

AREA STANDARDS



Ministry of Education
Province of British Columbia

MINISTRY OF EDUCATION

AREA STANDARDS

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2.1 INTRODUCTION

The Ministry of Education Area Standards prescribes areas and other standards established by the Ministry of Education for space in elementary, middle and secondary schools. These standards apply to all facilities that are to be either newly constructed or enlarged. The standards are also to be used to establish the nominal capacity of existing schools.

Sections 2.5.2, 2.5.3 (Elementary), 2.7.5, 2.7.6 (Middle) and 2.8.4, 2.8.5 (Secondary) provide examples for calculating allowable areas. Blank Design Aid Sheets are provided in Appendix A.

The Area Standards also prescribes areas and other standards for sites and grounds and district service facilities.

2.2 AREA STANDARD POLICIES

2.2.1 Nominal Capacity

Term *nominal capacity* can be defined by the following definitions:

- existing or being something in name or form only
- of, being, or relating to a designated or theoretical size that may vary from the actual: APPROXIMATE.

In this document *nominal capacity* represents the student capacity of a school based on the following capacities per instructional space:

- Kindergarten 40 half-time pupils per classroom
- Elementary 25 pupils per classroom
- Middle & Secondary 25 pupils per classroom and vocational module.

The *nominal capacity* for each new and existing school shall be based on the space standards for elementary, middle and secondary schools. The *nominal capacity* will form a base line capacity which will remain fixed, subject only to changes being made in physical space that would effect the nominal capacity and adjustments in the space standards. Examples include additions and/or renovations.

To accommodate capacity adjustments for grade structure and classroom student capacity, the *nominal capacity* will be adjusted to an *operating capacity*.

2.2.2 Operating Capacity:

The *operating capacity* of a school is determined by adjusting the *nominal capacity* to reflect grade structure and classroom student capacity. The *operating capacity* and *nominal capacity* may be the same value, as will be the case for most middle and secondary schools.

As an example, based on the following grade structure and classroom student capacity:

- Classroom Student Capacity: - Kindergarten 38 (half-time)
 - Grades 1-3 21
 - Grades 4-7 25
- Grade Structure: - K to 7
- Average Classroom 1-7 Capacity: - 23.29

The determination of area allowances to accommodate 33 kindergarten and 235 elementary students will result in a school with a *nominal capacity* of 40 kindergarten and 275 elementary pupils and an *operating capacity* of 38 kindergarten and 256 elementary pupils.

Local trends shall be taken into account when determining the most appropriate nominal capacity. For example, elementary enrolment projections and

population growth rates may justify a nominal capacity of 400 in an area where enrolments are increasing, but only 375 where future increases seem unlikely. Based upon actual enrolment figures and future projections the nominal capacity and the corresponding operating capacity must be agreed to by the Ministry.

To determine the nominal and operating capacities of existing schools the areas of the existing school are compared to the area standards that most closely approximates the areas of the subject school. The nominal and operating capacities calculated for an existing school must be agreed to by the Ministry.

Note: The Ministry's designated nominal and operating capacity is used to make comparisons across the province, and is not a mandated or maximum capacity. School boards determine their own operating capacities, based on local decisions, and subject to the limits established by the *School Act*.

2.2.3 Area Measurement

Room or Module Areas

Room or module area will be measured net within the inside surfaces of main enclosing walls and partitions.

Undefined Boundaries

Sometimes the boundary between circulation and other spaces such as libraries is not clearly defined. For calculation of allowable areas when this is so, passageways shall be assumed to be not less than 2 m wide where circulation is likely.

Mezzanines

With the exception of Industrial Education mezzanine storage, mezzanines shall be measured and considered as normal floor space

Stages

Stage areas are generally included as part of the main space served such as drama, physical education, or multi-purpose space. For example, a stage in a drama room would be included in the area of the drama module. Small stages which exist in many elementary gymnasiums, that are too small to be used for physical education, may be included as design space. If a stage is being used for some other purpose for example, storage, the space should be included under function of its current use.

Ancillary Rooms

Ancillary spaces that are less than 40 m², such as seminar rooms, storage rooms, workrooms, and elementary cloakrooms, shall be measured as part of the main instructional space only when directly accessible from that space. Seminar rooms 40 m² and larger shall be measured as instructional space, regardless of access.

Large Elementary Classrooms

When measuring an existing elementary school to calculate the allowable space for an addition or determine the existing nominal and operating capacities, general instruction rooms shall be recorded as follows:

- General instruction rooms between (80-120 m²) shall be recorded as only 80m². The extra area is to be allocated to design space.
- General instruction rooms between (40-79 m²) or exceeding 120 m² shall be recorded in full as the actual area.

The need for new space will take into account the best use and possible adaptation of any undersized rooms and extra area.

Gross Area

The gross area of a building floor is defined as the floor area within the inside of the exterior walls, plus a standard allowance calculated by multiplying the building perimeter (measured at the interior face) times 150 mm.

The following area calculations shall be included in the definition of facility gross floor area:

- stair openings, measured at the first floor, including stairs to rooftop penthouses
- elevator and duct shafts measured at each floor
- mezzanines including access stairs
- mechanical and electrical spaces, including all penthouse, basement and mezzanine locations (service spaces to be identified separately)
- galleries and suspended walkways, including access stairs
- all other usable or accessible floor areas.

Excluded areas from the calculations are as follows:

- industrial education storage mezzanines
- crawl spaces or service tunnels
- elementary covered play areas
- industrial education covered work areas.

2.2.4 Classroom Size

The area of a new classroom including ancillary space shall not be less than 75 m².

2.2.5 Exceptions

The following situations will be treated as exceptions to the prescribed area allowances and dealt with as described.

Substandard Space

Space in an existing school which is determined by the Ministry to be substandard will be exempted from the area allowances. Examples include a basement with insufficient ceiling height or a classroom located under a gymnasium.

Non-Standard Grades

If the area standards are inappropriate due to local programming or a non-standard grade structure which falls outside of scope of the area standards, area shall be allocated during the program stage as required. For example in a small elementary/secondary school.

Special Education

Area allowances for special education programs, such as learning assistance, are included in the core requirements given in sections 2.5.1., 2.7.1. and 2.8.1.

Supplementary Special Education

Area allowances for supplementary programs, Type 1 - high incidence and Type 2 - low incidence, are included in the core requirements given in sections 2.5.1., 2.7.1 and 2.8.1.

Non-Standard Programs

A School Board may wish to offer programs such as agriculture for which no standard module area has been established in sections 2.7.4 and 2.8.3. Such spaces will be designed on an individual basis and replace equivalent secondary modules within the standard allowances, subject to the approval of the Ministry.

Expansion

Where the rate of population and enrolment growth support the need for additional expansion within five years, modifications to the area standards may be allowed in a staged plan if necessary to facilitate future expansion. For example, admin./health and media/tech. centre areas would be sized to support the final nominal/operating capacity. The areas of the final stage plan shall comply with the area standards.

