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A Study of High School Physical Education Facilities in Iroquois County

Derrill C. McMorris
Eastern Illinois State College

A STUDY OF HIGH SCHOOL PHYSICAL EDUCATION FACILITIES IN IROQUOIS COUNTY

DERRILL C. MCMORRIS

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DERRILL C. MCMORRIS

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CHAPTER I

INTRODUCTION

In Iroquois County, Illinois, since 1950, a considerable program of expansion and new construction of public secondary schools has taken place. Building programs have affected six of the twelve school districts within the county.

Of the six districts affected, three have completed new school plants in their entirety, while three have limited their expansion to the physical education plants alone.

In view of the number of persons affected and the total amount of expenditures, it was felt that a study of the adequacy of the facilities provided would be of interest and importance.

Purpose. The purpose of this study was twofold:

1. An attempt was made to evaluate the physical education facilities of the secondary schools in Iroquois County.

2. An attempt was made to determine the adequacy of the physical education facilities when compared to an accepted standard for physical education facilities.

Limitation of the study and definition of terms. In this study, only indoor physical education facilities of public,

secondary schools of Iroquois County, Illinois were evaluated.

Facilities. Throughout this study, the term facilities was interpreted as referring to those portions of the school building, designed, arranged, equipped or set aside for the performance of activities which are a part of the physical education program of the school being evaluated.

Standard. The term standard was interpreted as referring to a fixed, much used criterion for a unit of facility.

Survey of the literature. Much has been written in regard to physical education facilities. While there were many variances in opinion, the trend of thinking of most authors in the facilities field shared similar views as to needs and requirements. It was noted that most were in agreement that score cards or other instruments for rating could not be completely adequate. All agreed, however, that ratings as nearly objective as possible have a definite value.

It was found that the most-used guide for planning facilities was drawn up by the participants of the National Facilities Conference.[1] The participants included outstanding community and college leaders engaged in athletics, recreation, health and physical education programming, as well as various specialists who plan facilities for such programs.

The purposes of the conference were:

1. To establish principles for the planning of a system

1. A Guide for Planning Facilities for Athletics, Recreation, Physical and Health Education (Chicago: Athletic Institute, 1947), pp. 1-70.

of community-wide, interrelated facilities.

2. To determine the kind of facilities needed.

3. To develop standards for functional designed facilities.

The planners felt that there was a lack of essential structures and space and that faulty planning had wasted existing resources. The results of the conference were a detailed work which could be used as a guide for planning facilities as well as for rating existing facilities. In making recommendations the participants gave consideration to various types of communities in different geographic locations.

M. M. Stamy[2] pointed out the desirability of isolation and sound-proofing of gymnasiums. He also felt that a remedial room of at least 20 by 30 feet was a necessity. He also explored the possibilities of a laundry room in conjunction with the drying and storage rooms.

Blair,[3] in his book, gave detailed information on facilities and evaluation by use of score cards. One of his major complaints was failure to incorporate new concepts. It was his contention that planners too often were afraid to adopt new designs and techniques.

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2. M. M. Stamy, "Gymnasium Facilities for Large Secondary Schools," Athletic Journal, LXIX (August 1946), pp. 55-56.
3. Herbert Blair, Physical Education Facilities for Modern Junior and Senior High Schools (New York: A.S. Barnes Company, 1938), pp. 1-133.

O'dell's[4] book was concerned with standards to be used in evaluating the secondary school building. He also included a score card to be used in connection with his standards. O'dell felt that facilities should not merely be suitable for the present-day program, but should be adaptable to change to meet future needs.

La Porte's[5] book was based on a nine year study by a committee of the College Physical Education Association. La Porte presented a simple but complete score card which had been completed with the aid of a group of leading city and state supervisors of physical education programs.

Hypothesis. On the basis of information gleaned from the literature it was possible to ascertain that there were standards available on which to evaluate the adequacy of physical education facilities. Based on the information gained from the literature plus first hand knowledge gained from personal observation of the facilities of the various schools in Iroquois County, it was felt that, in some respects, the physical education facilities were inadequate.

