music storage room.
- ix. May be preferred to be adjacent to the stage located back-to-back to the cafeteria. If adjacent to stage, should be at the same floor level or allow barrier-free access.

c) Characteristics:

- x. Room to be a minimum of 4 metres clear in height all on one level through-out the space with no tiers or steps for the bleacher area.
- xi. Two exit doors complete with acoustical seals shall be provided.
- xii. Provide acoustical door seals on doors. Provide insulated metal or solid core doors.

- xiii. Room to be provided with motorized telescopic roll away bleacher. Bench style or seat style to be determined during planning. (See Plan in *DTI's Design Guidelines*).
- xiv. Design to minimize sound transfer to and from adjacent space. See above.
- xv. Provide a minimum of 50 STC rating for walls from performing arts room to corridor walls.
- xvi. When it is not possible to locate the room away from other learning spaces a minimum sound transmission class (STC) rating of 60 is required between the music room and adjacent learning spaces.
- xvii. Acoustic wall treatment should have a minimum NRC 0.80. Fabric-covered acoustic wall panels to be applied to a minimum of 30% of all wall surfaces.
- xviii. Design ventilation system to minimize sound transfer to and from other areas. No main duct work shall travel over room.
- xix. Consider making portions of the ceiling reflective to promote sound diffusion and ensemble between musicians.
- xx. All finishes for walls and floors within human reach will be durable and vandal-proof and allow for easy cleaning. The same will apply to millwork, window, doors and equipment supplied within the contract. Carpet is not acceptable.
- xxi. Operable windows will not pose a hazard to safety when open and will not impose on the functioning or limit the use of the room.
- xxii. All windows will be provided with black-out blinds.

d) Mixed Use - Design:

Provide infrastructure for the following to allow for mixed use of the space:

Room to be provided with 2 pull down power reels to support any interior power requirements. Power and data should be allocated throughout the perimeter at 4m spacing, One wall section to support counter and 4 computer stations.

Inclusion of a Point of Use purging exhaust for 3D printing activities or other small use equipment that may be designated for the space.

PHYSICAL EDUCATION AND RECREATION

18.1 INTRODUCTION

The Provincial Educational Curriculum promotes quality physical education as a planned program of instruction providing activities for all students throughout their schooling, teaches physical skills and encourages attitudes that endorse a healthy active lifestyle. It is designed to meet the physical growth and developmental needs of all children and youth. The physical education program includes a variety of activities engaging pupils in large and small groups, including educational gymnastics, rhythmic movements, creative movement, aquatics, basic fitness and conditioning activities, sporting games, track and field, motor skill practice and team play; including basketball, soccer, volleyball, handball, badminton and other games of low organization.

Team sport play is a part of the curriculum; however, a new emphasis on physical education is intended to make fitness fun and leaves no one on the bench. This means adding a greater variety of activities (handball, dance etc.), especially smaller group activities, so that all students may enjoy physical education. Extra-curricular physical activities are also supported by the school facilities through intra-mural, extra-mural and various varsity sports at the high school and middle school levels.

Outdoor recreational pursuits are also incorporated into the school curriculum. These are often nature related and delivered off the school grounds, but the storage for outdoor recreational equipment must be considered in the facility plan.

When a school is planned as an integral part of the community for which it will serve, care must be taken in planning the physical education and recreation facilities to ensure suitability for both school and community purposes. Most often, minor modifications to the design are all that are required. Additional community-funded facilities may be provided in accordance with an agreement concluded between the community and the responsible academic officials.

SUMMARY TABLE

Grade Level	Single Gym (m ²)	Double Gym (m ²)	Multi-purpose Room (m ²)	Fitness Studio (m ²)
Elementary (K-5)	280/380	591	280	
Middle (6 to 8)	591	821	280	
High (9 to 12)	591	821	280	120
All-level school (K-12)	591/821	591/821	280	120

- Note:** 1) The size of multi-purpose or a third teaching station, if required, is always 280 m².
 2) A fitness studio is only provided for schools with high school students and is **not counted** as a teaching station. Fitness studios are not provided in small schools.

Often, gymnasiums and multi-purpose physical education spaces are, in addition to delivering the above-mentioned curriculum, required for activities such as large assemblies, school dances, dance classes, dramatics, public meetings and other group activities.

The gymnasium, with related staff offices, storage and changing facilities and the outdoor playing field are required for delivery of the current physical education program. For playing fields see *Section 04.5(m)* under Site Development.

Physical education instruction comprises 80% active physical learning and 20% classroom learning. The size of the gymnasium is based on groupings that are governed by class size and time period scheduling to ensure that an adequate amount of facility space is made available.

18.2 SPATIAL RELATIONSHIPS - PHYSICAL EDUCATION FACILITIES

a) Centrally Located:

The gymnasium will be next to the cafeteria and student commons. Ideally it is accessible from the main entry lobby when the lobby can be locked away from the rest of the school.

b) Stage:

It is usually desirable to share the stage with the cafeteria in a back-to-back relationship such that the stage may be used in both rooms.

c) Public Access:

The gymnasium should be accessible by the public for after-hours use and self-contained for such use. It can be locked off from other non-public areas of the school.

d) Public Washrooms:

Provide access to washrooms for assembly use. Should an after-hours occupancy exceed the designated washroom capacity, other washrooms should be accessible to meet that occupancy without infringing on the security of the school.

e) Bleachers:

A circulation pattern will be created such that spectators will not need to cross the gymnasium floor to access the bleachers.

f) Changing Rooms/Showers:

Locate off access corridor leading to the gym, accessible to the public and the rest of the school.

g) Instructor's Office:

Locate next to the gymnasium with windows allowing direct supervision of the gym. Locate door to office off access corridor to the gym. Provide a visual connection to the corridor for supervision by means of a window in the door or wall.

h) Gym Storage:

Directly off the gym. An exterior door to playing fields will be provided from the storage area.

i) Playing Fields:

Direct exterior access to the gym surface should be avoided to prevent dirt tracking.

18.3 GYMNASIUM

Three gymnasium sizes are provided to schools depending on size and type of school: 380 m², 591 m² and 821 m² gymnasiums. For small school populations, a multi-purpose room of 280 m² which also serves as a cafeteria (see following section).

Gymnasiums shall meet the following criteria:

a) Purpose:

The gym is a large space planned for a multitude of uses as outlined in the introduction of this section (18.1).

- i. A gym of 380 m² is allocated for a single teaching station in an elementary school.