Existing Schools

The allowable amount of design space may be insufficient to accommodate additions to schools with inefficient layouts. When planning an addition or modification to an existing school, an increase in the allowable design space will be supported to accommodate the approved addition.

2.2.6 Area Requirements

The core areas provided in sections 2.5.1, 2.7.1 and 2.8.1. shall be at least 90% of the area standards, with the exception of general classrooms which shall be at least 100% of the area standard. All classrooms shall be at least 75m². In an actual design, some of the spaces may function better with an increased area. The allocation of core space and design space allowances within the defined limits permit variances to be accommodated. The more efficient the use of the design space allowance for circulation, etc., the more such space is available to supplement the core areas.

Design Space

The allowance for design space provided in sections 2.5.1., 2.7.1 and 2.8.1 for elementary, middle and secondary schools, shall be the maximum that can be provided. Design space must be used for circulation, structure, washrooms, and similar service areas. When those essential facilities have been provided, design space may be used to supplement core and/or elective areas.

Mechanical Rooms

The net area of mechanical and electrical rooms will be considered as a core area based on a maximum of 3% of the remaining gross building area. Additional area, if required, shall be deducted from the design space allowance.

An increase to the 3% allowance may be considered where there is demonstrated need.

Gross Area

For new schools the total gross areas provided in sections 2.5.1, 2.7.1 and 2.8.1 for elementary, middle and secondary schools, is the maximum area that will be supported. For additions to existing schools an increase to the total gross area may be supported if, because of existing inefficiencies, the design space is insufficient to support the allowable new core and elective space.

2.3 ELEMENTARY SCHOOLS

2.3.1 Allowable Areas

The total allowable gross area of an elementary school with a nominal capacity within a range of 50-800 plus kindergarten pupils shall be the sum of the following:

- the core areas derived from section 2.5.1
- kindergarten instruction area and design space as described in section 2.3.3
- other areas, if allowable.

2.3.2 Nominal Capacity Vs Operating Capacity

Elementary school nominal capacity area standards assume a classroom capacity of 25 pupils. The operating capacity of a school is based on the current average classroom capacity and the grade structure. For example, grade K to 5 and K to 6 schools with a grade 1 to 3 classroom capacity of 21 and a grade 4 to 6 classroom capacity of 25 will have different operating capacities but could have the same nominal capacities.

2.3.3 Kindergarten

Elementary schools with a 150 nominal capacity and above may provide kindergarten facilities in addition to the accommodation for elementary students.

For schools less than 150 nominal capacity, kindergarten students may either be included in the general calculations on a full-time equivalent (FTE) basis or calculated separately at Ministry discretion, depending on local distribution of grades and enrolment forecasts.

The kindergarten classroom area allowance will be as follows:

- | |
|--|
| <ul style="list-style-type: none">• general instruction space 90 m²• design space 20 m² |
|--|

Each kindergarten module will retain a nominal capacity of 40 half-time students while the operating capacity will be adjusted to reflect the current policy. For example, the 1998 kindergarten operating capacity of 40 was reduced to 38 in 2001.

2.3.4 Covered Play Areas

A covered play area not exceeding 100 m² (total roof area) may be added to an elementary school that meets the following criteria:

- A school will be eligible if it has a nominal capacity less than 175.
- All elementary schools in a district will be eligible if the district has one of the following conditions:

- | |
|---|
| <ul style="list-style-type: none">• annual precipitation exceeding 2000 mm• more than 5000 degree days below 18°C per annum• exceptional local conditions which create problems best solved by a covered play area. |
|---|

The climatic data shall be derived from an approved official source such as the supplement to the National Building Code.

A covered play area may be paved and roofed, but not more than two sides may have walls or screens. Covered play areas shall not be counted within the gross building area.

2.4 AVERAGE CLASSROOM CAPACITIES

2.4.1 Elementary Average Classroom Capacities

Determining the nominal and operating capacity of an elementary school depends on the capacity per instruction room and the grade structure of the school. The current classroom capacities are as follows:

- Kindergarten 38 (half-time pupils per classroom)
- Elementary grades 1 to 3 21 pupils per classroom
- Elementary grades 4 to 7 25 pupils per classroom.

The following table, based the above current classroom capacity, gives the average elementary classroom capacities for a variety of grade structures. The average classroom capacities are to be used in the determination of nominal and operating capacities for new and existing schools.

<u>Grade Structure</u>	<u>Average Classroom Capacity</u>
1	21.00
1 - 2	21.00
1 - 3	21.00
1 - 4	22.00
1 - 5	22.60
1 - 6	23.00
1 - 7	23.29
2 - 3	21.00
2 - 4	22.33
2 - 5	23.00
2 - 6	23.40
2 - 7	23.67
3 - 4	23.00
3 - 5	23.67
3 - 6	24.00
3 - 7	24.20
4 and greater	25.00

The average elementary classroom capacity for grades 1 - 8 to 1 - 12 schools is 23.29.

2.4.2 Middle and Secondary Average Classroom Capacities

The current pupil capacity per construction module for middle and secondary schools is 25. Since the nominal capacity is based on the same criteria, middle and secondary schools will have the same nominal and operating capacities.

2.5 ELEMENTARY SCHOOL AREA ALLOWANCES

2.5.1 Elementary Core Areas

Space Functions	N O M I N A L C A P A C I T Y															
	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425
ADMIN./ HEALTH	40	40	60	60	80	80	80	80	80	80	80	100	100	100	100	100
GEN. INSTRUCTION	160	240	320	400	480	560	640	720	800	880	960	1040	1120	1200	1280	1360
GEN. STORAGE	20	20	40	40	40	40	40	40	40	60	60	60	60	70	70	70
GYM ACTIVITY	100	150	150	265	265	380	380	380	380	380	380	380	380	380	380	380
GYM ANCILLARY	10	20	20	65	65	65	65	65	65	65	65	65	65	65	65	65
MEDIA/ TECH. CENTRE	40	80	160	160	160	160	160	160	160	180	180	180	180	180	180	180
MULTI-PURPOSE	0	0	0	0	0	0	80	80	100	100	100	100	100	100	100	100
SPECIAL EDUCATION	40	60	80	100	100	120	120	120	120	160	160	160	180	180	180	200
MECHANICAL	15	25	30	40	45	50	60	60	65	70	75	80	80	85	90	90
DESIGN SPACE	100	150	190	260	280	330	365	390	410	450	480	490	515	535	560	580
TOTAL	525	785	1050	1390	1515	1785	1990	2095	2220	2425	2540	2655	2780	2895	3005	3125

Space Functions	N O M I N A L C A P A C I T Y														
	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800
ADMIN./ HEALTH	100	100	110	110	110	110	120	120	120	120	120	120	120	120	120
GEN. INSTRUCTION	1440	1520	1600	1680	1760	1840	1920	2000	2080	2160	2240	2320	2400	2480	2560
GEN. STORAGE	70	70	70	80	80	80	80	80	80	80	80	80	80	80	80
GYM ACTIVITY	380	380	380	380	380	380	380	380	380	380	380	380	380	380	380
GYM ANCILLARY	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
MEDIA/ TECH. CENTRE	180	200	200	200	200	200	200	210	210	210	210	220	220	220	220
MULTI-PURPOSE	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
SPECIAL EDUCATION	200	200	200	240	240	260	260	260	260	280	280	280	300	300	300
MECHANICAL	95	100	100	105	110	115	115	120	120	125	130	130	135	140	140
DESIGN SPACE	600	620	645	690	700	715	740	760	775	800	815	840	860	880	900
TOTAL	3230	3355	3470	3650	3745	3865	3980	4095	4190	4320	4420	4535	4660	4765	4865

Note: Each kindergarten module may have 90 m² general instruction and 20 m² design space added to core area allowance derived from the above figures. See section 2.3.3.

