A CRITICAL SURVEY OF ELEMENTARY SCHOOL PLAYGROUNDS IN CACHE AND BOX ELDER COUNTIES
by
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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS

Statement of the problem

One of the fundamental needs of elementary school children is to develop their motor systems by means of physical activities adequately suited to their representative age groups. In so doing, opportunities are provided for sociological and psychological requirements essential in developing a healthy, confident individual capable and willing to accept social and family obligations and responsibilities. This infers that an essential function of the school is to provide appropriate areas, facilities, and equipment for such activities. It also suggests that the playground be an integral element of a modern school.

The purpose of this study was: (1) to construct check lists establishing criteria in terms of minimum standards described by the Utah State Department of Public Instruction, the National Education Association, and the United States Office of Education; (2) to determine the presence and influences of special community recreation activity which would supplement phases lacking in the elementary program; (3) to determine if facilities lacking in the schools are present within the immediate community and if so, the extent of their availability with respect to seasons, climate, location, time, and supervision; (4) to describe,
evaluate, and rate (by use of the check list) the status of existing conditions of elementary school playground areas, facilities, and equipment in Box Elder and Cache counties in terms of minimum standards; (5) to elaborate on corrective measures needed to eliminate discrepancies.

**Importance of this study**

The fundamental goal of education is to evolve in the child the physical, social, and emotional qualities required for a well-adjusted life. Playground experiences provide for the development of skills, abilities, attitudes, habits, and self-confidence.

The values of elementary school playgrounds and the physical education program were not always as well defined and identified as they are today. However, even today when the need for adequate elementary school playground areas, facilities, and equipment are recognized and considered essential in obtaining a well-rounded physical education program, these necessary provisions are at times not sufficiently provided for the developing child.

This study evaluated and rated, with respect to minimum standards, 12 elementary school playgrounds in Cache and Box Elder counties to recognize, identify, and determine the extent and areas in which each school was deficient and to offer possible remedies which would eliminate the conditions. By so doing, attention may be brought to the existing situation, corrective steps taken, and the fundamental development of the whole child more sufficiently met.
Scope of the study

This study has been concerned with the essential features considered desirable and beneficial to the educational program in establishing minimum standards in check list form for playground sites, facilities, and equipment. The features included in the check list were: size of playground area, surfacing, drainage, grading, fencing, drinking fountains, toilet facilities, electrical facilities, apparatus area, apparatus for both the primary and upper groups, playground equipment, construction and maintenance, free-play activities area, multiple-use paved area, field area, environmental wholesomeness, playground accessibility, approaches to playground site, playroom, facilities for handicapped children, and safety. These features were utilized as criteria in describing, evaluating, and rating 12 elementary schools in Cache and Box Elder counties.

An investigation was made by use of an inquiry sheet containing questions asked principals and teachers concerning the presence of special community recreational activities which supplemented phases lacking in the elementary school playground program. Questions also included the availability of playground facilities present in the immediate community but absent in the school. Suggested solutions were offered to problems identified.

No attempt was made in this study to measure the utilization of facilities and equipment.

Information concerning influences of special seasonal community activities affecting schools was obtained by
inquiry of school principals and teachers rather than by personal observation.

Method of procedure

To conduct a critical survey of elementary school playgrounds, criteria provided or recognized by noted authorities first had to be obtained.

An inquiry made to the National Education Association, the United States Office of Education, and the Utah State Department of Public Instruction disclosed the non-existence of criteria in a condensed or check list form having the specific function of rating elementary school playgrounds.

A contribution of this study was the construction of such a check list in which criteria were established to provide a means of evaluating the elementary school playgrounds surveyed. The check list was constructed in terms of minimum standards from bibliographies offered and reading recommended by the National Education Association, the United States Office of Education, and the Utah State Department of Public Instruction.

Not all of the information concerning various features of the check list could be obtained without asking questions of individuals intimately acquainted with the conditions of each individual school. For this reason, an inquiry sheet was developed to obtain information from principals or teachers pertaining to existing conditions which were not observed or could not ordinarily be obtained by observation without specific knowledge pertaining to the situation. (See appendix A)
The information obtained by the inquiry sheet was utilized as criteria in the evaluation and rating of elementary school playgrounds.

The evaluation list is represented by a numerical rank accompanied by one or more descriptive words representative of the quality of rank, followed by a definition of the descriptive word or words.

After the construction of the check lists and inquiry sheet the following method of study was observed in surveying each elementary school playground:

1. Information was collected from principals or teachers concerning the inquiry sheet.

2. Each school playground was visited four times to observe it during noon hour, recess or play periods, inclement weather condition and periods after a rainfall.

3. An evaluation and rating was made by use of check list, inquiry sheet and observations.

Definition of terms

The following definitions of terms have been included to provide a more complete understanding for the reader. These terms do vary to a certain extent from the ordinary or standard dictionary definitions and for this reason they have been expanded upon in this study.

Primary grade group. This term was sometimes referred to as the lower grade group and included kindergarten, first, second, and third grades.

Upper grade group. This term referred to children in the
fourth, fifth, and sixth grades.

**Handicapped students.** This term referred to children rendered physically or mentally incapable of proper or effective participation in play activities with normal children.

**Physical education program.** This term was used synonymously with the playground program and included the areas, facilities, equipment, activities, and instruction used in developing positive physical, social, and psychological characteristics.

**Playground site.** Playground site and playground area were used synonymously throughout this study and referred to all school land which was utilized or reserved for the recreational or playground program.
CHAPTER II

REVIEW OF LITERATURE

This chapter is devoted to the presentation of literature which is concerned with the developmental phases of elementary school playgrounds. A general agreement existed concerning the importance and necessity of features such as size of playground area, free play activities area, multiple-use paved areas, surfacing, safety, environmental wholesomeness, proper selection, construction, and maintenance of apparatus and equipment.

The following are representative of recommended readings suggested by the United States Office of Education, the National Education Association, and the Utah State Department of Public Instruction from which the criteria for this study were drawn:

Butler (6) has done a great deal of work in both community and school recreational areas and is an established authority in his field. He discussed the problem of grading and drainage of the playground and suggested one foot of slope for each 100 feet of soil or turf and 4 to 6 inches for each 100 feet of paved game or court areas. If grading of turf or soil areas are not of proper slope, subsurface drainage problems may result and limit the use of such areas as well as inhibiting turf growth due to the lack of aerated soil. The presence of too great a slope would result
in erosion problems. Butler recommends a solution to
the problem of dust control in the playground. He suggest-
ed use of calcium chloride as a dust binder in solid or
liquid form.

The National Council on School House Construction (13)
cites the minimum elementary school site acreage as being
5 acres plus an additional acre for each 100 children en-
rolled. Each playground area should include areas for un-
organized play for various age groups and organized games
with playfields large enough to meet the needs of boys and
girls. Recommendations were made that the recreational
area include a separate shady area, facilities such as tree-
housing, slides, sandboxes, climbing structures and an area
for informal games such as unobstructed field areas and
multiple-use paved areas. Suggestions included a joint
playground program in which both community and school would
supplement each other's facilities and eliminate the expense
of substitution.

The American Association of School Administrators (2)
stated the minimum requirements for toilet fixtures as being
one for every 60 boys and one for every 30 girls. The
height of lower elementary grade drinking fountains should
be 2½ inches and for the upper elementary grade levels it
should be 28 inches. Attention was focused upon the play-
room's size and safety features. The room should be at
least 40 by 60 feet and should be provided with rounded
corners and safety zones.

Stever (24) emphasized the provisions for kindergarten
outdoor work and play areas, which included surface area, turf, space for apparatus, gardens, and pet pens. She listed play equipment and tools utilized by this age group as being sand toys, jump ropes, various sized and types of balls, hammers, saws, clamps, screwdrivers, and pliers.

The University of the State of New York (5) conducted a study involving elementary school children to determine the activities, apparatus, and equipment most preferred by boys and girls. The results of this study substantiate the bases of choice of apparatus as listed in the check list.

McKeely (12) points out the necessity of child interests and appeal in the selection of playground apparatus and equipment. This consideration would contribute to more intense and wider use of such equipment and would result in coordination, skillful body control, and physical growth.

Patterson (18) stressed that in order to effectively provide playground sites and facilities for the kindergarten and elementary grade levels, planning for present and future needs and expansion is essential. Considerations must be made with respect to selection and placement of apparatus.

Physical Education and Recreation Facilities for Elementary Schools (tentative draft) is used as a guide for planning school playground facilities and is published by the Utah State Department of Public Instruction. It stresses desirable characteristics which would more efficiently facilitate and conform to existing conditions pertinent to both rural and urban areas within the state. The state in general was guided by standards as described by the
National Council on School House Construction (13) and standards described by Neilson and Van Hagen (14).

Jones, Morgan, and Steven (10) pointed out that the playground contributed to the sociological development of the child by providing positive experiences, developing patterns of harmonious living, and as a basis for the evolution of personal achievement.

Sheon (22) cited the importance of neuromuscular skills, social development and constructive use of leisure time in terms of advantages provided by playground group activities.

O'Keefe and Fahey (16) stress the vital relationship of physical, social, and psychological development with respect to the playground program.

Leu (11) established a typical check list utilized for the selection of school sites. Alterations were made and the basic form was used in this study.

Progress in identifying the need and importance of the school playground can be attributed largely to the philosophy of pragmatism. Historically, progressivism recognized the vast potentials of physical activities in the elementary schools. One of the first indoor playrooms appeared in Massachusetts during the period between 1843-48.

Today the concern for adequate playgrounds is expressed by not only local, state, and federal educational organizations but also by the public who is the molding force.