- ii. A gym of 591 m² is allocated for a double teaching station in an elementary school and a single teaching station in a middle school and high school.
- iii. A gym of 821 m² is allocated for a full regulation size basketball court and is provided for a double teaching station both in high schools and middle schools.

b) Location:

Please refer to the above section (18.2) regarding Spatial Relationships.

c) Characteristics:

- i. Minimum clear ceiling heights:
 - i. 280 m² = 6.7 metres
 - ii. 380 m² = 6.8 metres
 - iii. 591 m² = 7.2 metres
 - iv. 821 m² = 7.5 metres
- ii. Smooth wall surfaces free from protrusion and wall-mounted accessories to a height of 4 metres shall be provided.
- iii. Acoustical treatment for walls above 4 metres to reduce reverberation shall be provided. . Acoustical wall and acoustic deck are required.
- iv. Resilient wood flooring or synthetic flooring designed for gymnasium use is recommended. The selection is determined by the user at the planning stage. When synthetic flooring is specified with bleachers, reinforcement is to be provided in flooring to prevent damage.
- v. Consider strategic use of colour.
- vi. Incorporate natural light as much as is practical, being careful to avoid direct sunlight that can interfere with activities and spectators' vision.
- vii. Glare off gymnasium floors is often a problem. Consider design of sufficient indirect lighting and diffused natural light to avoid glare.
- viii. Retractable basketball backstops will be motorized upswing for main court. Crosscourt backstops are motorized upswing only where bleachers are provided,
- ix. Crosscourt backstops, other than described in the last sentence, are to be manual side swing.
- x. Basketball backstops will be height adjustable at the elementary and middle school levels.
- xi. All electrical controls shall be accessible for after-hours use.
- xii. A motorized roll-up curtain shall be provided to divide the 591 m² and the 821 m² gyms into two stations, where two teaching stations are required. Arrangement of curtain shall allow for a passage between stations with plastic windows positioned to allow visibility for safety when passing between the two.
- xiii. A motorized dividing partition may be provided where two gymnasiums are

adjacent. TBD during planning.

Note: The area occupied by recessed bleachers when retracted is not allocated to the gym area but under Services and Systems allocation.

For dimensions, game lines, and additional details see DTI's *Design Guidelines for Educational Facilities*.

18.4 INTENTIONALLY LEFT BLANK

18.5 INSTRUCTOR'S OFFICE

a) Purpose:

An office for the gym instructor complete with hygiene/changing facility.

b) Location:

Next to the gymnasium with interior safety glass windows allowing for good supervision of activity within the gym. Locate door in office off access corridor to the gym.

c) Characteristics:

- i. Provide barrier-free changing room with shower, lavatory and water closet.
- ii. Allow for office desk work area and file cabinet, (NIC).
- iii. Provide white board, telephone and data jack.
- iv. Provide a window to the gym as noted above.
- v. Provide a visual connection to corridor for supervision by means of a window in the door or wall.

18.6 GYM AUXILIARY WASHROOM AND CHANGING ROOM MODULE

a) Purpose:

To accommodate gym changing and hygiene – barrier-free design change room module as all inclusive / all gender change room to be provided for every gymnasium.

b) Location:

Next to the gymnasium off corridor leading to the gym.

c) Characteristics:

- i. Provide 32 (305 x 305 mm) open mesh lockers.
- ii. Provide changing benches and shelving with clothing pegs for 32 individuals 9 (13.5 lineal metres).
- iii. Provide whiteboard in changing room area.
- iv. Two Stalls (One standard toilet stall & one barrier-free toilet stall)
- v. Single change room with shower area for private changing and showering.

See DTI's *Design Guidelines for Educational Facilities* for sample plan.

18.7 GYMNASIUM STORAGE

a) Purpose:

To store both indoor and outdoor gym equipment.

b) Location:

Direct access from the gym. Exterior door to playing fields will be provided from the storage area.

c) Characteristics:

- i. Provide storage shelving to suit school's needs.
- ii. Design ventilation on the assumption that wet/dirty equipment is being stored.
- iii. Double exterior door best positioned relative to playing fields.
- iv. Provide proper storage space that is conveniently located if rollout protective floor covering is to be a part of the school's inventory.
- v. Provisions for storing equipment poles for games.

18.8 COMMUNITY STORAGE

An allocation for additional storage of 15 m² at the elementary and middle school levels and 20 m² at high school level will be provided separately from school storage for community use. Provide adjustable shelving and ventilation for both spaces.

18.9 PLAYING FIELDS

See *Site Development Section 04.5(m)*

18.10 BLEACHERS

Bleachers will be motorized, retractable, and recessed so as not to create a playing hazard. When synthetic flooring is specified with bleachers, reinforcement is to be provided in flooring to prevent damage.

Provide a circulation pattern such that spectators will not be required to cross the gymnasium floor to access the bleachers.

Although located in the gymnasium, the space that bleachers occupy in their closed position is considered area allocated under Services and Systems and not a part of the gymnasium's area allocation in the educational specifications.

STUDENT SERVICES

23.1 INTRODUCTION

The section defines and describes all the spaces required to serve the students that are auxiliary to the classroom and traditional instructional spaces.

Space allocations identified under student services are:

- a) Resource Room
- b) Special Care Washroom/Changing room
- c) Guidance Office
- d) Waiting Area
- e) Visiting Professionals' Office
- f) Health Room
- g) Student Government Room

The need for the above-listed spaces varies greatly from school to school; therefore, the number of such spaces as well as the desired location will be identified by the district through consultation during planning stages.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed information in Section A-1 and contain a sample plan for the resource room and for the special care washroom as well as an outline of the general specifications of architectural, mechanical and electrical particulars. Other plans or variations of plans may be approved provided they meet all the functions and characteristics as outlined here and in the Transportation and Infrastructure's *Design Guidelines*. Standard casework shall be provided as per the *Design Guidelines*.

23.2 RESOURCE ROOM

a) Purpose:

The resource room is essentially a small classroom designed to recognize the diverse learning needs of students. It provides additional support space complementary to the general classroom. One resource room will be equipped with any special equipment and devices required to meet the need of particular students attending the school. On a part-time basis, these rooms may accommodate smaller groups of learners, exceptional students with learning disabilities, gifted students, or students with medical challenges. For the most part, such students are served in the classroom with the assistance of support personnel such as a resource teacher. Exceptional students benefit from instruction and interaction with their peers in integrated

classes, but some students may require individualized, specialized, and direct instruction within their school day. The break-out room is available for individual instruction, but at times more specialized and private support is required. The resource room is intended to respond to this need. It provides space for the resource teacher to serve students and teachers in a variety of ways, including direct instruction for individual students (e.g. remedial assistance, enrichment), assessment, consultation, in-service meetings and meetings with support personnel. Small groups of professionals and students may gather in this space, which provides more privacy than the student project area.

b) Location:

It is generally thought that this area should not be segregated but rather be a complementary component to the regular education space. With that in mind and for reasons of convenience, the resource room will normally be located in the wing or cluster close to the general classrooms it serves. Exceptions will be made during the planning process depending on the school's philosophy and organization.

c) Characteristics:

- i. A 35 m² space outfitted with a one-metre-long computer station and a 1.8 metres long countertop with cabinets top and bottom.
- ii. Provide for specialized equipment and for special needs of the students, other accommodations may be provided at the planning phase.
- iii. The room shall accommodate all the characteristics as outlined under the General Classroom in Section 12. A sample plan is provided in DTI's *Design Guidelines for Educational Facilities*.