It was felt that certain common errors pointed out by the participants to the National Facilities Conference[6] had

4. C. W. O'Dell, Standards for the Evaluation of Secondary School Buildings (Ann Arbor: Edwards Brothers Incorporated, 1950) pp. 44-48.
5. William R. LaPorte, The Physical Education Curriculum (Los Angeles: The University of Southern California Press, 1947), pp. 65-76.
6. National Facilities Conference, op. cit., pp. 47-49.

in many cases been duplicated. Those errors were as follows:

1. Planning for outside appearance rather than inside functional arrangement.

2. Failure to provide for possible remodeling, additions, and extensions.

3. Emphasis on accommodation of spectators rather than on multiple function requirements of instruction and recreation.

4. Provisions for combination gymnasium and auditorium.

5. Failure to provide suitable office and dressing room suites for staff members.

6. Failure to provide suitable storage spaces.

7. Failure to construct shower and toweling rooms with sufficient floor fall and drains.

8. Provision of panel doors in areas of heavy usage.

9. Failure to provide sufficient ventilation in shower toilet and locker rooms.

10. Failure to provide convenient access to field facilities.

CHAPTER II

PROCEDURE

After a study was made of the material found in the literature it was possible, through comparison of ideas and opinions, to draw up a list of relatively universal general service provisions.[7] This list contained the combined ideas of the texts reviewed. The list of general service provisions comprised the standard by which schools were evaluated. The list was used as an aid in the selection of a score card and as a supplement to it in the actual rating process.

The score card chosen was devised by LaPorte.[8] The card was selected because it was both inclusive and usable. It was chosen after carefully checking its' contents against the standards set up by the list of general service provisions. The card in itself was felt to be self explanatory, thus lightening and simplifying the task of evaluating and scoring.

Following the selection of LaPorte's score card, permission was gained, from the Principal or Superintendent, to visit and evaluate the various schools. This evaluation was completed using both the list of general service provisions and LaPorte's score card. The list of general service

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7. See Appendix A.
8. La Porte, Op. Cit., pp. 65-76. See Appendix B.

provisions was used as the standard by which schools were rated on the score card. While the standards for evaluation were partially explained on the score card it was necessary to refer to the general service provisions for clarification and guidance. After the actual scoring began, questions were answered in the light of the standards decided upon and no opinions, beliefs, likes or dislikes were given consideration. All schools were rated on separate score cards and on different dates. It was hoped that this procedure would help to eliminate inadvertant comparisons which might tend to influence scoring.

The schools visited were as follows:

Watseka Community High School. This school is a new structure housing approximately 350 pupils. It is situated in a town of about 5000 inhabitants.

Crescent-Iroquois Community High School. This is a new structure housing 105 pupils. The town of Crescent City has a population of 350.

Gilman Community Unit. The Gilman physical education plant is a new structure attached to the old main school building. Pupils from the towns of Gilman and Danforth communities comprise the student body which is about 275. The population of Gilman is about 1700 and that of Danforth about 450.

Onarga Community High School. The Onarga physical education plant is a new structure attached to the old school which houses high school and grade school students. The enrollment in the high school is about 150 pupils. The

population of the town is 1700.

Sheldon Community High School. The physical education plant at Sheldon is new. It is an addition attached to an older structure which houses both high school and junior high students. The high school enrollment is 125 students. The town of Sheldon has a population of 1600.

Central Community Unit District. The Central Unit is a new school. The student body is made up of students from the towns of Ashkum, Clifton and Chebanse. The school enrollment is 275 students.

Wellington Community Unit District. The Wellington Unit is an old structure located in Wellington, Illinois, which has a population of 300. The school building houses both high school and junior high school students. High school enrollment is 60.

Milford Community Unit District. The school is an old structure housing 150 pupils. It is located in Milford and the students come from Milford and the hamlet of Woodworth. Milford's population is 1500.

Buckley-Loda Unit District. Students from Buckley, population 500, and Loda, population 300, give the unit an enrollment of about 130. The school is an old structure located in Buckley, Illinois.

Stockland Community Unit District. The school at Stockland is an old structure housing an enrollment of 40 students. This is the smallest school in the survey.

Cissna Park Community Unit District. The Donavon Unit is

an old school which serves pupils from Donavon, Martinton, Beaverville and Iroquois. The enrollment of this school is 275 students.

CHAPTER III

EVALUATION OF SCHOOLS

The actual rating of schools consisted of an evaluation of the school's facilities and the allotment of points to the school. Point allotments for all schools are found in tables I and II on pages 12 and 13. The completed tables show wherein the schools failed to meet the standard suggested by the list of general service provisions found in Appendix A.

Table I shows the extent to which Indoor Areas met the suggested standard. Table II indicated the extent to which the standards for Locker and Shower Areas were met.

The schools were evaluated on the following basis:

3 points = Standard fully met

2 points = Standard approximately met

1 point = Standard unsatisfactory

LaPorte's Score Card, Appendix B, provided the basis for the allotment of points to schools.

By using the point system of rating it was possible to determine the overall point total of each school and compare that total with the score suggested by LaPorte's Score Card as standard. It was also possible to determine the specific areas

wherein schools failed to fully meet the standard. The point system also facilitated analyzing the overall results of the evaluation.