Interest in the playground has been aroused and is contemporary conversation. The nurturing of this interest,
if persistent, will demand improvement of existing conditions or perhaps stimulate new concepts in meeting the physiological, sociological, and psychological needs of children.
CHAPTER III

DESIRABLE FEATURES RECOGNIZED, PROBLEMS IDENTIFIED, AND POSSIBLE SOLUTIONS FOR ELEMENTARY SCHOOL PLAYGROUNDS SURVEYED

The fundamental purpose of this study was to disclose the adequacy of present playground provisions of two school districts as compared to minimum standards of United States Office of Education, National Education Association, and Utah State Department of Public Instruction.

The study involved 12 elementary school playgrounds in Cache and Box Elder counties.

Suggested solutions to the problems are based on criteria as established in the check list. To avoid unnecessary repetition, established solutions prescribed for schools are referred to when existing problems were synonymous with that of the school being discussed.

A. Cache County elementary schools surveyed

1. The Providence Elementary School. This school has an enrollment of 259 students in grade levels 1 through 8. The school ground covers 2.02 acres; however, a community park consisting of 4.04 acres is utilized by the school as playground areas giving a combined acreage total of 6.06.

Desirable features. A joint project by both community and school contributed to the playground area
and building of the playroom from which both have benefited.

Grading is exceptionally good and provides excellent drainage.

Apparatus is well constructed and maintained. The bright colors painted on the motion-type added much to the attractiveness of the playground and contributed to safety.

The driveway on the school site eliminated unnecessary dangers and is situated to provide maximum use of playground space.

**Problems.** Hard top surfaces are not laid for multiple use, swing areas, and informal games. This develops problems of continued maintenance.

The following apparatus for both the upper and lower grade groups was lacking: two horizontal ladders, six horizontal bars, one balance beam, one slide, and one climbing rope. Soft landing surfaces were not provided and there was a need for replenishment of soil beneath the swings. Motion type apparatus had no safety railing or boundary. Safety guards were not provided for pinching and shearing surfaces. The evaluation of each piece of apparatus had not been considered before being placed and insufficient space for and between each piece of equipment resulted.
Utility poles were present in the play-field area. This field area was not rotated to allow for a recuperation period needed by the turf. Drains and catch basins were not present and although the drainage in general is excellent, there still existed areas in which stagnant pools of water accumulated. The free play and apparatus areas adjoin each other and no fencing or boundary segregates the two activities. This condition unnecessarily permits many possible dangers. Nature study and picnic areas are not provided. Baseball diamonds are not laid to prevent the disturbance of other play areas and neighboring property.

The playroom does not have an office for supervision. Sharp corners are present in the room. This room is so situated that one class is disturbed by play noises.

Out of a possible 705 points, this school was evaluated at 394 or 56 per cent.

Possible solution. Many of the corrections may be made through a joint community and school project in as much as both have invested and contributed in providing a more adequate play area that each would benefit from. The addition of .94 of an acre should be provided in the immediate surroundings to facilitate safety, convenience of approach, efficient use, and identification with existing playground area. This addition to the playground
should be made available to children in the older grade group who require less supervision and therefore need not be situated close to the school building. This additional land should be devoted to field activities so that areas on the school site proper may be altered to provide a segregated multiple-use, paved, free play, and apparatus area. In all situations, younger groups must be placed close to the school building or playroom for proper supervision. Older groups should be situated so that there is ease in distributing court and field equipment from the playroom.

Multiple-use paved areas should provide for a variety of court games such as hopscotch, shuffle board, volleyball, and basketball. The younger group should also have a paved area for wheeled toys.

The free play areas should be of sufficient size and properly located to provide a variety of running, jumping, and tag-it games which would not disturb or be disturbed by other activities.

The apparatus area should be reorientated, concentrated close to control center, and positioned so that other children do not have to enter this area to reach other play areas. Apparatus mentioned in the check list and lacking in the playground should be provided and accompanied with soft landing surfaces where applicable. Each piece of equipment
should be analyzed and placed according to its design and use. Sufficient space should be provided for and between each apparatus. All motion-type equipment should have parallel lines of motion to insure safety. Swing areas should be provided with a hard surface to eliminate the continual replacement of natural soil and the accumulation of water in ruts beneath the swings. Motion-type apparatus should be placed by a fence which can be used as a safety backing to inhibit circulation of student traffic from behind. There should also be safety railings or boundaries of approximately 18 to 24 inches in height in front of motion-type apparatus to prevent children from heedlessly running into danger areas.

All motion-type apparatus, safety zones, utility and flag pole bases, low fences, railings, and boundaries should be painted bright colors to attract children's attention and promote safety.

The entire playground area should be enclosed by fencing of approximately 6 to 7 feet in height. This fencing prevents heedless running into streets after balls, restricts stray dogs, cats, and vandals, protects neighboring property from trespassing children, and provides more safe and satisfactory play. Climbing vines and shrubs can use fences as support and add beautification to the entire playground site.
The poor drainage areas should either be filled in and made level or should be supplied with a drainage system. The cost of the project will most likely determine which measure should be used.

Drinking fountains for the young grade group should be provided in proportion to maximum number of playground users (ratio of 1 for every 75 students). They should be approximately 24 inches high and strategically located for safe, proper, and efficient use.

Nature study and picnic areas should be provided as mentioned in the check list.

Baseball diamonds should be so placed as to prevent the accidental hitting of balls into other play areas or onto neighboring property.

Playroom activities should be so scheduled as not to disturb the one class which would be effected. All sharp corners present in the playroom should be cushioned to minimize injuries which may occur.

2. **Lincoln Elementary School.** This school, located in Hyrum, has an enrollment of 310 students in grade levels 1 to 8. The school site consists of 3.37 acres; this, combined with the community park, offers approximately 10 acres of playground space. Desirable features. The total playground acreage is composed largely of turf. Shade trees are provided throughout the area.

Motion-type apparatus at this school are
attractively painted and well-spaced for the safety and convenience of the students.

Night lighting facilities are provided.

Problems. Hard top surfaces are not laid for the multiple-use and swing area. Soft landing surfaces are not provided under the prescribed apparatus. Equipment, having concrete foundations, are protruding above the ground surface. Apparatus lacking, in both the upper and lower groups are as follows:

two horizontal ladders, six horizontal bars, one balance beam, and one climbing rope. Pinching and shearing surfaces are not equipped with safety guards.
There is no durable surface beneath the swings.
The free play area adjoins the apparatus area.

Grading in general is poor. Because of the large acreage fencing is not required except for the immediate baseball and apparatus area. Lower grade drinking fountains are not provided. Drinking fountains available are not of the desirable design to insure necessary sanitation.

Most street corner approaches to the playground do not have adequate safety signs, speed zones, or pedestrian right-of-way lanes.
The playroom has no office for supervisinal purposes, and is not provided with rounded corners.

There are no facilities for handicapped students.
This site was evaluated at 372 out of a possible 705, or 53 per cent.

Possible solutions. Multiple-use areas should be provided as previously described. The apparatus area should be reorganized and the previously mentioned suggestions established. Apparatus prescribed in the check list should be provided and evaluated for placement.

Water fountains should be designed to prevent mouth and nozzle contact, as well as back-flowing of water onto the nozzle. A fountain that displays these conditions to a great extent prevents the spread of communicable diseases by this media.

Fencing should be provided along the west side of the baseball diamond to not only protect neighboring property but also vehicles and pedestrians passing by. Motion and revolving-type apparatus should be placed in corners or along fences as a safety feature in restricting student circulation in the danger area.

Apparatus, having exposed concrete foundations, subject students utilizing them to a variety of possible dangers which would not ordinarily exist. The foundations were exposed by the wearing away of natural soil. These soils should be replaced to cover the entire foundation.

Pinching and shearing surfaces were found on swings, teeter-totter, and other motion-type equip-
ment. Safety guards encourage extensive and satisfactory use of such equipment.

Because of the vast acreage provided to the school, the space between the apparatus and free play area should be of greater distance but so situated as to provide proper supervision from the control center for the younger group.

The playroom problems were identical with those of the Providence school. Solutions for facilities concerning handicapped students were also previously discussed.

3. Summit Elementary School. This school, which is located at Wellsville, had an enrollment of 175 students in grade levels 1 to 6. Both school site and community park jointly consisted of 5 acres.

Desirable features. The majority of the acreage was composed of a lush grass of approximately 2 inches in length. Turf grading was gentle and allowed for excellent drainage. The free play area was properly situated and of sufficient size to provide efficient play activities.

Drinking fountains were of desirable design and strategically located for both playroom and playground users. Toilet facilities were located in the playroom and provide use to both playground and playroom users.

Approaches are convenient from three of the four sides of the school site.
Problems. An insufficient variety of surface types is evident. Soft landing provisions were lacking. Natural soil beneath motion-type apparatus need replenishment. There are no multiple-use paved areas.

Apparatus lacking in both primary and older groups were: one jungle gym, five horizontal bars, one horizontal ladder, two sand boxes, one balance beam, one slide, and one climbing rope. The apparatus area is situated adjacent to Main Street. Its backing consists of outside boundaries belonging to the neighboring theater. Safety guards are not provided for pinching and shearing surfaces.

Fencing was required but is not provided. Railing or low fencing segregating apparatus areas are not provided.

Night lighting facilities are not available.

Approaches to playground do not have stop or pedestrian right-of-way lanes.

Ashes are piled in large mounds and create an undesirable appearance.

This school was evaluated at a total of 423 points out of a total possible of 705, or 60 per cent.

Possible solutions. The following should be provided as previously discussed in school A:

a. Multiple-use paved area.
b. Soft landing area.
c. Swing area location and segregation.
requirements.

d. Swing area surfacing.

e. Pedestrian playground approaches.

f. Nature study areas.

