

INDIAN AFFAIRS
EDUCATION SPACE CRITERIA
HANDBOOK
80 IAM 2-H



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FOREWORD

This handbook documents the procedures required to implement the Indian Affairs Education Space Criteria. It supersedes *Indian Affairs Educational Space Criteria Handbook*, issued 11/1/05, and all policies and procedures related to IA Education Space Criteria that may have been created and/or distributed throughout Indian Affairs previously.

Although this handbook is intended to primarily assist Construction and Facilities Management professionals planning and coordinating facilities projects and space programs, it may also be informative for IA employees.

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Chapter 1. General

Indian Affairs is responsible for providing facilities to support educational programs for eligible Indian School Equalization Program (ISEP) students. The following criteria are intended to provide guidance for use in the planning phase of replacement school construction, renovation of existing schools, and evaluation of the adequacy of existing school facilities.

1. Purpose

- A. The purpose of developing the Educational Space Criteria is to provide a standard method of evaluating space planning criteria for Bureau school facilities. The overall goal is to incorporate core instructional requirements with functional space needs and develop space standards for these needs that utilize existing national and state guidance to ensure that every Bureau school has enough space to effectively provide core programs based on each school's enrollment for each grade.

These space criteria have been adjusted to address the reality of student population ranges that exist in Bureau schools. The desired outcome is a reliable and practical methodology for translating programmatic requirements into actual space requirements. This handbook provides a formalized methodology for Bureau-funded schools to establish minimum requirements for new construction and provide an evaluation methodology to determine modifications and upgrades to existing schools required to meet core education functional requirements.

- B. This release supersedes any criteria used or previously issued in conjunction with Bureau education facilities, with exception given to provisions contained in this supplement that are inconsistent with the rules and regulations contained in Title 25 of the Code of Federal Regulations (CFR), Subchapter E when inconsistent, the provision of the rules and regulations contained in Subchapter E will take precedence.
- C. State and regional education accreditation association space requirements applicable in the particular state or region where the school is located may be used instead of, but not in combination with, these criteria. Before any additional program requirements will be applied, they must be defined in equal or greater detail than the criteria presented in this handbook and must be approved by the Bureau of Indian Education (BIE).

Chapter 2. Criteria Handbook Application

2. Criteria Handbook Application

2.1 Application. The space criteria contained in this handbook have been compiled to assist the Bureau with two planning aspects: (1) to provide guidance for the design and construction of replacement schools and (2) to assess existing Bureau schools to determine if the space utilized for education is functionally adequate to conduct the Bureau's required programs. This section describes in detail both planning methods.

2.2 Replacement School Space Planning. The criteria contained in this handbook must be followed during the planning and design phases of replacement school construction to ensure that the Bureau provides schools that are educationally adequate. Five steps must be followed when using these criteria for construction planning: (1) obtain certified ISEP enrollment data, (2) reconcile fractional enrollment, (3) apply criteria to determine net square footage, (4) identify eligible non-core programs, and (5) convert net square footage to gross square footage. (A *non-core program* is any program not specifically mentioned in this handbook.) Each step is described below.

A. Step 1. Obtain Certified ISEP Enrollment Data

Accurate enrollment estimates are the cornerstone of the Bureau's education space planning program. If enrollment is overstated, the Bureau will incur unnecessary construction, operation and maintenance costs. Conversely, if enrollment is understated, classrooms will become overcrowded and student needs will not be met. Therefore, the analysis of the student design capacities must be based on accurate enrollment projections to optimize the Bureau's education programs while providing federal funding stewardship.

Using the most recent policy, the candidate school must work closely with the BIE to determine the enrollment projection.

B. Step 2. Apply Criteria to Determine Net Square Footage

After the enrollment figures are analyzed, space criteria will be utilized to determine the facility space allocations for the core programs.

C. Step 3. Identify and Approve Eligible Non-Core Programs

These criteria address only *core* programs for the Bureau; however, many schools conduct programs the Bureau does not recognize as core. A *non-core program* is any program not specifically mentioned in this handbook; i.e., Gifted and Talented,

Advanced Reading and Math, Tribal Specific Cultural Classes, NASA lab, and equestrian.

When a non-core program is requested, the planner will recommend the amount of space needed to accommodate the non-core program. The Director, BIE approves non-core programs and final determination of space allocation for non-core programs will be a joint concurrence of the Director, BIE and Director, OFPSM. When concurrence cannot be achieved, the Assistant Secretary, Indian Affairs will make the final determination.

D. Step 4. Convert Net-to-Gross

The maximum space allowances identified in this handbook for specific programs are specified in terms of net square footage. Additional square footage will be added to the total net square footage to provide for circulation and related non-specific program spaces, including mechanical equipment rooms, utility chases, student and public restrooms, corridors, stairwells, ramps, and wall thickness. The total gross square footage for an education facility equals the total net square footage plus circulation allowances and related non-specific program space. A detailed description of the net-to gross conversion is included in Section 3 of this handbook.

2.3 Existing School — Adequacy Analysis. In addition to construction planning, this handbook should be used to assess existing school facilities by comparing the actual space to the criteria for each program. There are four steps that should be followed when using this handbook for adequacy analysis: (1) obtain certified ISEP enrollment data, (2) apply criteria to determine net square footage, (3) identify and quantify actual programmatic space, and (4) analyze the data. These steps are described below:

A. Step 1. Obtain Certified ISEP Enrollment Data

Using the most recent policy, the candidate school must work closely with the BIE to determine the projected enrollment for the existing school.

B. Step 2. Apply Criteria to Determine Net Square Footage

Once the certified ISEP enrollment data is obtained, the criteria will be analyzed to determine space requirements for the core programs.

C. Step 3. Identify and Quantify Actual Programmatic Space

To begin identifying and quantifying actual programmatic space, a floor plan of the education facility should be obtained or developed. With this floor plan in hand, the

architects and engineers involved should tour the school with the principal or some other qualified individual who is familiar with the facility and the programs taking place therein. Every space should be labeled with a programmatic code and the square footage should be quantified and verified. The level of detail should be consistent with that found in the criteria.

Chapter 3. Gross Square Footage

3. Gross Square Footage

3.1 Circulation and Non-specific Program Spaces.

- A. The maximum space allowances identified in this handbook for specific programs are specified in terms of net square footage. Additional square footage will be added to the total net square footage to provide for circulation and related non-specific program spaces including mechanical equipment rooms, utility chases, student and public restrooms, corridors, lobbies, vestibules, stairwells, ramps, elevator shafts, and wall thickness.
- B. The total gross square footage for an educational facility is calculated as the total net square footage plus circulation allowances and related non-specific program space. Gross square footage is calculated utilizing grade level, programs, and student populations as described in this handbook.

3.2 Determining Gross Square Footage Using the Planning Method.

- A. The *Planning Method* utilizes the criteria in this handbook to calculate the net square footage. From this calculation, additional square footage is added to provide for circulation and related non-specific program spaces such as mechanical equipment rooms, utility chases, student and public restrooms, corridors, lobbies, vestibules, stairwells, ramps, elevator shafts, and wall thickness.
- B. Some schools will include square footage requirements for non-core programs that have been approved by the Director of BIE. The space for these non-core programs will be added to the net square footage of all the other programs to determine the total net square footage for the school facility.
- C. If an individual program requires circulation space within its boundaries, this circulation space will be included in the net square footage allowances for that program. For example, if the criteria define a high school gym as a 50' x 84' basketball court with 10' setbacks on each side and on each end, the setbacks will be used for circulation. Therefore, the program requires 7,280 net square feet (70' x 104') to function properly. The net square footage of this program will be added to net square footage of all the other programs to determine the total net square footage for the school facility.
- D. After the programmatic space has been determined and based on the total net square footage, various factors will be applied to calculate the amount of space needed

throughout the school for circulation and for non-specific programs such as mechanical equipment areas, restrooms, passageways, and wall thickness.

- 1) *Passageways* (13%). To calculate the amount of allowable space for passageways, multiply the total net square footage of the school facility by a factor of 13 percent.

Passageways include such areas as corridors, lobbies, vestibules, stairwells, and interior ramps.

Warm climate locations are encouraged to considering exterior walkways and passages that do not count against your gross square footage allocation.

- 2) *Mechanical/Electrical Equipment Areas* (2%). To calculate the amount of allowable space for mechanical/electrical equipment areas, multiply the total net square footage of the school facility by a factor of 2 percent. Mechanical/electrical equipment areas include mechanical equipment rooms, electrical closets, computer server closets, elevator shafts, and utility chases.