The analysis of the evaluation was used to show, in broad terms, the extent to which the schools, rated as a group, met the standard. The explanation of the evaluation of individual schools shows the specific areas in which schools did not meet the standard.

TABLE I

Evaluation of Indoor Areas of

Secondary Schools of Iroquois County

Item	A	B	C	D	E	F	G	H	I	J	K	L
Gymnasium	3	3	3	3	3	3	3	2	2	3	3	3
Gymnasium Floors	3	3	3	3	3	3	3	1	2	3	3	3
Additional Classrooms	2	2	3	2	2	2	2	2	2	2	2	2
Special Rooms	2	2	2	2	2	2	1	2	1	1	2	2
Boys' Rest Room	2	2	3	2	3	3	1	2	2	3	2	2
Girls' Rest Room	2	3	3	2	2	3	1	2	1	3	2	2
Faculty Rest Room	2	3	3	3	3	3	2	2	2	2	3	3
Equipment Office	2	2	2	2	2	2	2	2	2	2	2	2
Instructor's Office	2	2	2	2	2	2	2	1	1	1	1	2
Combined Facilities	2	2	2	2	2	2	2	2	2	2	2	2
Total	22	24	26	23	24	25	19	18	17	22	22	23

Basis for Evaluation: 3 points = Standard fully met

2 points = Standard approximately met

1 point = Standard unsatisfactory

TABLE II

Evaluation of Locker and Shower Areas of Secondary Schools of Iroquois County

Item	A	B	C	D	E	F	G	H	I	J	K	L
Locker Rooms	2	2	3	2	2	2	2	2	1	2	1	1
Locker Facilities	3	3	3	3	3	3	2	2	2	2	2	2
Locker Protection	3	3	3	3	3	3	3	3	3	3	3	3
Supervision	2	2	3	2	2	2	2	2	2	2	2	2
Dressing Area	2	2	2	2	2	3	2	2	2	2	2	2
Shower Room Type	2	2	2	2	2	3	2	2	2	2	1	2
Shower Room Space	3	3	3	3	3	3	2	1	1	3	2	1
Water Control	2	2	2	2	2	2	2	2	2	2	2	2
Toilet Facilities	3	3	3	3	3	3	2	1	2	2	2	2
Footbath Facilities	3	3	3	2	3	2	2	2	2	2	2	2
Total	25	25	27	24	25	26	21	19	19	22	19	19

Basis for Evaluation: 3 points = Standard fully met

2 points = Standard approximately met

1 point = Standard unsatisfactory

Analysis of Evaluation. In the rating a 720 point overall score was possible for the twelve schools, 60 points being the highest score possible per school. The actual overall point total was 536. The highest point total for a single school was 53 points with the lowest score being 36. The average score per school was 44.58. This average means that the schools tested rate 74.3% of the standard which was set at 60 points.

Further breakdown of the results was felt necessary to evaluate the effect of new construction. The facilities completed after 1950 were considered as being new facilities. In the survey there were six new structures and six old.

The overall point total possible in this breakdown was 360 points for the six schools and 60 points per school. New facilities scored an overall total of 296 points while old construction scored 240. The average score for new construction was 49.3 while the average score for old construction was 40 points. In this evaluation new construction rated 82.1% of the standard 60 points, while old construction rated only 66.6%.

A breakdown of indoor areas for instruction and shower and locker areas separately yielded the following information: The evaluation of indoor areas found the twelve schools scoring 265 points while scoring 271 points on their shower and locker areas. The possible individual score in this rating was 30 points. The highest score was 26 for indoor areas and 27 for locker and shower areas. Low scores were 17 for indoors and 19 for locker and shower areas. The average score per school

was 22.08. This shows the schools attaining 73.6% of the standard of 30 points. The 271 points given for locker and shower areas shows an average of 22.5 points per school for locker and shower areas. This average was 75% of the standard.

New construction attained 144 of a possible 180 points for indoor areas and older structures attained 121 points. The average was 24 for newer structures and 20.2 for older ones. The percentage scores were 80% for the newer and 67.3% for the older structures.

New construction was given 152 and older construction gained 119 of a possible 180 points for locker and shower areas. The average per school was 25.3 for new and 19.8 for old construction. These averages gave newer structures 80.4% of the standard 30 while older structures were rated at 66% of standard.

Explanation of evaluation of individual schools. School A was a new structure which presented excellent outside appearance but which failed to provide adequate facilities outside of the gymnasium. No special classrooms or corrective rooms were provided. The locker and shower areas were too small and there was insufficient drying and toweling space. It was found that, at peak load, the drainage system did not meet the need and the shower floor often held three to five inches of water.

One major fault was that no office and storage space was provided for the girls' physical education teacher. The area provided in the girls' shower and locker area was inadequate.