The solutions to these problems are pertinent to the individual characteristics of this school.

Boundary fencing should be provided for the apparatus area which was located approximately 50 feet from the street.

The existence of outside lavatories belonging to the neighboring theater may be dealt with by planting climbing vines, ivy, and shrubs which would utilize the boundary fences as support. Not only is the unpleasant view eliminated but also the theater and school grounds are separated.

The absence of adequate apparatus delays child development to a certain extent. The selection of prescribed apparatus has been based on:

a. Students' preference.

b. Social contact, interest, and participation.

c. The provision of an individual activity.

d. The development of larger muscles, particularly of the arms, shoulders, back, chest, and abdomen.

e. The development of muscle coordination.

f. The development of graceful movement and rhythm.

g. The development of a feeling of accomplishment and self-satisfaction.
Night lighting systems should be installed in the field areas. This facility encourages the positive use of leisure time and creates a more wholesome relationship between school and community.

Nature study areas should be provided and positioned so as not to be disturbed by other playground activities.

The practice of dumping ashes near the apparatus, free play areas, and playroom exit to playground should be eliminated or provisions made to purchase a receptacle large enough to contain the waste until it can be hauled away.

4. River Heights Elementary School. This school consists of grade levels 1 to 6 with an enrollment of 1/8 students. The total acreage provided by both school and community was 6.75.

Desirable Features. A variety of surfaces are present and offered various types of activity. A paved multiple-use area is provided and swing units are furnished with a durable surface.

Free play activities are well situated and offer sufficient space.

Playground approaches and accessibility are excellent.

A wholesome and pleasant playground and neighborhood environment exists.

Problems. Boundary fences were not provided but
were essential due to the presence of neighboring property encircling the playground site.

Electrical facilities for night activities were lacking.

Ice skating facilities were not made available by the school. No soft landing areas were provided.

Apparatus not provided for both the primary and upper groups are: two horizontal ladders, six horizontal bars, one balance beam, one slide, one climbing rope, and one sandbox.

Evaluation of each piece of equipment was not considered before placing. Sufficient space for and between each piece was not adequate.

Wooden seats of the swings were not painted. Pinching and shearing surfaces did not have safety guards.

A separate apparatus area was not provided for the older grade group.

The multiple-use play area was utilized by both grade groups and was not equipped with portable goals and nets. The field area was not laid to prevent hitting or kicking of balls onto neighboring property.

Street corner approaches to playgrounds do not have pedestrian right-of-way lanes or stop signs.

Toilet facilities were located in the school building proper and are not readily available to
playground or playroom users without disturbing classes in session. Drinking facilities are absent from the playroom. The room does not have court markings.

Facilities are not provided for the handicapped children.

Of a possible 705 points, this school was evaluated at 376 or 53 per cent.

Possible solutions. The following should be provided as described in the below mentioned schools:

b. Boundary fences - A #1.
c. Night lighting facilities - A #3.
d. Apparatus lacking - A #1 and A #3.
e. Placement of apparatus - A #1.
f. Painting of motion-type apparatus - A #1.
g. Safety guards for pinching surfaces - A #1.
h. Laying of field area for safety - A #1.
i. Street corners and playground approaches - A #1.

Toilet facilities should be furnished in either the playroom or school building proper with two entrances and exits; one to be used by classroom students, the other being accessible from the outside for playground users. This eliminates the noise and disturbances caused by playground users entering the school building proper to utilize the facilities.

An additional .25 of an acre is required.
A playground should be equipped with at least one drinking fountain for each grade group and in heights of 21\text{\textfrac{1}{2}} and 28 inches. Each should be placed in the groups respective areas and situated for maximum safe and efficient use.

The apparatus area should be separated from the multiple-use paved area by a railing, hedge, or fence. This would prevent players participating in other activities from trespassing into this area and increasing the possibilities of accidents. Both grade groups should have segregated apparatus, multiple-use, and free play areas. Primary groups should be located close to a control center.

The multiple-use play area should have a variety of court markings and should be equipped with portable basketball goals, volleyball, tennis, and badminton nets.

The playroom does not have a hardwood floor surface which would facilitate its use by adults. Court markings should be provided to allow for a variety of indoor activities during inclement weather. The playroom should also be equipped with drinking fountains to eliminate hall traffic.

5. Whittier School. The enrollment of the Whittier school is 220 students from kindergarten to the sixth grade. The school site consists of 2.5 acres. Desirable features. Neighboring property protected
by a fence 6 feet high having a 2 inch mesh and #9 to 12 gauge wire.

The swing area is equipped with a durable surface and the seats were constructed of rubber with an aluminum core. The boundary fence is utilized as backing to prevent circulation of children in rear of swings.

Problems. No turf area is provided and the majority of the playground acreage was composed of hard top surface in dire need of repair. This surface was broken up and scattered throughout the area exposing students to dangers of receiving sever abrasions due to falls.

Soft landing surfaces were lacking beneath the prescribed apparatus.

Fencing was not provided at the north end of the play area which borders a street having a steep down-hill grade. This condition results in long chases after balls going outside the playground and exposing the retriever to the hazards of vehicle traffic.

Only one drinking fountain is present in the playground and is not strategically located to facilitate efficient use. Older children have to enter the primary grade area in order to utilize the facility. This results in the disturbance and interruption of primary play activities.
Toilet facilities were located in school building proper without planned consideration of use by playground participants.

Light lighting facilities were absent.

The required apparatus lacking for both grade groups are: one horizontal ladder, six horizontal bars, one balance beam, and one climbing rope.

Railings or low fencing are not placed in front of swings as an additional safety measure.

Maintenance of the entire playground and its equipment, with exception of swing area, is generally poor. Many of the apparatus are not suitable for safe use.

Each piece of equipment is not evaluated before being placed.

The playground area is not designed for running, jumping, and dodging activities; consequently, it offers little with respect to free play activity.

The playroom is not provided with an office, court markings, drinking facilities, nor rounded corners.

Handicapped children are present but no facilities are available. Total points 298—percent 42.

Possible solutions. Solutions to the following problems should be provided as previously discussed in the below listed schools:
a. Soft landing areas - A #1.
b. Fencing - A #1.
c. Playground drinking fountains - A #1.
d. Toilet facilities - A #1.
e. Night lighting - A #3.
f. Apparatus lacking - A #3.
g. Segregation of areas - A #1.
h. Apparatus evaluation and placement - A #1.
i. Playroom court marking - A #1.

The additional 4.5 acres required by this school should be provided in turf and located as conveniently as possible. This may present a difficult problem because the immediate community is densely populated and little land is available. The problem could easily have been avoided if at the time of purchase or shortly after, additional property adjoining the present school site had been purchased.

If property or public park areas cannot be obtained or utilized within a reasonable distance, the existing acreage will have to suffice, and the following conditions should be met: (1) the playground schedule should be so planned as not to permit overcrowding of the area at any time; (2) convert three-fourths of the existing hard-top to grass; (3) the remaining hard surface should be repaired and provided on both the north and south sides of the school building to furnish segregated multiple-
use and apparatus area; (4) the general requirements of the check list must be followed whenever possible; (5) The turf area should be situated between both grade groups but segregated by a barrier, such as a hedge; the majority of turf may be utilized by the older group; (6) the size of this site does not justify such activities as baseball or softball; (7) recreation should be planned with respect to playground area, size, and safety; (8) turf games must not interfere with or disturb younger group activities.

Apparatus must be properly maintained and periodically inspected for: secure foundations, tight piping joints, painting of wooden parts, deterioration of swing canvas seats, presence of rough, pointed and splintering surfaces, and rusting of apparatus piping, supports, joints, nails, screws, and swivels.

Hardtop repair should be immediately initiated. Materials used to resurface area should be of the same type to provide uniformity of appearance. A hard surface should be composed of a resilient, non-abrasive material which would minimize injuries due to falls. Areas consisting of coarse, upheaved, and broken surfaces present many hazards to children playing.

6. Adams School. There are 675 students in attendance at this school in grades from kindergarten to the
sixth. The school site consists of 5 acres located adjacent to a community park which is not utilized by the school as a playground area.

Desirable features. The school has a well organized apparatus area providing some apparatus representative of both grade groups.

With the exception of one set of swings, the majority of apparatus is adequately spaced and placed providing good safety features.

The environment is pleasant, pleasing, and spacious.

Street corner approaches to playground leave little to desired.

The playroom is so situated as to facilitate ease of distributing play equipment.

Problems. Soft landing surfaces are not provided.

The field area does not adequately drain due to the inadequate grading and the topography which is composed of slight rises and depressions.

Fencing is required but not provided in this area.

Drinking fountains 24 inches in height are absent. The only existing fountain is situated in the older group area and is not strategically located to promote efficient, effective, and safe use.

Night lighting facilities are not available.
One balance beam and four horizontal bars are needed. Swings do not have parallel lines of motion.

Segregation of apparatus area and motion-type equipment is not provided. Surfacing beneath motion-type equipment needs replenishment.

The concrete foundations of some apparatus protruded above the ground surface. Safety guards are not provided. One slide, constructed of wood, has rough splintering surfaces.

Multiple-use areas are not equipped with portable nets and field goals.

The playroom is not provided with a supervisory office, adequate storage space, safety zones, spectator zones, and rounded corners.

No special facilities for handicapped children are present.

Of a possible 705 points, this school was evaluated at 384 points for 54.6 per cent.

Possible solutions. The solutions to the following problems should be provided as previously discussed in the below listed schools:


b. Drinking facilities - A #4 and #2.

c. Fencing - #1.

d. Night lighting facilities - A #3.

e. Apparatus lacking - A #3.
f. Apparatus placement - A #1.
g. Safety guards for pinching surfaces - A #1.
h. Apparatus maintenance (regrading rough or splintering surfaces) - A #5.
i. Replacement of surfaces beneath apparatus area - A #1.
j. Flexibility of multiple-use area with respect to portable goals and nets - A #1, #4.
k. Playroom discrepancies - A #1.