23.3 SPECIAL CARE WASHROOM/CHANGING ROOM

a) Purpose:

The special care washroom is provided for students that require medical or exceptional hygiene attention.

b) Location:

This barrier-free washroom and changing room shall be accessible by a door to a designated resource room. One room is provided per school, so it shall be in a central location to be used by all the school's students who require special care.. It may be preferred for it to be located adjacent to the visiting professionals' offices or the health room. The location of this accessible washroom should be evaluated on a case-by-case basis.

c) Characteristics:

Located within the room are the following barrier-free accommodations:

- i. Sink with vanity.
- ii. Laundry tub.
- iii. Linen closet (Anglophone layout).
- iv. Linen shelf (Francophone layout).
- v. Toilet complete with grab bars, adjustable therapy table, provisions for a washer and dryer.
- vi. Bathtub (in Francophone layout), shower complete with folding seat (Anglophone layout), and a surface-mounted medical lift track.

Sample plans are provided in the *Design Guidelines*. Suggested plans differ from Francophone to Anglophone schools.

23.4 GUIDANCE OFFICES

a) Purpose:

Work and counselling office space for guidance officer (Anglophone sector for middle and high schools. Francophone sector at high school only). The designer should be mindful that the counselling will be of a confidential nature. In small schools where the guidance officer is part time, the office may also be used by visiting professionals.

b) Location:

Central but discreet location that allows for confidential discussions with students. Located away from administration area. Waiting area adjacent to office.

c) Characteristics:

- i. Sound separation of STC 44.
- ii. Allow layout for desk and work space with guest chairs.
- iii. Allow for file storage.

23.5 VISITING PROFESSIONALS' OFFICE

a) Purpose:

Work, counselling, and administration space for visiting professionals that at times will require meetings of a confidential nature.

Professionals may include the following: Guidance Officer, Social Worker, Speech Therapist, Hearing Specialist, Police, Psychologist, Occupational Therapist, Physiotherapist, Literacy Specialist, Community Officer, Math Lead, Behaviour Intervention Worker, Autism Support Worker, etc.

In K-8 schools, where the guidance officer is part time, the guidance office may also be used by visiting professionals.

For less confidential meetings the visiting professionals can use the break-out room located off the classroom corridors. This should be considered when determining the number of offices required.

b) Location:

- i. Central but discreet location that allows for confidential discussions with students.
- ii. Waiting area adjacent to offices.

c) Characteristics:

- i. Sound separation of STC 44.
- ii. Allow layout for desk and work space with 3 guest chairs.

23.6 WAITING AREA

a) Purpose:

Seating area for those waiting to see a guidance officer or other consultation professional. Area to display reference materials.

b) Location:

Central but discreet location. Waiting area adjacent to guidance and visting professionals' Offices.

c) Characteristics:

Allow space for two seats per office located in office cluster. Allow shelving for display of information and reference material.

23.7 HEALTH ROOM

a) Purpose:

To administer health care to students and staff, either proactive care or for sick individuals.

b) Location:

This room should be located in a quiet area out of the path of busy travel. It may be located off the waiting room if convenient in the plan and should be in a central location to be used by students throughout the school. The location of this room should be near the administration area.

c) Characteristics:

Located within the room are the following:

- i. A bed.
- ii. A minimum of two metres of counter tops complete with lockable storage cupboards.
- iii. An accessible washroom.
- iv. This space is to include an eyewash station.

23.8 INTENTIONALLY LEFT BLANK

23.9 MULTI-FUNCTION ROOM

a) Purpose:

Multi-function space that will add flexibility to the operation of the school. The intent is a stand-alone space not to be added to any other area. For elementary and middle schools only. When requested by the community, this space is to be used as a daycare space. It should be located on the first floor near an entrance to avoid traffic through the school. When there is more than one multi-function room allocated to a school, they should be adjacent to one another.

b) Location:

See above.

c) Characteristics:

- i. One 110 m² room for a school with a student population under 350 students; two 110 m² rooms for a school with a student population over 350 students.
- ii. The fit-up of the room will be determined during the planning stages of the school.

23.10 ALTERNATIVE EDUCATION SPACE

To be discussed on a case by case basis.

23.11 BREAKFAST PROGRAM / CLUB

a) Purpose:

The breakfast program supports the school community, providing nutritious breakfast meal to the students to commence their learning day.

The breakfast program is based on parents volunteer to provide hot & cold meals, refreshments, snacks, etc..

a) Location:

- i. Located of the dining space in a position that allows ease for deliveries of food.
- ii. Possibilities of a pass-through to the dining area to allow students to receive meals,

b) Characteristics and Design Considerations:

Typical Breakfast Program / Club size:

Size will be selected based on future school enrolment or if the space can be shared with the Food Laboratory Space, expectations as per the following:

25 m²

i. Functions:

Breakfast Program / Club will accommodate the following components:

- Receiving
- Food storage
- Non-food storage
- Food preparation
- Serving
- Dishwashing
- Cooking – Residential Range
- Reheating

For detailed equipment schedule, requirements and sample plans to aid in the kitchen's design refer to DTI's *Design Guidelines for Educational Facilities*.

ii. Ventilation:

The breakfast program will require the use of a residential range with exhaust range hood.

iii. Power & Equipment:

Power shall be provided to support a Microwave and 2 toasters on the counter space. The program will require a small walk in cooler and freezer powered and serviced off the kitchen system.

iv. Cabinetry:

Countertop and food preparation area, with lower cabinets and upper cabinets with a section of open shelving (three shelving units) for food storage.

c) Procurement and installation of kitchen equipment:

As a rule-of-thumb, any equipment supplied and installed as part of the building contract will include any fixed equipment and other equipment or appliance requiring 240 volts or higher, such as coolers and freezers. The coolers and freezers are served from the kitchen equipment for power and cooling. Any electrical equipment or appliance requiring 110 volts will not be supplied by the building contract. Electrical receptacles shall be supplied and coordinated as required.

LIBRARY/LEARNING COMMONS

24.1 INTRODUCTION

The complexion of the library is changing as current reference information is more accessible through digital sources than books and periodicals. Regardless of the evolution in technological format from books to computers to non-print communication, the library must still acquire, store and disseminate information and provide the patron with a welcoming and rewarding experience. Its traditional purpose remains, which is to encourage and provide opportunities for students to conduct research, use various sources of information, gain knowledge or simply read for enjoyment. In middle schools and high schools, lounge-style furniture is desirable. In elementary school an open reading area for classroom gatherings must be accommodated. Natural indirect light is important. Because of the rate of changing technology and the diversity of materials from school to school, particular accommodations may need to be considered during the planning stages.

Community partnering lends itself to the library. The planning for such a fit requires consideration from the outset of a school design. If the library is attached to the school, the safety and security of the student must be addressed. A means for community access to the library must be provided that does not allow entry to the rest of the school.