It was also found that, at peak load, the ventilating system failed to remove the moisture which condensed on the walls and lockers. Since no drying rooms were provided, towels and equipment failed to dry properly.

School B was a new structure attached to an older building. This building failed to provide additional rooms for instruction and recreation. There was only one instructors' office provided. In bad weather, boys and girls classes must share the gymnasium which was not adequate to provide for such eventualities.

The locker rooms in this school were inadequate in that window space was not sufficient to give enough natural light. Windows were at one end of rooms, far removed from some areas of usage.

The layout of the locker rooms and instructors' office was such that supervision was difficult. Offices were on opposite side of building from the outdoor play area. The drying room which was excellent in itself was located so that it must be used as a passageway from office to shower and locker room.

School C was a new structure attached to an older building. The facilities of this school ranked high in the study. Major faults were the failure to provide additional rooms for coeducational activities and class work. This school also failed to provide a separate office for the girls' physical education instructor. Due to lack of extra rooms, this school

encountered difficulties during bad weather.

The shower rooms failed to provide sufficient shower heads for peak load. Toweling space was not sufficient and at peak load the rooms became very humid.

School D was a new structure attached to an older one. This school also failed to provide the additional rooms recommended in the List of General Service Provisions. The equipment room was located down a hall from the offices and locker rooms. The office was very small and did not provide for supervision. No office was provided for the girls' physical education instructor.

Shower rooms in this school were in the basement and had no windows for light or ventilation. The walls of the shower rooms were unpainted concrete block. No baffle door was provided for shower room and much water splashed into the locker room because of this. The shower rooms provided only four shower heads which were insufficient at peak load. No drying room was provided for equipment or towels.

School E was a new school. This was the largest school in the survey, both in enrollment and building size. The physical education facilities did not include extra rooms for teaching or recreation. This building also was not equipped with bleacher space to allow athletic events to be held.

Rest rooms were not equipped with cots and other facilities for first aid. The women instructors did not have office and storage space and the office for men instructors did not provide for supervision of all areas.

Locker rooms were crowded at peak load and a drainage problem was noted. Although a room for drying school equipment was provided, it was very small and was not well ventilated. Space between tiers of lockers was so narrow that it was difficult for the boys to dress. Failure to provide a baffle door for shower room allowed water to splash into the locker room.

School F was a new school of modern design. The gymnasium was below ground and moisture had caused the floor to buckle necessitating emergency repairs. The western side of this gymnasium had plate glass windows extending to the top of the building. Afternoon classes in the gymnasium were hampered by glare.

The shower and locker rooms were located in a central position and were without windows. Instructors' offices were located away from the locker rooms, making supervision difficult. Offices and storage space were not provided for the women instructors.

The number of shower heads was not adequate for peak load. Dampness was noted in both boys' and girls' locker rooms. A drying room was provided for athletic equipment but not for physical education equipment and towels.

School G was an old structure. The lined area of the gymnasium was adequate but end walls crowded the play area. No plates or attachments for installation of equipment were provided and lack of other rooms made scheduling of classwork difficult.

Shower and locker rooms were located in the basement. These rooms had very small windows for ventilation which opened on a narrow passageway. Locker rooms were not protected by baffle doors and this resulted in spray and flooding from the shower rooms. Extra lockers were placed in the middle of each room and were not securely fastened. Drying and equipment rooms were adjacent to the locker room and were separated from it by wire mesh.

No room was provided for women physical education personnel and the mens' office was upstairs and down a corridor from the shower and locker rooms. The office was not located so as to afford supervision of any activity area.

School H was an old structure. This school rated lowest of any school in the survey. The gymnasium floor was of tile cemented to a concrete base. The floor was dark brown. The dark floor coupled with poor lighting caused the gymnasium to be rather dreary. The gymnasium was centrally located with only two small skylights for natural light. Large support beams projected into the corners of the play area. No special rooms were provided for instruction and recreation. No office was provided for the womens' department. Offices for men were located in and as a part of the equipment room. These rooms were separated from the locker room by wire mesh. Locker rooms were small and without windows. Extra lockers were placed in the center of the room. There was not enough room left to provide adequate bench space. Benches provided were not securely fastened to the floor.

Shower rooms were fitted with only three nozzles per room. No baffle doors were provided and drainage was not adequate. No drying room was provided and towels and equipment did not dry properly.

School I was an old structure. The gymnasium floor was of dark brown tile on concrete. Gymnasium lighting was poor. No plates or fittings were provided for equipment. End walls of the gymnasium were less than three feet from the playing floor.

Locker and shower rooms were in the basement and were very small. Two rows of extra lockers were placed in the center of the locker rooms. No wall space was available for hangers or benches. Center aisles were too small to permit more than one bench per room. The benches provided were moveable.