Cold climate locations will be allowed to increase this area by 1% with the final recommendation being made by DFMC to BIE and OFPSM for approval. Warm climate locations are encouraged to considering exterior walkways and passages that do not count against your gross square footage allocation.

- 3) *Restrooms* (2%). Program-specific restrooms such as those used for the health unit, physical education, kindergarten and first grade classes will be included in the total net square footage of the school facility. To calculate the amount of allowable space for restrooms, multiply the total net square footage of the school facility by a factor of 2 percent. Restrooms include general-use public and student facilities.
- 4) *Wall Thickness* (8%). To calculate the amount of allowable space for wall thickness, multiply the total net square footage of the school facility by a factor of 8 percent. Wall thickness includes the floor plan area occupied by interior and exterior walls, doors and windows.

- E. The following brief example describes the process of determining the gross square footage using the Planning Method.

Example: The Bureau is considering the construction of a replacement school to accommodate an approved Family and Child Education (FACE) program for grades K-5.

1) The enrollment for each grade is as follows:

FACE Children	20 Students
Kindergarten	20 Students
First Grade	22 Students
Second Grade	22 Students
Third Grade	22 Students
Fourth Grade	25 Students
<u>Fifth Grade</u>	<u>25 Students</u>
Total Enrollment	156 Students

2) To determine the total net square footage for the proposed school, the enrollment numbers must be applied to the space standards. The resulting space allowances are as follows:

Interdisciplinary Classrooms	6,390 SF
Dedicated Classrooms	2,378 SF
FACE	2,740 SF
Special Education	3,580 SF
Administration	1,690 SF
Library	1,470 SF
Physical Education	5,660 SF
Food Services / Dining	2,938 SF
<u>Support Services</u>	<u>1,350 SF</u>
Total Net Square footage	28,196 SF

3) To calculate the circulation and non-specific program space, the total net square footage is multiplied by each of the corresponding factors, as follows:

Passageways (13% of 28,196 SF)	3,665 SF
Mechanical/Elect Equipment Areas (2% of 28,196 SF)	564 SF
Restrooms (2% of 28,196 SF)	564 SF
<u>Wall Thickness (8% of 28,196 SF)</u>	<u>2,255 SF</u>
Total Circulation/Non-specific Program Space	7,048 SF

4) The total allowable gross square footage for the proposed school facility is calculated by adding the total net square footage (28,196 SF) to the circulation and non-specific program space (7,049 SF) to arrive at the total allowable gross square footage of 35,245.

**Chapter 4. Interdisciplinary/Standard Elementary,
Middle and High School Classrooms**

4. Interdisciplinary/Standard Elementary, Middle and High School Classrooms

4.1 School Grade Levels. Elementary and/or Middle Schools that have grades Kindergarten through 8, or any combination of these grades are considered day or boarding schools. This section also applies to day or boarding schools that include grade 9, but do not include other high school grades. High schools are day or boarding schools that include grades 9 through 12, or any combination of these grades.

4.2 Classrooms. The following are maximum space allowances for elementary, middle and high school classrooms in which *non-amenity specific courses* including English, Math, and Social Studies are taught. *Non-amenity specific courses* are those in which the curriculum does not require any special equipment or classroom features.

A. Maximum space allowance For Elementary, Middle and High School Classrooms are as follows:

Classroom Grade	Maximum Number of Students	Square Feet per Student	Standard Size in Square Feet
Kindergarten	20	60	1200
1	22	40	880
2	22	40	880
3	22	40	880
4	25	35	875
5	25	35	875
6	25	35	875
7	25	35	875
8	25	35	875
9	25	35	875
10	25	35	875

11	25	35	875
12	25	35	875

- B. In addition to the space allocations for standard instructional space in 4.2A, storage areas, including closets and cabinets, of 80 square feet of space will be provided in each interdisciplinary classroom.

- C. A separate handicapped-accessible male and female restroom with toilet and sink of approximately 80 square feet of space will be provided for kindergarten and first grade classrooms only. To the extent possible, these restrooms will be located between kindergarten and first grade classrooms.

- D. Multi-grade classroom space, or classroom space designed to accommodate multiple classes, will be based on the standard size of the lower grade, not to exceed 880 SF.

Chapter 5. Dedicated/Specialized Elementary, Middle and High School Classrooms

5. Dedicated/Specialized Elementary, Middle and High School Classrooms

5.1 School Grade Levels. Elementary and/or middle schools are considered day or boarding schools that have grades K-8, or any combination of these grades. This section also applies to day or boarding schools that include grade 9, but do not include other high school grades. High schools are day or boarding schools that include grades 9-12 or any combination of these grades.

5.2 Computer Labs. All schools, regardless of grade level or enrollment, will provide one computer lab for grade levels K-5, 6-8 and 9 thru 12 to accommodate a maximum of 24 students at 37 square feet per student for a total of 888 square feet.

- A. In addition to the space allocations for instructional space, storage areas to include closets and cabinets of 120 square feet of space will be provided in each classroom.
- B. An additional computer lab may be allowed for mandated testing on a case by case basis.

5.3 Science Laboratories.

- A. For grades 7-8, regardless of enrollment, provide at least one general lab to accommodate a maximum of 24 students at 60 square feet per student for a total of 1440 square feet.
- B. Specialized labs will be provided for approved programs. For grades 9-12, a determination will be made by the BIE based on approved existing curriculum, staffing and funding, the type and number of the labs provided (general science, earth science, physical science, chemistry, physics, biology) At a minimum, one multi-purpose lab will be provided to accommodate a maximum of 24 students at 60 square feet per student for a total of 1440 square feet.
- C. For schools that contain both middle school and high school grades, a determination will be made by the BIE based on approved existing curriculum, staffing and funding, whether separate science laboratories will be allowed for both groups. At a minimum, one multi-purpose lab will be provided to accommodate both groups, with a maximum of 24 students at 60 square feet per student for a total of 1440 square feet.
- D. In addition to the space allocations for instructional space and storage areas to include closets and cabinets, 120 square feet of space will be provided in each Science Lab classroom.

- E. For each Science Lab classroom, teacher preparation space is included in the instructional space.

5.4 Home Economics/ Life Skills.

- A. A Home Economics/ Life Skills classroom will only be provided for middle schools with approved, existing BIE curriculum, staffing and funding. The Home Economics classroom will accommodate a maximum of 16 students at 60 square feet per student for a total of 960 square feet. Additional storage space will not exceed 200 square feet.
- B. Home Economics/ Life Skills will be taught in one space for high schools with approved, existing BIE curriculum, staffing and funding and an enrollment in grades 9 through 12 of less than 300 students. The classroom will accommodate a maximum of 16 students at 60 square feet per student for a total of 960 square feet. Additional storage space will not exceed 200 square feet.
- C. For high schools with approved, existing BIE curriculum, staffing and funding and an enrollment in grades 9 through 12 of more than 300 students, clothing design and food preparation will be taught in separate spaces.
 - 1) *Clothing Design*. The maximum space allowance for a Clothing Design classroom to accommodate a maximum of 16 students at 65 square feet per student is 1040 square feet. Additional storage space will not exceed 200 square feet.
 - 2) *Food Preparation and Nutrition*. The maximum space allowance for a Food Preparation and Nutrition classroom to accommodate a maximum of 16 students at additional storage space will not exceed 200 square feet.

5.5 Practical and Fine Arts for Elementary and Middle Schools.

- A. For elementary and middle schools with an enrollment of less than 300 students, only one classroom will be provided for Practical and Fine Arts. This classroom size should be large enough to accommodate the class size for grades 4 through 8, if present at the school (1,250 square feet at 50 square feet per student for a maximum of 25 students). If only grades 1 through 3 are present, the classroom must accommodate a maximum of 22 students at 50 square feet per student for a total of 1,100 square feet, as per 25 CFR Part 36.11. Additional storage space will not exceed 120 square feet.
- B. For elementary/middle schools with an enrollment for grades 4 through 8 of more than 300 students, an additional/separate classroom will be provided for music appreciation, choral, and band. The maximum space allowance to accommodate a

maximum of 25 students at 40 square feet per student is 1,000 square feet. An additional 120 square feet for instrument and music storage will also be provided.