The main library space should be divided approximately as follows:

- 75% - Main open space- reading, research, individual study and shelving
- 10% - Circulation area
- 8% - Technical processing and equipment storage
- 7% - Computer terminals (minimum of six terminals)

One or more seminar rooms for group activities and meetings will be provided to accompany the library. This area allocation is over and above the space allocations formula for the library as outlined in Part B.

The Department of Transportation and Infrastructure's *Design Guidelines for Educational Facilities* outline more detailed and technical requirements for the Resource Centre in Part 2-Section A-1 and contains an outline of the general specifications of architectural, mechanical and electrical particulars.

24.2 LIBRARY/LEARNING COMMONS LOCATION

The space will be located as follows:

- a) Centrally located.
- b) A separate area that is acoustically isolated.
- c) Should be visually open to and inviting from the corridor.

- d) If community access is required an exterior door may be necessary.
- e) Should be located to provide one or two exterior walls.

The space components of the library are described as follows:

24.3 MAIN OPEN SPACE

(approximately 75% of floor area allocation formula)

d) Purpose:

Area to accommodate shelving for books and other reference material and to provide comfortable, inviting accommodation for reading and research.

e) Location:

- i. Visually supervised from circulation desk.
- ii. Allows for an abundance of natural light.

f) Characteristics:

- i. **Reading Area:** To provide for reading, individual study, and viewing of and listening to information services. This area will be able to accommodate the following:
 - i. Tables and chairs to accommodate small groups of students.
 - ii. Lounge-style furniture in middle schools and high schools only.
 - iii. Open space seating for classroom readings in elementary schools.
- ii. **Shelving:** The school district will confirm an estimate of the number and type of printed material to be accommodated. Consider the following when estimating shelving area:
 - Grouped rows of free-standing sections of shelving in blocks to allow for spacious uninterrupted reading area.
 - i. Estimate needed space for bookshelves in terms of the book volume required for maximum enrolment. One metre (lineal) of shelf space will house about 30 volumes for a high school library and 35-45 volumes for an elementary school library. Picture book shelves (requiring dividers between uprights) can accommodate about 50-60 books per metre. Encyclopedias and many other reference works require one metre for 24-30 volumes.
 - ii. From 90 to 95 percent of the shelving should be 225 mm deep, about 10 percent 250 to 300 mm deep. Special cases for atlases may be desirable. Folios can be placed upright on their side with their title facing out in a counter-height double-faced section, using both sides as a double shelf.
 - iii. Standard book shelving comes in 1-metre units. Not more than

two sections of double-faced shelving should be included in one free-standing counter unit. Double-faced, free-standing shelving should be included in one free-standing counter unit. Double-faced, free-standing units 1,830 mm or 2,130 mm high should be not more than five sections long. Leave 1,500 mm between the face of the bookstand and the edge of the adjacent tables.

24.4 CIRCULATION AREA / ADMINISTRATION

(Approximately 10% of floor area allocation formula)

a) Purpose:

To accommodate the control and circulation of books, reference materials, and other equipment stored for loan, as well as provide for work activities of the librarian and library assistant.

b) Location:

- i. Strategically located to control access.
- ii. Located close to entrance.
- iii. Positioned not to create congestion when numbers as large as a class size may wish to sign out materials.
- iv. Position to view all of main library space.
- v. Controls access to technical processing room.

c) Characteristics:

- i. Efficiently designed desk to perform multiple tasks.
- ii. Outfitted for staff computer terminal, fax machine, phone and scanner.
- iii. Library shall be able to be controlled by one staff member.
- iv. Working countertop for library staff.
- v. Countertop to serve standing individuals.
- vi. Service countertop heights shall be designed not to impede supervision by library staff.
- vii. Allow for barrier-free service component.
- viii. Shelving space for reserved books.
- ix. File storage and desk drawers.
- x. Book drop.
- xi. Task lighting over desk.
- xii. Define area distinctively with a lower ceiling, highlight colour or in other creative ways.
- xiii. Circulation space.

24.5 COMPUTER TERMINALS

(approximately 7% of floor area allocation formula)

a) Purpose:

Accommodate a minimum of six computer terminals for library reference and Internet use.

b) Location:

Close to circulation desk for ease of assistance.

c) Characteristics:

- i. Free from glare.
- ii. Suitable electrical and data jacks.

24.6 AUDIO VISUAL AND EQUIPMENT ROOM

(Approximately 8% of floor area allocation formula)

a) Purpose:

Work and storage room for library staff and school electronics.

b) Space Location:

Accessible from and controlled by the circulation desk. May be two rooms.

c) Space Characteristics:

- i. May store audio visual equipment and supplies May require work counter with sink, some open knee space underneath, some lockable cupboard underneath, some drawer storage.
- ii. Requires open space work table.
- iii. Shelving for periodicals.
- iv. Shelving for reserve books not housed in circulation desk.
- v. Configuration of this space to be determined at the planning stage.

24.7 SEMINAR / ACTIVITY ROOM

(Over and above library space allocation formula)

a) Purpose:

Activity or seminar rooms, multi-purpose.

b) Location:

Accessible from library and corridor.

c) Characteristics:

Shape will accommodate boardroom-style table. Include glazing between this room and the library to allow visual connection and supervision.

CAFETERIA

25.1 INTRODUCTION

The cafeteria is an active, vital and important part of the school. The prime purpose of the cafeteria space is to provide a pleasant space for the noon hour meal, but the capacity for this substantial space to provide multiple uses throughout the school day and after-hours is expected. It will provide an assembly space for lectures, audio-visual presentations and dramatic/musical performances. It should also serve as one of the main social venues in the school with the potential to function as smaller space components both for social convening and smaller learning spaces. The cafeteria should be a bright, welcoming place where one wants to spend time.

A kitchen and a stage are normally provided with the cafeteria. Their area allocations are over and above the formula for dining space.

It is the responsibility of the school district, in consultation with the departments of Health and Education and Early Childhood Development, to determine the nature of the food service program for each school. Standard kitchen arrangements have been developed and the plans may be referenced in the *DTI Design Guidelines*. Modifications to these plans will be considered based on an analysis of the menu plan in consultation with a commercial kitchen planner and the above-noted departments.

In smaller elementary schools, the cafeteria and physical fitness facility are combined when physical education grouping demands can be met after excluding the half an hour before and after the scheduled lunch period. A kitchen as well as a stage will adjoin this multi-purpose space to accommodate noon hour meals and assemblies and performances. The outfitting of chairs and tables shall accommodate their efficient removal and return.

The cafeteria space provided will accommodate one half of the student body at one time. This fact must be considered in the school's class scheduling structure.