Shower rooms were fitted with four shower heads per room. No baffle doors were provided to protect locker rooms from spray and overflow. Windows were at ground level and when they were open the dressing areas were visible from the play area.

Offices for instructors were located in another wing of the building from the locker and shower areas. No special rooms were provided for instruction or recreation. Equipment was stored in the office of the coach. Separate storage for women was not available.

School J was an old structure. The ceiling of the gym-

nasium was low and covered with an acoustic board. No provisions were made for fittings for equipment in the ceiling. No special rooms were provided. Equipment was kept in an improvised storage space beneath the bleachers. This storage space was not adjacent to the locker and shower areas.

The girls' locker and shower area was very small. One small window afforded ventilation. No blower system was provided to remove moisture from the shower area. No baffle doors were provided to separate the two areas. The boys' area was larger than the girls' but it was poorly ventilated and had no blower system. The drainage system was insufficient and at peak load overflow water soaked half the locker room floor.

No offices were provided for physical education personnel. The rest rooms for boys and girls were not equipped with cots to be used in case of sickness or injury.

School K was an old structure. The locker and shower areas were located in the basement. Stairs leading to these rooms were very dark and narrow. The shower room was very crowded with extra lockers. These lockers were the basket type and were placed in the center of the room. The passageway around the center lockers was too narrow to accommodate two people.

There was no separate shower room. Shower facilities consisted of three stalls, six feet high, in which a shower head and soap tray were installed. There was no blower system to remove moisture.

The lighting for the locker and shower areas consisted of two bare bulbs in the ceiling. Benches were of the moveable type.

No office was provided for womens' physical education instructors. The mens' office was on the opposite side of the gymnasium and upstairs. The office afforded supervision of the gymnasium only.

School L was an old structure. No additional rooms were provided for lessons. The only recreation space was a wide corridor adjacent to the shower and locker areas.

Instructors' offices were provided but these offices were not adjacent to the activity areas.

Locker rooms were crowded by the installation of extra lockers in the center of the rooms. Benches provided were movable. Shower stalls were along one side of the locker room. Spray from the stalls wet the floors of the locker rooms as well as the lockers near them. No toweling room was available.

Equipment and storage rooms were across the gymnasium from the locker and shower areas. It was necessary to cross the gymnasium to reach outside play areas.

CHAPTER IV

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary. Study of the final anaylsis indicated that the schools of Iroquois County failed to meet the ultimate requirements of the selected standard. It was found that as a group, the schools which were evaluated achieved approximately three-fourths of this standard. The breakdown of the evaluation showed slightly higher ratings for the locker and shower areas than for the indoor areas. In only three schools were the indoor areas rated as high or higher than the locker and shower areas. These three schools were of older construction and this might indicate a trend of thought in school construction.

As a group, new schools rated higher than older schools. The higher rating for new schools was given for both indoor and locker and shower areas. From these ratings it might be possible to assume that a definite attempt toward more adequate facilities had been made. To further evaluate the progress of new construction, it was felt necessary to study the list of common errors in school construction cited by the Guide.[9]

9. A Guide for Planning Facilities for Athletics, Recreation, Physical and Health Education. (Chicago: Athletic Institute), 1947.

The results of that study were as follows:

1. In two cases it was felt that the gymnasium and its' accompanying areas were planned for outside appearance rather than for inside functional arrangement. In one building the rooms set aside for the physical and health education program were not conveniently adjacent and were poorly located in relation to outside areas. In the other instance the floor of the gymnasium is some feet below ground level. Dampness has already caused the floor to buckle on two occasions. Since the school is a low modern structure it was felt that the sunken gymnasium was the result of a desire to conform to the architectural plan being used.

2. In most cases it was found that class rooms, shops, heating plants and location in relation to streets would make it difficult to remodel and enlarge on existing structures.

3. It was found that fixed bleachers often occupied one-third of the gymnasium proper while no additional rooms for recreation or health education were available. In some schools bleacher space for 800 spectators was provided while the total school enrollment was under one hundred.

4. Only one school provided an auditorium separate from the gymnasium. Three schools were so arranged that bleachers could be utilized to observe activities on the stage. All other arrangements necessitated the use of folding chairs.

5. While most schools provided office facilities for male instructors, only two schools provided offices for women.

6. Storage space for equipment was generally inadequate. Often space under bleachers had been utilized and in many cases this space was located some distance from shower and locker rooms and instructors' offices. In some cases storage rooms were separated from shower areas by wire mesh and as a result the problem of drying equipment and keeping it dry was unsolved.