- C. For schools containing both high school grades and middle/elementary school grades, the Director of BIE will determine whether or not the additional space for practical arts will be allowed in the lower grades, based on approved existing curriculum, staffing and funding. At a minimum, the criteria in Section 5.6 — Practical Arts for High Schools and Section 5.7 — Fine Arts for High Schools — should be followed.

5.6 Practical Arts for High Schools.

- A. At a minimum, a classroom and general storage room will be provided for Practical Arts for high schools. The minimum classroom and general storage requirements for high schools are as follows:

- 1) *Classroom.* The maximum space allowance to accommodate a maximum of 25 students at 60 square feet per student is 1,500 square feet.

- 2) *General Storage.* The maximum space allowance is 150 square feet.

- B. For a high school enrollment of more than 300 students, a determination will be made by the BIE based on approved existing curriculum, staffing and funding, which of the following, or combination of the following, will be provided:

- 1) *Flammable Chemicals Storage.* The appropriate square footage for a fireproof storage cabinet will be provided in accordance with NFPA 30, Section 4-3.

- 2) *Project Storage.* The maximum space allowance is 200 square feet.

- 3) *Kiln Room.* It is permissible to use a self-contained kiln in the classroom; otherwise, a fire-rated room of no less than 100 square feet should be provided.

- 4) *Green Ware (Pottery) Room.* The maximum space allowance is 150 square feet.

5.7 Fine Arts for High Schools.

- A. A Music/Choral classroom and instrument storage space will be provided for high schools, as follows:

- 1) *Music/Choral Classroom.* The maximum space allowance for a choral room is 900 square feet at 30 square feet per student for up to 30 students plus 25 square feet for each additional student.

- 2) *Instrument Storage*. The maximum space allowance is 150 square feet or 5 square feet per program participant, whichever is greater.
- B. For an enrollment of more than 300 students, a determination will be made by the BIE based on approved existing curriculum, staffing, and funding which of the following, or combination of the following, will be provided:
- 1) *Band Room and/or Choral Room*. The maximum space allowance for a band room or a band and choral room to accommodate up to 30 students at 40 square feet per student is 1,200 square feet plus 30 square feet for each additional student.
 - 2) *Uniform and Music Storage*. The maximum space allowance is 150 square feet or 3 square feet per student, whichever is greater.
 - 3) *Instrument Repair Area*. The maximum space allowance is 80 square feet.
 - 4) *Practice Rooms*. The maximum space allowance is 75 square feet per room for a maximum of two rooms.
 - 5) *Instructor's Office and Library*. The maximum space allowance is 250 square feet.

5.8 Career Technical Education (CTE).

- A. Career Technical Education (CTE) will only be provided for middle schools with approved, existing BIE curriculum, staffing and funding. The approved middle schools will provide a classroom to accommodate a maximum of 16 students at 120 square feet per student for a total of 1,920 square feet. Additional material storage space of not to exceed 600 square feet will be provided. Tool and project storage of 200 square feet, and ventilated paint storage as per Uniform Building Code requirements will be provided.
- B. At a minimum for high schools, provide one multi-use vocational program space to accommodate a maximum of 16 students at 120 square feet per student not to exceed 1,920 square feet. Additional material storage space will be provided, not to exceed 600 square feet. Tool and project storage of not to exceed 200 square feet, and ventilated paint storage as per Uniform Building Code requirements will be provided. A determination will be made by the Director of BIE based on curriculum, staffing and funding which of the following, or combination of the following, will be provided. Specialized rooms based on approved programs will be provided.

C. For Industrial Arts, Electrical, Metal, Wood, and Auto Shops only, the following maximum space allowances apply.

- 1) *Computer Aided Design (CAD)*. The maximum space allowance is 888 square feet at 37 square feet per student for a maximum of 24 students.
- 2) *Agriculture/Economic Development*. The maximum space allowance is 1,000 square feet at 40 square feet per student for a maximum of 25 students. In addition, material storage space of 200 square feet will be provided.
- 3) *Business Program*. The maximum space allowance is 925 square feet at 37 square feet per student for a maximum of 25 students. At a minimum, the number of receptacles should match student population to accommodate use of computers in the classroom. An existing interdisciplinary classroom of standard size should be utilized for accounting, finance, and additional business programs.
- 4) *Driver's Education*. When provided within BIE-approved curriculum, an existing standard size interdisciplinary classroom will be utilized.

5.9 Cultural Studies/Programs.

Cultural Studies/Programs will utilize either a standard interdisciplinary classroom or Practical and Fine Arts classrooms as described in Sections 5.5 and 5.6.

5.10 (STEM) Science, Technology, Engineering and Math Program.

Space will be provided for approved programs. A determination will be made by the BIE based on approved existing curriculum, staffing and funding. At a minimum, one multi-purpose classroom/lab will be provided with a maximum of 24 students at 60 square feet per student for a total of 1,440 square feet.

A. In addition to the space allocations for instructional space and storage areas to include closets and cabinets, 120 square feet of space will be provided.

B. Teacher preparation space is included in the instructional space.

Chapter 6. Special Programs

6. Special Programs

6.1 Family and Child Education (FACE).

A. Under the FACE program, the size of classrooms will be determined as follows:

- 1) *Child Classroom.* To accommodate 3- and 4-year old children, classrooms will accommodate a maximum of 20 students at 60 square feet per student for a total of 1,200 square feet. This space will include both wet and dry areas.
- 2) *Adult Classroom.* To accommodate adults under the program, classrooms will accommodate a maximum of 15 students at 60 square feet per student for a total of 900 square feet.
- 3) *Restroom.* A separate handicapped accessible unisex restroom with toilet and sink of 100 square feet will be included.
- 4) *Kitchenette.* The maximum space allowance is 80 square feet.
- 5) *Storage Space.* For education program activities, the maximum space allowance is 100 square feet.
- 6) *Adjacent Office Space.* The maximum space allowance is 360 square feet to include files/record storage and counseling area.

B. **Outdoor Play Area.** For new construction, provide a separate enclosed/fenced area of 1500 square feet located adjacent to classroom space. Playground design should meet the ASTM Standard F 1487-98 and the handbook for Public Playground Safety published by the U.S. Consumer Product Safety Commission.

6.2 Special Education. In accordance with the Title I Amendments to the Individuals with Disabilities Education Act, the programs and size of classrooms will be determined as follows:

A. Therapy Classroom. The maximum space allowance is 880 square feet, a standard interdisciplinary classroom size, for a maximum of 12 students.

- 1) A separate handicapped accessible unisex restroom of 100 square feet, equipped with lifts or shower hardware will be provided.
- 2) A kitchenette not to exceed 80 square feet will be included in the classroom square footage.

- 3) Storage Space of 100 square feet will be provided for Therapy Classrooms.
- B. Resource Classroom. A standard interdisciplinary classroom will be provided as needed for the grade level being educated in the space. The number of Resource Classrooms per school is dependent on enrollment and grade level.
- 1) *Grade Level*. Separate Resource classrooms must be provided for grades K-5, 6-8 and 9-12. For example, if a planner is designing a K-12 school with special education needs for all grade levels, the planner would include three resource classrooms (one for K-5, one for 6-8 and one for 9-12).
 - 2) *Enrollment*. Additional Resource classrooms must be provided for every 100 students within a grade level category (K-5, 6-8, 9-12). Using the previous example, the student enrollment for K-5 is 87, 6-8 is 157 and 9-12 is 68. For this example, one Resource classroom will be provided for K-5, two Resource classrooms will be provided for 6-8 and one Resource classroom will be provided for 9-12.
- C. Office/Testing Room. The maximum space allowance for a room used for hearing tests, learning disability tests and assessment tests is 200 square feet.
- D. Special Education Conference Room. The maximum space allowance for a room used for IEP (Individualized Education Program) and Evaluations is 200 square feet.
- E. Special Education file storage room. The maximum space allowance for student file storage is 300 sf.

6.3 Gifted and Talented

Classrooms. When there is a demonstrated need to accommodate a Gifted and Talented program, a determination will be made by the Director of BIE based on approved existing curriculum, staffing and funding whether to provide special classroom(s) based on grade level and student population of the school. Upon approval, interdisciplinary classroom(s) of standard size will be provided.

Chapter 7. Administration

7. Administration

7.1 Administration Space. The maximum space allowance for Administration includes space for the principal's office, other offices, reception area, vault, school supplies, copy room, storage, bank, health unit, faculty lounge/faculty workroom, and conference room.