2.5.2 Design Aid Sheet For New Elementary Schools

Example: New elementary school for 33 kindergarten and 248 elementary students.

<u>Data:</u>	Student Classroom Capacity	- Kindergarten	38 (half-time)
		- Grades 1-3	21
		- Grades 4-7	25
	Grade Structure	- K to 7	
	Average Classroom Capacity	- 23.29	(from 2.4.1)

a) determine the number of classrooms required and elementary nominal capacity:

- number of classrooms = $(248/23.29) = 10.65$ (11)
- nominal capacity = $11 \times 25^* = 275$ (* N.C. average classroom capacity)

b) determine the number of kindergarten classrooms required:

- enrolment/kindergarten capacity = $33/38 = .87$ (1)

c) determine the operating capacity

- kindergarten portion = $(1 \times 38) = 38$
- elementary portion = (no. of classrooms x average classroom capacity)
= $(11 \times 23.29) = 256$

Operating capacity = 38 Kgn + 256 Elem.

d) determine the nominal capacity:

- kindergarten portion = $(1 \times 40) = 40$
- elementary portion from (a)

Nominal capacity = 40 Kgn + 275 Elem.

e) record elementary core areas from 2.5.1 for a 275 nominal capacity elementary school.

f) record kindergarten area from 2.3.3 and add the kindergarten design area to core design area from 2.5.1.

DESIGN AID SHEET FOR ELEMENTARY SCHOOLS

Grades: K to 7

School Name: EXAMPLE ELEMENTARY

Facility Code: _____

Date: JAN / 2003

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal: Kindergarten - 40 Elementary - 275
• Operating: Kindergarten - 38 Elementary - 256

Agreed Nominal / Operating Capacity:

Ministry of Education Date

This sheet is for use with the procedures in the Ministry of Education - Area Standards

PART 1 - BASIC AREAS					Comments:
Space Function	A - Existing	B - Allowable	C - Deficit	D - New	
Administration / Health				80	
Gen. Instruction				880	
Gen. Storage				60	
Gym Activity				380	
Gym Ancillary				65	
Media / Tech. Centre				180	
Multi-Purpose				100	
Spec. Education				160	
Mechanical				70	
Kindergarten				90	
Design Space				470	
* Other					
Sub-Total	Ai	Bi		Di	
* Surplus classroom area included in DESIGN space = <input type="text"/>					
PART 2 - TOTAL AREAS					
	E - Existing		F - New		
Total Basic Areas	Ai		Di	2,535.0	
			Ji		
Total Gross Allowable Area				2,535.0	
* Other: <input type="text"/>					

2.5.3 Design Aid Sheet For Existing Elementary Schools

Example:

Determine the area allowance to increase an existing elementary's capacity to support 47 kindergarten and 407 elementary grades 1-7 elementary students.

Procedure:

- a) measure the existing school areas as per section 2.2.3 and enter the areas into the design aid sheet in the required categories.
- b) calculate the operating and nominal capacities following the same method used to determine the capacities for a new school in section 2.5.2. (nominal capacity = 100 kindergarten and 450 elementary, operating capacity = 76 kindergarten and 419 elementary)
- c) record core areas from 2.5.1 for a 450 nominal capacity elementary school.
- d) record the kindergarten area allowance for two kindergarten classrooms from 2.3.3 and add the kindergarten design area to the core design area from 2.5.1.
- e) determine the space required to increase the existing school's area to, as closely as possible, approximate the area allowable for a nominal capacity school for 80 kindergarten and 450 elementary students.

DESIGN AID SHEET FOR ELEMENTARY SCHOOLS

Grades: K to 7

School Name: EXAMPLE ELEMENTARY

Facility Code: XX034

Date: JAN / 2003

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal: Kindergarten - 80 Elementary - 450
 • Operating: Kindergarten - 76 Elementary - 419

Agreed Nominal / Operating Capacity:

Ministry of Education _____ Date _____

This sheet is for use with the procedures in the Ministry of Education - Area Standards

PART 1 - BASIC AREAS				
Space Function	A - Existing	B - Allowable	C - Deficit	D - New
Administration / Health	113.6	100	-13.6	
Gen. Instruction 9	647.2	1440	792.8	800
Gen. Storage	15.5	70	54.5	55
Gym Activity	374.3	380	5.7	
Gym Ancillary	36.2	65	28.8	29
Media / Tech. Centre	144.5	180	35.5	36
Multi-Purpose	107.7	100	-7.7	
Spec. Education	119.1	200	80.9	81
Mechanical	105.4	95	-10.4	
Kindergarten	85.8	180	94.2	90
Design Space	592.3	640	47.7	256
* Other				
Sub-Total	Ai 2341.6	Bi 3,450	1,108.4	Di 1,347.0

Comments:
 Estimated design space required to accommodate the following:
 Instruction 800 m2
 Gen. Storage 55
 Gym. Ancillary 29
 Media/Tech. 36
 Sped. Ed. 81
 Kindergarten 90
 1,091 m2
 Design space estimate: 23.5% x 1,091 m2 = 256 m2

* Surplus classroom area included in DESIGN space =

PART 2 - TOTAL AREAS				
	E - Existing		F - New	
Total Basic Areas	Ai	2,341.6	Di	1,347.0
			Ji	2,341.6
Total Gross Allowable Area				3,688.6

* Other:

2.6 MIDDLE AND SECONDARY SCHOOLS

2.6.1 Middle School Allowable Areas

The total gross allowable area of a middle school with a nominal capacity within a range of 200-1000 pupils shall be the sum of the following:

- the minimum core areas standards from sections 2.7.1 and 2.7.2
- elementary general instruction space from section 2.7.3
- elective areas derived from section 2.7.4
- other areas, if allowable.

The areas derived from sections 2.7.1 and 2.7.4 shall be applicable to grades 6-8 as well as grades 7-9. Middle schools with a nominal capacity outside the 200-1000 range will be dealt with on an individual basis. See also section 2.2.5

2.6.2 Secondary School Allowable Areas

The total gross allowable area of a middle school with a nominal capacity within a range of 200-2500 pupils shall be the sum of the following:

- the minimum core areas standards from sections 2.8.1 and 2.8.2
- elective areas derived from section 2.8.3
- other areas, if allowable.