7. In four schools it was noted that shower and toweling rooms became flooded because of poor drainage. Three schools did not provide sills between shower and toweling rooms. This often resulted in overflow when the shower room was at peak use.

8. In all schools checked, access to physical education areas from dressing areas and instructors' offices was through single panel, one-way doors. These doors caused much crowding and confusion and presented a safety problem as well.

9. In several cases access to outdoor areas was down a school corridor or across the end of the gymnasium floor.

10. In only two schools were properly equipped drying rooms provided. In five schools, locker rooms were at the basement level and two locker and shower rooms had no windows at all. In other schools, locker and shower rooms had only northern exposure. These rooms could not get adequate sunlight and fresh air.

Conclusion and Recommendations. Upon completion of this study it was possible to arrive at the following conclusions.

1. The physical education facilities of Iroquois County

Secondary Schools attain slightly under 75% of adequacy when viewed in the light of an accepted standard.

2. New construction in Iroquois County has resulted in improved facilities.

3. Common errors of construction have been repeated, indicating possible failure on the part of school planners to fully utilize the available material on physical education facilities.

Recommendations to be offered are as follows:

1. School planners should emphasize inside functionalism rather than outside appearance. It should be remembered that beauty of design fails to provide for the physical and health education needs of the students.

2. A very careful study of available material should be made before a plan is accepted.

3. Existing facilities should be studied to determine the areas in which they are inadequate.

4. Planners should consider spectator accommodations as of secondary importance when compared to student needs.

5. More planners should give consideration to folding bleachers as a means of avoiding "dead" or wasted space.

6. Planners should make more use of their own "experts". The coaches, physical education instructors and athletic directors of their own systems have the most thorough knowledge of problems to be encountered in providing suitable physical education programs. While the architect constructs the building, the physical education people are the real professionals.

7. Planners should remember that remodeling and enlargements usually are more costly and less satisfactory than an adequate original structure.

The preceding recommendations and conclusions are offered in the hope that they may in some small way serve as a guide to more adequate provisions for physical education in our schools. While the findings of this paper cannot be applied to all schools, they do indicate certain inadequacies in Iroquois County. Since it was found that there is an abundance of literature available, it must be assumed that much of the fault for inadequacies might be placed upon the shoulders of planners who have failed to acquaint themselves with the literature or sometimes failed to listen to the physical education people who must use the facilities. It would then appear that a major contribution in the field would be the educating of architects and school officials who will plan further new construction and or remodeling of existing facilities.

APPENDIX A GENERAL SERVICE PROVISIONS

Gymnasium

1. Satisfactory provisions of either a gymnasium or field house should be given full credit.

2. The general location of a gymnasium should be such that its' use will not disturb activities in other portions of the building.

3. Direct entrances from out of doors should be provided in addition to at least one which leads directly to play areas.

4. The minimum size of a gymnasium should be 40 by 60 feet. If basketball is to be played, the floor should be not less than 40 by 80 feet with at least 5 or 6 feet surrounding it on all sides. There should be a minimum of 50 square feet per pupil for the greatest number taking physical education therein at any one time. Clear height from floor to ceiling should be at least 18 feet. When gymnasium and auditorium are combined the construction should be such that the stage can be used as a small physical education room separated from the main floor by its' curtain. In schools of more than 200 pupils, one or more recreation rooms should be provided to lessen the demands upon the gymnasium. In many cases a cafeteria, large lobby or wide corridor may be employed.

5. The best wood for gymnasium floors is maple, but birch, cypress, and yellow pine are fairly good. While wood is the only really satisfactory material, linoleum, cork, or asphalt

tile serves fairly well. Floors should be neatly and properly marked for basketball and other games likely to be played. Plates and anchors for equipment should be inserted in the floor so that they do not protrude. When equipment is not in use the recesses should be covered with plates.

6. Floors should be surrounded by smooth, hard wainscoting, preferably of glazed brick, to a height of 10 feet. Above this it is desirable to employ some type of acoustical material. Soft, restful, cool colors should be used, ceilings are best in tints of wall colors.

7. There should be a minimum of projections of any sort from the walls, particularly to a height well above that of the tallest pupil likely to be exercising in the room.

8. Radiators should be recessed and screened as should switches, bolts, vents, and so forth.

9. Windows, clocks, and lights should be screened.

10. It is desirable that ceilings as well as upper walls be acoustically treated.

11. There should be provisions for the suspension of ropes, ladders, goals, and any other type of equipment that may be utilized. The arrangement for these should be such that it is easy to remove them from playing areas when it is desired to have the latter free.

12. Gymnasiums should have adequate numbers of doors connecting with corridors, public approaches, play areas, shower, locker, and dressing rooms. Double doors are advisable to reduce the amount of noise transmitted elsewhere.