The situation concerning the 6 additional acres needed can easily be solved if the adjoining park can be utilized as playground area. Such a possibility should be investigated. Problems such as providing for nature study and picnic areas would be eliminated and more than the additional acreage required would be present.

The field area was not properly graded to provide efficient surface and subsurface drainage. It must be realized that this field is subject to the effect of water draining from the entire park situated on an uphill slope from the school site. Grading of from 10 to 12 inches for every 100 feet of turf should be established. Too steep a grade would result in erosion and ruts in the playing field.

The multiple-use paved area, although graded, has sections where water accumulates. Drains situated in these low areas would eliminate the problem and provide maximum utilization of entire area.
Adequate storage space must be provided to facilitate ease in distributing play equipment, and offer protection from the elements. The provision for storage space should have been included in the architectural design of the playroom.
B. *Box Elder County elementary schools surveyed*

1. **Lincoln Elementary School.** This school, located in Brigham City, has an enrollment of 420 students represented in grade levels 1 to 6. The school site is composed of 3.42 acres.

**Desirable features.** Soft landing surfaces are provided beneath the prescribed apparatus present. Fencing is utilized to segregate school and neighboring property.

Playground accessibility and approaches are adequate.

Upper and lower grade groups are segregated.

The playroom is provided with rounded corners.

**Problems.** The apparatus and free play areas are composed of an abrasive coarse surfacing. Turf composes the majority of acreage which is utilized only by the older group. Ground obstructions are present in the form of sprinkling system pipes which rise 3 or 4 inches from the ground. These obstructions inhibit play and produce hazards in field play activities.

The lower grade group is not provided with a turf or multiple-use paved area; instead, they are restricted to a relatively small space. This location has no fencing which would prevent children from running into streets situated on two sides of the area.

Within the provided play space is a barrel
utilized as an incinerator for the burning of garbage. Broken glass and waste materials intended for the incinerator are generously scattered over the area making for an unwholesome environment.

The following apparatus are absent: six horizontal bars, one balance beam, one set of swings, one horizontal ladder, one sand box, and one climbing rope. The upper grade group is lacking both a multiple-use and apparatus area.

Concrete foundations are protruding above the ground surface. Safety guards are not provided on pinching and shearing surfaces.

Facilities for handicapped children are not present.

This school was evaluated at 376 points out of a possible 705, for a 53 per cent.

Possible solutions.

a. Abrasive and coarse playing surfaces - A #5.

b. Type of surface desirable for free play area - A #1.

c. Type of surfaces required by each group - A #1.

d. Ground obstructions - A #1.

e. Fencing - A #1.

f. Drinking fountains - A #1, #2, #3.

g. Apparatus lacking - A #1, #3.

h. Apparatus foundations - A #2.

i. Segregation of various play areas A #1.

j. Night lighting facilities - A #3.
k. Safety guards on pinching surfaces - A #1.

l. Facilities for handicapped children - A #1.

The additional 5.58 acres needed would be difficult to acquire because of the location of the school. A purchase should be made as close to the school proper as possible. If no such acquisition is possible then the use of the city park should be considered and transportation provided both to and from the area.

Play periods should be doubled to allow a sufficient amount of play time.

Ground obstacles present in the form of sprinkling system pipes should be painted bright colors to attract attention of turf users and minimize accidents.

The disposal of waste materials should not take place in the children's play area. Facilities should be provided in the furnace room for an incinerator.

One of the essential features of the playground is to develop appreciation of spacious well-kept areas which produce satisfaction and appreciation of facilities provided. Appreciation and respect for beauty can not be cultivated from dirty and unsafe environments.

2. **Central Elementary School.** This school, has an area of 4 acres, and an enrollment of 570 students in grade levels 1 to 6.
Desirable features. A large multiple-use paved area is provided on the west side of the school building. This area is well graded and drainage is excellent.

Drinking facilities are available on the playground. The classes are also provided with drinking fountains and have doors opening onto the playground area.

The playroom is provided with rounded corners.

Problems. A multiple-use paved area is not provided for the primary group who utilizes the front lawn of the school as a combination field and free-play area. This area is immediately adjoining the city's main street and included traffic from highways 30s, 80, 91, 101. The traffic presented a continual hazard.

One piece of apparatus, a jungle gym, is present but unsatisfactorily situated and no soft landing surface is provided beneath it.

The older grade group have access to the large multiple-use area to the rear of the building. This area is supplied with two basketball courts and a variety of court markings which require immediate repainting. The southern most baseball goal is located just a few feet from a street. The problem of saving a baseball from vehicle traffic and in so doing disregarding safety is evident.
Fencing is present in an undesirably surfaced lot located across the street and utilized by the older grade group as a field area.

Toilet facilities are not available to playground users without having to enter the school building.

Night lighting facilities are lacking.

The playroom has no supervisory office, court markings, or provisions for games.

Facilities for the handicapped are not furnished.

An evaluation of this school gave it a total of 395 points out of a possible 705. This represents 56 per cent.

Possible solution. Previously mentioned solutions pertinent to the following problems may be found in the sections dealing with the schools listed below:

a. Type of surfacing required by both grade groups - A #1.

b. Fencing - A #1.

c. Abrasive surfaces - A #5.

d. Night lighting facilities - A #2.

e. Apparatus lacking - A #1, A #3.

f. Toilet facilities - A #4.

g. Playroom supervisory office and court markings - A #1.

h. Facilities for handicapped children - A #1.

i. Providing additional acreage - B #1.
The school site is poorly situated because of the many traffic problems involved. It has, however, a very pleasing appearance which should not be hidden by an ivy-covered fence. Instead, a hedge of approximately 3.5 feet high should boarder street, sidewalks, and school frontage, running from north to south and east following the school's southern boundary lines. Boundary fences at the south view should begin where turf ends.

The 6 additional acres required should consist of neighboring real estate. If neighboring property is not available, then possible utilization of such grounds as the tabernacle block located across the street or the city park may be made available. Playground areas not on the school site will require close supervision. If the city park is to be utilized, the same procedures as mentioned in B #1 should be observed with respect to play periods, and transportation.

If neighboring property can be acquired the majority of acreage should be devoted to turf and the remainder devoted to an apparatus area for both groups and a multiple use area for the lower group. Field areas should be proportionately divided in accordance to grade group. (refer to check list for square feet requirements for each activity area and expand with respect to the largest number of students to be present at the same time).
The rough rocky surfaced lot on the west side of school site should be provided with a fertile soil surface and seeded for turf.

3. **Perry Elementary School.** This school consists of grades 1 to 6 with an enrollment of 77 students. The total school site acreage is 2.5.

**Desirable features.** The school site is situated ideally from the highway and yet provides ease and convenience of approach. The playground site consists of a lavish grass area with shade tree sections. The field is well maintained and the playground in general have excellent potentials.

Toilet facilities are provided and available to playground users without disturbing classes in session.

The tennis court is equipped to provide a variety of activities.

Night lighting facilities are provided.

**Problems.** An additional 2.5 acres is needed.

Three sides of the school site are boarded by roads; for this reason, fencing throughout the playground area is required.

Ashes are piled and garbage burned within the area. Broken glass, sharp pointed pieces of metal, and large rocks are situated in the soft landing surface provided at the foot of the slide.

No playrooms or facilities for the handicapped children are present.
The following apparatus is lacking: one climbing tower, six horizontal bars, two sandboxes, one balance beam, one horizontal ladder, and one climbing rope. Apparatus present is not concentrated. Safety guards are not provided on pinching and shearing surfaces. Wooden parts of equipment are in need of painting.

The multiple use area is not provided for lower grade groups.

Out of the possible 705 points, this school was evaluated at 387 or 55 per cent.

Possible solutions. Remedies pertaining to the following problems have been discussed in the schools listed below:

a. Fencing - A #1.
b. Concentration of apparatus - A #1.
c. Aesthetic environment - A #1, B #1.
d. Apparatus lacking - A #1, A #3.
e. Safety guards for pinching surfaces - A #1.
f. Maintenance of wooden portions of apparatus - A #5.
g. Provision and segregation of multiple-use play area for lower elementary group - A #1 A #4.
h. Facilities not provided for handicapped - A #1.

A playroom, as needed in this school, has many advantages. It can be utilized as an auditorium, lunch room, meeting and recreational hall,
and can provide indoor activities during inclement weather. Flexibility in a playroom is exemplified by the Central school which utilizes its playroom at times as an art exhibition hall. The playroom can be very meaningful to not only the school but the community as well, for this school was community centered.

Until a playroom can be provided a class which has flexible furnishings may be substituted. The halls may also serve as a playroom in a small school such as the Perry school; providing all students participate and no classes are in session.

The presence of garbage burning and ash piles produces an unhealthy, unsafe, and unpleasant environment. The existence of such conditions are uncalled for. Disposal of garbage ashes should be a daily operation accomplished by trucking away the ashes and including provisions for an incinerator to be installed in the furnace room. Non-flammable materials, such as cans, should have both ends cut out, inserted in the can, and flattened to provide economy of space in a waste receptacle large enough to facilitate the dispositions. The area immediately surrounding the receptacle unit should be kept clean at all times. The receptacle itself should be designed to automatically close after deposits have been made. It should be constructed of waterproof material and inhibit the free passage of flies and insects. The receptacle
must be periodically scrubbed to prevent the accumulation of slime and odor.

4. **Honeyville School.** The enrollment at this school was 100 students in grade levels 1 to 6. The total school site is composed of 2.40 acres.