A. Maximum space allowance for Administration.

Total student design capacity based on enrollment projections				
Space	<100	100-199	200-399	400+
Principal's Office	150 SF	150 SF	150 SF	150 SF
Assistant Principal's Office*	NA	NA	150 SF	150 SF
Other Offices	120 SF	120 SF	240 SF	360 SF
Counseling	120 SF	120 SF	150 SF	300 SF
Reception/Secretary	200 SF	250 SF	300 SF	400 SF
Faculty Area**	400 SF	500 SF	700 SF	900 SF
Nurse's Office	150 SF	150 SF	150 SF	150 SF
Nurse's Office Restroom	50 SF	50 SF	50 SF	50 SF
Nurse's Office Cot Area	75 SF	75SF	75SF	75SF
Nurses Office Storage/Medicine Storage	30SF	30SF	30SF	30SF
Nursing Mothers Room to serve school staff	30SF	30SF	30SF	30SF
Nurse's Office Washer/Dryer Room	30SF	30SF	30SF	30SF
Vault/Cash/Record Storage	100 SF	100 SF	125 SF	150 SF

Copy/Mail/ School Supplies Storage Room	150 SF	150 SF	150 SF	150 SF
Conference Room	300 SF	300 SF	300 SF	300 SF
Security Office	120 SF	120 SF	120 SF	120 SF

* *Small schools may not have an assistant principal.*

** *The Faculty area includes faculty lounge, workroom and faculty restrooms.*

B. School Entry Lobby. A maximum of 300 square feet of space will be provided. For locations in cold climate area's 500 square feet of space will be provided.

C. Maximum space allowance for Grant School Administrative Offices.

Total design capacity for Grant School Administrative Offices				
Space	<100	100-199	200-399	400+
Executive Director's Office	200 SF	200 SF	200 SF	200 SF
Business Manager's Office*	150 SF	150 SF	150 SF	150 SF
Procurement Staff Office	120 SF	120 SF	120 SF	120 SF
Administrative Assistant Office	120 SF	120 SF	120 SF	120 SF
Human Resources	120 SF	120 SF	120 SF	120 SF

* *Grant School Administrative Offices will be provided upon the Grantee's documentation showing these employees are currently on staff. The number of offices provided will be determined by current staff to a maximum number of offices of four.*

Chapter 8. Media Center (Library)

8. Media Center (Library)

8.1 Maximum space allowance for Media Center (Library).

Total student design capacity based on enrollment projections				
Usage	25-100	101-200	201-400	400+
Reading/Browsing/Stack (K-8)*	800 SF	800 SF	800 SF, plus 30 SF per student of 15% of the total student design capacity over 200	1,700 SF, plus 30 SF per student of 15% of the total student design capacity over 400
Reading/Browsing/Stack (9-12)*	1,200 SF	1,200 SF	1200 SF, plus 30 SF per student of 15% of the total student design capacity over 200	2,100 SF, plus 30 SF per student of 15% of the total student design capacity over 400
Professional Publications	75 SF	75 SF	75 SF	75 SF
Librarian Office	120 SF	120 SF	120 SF	120 SF
Audio/Visual	100 SF	175 SF	200 SF	200 SF
Storage/Workroom (K-8)	100 SF	200 SF	300 SF	350 SF

Storage/Workroom (9-12)	100 SF	100 SF	180 SF	200 SF
Circulation/Checkout	100 SF	100 SF	100 SF	100 SF
Student Project Room (K-8)**	300	300	500 SF	500 SF
Student Project Room (9-12)**	400	400	880 SF	880 SF
Conference Room	NA	NA	250 SF	300 SF

** For a school with grades K-9, space will be based on the standard size of the lower grade. For a school with grades K-10/11/12, the grade-level populations will be separated into K-8 and 9-12 to calculate the space for Reading/Browsing/Stack.*

The space needed for Reading/Browsing/Stack will be calculated for each group of grade levels based on those populations and added for a total square footage.

All other areas will be calculated based on the total enrollment.

*** This space is to be utilized as a research room equipped with computers for schools with a Distance Learning Program.*

Chapter 9. Physical Education — Indoor

9. Physical Education — Indoor

9.1 Gymnasiums.

- A. Mini-Gymnasium. For an elementary school with a design capacity of 200 or more students or middle school with a design capacity of 200 or less students, a 42' x 74' standard basketball court will be provided with 5-foot setbacks on each side and 8-foot set-backs on each end. Total square footage for the multi-purpose/mini-gymnasium is 4,680 (52' x 90'), excluding bleacher seating. The Mini-Gymnasium will NOT be used as the Dining Room.
- B. Gymnasium.
- 1) For an elementary or middle school that includes grade levels 7 through 9 with a design capacity of 200 or more students, a gymnasium will be provided with a 42' x 74' standard basketball court, 5-foot setbacks on each side, and an 8-foot setback on each end. Total square footage is 4,680 (52' x 90') excluding bleacher seating space. A larger size standard basketball court will not be provided even if there is grade 9 at the school.
 - 2) For high schools, provide a full size gymnasium with a 50' x 84' American standard basketball court and 10 feet setbacks on each side and on each end, with a total square footage of 7,280 (70' x 104'), excluding bleacher seating space. A multi-purpose room or multi-purpose/mini-gymnasium need not be provided in addition to the gymnasium, except as provided under section 9.3.

9.2 Bleacher Seating. Bleacher seating space for 200% of the approved enrollment projection will be provided at 3 square feet per student. This square footage is in addition to the gym floor square footage. A ten-foot setback should be reevaluated for size of bleachers so that minimum aisle space remains after bleachers are extended as per Uniform Building and Accessibility Codes. ADA and UFAS codes should be referenced for seating capacity. Seating must be provided in the bleacher area to comply with ADA requirements.

9.3 Auxiliary Physical Education Room. For schools with a design capacity of more than 200 students in grades 9 through 12, an auxiliary physical education room may be provided with a maximum space allowance of 1,700 square feet for wrestling, weight training, etc.

9.4 Shower/Dressing Area. In schools with grades ranging up to 6, no shower/ dressing areas will be provided. Schools that include grade levels 7 through 9 and high schools will provide two handicapped accessible shower/dressing areas, one for males and one for females. The maximum space allowance of 300 square feet each will be provided, with the number of showerheads to be determined by the Uniform Building Code.

9.5 Locker Rooms. In schools with grades ranging up to 6, no locker areas will be provided. Schools that include grade levels 7 through 9 and high schools will provide locker rooms as follows:

- A. Two handicapped accessible locker rooms will be provided with a maximum space allowance of 500 square feet each—one for males, one for females.
- B. One small storage locker per student will be provided based on the total student design capacity based on enrollment projections.
- C. Dressing lockers to be determined by the maximum number of students in a physical education class—not to exceed 30 lockers per dressing room— will be provided.
- D. For schools with a design capacity of more than 400 students, an additional 30 dressing lockers each in male and in female locker rooms will be provided for visiting teams. Allow 100 square feet for the additional dressing lockers.

9.6 Restrooms. The minimum required toilets with privacy stalls and sinks per Uniform Building and Handicapped Codes will be provided in female and male shower/dressing areas or locker rooms. In addition, minimum required urinals will be provided per Uniform Building and Accessibility Codes in male shower/dressing or locker room.

9.7 Physical Education Staff Offices. In schools with grades ranging up to 6, one office of the size specified below will be provided in the Multipurpose Room. In middle schools that include grade levels 7 through 9 and in high schools, two offices will be provided at 120 square feet each, plus 100 square feet for a handicapped accessible toilet, shower stall and sink for each office.

9.8 Permanent Stage. All schools will receive a permanent stage with storage, the total amount of the combined space must not exceed 750 sf. The school will configure the stage and storage area based on school need.

9.9 Storage. As required, provide for the following:

- A. *Physical education equipment.* The maximum space allowance is as follows for each grade level:

- K-6: 300 square feet
- 7-8: 600 square feet
- 9-12: 1,000 square feet.

B. *Team equipment and uniform storage.* For high school, the maximum space allowance is 800 square feet.

9.10 Concession Area. Concession areas will not be provided to schools with a design capacity of less than 200 students, regardless of grade level.