25.2 SPATIAL RELATIONSHIPS

a) Centrally Located:

The cafeteria should be located in proximity to the gymnasium and student commons. Ideally it is accessible from the main entry lobby.

b) Stage:

It is usually desirable to share the stage with the gym in a back-to-back relationship with the cafeteria such that the stage may be used in both rooms. If it is deemed desirable to locate the stage on an end wall of the gymnasium, cautionary measures should be taken to ensure that, when the stage is not in use, a solid flush secure smooth wall will result and its

presence will not pose a hazard when in use for physical fitness. The stage should also be in proximity to the music/performing arts room.

c) Public Access:

The cafeteria should be accessible by the public for after-hours use and self-contained in combination with the gym for such use. It will be able to be locked off from other non-public areas of the school.

d) Public Washrooms:

Provide access to washrooms for assembly uses shared by the gymnasium. Should an after-hours occupancy exceed the designated washroom capacity other student washrooms should be located that are accessible to meet that occupancy without infringing on the security of the school.

e) Outdoor Connection:

The design will create a strong connection and direct access to the outdoors. The outdoor classroom will be nearby and offer opportunity for outdoor lunch seating.

25.3 DINING SPACE

Careful design consideration to ensure a successful pairing and combining multi-uses requires skilled attention in the design process. Some of the concerns to be met are:

- a) Dining area will equal $1.2 \text{ m}^2 \times \frac{1}{2}$ the enrolment (a 2-period lunch schedule).
- b) It must be possible for the space to screen any natural light provided and be darkened when required for presentations.
- c) Student circulation paths through the space should not limit the uses for assemblies such that class changes interfere with a presentation.
- d) Viewing angles to the stage area must be considered.
- e) Acoustical treatment is to be provided for both dining and assembly space.
- f) The design requires attention to enable quick and easy removal, storage and repositioning of tables and chairs. Tables that fold and retract into the walls are often practical. The design will account for the convenient location of all tables and chairs when not in use and in a stored location. Space under the stage will be used for storage of chairs. A rolling storage unit (NIC) shall be provided under the stage to allow for convenient storing. During design, the school district shall provide specifications for the rolling storage unit they will be purchasing.

25.4 KITCHEN

a) Purpose:

All new schools will be supplied with a kitchen capable of serving the student body hot and cold lunches. The architectural firm must hire a commercial kitchen consultant to ensure that the kitchen supplied is capable of producing the desired menu for the number of meals required to be served within the desired time frame and the work must be coordinated through the EECD. Meals will be served to the whole student body during two separate periods.

The kitchen and auxiliary space should be planned and built for the maximum meal load anticipated in future years. Some equipment may be omitted until needed, but provisions for the equipment should be in place.

b) Location:

- i. Located such that exterior access is provided via a service drive for deliveries and garbage removal. Access drive should avoid conflict with any pedestrian traffic and be away from any play areas.
- ii. Located off dining space in a position that allows for sufficient space for the queuing required during peak service hours.

c) Characteristics and Design Considerations:

- i. See typical layouts in DTI Design Guidelines.

ii. Typical kitchen sizes:

Size will be selected based on future school enrolment expectations as per the following:

- i. 36 m² – enrolment up to 200.
 - The 36 m² is a community kitchen. It will be provided with domestic stoves and ranges rather than a commercial range. Facilities provided will be project-specific to suit particular operational needs. A single-lavatory washroom should be incorporated within the area allocated.
- ii. 36 m² – enrolment 200: See plan in DTI *Design Guidelines*.
- iii. 55 m² – enrolment 201 to 400: See plan in DTI *Design Guidelines*.
- iv. 85 m² – enrolment 401 to 800: See plan in DTI *Design Guidelines*.
- v. 180 m² – enrolment 801 and over: See plan in DTI *Design Guidelines*.

iii. Functions:

Kitchen facilities will accommodate the following components:

- Receiving
- Food storage
- Non-food storage
- Food preparation
- Dishwashing
- Office and planning
- Employees' lockers
- Janitor's sink and storage

- Serving
- Employee's washroom

For detailed equipment schedule, requirements and sample plans to aid in the kitchen's design refer to DTI's *Design Guidelines for Educational Facilities*.

iv. Procurement and installation of kitchen equipment:

As a rule-of-thumb, any equipment supplied and installed as part of the building contract will include any fixed equipment and other commercial equipment or appliance requiring 240 volts or higher, such as coolers and freezers. Any electrical equipment or appliance requiring 110 volts will not be supplied by the building contract. Electrical receptacles shall be supplied and coordinated as required.

25.5 STAGE

A stage will be provided that is attached to the dining area to facilitate lectures and dramatic or musical performances for all schools. In all schools, auditorium-type functions are expected to take place in the cafeteria. If possible, the stage should be located near the music and performing arts rooms. A desired scenario is the back-to-back arrangement where the stage connects the gymnasium and the cafeteria, thus allowing both spaces use of the stage.

Cautionary measures should be taken to ensure that, when the stage is not in use, a solid flush secure smooth wall will result and its location will not pose a hazard when the gym is in use for physical fitness.

Each school will have a raised stage and sound system suitable for the performance of concerts, plays and school activities. It is important that acoustical properties be given careful consideration. Permanent stages are usually provided. Convenient classrooms may serve for dressing and make-up rooms.

Space under the stage will be used for storage of chairs. Rolling storage units designed to hold chairs shall be provided under the stage to allow for convenient storing.

The stage must be provided with a ramp for barrier-free access.

PERSONNEL CENTRE/STAFF ROOMS

26.1 STAFF LOUNGE AND LUNCH ROOM

- a) **Purpose:**
Comfortable space for lounging area or eating for teachers and support staff.
- b) **Location:**
 - i. Equidistant on average from all classrooms.
 - ii. Staff washrooms adjacent.
 - iii. May be desirable to be close to the administration area for convenient use of the staff washrooms.
- c) **Characteristics:**
 - i. Provide small kitchenette complete with provisions for a refrigerator, dishwasher, two microwave shelves and a single stainless steel sink. Appliances are not supplied in building contract.
 - ii. Natural light and opening windows.
 - iii. In larger schools, the allocated area may be divided and personnel centres may be in more than one convenient location. Determined at planning stage.

26.2 STAFF WORK ROOM

- a) **Purpose:**
Work area for staff.
- b) **Location:**
Close to staff lounge and washrooms.
- c) **Characteristics:**
 - i. Provision for photocopier and work tables.
 - ii. Mailboxes may be alternately located in the staff area as opposed to the administration area if desired. See *mailboxes under Section 27-2(c-iv)*.

26.3 STAFF WASHROOMS

Two all inclusive washrooms for staff with one of the washrooms barrier-free washroom(s) associated with the staff lounge. If classroom wings are remote from staff area, provide additional staff washroom in wings and floors.

ADMINISTRATION

27.1 INTRODUCTION

The administration area is the hub of the school, serving as a control centre both physically and electronically. It receives students and the public and provides office space for the clerical and reception staff as well as the principal and vice-principal. It houses communication and technology networks and its design should facilitate the control of the public as they enter the school. It plays a major role in welcoming visitors and students alike, and serves to protect and secure the school. The connection from the administration centre to the main arrival lobby and circulation hub of the school should be clear and direct and will command an unobstructed view of the main entry doors.