**Desirable features.** The school is situated away from the heavy highway traffic. Pedestrian right-of-way lanes and a signal light offered protection to children crossing the highway on their way to school.

The tennis court is made flexible for older groups by providing a variety of court activities on the hard surface area.

The apparatus area is well-situated to provide safe, efficient, and uninterrupted use.

The playground is very flexible and allows a variety of activities for free play and field games.

**Problems.** An additional 3.60 acres are needed.

A multiple-use area for the primary group is not provided. The need is evident by the improvised hopscotch courts painted on the school walks.

Turf obstructions are present in the form of water sprinkling pipes which jut 3 to 4 inches above the ground surface. Pot holes are also present.

Soft landing surfaces are not provided in the apparatus area. Fencing is lacking.
A drinking fountain is not provided for lower grade groups. The only playground fountain present has not been strategically located.

The following apparatus was lacking: one climbing tower, six horizontal bars, one balance beam, two sand boxes, one horizontal ladder, and one climbing rope.

The swing area is not provided with a durable surface. Natural soils beneath equipment need replacement. Wooden portions of apparatus require painting. Pinching and shearing surfaces are not equipped with safety guards.

A nature study area is not provided. The picnic area is disturbed by playground activities.

Adequate street corner approaches surrounding the school site are absent.

No playroom is provided and special recreational facilities for handicapped children are not available.

This school was evaluated at 375 of a total 705 points, for 53 per cent.

**Possible solutions.** Previously mentioned solutions pertaining to the following problems may be found in the section dealing with the below listed schools:

a. Multiple use area for lower grade groups - A #1, A #4.

b. Turf obstructions - B #1.
c. Soft landing areas - A #1.
d. Fencing - A #1.
e. Drinking facilities - A #1, A #4, A #8.
f. Apparatus lacking - A #1, A #3.
g. Segregation of swing area - A #1.
h. Replenishment of natural surfacing - A #1.
i. Maintenance of wooden parts of apparatus - A #5.
j. Safety guards for pinching surfaces - A #1.
k. Nature study area - A #3.
l. Placement of picnic area - A #1.
m. Street corner approaches - A #1.
n. Desirability of a playroom - B #3.
o. Facilities for handicapped children - A #1.

The additional 3.60 acres required must be located within the immediate vicinity in order to avoid complications due to approaches, transportation, and inconvenience. The required land should be devoted to field and track activities for the older grade group.

Multiple-use paved areas for both grade groups should be provided as prescribed in the check list.

The playground site proper must be devoted to apparatus, multiple use paved area, free play, and nature study areas for the primary group. The upper grade group provisions should include an apparatus and multiple-use paved area. The picnic area should have facilities such as benches, tables, and receptacles. Both nature study and
picnic areas must be free from disturbances caused by playground activities. These sections should be fairly close to each other and be provided with shade trees.

Pot holes present on turf should be filled and made level. Unnecessary ground obstructions should be removed.

5. **Doweyville School.** This school has an enrollment of 177 students in grade levels 1 to 6. The total school site acreage consists of 9 acres.

**Desirable features.** The large amount of acreage present allows for further expansion and adequate playground area for future needs.

No playroom is provided but a classroom has been converted and fulfills its fundamental purpose of providing indoor activities during inclement weather.

The field area is graded and provides excellent drainage.

The tennis court is flexible and offers a variety of activities.

Toilet facilities have a separate entrance for playground users.

**Problems.** Maintenance of apparatus is inadequate. Soft landing surfaces are absent. Poor drainage exists in the apparatus area.

The following apparatus is lacking: five horizontal bars, one balance beam, and one climbing rope.
An apparatus area is not provided for the older grade group and a multiple-use area for the primary group is absent.

Out of a possible 705 points, this school was evaluated at 375 or 53 per cent.

Possible solutions. Solutions to the following problems have been prescribed in the schools listed below:

a. Apparatus maintenance - A #1, A #5.
b. Provision for and segregation of multiple-use area - A #1, A #4.
c. Soft landing surfaces - A #1.
d. Drainage - A #1.
e. Fencing - A #1.
f. Drinking facilities - A #1, A #4, A #2.
g. Night lighting facilities - A #3.
h. Apparatus lacking - A #1, A #3.
i. Soft landing surfaces - A #1.

A hedge approximately 3 feet in height should be provided between the front lawn and the highway as a boundary or fencing to inhibit children from unthinkingly running out into the highway.

The primary group utilizes the front lawn as a free play area. Funds should be appropriated to develop the north side of the school site into a desirable turf area providing free play activities and eliminating the use of the front lawn.

6. McKinley School. This school has an enrollment
of 425 students in grades 1 to 6. The school site consists of 4.5 acres.

**Desirable Features.** The turf area is provided with fencing and is free from surface obstructions and obstacles.

The playroom is well-equipped and has a variety of court markings and safety zones.

A variety of surfaces are present and offer various types of activities.

**Problems.** Soft landing surfaces are absent.

The paved area is broken up and offered insufficient drainage. Turf does not compose the majority of the recreational play acreage.

Fencing is needed surrounding the entire school site because of its urban location.

Provisions for primary drinking fountains are not present on the playground. Drinking fountains on the grounds are not strategically located.

No apparatus area is provided. All but one climbing apparatus is lacking.

All approaches to the playground are not provided with stop or pedestrian right-of-way lanes.

Facilities for handicapped children are not present.

This school was evaluated at 429 points, of the possible 705, for 60 per cent.

**Possible solutions.** Solutions pertaining to the following problems have previously been discussed
in the schools listed below:

a. Soft landing areas - A #1.
b. Maintenance of paved areas - A #5.
c. Fencing - A #1.
d. Drinking fountains - A #1, A #2, A #4.
e. Night lighting facilities - A #3.
f. Apparatus lacking - A #1, A #4.
g. Apparatus area - A #1.
h. Turf provisions - A #1, A #5.
i. Street corner approaches - B #3.

The play areas located on the school site proper should be devoted to apparatus, multiple use, free play, and nature study areas for the younger grade group. The older group should be provided with an apparatus and multiple-use area. Each of the areas should have all the required features as prescribed in previous schools and in the check list criteria.

The additional required 6.5 acres should be conveniently located and provide for field and track events for the older groups.

The handicapped children throughout the county should be concentrated in selected schools strategically located, and provided with proper classrooms, recreational facilities, and equipment designed with regard to the handicap. This opportunity should be offered to all but the extremely exceptional and bedbound cases who should be visited at their homes.
EXPLANATION OF PROCEDURES

Table 1 was constructed to provide an adequate insight into the composition of the total scores received by individual schools with respect to each of the features established in the check list. Included were both the total possible and received scores of each school surveyed. The total score received was obtained by adding the ratings given to playground features of each school as they pertained to the check list features and items. The total possible score represents a perfect score and signifies that all features as listed by the check list criteria were provided and were of superior quality and sufficient quantity.

The data in table 2 indicate for each school the joint school community acreage which composes the site needed by each school, the listing of additional acreage in establishing minimum standards, the total possible scores and scores received. The percentage rating of scores received as compared to the total possible rating is also shown. Problems identified and features lacking in individual schools are highlighted.

Table 1. Each of the 24 features which constitute the check list criteria are symbolized by the letter of the alphabet appearing opposite it.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Features</th>
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<tbody>
<tr>
<td>A</td>
<td>Size of playground area</td>
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<td>B</td>
<td>Surfacing</td>
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<tr>
<td>Symbol</td>
<td>Features</td>
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<td>C</td>
<td>Hard top</td>
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<td>D</td>
<td>Turf</td>
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<td>E</td>
<td>Special surfacing</td>
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<td>Drainage</td>
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<td>G</td>
<td>Grading</td>
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<td>Fencing</td>
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<td>I</td>
<td>Drinking facilities</td>
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<td>J</td>
<td>Toilet facilities</td>
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<td>K</td>
<td>Lighting facilities</td>
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<td>Apparatus (primary group)</td>
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<td>N</td>
<td>Apparatus (upper group)</td>
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<td>O</td>
<td>Playground equipment</td>
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<td>Free play areas</td>
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<td>Multiple use paved area</td>
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<td>Field areas</td>
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<td>X</td>
<td>Playground accessibility</td>
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<tr>
<td>Y</td>
<td>Approaches to playground site</td>
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</tbody>
</table>
Table 1. Scores Received by Each School in Terms of Playground Features and Criteria