13. Skylights may be employed to furnish adequate natural light. Solid tiers of windows at least 12 feet above the floor on both sides of the gymnasium are satisfactory. Pupils shooting goals and playing other games should not have to face the windows. Windows should open outward to provide ventilation and should be provided with shades unless on the north.

14. Enough overhead electric lights should be provided to light the entire floor, avoiding shadows. These lights should be properly recessed and protected. The lights should be easily serviced and outlets should be provided in walls and floors.

15. Heating and ventilation equipment should be provided which can be operated apart from that of the remainder of the building. Natural or gravity ventilation is not satisfactory and should be supplemented by a fan system.

16. Although physical education facilities are primarily to serve the pupils, spectator interests should not be neglected. Usually the most desirable type of seat is folding bleachers which permit the use of more floor space for physical education activities when not needed for spectators. When balconies are used they should not overhang the playing floor and should slope sufficiently to give an unobstructed view. Seats at the end of the playing floor are undesirable. No roof support members should come in front of the seats. Entrances and exits should permit spectators to reach their seats without walking on the playing floor.

17. Sanitary drinking fountains and cuspidors with running water should be recessed in the walls of the gymnasium itself, or in an immediately adjoining lobby or dressing room.

18. Boards about 8 inches wide by 2 inches thick may be bolted some 5 feet above the floor as means of attaching certain types of apparatus. It is best to attach equipment to walls rather than to girders and trusses when it is possible.

Shower, Dressing, and Locker Rooms

19. The most important of the auxiliary rooms are the shower, dressing, and locker rooms. Such rooms should be placed so that they will receive fair amounts of sunlight. Dampness from them should not enter the remainder of the building. All should be located on the same floor level as the gymnasium and easily accessible from it and out door recreational areas.

20. A desirable arrangement for showers is to have a straight line of from three to five shower heads by which pupils pass. Another is a U-shaped shower passage 3 or 4 feet wide. Opportunity for soaping should be given at the entrance.

21. There should be gang control of shower heads. Temperatures should range from 105° at the first head to 60° at the last. There should be a few shower heads with individual controls. Shower heads should be adjustable and located at shoulder height for girls and similarly or somewhat higher for boys. If separate shower heads are used,

there should be one for each five pupils using showers at once and 12 square feet of floor area per head.

22. Medical opinion varies on the use of medicated foot baths. It has generally been recommended as desirable in the past and will be so considered.

23. Plumbing pipes should be concealed but readily accessible from the rear for maintainance.

24. Aluminum and asbestos board are good for ceilings and ceramic tile or other impervious material for walls.

25. Floors should be of such material as to minimize slipping. Terrazo or ceramic tile are the best materials.

26. At the entrance to the showers should be a sill several inches high to prevent flooding of drying or locker rooms.

27. Lavatories and toilets should be adjacent.

28. Dressing facilities and lockers should be near the showers, but not in the same rooms. It is recommended that the drying room be between the dressing room and showers.

29. Drying rooms should provide 18 square feet of space per shower head.

30. Dressing rooms should have dressing platforms, benches, towel hooks, and mirrors. Benches should be secured. Floors should be the same as in the showers.

31. There are three chief locker systems. One provides for lockers for each pupil, the recommended size being 12 by 12 by 36 inches. Another provides small lockers of 7½ by 12 by 24 inches for gymnasium equipment and a larger locker of 12

by 12 by 48 or 54 inches for street clothes. The third is also a combination system. It provides for full size lockers for street clothes and smaller lockers or baskets for gymnasium suits.

32. It is quite important that there be adequate ventilation in locker, shower, and dressing rooms. The supply of fresh air should be generous with provisions made to avoid drafts. To hasten drying of equipment, steam lines may be placed under lockers and turned on when the room is not in use.

33. All window sills should be above the tops of lockers and there should be no opportunity for persons to look in from outside.

34. In addition to those for classes, there should be small locker and dressing rooms for teams.

Corrective and Examination Rooms

35. A small gymnasium adjacent to the main gymnasium is desirable as a corrective room. A large stage will serve. It should have a camera for silhouettes, a triple mirror, mats. bars, benches, rings, cots, and other helpful items.

36. A small room should be provided for examination purposes. The health clinic may be used if its' location is near the gymnasium. It should contain cots, scales, medical cabinet, standard for measuring height, lavatory with hot and cold water and should be especially heated to prevent chilling.

Other Rooms

37. Toilets adjacent to dressing rooms should contain one

stool for each 30 girls and 50 boys using dressing rooms at any one time. There should be one urinal for each 25 boys and one lavatory for each 20 pupils. By careful planning, these rooms may be located to serve pupils at times other than physical education periods.