The areas derived from sections 2.8.1 and 2.8.3 shall be applicable to grades 8 to 12. Schools with a nominal capacity outside the 200-2500 range will be dealt with on an individual basis. See also section 2.2.5

2.6.3 Elective Areas

The selection of elective modules must be in consultation with the Ministry, and will normally be from sections 2.7.4 and 2.8.3.

In making a selection of elective modules, alternative combinations should be considered. The use of multi-purpose space and any surplus design space should be taken into account.

The area of a module may be modified for a specific project or approved for a program not shown in sections 2.7.4 and 2.8.3, with the written agreement of the Ministry.

In middle schools and smaller secondary schools, single function academic/vocational modules might become under-used. In such cases, dual and/or multi-use module shall be calculated individually, based on demonstrated need, and agreed in writing by the Ministry.

2.6.4 Industrial Education Covered Work Area

In addition to the allowable areas for Industrial Education a roofed, fenced, and paved work area not exceeding 65 m² may be added to each construction, mechanics and middle school general shop. The area of the sawdust extraction equipment room may included either in the covered work area or in the construction shop allowable area, at School Board discretion.

Covered work areas shall not be counted within the gross building area.

2.6.5 Teaching Kitchen

With the approval of the Ministry, a teaching kitchen may be permitted for a school enrolling at least 600 students in grades 11 and 12.

2.7 MIDDLE SCHOOL AREA ALLOWANCES

2.7.1 Middle School Core Areas

- Junior middle school - grades 6 to 8
- Senior middle school - grades 7 to 9

Space Function	NOMINAL CAPACITY																
	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
	Core area in (m2)																
Admin./ Health	125	135	145	155	155	155	190	190	190	190	190	210	210	210	210	210	210
Counselling	50	50	50	50	50	50	50	50	50	50	50	50	50	60	60	60	60
General Storage	60	60	70	70	80	80	90	90	90	90	100	100	100	100	105	105	105
Gym Activity	500	500	500	500	500	600	600	600	600	600	600	600	600	750	750	750	750
Gym Ancillary	100	100	100	100	100	150	150	150	150	150	150	150	150	200	200	200	200
Media/ Tech. Centre	225	235	250	255	265	270	280	290	310	320	330	340	350	355	365	375	385
Multi-Purpose	100	100	100	100	100	160	160	160	160	160	240	240	240	240	240	240	240
Special Ed.	100	160	160	160	240	240	240	320	320	320	400	400	400	480	480	480	560
Total	1260	1340	1375	1390	1490	1705	1760	1850	1870	1880	2060	2090	2100	2395	2410	2420	2510
Junior Middle Sch.																	
Instructional Space	880	1115	1295	1500	1660	1820	1980	2140	2300	2500	2660	2820	3000	3160	3340	3540	3700
Mechanical Space (3%)	80	95	105	110	120	135	145	155	160	170	180	190	195	215	220	230	240
Design Space (28%)	600	690	750	810	880	990	1050	1120	1170	1225	1320	1375	1430	1555	1610	1670	1740
Max. Gross Area	2820	3240	3525	3810	4150	4650	4935	5265	5500	5775	6220	6475	6725	7325	7580	7860	8190
Senior Middle Sch.																	
Instructional Space	1020	1180	1335	1540	1700	1920	2100	2320	2480	2685	2865	2945	3135	3370	3530	3710	3965
Mechanical Space (3%)	90	95	105	110	125	140	150	160	170	175	190	195	200	220	230	235	250
Design Space (28%)	640	705	760	820	895	1015	1080	1170	1220	1280	1380	1410	1465	1615	1665	1715	1815
Max. Gross Area	3010	3320	3575	3860	4210	4780	5090	5500	5740	6020	6495	6640	6900	7600	7835	8080	8540

2.7.2 Secondary Core and Elective Modules

The following figures are used with 2.6.4 to select the core and elective Academic/Vocational facilities for agreed nominal capacity of secondary students.

Secondary Capacity	Science	Core General Instruction	Elective Modules	Core Modules	Total Modules
25			2		2
50			3		3
75			4		4
100	1	0	0	4	5
125	1	0	1	4	6
150	1	1	1	4	7
175	1	2	1	4	8
200	1	3	1	4	9
225	1	3	2	4	10
250	1	4	2	4	11
275	1	4	3	4	12
300	2	4	3	4	13
325	2	4	4	4	14
350	2	4	5	4	15
375	2	4	6	4	16
400	2	5	6	4	17
425	2	5	7	4	18
450	2	6	7	4	19
475	2	6	8	4	20
500	2	6	8	4	20
525	2	6	9	4	21
550	2	7	9	4	22
575	2	7	10	4	23
600	2	8	10	4	24
625	2	8	11	4	25
650	3	8	11	4	26
675	3	8	12	4	27
700	3	9	12	4	28
750	3	9	14	4	30
800	3	10	15	4	32
850	3	10	16	4	33
900	3	11	17	4	35
950	4	12	17	4	37
1000	4	12	19	4	39

If a district shows that the standards are not suited to the programs being offered the allocation of space will be reviewed at the building program stage. When selecting the core and elective modules, note the possible alternatives described in 2.6.3.

2.7.3 Middle School Elementary Classrooms

A classroom must be supplied for each 25 elementary pupils. Determine the area allowance for elementary classroom space as follows:

$$\frac{\text{agreed nominal capacity of elementary students}}{25} \times 80 \text{ m}^2$$

2.7.4 Middle School Module Areas

The following areas are used with 2.7.2 to select the core and elective Academic/Vocational modules.

<u>Space Function</u>	<u>Module Area</u>
General Instruction	80 m ²
Science (incl. ancillary)	100 m ²
Fine Arts (incl. ancillary)	
Choral Music	100 m ²
Art	120 m ²
Drama & Theatre	120 m ²
Music	160 m ²
Industrial Education	
Drafting	110 m ²
Technology	125 m ²
General Shop	155 m ²
Home Economics	
Separate Clothing or Foods Room	110 m ²
Combined Clothing/Foods Room	140 m ²
Business Education	100 m ²

Excepting general instruction modules which must be at least 75 m², new modules shall be at least 90 percent of the standard area given above. New modules between 90-100 percent or existing facilities 90-120 percent of the standard area shall have a rating of 1.0.

New modules may be larger than the standard area. The amount of any additional area shall be included in the Design Aid Sheet, either as design space of elective space. In the latter case, the rating shall be calculated as follows:

$$\text{Module Rating} = \frac{\text{actual area of module}}{\text{area of equivalent module in 2.7.4}}$$

Where two or more subjects are combined into one facility (e.g., technology/wood construction), the area shall be calculated individually, based on demonstrated need, and agreed in writing by the Ministry.