- A. In a combined elementary/middle school with a design capacity of 201-399 students, 120 square feet of space will be provided for a concession area with 75 square feet for storage.
- B. In a combined elementary/middle school with a design capacity of more than 400 students, 200 square feet of space will be provided for a concession area with 100 square feet for storage.
- C. In high schools with a design capacity of 201-399 students, 120 square feet of space will be provided for a concession area with 80 square feet for storage.
- D. In high schools with a design capacity of more than 400 students, 200 square feet will be provided for a concession area with 120 square feet for storage.

9.11 Gymnasium Public Restroom.

800sf for Gymnasium will be allocated public restrooms. This space cannot be reallocated for any other purpose.

Chapter 10. Physical Education — Outdoors

10. Physical Education — Outdoors

10.1 Play Area and Fields.

- A. For an elementary school, a paved area of 60' x 100' (6,000 square feet) will be provided adjacent to the elementary and /or middle school as a ball court or multi-purpose play area. Based on the total student design capacity based on enrollment projections of the school, provide other areas devoted to active play to include swings, slides or other play equipment will be provided. Playground design should meet the ASTM Standard F 1487-98 and the handbook for Public Playground Safety published by the U.S. Consumer Product Safety Commission.
- B. For a middle school, a paved area of 80' x 120' (9,600 square feet) will be provided adjacent to the school as a ball court or multi-purpose play area. Additional playing fields and an earthen track will be provided in accordance with the school's approved existing athletic program.

10.2 Football Field and Track.

- A. For high schools with a design capacity of 100 students or less, a paved area of 80' x 120' (9,600 square feet) will be provided adjacent to the school as a ball court or multi-purpose area. Additional playing fields will be provided in accordance with the school's approved existing athletic program. Design and surfaces of athletic facilities will be provided based on state and local athletic governing requirements.
- B. For high schools with a design capacity of 100 students or more, a paved area of 80' x 120' (9,600 square feet) will be provided adjacent to the school as a ball court or multi-purpose area and a football field surrounded by an oval track. Additional playing fields and ancillary facilities will be provided in accordance with the school's approved existing athletic program. Design and surfaces of athletic facilities will be provided based on state and local athletic governing requirements.

Chapter 11. Dining Room and Kitchen Area

11. Dining Room and Kitchen Area

11.1 Dining Room. The Dining Room will NOT be in the mini-gymnasium or full size gymnasium.

- A. For schools with a design capacity of 100 students or less, the minimum space allowance is 750 square feet.
- B. For schools with a design capacity of more than 100 students, dining room seating will be provided for one-half the total student design capacity based on enrollment projections of the school.
- C. The space allowance of 15 square feet per seat/student for one-half of the total student design capacity includes seating, table and circulation space, but excludes space for the serving line.
- D. Chair/Table storage: The maximum space allowance is 250 square feet.

11.2 Kitchen Area. The maximum space allowance for a kitchen area includes space for food preparation, serving line(s), walk-in and reach-in refrigerator, walk-in and reach-in freezer, dry storage, dishwashing, can washing, office, employees' room and restrooms, receiving dock, and waste holding area.

- A. Maximum space allowance for kitchen area is as follows:

Meals Served Per Day	Square Footage
100 or less	856
101-250	1261
251-500	1518
501-750	1938
751-1000	2208
1001-1250	2566
1251-1500	2880
1501-1750	3360
1751-2000	3840

2001 or more	4388
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Source: *Equipment Guide for On-Site School Kitchens*, United States Department of Agriculture

Chapter 12. Auxiliary Spaces

12. Auxiliary Spaces

12.1 Auditorium. An auditorium will not be provided for elementary and/or middle schools, even if the schools include grade level 9. Only high schools with a grade level enrollment of 750 students or more in grades 9 through 12 are eligible for an auditorium. A final determination will be made by the Director of BIE based on approved existing curriculum, staffing and funding for the provision of an auditorium. The auditorium as well as the stage will be handicapped accessible. If an auditorium is provided, the following space allocations apply:

- A. Auditorium. A maximum of 7 square feet per student of the total student design capacity based on enrollment projections will be provided to include seating and circulation space.
- B. Stage. The maximum space allowance is a total of 3,000 square feet including on-stage and off-stage area.
- C. Scenery and Prop Storage. The maximum space allowance is 1000 square feet, and will only be provided if a permanent stage is also provided.
- D. Multi-use Lobby Area. The maximum space allowance is 100 square feet or 2 square feet per seat, whichever is greater.
- E. Movie Projection. Projection capabilities will only be provided at boarding schools. A maximum space allowance of no more than 100 square feet will be added for this capability.

12.2 Swimming Pools. Swimming pools will NOT be provided.

Chapter 13. Support Services

13. Support Services

13.1 Bus Garages and/or Yards.

- A. Bus shelter and/or yards will be provided to protect vehicles from inclement conditions and for security purposes. Each parking space should not exceed 120% of the actual size of each bus. The number of bus shelter spaces must not exceed 50% of the buses projected to be used based on the enrollment projection.

Bus yard surfaces must at a minimum be constructed out of compacted gravel.

- B. Bus garage space for maintenance purposes will be limited to one stall and will only be provided if the school certifies that it performs its own bus maintenance. (Maintenance will include oil changes, tire rotation, lubrication, and tune ups.) The space provided will be as described in 13.3.

13.2 Bus Loading Area. The maximum space allowance is 20 feet for bus turning radius and 120'L x 14'H x 8'W bus loading overhang. This shelter space square footage will not be included in the building gross square footage.

13.3 Facilities Maintenance Shop. Facilities maintenance shops will be provided to serve education facilities.

- A. Facility Maintenance Office. The maximum space allowance is 150 square feet.

- B. Facility Maintenance Shop. The maximum space allowances provided for each population level based on the total student design capacity is based on enrollment projections as follows:

- 1) For 100 or fewer students: 400 square feet.
- 2) For 100-199 students: 500 square feet.
- 3) For 200-399 students: 600 square feet.
- 4) For 400 or more students: 700 square feet.

- C. Facilities Maintenance Faculty Lounge that include lockers. The Facilities Maintenance Faculty Lounge will be sized as follows:

- 1) For 100 or fewer students: 150 square feet.
- 2) For 101-199 students: 200 total square feet.
- 3) For 200-399 students: 250 square feet.
- 4) For 400 or more students: 300 square feet.

D. Facilities Maintenance Restrooms. The maximum space allowance is 200 square feet male/female.

E. Maintenance Equipment. The maximum space allowance is 250 square feet.

F. Maintenance Material Storage. For schools located less than 100 miles roundtrip from a town with a population of more than 25,000, 200 square feet of space will be provided for material storage. For schools located more than 100 miles round trip from a town with a population of more than 25,000, 300 square feet of space will be provided for material storage.

For schools that perform their own quarter's maintenance an additional 50 sf per 10 government furnished quarters with a maximum of 200 sf.

G. Chemical Storage. The maximum space allowance is 100 square feet.

13.4 Custodial Closets and Storage. The maximum space allowance is determined by student design capacity. Each space should include a mop sink, hot and cold water faucet, and mop hangers. The total space allocation per school facility is based on total design capacity, as follows:

- A. For 100 or fewer students: 150 square feet.
- B. For 101-199 students: 200 total square feet.
- C. For 200-399 students: 250 square feet.
- D. For 400 or more students: 300 square feet.

13.5 General Storage. The maximum space allowance is determined by student design capacity. This space is to be utilized for book and furniture storage for the entire school. The total space allocation per school facility is based on total design capacity, as follows:

13.6 Equipment Rooms (including Computer/Server Rooms). The square footage for equipment rooms and computer/server rooms is included in the net-to-gross conversions; see Section 3.2.

Chapter 14. Dormitories

14. Dormitories

14.1 Residential Area. Space in dormitories will be allocated as shown:

A. Sleeping Rooms.

- 1) For grades 1 through 8, provide sleeping rooms at 40 to 60 square feet per student exclusive of furniture (wardrobe, desks, beds, etc.) and not to exceed a maximum of four students per room. An additional 35 square feet per student will be provided for furniture and storage space to include a wardrobe, bed and desk.
- 2) For grades 9 through 12, provide sleeping rooms at 50 to 70 square feet per student exclusive of furniture (wardrobe, desks, beds, etc.) and not to exceed a maximum of four students per room. An additional 35 square feet per student will be provided for furniture and storage space to include a wardrobe, bed and desk.