27.2 RECEPTION

a) Purpose:

This public space is designed to receive visitors and students waiting for appointments and meetings with the principal, vice-principal or other staff. A service counter shall be provided to serve the public and the student body. The counter will separate the reception from the general office area. In addition, there will be mailboxes for staff distributions in the reception area unless an alternate location is chosen in the planning stages such as in the staff lounge or staff work area.

b) Location:

The reception space is accessed from the main lobby and allows entry to the central office area. The receptionist will be able to supervise this area as well as have a view to the main lobby and entrance doors from his or her work station.

c) Characteristics:

- i. Seating:** A defined seating space or alcove will be provided for those waiting and will allow for comfortable but space-efficient seating.
- ii. Circulation:** Will allow for circulation through to the general office without conflicting with seating area.
- iii. Reception counter:** A service reception counter will separate the public waiting area from general office with gates or openings for effective circulation and accessibility. The counter will contain drawers and adjustable shelving on the office side, and toe space on both sides. Height should be 915 mm to 1,060 mm for adult or high school use. In elementary schools and combined schools, a section of the counter should be 800 mm high for elementary students.

- iv. **Mailboxes:** Provide built-in mailbox cubicles approximately 225 mm wide, 100 mm high and 300 mm deep for at least every staff member as well as one larger cubicle for packages, about 4 compartments high (400 mm) by 3 compartments wide (625 mm) by 300 deep. Location of boxes will consider traffic patterns and accessibility and will not conflict with functioning in the reception area or the general office. Alternatively, the mailboxes may be located in the staff lounge or workroom. The mailboxes may be pass-thru style if desired.
- v. **Signage:** Provide signage to identify the administration and reception.

27.3 GENERAL OFFICE

a) **Purpose:**

The general office provides space for the receptionist and clerical staff. It serves as a privacy buffer for the principal and vice-principal who often conduct confidential business in their offices.

b) **Location:**

Located to allow clear and unobstructed views of the arrival lobby and front doors. The principal and vice-principal's offices feed from the general office space.

c) **Characteristics:**

- i. **Acoustical separation:** Separate the administration from the busy lobby space acoustically in such a way that the separation does not infringe on the visual connection. This may be done by means of sliding glass doors or sliding glass windows across the service counter. During less hectic hours the area should be able to remain open to the school.
- ii. **Coat Closet:** Provide a coat closet for those working in the administration area.
- iii. **Open Space:** Allow open space for general office work that will include office furniture, filing cabinets (NIC), and a work counter for processing documents.
- iv. Provisions for office equipment. This space is to serve administrative staff only. Teaching staff will use the teachers' workroom as described in Section 26.
- v. Allow for enclosed space for photocopy machine.
- vi. Allow space to house communication equipment, public address system.

27.4 PRINCIPAL'S OFFICE

- a) **Purpose:**
Work space and private meeting space for the principal.
- b) **Location:**
Direct access from the general office.
- c) **Characteristics:**
 - i. Allow exterior view of approach to main entrance.
 - ii. Ample natural light.
 - iii. Provide interior window to general office space.
 - iv. Plan for the following furnishings (NIC): desk, chair, filing cabinets, conference chairs, bookcases, telephone, and microphone connection to public address system.

27.5 VICE-PRINCIPAL'S OFFICE

- a) **Purpose:**
Work space and private meeting space for vice-principal.
- b) **Location:**
Direct access from general office.
- c) **Characteristics:**
 - i. Allow exterior view of approach to main entrance.
 - ii. Ample natural light.
 - iii. Provide interior window to general office space.
 - iv. Plan for the following furnishings (NIC): desk, chair, filing cabinets, conference chairs, bookcases, telephone, and microphone connection to public address system.

27.6 STORAGE CLOSET

- a) **Purpose:**
Storage of office supplies and files.
- b) **Location:**

Convenient location within general office area.

c) Characteristics:

Adjustable shelving to store office supplies.

27.7 CURRICULUM FILE STORAGE ROOM

d) Purpose:

Storage of student files.

e) Location:

Convenient location within general office area.

f) Characteristics:

Adjustable shelving to store office supplies.

CUSTODIAL

28.1 PURPOSE

The section defines and describes all the spaces that are necessary to accommodate responsibilities of the custodial staff. These may be affected by the local organization of the custodial program, but responsibilities usually include the following functions:

- a) Housekeeping and sanitization.
- b) The storage of all school sanitary and cleaning supplies.
- c) The receiving, inventorying, storing, and shifting of all unattached equipment.
- d) Taking care of loose hardware and making minor mechanical repairs.
- e) Maintenance of the mechanical and electrical systems.
- f) The care and maintenance of grounds and athletic fields. An outdoor storage enclosure is provided for grounds maintenance as outlined in *Section 04.5.m*.

28.2 CENTRAL CUSTODIAL SPACE

a) Purpose:

Facility for general building maintenance, cleaning equipment, receiving and shipping. One allowed per school. In smaller schools some of the provisions listed below may need modification due to space limitations and lesser needs.

b) Location:

The main custodial facility will be centrally located adjacent to the maintenance and systems areas. Allow for a direct exterior access door or readily accessible exterior door off corridor.

c) Characteristics:

The space will provide the following:

- i. Fire rated to meet National Building Code.
- ii. Workbench for small repairs – (2 to 3 metres long).
- iii. Adjustable storage shelving for short-term storage of cleaning and sanitary products (not intended to store annual supplies).
- iv. Space for cleaning equipment storage.
- v. Exterior receiving door (if possible).
- vi. Receiving area in school larger than a 500 enrolment.
- vii. Slop receptor as described below under 28.3.
- viii. Custodian's locker – one per custodian.
- ix. Custodian's office - 10 m² for an enrolment of 750 or larger.
- x. Outfitting for a washer/dryer.

- xi. Provide data drop for 1 computer/printer.

28.3 CUSTODIAL CLOSET

a) Purpose:

Custodial cleaning station.

b) Location:

- i. One per wing or cluster.
- ii. In proximity to student washrooms.
- iii. Door accessible from corridor (not washroom).
- iv. If the central custodial facility is remote from gymnasium provide custodial closet for gym.

c) Characteristics:

The space will provide the following:

- i. 4 m² minimum. Configuration of space must accommodate typ. custodial supply cart, 600mm x 1200mm.
- ii. Adjustable storage shelving for cleaning and sanitary products.
- iii. Slop sink.
- iv. Wall-mounted storage for brooms, mops and step ladders.
- v. Storage of mop pails, cleaning wagon, and floor polisher.
- vi. Mechanically ventilated.
- vii. Eye wash station.

28.4 RECYCLING STORAGE ROOM

a) Purpose:

Recyclable material storage area.

b) Location:

Located in close proximity to cafeteria and exterior service entrance.

c) Characteristics:

The space will provide the following:

- i. Space shall have double deep stainless sink.
- ii. Space shall have a floor drain.

SERVICES AND SYSTEMS

29.1 INTRODUCTION

The area allocated under Services and Systems comprises the portion of the school whose quantity can only be determined by a factor of the required programmed spaces for which it serves. The total area programmed for specific uses as outlined in all the preceding sections in Part C is referred to as the net space. This net space plus the area encompassed by services and systems equals the total gross area of the school.