|                | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  | M  | N  | O  | P  | Q  | R  | S  | T  | U  | V  | W  | X  | Y  | Z  | Total |
|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| Possible score| 10 | 5  | 20 | 45 | 15 | 25 | 15 | 40 | 50 | 10 | 10 | 85 | 35 | 15 | 15 | 55 | 25 | 35 | 45 | 60 | 25 | 15 | 15 | 10 | 25 | 705 |
| Elementary schools surveyed in Cache County |
| 1. Providence | 4  | 1  | 12 | 23 | 6  | 16 | 11 | 10 | 40 | 10 | 8  | 41 | 12 | 0  | 15 | 50 | 12 | 9  | 18 | 30 | 0  | 9  | 9  | 10 | 18 | 394 |
| 2. Lincoln    | 6  | 1  | 11 | 31 | 5  | 8  | 1  | 7  | 22 | 10 | 10 | 40 | 15 | 5  | 15 | 43 | 15 | 0  | 28 | 50 | 0  | 9  | 10 | 10 | 20 | 372 |
| 3. Summit     | 4  | 1  | 10 | 33 | 4  | 22 | 12 | 9  | 44 | 10 | 0  | 50 | 15 | 2  | 15 | 48 | 25 | 0  | 17 | 50 | 0  | 13 | 9  | 10 | 20 | 423 |
| 4. Whittier   | 2  | 1  | 17 | 5  | 2  | 12 | 6  | 27 | 20 | 2  | 0  | 34 | 15 | 3  | 13 | 28 | 8  | 10 | 16 | 30 | 0  | 10 | 6  | 10 | 21 | 298 |
| 5. River Heights | 5  | 3  | 20 | 7  | 9  | 7  | 8  | 36 | 6  | 0  | 44 | 10 | 0  | 15 | 46 | 21 | 19 | 15 | 25 | 0  | 13 | 11 | 10 | 20 | 376 |
| 6. Adams      | 2  | 5  | 19 | 40 | 1  | 2  | 7  | 0  | 27 | 6  | 0  | 49 | 24 | 9  | 13 | 35 | 23 | 20 | 23 | 35 | 1  | 14 | 11 | 10 | 25 | 376 |
| Elementary schools surveyed in Box Elder County |
| 1. Lincoln    | 2  | 1  | 0  | 51 | 7  | 10 | 13 | 26 | 25 | 5  | 0  | 54 | 12 | 0  | 15 | 41 | 15 | 0  | 17 | 50 | 0  | 14 | 7  | 10 | 24 | 374 |
| 2. Central    | 2  | 1  | 17 | 23 | 5  | 22 | 12 | 28 | 40 | 5  | 0  | 24 | 5  | 0  | 15 | 50 | 25 | 18 | 19 | 35 | 0  | 15 | 6  | 10 | 18 | 395 |
| 3. Perry      | 2  | 1  | 14 | 36 | 8  | 14 | 13 | 16 | 21 | 10 | 10 | 49 | 13 | 9  | 15 | 42 | 23 | 14 | 34 | 0  | 10 | 10 | 30 | 10 | 20 | 387 |
| 4. Honeyville | 2  | 1  | 17 | 33 | 7  | 15 | 11 | 15 | 33 | 10 | 6  | 53 | 15 | 5  | 15 | 28 | 23 | 10 | 16 | 0  | 0  | 15 | 12 | 10 | 18 | 370 |
| 5. Deweyville | 6  | 2  | 17 | 37 | 2  | 15 | 15 | 13 | 21 | 6  | 0  | 46 | 15 | 5  | 15 | 33 | 24 | 17 | 20 | 20 | 0  | 8  | 9  | 10 | 19 | 375 |
| 6. McKinley   | 2  | 5  | 18 | 36 | 5  | 10 | 7  | 30 | 33 | 4  | 0  | 44 | 10 | 0  | 15 | 45 | 21 | 18 | 23 | 50 | 0  | 15 | 8  | 10 | 20 | 429 |
Table 2. Summary of Ratings, Acreage, Problems, and Features Absent of Elementary Schools Surveyed

<table>
<thead>
<tr>
<th>School</th>
<th>School Community Acreage</th>
<th>Acres Required</th>
<th>Score Received</th>
<th>Score Possible</th>
<th>Score Percent</th>
<th>Problems</th>
<th>Features Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providence</td>
<td>6.06</td>
<td>0.94</td>
<td>394</td>
<td>705</td>
<td>56</td>
<td>Size, planning, multiple-use paved area, field area, recuperation period for turf, apparatus and free play areas</td>
<td>Soft landing surfaces, water drains, fencing, playroom features, multiple-use paved area</td>
</tr>
<tr>
<td>2. Lincoln</td>
<td>10</td>
<td>0</td>
<td>372</td>
<td>705</td>
<td>53</td>
<td>Planning, fencing, free play area, safe playground approaches, apparatus foundations, maintenance</td>
<td>Soft landing surfaces, required apparatus, design of fountains, safety guards</td>
</tr>
<tr>
<td>3. Summit</td>
<td>5</td>
<td>1</td>
<td>423</td>
<td>705</td>
<td>60</td>
<td>Size, planning, variety of surface types, approaches to playground</td>
<td>Multiple-use paved area, soft landing area, fencing, required apparatus, night lighting facilities</td>
</tr>
<tr>
<td>4. River Heights</td>
<td>6.75</td>
<td>.25</td>
<td>376</td>
<td>705</td>
<td>53</td>
<td>Size, planning, toilet facilities, segregation of apparatus area, field area, approaches to playground</td>
<td>Fencing, soft landing surfaces, night lighting facilities, court markings, required apparatus</td>
</tr>
<tr>
<td>5. Whittier</td>
<td>2.50</td>
<td>4.50</td>
<td>298</td>
<td>705</td>
<td>42</td>
<td>Size, planning, toilet facilities, placement of apparatus, field area, segregation of apparatus area, approaches to playground</td>
<td>Turf, soft landing areas, fencing, night lighting facilities, required apparatus, primary drinking fountain</td>
</tr>
</tbody>
</table>
### Table 2. (cont) Summary of Ratings, Acreage, Problems, and Features Absent of Elementary Schools Surveyed

#### A. Elementary Schools Surveyed in Cache County (cont)

<table>
<thead>
<tr>
<th>School</th>
<th>Community Acreage</th>
<th>Acres Required</th>
<th>Score Received</th>
<th>Score Possible</th>
<th>Score Percent</th>
<th>Problems</th>
<th>Features Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Adams</td>
<td>5</td>
<td>6</td>
<td>376</td>
<td>705</td>
<td>53</td>
<td>Size, drainage, location of drinking fountains, segregation of apparatus area, apparatus foundation, parallel lines of motion</td>
<td>Soft landing areas, fencing, required apparatus, primary drinking fountains, night lighting</td>
</tr>
</tbody>
</table>

#### B. Elementary Schools Surveyed in Box Elder County

<table>
<thead>
<tr>
<th>School</th>
<th>Community Acreage</th>
<th>Acres Required</th>
<th>Score Received</th>
<th>Score Possible</th>
<th>Score Percent</th>
<th>Problems</th>
<th>Features Absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lincoln</td>
<td>3.42</td>
<td>5.58</td>
<td>374</td>
<td>705</td>
<td>53</td>
<td>Size, planning, abrasive surface, free play area, safety apparatus, foundations, wholesomeness, ground obstructions</td>
<td>Primary turf area, multiple-use area, fencing, drinking fountain design, required apparatus</td>
</tr>
<tr>
<td>2. Central</td>
<td>4</td>
<td>6</td>
<td>395</td>
<td>705</td>
<td>56</td>
<td>Size, planning, primary play area, safety, abrasive surface, painting of court markings</td>
<td>Primary multiple-use area, required apparatus, fencing, playroom facilities, toilet facilities</td>
</tr>
<tr>
<td>3. Perry</td>
<td>2.50</td>
<td>2.50</td>
<td>387</td>
<td>705</td>
<td>55</td>
<td>Size, planning, concentration of apparatus, safety, wholesomeness, painting wooden parts of apparatus</td>
<td>Fencing, playroom, drinking facilities, required apparatus, primary multiple-use area, safety guards</td>
</tr>
<tr>
<td>4. Honeyville</td>
<td>2.40</td>
<td>3.60</td>
<td>370</td>
<td>705</td>
<td>52</td>
<td>Size, planning, turf obstructions, painting wooden parts, street approaches, location of drinking facilities</td>
<td>Soft landing surfaces, fencing, primary drinking facilities, required apparatus, playroom</td>
</tr>
</tbody>
</table>
### Table 2. (cont) Summary of Ratings, Acreage, Problems, and Features Absent of Elementary Schools Surveyed

#### B. Elementary Schools Surveyed in Box Elder County (cont)

<table>
<thead>
<tr>
<th>School</th>
<th>Community Acreage</th>
<th>Acres Required</th>
<th>Score Received</th>
<th>Score Possible</th>
<th>Problems</th>
<th>Features absent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Deweyville</td>
<td>9</td>
<td>0</td>
<td>375</td>
<td>705</td>
<td>Planning, drainage, maintenance of apparatus, location and type of drinking fountain, location of picnic area</td>
<td>Soft landing area, fencing, required apparatus, additional turf, multiple-use area</td>
</tr>
<tr>
<td>6. McKinley</td>
<td>4.5</td>
<td>4.5</td>
<td>429</td>
<td>705</td>
<td>Size, planning, drainage, location of drinking fountains, street approaches, maintenance of paved areas</td>
<td>Soft landing surfaces, fencing, primary drinking fountain, night lighting facilities, apparatus area, required apparatus</td>
</tr>
</tbody>
</table>
CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

The educational philosophies of a nation are, in many cases, a dominating reflection on the physical education program. This same factor also decides to a large extent what the educational program itself shall constitute.

The educational philosophies which have dominated Europe as far back as history can recall are, in general, principles still practiced today. These philosophies concern themselves with learning the classics and by so doing stress its emphasis on course work such as Latin, mathematics, and science, not for its practical use but strictly for the purpose of providing a mental disciplining process. In so doing, it is believed that the development of intellectuality in the individual is sufficient and that from this will evolve those features essential in producing social and psychological well-being. The physical training program is allowed an insignificant place as compared to its importance and potential to the developing child.

The educational philosophy in the United States may be characterized as being democratic and pragmatic. This system is rather unique inasmuch as it is concerned with not only the development of intellectual competency and curiosity but also the development of the whole child.
The features involved with the whole child concept can, in general terms, be described as educating the whole organism by making educational experiences more meaningful and successful. To consider and provide positive psychological, sociological, and physiological needs of the individual child, practical courses should be offered which satisfy both present and future needs in producing well-adjusted individuals who are eager to accept family, social, and community responsibilities and contribute and enrich the culture in which they live.