B. Restrooms.

- 1) The current the Americans with Disabilities Accessibility Act Guidelines (ADAAG) and Uniform Building Code (UBC) should be applied as required for restrooms. Handicapped restrooms and dorm rooms must be provided at 10% of the dorm capacity.
- 2) Communal type facilities may be substituted when the total space will be equal to or less than the total space that would be provided under paragraph 14.1-B (1) above.
- 3) Where restrooms are provided between rooms, the following spaces will be allowed:
 - a) Two students per room — 120 square feet
 - b) Three students per room — 140 square feet
 - c) Four students per room — 160 square feet

C. Isolation Health Care Sleeping Room. Two rooms will be provided, one for males and one for females. Each room will contain two beds and a handicapped accessible

bathroom including toilet, tub/shower and sink. 300 square feet of space total for each room will be provided.

- D. Counseling. 120 square feet of office space will be provided per office, as follows:
- 1) For grades 1-8, one office for one counselor for up to 75 students.
 - 2) For grades 1-8, two offices for two counselors for 75-300 students.
 - 3) For grades 9-12, one office for one counselor for up to 100 students.
 - 4) For grades 9-12, two offices for two counselors for 101-300 students.
- E. Dorm Secretary Office. For dormitories with at least 150 students or more, one office of 120 square feet and fire rated record storage space of 75 square feet will be provided.
- F. Intensive Residential Guidance (IRG) Counselor Offices. One counselor office for every 80 IRG students at 120 square feet per office will be provided. Space for secure file storage is included in the office space. This space will be provided only if the dorm has an IRG program.
- G. Home Living Specialist Office. One office of 120 square feet will be provided.
- H. Conference Room. In dormitories with more than 150 students a conference room of 250 square feet will be provided.

14.2 Support Space. Space for the following areas will be provided:

- A. Living Room. For grades K-8, the maximum space allowance is 8 square feet per student. For grades 9 through 12, the maximum space allowance is 10 square feet per student.
- B. Activity Room. The maximum space allowance is 15 square feet per student where the minimum space provided is 1200 SF.
- C. Practical Arts Room. A determination will be made by the Director of BIE based on approved existing staffing and funding whether this space will be provided. At a minimum, a room of 1250 square feet and general storage of 150 square feet will be provided.

- D. Study Rooms. Study space for 1/3 of the total student design capacity at 20 square feet per student will be provided. At a minimum, 250 square feet of space will be provided. The allocations will include space for computer stations, with the number of stations not to exceed 1/9 of the total student design capacity.
- E. Kitchen/Dining Area. A separate kitchen and dining facility will not be provided for dormitories, except for peripheral dormitories. (Dormitories must utilize the existing kitchen and dining facilities associated with the adjacent school campus.) Peripheral dormitories will be provided kitchen and dining space in accordance with Sections 11.1 and 11.2.
- F. Storage. Provide storage space as follows:
- 1) *Linen.* The maximum space allowance is 2 square feet per student.
 - 2) *General.* The maximum space allowance is 6 square feet per student.
 - 3) *Individual (Trunk/Luggage) Storage.* The maximum space allowance is 5 square feet per student.
- G. Laundry and Ironing Rooms. Thirty square feet per pair of washers and dryers will be provided, with one set for each 10 students of the total student design capacity based on enrollment projections. A double laundry sink and ironing area will be provided for every four sets of washers and dryers.
- H. Custodial Space. Each custodial space should include a mop sink, hot and cold-water faucet, mop hangers and shelving for toilet supplies. The total space allocation per dormitory facility is based on total design capacity, as follows:
- 1) For 75 or fewer residents: 200 square feet
 - 2) For 76-299 residents: 250 square feet
 - 3) For 300 or more residents: 300 square feet.
- I. Dormitory Entry Lobby. A maximum of 200 square feet will be provided.
- J. Public Restrooms. Handicapped adult male and female restrooms will be provided at 125 square feet each.
- K. Net-to-Gross Conversion. Net-to-Gross conversion is detailed under Section 3.2D.

14.3 Recreational Area. A paved play area of 60' x 100' (6,000 square feet) will be provided as a ball court or multi-purpose play area. Other areas devoted to active play to include swings, slides or other play equipment will be provided based on the total student design capacity based on enrollment projections of the dormitory. Playground design should meet the ASTM Standard F 1487-98 and the handbook for Public Playground Safety published by the U.S. Consumer Product Safety Commission.

14.4 Authority. In accordance with 25 CFR 36.75, Space and Privacy, "A dormitory shall be considered at capacity when the addition of one more student would put the school out of compliance with the space standard; and additional students shall not be admitted for residential purposes."

Chapter 15. Employee Quarters

15. Employee Quarters

15.1 Employee Quarters.

- A. Authority. OMB Circular A-45 Rental and Construction of Government Quarters; 400 Department Quarters Manual.
- B. Policy. The cost to the Government of acquiring, constructing, operating, maintaining, managing and disposing of Government Furnished Quarters (GFQ) typically far exceeds the value of rental receipts collected over the useful life of the GFQ. Therefore, new or replacement GFQ will not be provided unless it has been determined by the appropriate program Assistant Secretary (or by the head of the Bureau or Region/Area Director if the authority has been re-delegated pursuant to 205 DM 10.1C) that the GFQ are essential to the accomplishment of the Bureau's mission and are energy efficient. The need to construct or acquire GFQ is limited to circumstances in which it is determined that the employees must live at the station or quarters installation in order to provide necessary service or protection, or that adequate housing is not available in the area.
- C. Need. Determining educational quarters needs and developing the justification is the responsibility of the users through their respective Regional Office in accordance with 400 Departmental Manual (DM), OMB Circular A-45, 41 CFR 114-51, and 43 BIAM Supplement 2. The determination should be made prior to or during the early programming and planning stages in the new school construction project.
- D. Housing Construction. New or replacement housing construction is feasible only in connection with School Replacement Projects. The following data is required to process requests for new or replacement quarters:
 - 1) A Tribe or school board must provide an official resolution to support the request and need for employee housing.
 - 2) A completed Housing Requirements Analysis (HRA) is required as prescribed in 400 Departmental Manual 4.1, 4.2, and 4.3. Include a copy of the program's staffing plan showing the staff position breakdown and identifying the essential or key employee positions that require housing. In addition, the HRA should include responses to the following questions:

- a) How many of the staff can have their housing needs satisfied either in planned or in existing tribal housing units operated by a local housing authority?
 - b) How many of the staff are local hires and do not require Bureau housing?
 - c) How many efficiency apartments or 1-bedroom/2-bedrooms/3bedrooms are needed based on the number of essential employees and the size, normal composition, and trends of families to be housed?
- 3) A form DI-1871, Justification for New or Replacement Quarters, must be prepared for recommended and approving signatures. This form requires approval by the Assistant Secretary of Indian Affairs.
 - 4) Final approval of the Form DI-1871 serves only to acknowledge need for new or replacement housing and does not extend to approval of construction funding unless funding had been identified in advance. Upon final approval, the requesting program or school may proceed with the budget request process, including construction planning with Facility Management.

Chapter 16. Site

16. Site

16.1 Site.

- A. The size of an educational facility site should be based on existing and projected enrollment. The following are the recommended ranges for site sizes:

Educational Facility	Recommended Site Size
Elementary Schools (K-6)	10 acres, more or less, plus one acre for each 100 students
Middle Schools (7-9)	20 acres, more or less, plus one acre for each 100 students
High Schools (9-12)	30 acres, more or less, plus one acre for each 100 students

- B. Provide an additional two acres for any needed facility management shop and two acres for a bus garage/yard.
- C. If employee housing is on site, provide one acre each for two houses. This acreage includes space for access streets to the housing units.
- D. For dormitories at an existing location, provide 3 acres for every 100 students to be housed.
- E. If a sewer lagoon is provided with the project, it must be located at least one-quarter (1/4) mile from the nearest residence, school building or adjacent occupied building. The land area needed for the right-of-way (10 feet) and the lagoon must be provided.

Attachment 1

Example 1 — Replacement K-8 Elementary School

In this example, a fictitious elementary school has entered into the planning phase for the construction of a replacement facility. The steps outlined in Section 2.2 will be followed to determine the space for each individual program, as well as the overall size of the facility.