The following area components form the services and systems space allocation:

Wall space, circulation space; including but not limited to corridors, stairs and elevators, lockers, lobbies or vestibules, student/public washrooms (all washrooms required for student use that have not been listed previously), gymnasium bleachers (the space they occupy when retracted), mechanical and electrical services including any duct or service area that occupy floor plate space.

29.2 CORRIDORS

a) Minimum widths:

All corridors serving elementary and middle school classrooms shall not be less than 2.2 metres clear in width between any obstructions, including that of the path of a swinging locker door (middle school).

All corridors serving high school classrooms shall not be less than 2.4 metres clear in width between any obstructions, including that of the path of a swinging locker door.

Circulation areas must be able to handle student traffic without congestion during peak times between periods as well as before and after school hours. Areas that converge will be subject to high traffic levels such as the intersection of corridors and the main entrance to the school and must therefore be enlarged appropriately.

Careful attention must be paid to ensure that all aspects of the corridor design are in conformity with the National Building Code and meet all of the Provincial Fire Marshal's safety concerns.

b) Length:

The length and number of corridors is a product of the arrangement of component programmed spaces. These layouts and relationships should be planned in such a manner as to keep the total area of corridors to a minimum.

c) Nodes, focal points, variation and interest:

The corridor should be thought of as a part of the learning environment. An effort will be made to create a less institutional corridor with places and happenings within the circulation path. Consider a "main-street" circulation system, which creates a dynamic flow of movement through the facility.

The project work areas, which are open to the corridor, should be thought of as a focal point or nodes of space that will be used as a means to reduce the monotony of the corridor. Seating alcoves are encouraged. Any such space shall not impede and infringe on circulation. The glazed break-out rooms might also be used as a vehicle to provide interest along the corridor. If they are paired across the corridor they will create more of a break visually in the linear pattern of the corridor. Areas or intersections could be highlighted with changes in lighting or colour. Views to areas of interest or the outdoors may be framed. Student display walls or spaces should embrace the school's character and create interest, keeping fire regulations and budgets in mind.

d) Natural light:

Some natural light should be introduced into every classroom wing corridor. This may be achieved by means of the windows in the student project work area, end windows, high level clear-story windows, or courtyards.

e) Use of colour:

Thoughtful and tasteful use of colour is encouraged. Define spaces and nodes with changes in colour.

f) Water fountains:

Provide barrier-free, refrigerated water fountains to a minimum of one in every classroom wing located close to washrooms; a minimum of one outside of the gym changing rooms in the access corridors to the gym; and a minimum of one for the industrial technology area.

g) Surveillance:

Corridors should not allow any blind corners or out-of-the-way areas that cannot be visually monitored. The corridor will be equipped with electronic video surveillance equipment strategically located to view all corridor spaces.

h) Lockers:

Middle schools and high schools will be equipped with prefabricated recessed metal lockers located in the corridors close to homeroom classrooms at a rate of one per student, based on maximum enrolment. Lockers to be 1830mm h x 305mm w x 460mm d.

i) Boot racks and coat hooks:

The elementary school will be equipped with raised boot racks (raised for cleaning purposes), coat hooks and will be located in the corridor close to the classroom suitable for 30 students per classroom (4.5m in length)..

29.3 STAIRWELLS

a) Minimum widths:

Main staircases shall not have a tread width of less than 2 metres.

b) Accessible design:

Stairwells will conform to current version of CSA Document B651.

c) Natural light:

Natural light is desirable in the stairwell.

d) Use of colour:

Thoughtful and tasteful use of colour is encouraged. Stairwells may be highlighted by a change in colour.

e) Surveillance:

The stairwell should not allow any corners or out-of-the-way areas that cannot be visually monitored.

29.4 LOBBIES AND VESTIBULES

a) Entrance Lobby:

The lobby should be the central organizing hub of the school. The administration area shall be located to command a full view of the lobby and allow visual supervision of the main doors and exterior canopy area. The arrival lobby area should be clear and open and of an adequate size to allow for the flow of the whole student body.

The lobby should be welcoming. It should make a statement about the school. Within the lobby provide some creative format for student display. As well, the school may consider locating community art pieces here. Ideally the student commons area should be associated with or in proximity to the entrance lobby.

b) Vestibules:

Provide a vestibule at all main exterior entrances and exits. All vestibules are to be fully glazed for security reasons. Provide recessed floor mats in vestibules.

29.5 ELEVATOR

- a) A passenger elevator will be incorporated into every new multi-storey facility.
- b) The elevator (2,200 lbs minimum) will be designed to allow for the movement of such items as furniture and cleaning equipment typically required in the facility. In new buildings, a handicap lift is not acceptable.
- c) The elevator will be in a central location and close to the main entrance.
- d) The elevator is required to be barrier-free conforming to latest edition of of CAN/CSA-B44, "Safety Code for Elevators."

29.6 STUDENT/PUBLIC WASHROOMS

- a) All other washrooms outlined elsewhere in this document are not considered part of the area allocated within services and systems and are, therefore, not described in this section, whereas washrooms provided for the students and the public are.
- b) As a minimum, gender neutral universal washrooms shall sized in each wing or cluster in accordance with the maximum capacity use for the wing according to the tables supplied in the currently adopted National Building Code and designed as all gender/inclusive with one barrier-free toilet stalls as per the NBC.
- c) Washrooms for public use are to be provided in, or adjacent to areas of the building that are designed to accommodate public use, such as auditorium facilities, gymnasiums with spectator accommodation, and public-use libraries. These washrooms will also be for student use in these areas of the building. These public/student washrooms will be located such that they may be isolated from the rest of the school during after-hours use.
- d) Access to washrooms shall have no doors and be designed with walls or screens that prevent visual lines of sight into the washroom area. There shall be no lines of sight to toilet partitions, from any point outside the washroom.

- e) In male washrooms, where more than 2 water closets are required, urinals will be substituted for two-thirds of the water closets.
- f) Automatic on and off sensors shall be provided for all student/public lavatories.
- g) Two automatic sensor electric hand dryers will be supplied per washroom at the middle school and high school levels.
- h) A janitor's closet will be located nearby off the corridor.

See A-5 of the DTI *Design Guidelines for Educational Facilities* for more details.

29.7 BLEACHERS

- a) Bleachers will be the motorized roll-away type and will be recessed into the wall of the gymnasium when required at the middle school or high school level. Bleachers will not be supplied at the elementary school level.
- b) The area bleachers occupy when retracted and not in use will be accounted for under services and systems.
- c) When in their open position, bleachers will interfere with some game lines in the cross court direction. Their use is intended for the main full court spectator events such as basketball, volleyball or handball.
- d) Spectators will access the bleachers without crossing the gymnasium floor. Seating accommodations will be on only one side

29.8 MECHANICAL AND ELECTRICAL ROOM

- a) Attention must be paid to locate service rooms in an efficient and effective location while keeping in mind that systems must be designed to minimize mechanical noise and the main air handling duct work shall be acoustically isolated from learning spaces. The layout of equipment should be economical to minimize the required floor area.