2.7.5 Design Aid Sheet For New Middle School

Procedure - Sheet #1

- Determine the number of secondary core and elective modules from section 2.7.2
- Calculate the number of elementary classrooms from section 2.7.3
- Select the new core and new elective Academic/Vocational modules from section 2.7.4

Procedure - Sheet #2

- Select the core Service/Activity space from section 2.7.1
- Enter the maximum gross area

DESIGN AID SHEET FOR MIDDLE SCHOOLS -- SHEET #1

GRADES: 7 to 9

School Name: EXAMPLE SENIOR MIDDLE SCHOOL Facility Code: _____ Date: FEB. / 1999

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal - 600 - 200E/400S Total Elective Modules: 6

• Operating - as above

Agreed Nominal / Operating Capacity:

Ministry of Education Date

This sheet is for use with the procedures in the Ministry of Education - Area Standards.

PART 1 - ACADEMIC/VOCATIONAL												
Space Function	1A - EXISTING			1B - MODULES			1C - NEW CORE			1D - NEW ELECTIVE		
	Description	Area	Mods.	Core	Deficit	Surplus	Description	Area	Mods.	Description	Area	Mods.
Business Education				1.0			Business Ed.	100.0	1.0			
Fine Arts				1.0			Music	160.0	1.0	Art	120.0	1.0
										Drama	120.0	1.0
Home Economics				1.0			Comb. Food/Clothing	140.0	1.0			
Industrial Education				1.0			General Shop	155.0	1.0	Technology	125.0	1.0
										General Shop	155.0	1.0
Science				2.0			Science	100.0	1.0	Science	100.0	1.0
								Science	100.0	1.0		
Other *												
General Instruction	() rooms 75-95 m2			E: 8.0			Area = No. of modules x 80 m2	1040.0	13.0	Area = No. of modules x 80 m2	80.0	1.0
	() Other rooms			S: 5.0								
Sub-totals								1,795.0			700.0	6.00
		Ai				Bi		Ci			Di	Dii

* Note - May not be used except for spaces agreed in writing by the Ministry.

DESIGN AID SHEET FOR MIDDLE SCHOOLS -- SHEET #2

(See Sheet #1 for base information)

EXAMPLE SENIOR MIDDLE SCHOOL

PART 2 - SERVICE/ACTIVITY					PART 3 - TOTAL AREAS					
Space Function	E - Existing	F - Allowable	G - Deficit	H - New		N - Existing	P - New			
Administration / Health				190	Existing Acad./Voc.	Ai				
Counselling				50						
Gen. Storage				90	Core A/V Additions		Ci 1,795.0			
Gym Activity				600	Elective A/V Additions		Di 700.0			
Gym Ancillary				150	Service Activity	Ei	Hi 3,245.0			
Media / Tech. Centre				310	Sub-total		5,740.0			
Multi-purpose				160			Ni			
Special Education				320	Total Gross Allowable Area (5,740)		5,740.0			
Mechanical				170	ENROLMENT: as of: Grade Structure:					
Design Space				1205	Kgn:	Gr. 1-7:	Gr. 8-12:	Type-1:	Type-2:	Port. CR's
* Other					* Other:					
Sub-Total	Ei	Fi		Hi	3,245.0					

Comments:

2.7.6 Design Aid Sheet For Existing Middle School

Procedure

- Measure the existing areas as per section 2.2.3 and enter into the design aid sheet in the required categories.
- Calculate the Allowable areas following the same method used to determine the allowable space for a new school.

Sheet #1

- Determine the number of secondary core and elective modules from section 2.7.2
- Calculate the number of elementary classrooms from section 2.7.3
- Select the new core and new elective Academic/Vocational modules from section 2.7.4

Sheet #2

- Select the core Service/Activity space from section 2.7.1
 - Enter the maximum gross area
- Determine the space required to increase the existing school's area to, as closely as possible, approximate the area allowances for a 600 nominal capacity junior middle school.

DESIGN AID SHEET FOR MIDDLE SCHOOLS -- SHEET #1

GRADES: 6 to 8

School Name: EXAMPLE - JUNIOR MIDDLE SCHOOL Facility Code: XX007 Date: FEB./1999

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal - 600 - 400E/200S Total Elective Modules: 1
 • Operating - as above

Agreed Nominal / Operating Capacity:

Ministry of Education _____ Date _____

This sheet is for use with the procedures in the Ministry of Education - Area Standards.

PART 1 - ACADEMIC/VOCATIONAL														
Space Function	1A - EXISTING			1B - MODULES			1C - NEW CORE			1D - NEW ELECTIVE				
	Description	Area	Mods.	Core	Deficit	Surplus	Description	Area	Mods.	Description	Area	Mods.		
Business Education	Commerce	80.6	0.81	1.0	0.19									
Fine Arts	Band	157.5	1.00	1.0		1.00								
	Art	122.6	1.00											
Home Economics	Clothing	63.0	0.57	1.0		0.46								
	Foods	98.0	0.89											
Industrial Education	Technology	124.1	1.00	1.0		0.83								
	General Shop	129.2	0.83											
Science	Science	100.2	1.00	1.0		1.0								
	Science	100.2	1.00											
Other *														
General Instruction	(12) rooms 75-95 m2	966.1	12.0	E: 16.0	7.00		Area = No. of modules x 80 m2 3.9 x 80 m2	312.0	3.90	Area = No. of modules x 80 m2				
	() Other rooms			S: 3.0										
Sub-totals		1,941.5				-3.90		312.0						
		Ai				Bi		Ci			Di	Dii		

* Note - May not be used except for spaces agreed in writing by the Ministry.

DESIGN AID SHEET FOR MIDDLE SCHOOLS -- SHEET #2

(See Sheet #1 for base information)

EXAMPLE - JUNIOR MIDDLE SCHOOL

PART 2 - SERVICE/ACTIVITY					PART 3 - TOTAL AREAS			
Space Function	E - Existing	F - Allowable	G - Deficit	H - New		N - Existing	P - New	
Administration / Health	217.3	190	-27.3					
Counselling	28.4	50	21.6		Existing Acad./Voc.	Ai 1,941.5		
Gen. Storage	65.6	90	24.4	24	Core A/V Additions		Ci 312.0	
Gym Activity	594.9	600	5.1		Elective A/V Additions		Di	
Gym Ancillary	146.8	150	3.2		Service Activity	Ei 3,381.5	Hi 377.0	
Media / Tech. Centre	279.2	310	30.8	31	Sub-total	5,323.0	689.0	
Multi-purpose	145.3	160	14.7				Ni 5,323.0	
Special Education	148.8	320	171.2	171	Total Gross Allowable Area (5,550)		6,012.0	
Mechanical	207.7	160	-47.7					
Design Space	1547.5	1170	-377.5	151	ENROLMENT: as of: _____ Grade Structure: _____			
* Other					Kgn: _____ Gr. 1-7: _____ Gr. 8-12: _____ Type-1: _____ Type-2: _____ Port. CR's _____			
Sub-Total	Ei 3,381.5	Fi 3,200.0	-181.5	Hi 377.0	* Other:			