Step 1. Determine Enrollment

The candidate school must work with the BIE to provide an enrollment plan for the replacement facility. The BIE will utilize the most recent directives to aid in the enrollment projection process. Ultimately, for replacement school construction the enrollment plan must specify the projected number of pupils within each approved grade level. For this example, the school has an approved FACE program and following enrollment projections have been submitted:

Enrollment Projection	
FACE	0
Kindergarten	43
First	32
Second	16
Third	17
Fourth	10
Fifth	17
Sixth	25
Seventh	17
Eighth	29
Total:	206

Step 2. Reconcile Fractional Enrollment

The criteria in this handbook specify the maximum number of students per classroom for each grade level. Unfortunately, in most cases the number of students within a grade level will rarely be equal to the criteria. Each grade level with fractional enrollment will receive a full-size classroom to accommodate grades with fractional enrollment.

Step 2.a. Divide Proposed Enrollment Estimates by the Criteria.

For each grade level, divide the proposed enrollment estimate by the maximum allowable enrollment per classroom for the corresponding grade. For example, the proposed enrollment for

Attachment 1 (continued)

kindergarten is 43 students. The criteria state that no more than twenty kindergarten students will be taught in any one class. So, by dividing 43 by 20, the result is 2.15. Therefore, three full-size classrooms will be required for kindergarten.

Attachment 1 (continued)

Example 1 — Replacement K-8 Elementary School

Step 2.b. Calculate the Number of Full-size Classrooms.

At this point, the planner should look at classrooms in terms of full-size classrooms.

Regardless of the enrollment, there should be at least one full-size classroom per grade level. In the event of fractional enrollment, a full-size classroom is warranted.

To continue the example, the kindergarten grade (44 students / maximum 20 students per class) would warrant two full-size classrooms. Following the same logic for the remaining grade levels, the following data would be calculated:

Fractional Enrollment							
Grade Level	STD	Total Enroll.	(Enroll./ STD)	Min Full Size Classrooms	Fractional Enrollment	Full Size Due to Fractional Enrollment	Total Full Size Classrooms
FACE							
Kindergarten	20	43	2.15	2	0.15	1	3
First	22	32	1.45	1	0.45	1	2
Second	22	16	0.73	1	0	0	1
Third	22	17	0.77	1	0	0	1
Fourth	25	10	0.40	1	0	0	1
Fifth	25	17	0.68	1	0	0	1
Sixth	25	25	1.00	1	0	0	1
Seventh	25	17	0.68	1	0	0	1
Eighth	25	29	1.16	1	0.16	1	2
Total:							13

Therefore, thirteen full-size classrooms would be needed.

During the design phase, the architects and engineers will determine the most appropriate classroom configuration.

Attachment 1 (continued)

Example 1 — Replacement K-8 Elementary School

Step 3. Apply Criteria to Determine Net Square Footage.

Once the enrollment figures are analyzed, the criteria in this handbook will be utilized to determine the space requirements for the core programs. Applying the data developed in Step 2 to the criteria in Appendix D, the planner will calculate the following square footages:

Interdisciplinary Classrooms	14,330	
Dedicated Classrooms	7,476	
Special Education	7,486	
Administration	3,400	
Library	2,372	
Physical Education	9,962	
Food Services / Dining	3,313	
Support Services	2,350	
Total Net Square footage	50,689	
 Eligible Non-Core Programs		
Total Net Square footage	50,689	
 Passageways	6,589	13%
Mechanical/Elect Equipment Areas	1,014	2%
Restrooms	1,014	2%
Wall Thickness	4,055	8%
Total Circulation/Non-specific Program:	12,672	
 Total allowable gross square footage	63,361	
<hr/>		
	Interdisciplinary Classrooms	
Full Size Classroom Type	# of Classrooms	Total (sq ft)
FACE		
FACE Adults Classroom		
Dedicated FACE Restroom		
FACE, Office Space		
Outdoor Play Area		

Attachment 1 (continued)

Kindergarten	3	3,960
Dedicated Kindergarten Restroom	6	480
First Grade (1)	2	1,920
Dedicated First Grade Restroom	4	320
Second Grade (2)	1	960
Third Grade (3)	1	960
Fourth Grade (4)	1	955
Fifth Grade (5)	1	955
Sixth Grade (6)	1	955
Seventh Grade (7)	1	955
Eighth Grade (8)	2	1,910
Ninth Grade (9)		
Tenth Grade (10)		
Eleventh Grade (11)		
Twelfth Grade (12)		
Total Space for Classrooms:		14,330

Dedicated Classrooms

Computer Labs	1,776	
Computer Lab Storage	240	
Science Lab	1,440	
Science Lab Storage	120	
STEM/ STEM storage		
Music/Choral Classroom and Storage		
Home Economics/Life Skills	960	
Home Economics/ Life Skills Storage	200	
Practical and Fine Arts	1,250	
Practical and Fine Arts Storage	120	
Industrial Arts Shop		
Cultural Classroom	1,250	
Cultural Classroom storage:	120	
Total Space for Dedicated Classrooms:	7,476	sq ft

Attachment 1 (continued)

Special Programs Classrooms	
<u>Family and Child Education (FACE)</u>	Allowed sq. ft.
Child Classroom	1380
Adult Classroom	900
Restroom	100
Kitchenette	80
Storage Space	100
Adjacent Office Space	360
Outdoor Play Area	
<u>Special Education</u>	
Therapy Classroom	980
Therapy Restroom	100
Kitchenette	80
# of Resource Classrooms based on Enrollment	
K-5	1,920
6 thru 8	960
9 thru 12	
Office/Testing Room	200
Gifted and Talented	1,920
SPED Conference Room	200
SPED File Storage	125
Total Space for Special Programs Classrooms:	7,486 sq ft
Administration Space	
	Allowed sq. ft.
Principal's Office	150
Assistant Principal Office	
Other Offices	240
Counseling	150
Reception / Secretary	300
Faculty Area (lounge, faculty workroom)	700
Nurse's Office and Cot Area	225
Nurse's Office Dedicated Restroom	50
Vault / Cash / Record Storage	125
Copy / Mail / School	150
Conference Room	300
School Entry Lobby	300
Grant School Administrative Offices	
Executive Director's Office	200

Attachment 1 (continued)

Business Manager's Office	150
Procurement Staff Office	120
Human Resources	120
Security Office	120
	3400 sq ft

	Media Center (Library) Allowed sq. ft.
Reading/Browsing/Stack	827
Professional Publications	75
Librarian Office	120
Audio/Visual	200
Storage/Workroom	300
Circulation/Checkout	100
Student Project Room	500
Conference Room	250
	2,372 sq ft

	Physical Education — Indoor Allowed sq. ft.
Mini-Gymnasium K - 8	4,680
Bleacher Seating	1,236
High School Gymnasium	0
Bleacher Seating	0
Auxiliary Physical Education Room	0
Shower/Dressing Area	300
Locker Rooms	1,181
Physical Education Staff Offices	120
Physical Education handicapped accessible toilet	100
Permanent Stage and Storage	750
Storage for Physical education equipment	600
Concession Area	195
High School Gymnasium Public Restrooms	800
	9,962 sq ft

	Dining Room and Kitchen Area
Dining & Storage Room Size	1,545
Chair/Table Storage	250

Attachment 1 (continued)

Kitchen Size:	1,518
	3,313 sq ft
Support Services	
Facility Maintenance Office	150
Facility Maintenance Lounge with Lockers	250
Facility Maintenance Shop	600
Facility Maintenance Restroom	200
Maintenance Equipment	250
Maintenance Material Storage	300
Chemical Storage	100
Custodial Closets and Storage	250
General Storage	250
Total Space for Support Services:	2,350 sq ft

Step 4. Identify Eligible Non-Core Programs.

The criteria addresses only core programs for the Bureau; however, many schools conduct programs that the Bureau does not recognize as core. The amount of space for approved non-core programs must be determined.

Step 5. Net-to-Gross Conversion

The maximum space allowances identified for specific programs are in terms of net square footage. Additional square footage is added to the total net square footage to provide for circulation and related non-specific program spaces such as mechanical equipment rooms, utility chases, student and public restrooms, corridors, lobbies, vestibules, stairwells, ramps, elevator shafts, and wall thickness. Using the net-to-gross factors found in Section 3 of this handbook, the following additional square footage is calculated.

	Add Factor - % of Total Net SF (50,689 SF)	Additional Square Footage
Passageways	13%	6589
Restrooms	2%	1014
Mechanical/Electrical Equipment	2%	1,014
Wall Thickness	8%	4,055
Total:	25%	12,672

Attachment 1 (continued)

The total gross square footage is the total net square footage (50,689) plus circulation allowances and related non-specific program space (12,672), which equals 63,361 gross square feet. By following the steps above, the planner determines the space for each individual program, as well as the overall size of the facility.