38. There should be at least one office for staff members. It is preferred to have offices for men and women staff members separate. Offices should include a desk, chairs, files, bookcase, first aid cabinet, couch, lavatory, shower, dressing booth and toilet.

39. A storage room should be adjacent to the gymnasium. It should be large enough to care for all of the equipment that may be removed from the gymnasium at any one time.

40. Whenever it is economical to launder towels and uniforms, a laundry room should be provided.

41. In some schools a special wrestling room may be provided. Its' chief equipment consists of mats.

APPENDIX B SECONDARY SCHOOL SCORE CARD

Indoor Areas

Possible Score = 30 Actual Score =

1. One or more gymnasium areas sufficient for boys' and girls' inside activities are available and are appropriately equipped, and properly heated, lighted, and ventilated.

Score_____

2. Gymnasium floors are of hardwood; lines are properly painted; walls are smooth and clear; painting is a neutral color; radiators and drinking fountains are recessed; ceiling height is between eighteen and twenty-two feet.

Score_____

3. Additional classrooms, appropriately equipped for theory instruction and health education classes, are provided in the building or conveniently adjacent.

One room = 2

Three rooms = 3

Score_____

4. Special rooms for co-educational social activities are appropriately furnished.

Classrooms or gymnasiums partly furnished = 1 - 2

Well-furnished separate rooms = 3

Score_____

5. A rest room for boys (equipped with cots, pads, blankets and sheets) adequate to handle peak load use of building, is provided for use in injury or illness, or for rest periods.

One cot for 100 boys in peak load = 1

One cot for 75 boys in peak load = 2

One cot for 50 boys in peak load = 3

Score_____

6. A rest room for girls equipped with cots adequate to handle peak load use of building, is provided for use in injury or illness, or for rest periods.

One cot in peak load for 50 girls = 1

One cot in peak load for 30 girls = 2

One cot in peak load for 20 girls = 3

Score_____

7. Rest rooms each for men and women faculty members are provided with appropriate dressing rooms and showers.

Satisfactory facilities for women only = 2

Satisfactory facilities for men and women = 3

Score_____

8. An equipment office is provided in both boys' and girls' locker rooms, properly arranged for issuing towels, suits, and supplies for both indoor and outdoor use.

Satisfactory office for only one = 1 - 2

Satisfactory office for both = 3

Score_____

9. Properly equipped instructors' offices, with suitable facilities for medical examinations, are available, in good locations for adequate supervision of student activities.

Well-equipped offices, but poorly located for supervision =1

Well-equipped, with good supervision of one major activity area = 2

Well-equipped with supervision of two or more major activity areas = 3

Score_____

10. The combined inside facilities (including classrooms, gymnasiums, and special rooms) are adequate to handle all classes (boys and girls), inside during bad weather.

Score_____

Locker and Shower Areas

Possible Score = 30 Actual Score =

1. Locker rooms provide free floor space, exclusive of lockers, adequate to care for peak load use. (Peak load equals largest number of students dressing in any one class period).

Eight sq. ft. per pupil = 1

Ten sq. ft. per pupil = 2

Twelve sq. ft. per pupil = 3

Score_____

2. Individual locker facilities are provided for all students.

Box lockers or narrow vertical lockers = 1

Combination box and dressing lockers = 2

Half length, standard size lockers, or self-service basket system, combined with full-length dressing lockers for peak load = 3

Score_____

3. Adequate lock protection is provided for lockers and baskets.

Key locks = 1

Permanent combination locks = 2

High-grade combination padlocks = 3

Score_____

4. Locker room layout permits continous supervision of locker areas while in use by students.

Score_____

5. Boys' dressing areas are of open aisle type, with fixed benches in the aisles; girls' areas offer choice of closed booth or open aisle.

Score_____

6. Boys' shower rooms are of the "gang" type, with adequate drying capacity; girls' areas offer choice of "gang" type or closed booth type.

Score_____

7. Shower rooms provide eight to twelve square feet of floor area per shower head, and sufficient showers to take care of peak load adequately.

Seven students per shower = 1

Six students per shower = 2

Five students per shower = 3

Score_____

8. Hot water is thermostatically controlled; shower heads are at neck height; soap dispensers are provided in all shower areas.

Score_____

9. Adequate toilet facilities are available in separate areas immediately adjoining locker and shower rooms; and contain adequate bowls, urinals, washbasins; hot and cold water, liquid soap dispensers, drinking fountains, mirrors, wastebaskets, and paper towels or drying machines.

Fair facilities = 1

Good facilities = 2

Excellent facilities = 3

Score_____

10. Antiseptic footbaths are provided for optional use, to aid in control of foot ringworm.

Score_____

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