Comments:

Estimated design space required to support the following new space:
 New core 312 m2
 Gen. Storage 24
 Media/Tech. 31
 Multi-Purpose 171
 538 m2
 Design space estimate: 28.0% x 538 m2 = 151 m2

2.8 SECONDARY SCHOOL AREA ALLOWANCES

2.8.1 Secondary School Core Areas

Space Function	NOMINAL CAPACITY										
	200	250	300	350	400	450	500	550	600	650	700
	Core area in (m2)										
Admin./ Health	175	175	175	175	175	175	240	240	240	240	240
Counselling	50	50	50	50	50	50	50	50	70	70	70
General Storage	60	60	70	70	80	80	90	90	100	100	110
Gym Activity	600	600	600	600	600	750	750	750	750	900	900
Gym Ancillary	150	150	150	150	150	150	150	150	150	160	160
Media / Tech Centre	270	270	300	300	300	320	320	320	360	360	360
Multi-Purpose	80	80	80	160	160	160	240	240	240	240	240
Special Ed.	80	80	80	100	100	160	160	180	200	220	240
Mechanical Space (3%)	80	90	95	105	115	130	140	150	160	170	180
Design Space (28%)	745	820	900	995	1075	1205	1315	1390	1480	1600	1675
Total	2290	2375	2500	2705	2805	3180	3455	3560	3750	4060	4175
Instructional Space	1200	1460	1700	1940	2220	2460	2700	2940	3180	3420	3660
Max. Gross Area	3490	3835	4200	4645	5025	5640	6155	6500	6930	7480	7835

Space Function	NOMINAL CAPACITY										
	750	800	850	900	950	1000	1100	1200	1300	1400	1500
	Core area in (m2)										
Admin./ Health	240	240	240	240	240	280	280	280	280	280	280
Counselling	70	70	70	70	85	85	85	85	85	85	85
General Storage	110	110	110	120	120	120	130	130	140	140	140
Gym Activity	900	900	1050	1200	1200	1200	1350	1350	1350	1350	1350
Gym Ancillary	160	160	270	270	270	270	280	280	280	280	280
Media / Tech Centre	380	380	380	400	400	400	440	440	440	460	460
Multi-Purpose	240	320	320	320	320	320	320	320	320	320	320
Special Ed.	240	280	280	300	320	340	380	420	450	490	530
Mechanical Space (3%)	185	195	210	220	225	235	255	270	285	300	315
Design Space (28%)	1745	1830	1950	2050	2115	2190	2380	2515	2650	2790	2925
Total	4270	4485	4880	5190	5295	5440	5900	6090	6280	6495	6685
Instructional Space	3900	4080	4240	4400	4600	4800	5240	5680	6120	6560	7000
Max. Gross Area	8170	8565	9120	9590	9895	10240	11140	11770	12400	13055	13685

Space Function	NOMINAL CAPACITY									
	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500
	Core area in (m2)									
Admin./ Health	320	320	320	320	320	360	360	360	360	360
Counselling	100	100	100	100	100	120	120	120	120	120
General Storage	150	150	150	160	160	160	170	170	170	170
Gym Activity	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
Gym Ancillary	280	280	280	280	280	280	280	280	280	280
Media / Tech Centre	460	480	480	500	500	500	540	540	540	540
Multi-Purpose	320	320	320	320	320	320	320	320	320	320
Special Ed.	570	600	640	680	710	750	780	820	860	890
Mechanical Space (3%)	330	345	360	375	390	410	425	440	455	4400
Design Space (28%)	3075	3215	3350	3505	3645	3805	3965	4110	4255	470
Total	6955	7160	7350	7590	7775	8055	8310	8510	8710	8900
Instructional Space	7440	7880	8320	8800	9280	9760	10240	10720	11200	11680
Max. Gross Area	14395	15040	15670	16390	17055	17815	18550	19230	19910	20580

2.8.2 Secondary Core and Elective Modules

The following figures are used with 2.8.3 to select the core and elective Academic/Vocational facilities for an agreed nominal capacity.

Secondary Capacity	Science	Core General Instruction	Elective Modules	Core Modules	Total Modules
200	1	3	1	4	9
250	1	4	2	4	11
300	2	4	3	4	13
350	2	4	5	4	15
400	2	5	6	4	17
450	2	6	7	4	19
500	2	6	8	4	20
550	2	7	9	4	22
600	2	8	10	4	24
650	3	8	11	4	26
700	3	9	12	4	28
750	3	9	14	4	30
800	3	10	15	4	32
850	3	10	16	4	33
900	3	11	17	4	35
950	4	12	17	4	37
1000	4	12	19	4	39
1100	4	14	22	4	44
1200	4	15	25	4	48
1300	5	16	26	4	51
1400	5	17	29	4	55
1500	5	18	32	4	59
1600	6	20	34	4	64
1700	6	21	37	4	68
1800	6	22	40	4	72
1900	7	24	41	4	76
2000	7	25	44	4	80
2100	8	27	45	4	84
2200	8	28	48	4	88
2300	9	29	50	4	92
2400	9	30	53	4	96
2500	9	31	56	4	100

These core and elective figures are based on a grade 8-12 configuration. If a district shows that the standards are not suited to a different configuration, the allocation of space will be reviewed at the building program stage.

When selecting the core and elective modules, note the possible alternatives described in 2.6.3.

2.8.3 Secondary Module Areas

The following areas are used with 2.8.2 to select the core and elective Academic/Vocational modules.

<u>Space Function</u>	<u>Module Area</u>
General Instruction	80 m ²
Science (incl. ancillary)	140 m ²
Fine Arts (incl. ancillary)	
Choral Music	120 m ²
Art	140 m ²
Drama & Theatre (200-950 nominal cap.)	150 m ²
Drama & Theatre (1000+ nominal cap.)	250 m ²
Music	180 m ²
Industrial Education	
Drafting	120 m ²
Technology (existing Electricity/Electronics)	140 m ²
Metalwork (use in determining existing cap.)	200 m ²
Mechanics	230 m ²
Construction (Wood)	275 m ²
Home Economics	
Separate Clothing or Foods Room	120 m ²
Combined Clothing/Foods Room	160 m ²
Teaching Kitchen	180 m ²
Business Education	120 m ²
Computers	120 m ²

Excepting general instruction modules which must be at least 75 m², new modules shall be at least 90 percent of the standard area given above. New modules between 90-100 percent or existing facilities 90-120 percent of the standard area shall have a rating of 1.0.

New modules may be larger than the standard area. The amount of any additional area shall be included in the Design Aid Sheet, either as design space of elective space. In the latter case, the rating shall be calculated as follows:

$$\text{Module Rating} = \frac{\text{actual area of module}}{\text{area of equivalent module in 2.8.3}}$$

Where two or more subjects are combined into one facility (e.g., technology/wood construction), the area shall be calculated individually, based on demonstrated need, and agreed in writing by the Ministry.