Attachment 1 (continued)

Example 2 — Replacement K-12 School

In this example, a fictitious K-12 school has entered into the planning phase for the construction of a replacement facility. The steps outlined in Section 2.2 will be followed to determine the space for each individual program, as well as the overall size of the facility.

Step 1. Determine Enrollment

The candidate school must work with the BIE to provide an enrollment plan for the replacement facility. The BIE will utilize the most recent directives to aid in the enrollment projection process. Ultimately, for replacement school construction the enrollment plan must specify the projected number of pupils within each approved grade level. For this example, the following enrollment projection has been submitted:

Enrollment Projection	
Kindergarten	42
First	99
Second	72
Third	108
Fourth	47
Fifth	59
Sixth	58
Seventh	96
Eighth	103
Ninth	95
Tenth	76
Eleventh	61
Twelfth	60
Total:	976

Attachment 1 (continued)

Example 2— Replacement K-12 School

Step 2. Reconcile Fractional Enrollment.

Fractional Enrollment							
Grade Level	STD	Total Enroll.	(Enroll. / STD)	Min. Full Size Classrooms	Fractional Enrollment	Full Size Due to Fractional Enrollment	Total Full Size Classrooms
Kindergarten	20	42	2.10	2	0.10	1	3
First	22	99	4.50	4	0.50	1	5
Second	22	72	3.27	3	0.27	1	4
Third	22	108	4.90	4	0.90	1	5
Fourth	25	47	1.88	1	0.88	1	2
Fifth	25	59	2.36	2	0.36	1	3
Sixth	25	58	2.32	2	0.32	1	3
Seventh	25	96	3.84	3	0.84	1	4
Eighth	25	103	4.12	4	0.12	1	5
Ninth	25	95	3.80	3	0.80	1	4
Tenth	25	76	3.04	3	0.04	1	4
Eleventh	25	61	2.44	2	0.44	1	3
Twelfth	25	60	2.40	2	0.40	1	3
Total:							48

Therefore, 48 full-size classrooms would be needed.

Step 3. Apply Criteria to Determine Net Square Footage

Once the enrollment figures are analyzed, the criteria in this handbook will be utilized to determine the space requirements for the core programs. Applying the data developed in Step 2 to the criteria in Appendix D, the planner will calculate the following square footages:

Interdisciplinary Classrooms	48,285
Dedicated Classrooms	20,654
Special Education	16,440
Administration	3,865

Attachment 1 (continued)

Library	7,440
Physical Education	24,284
Food Services / Dining	10,930
Support Services	2,700
Total Net Square footage	134,598

Eligible Non-Core Programs	
Total Net Square footage	134,598

Passageways	17,498	13%
Mechanical/Elect Equipment Areas	2,692	2%
Restrooms	2,692	2%
Wall Thickness	10,768	8%
Total Circulation/Non-specific Program:	33,650	

Total allowable gross square footage	168,248
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Interdisciplinary Classrooms
of

Full Size Classroom Type	Classrooms	Total (sq ft)
FACE		
FACE Adults Classroom		
Dedicated FACE Restroom		
FACE, Office Space		
Outdoor Play Area		
Kindergarten	3	3,960
Dedicated Kindergarten Restroom		
Restroom	6	480
First Grade (1)	5	4,800
Dedicated First Grade Restroom		
Restroom	10	800
Second Grade (2)	4	3,840
Third Grade (3)	5	4,800
Fourth Grade (4)	2	1,910
Fifth Grade (5)	3	2,865
Sixth Grade (6)	3	2,865
Seventh Grade (7)	4	3,820

Attachment 1 (continued)

Eighth Grade (8)	5	4,775
Ninth Grade (9)	4	3,820
Tenth Grade (10)	4	3,820
Eleventh Grade (11)	3	2,865
Twelfth Grade (12)	3	2,865
Total Space for Classrooms:		48,285

Dedicated Classrooms

Computer Labs	2,664
Computer Lab Storage	360
Science Lab	2,880
Science Lab Storage	240
STEM/ STEM storage	3,120
Music/Choral Classroom and Storage	2,100
Home Economics/Life Skills	960
Home Economics/ Life Skills Storage	200
Career Technical Education (CTE)	1,920
Additional Material Storage	600
Practical and Fine Arts	1,500
Practical and Fine Arts Storage	150
Industrial Arts Shop	2,240
Cultural Classroom	2,640
Cultural Classroom storage:	240
Total Space for Dedicated Classrooms:	20,654 sq ft

Special Programs Classrooms

Family and Child Education (FACE)	Allowed sq. ft.
Child Classroom	
Adult Classroom	
Restroom	
Kitchenette.	
Storage Space	
Adjacent Office Space	

Attachment 1 (continued)

Outdoor Play Area	
Special Education	
Therapy Classroom	2640
Therapy Restroom	300
Kitchenette	240
# of Resource Classrooms based on Enrollment	
K-5	3,520
6 thru 8	2,640
9 thru 12	4480
Office/Testing Room	200
Gifted and Talented	1,920
SPED Conference Room	200
SPED File Storage	300
Total Space for Special Programs Classrooms:	16,440 sq ft

Administration Space	
Allowed sq. ft.	
Principal's Office	150
Assistant Principal Office	150
Other Offices	360
Counseling	300
Reception / Secretary	400
Faculty Area (lounge, faculty workroom)	900
Nurse's Office and Cot Area	315
Nurse's Office Dedicated Restroom	50
Vault / Cash / Record Storage	150
Copy / Mail / School	150
Conference Room	300
School Entry Lobby	200
Grant School Administrative Offices	
Executive Director's Office	200
Business Manager's Office	120
Procurement Staff Office	120
Administrative Assistant	
	3865 sq ft

Attachment 1 (continued)

Media Center (Library)	
	Allowed sq. ft.
Reading/Browsing/Stack	4220
Professional Publications	150
Librarian Office	240
Audio/Visual	400
Storage/Workroom	550
Circulation/Checkout	200
Student Project Room	1,380
Conference Room	300
	7,440 sq ft
Physical Education — Indoor	
	Allowed sq. ft.
Mini-Gymnasium K - 8	4,680
Bleacher Seating	3,486
High School Gymnasium	7,280
Bleacher Seating	2,106
Auxiliary Physical	
Education Room	1,700
Shower/Dressing Area	300
Locker Rooms	1,932
Physical Education Staff	
Offices	250
Physical Education	
handicapped accessible toilet	100
Permanent Stage and	
Storage	750
Storage for Physical	
education equipment	600
Concession Area	300
High School Gymnasium	
Public Restrooms	800
	24,284 sq ft
Dining Room and Kitchen Area	
Dining & Storage Room	
Size	7,320
Chair/Table Storage	250
Kitchen Size:	3,360
	10,930 sq ft

Attachment 1 (continued)

Support Services	
Facility Maintenance Office	150
Facility Maintenance Shop	700
Facility Maintenance Lounge with Lockers	300
Facility Maintenance Restroom	200
Maintenance Equipment	250
Maintenance Material Storage	300
Chemical Storage	100
Custodial Closets and Storage	300
General Storage	400
Total Space for Support Services:	2,700 sq ft

Attachment 1 (continued)

Example 2— Replacement K-12 School

Step 4. Identify Eligible Non-Core Programs

These criteria address only core programs for the Bureau; however, many schools conduct programs that the Bureau does not recognize as core. The amount of space for approved non-core programs must be determined.

Step 5. Net-to-Gross Conversion

The maximum space allowances identified for specific programs are in terms of net square footage. Additional square footage is added to the total net square footage to provide for circulation and related non-specific program spaces such as mechanical equipment rooms, utility chases, student and public restrooms, corridors, lobbies, vestibules, stairwells, ramps, elevator shafts, and wall thickness. Using the net-to-gross factors found in Section 3 of this handbook, the following additional square footage is calculated.

	Adder Factor - % of Total Net SF 134,598	Additional Square Footage
Passageways	13%	17,498
Restrooms	2%	2,692
Mechanical/Electrical Equipment	2%	2,692
Wall Thickness	8%	10,768
Total:	25%	33,650

The total gross square footage is the total net square footage (134,598) plus circulation allowances and related non-specific program space (33,650), which equals 168,248 gross square feet. By following the steps above, the planner determines the space for each individual program, as well as the overall size of the facility.