There are essentially two features which determine the extent the educational program in a community is developed. These features are revenue and philosophy. Revenue procurement for the specific use of improving or expanding the physical education program, its facilities, areas, and equipment has always been an inhibiting factor. Inasmuch as the bulk of a school district's budget is expended on salaries, maintenance, operation, and the construction of new buildings, very little revenue can be salvaged for playgrounds. Revenue should, however, be spent wisely and non-selfishly in producing desirable playground features in newly constructed schools. These features should be included in the architectural design and landscaping of the school site with an inclusion of plans and specifications for possible future expansion of not only school building sites but also playground areas.

The basic philosophies of school administrators and
the community determine the adequacy of school playgrounds. In this, as in practically all matters, a participating community interested and concerned with the educational purpose, function, achievement, and progress is a deciding factor as to how best the school program can be improved to draw the maximum potential from each child. People of the community, district, and state should determine what the goals of the educational program shall be.

The basis of democratic education indicates that public schools cannot be freed from public interest and control nor is such freedom desired. Administrators should and would show great concern if the public stopped trying to influence and improve the education program. Such influence is desired and wanted regardless of the complex problems of public and human relations which are incurred before reaching the summit of progress which is brought about under cooperative control.

It is through this cooperative control that home, civic groups, government departments and the church can contribute in providing an improved education program for their schools and by so doing improving community life.

Recommendations

It must be mentioned that minimum requirements meet only the needs of today and are not concerned with future enrollments, consolidations, or community expansion. For this reason, all current and future school sites under construction might well provide for maximum standards which
would allow not only for school building but also for playground expansion to accommodate the future predicted enrollments and efficiently serve the purpose and scope of the educational program.

Solutions offered to remedy individual school problems identified in this study should be considered in establishing minimum standards.

The majority of the discrepancies disclosed is directly attributed to the inadequate size of playground areas. There should be a minimum of 5 acres for each school with an additional acre for every 100 students enrolled. A variety of playground surfaces should be provided to offer diversified activities and permit maximum use regardless of recent precipitation.

The planning of playgrounds should be carefully considered. Apparatus, multiple-use, free play, and field areas should be selected in terms of age groups, supervision, convenience, and future expansion. Safety precautions must also be considered with respect to soft landing surfaces, safety guards, painting of ground obstructions, utility poles, danger zones, and segregation of different activities within age group areas. Playground approaches, maintenance of surface, equipment, fencing, apparatus, drinking facilities, wholesome environment, and recreational facilities for handicapped children all deserve careful, logical, and practical consideration in terms of the age group these facilities are to serve.
BIBLIOGRAPHY


APPENDIX A
INQUIRY SHEET

SCHOOL __________________________ ADDRESS __________________________

1. Are there any idiosyncrasies pertaining to this school that would warrant the placing of playground area, facilities, or equipment in a location which would ordinarily be considered undesirable? If so, what are they?

2. To what extent does the community participate and utilize the school playground and recreational facilities? (a) extensive (b) moderate (c) none

3. Are there any church or public parks, playgrounds, gymnasiums, or swimming facilities which are utilized by and are included in the school playground program? If so, what are the facilities and to what extent are they available according to seasons, locations, time, and supervision?

4. Are there any community recreational activities that supplement the school playground program, such as sled dog racing, winter carnival events, and competitions? If so, for what length of time do they exist and in what season and location do they take place?

5. Are there any handicapped children enrolled in this school and what grades do they include?

6. How many students are presently enrolled in this school and what grades do they include?

7. Are winter sports facilities, such as ice skating surfaces, provided by the school? (a) yes (b) no (c) provided by the community

8. Are upper and lower grade groups segregated with respect to playground period or area? (a) yes (b) no

9. Are tennis courts used in substitution for multiple-use paved area? (a) yes (b) no

10. Does the philosophy of creative school play activities exist in this school? (a) yes (b) no
The deviation of rank is from 1 to 5; the latter being of greater value and represents the potential for each item present on the check list. The symbol (0) represents the presence of an unsatisfactory condition or the absence of some facility essential in providing a more adequate program. This symbol should also be used if the provision is present but due to its condition is warranted unserviceable, in need of repair, of poor construction, or unsafe for use. No points are awarded when such conditions exist.

The symbol (#) refers to the absence of a check list feature which does not, under certain conditions, hinder the physical education program. This symbol may also infer that an adequate substitute of a feature has been made or the feature does not pertain to the situation. The presence of this symbol warrants the maximum rating of 5 points to the accumulated score.

**PLAYGROUND EVALUATION LIST**

The following point system was used in evaluating playground sites with respect to the criteria:

- **5 Superior;** the provisions are in accordance with criteria in all respects.
- **4 Excellent;** the provisions are extensive but do not fully comply with criteria under present conditions.
- **3 Satisfactory;** the provisions provided are moderate but do fulfill their mission.
- **2 Fair;** the provisions are limited but provide adequate service.
- **1 Needs improvement;** the provisions are very limited and do not provide adequate service under present conditions.
0 Unsatisfactory; the provisions according to criteria are not provided or if present are inadequate and do not offer safe or proper service.
#

Does not pertain; the provisions provided would not pertain to existing conditions and are justifiably absent.

Each of the features and items listed in the check list criteria were evaluated in terms of individual value, location, serviceability, construction, and safety.

PLAYGROUND CHECK LIST

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE (acres)</td>
<td>ENROLLMENT</td>
</tr>
</tbody>
</table>

A. Size of playground area. Comments

(Possible - 10 points)

1. Has a minimum size of 5 acres for each elementary school site with an additional acre for every 100 students enrolled.

2. The minimum square feet requirement for each playground area is:
   a. 7,405.2 for apparatus area.
   b. 31,798.8 for multiple-used paved area (also includes a section for informal play area).
   c. 157,251.6 for field and informal games, nature study, and picnic area.

B. Surfacing.

(Possible - 5 points)

1. Is of different types to provide for a variety of activity.

C. Hard Top Surface.

(Possible - 20 points)
1. Provides efficient, effective, and safe year-round utilization.

2. Is laid for multiple-use, swing area, courts, and informal games.

3. Materials consist of cork asphalt, asphalt, bituminous cement, or concrete.

4. Has the following qualities:
   a. Resilient and smooth.
   b. Non-abrasive.
   c. Free from uneven, lumpy, and bulging spots.
   d. Firm.
   e. Durable.
   f. Quick drying.
   g. Good drainage.
   h. Free from duty and mud.
   i. Clean and pleasant.

D. Turf

(Possible - 45 points)

1. Is selected with respect to hardness and adaptability to locality.

2. Is comprised of the majority of acreage not devoted to courts, multiple-use, apparatus, and informal hard top play areas.

3. Is free from obstructions, surface obstacles, pot holes, and utility poles.

4. Provides opportunities for field games and free play activities.

5. Free play area is located close to playroom or school building for proper supervision and does not adjoin the field game area of older groups.

6. Is provided in areas designated for nature study and picnics.

Surface treatment with calcium chloride in solid or liquid form will minimize existing dust conditions.

State or local agricultural agencies should be consulted in selecting proper strains of grasses.
7. Care, maintenance, and proper watering procedures are provided for the
difficult job of maintaining grass appearance and usability.

8. Activity areas are alternated to provide rest periods for turf recuperation.

9. Substitutions of natural and stabilized soil are made when existing
climatic or seasonal conditions do not warrant a grass surface.
   a. Natural soil surfaces should be provided with a top dressing to minimize erosion, formation of
      mud holes, and to provide a proper draining surface.
   b. A combination of clay, sand, and torpedo gravel comprises an adequate top dressing for natural soil.
   c. Stabilized soil surfaces receive primary consideration over natural surfaces.

E. Special Surfacing.
   (Possible - 15 points)

1. Soft landing areas are provided beneath apparatus such as horizontal bars, horizontal ladders, and
climbing ropes to insure safety.
   a. Materials used as soft landing surfaces include tanbark, torpedo sand, shavings, sawdust,
      and a sand and sawdust combination.
   b. Soft surfacing materials have a depth of approximately 6 inches.
   c. Curbing or an enclosure of approximately 3 inches high and 5 inches in width are provided for the purpose
      of confining soft surface material and inhibiting non-participating traffic from circulating in the immediate area.
   d. Soft landing surfaces are provided at the following locations:
      1. At the foot of slides.
      2. Under horizontal bars.
      3. Under horizontal ladders.
5. Under climbing rope.
6. In broad and high jumping pits.

( ) 2. Natural soil surfaces are replaced beneath apparatus when necessary.

( ) 3. Ice skating surfaces are provided for winter sport activities such as ice hockey, speed, and figure skating.

P. Drainage.

(Possible - 25 points)

( ) 1. Provides ultimate utilization of play space at all times.

( ) 2. Reduces maintenance and operational costs.

( ) 3. Produces an aesthetic and sanitary environment.

( ) 4. Eliminates subsurface water problems which inhibits play and prevents aeration of soil and grass roots.

( ) 5. Drains and catch basins are strategically located to prevent the accumulation of stagnant pools of water.

G. Grading.

(Possible - 15 points)

( ) 1. Incline for soil or turf is 10 to 12 inches for every 100 feet of ground.

( ) 2. Incline for paved areas is \( \frac{1}{8} \) to 6 inches per 100 feet.

( ) 3. Declining slopes are not more than 300 feet for turf and 200 feet for clay or loam surfaces.

H. Fencing.

(Possible - 40 points)

( ) 1. Is constructed of chain link fiber composed of copper bearing steel wire which is galvanized after weaving.
( ) 2. Has a number 9 or 12 wire gauge.
( ) 3. Has a 2 inch mesh.
( ) 4. Has weather-proof mountings.
( ) 5. Is easily and conveniently serviced.
( ) 6. Is approximately 6 to 7 feet in height or of a height suitable to the situation.
   a. Tennis courts have fencings 10 to 12 feet in height.
   b. Fencing segregating apparatus are 18 to 24 inches in height.
( ) 7. Is free from barbs and sharp points.
( ) 8. Is located a few feet inside school boundary line to allow the planting of grasses, flowers, shrubs, and vines on the outside of the fence where they would not inhibit or be molested by play activities.