2.8.4 Secondary Extended Day Area Allowances

The Extended Day Area Allowance will be applied to secondary space projects to provide the following:

- space for lounge, study or tutorial activities for those on-site students that are in excess of the nominal capacity but cannot be accommodated within existing non-occupied space
- a half locker for each of the additional students in excess of the nominal capacity
- a full locker plus storage cupboard to accommodate personal supplies and materials for each full time equivalent teacher
- additional design space for circulation, washrooms, etc.
- additional mechanical space

Secondary schools operating under an extended day format may add the following Extended Day Area Allowance to design space area described in 2.8.1.

Secondary Nominal Capacity	Extended Day Capacity	Extended Day Area Allowance
200	250	35
250	300	35
300	375	50
350	425	50
400	500	70
450	550	70
500	625	85
550	675	85
600	750	100
650	800	100
700	875	120
750	925	120
800	1000	135
850	1050	135
900	1125	150
950	1175	150
1000	1250	170
1100	1375	185
1200	1500	200
1300	1625	220
1400	1750	235
1500	1875	250
1600	2000	270
1700	2125	285
1800	2250	300
1900	2375	320
2000	2500	335
2100	2625	350
2200	2750	370
2300	2875	390
2400	3000	405
2500	3125	420

2.8.5 Design Aid Sheet For New Secondary Schools

Procedure - Sheet #1

- Determine the number of secondary core and elective modules from section 2.8.2.
- Select the new core and new elective Academic/Vocational modules from section 2.8.3.

Procedure - Sheet #2

- Select the core Service/Activity space from section 2.8.1.
- Enter the maximum gross area
- If the Extended Day Area Allowance is applicable:
 - add the area allowance from 2.8.4 to the design space area from 2.8.1.
 - increase the Maximum gross area from 2.8.1 by the Extended Day Area Allowance

DESIGN AID SHEET FOR SECONDARY SCHOOLS -- SHEET #1

GRADES: 8 to 12

School Name: EXAMPLE SECONDARY Facility Code: _____ Date: FEB. / 1999

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal - 600 (ext. day =750) Total Elective Modules: 10
 • Operating - as above Extended Day: YES

Agreed Nominal / Operating Capacity:

Ministry of Education _____ Date _____

This sheet is for use with the procedures in the Ministry of Education - Area Standards.

PART 1 - ACADEMIC/VOCATIONAL												
Space Function	1A - EXISTING			1B - MODULES			1C - NEW CORE			1D - NEW ELECTIVE		
	Description	Area	Mods.	Core	Deficit	Surplus	Description	Area	Mods.	Description	Area	Mods.
Business Education				1.0			Business	120.0	1.0	Business	120.0	1.0
Fine Arts				1.0			Music	180.0	1.0	Art	140.0	1.0
										Drama	150.0	1.0
										Art	140.0	1.0
Home				1.0			Combination	160.0	1.0	Foods	120.0	1.0
Industrial Education				1.0			Construction	275.0	1.0	Technology	140.0	1.0
										Mechanics	230.0	1.0
										Technology	140.0	1.0
Science				2.0			Science	140.0	1.0	Science	140.0	1.0
							Science	140.0	1.0	Science	140.0	1.0
Other *												
General Instruction	() rooms 75-95 m2			E:			Area = No. of modules x 80 m2	640.0	8.0	Area = No. of modules x 80 m2		
	() Other rooms			S:	8.0							
Sub-totals		Ai				Bi		1,655.0			1,460.0	10.00
											Di	Dii

* Note - May not be used except for spaces agreed in writing by the Ministry.

DESIGN AID SHEET FOR SECONDARY SCHOOLS -- SHEET #1

GRADES: 8 to 12

School Name: EXAMPLE SECONDARY Facility Code: XX034 Date: FEB. / 1999

District: XX (EXAMPLE DISTRICT)

School Capacity: • Nominal - 800 Total Elective Modules: 15
 • Operating - as above Extended Day: NO

Agreed Nominal / Operating Capacity:

Ministry of Education _____ Date _____

This sheet is for use with the procedures in the Ministry of Education - Area Standards.

PART 1 - ACADEMIC/VOCATIONAL														
Space Function	1A - EXISTING			1B - MODULES			1C - NEW CORE			1D - NEW ELECTIVE				
	Description	Area	Mods.	Core	Deficit	Surplus	Description	Area	Mods.	Description	Area	Mods.		
Business Education	Business	73.2	0.61	1.0		0.24				Business	120.0	1.0		
	Business	75.7	0.63											
Fine Arts	Art	120.5	0.86	1.0		2.57				Music	180.0	1.0		
	Art	159.0	1.00											
	Art	100.0	0.71											
	Drama	152.8	1.00											
Home	Foods	139.9	1.00	1.0		1.00				Food & Clothing	160.0	1.0		
	Clothing	132.3	1.00											
Industrial Education	Mechanics	235.2	1.00	1.0		2.12				Technology	140.0	1.0		
	Technology	227.8	1.00											
	Metalwork	129.0	0.65											
	Woodwork	129.9	0.47											
Science	Science	136.2	1.00	3.0		1.00				Science	140.0	1.0		
	Science	134.2	1.00									Science	140.0	1.0
	Science	156.4	1.00											
	Science	134.5	1.00											
Other *														
General Instruction	(6) rooms 75-95 m2	491.8	6.00	10.0		0.14	Area = No. of modules x 80 m2			Area = No. of modules x 80 m2	160.0	2.0		
	(5) Other rooms	330.9	4.14											
Sub-totals		3,059.3				7.07					1,040.0	8.00		
		Ai				Bi					Di	Dii		

* Note - May not be used except for spaces agreed in writing by the Ministry.

DESIGN AID SHEET FOR SECONDARY SCHOOLS -- SHEET #2

(See Sheet #1 for base information)

EXAMPLE SECONDARY

PART 2 - SERVICE/ACTIVITY					PART 3 - TOTAL AREAS			
Space Function	E - Existing	F - Allowable	G - Deficit	H - New		N - Existing	P - New	
Administration / Health	221.7	240	18.3	18	Existing Acad./Voc.	Ai 3,059.3		
Counselling	70.7	70	-0.7				Core A/V Additions	Ci
Gen. Storage	83.5	110	26.5	27	Elective A/V Additions	Di 1,040.0		
Gym Activity	1021.8	900	-121.8			Service Activity	Ei 4,949.3	Hi 837.0
Gym Ancillary	233.6	160	-73.6		Sub-total		8,008.6	
Media / Tech. Centre	437.7	380	-57.7			Total Gross Allowable Area (8,565)	Ni 8,008.6	
Multi-purpose	0	240	240.0	240				
Special Education	150.9	240	89.1	89				
Mechanical	118.2	185	66.8	67				
Design Space	2611.2	1745	-866.2	396				
* Other								
Sub-Total	Ei 4,949.3	Fi 4,270.0	-679.3	Hi 837.0				

ENROLMENT: as of:						Grade Structure:		
Kgn:	Gr. 1-7:	Gr. 8-12:	Type-1:	Type-2:	Port. CR's			

* Other:

Comments:

Design space required for the following new space:
 New core 1,040 m2
 Admin./Health 18
 Gen. Storage 27
 Multi-purpose 240
 Sp. Ed. 89
 1,414 m2
 Design space estimate: 28% x 1,414 m2 = 396 m2

2.9 DISTRICT SERVICE FACILITIES

This section deals with shareable space standards for the following district service facilities:

- district administrative offices
- building maintenance shops
- vehicle maintenance shops
- central supplies stores.