- b)** Music/Performing Arts rooms and the gymnasium are sensitive to acoustical interference from mechanical air handling duct work. Appropriate attenuation measures will be carefully considered. The music room shall be remote from the mechanical room and main air handling duct work.

- c)** Appropriate ceiling space should be allowed to ensure that a prudent duct sizing can be accomplished to minimize noise transfer issues.

29.9 COMMUNICATIONS CLOSETS/ROOMS

Data closets to be determined during design.

APPENDIX A

DEPARTMENT OF EECD FACILITIES POLICIES

EECD POLICY 406 - OUTDOOR SCHOOL PLAY AREAS

<http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/406A.pdf>

EECD POLICY 407 - COMMUNITY USE OF SCHOOLS

<http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/407A.pdf>

EECD POLICY 409 - MULTI-YR SCHOOL INFRASTRUCTURE PLANNING

<http://www2.gnb.ca/content/dam/gnb/Departments/ed/pdf/K12/policies-politiques/e/409A.pdf>

DESIGN ENROLMENT

Design Capacity			Maximum Capacity
Totals	Classrooms	Enrolment Year	
		2023	
85	5	M/K	105
85	5	01	105
85	5	02	105
85	4	03	104
85	4	04	112
85	4	05	112
		<u>Enregistrement</u>	
510		Enrol. (K - 5)	
-		Enrol. (6 - 8)	
-		Enrol. (9 - 12)	
510	27	Total Enrol.	643

Factors Considered

- School projection based on ASD-W analytics.
- Out of province migration impacting student growth.
- Municipality did not provide growth values for area.
- Use design enrolment of 68 students for grades between kindergarten and grade 8.
- EECD Policy and Planning Projections support growth.
- Historical Enrolment demonstrates significant growth in area.

HISTORICAL ENROLMENT

All Schools	Change	2018	2019	2020	2021	2022	2023
Total Enrolment	0.00%	449	426	404	387	387	419
G00	0.00%	66	65	64	55	48	58
G01	0.00%	60	69	58	63	69	71
G02	0.00%	83	62	65	58	65	67
G03	0.00%	87	82	52	69	69	77
G04	0.00%	69	87	86	56	77	84
G05	0.00%	84	61	79	86	59	62
G06	0.00%	0	0	0	0	0	0
G07	0.00%	0	0	0	0	0	0
G08	0.00%	0	0	0	0	0	0
G09	0.00%	0	0	0	0	0	0
G10	0.00%	0	0	0	0	0	0
G11	0.00%	0	0	0	0	0	0
G12	0.00%	0	0	0	0	0	0

ENROLMENT PROJECTIONS

	Projections	Baragar Forecaster							
		2024	2025	2026	2027	2028	2029	2030	2031
	Total Enrolment	477	472	489	491	499	495	490	499
Forest Hill	K	78	63	81	73	73	73	74	74
	1	81	81	68	85	77	77	77	77
Liverpool	2	64	79	79	67	83	75	75	75
	3	79	71	87	87	73	90	82	82
	4	84	88	79	93	94	80	97	88
	5	91	90	95	86	99	100	85	103
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0

FUNCTIONAL PROGRAM

**Functional Program
Forest Hill / Liverpool K-5 (ASD-W)**

Target Enrolment: 510 Students / 27 Groups

Space	Quantity	Area	Total Area M²
General			
Early Childhood Development Room	1	110.0	110.0
Kindergarten Classroom	5	90.0	450.0
General Instruction Classroom Gr 1-5	22	70.0	1540.0
General Storage Room			77.0
Project Work Area			206.0
Breakout Rooms			55.0
Specialized Instruction			
Music Room Elementary	1	110.0	110.0
Performing Arts	1	110.0	110.0
Physical Education			
Gymnasium (2.25 GT)	1	821.0	821.0
Ancillary Spaces	1	73.0	73.0
Toilets 1@18=18m2			
Changerooms 1@44=44m2			
Showers 1@16=16m2			
Instructors Office	1	10.0	10.0
Staff Shower/washroom	1	4.0	4.0
Gymnasium Storage	1	70.0	70.0
Community Storage	1	20.0	20.0

Student Services			
Resource Room	5	35.0	175.0
Special Care Resource Room	1	35.0	35.0
Wash/Change Room	1	17.0	17.0
Guidance Office	1	9.0	9.0
ISD Office	1	12.0	12.0
Visiting Professionals Office	8	9.0	72.0
Waiting Area	1	10.0	10.0
Multi-Function Room - Ground Floor	2	70.0	140.0
Multi-Function Room - Second Floor	1	80.0	80.0
Breakfast Program	1	25.0	25.0
Library /Media Centre			
Library	1	185.0	185.0
Seminar / Activity Room	1	20.0	20.0
Cafeteria			
Dining and assembly	1	288.0	288.0
Kitchen	1	85.0	85.0
Stage	1	72.0	72.0
Learning Stairs	1	39.5	39.5
Personnel Centre/ Staff Room			
Staff Lounge and Kitchenette	1	34.8	34.8
Staff Work Areas	1	53.7	53.7
Staff Washrooms	2	4.0	8.0
Administration			
Reception	1	10.0	10.0
General Office	1	20.0	20.0
Principal's Office	1	14.0	14.0
Vice Principal's Office	2	11.0	22.0
Cumulative Filing Room	1	8.0	8.0
Health Room	1	13.0	13.0
Storage Area	1	4.0	4.0
Vestibule Meeting Room and WR	1	14.0	14.0

Custodial

Main Custodial Space and Closets	1	40.0	40.0
Recycling Room	1	15.0	15.0
Sub Total			5,167.0

Systems and Services

Overall Systems and Services (50%)			2,583.5
Circulation (corridors, stairwells, lobby, vestibules, elevator)	23%		
Student/Public Washrooms		3%	
Walls		14%	
M, E, Data, Computer Cart Rms		5%	

**Grand Total
 Square Meters 7,750.5**

PLANNING COMMITTEE MEMBERS

New Forest Hill / Liverpool School K-5 Planning Committee

Cynthia Burnett	Principal Forest Hill School
Kelly Parks	Principal Liverpool School
Jennifer Kelly-Milner	Vice Principal Liverpool School
Madelyn Beatty	PSSC Chair Representative – Forest Hill School
Erica Fanjoy	PSSC Chair Representative – Liverpool School
Shawn Tracey	Director of Finance and Administration, ASD-W
Darla Day	Director of Schools, ASD-W
Jin Jeong	Facilities Manager, ASD-W
Ruth Eden	District Education Council – ASD-W
Stewart Pope	Assistant Facilities Manager, ASD-W
Ken Forrest	Director of Planning, City of Fredericton
Daniel Fournier	Chair - Senior Project Manager, EECD