I. Drinking Fountains.
   (Possible - 50 points)
( ) 1. For lower elementary grades are 24 inches high.
( ) 2. For upper elementary are 28 inches high.
( ) 3. Have a ratio of 1 for every 75 students.
( ) 4. There is a minimum of one 24 inch and one 28 inch fountain provided.
( ) 5. Are of the winter proof type.
( ) 6. Are constructed of a material not permeable by fluids or gases.
( ) 7. Does not permit mouth and nozzle contact.
( ) 8. Does not permit back flow of water on nozzle.
( ) 9. Are strategically located for efficient and safe use in both playground and playrooms.

( ) 10. Are not located in the restrooms.

J. Toilet facilities.

(Possible - 10 points)

( ) 1. Are located in school building proper or playroom and have two entrances providing use for both classroom and playground users.
   a. One entrance is located in the building or playroom for playroom students.
   b. The other entrance leads in from the playground so that the building proper need not be entered by playground users.

( ) 2. Has a ratio of one toilet fixture for every 60 males and one fixture for every 30 females.

K. Lighting facilities.

(Possible - 10 points)

( ) 1. Are provided for night recreational activities.

( ) 2. Are strategically located to facilitate maximum efficiency of lighting.

L. Apparatus area.

(Possible 85 points)

( ) 1. Have lower and upper elementary grade groups segregated.

( ) 2. Is used by both sexes of the same grade group.

( ) 3. Is concentrated to facilitate economy of space.

( ) 4. Is located near a control center for the younger group.

( ) 5. Approaches do not disturb other activities.
6. Has railings, low fences, or hedges surrounding apparatus area to prevent non-participants from trespassing.

7. Evaluation of each piece of apparatus is determined before being placed.

8. Is provided with sufficient space for and between each piece of apparatus.

9. Has the non-motion-type apparatus occupying positions near the entrance.

10. Apparatus have parallel lines of motion.

11. Has revolving and swinging apparatus situated by fences or in corners.

12. Immediately surrounding swings have a railing or boundary 18 to 24 inches high and located 10 feet in front of suspension rail.

13. Is provided with hard top, stabilized soil, or fine torpedo gravel surfaces.

14. Entirely surfaced with hard top is only warranted by extreme use.

15. Soft landing surfaces are composed of tan bark, asphalt rubber, shavings, sawdust, or sand.

16. Soft landing surfaces have a depth of 6 inches.

II. Apparatus. (Primary grades)

(Possible - 35 points)

1. One climbing tower 9.5 feet long, 9.5 feet wide, and 9 feet high is provided.

2. One graduated or flat horizontal ladder 5.5 feet high and 16 feet long is provided with a soft landing surface.
( ) 3. Horizontal bars in sets of three measuring 36, 48, and 52 inches high are provided with soft landing surfaces.

( ) 4. Sand boxes in sets of two measuring 10 feet in width and 20 feet in length are provided.

( ) 5. One balance beam 2 to 4 inches wide, 1 foot high, and 12 feet long is provided.

( ) 6. One slide 8 feet high, 16 feet long, and 2 feet wide is provided.

( ) 7. One swing set with four canvas or rubberized seats and safety guards on pinching and shearing surfaces is provided. Dimensions are: 8 feet wide, 8 feet high, 20 feet long with right support located at midpoint.

II. Apparatus. (Upper elementary)

(Possible - 15 points)

( ) 1. One graduated horizontal ladder 6.5 feet high and 16 feet long is provided.

( ) 2. Horizontal bars in sets of three measuring 65, 68, and 74 inches high are provided.

( ) 3. Climbing rope is 9 to 12 feet high and constructed of manila hemp 1.5 inches thick. (Soft landing area provided)

III. Playground equipment.

(Possible - 15 points)

( ) 1. Playground equipment is provided in adequate quantity and variety to meet the recreational facilities necessary for both grade groups.

( ) 2. Kindergarten equipment includes the following:
   a. Sand toys--such as shovels, pails, and sifters.
b. Balls -
   1 beach ball - 18 inches
   2 soccer balls
   2 ten inch rubber balls
   1 seven inch rubber ball
c. 3 jump ropes

( ) 3. The following tools are provided:
   a. 6 seven ounce hammers.
   b. 4 cross cut saws - 18 inches long and nine points per inch.
   c. 6 c-clamps - 1/8 inch openings.
   d. 2 screwdrivers - 1/4 inch blade.
   e. 1 pliers - 6 inches long.
   f. 2 brace and bits - 3/4 inch by 1 inch.
   g. 2 trysquares - 6 inch blade.
   h. 3 coping saws - # 100 blade and # 10 blade.
   i. 1 nise.

P. Construction and maintenance of apparatus and equipment.
   (Possible - 55 points)

( ) 1. Sturdy, durable, weather-proofed metals and hard woods comprise the construction materials.

( ) 2. Wooden parts are painted to offer protection and attractiveness to the equipment.

( ) 3. Maintenance parts are easily and economically obtained.

( ) 4. Maintenance safety inspections are made frequently to check wear of bolts, nuts, chains, and swivels.

( ) 5. Ropes are not exposed to weather when not being utilized.

( ) 6. Are durable and withstand hard use with proper maintenance.

( ) 7. Apparatus have a concrete foundation which is not exposed at ground surface.

( ) 8. Ordinary use does not produce or expose users to hazards.

( ) 9. Pinching and shearing surfaces are provided with safety guards.
( ) 10. Are free of splintering and rough surfaces.

( ) 11. Have a long service life to withstand hard use with proper maintenance.

2. Free play or low organized activity area.

(Possible - 25 points)

( ) 1. No special shape is required; however, rectangular is desirable.

( ) 2. Surface is of level turf.

( ) 3. Is located near but not adjoining apparatus area unless separated by fence, railing, or hedge.

( ) 4. Is located close to the control center for supervision of primary group.

( ) 5. Provides for stunts, chasing games, running, jumping, dodging activities, and relay games.

R. Multiple-use paved area.

(Possible - 35 points)

( ) 1. Is a rectangular or square paved area providing a variety of court games.

( ) 2. Is flexible and provides a free-play area.

( ) 3. Is equipped with movable goals and net posts.

( ) 4. Provides a play area which can be utilized throughout the year.

( ) 5. Has primary group near control center with a section for wheeled toys.

( ) 6. Has older group located near fence which is utilized as a backstop.

( ) 7. Is near playroom to facilitate ease in distributing equipment utilized in playground activities.
S. **Field areas.**

(Possible - 45 points)

( ) 1. Are located on school ground proper.

( ) 2. Consist of a large open level area free from pot holes, obstacles, or obstructions.

( ) 3. Surface is of turf unless climatic conditions demand substitutions.

( ) 4. Provides for organized and informal games and activities.

( ) 5. Equipment such as bases, goals, and backstop is portable to allow for flexibility.

( ) 6. Are laid out to prevent the accidental kicking or throwing of balls into other play areas or onto neighboring property.

( ) 7. Have approximately 5,000 square feet devoted to shaded nature study area.

( ) 8. Have approximately 3,000 square feet devoted to shaded picnic area equipped with benches, tables, and barbecue pits.

( ) 9. Have nature study and picnic areas which are not disturbed by field activities.

T. **Playroom.**

(Possible - 60 points)

( ) 1. Is approximately 80 feet long, 50 feet wide, and 20 feet high.

( ) 2. Has a smooth, non-skid surface of light color with a variety of court markings and boundaries.

( ) 3. Is provided with rounded corners.

( ) 4. Is partitioned from the rest of the building.

( ) 5. Has adequate storage space for both playground and playroom equipment.
6. Has drinking and toilet facilities.

7. Has an office for supervisory purposes.

8. Provides year-round use.

9. Has provision for activities and games.


11. Can serve as an auditorium, lunch room, meeting place, or classroom for a chorus.

12. Is utilized by both adults and students.

II. Handicapped children.

(Possible - 25 points)

1. Have classrooms equipped according to handicap.

2. Have toilet, handwashing, drinking, and special play facilities located in the classroom.

3. Have handicapped and normal class playground periods scheduled separately.

4. Have a modified activity program with remedial implications.

5. Have activity programs approved or directed by a physician.

V. Safety.

1. Ocean waves, merry-go-rounds, and giant strides are dangerous and should be safely positioned.

2. Drives and parking areas are situated to facilitate vehicle control and avoid student-pedestrian traffic.

3. Moving apparatus, railings, and safety zones are brightly painted to attract attention and prevent accidents.
W. **Environmental wholesomeness of playground site.**

(Possible - 15 points)

( ) 1. Is considered with respect to cleanliness, quietness, and dangers found on playground and immediate surroundings.

( ) 2. Is reflected in a happy, pleasing, and spacious surrounding having the quality of aesthetic equilibrium.

( ) 3. Is free from neighboring environments which produce undesirable sounds, smells, sights, atmosphere, and dangers.

X. **Playground accessibility.**

(Possible - 10 points)

( ) 1. Is centrally located to community.

( ) 2. Is physically part of school site.

Y. **Approaches to playground site.**

(Possible - 25 points)

( ) 1. Facilitate safety and convenience to both transported and pedestrian students.

( ) 2. Are accessible without having to enter school building proper.

( ) 3. Have access points adjoining the playground area.

( ) 4. All street corners have pedestrian right-of-way lines or stop signs.

( ) 5. Are not inhibited by parking lots, drives, and loading zones.