The allowable areas for each type of district service facility may be added together if it is appropriate to combine more than one function in a single building or complex.

2.9.1 District Administrative Offices

District administrative offices may accommodate the following space functions:

- office space for staff
- boardroom and meeting rooms
- computer room
- ancillary space such as reception areas, circulation, lunchroom, washrooms, office storage, custodian's rooms, mechanical and electrical rooms, and a fire-proof vault.

The net shareable area of district administrative offices shall not exceed 100 m² plus 7.5 m² for every 100 FTE pupils enrolled in the district.

Parking spaces for staff and visitors will be shareable at the rate of one space for each trustee plus one space for every 500 FTE pupils enrolled in the district, or as required by municipal by-law. "Plug-ins" are acceptable where this is normal practice in a district.

2.9.2 Building Maintenance Facility

A building maintenance facility may accommodate the following functions:

- circulation space
- locker room
- lunchroom
- maintenance workshop(s) and ancillary areas
- mechanical and electrical space
- painting (dust-free) area
- storage for maintenance vehicles
- storage for materials
- supervisors and other staff officers
- washrooms and showers.

The net shareable area shall not exceed 200 m² plus 25 m² for every 500 FTE pupil enrolment (or part) up to a maximum total of 800 m².

Staff parking will be shareable at the rate on one space for every 50 m² of shareable building area, or as required by municipal by-law. "Plug-ins" are acceptable where this is normal practice in a district.

2.9.3 Vehicle Maintenance Facility

A school board that owns and operates vehicles may construct a vehicle maintenance facility subject to justifying the economic feasibility of having its own workshop, as opposed to having vehicles privately serviced and repaired.

A vehicle maintenance facility may accommodate the following functions:

- circulation space
- locker room
- lunchroom
- maintenance workshop(s) and ancillary areas
- mechanical and electrical space
- supervisors' and other staff offices
- tire and parts storage
- washrooms and showers.

The maximum shareable area of a vehicle maintenance facility shall be determined by the number of vehicles as follows:

<u>Fleet Size</u>	<u>Workshop Space</u>	<u>Administrative Space</u>
Up to 12	160 m²	48 m²
13-25	232 m²	64 m²
26-49	324 m²	80 m²
50 & over	432 m²	96 m²

Not more than two maintenance hoists in the workshop area of a vehicle maintenance facility shall be shareable.

The grounds development of a vehicle maintenance facility include the following:

- parking sufficient for district vehicles
- protective fencing
- a concrete apron for wash down that may not exceed 90 m² and may be enclosed, in a district assessed as having more than 5000 degree days below 18°C per annum. (see the Supplement to the National Building Code)
- Staff parking up to one space for each bus, or as required by municipal by-law. "Plug-ins" are acceptable where this is normal practice in a district.

2.9.4 Central Supply Storage

Where a district has a central storage system for school supplies, suitable building space may be constructed not exceeding a net area of **50 m² plus 10m² for every 1000 FTE students** enrolled in the district. Such space is likely to be attached to another building such as the district administrative offices.

2.10 SITE AND GROUNDS

2.10.1 Site Development Costs

All "essential" site development is a shareable cost. Essential work for schools shall include the items described below, plus any other item agreed to in writing by the ministry.

- Site preparation to clear, grade, drain and service the site to provide for the building and all other shareable site work.
- Playfield up to the areas described in section 2.10.2.
- Grass
- Access roads as reasonably required.
- Fire lanes where required by the B.C. Building Code.
- Asphalt paved parking up to one space for every twenty grades K-10 students, ten grades 11 and 12 students, and five staff, or as required by municipal by-law.
- Bus drop-off area.
- Paved pathways and entrance ways up to an area the equivalent of 2 metres around the perimeter of the building.
- Asphalt paved play areas up to 50 m², plus 50 m² for every 50 grades K-7 students.
- Grounds sprinkler systems.
- Sub-surface drainage systems in locations with demonstrated need.
- Fencing necessary for safety and school property protection purposes.
- One chainlink backstop for every 300 students.
- Essential steps, ramps and retaining walls, including associated handrails.
- Site lighting required for safety and loss protection.
- One flagstaff.
- Bike racks.
- Shrubs, trees, playground equipment, seats and other landscaping features up to 0.5 percent of the building cost.

2.10.2 Playfield Areas

<u>School Type</u>	<u>Nominal Capacity</u>	<u>Area</u>
Elementary	50-150	0.5 ha
	175-600	1.0 ha
	625-800	1.2 ha
Middle	200-400	1.0 ha
	450-700	1.2 ha
	750-1000	1.4 ha
Secondary	200-550	1.2 ha
	600-1000	2.0 ha
	1100-1500	3.0 ha
	1600-2000	4.0 ha
	2100-2500	5.0 ha

2.10.3 School Site Areas

The required site area should be based on a reasonable estimate of the eventual maximum nominal capacity of the school.

New site areas described below for elementary, middle and secondary schools are subject to the following exceptions:

1. Additional area requirements for sewage lagoons and septic fields will be considered on an individual basis
2. Topographical and/or other environmental conditions will be considered in acquiring additional land for the school building and playfields
3. Bus drop-off areas will be considered only where busing is required.

<u>Nominal Capacity</u>	<u>Elementary</u>	<u>Middle</u>	<u>Secondary</u>
(Site Area in Hectares)			
200	1.5	1.6	
250	1.6	1.7	
300	1.8	1.9	2.2
350	1.9	2.0	2.4
400	2.3	2.5	2.7
450	2.5	2.6	2.8
500	2.7	2.8	2.9
550	2.8	2.9	3.1
600	3.0	3.4	3.6
650	3.1	3.6	3.7
700	3.3	3.7	3.8
750	3.5	3.8	4.0
800	3.7	4.3	4.5
850		4.4	4.6
900		4.6	4.7
950		4.7	4.9
1000		4.8	5.0
1100			5.3
1200			5.6
1300			5.8
1400			6.1
1500			6.3
1600			6.6
1700			6.8
1800			7.1
1900			7.4
2000			7.7
2100			7.9
2200			8.2
2300			8.5
2400			8.7
2500			9.0

2.10.4 Site Areas of District Service Facilities

Site areas of district service facilities should be kept to a reasonable minimum to accommodate the building and associated grounds facilities. The possibility of expansion should be taken into account, where appropriate.